

DRAFT

WEST EARL TOWNSHIP

ACT 537

SEWAGE FACILITIES PLAN

West Earl Township, Lancaster County, PA.

May, 2022

Project Number: 21-213-02

Prepared By:



BECKER
ENGINEERING

525 Greenfield Road | Suite 201

Lancaster, PA 17601

717-295-4975 P | 717-295-4972 F

TABLE OF CONTENTS

	Page
1. GENERAL INFORMATION FORM	1-1
2. ADMINISTRATIVE COMPLETENESS	2-1
2.1. PLAN SUMMARY	2-1
2.1.1. <i>Identification of Municipal Facilities Being Acquired</i>	2-1
2.1.2. <i>Institutional Arrangements</i>	2-1
2.1.3. <i>Purchase Price and Implementation Costs</i>	2-1
2.1.4. <i>Municipal and Purchasing Entity Commitments</i>	2-1
2.1.5. <i>Implementation Schedule</i>	2-1
2.2. MUNICIPAL ADOPTION	2-2
2.3. PLANNING COMMISSION COMMENTS	2-3
2.4. PUBLICATION	2-4
2.5. COMMENTS AND RESPONSES	2-5
2.6. IMPLEMENTATION SCHEDULE	2-6
3. GENERAL PLAN	3-1
3.1. PREVIOUS WASTEWATER PLANNING	3-1
3.1.1. <i>Review of Previous Wastewater Planning</i>	3-1
3.1.1.1. <i>Planning History</i>	3-1
3.1.1.2. <i>Review of Past Implementation Schedules</i>	3-1
3.1.1.3. <i>Review of Chapter 94 Compliance</i>	3-2
3.1.1.4. <i>Review of Current Planning Modules for New Development</i>	3-2
3.2. PHYSICAL ANALYSIS OF MUNICIPALITY	3-2
3.2.1. <i>Identification of Planning Areas</i>	3-2
3.2.2. <i>Identification of Physical Characteristics</i>	3-2
3.3. EXISTING SEWAGE FACILITIES IN THE PLANNING AREA	3-3
3.3.1. <i>Description of the Existing Wastewater System</i>	3-3
3.3.2. <i>Description of the Brownstown Wastewater Treatment Facility</i>	3-4
3.3.3. <i>Review of Brownstown Wastewater Treatment Facility Compliance History</i>	3-6
3.3.4. <i>Review of Scheduled or On-Going Upgrade or Expansion Projects at the Brownstown Wastewater Treatment Facility</i>	3-6
3.3.5. <i>Review of Disposal Areas</i>	3-6
3.4. FUTURE GROWTH AND LAND DEVELOPMENT	3-8
3.4.1. <i>Growth in Existing Service Area</i>	3-8
3.4.2. <i>Growth in Study Area</i>	3-9

3.5. ALTERNATIVES TO PROVIDE NEW / IMPROVED WASTEWATER DISPOSAL FACILITIES	3-10
3.5.1. <i>Brownstown Wastewater Treatment Facility</i>	3-10
3.5.2. <i>Collection and Conveyance Alternatives</i>	3-12
3.6. EVALUATION OF ALTERNATIVES	3-16
3.6.1. <i>Evaluation of Alternatives</i>	3-16
3.6.1.1. <i>Project Cost Opinions</i>	3-16
3.6.1.2. <i>Project Cost Evaluation</i>	3-18
3.6.2. <i>Review of Purchase Price</i>	3-19
3.6.3. <i>Implementation Needs of Each Alternative</i>	3-20
3.6.3.1. <i>Description of Phased Construction Advantages</i>	3-20
3.6.4. <i>Evaluation of Administrative Organizations and Legal Authority Necessary for Plan Implementation</i>	3-20
3.7. INSTITUTIONAL EVALUATION	3-21
3.7.1. <i>Analysis of Institutional Alternatives</i>	3-21
3.7.1.1. <i>Need for New Municipal Departments or Authorities</i>	3-21
3.7.1.2. <i>Functions of Existing and Proposed Organizations</i>	3-21
3.7.1.3. <i>Cost of Administration / Implementation and Capability to React to Future Needs</i>	3-21
3.7.2. <i>Administrative and Legal Activities to be Completed</i>	3-21
3.7.2.1. <i>Incorporation of Authorities or Agencies</i>	3-22
3.7.2.2. <i>Review of Ordinances, Regulations, Agreements</i>	3-22
3.7.2.3. <i>Review of Rights-of-Way, Easements, and Land Transfers</i>	3-22
3.7.2.4. <i>Adoption of Other Municipal Sewage Facilities Plans</i>	3-22
3.7.2.5. <i>Additional Legal Documents</i>	3-23
3.7.2.6. <i>Timeline for Administrative and Legal Activities</i>	3-23
3.8. IMPLEMENTATION SCHEDULE AND JUSTIFICATION FOR SELECTED TECHNICAL AND INSTITUTIONAL ALTERNATIVES	3-23
3.8.1. <i>Wastewater Disposal Alternative</i>	3-23
3.8.1.1. <i>Existing Wastewater Disposal Needs</i>	3-23
3.8.1.2. <i>Future Wastewater Disposal Needs</i>	3-23
3.8.1.3. <i>Operation and Maintenance Considerations</i>	3-25
3.8.1.4. <i>Available Management and Administrative Systems</i>	3-25
3.8.1.5. <i>Environmental Soundness and Compliance with Natural Resource Planning and Preservation Programs</i>	3-25
3.8.2. <i>Implementation Schedule</i>	3-26

LIST OF TABLES

	<i>Page</i>	
<i>Table 3-1</i>	<i>Status of 2004 Act 537 Plan Recommendations</i>	<i>3-1</i>
<i>Table 3-2</i>	<i>LASA Pumping Stations in West Earl Township</i>	<i>3-4</i>
<i>Table 3-3</i>	<i>Summary of Ch 94 Report Loading Data for Brownstown WWTF</i>	<i>3-5</i>
<i>Table 3-4</i>	<i>Summary of Water Sampling Analysis</i>	<i>3-7</i>
<i>Table 3-5</i>	<i>Projected Growth from 2020 Chapter 94 Report</i>	<i>3-8</i>
<i>Table 3-6</i>	<i>Projected Hydraulic Loading of Pumping Stations</i>	<i>3-9</i>
<i>Table 3-7</i>	<i>Hydraulic Loading Projections for Brownstown WWTF</i>	<i>3-10</i>
<i>Table 3-8</i>	<i>Organic Loading Projections for Brownstown WWTF</i>	<i>3-11</i>
<i>Table 3-9</i>	<i>Projected Loadings versus Permitted Capacity at Brownstown WWTF</i>	<i>3-11</i>
<i>Table 3-10</i>	<i>Alternative 1 Cost Opinions</i>	<i>3-16</i>
<i>Table 3-11</i>	<i>Alternative 2 Cost Opinions</i>	<i>3-17</i>
<i>Table 3-12</i>	<i>Alternative 3 Cost Opinions</i>	<i>3-17</i>
<i>Table 3-13</i>	<i>Alternative 4 Cost Opinions</i>	<i>3-17</i>
<i>Table 3-14</i>	<i>Combined Cost of Alternative 1A and 2A Combinations</i>	<i>3-18</i>
<i>Table 3-15</i>	<i>Combined Cost of Alternative 1B and 2B Combinations</i>	<i>3-19</i>
<i>Table 3-16</i>	<i>Combined Cost of Alternative 3A and 3B Combinations</i>	<i>3-19</i>

APPENDIX

- A** ***Asset Purchase Agreement for the Acquisition of the Assets of the Wastewater System of West Earl Sewer Authority and West Earl Township by Lancaster Area Sewer Authority***
- B** ***West Earl Township Zoning Map***
- C** ***Lancaster Area Sewer Authority Sewer Service Area Map***
- D** ***Well Water Sampling Results Map***
- E** ***Sewer Alternatives for Extension to Farmersville, Fairmount, and Turtle Hill Road – Maps and Cost Opinion Worksheets***

1. GENERAL INFORMATION FORM

The General Information Form follows this page.



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

GENERAL INFORMATION FORM – AUTHORIZATION APPLICATION

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this application package. This form is used by the Department of Environmental Protection (DEP) to inform our programs regarding what other DEP permits or authorizations may be needed for the proposed project or activity. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the DEP.

<p style="text-align: center;">Related ID#s (If Known)</p> <p>Client ID# _____ APS ID# _____ Site ID# _____ Auth ID# _____ Facility ID# _____</p>	<p style="text-align: center;">DEP USE ONLY</p> <p style="text-align: center;">Date Received & General Notes</p>
--	---

CLIENT INFORMATION

DEP Client ID#	Client Type / Code MUNI	Dun & Bradstreet ID#	
Legal Organization Name or Registered Fictitious Name West Earl Township		Employer ID# (EIN)	Is the EIN a SSN? <input type="checkbox"/> Yes <input type="checkbox"/> NO
State of Incorporation or Registration of Fictitious Name Pennsylvania		<input type="checkbox"/> Corporation <input type="checkbox"/> LLC <input type="checkbox"/> Partnership <input type="checkbox"/> LLP <input type="checkbox"/> LP <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Association/Organization <input type="checkbox"/> Estate/Trust <input checked="" type="checkbox"/> Other Municipality	
Individual Last Name	First Name	MI	Suffix
Additional Individual Last Name	First Name	MI	Suffix
Mailing Address Line 1 157 W Metzler Road		Mailing Address Line 2 P.O. Box 787	
Address Last Line – City Brownstown	State PA	ZIP+4 17508-0787	Country USA
Client Contact Last Name Seesholtz	First Name Jenna	MI	Suffix
Client Contact Title Township Manager	Phone 717-859-3201	Ext	Cell Phone
Email Address Manager@WestEarlTwp.org	FAX 717-859-3499		

SITE INFORMATION

DEP Site ID#	Site Name																									
EPA ID#	Estimated Number of Employees to be Present at Site 0																									
Description of Site																										
Tax Parcel ID(s):																										
County Name(s) Lancaster	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;">Municipality(ies)</th> <th style="width:10%;">City</th> <th style="width:10%;">Boro</th> <th style="width:10%;">Twp</th> <th style="width:10%;">State</th> </tr> <tr> <td>West Earl</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">PA</td> </tr> <tr> <td> </td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td> </td> </tr> <tr> <td> </td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td> </td> </tr> <tr> <td> </td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td> </td> </tr> </table>	Municipality(ies)	City	Boro	Twp	State	West Earl	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PA		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Municipality(ies)	City	Boro	Twp	State																						
West Earl	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PA																						
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																							
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																							
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																							
Site Location Line 1	Site Location Line 2																									
Site Location Last Line – City	State ZIP+4																									
Detailed Written Directions to Site																										

Site Contact Last Name	First Name	MI	Suffix
Site Contact Title		Site Contact Firm	
Mailing Address Line 1		Mailing Address Line 2	
Mailing Address Last Line – City		State	ZIP+4
Phone	Ext	FAX	Email Address
NAICS Codes (Two- & Three-Digit Codes – List All That Apply)			6-Digit Code (Optional)

Client to Site Relationship

FACILITY INFORMATION

Modification of Existing Facility	Yes	No
1. Will this project modify an existing facility, system, or activity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Will this project involve an addition to an existing facility, system, or activity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If "Yes", check all relevant facility types and provide DEP facility identification numbers below.

Facility Type	DEP Fac ID#	Facility Type	DEP Fac ID#
<input type="checkbox"/> Air Emission Plant	_____	<input type="checkbox"/> Industrial Minerals Mining Operation	_____
<input type="checkbox"/> Beneficial Use (water)	_____	<input type="checkbox"/> Laboratory Location	_____
<input type="checkbox"/> Blasting Operation	_____	<input type="checkbox"/> Land Recycling Cleanup Location	_____
<input type="checkbox"/> Captive Hazardous Waste Operation	_____	<input type="checkbox"/> Mine Drainage Treatment / Land Recycling Project Location	_____
<input type="checkbox"/> Coal Ash Beneficial Use Operation	_____	<input type="checkbox"/> Municipal Waste Operation	_____
<input type="checkbox"/> Coal Mining Operation	_____	<input type="checkbox"/> Oil & Gas Encroachment Location	_____
<input type="checkbox"/> Coal Pillar Location	_____	<input type="checkbox"/> Oil & Gas Location	_____
<input type="checkbox"/> Commercial Hazardous Waste Operation	_____	<input type="checkbox"/> Oil & Gas Water Poll Control Facility	_____
<input type="checkbox"/> Dam Location	_____	<input type="checkbox"/> Public Water Supply System	_____
<input type="checkbox"/> Deep Mine Safety Operation -Anthracite	_____	<input type="checkbox"/> Radiation Facility	_____
<input type="checkbox"/> Deep Mine Safety Operation -Bituminous	_____	<input type="checkbox"/> Residual Waste Operation	_____
<input type="checkbox"/> Deep Mine Safety Operation -Ind Minerals	_____	<input type="checkbox"/> Storage Tank Location	_____
<input type="checkbox"/> Encroachment Location (water, wetland)	_____	<input checked="" type="checkbox"/> Water Pollution Control Facility	_____
<input type="checkbox"/> Erosion & Sediment Control Facility	_____	<input type="checkbox"/> Water Resource	_____
<input type="checkbox"/> Explosive Storage Location	_____	<input type="checkbox"/> Other:	_____

Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
Horizontal Accuracy Measure	Feet		--or--	Meters		
Horizontal Reference Datum Code	<input type="checkbox"/> North American Datum of 1927 <input type="checkbox"/> North American Datum of 1983 <input type="checkbox"/> World Geodetic System of 1984					
Horizontal Collection Method Code						
Reference Point Code						
Altitude	Feet		--or--	Meters		
Altitude Datum Name	<input type="checkbox"/> The National Geodetic Vertical Datum of 1929 <input type="checkbox"/> The North American Vertical Datum of 1988 (NAVD88)					
Altitude (Vertical) Location Datum Collection Method Code						
Geometric Type Code						
Data Collection Date						
Source Map Scale Number	Inch(es)		=	Feet		
	--or--		=	Meters		

PROJECT INFORMATION

Project Name West Earl Township Act 537 Plan			
Project Description Update Planning Document to Account for the Acquisition of Wastewater System Assets of the West Earl Sewer Authority and West Earl Township by Lancaster Area Sewer Authority			
Project Consultant Last Name Connolly	First Name Daniel	MI R	Suffix
Project Consultant Title Engineer		Consulting Firm Becker Engineering LLC	
Mailing Address Line 1 525 Greenfield Road		Mailing Address Line 2 Suite 201	
Address Last Line – City Lancaster		State PA	ZIP+4 17601
Phone 717-295-4975	Ext 108	FAX 717-295-4972	Email Address dc@beckereng.net
Time Schedules	Project Milestone (Optional)		

1. **Is the project located in or within a 0.5-mile radius of an Environmental Justice community as defined by DEP?** Yes No

To determine if the project is located in or within a 0.5-mile radius of an environmental justice community, please use the online [Environmental Justice Areas Viewer](#).

2. **Have you informed the surrounding community prior to submitting the application to the Department?** Yes No

Method of notification: Act 14 Notification Letters

3. **Have you addressed community concerns that were identified?** Yes No N/A

If no, please briefly describe the community concerns that have been expressed and not addressed.

4. **Is your project funded by state or federal grants?** Yes No

Note: If “Yes”, specify what aspect of the project is related to the grant and provide the grant source, contact person and grant expiration date.

Aspect of Project Related to Grant
Grant Source: _____
Grant Contact Person: _____
Grant Expiration Date: _____

5. **Is this application for an authorization on Appendix A of the Land Use Policy? (For referenced list, see Appendix A of the Land Use Policy attached to GIF instructions)** Yes No

Note: If “No” to Question 5, the application is not subject to the Land Use Policy.
If “Yes” to Question 5, the application is subject to this policy and the Applicant should answer the additional questions in the **Land Use Information** section.

LAND USE INFORMATION

Note: Applicants should submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

1.	Is there an adopted county or multi-county comprehensive plan?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.	Is there a county stormwater management plan?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
3.	Is there an adopted municipal or multi-municipal comprehensive plan?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.	Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
<p>Note: If the Applicant answers "No" to either Questions 1, 3 or 4, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 5 and 6 below. If the Applicant answers "Yes" to questions 1, 3 and 4, the Applicant should respond to questions 5 and 6 below.</p>					
5.	Does the proposed project meet the provisions of the zoning ordinance or does the proposed project have zoning approval? If zoning approval has been received, attach documentation.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
6.	Have you attached Municipal and County Land Use Letters for the project?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

COORDINATION INFORMATION

Note: The PA Historical and Museum Commission must be notified of proposed projects in accordance with DEP Technical Guidance Document 012-0700-001 utilizing the [Project Review Form](#).

If the activity will be a mining project (i.e., mining of coal or industrial minerals, coal refuse disposal and/or the operation of a coal or industrial minerals preparation/processing facility), respond to questions 1.0 through 2.5 below.

If the activity will not be a mining project, skip questions 1.0 through 2.5 and begin with question 3.0.

1.0	Is this a coal mining project? If "Yes", respond to 1.1-1.6. If "No", skip to Question 2.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
1.1	Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be equal to or greater than 200 tons/day?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.2	Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be greater than 50,000 tons/year?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.3	Will this coal mining project involve coal preparation/ processing activities in which thermal coal dryers or pneumatic coal cleaners will be used?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.4	For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.5	Will this coal mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.6	Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.0	Is this a non-coal (industrial minerals) mining project? If "Yes", respond to 2.1-2.6. If "No", skip to Question 3.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
2.1	Will this non-coal (industrial minerals) mining project involve the crushing and screening of non-coal minerals other than sand and gravel?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.2	Will this non-coal (industrial minerals) mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations with a capacity of less than 150 tons/hour of unconsolidated materials?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

2.3	Will this non-coal (industrial minerals) mining project involve the construction, operation and/or modification of a portable non-metallic (i.e., non-coal) minerals processing plant under the authority of the General Permit for Portable Non-metallic Mineral Processing Plants (i.e., BAQ-PGPA/GP-3)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.4	For this non-coal (industrial minerals) mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.5	Will this non-coal (industrial minerals) mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.0	Will your project, activity, or authorization have anything to do with a well related to oil or gas production, have construction within 200 feet of, affect an oil or gas well, involve the waste from such a well, or string power lines above an oil or gas well? If "Yes", respond to 3.1-3.3. If "No", skip to Question 4.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
3.1	Does the oil- or gas-related project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water (including wetlands)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.2	Will the oil- or gas-related project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system? If "Yes", discuss in <i>Project Description</i> .	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.3	Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.0	Will the project involve a construction activity that results in earth disturbance? If "Yes", specify the total disturbed acreage.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
4.0.1	Total Disturbed Acreage				
4.0.2	Will the project discharge or drain to a special protection water (EV or HQ) or an EV wetland?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.0.3	Will the project involve a construction activity that results in earth disturbance in the area of the earth disturbance that are contaminated at levels exceeding residential or non-residential medium-specific concentrations (MSCs) in 25 Pa. Code Chapter 250 at residential or non-residential construction sites, respectively?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.0	Does the project involve any of the following: water obstruction and/or encroachment, wetland impacts, or floodplain project by the Commonwealth/political subdivision or public utility? If "Yes", respond to 5.1-5.7. If "No", skip to Question 6.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
5.1	Water Obstruction and Encroachment Projects – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.2	Wetland Impacts – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a wetland?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.3	Floodplain Projects by the Commonwealth, a Political Subdivision of the Commonwealth or a Public Utility – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a floodplain?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.4	Is your project an interstate transmission natural gas pipeline?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

5.5	Does your project consist of linear construction activities which result in earth disturbance in two or more DEP regions AND three or more counties?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.6	Does your project utilize Floodplain Restoration as a best management practice for Post Construction Stormwater Management?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.7	Does your project utilize Class V Gravity / Injection Wells as a best management practice for Post Construction Stormwater Management?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
6.0	Will the project involve discharge of construction related stormwater to a dry swale, surface water, ground water or separate storm water system?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
6.1	Will the project involve discharge of industrial waste stormwater or wastewater from an industrial activity or sewage to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
7.0	Will the project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
8.0	Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations? If "Yes", indicate estimated proposed flow (gal/day). Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/name of downstream sewage facilities in the <i>Project Description</i> , where applicable.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	8.0.1 Estimated Proposed Flow (gal/day)				
9.0	Will the project involve the subdivision of land, or the generation of 800 gpd or more of sewage on an existing parcel of land or the generation of an additional 400 gpd of sewage on an already-developed parcel, or the generation of 800 gpd or more of industrial wastewater that would be discharged to an existing sanitary sewer system?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	9.0.1 Was Act 537 sewage facilities planning submitted and approved by DEP? If "Yes" attach the approval letter. Approval required prior to 105/NPDES approval.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
10.0	Is this project for the beneficial use of biosolids for land application within Pennsylvania? If "Yes" indicate how much (i.e. gallons or dry tons per year).	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	10.0.1 Gallons Per Year (residential septage) _____				
	10.0.2 Dry Tons Per Year (biosolids) _____				
11.0	Does the project involve construction, modification or removal of a dam? If "Yes", identify the dam.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	11.0.1 Dam Name				
12.0	Will the project interfere with the flow from, or otherwise impact, a dam? If "Yes", identify the dam.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	12.0.1 Dam Name				
13.0	Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	13.0.1 If "Yes", is the operation subject to the agricultural exemption in 35 P.S. § 4004.1? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	13.0.2 If the answer to 13.0.1 is "No", identify each type of emission followed by the estimated amount of that emission. Enter all types & amounts of emissions; separate each set with semicolons.				

14.0	Does the project include the construction or modification of a drinking water supply to serve 15 or more connections or 25 or more people, at least 60 days out of the year? If "Yes", check all proposed sub-facilities.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
14.0.1	Number of Persons Served	_____			
14.0.2	Number of Employee/Guests	_____			
14.0.3	Number of Connections	_____			
14.0.4	Sub-Fac: Distribution System	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.5	Sub-Fac: Water Treatment Plant	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.6	Sub-Fac: Source	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.7	Sub-Fac: Pump Station	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.8	Sub Fac: Transmission Main	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.9	Sub-Fac: Storage Facility	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
15.0	Will your project include infiltration of storm water or waste water to ground water within one-half mile of a public water supply well, spring or infiltration gallery?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
16.0	Is your project to be served by an existing public water supply? If "Yes", indicate name of supplier and attach letter from supplier stating that it will serve the project.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
16.0.1	Supplier's Name	_____			
16.0.2	Letter of Approval from Supplier is Attached	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
17.0	Will this project be served by on-lot drinking water wells?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
18.0	Will this project involve a new or increased drinking water withdrawal from a river, stream, spring, lake, well or other water bod(ies)? If "Yes", reference Safe Drinking Water Program.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
18.0.1	Source Name	_____			
19.0	Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste? If "Yes", indicate what type (i.e., hazardous, municipal (including infectious & chemotherapeutic), residual) and the amount to be treated, stored, re-used or disposed.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
19.0.1	Type & Amount	_____			
20.0	Will your project involve the removal of coal, minerals, contaminated media, or solid waste as part of any earth disturbance activities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
21.0	Does your project involve installation of a field constructed underground storage tank? If "Yes", list each Substance & its Capacity. <u>Note</u>: Applicant may need a Storage Tank Site Specific Installation Permit.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
21.0.1	Enter all substances & capacity of each; separate each set with semicolons.	_____			
22.0	Does your project involve installation of an aboveground storage tank greater than 21,000 gallons capacity at an existing facility? If "Yes", list each Substance & its Capacity. <u>Note</u>: Applicant may need a Storage Tank Site Specific Installation Permit.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
22.0.1	Enter all substances & capacity of each; separate each set with semicolons.	_____			
23.0	Does your project involve installation of a tank greater than 1,100 gallons which will contain a highly hazardous substance as defined in DEP's Regulated Substances List, 2570-BK-DEP2724? If "Yes", list each Substance & its Capacity. <u>Note</u>: Applicant may need a Storage Tank Site Specific Installation Permit.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
23.0.1	Enter all substances & capacity of each; separate each set with semicolons.	_____			

24.0 Does your project involve installation of a storage tank at a new facility with a total AST capacity greater than 21,000 gallons? Yes No
If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.

24.0.1 Enter all substances & capacity of each; separate each set with semicolons.

NOTE: If the project includes the installation of a regulated storage tank system, including diesel emergency generator systems, the project may require the use of a Department Certified Tank Handler. For a full list of regulated storage tanks and substances, please go to www.dep.pa.gov search term storage tanks

25.0 Will the intended activity involve the use of a radiation source? Yes No

CERTIFICATION

I certify that I have the authority to submit this application on behalf of the applicant named herein and that the information provided in this application is true and correct to the best of my knowledge and information.

For applicants supplying an EIN number: I am applying for a permit or authorization from the Pennsylvania Department of Environmental Protection (DEP). As part of this application, I will provide DEP with an accurate EIN number for the applicant entity. By filing this application with DEP, I hereby authorize DEP to confirm the accuracy of the EIN number provided with the Pennsylvania Department of Revenue. As applicant, I further consent to the Department of Revenue discussing the same with DEP prior to issuance of the Commonwealth permit or authorization.

Type or Print Name Daniel R. Connolly, P.E.

Engineer

Signature

Title

Date

2. ADMINISTRATIVE COMPLETENESS

2.1. PLAN SUMMARY

2.1.1. Identification of Municipal Facilities Being Acquired

The municipal facilities being acquired are the sewer collection, conveyance and treatment facilities formerly owned and operated by the West Earl Sewer Authority. A map of the facilities is included under Appendix C.

2.1.2. Institutional Arrangements

The “ASSET PURCHASE AGREEMENT FOR THE ACQUISITION OF THE ASSETS OF THE WASTEWATER SYSTEM OF THE WEST EARL SEWER AUTHORITY AND WEST EARL TOWNSHIP BY LANCASTER AREA SEWER AUTHORITY” is the legal document prepared for the acquisition. A copy of the Asset Purchase Agreement is included under Appendix A.

2.1.3. Purchase Price and Implementation Costs

The purchase price was \$7,500,000.00 cash. There are no additional implementation costs.

2.1.4. Municipal and Purchasing Entity Commitments

The Mutual Covenants of Seller and Buyer are provided under Article 3 of the Asset Purchase Agreement. No future capital projects are named.

2.1.5. Implementation Schedule

The Asset Purchase Agreement between West Earl Township, West Earl Sewer Authority and the Lancaster Area Sewer Authority (LASA) was executed on June 10, 2020 and was finalized on October 30, 2020. Transfer of PADEP Permits was secured on January 14, 2021.

2.2. MUNICIPAL ADOPTION

An original, signed and sealed Resolution of Adoption of this Act 537 Plan follows this page.

To be prepared by Solicitor, with input from Becker Engineering.

2.3. PLANNING COMMISSION COMMENTS

Comments received by the West Earl Township Planning Commission and Lancaster County Planning Commission follow this page.

2.4. PUBLICATION

Proof of Public Notice documenting the proposed plan adoption and establishment and conduction of a 30-day comment period follows this page.

To be prepared by Solicitor, with input from Becker Engineering.

2.5. COMMENTS AND RESPONSES

Comments received during the 30-day comment period and responses to those comments follow this page.

2.6. IMPLEMENTATION SCHEDULE

The Plan implementation is anticipated to include the following tasks:

<u>Activity</u>	<u>Milestone</u>
Submission of Draft Act 537 Plan to West Earl Township and LASA	January 2022
Revise Draft as needed. Resubmit to West Earl Township and LASA	February 2022
Submission of Draft Act 537 Plan to West Earl Township Planning Commission and Lancaster County Planning Commission	March 2022
Submit Publication of Comment Period Notification	March 2022
Initiate 30-Day Act 537 Public Notification and Comment Period	March 2022
Completion of Act 537 Public Notification and Comment Period	April 2022
Receipt of Comments from West Earl Township, West Earl Planning Commission, Lancaster County Planning Commission and Public	April 2022
Respond to Comments and Completion of Act 537 Plan	May 2022
Adoption of Act 537 Plan by West Earl Township	June 2022
Submission of Act 537 Plan to PADEP	June 2022
Receipt of PADEP Comments	September 2022
Submission of Revised Act 537 Plan to PADEP	October 2022

3. GENERAL PLAN

3.1. PREVIOUS WASTEWATER PLANNING

3.1.1. Review of Previous Wastewater Planning

3.1.1.1. Planning History

The most recent Act 537 Plan was prepared in 2004. The 2004 Act 537 provides a history of planning efforts at the state, county and local level as well as a summary of comprehensive land use planning and West Earl Township zoning. Prior to 2004, West Earl Township completed an Act 537 Plan in 1991.

3.1.1.2. Review of Past Implementation Schedules

The 2004 Act 537 Plan using the water sampling data combined with analysis of on-lot disposal system confirmed, suspected and potential malfunctions identified several “areas of concern” where alternatives for sewage disposal were evaluated. The following table summarizes these areas and current status:

Table 3-1: Status of 2004 Act 537 Plan Recommendations

Area	Recommended Alternative per 2004 Act 537 Plan	Status
Village of Talmage	Construct sewer extension	Done
Brian Dr / Dane Dr / Zook’s Mill Rd	Construct sewer extension	Done
South View Dr / Hilltop Dr / North View Dr / Rose Hill Rd	Construct sewer extension	Done
Conestoga Manor MHP	Construct sewer extension	Done
Cheryl Dr / Ricklin Dr Mobile Home Parks	Monitor through new OLDS Management Program	Continuing
N Conestoga View Dr / S Conestoga View Dr	Construct sewer extension	Done
Farmersville – Fairmount	Monitor through new OLDS Management Program	Continuing
Conestoga Camp Association / Turtle Hill Rd	Monitor through new OLDS Management Program	Continuing

The areas recommended for sewer service did receive service although the constructed facilities did not always align with the recommended alternative presented in the 2004 Act 537 Plan. For example, an area with a recommended alternative of gravity sewer with a pumping station was ultimately provided public sewer service using a low-pressure sewer system.

3.1.1.3. Review of Chapter 94 Compliance

There are no Corrective Action Plans in effect.

3.1.1.4. Review of Current Planning Modules for New Development

There are no planning modules for new development currently being reviewed by West Earl Township.

3.2. PHYSICAL ANALYSIS OF MUNICIPALITY

West Earl Township is a municipality located in north central Lancaster County that consists of 11,392 acres of land. The Township Zoning Map presented in Appendix B shows that the eastern two-thirds of the township is largely agricultural, with residential and commercial development concentrated in Brownstown and the PA Route 272 corridor.

The Township is bounded by Earl Township to the east, Upper Leacock Township and Manheim Township to the south, Warwick Township to the west, and Ephrata Township, Akron Borough, and Ephrata Township to the north.

3.2.1. Identification of Planning Areas

The subject area of this Plan is comprised of the areas that are presently served by public sewers **owned and operated by the Lancaster Area Sewer Authority (See Appendix C)** and the areas identified for future public sewer service. The remaining areas designated for public sewer service are Farmersville, Fairmount, including the Fairmount Homes retirement community, the Turtle Hill Road area including the Lancaster County Career & Technology Center (LCCTC) Brownstown Campus, and the Conestoga Campground Association. In addition, there are 12 homes along West Farmersville Road, approximately halfway between Farmersville and the Brownstown WWTF.

3.2.2. Identification of Physical Characteristics

The Township is entirely within the Conestoga River drainage basin. The Conestoga River bisects the Township, flowing from the northeast to the southwest. The western boundary of the Township is Cocalico Creek. In general, area to the west of PA Route 272 drains to Cocalico Creek. The rest of the Township drains to the Conestoga River, or its tributary, Groff Creek.

The ridge line that divides flow to Groff Creek from flow to the Conestoga River generally follows West Farmersville and East Farmersville Roads. The Turtle Hill Road area follows the Conestoga River. The topography plays a significant role in developing public sewer alternatives.

For description of soils and geology, refer to the November 2004 West Earl Township Act 537 Plan Update.

3.3. EXISTING SEWAGE FACILITIES IN THE PLANNING AREA

The sewer service areas of West Earl Township are shown on the Lancaster Area Sewer Authority Sanitary Sewer Service Area Map in Appendix C. Most of the sewer service is owned and operated by Lancaster Area Sewer Authority since finalization of the Asset Purchase Agreement.

There are small portions of the Township that are served or proposed to be served by neighboring systems and are not considered as part of the planning area of this Plan. An area in the vicinity of Pool Road and Tobacco Road is served by the Akron Borough Sewer System. An area in the southeast part of the Township is served by the Upper Leacock Township system. A parcel in the northeast corner of the Township will connect to the Ephrata Township Sewer Authority system.

Within the study area there are two, privately-owned permitted wastewater treatment plants.

Lancaster County Career & Technology Center, Brownstown Campus: The campus is located at the intersection of Snyder and West Metzler Roads. The site is served by a package pre-cast concrete extended aeration plant with a design capacity of 10,000 gallons per day. The plant discharges to the Conestoga River. It is operated by contract with an independent operator.

Fairmount Homes Retirement Community: The property is situated in the Fairmount area, north of East Farmersville Road with buildings both west and east of Cats Back Road. The community has its own sewer system and wastewater treatment plant. The treatment plant is a pre-cast concrete dual-train, waste activated sludge plant located in the northeast corner of the site. The treatment plant has a capacity of 30,000 gallons per day and discharges to the Conestoga River.

3.3.1. Description of the Existing LASA (former West Earl Sewer Authority) System

The existing system includes gravity sewer, low-pressure sewer and pumping stations for conveyance of wastewater. There are six pumping stations, including the influent pumping station at the wastewater treatment facility. The pumping stations are summarized using information from the 2020 Chapter 94 Report in the Table below:

Table 3-2: LASA Pumping Stations in West Earl Township

Pumping Station	Church Street	Newport Road	Cocalico Creek	Eagle Drive	Oregon Pike
Station Design	Duplex Submersible	Duplex Submersible	Duplex Submersible	Duplex Submersible	Duplex Submersible
Pump Size, HP	15	7.5	15	10	30
Pump Capacity, gpm	339	300	300	240	300
Force Main, diameter	6	4	6	6	6
Force Main Discharges to:	Gravity Sewer & WWTF Influent PS	Gravity Sewer & Church St PS	Gravity Sewer & Church St PS	Gravity Sewer & Cocalico Creek PS	Gravity Sewer & WWTF Influent PS
2020 Max Day GPD	194,100	111,300	87,600	44,500	43,700
2020 Avg Day GPD	112,748	62,839	59,168	28,768	27,685
2020 Actual Observed Peaking Factor	1.72	1.77	1.48	1.55	1.58
2020 Percent Capacity Used	39.7	25.7	20.3	12.9	10.1

3.3.2. Description of the Brownstown Wastewater Treatment Facility

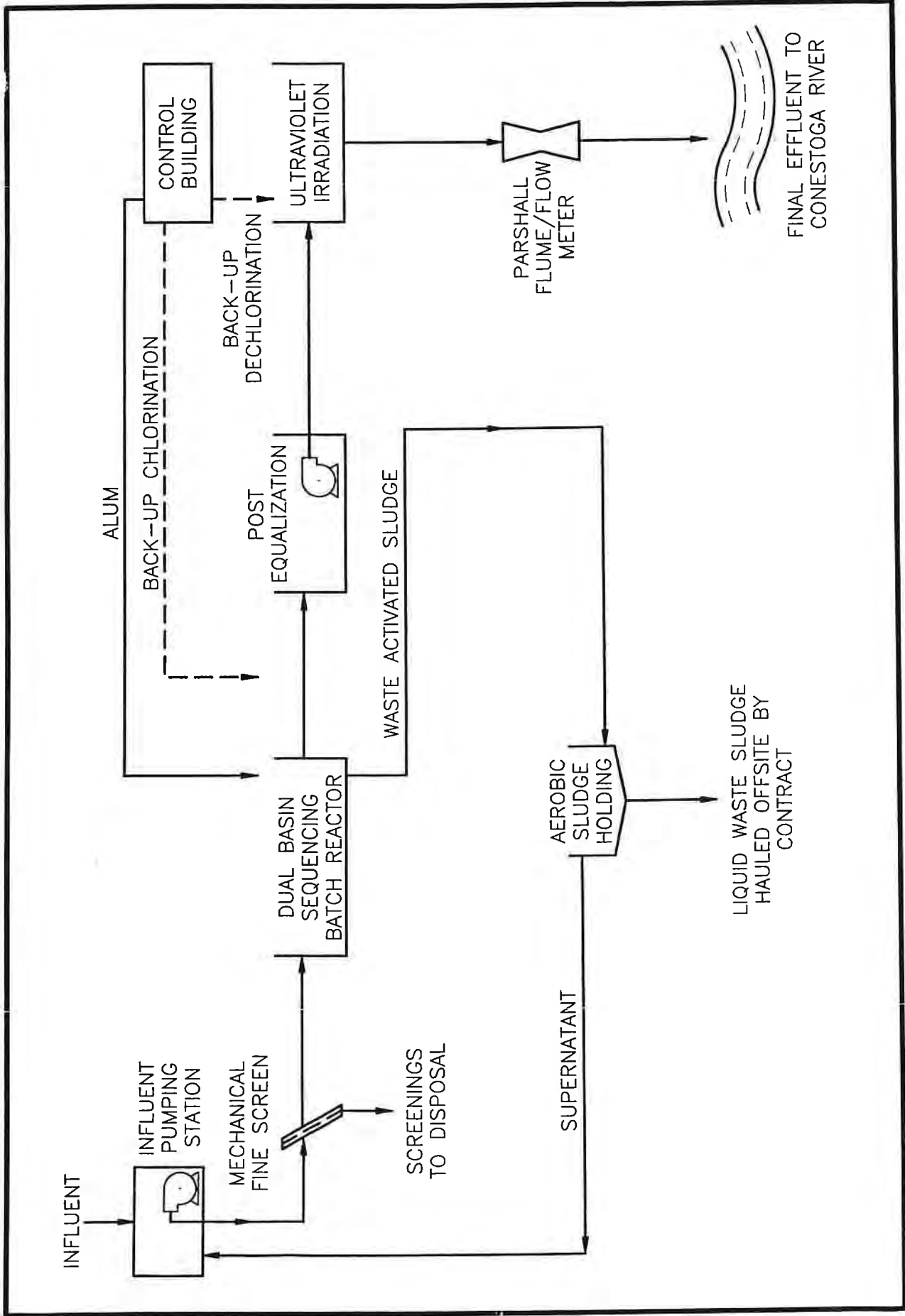
The Brownstown Wastewater Treatment Facility was originally constructed in 1986 as an extended aeration activated sludge plant. In 1992, West Earl Sewer Authority expanded the capacity of the plant from 0.1 MGD to 0.2 MGD. In 2003 the facility was expanded to a hydraulic capacity of 0.35 MGD and upgraded to include the following processes: influent pumping, mechanical screening, dual basin Sequential Batch Reactor (SBR) activated sludge process, ultraviolet light disinfection, and aerobic sludge digestion. The facility operates under NPDES permit PA 0081949. See included schematic of the treatment facility.

NPDES Permit Renewal Application in 2006 included an increase in the hydraulic capacity to 0.45 MGD. In 2009, PA DEP approved a Water Quality Management Permit Amendment to change the aeration diffusers in the SBR basins from coarse bubble diffuser assemblies to fine bubble diffuser assemblies. This upgrade allowed the hydraulic capacity to be increased from 0.450 to 0.545 MGD and the organic capacity increased from 800 to 1,127 pounds BOD5 per day. The diffuser replacement was completed in 2010. Subsequently the NPDES Part I was revised to reflect the new hydraulic and organic loading capacities.

Using information from the 2020 LASA Chapter 94 Report for West Earl Township, the following loading data has been summarized in Table 3-3. Note that there are reported 2,004 EDUs and 2.94 persons per EDU.

Table 3-3: Summary of Ch 94 Report Loading Data for Brownstown WWTF

Hydraulic Loading		Organic Loading	
	Value		Value
Permitted Flow, MGD	0.545	Permitted Organic Loading, lbs/day	1,127
2020 Annual Average Flow, MGD	0.280	2020 Annual Average Loading, lbs/day	418
2020 Flow per EDU, GPD	139.7	2020 Loading per EDU, lbs/day	0.208
2020 Flow per Capita, GPD	47.5	2020 Loading per Capita, lbs/day	0.071
5-Year Annual Average, MGD	0.262	5-Year Annual Average	420
5-Year Max 3-Month Average, MGD	0.276	5-Year Max Month Average	583
Max : Avg Ratio	1.053	Max : Avg Ratio	1.388
2025 Projected Average Flow, MGD	0.271	2025 Projected Average Loading, lbs/day	433
2025 Projected Max 3-Month Flow, MGD	0.285	2025 Projected Max Month Loading, lbs/day	602
Percent of Permitted Capacity, %	52.3	Percent of Permitted Capacity, %	53.4



BROWNSTOWN WWTF PROCESS FLOW SCHEMATIC

3.3.3. Review of Brownstown Wastewater Treatment Facility Compliance History

Overall, the Brownstown Wastewater Treatment Facility has remained in compliance.

When the 2008 Chapter 94 Report projected the facility to become organically overloaded, the West Earl Sewer Authority completed a rerate analysis which indicated that the facility was able to accept and treat higher organic and hydraulic loads. This led to the replacement of aeration diffusers in 2010 and subsequent NPDES Part I approval to the current hydraulic and organic loading limits.

3.3.4. Review of Scheduled or On-Going Upgrade or Expansion Projects at the Brownstown Wastewater Treatment Facility

There are no upgrade or expansion projects either planned or on-going at the Brownstown WWTF.

3.3.5. Review of Disposal Areas

To evaluate the needs of the subject planning area, a door-to-door survey was conducted. The water samples were analyzed for Nitrate-Nitrogen, Bacteria-Total Coliform, Bacteria-E-Coli, and Fecal Coliform. The results are presented below:

Table 3-4: Summary of Water Sampling Analysis

Figure 3 Reference Number	Location House Number	Location Street Address	Date Sampled	Nitrate-Nitrogen Mg/L	Bacteria- Total Coliform MPN/100mL	Fecal Coliform MPN/100mL	Bacteria-E-Coli MPN/100mL	Notes
			EPA Recommended MCL	10	0	0	0	
1	49	E Farmersville	n/a					cistern
2	50	E Farmersville	11/22/21	15.90	2.0	<1	<1	
3	53	E Farmersville	11/23/21	10.21	23.8	<1	<1	
4	71	E Farmersville	11/23/21	11.25	40.6	2.0	<1	
5	74	E Farmersville	11/24/21	<0.5	47.8	<1	<1	
6	79	E Farmersville	11/24/21	12.27	200.5	<1	<1	
7	110	E Farmersville	11/23/21	7.54	118.4	<1	<1	
8	151	E Farmersville	12/02/21	14.61	<1	<1	<1	
9	164	E Farmersville	n/a					rain water
10	169	E Farmersville	12/02/21	16.55	1.0	<1	<1	
11	177	E Farmersville	11/24/21	8.51	4.2	<1	<1	
12	183	E Farmersville	11/24/21	8.88	2.0	<1	<1	
13	209	E Farmersville	11/23/21	5.98	<1	<1	<1	
14	210	E Farmersville	12/02/21	8.80	<1	<1	<1	
15	217	E Farmersville	11/23/21	4.93	2.0	<1	<1	
16	262	Cats Back	11/22/21	8.02	<1	<1	<1	
17	10	N Farmersville	12/02/21	9.84	<1	<1	<1	
18	19	N Farmersville	12/02/21	11.20	94.5	<1	<1	
19	23	N Farmersville	12/02/21	18.28	30.6	<1	<1	
20	450	S Farmersville	11/30/21	18.33	<1	<1	<1	
21	452	S Farmersville	11/30/21	17.38	4.2	<1	<1	
22	464	S Farmersville	11/24/21	17.10	34.4	<1	1.0	
23	481	S Farmersville	11/24/21	12.27	118.4	8.7	1.0	
24	509	S Farmersville	11/24/21	5.83	<1	<1	<1	
25	510	S Farmersville	11/24/21	6.79	3.1	<1	<1	
26	216	W Farmersville	11/23/21	15.62	83.1	<1	<1	
27	222	W Farmersville	11/23/21	22.16	200.5	2.0	2.0	
28	226	W Farmersville	11/23/21	21.18	<1	<1	<1	
29	198	Turtle Hill	n/a					public water
30	211	Turtle Hill	n/a					public water
31	215	Turtle Hill	11/23/21	10.79	<1	<1	<1	
32	262	Turtle Hill	11/23/21	8.78	34.4	<1	<1	
33	304	Turtle Hill	11/22/21	<0.5	15.0	<1	<1	
34	312	Turtle Hill	11/22/21	8.87	>200.5	<1	<1	

Of the samples obtained, 53 percent exceed the EPA recommended MCL value for Nitrate-Nitrogen of 10 mg/L, and 70 percent showed the presence of Total Coliform Bacteria. The sample locations are shown on Figure 3 included under Appendix D.

3.4. FUTURE GROWTH AND LAND DEVELOPMENT

The West Earl Township Zoning Map is attached in Appendix B. There is limited area available for growth within the identified service areas.

3.4.1. Growth In Existing Service Area

According to the 2020 Chapter 94 Report, 7 EDUs were permitted and/or connected to the system. Connections were identified as:

Brownstown Business Center: 2 EDUs
 Brownstown Commons: 4 EDUs
 Miscellaneous Connections: 1 EDU

There were no sanitary sewer facilities accepted for dedication from developers in 2020.

EDUs that are projected to connect to the existing system include:

Table 3-5: Projected Growth from 2020 Chapter 94 Report

Development Name	Number of Remaining EDUs to be connected	Gallons per Day @ 265 gpd/EDU
Brownstown Commons	8.6	2,279
Cloverbrook Industrial Development	2.1	556.5
Conestoga View Sewer Service Area	5	1,325
Creek Hill Subdivision (formerly Rose Hill Road)	10	2,650
Martin Appliance Warehouse	6	1,590
Millway Acres Commercial – Phase I	1	265
Village of Talmage	2	530
Miscellaneous	5	1,325

The projected growth's impact on the pumping stations is summarized in Table 3-6 below:

Table 3-6: Projected Hydraulic Loading of Pumping Stations

Pumping Station	Church Street	Newport Road	Cocalico Creek	Eagle Drive	Oregon Pike
Pump Capacity, gpm	339	300	300	240	300
Maximum GPD Capacity	488,160	432,000	432,000	345,600	432,000
2020 Avg Day GPD	112,748	62,839	59,168	28,768	27,685
Additional EDUs	20.1	4.1	14	0	10
Additional Average Day GPD	5,327	1,087	3,710	0	2,650
Projected 2022 Average Day GPD	118,075	63,926	62,878	28,768	30,335
Peaking Factor	1.89	2.31	2.60	1.72	2.88
Projected 2022 Max Day GPD	223,161	147,668	163,483	49,481	87,365

All pumping stations have sufficient capacity to meet the projected growth needs.

3.4.2. Growth In Study Area

Farmersville and Fairmount Homes Areas: The area studied is zoned R-2 Medium-Density Residential and includes provisions for a Traditional Residential Development Option (TRDO). There are approximately 135 parcels within this service area assumed to be equal to the number of existing EDUs.

Two tracts in south Farmersville are assumed to be combined into a single tract that could be developed per TRDO requirements, which has a maximum gross density of 4 units per acre. This would add 108 EDUs. A five-acre parcel in north Farmersville could add 30 EDUs. A parcel on East Farmersville Road is assumed to add 16 multifamily EDUs. In Fairmount there is a five-acre parcel that could add 30 EDUs. On South Fairmount Road, there are two parcels that could support multifamily dwellings adding 22 EDUs. Potentially, 206 EDUs can be added to the system in this area.

Fairmount Homes has plans to build 30 additional retirement cottages. Fairmount Homes has indicated that this would increase their flow from 30,000 gpd to 50,000 gpd.

Turtle Hill Road Area: The west end of Turtle Hill Road is zoned R-1 Low Density Residential. This includes 4 existing homes that could be served by gravity sewer. The remainder of the Turtle Hill Road service area is zoned Agricultural, including the LCCTC. The Conestoga Campground Association is assumed to be built-out. There are estimated to be 28 EDUs along Turtle Hill Road, not including LCCTC. LCCTC flows vary with the school year and range from 200 to 3,000 gpd. For future considerations, flow from LCCTC is estimated to be 10,000 gpd. There is an

undeveloped tract at the east end of the service area. Given that the parcel is zoned Agricultural, flows are estimated to add 5 EDUs.

3.5. ALTERNATIVES TO PROVIDE NEW / IMPROVED WASTEWATER DISPOSAL FACILITIES

3.5.1. Brownstown Wastewater Treatment Facility

Alternatives have been developed to provide public sewer service to the Farmersville, Fairmount and Turtle Hill Road areas. Most alternatives are based on conveying flow to the Brownstown WWTF. Therefore, a review of the available hydraulic and organic loading capacity was performed first.

For the additional hydraulic loading projections 1 EDU is equal to 238 gallons per day, based on the value used by LASA.

Table 3-7: Hydraulic Loading Projections for Brownstown WWTF

Projected Hydraulic Loading from Service Areas				
Area	Existing EDUs	Future EDUs	Total EDUs	Flow gallons per day
Farmersville - Fairmount	135	206	341	81,158
Fairmount Homes	126	84	210	50,000
West Farmersville Road	12	0	12	2,856
Turtle Hill Road	28	5	33	7,854
LCCTC	17	25	42	10,000
Subtotal	318	320	638	151,868
3-Month Max : Avg Ratio				1.053
Projected Max 3-Month Flow				159,917

For the additional organic loading projections 1 EDU is equal to 0.500 pounds BOD5 per day, based on the number of persons per EDU (2.94) and 0.17 pounds BOD5 per day per capita in accordance with the PA DEP Domestic Wastewater Facilities Manual. Because the existing homes are served by On-Lot Disposal Systems, garbage grinders are assumed to be not prevalent. Note that this planning value is 2.4 times higher than the Load/EDU as reported on the 2020 Chapter 94 Report.

Table 3-8: Organic Loading Projections for Brownstown WWTF

Projected Organic Loading from Service Areas				
Area	Existing EDUs	Future EDUs	Total EDUs	Organic Loading, pounds per day
Farmersville - Fairmount	135	206	341	171
Fairmount Homes	126	84	210	105
West Farmersville Road	12	0	12	6
Turtle Hill Road	28	5	33	16
LCCTC	17	25	42	21
Subtotal	318	320	638	319
Max : Avg Ratio				1.388
Projected Max Loading				443

Summarizing the projected loadings to the Brownstown Wastewater Treatment Facility:

Table 3-9: Projected Loadings versus Permitted Capacity at Brownstown WWTF

Hydraulic Loading		Organic Loading	
	Value		Value
Permitted Flow, MGD	0.545	Permitted Organic Loading, lbs/day	1,127
2025 Projected Max 3-Month Flow, MGD	0.285	2025 Projected Max Month Loading, lbs/day	602
Projected Max 3-Month Flow from Service Areas, MGD	0.160	Projected Max Month Loading from Service Areas, lbs/day	443
Total Projected Flow, MGD	0.445	Total Projected Loading, lbs/day	1,045
Percent of Permitted Capacity, %	81.7	Percent of Permitted Capacity, %	92.7

Even with the conservative nature of the values used to develop the hydraulic and organic loading projections, there is sufficient hydraulic and organic capacity at the Brownstown WWTF to accept flow from all proposed service areas.

3.5.2. Collection and Conveyance Alternatives

Three broad alternatives have been investigated to provide sanitary sewer service to the Farmersville, Fairmount and Turtle Hill Road areas, with variations under each alternative. In addition, a fourth alternative is to explore options for providing sewer service to the Turtle Hill Road area independent of service to the Farmersville area.

Note that in some alternatives that include gravity sewer and pumping stations, the pumping station is located as close to the service area as practical, even though gravity sewer could be extended resulting in shorter force main. This was done purposefully to limit growth pressure beyond the defined service areas.

When describing proposed service to specific areas, the area around Farmersville will be referred to as “east Farmersville”, “west Farmersville”, “north Farmersville”, and “south Farmersville”. The group of homes along the south side of West Farmersville Road that is approximately 1 mile west of Farmersville will be referred to as “West Farmersville Road” area. The Fairmount Homes area includes the homes and businesses on Cats Back Road, South Fairmount Road, and East Farmersville Road, from the E Farmersville-S Fairmount intersection west to approximately 177 East Farmersville Road.

Maps for each alternative are included in Appendix E.

Alternative 1: 100% Low-Pressure Sanitary Sewer

Under these alternatives, each property will be provided a grinder pump and a low-pressure sanitary sewer system will convey the wastewater to the Brownstown WWTF. The Fairmount Homes WWTF will be replaced with a pumping station that will connect to this system.

Alternative 1A: This alternative provides service to the Farmersville area only and the low-pressure sewer main follows West Farmersville Road, then Locust Street to the Brownstown WWTF. This route avoids the need to cross the Conestoga River. The Turtle Hill Road area would be serviced separately. Along the drive into the Brownstown WWTF, the sewer main will transition to gravity sewer to convey the wastewater to the WWTF headworks.

Alternative 1B: In this alternative, the low-pressure sewer main from Farmersville travels north on North Farmersville Road, crosses the Conestoga River then proceeds west on Turtle Hill Road. The low-pressure main would discharge to a new gravity sewer line from the high point north of the intersection of Turtle Hill Road and West Farmersville Road and connect to the existing sewer at the intersection of East Main Street and Buchland Road. Similar to Fairmount Homes, the Lancaster County Career & Technology Center will replace their WWTF with a duplex grinder pump station.

To serve the West Farmersville Road area, it is a shorter distance to run low-pressure sewer east on West Farmersville Road than to run west directly to the Brownstown WWTF. Therefore, alternatives that direct flow ultimately along Turtle Hill Road for connection to the existing collection system will include an option to serve the West Farmersville area using low-pressure sewer running toward Farmersville.

Alternative 2: Maximize Use of Gravity Sewer

These alternatives utilize gravity sewer and pumping stations to convey wastewater to the Brownstown WWTF, incorporating low-pressure sewer and grinder pumps where gravity is not practical. Alternative 2A routes provide service to the Farmersville and Fairmount Home areas while remaining south of the Conestoga River. Alternative 2B routes serve Farmersville and Fairmount Homes areas but crosses the Conestoga River on North Farmersville Road to also serve the Turtle Hill Road area.

Alternative 2A(1): The Fairmount Homes area will have gravity sewers that convey wastewater to a pumping station located at the south end of South Fairmount Road. Flow to the Fairmount Homes WWTF will be intercepted and conveyed by gravity on Nolt Drive to East Farmersville Road. The homes along Cats Back Road will be served with grinder pumps that will connect to the proposed LASA collection system. The Fairmount Home area pumping station force main discharges to the gravity sewer on East Farmersville Road. This gravity sewer continues onto West Farmersville Road to a pumping station at the west end of the Farmersville service area. In this alternative, north and south Farmersville are served by low-pressure sewer. The force main from the Farmersville pumping station conveys flow on West Farmersville Road and Locust Street to the Brownstown WWTF. The West Farmersville Road area is proposed to be served by a gravity sewer that flows to a small pumping station that connects to the force main from Farmersville.

Alternative 2A(2): This variation is the same as Alternative 2A(1) with the following changes: the pumping station in Farmersville is relocated to south Farmersville area with the south Farmersville area changed to gravity sewer service; and the west Farmersville area is changed to low-pressure sewer.

Alternative 2B(1): In this variation, in Farmersville, the gravity sewer along East Farmersville Road turns north and continues to a pumping station located at the north end of the service area. The Farmersville west and south areas are served by low-pressure sewer. From the Farmersville pumping station, the force main follows North Farmersville Road, crosses the Conestoga River by attachment to the bridge, then continues to the east end of the Turtle Hill Road service area. Flow proceeds by gravity to a low point, east of Snyder Road. A third pumping station pumps wastewater along Turtle Hill to the high point north of the West Farmersville Road bridge, then gravity sewer connecting to the existing sewer at the intersection of East Main Street and Buchland Road. LCCTC can connect by gravity. The Conestoga Campground homes sit below the elevation of Turtle Hill Road and are assumed that they will be served by low-pressure sewer. An adder

to all 2B alternatives would be to extend the low-pressure sewer on West Farmersville Road to include the homes of the West Farmersville Road area.

Alternative 2B(2): Similar to the variation in Alternative 2A(2), this route relocates the Farmersville pumping station to south Farmersville area with the south Farmersville area changed to gravity sewer service; and the west Farmersville area is changed to low-pressure sewer.

Alternative 2B(3): This variation is the same as Alternative 2B(1) with the difference being that south Farmersville is served by gravity sewer with a small pumping station that pumps flow to the center of Farmersville.

Alternative 2B(4): This variation is essentially the same as Alternative 2B(2) with the exception that the connections along North Farmersville Road are changed from low-pressure sewer to gravity sewer with a small pumping station that ties into the Farmersville pumping station force main.

Alternative 3: Convey Flow to the Fairmount Homes WWTF

These alternatives look to convey flow from the Farmersville and Fairmount Homes areas to the Fairmount Homes WWTF. The existing facility would be upgraded to accommodate the new flow. The West Farmersville Road area may be added to any these alternatives by extending low-pressure sewer.

Alternative 3A: This alternative is a 100% low-pressure sewer system.

Alternative 3B(1): This alternative is a combination of gravity and low-pressure sewer. The east Farmersville and west Farmersville areas have gravity sewer service with a pumping station located at the west end of the Farmersville service area. North and south Farmersville areas are served by low-pressure sewer. The pumping station force main discharges to gravity sewer on East Farmersville Road, which continues to a second pumping station at the south end of the service area on South Fairmount Road.

Alternative 3B(2): This variation is similar to Alternative 3B(1) except this route relocates the Farmersville pumping station to the south Farmersville area with the south Farmersville area changed to gravity sewer service; and the west Farmersville area is changed to low-pressure sewer.

Fairmount Homes Wastewater Treatment Facility Upgrade: The existing WWTF is an extended aeration design with a permitted capacity of 30,000 gallons per day. The outfall sewer runs approximately 4,000 feet north through easement and discharges to the Conestoga River. Fairmount Homes has explored an expansion to 50,000 gallons per day. It is understood that an expansion to 50,000 gpd can be accomplished at the existing treatment facility location. However, an expansion to 160,000 gpd to accommodate Farmersville and Fairmount areas will require more space than is available. Additional complications include:

- Ownership of the WWTF and subdivision of the WWTF.

- The emergency generator serves not just the WWTF, but also the Fairmount Homes water treatment system and fire service pump.
- The easement for the outfall sewer needs to be confirmed and may present unforeseen challenges in transferring or increasing the easement width.
- The size of the existing outfall sewer is being confirmed and may need to be increased. The outfall runs north approximately 4,000 feet, through farmland, to the Conestoga River. This represents a potential significant adder to the project cost.

Fairmount Homes has recently acquired the property located at 252 Cats Back Road. This property is adjacent to Fairmount Homes along the north boundary on the east side of Cats Back Road. There is sufficient space on this property to construct a new 160,000 gpd WWTF. The new treatment facility is anticipated to include mechanical screening, influent pumping, Sequential Batch Reactor activated sludge process, effluent equalization, and ultraviolet light disinfection. In addition, there will be aerobic sludge digestion with equipment to facilitate hauling of liquid waste sludge. A pre-engineered building would provide space for a control room, bench lab, lavatory facilities, and emergency generator. The outfall sewer would connect to the existing outfall sewer through additional easement. The parcel would be transferred to LASA. Fairmount Homes would modify its collection system to convey their flow to the new WWTF. Construction of a new wastewater treatment facility at this location has several drawbacks including:

- The proximity of this plant to neighboring residences and the Fairmount Homes facility presents a high potential for odor-related complaints.
- Operational and maintenance costs by operating an additional wastewater treatment facility, including electricity, chemicals, sludge hauling, additional staff, monthly reporting requirements, annual reporting requirements, and permit renewals.

Alternative 4: Service Turtle Hill Road

These alternatives are included to serve the Turtle Hill Road area independently from alternatives that serve Farmersville and Fairmount Homes areas and stay south of the Conestoga River. In both alternatives, gravity sewer conveys flow from the high point on Turtle Hill Road north of the West Farmersville Road bridge to the existing gravity sewer at the intersection of East Main Street and Buchland Road.

Alternative 4A: The service area is served by low-pressure sewer. The LCCTC treatment plant will be replaced with a duplex grinder pump station. There are four homes along the gravity sewer that are assumed to be able to connect without pumping.

Alternative 4B: A gravity sewer will convey flow the high point east of the intersection with High Road to a pumping station located east of Snyder Road. LCCTC can connect by gravity. The homes in the Conestoga Campground are assumed to require grinder pumps as the homes are lower than the elevation along Turtle Hill Road. The undeveloped tract at the east end of the Turtle Hill Road

service area will likely require grinder pumps as the grade drops away from Turtle Hill Road.

3.6. EVALUATION OF ALTERNATIVES

3.6.1. Evaluation of Alternatives

3.6.1.1. Project Cost Opinions

An opinion of Project Cost has been developed for each alternative. The cost estimating worksheets are included with the alternative maps in Appendix E. Where available, unit prices have been obtained from recent projects. Some assumptions have been made including:

- Low-pressure sewer is assumed to be HPDE pipe and installed by directional drilling. This method is recommended because it is generally less expensive than open cut, including restoration costs. For estimating purposes, the drill pits are estimated to be 600 feet apart and are expected to coincide with cleanout manholes.
- Gravity sewer pipe is assumed to be 8-inch diameter SDR 35 PVC. At minimum slope of 0.40 feet per 100 feet, 8-inch pipe can convey approximately 0.362 MGD at 2/3 full. To allow for potential field adjustment of slope to avoid unknown field conditions, it is recommended that the gravity sewer be designed with a minimum of 0.5 percent slope.
- The manholes are assumed to be HDPE lined. Where low-pressure or force main discharges to a gravity sewer, Baker typically recommends that the receiving manhole and the next 4 manholes downstream be lined to resist the corrosive effects of hydrogen sulfide. Given that most alternatives have both low-pressure and force mains, it appears that a significant proportion of manholes would be lined. For simplicity all manholes are priced as lined.
- Force mains are assumed to be DR-9 HDPE and installed by directional drilling.
- It has been assumed that rock will be encountered 25% of the length of all pipes, regardless of the method of installation. This adjustment is made to prevent estimates from being too low.

Table 3-10: Alternative 1 Cost Opinions

Alternative 1: 100% Low-Pressure Sanitary Sewer			
Alternative 1A: Stay South of Conestoga River		Alternative 1B: Include Turtle Hill Road	
Alt 1A Base Cost	\$5,111,743	Alt 1B Base Cost	\$5,183,779
		Adder to include West Farmersville Road area	\$718,318

Table 3-11: Alternative 2 Cost Opinions

Alternative 2: Maximize Use of Gravity Sewer			
Alternative 2A: Stay South of Conestoga River		Alternative 2B: Include Turtle Hill Road	
Alt 2A(1) Base Cost	\$6,214,584	Alt 2B(1) Base Cost	\$7,307,783
Alt 2A(2) Base Cost	\$6,669,058	Alt 2B(2) Base Cost	\$7,806,264
		Alt 2B(3) Base Cost	\$8,219,833
		Alt 2B(4) Base Cost	\$8,329,540
		Adder to include West Farmersville Road area	\$718,318

Table 3-12: Alternative 3 Cost Opinions

Alternative 3: Convey Flow to New WWTF			
Alternative 3A: 100% Low-Pressure Sewer		Alternative 3B: Maximize Gravity Sewer	
Alt 3A Base Cost	\$2,925,027	Alt 3B(1) Base Cost	\$4,399,199
		Alt 3B(2) Base Cost	\$4,847,829
Adder to include West Farmersville Road area	\$718,318	Adder to include West Farmersville Road area	\$718,318
New WWTF	\$2,912,470	New WWTF	\$2,912,470

Table 3-13: Alternative 4 Cost Opinions

Alternative 4: Service Turtle Hill Road			
Alternative 4A: Low-Pressure Sanitary Sewer		Alternative 4B: Maximize Gravity Sewer	
Alt 4A Base Cost	\$1,236,328	Alt 4B Base Cost	\$1,942,710

3.6.1.2. Project Cost Evaluation

The alternatives have been evaluated on the basis of providing combinations that provide public sanitary sewer service to the approximately 318 existing EDUs within the designated areas. The separation of alternatives is helpful to evaluate consideration of a phased approach.

One set of combinations includes combining Alternative 1A or 2A with either Alternative 4A or 4B. Alternatives 1A and 2A serve the Farmersville and Fairmount Homes area by remaining south of the Conestoga River while the Turtle Hill Road area can be served independently. These alternatives, avoid a river crossing, but require a long route along West Farmersville Road to reach the Brownstown WWTF. The combinations are summarized below:

Table 3-14: Combined Cost of Alternative 1A and 2A Combinations

Comparison of 1A and 2A Combinations				
Combination	1A / 2A Cost	4A / 4B Cost	Combined Cost	Cost per 318 Existing EDUs
1A and 4A Max LPSS	\$5,111,743	\$1,236,328	\$6,348,071	\$19,962
1A and 4B	\$5,111,743	\$1,942,710	\$7,054,453	\$22,184
2A(1) and 4A	\$6,214,584	\$1,236,328	\$7,450,912	\$23,431
2A(1) and 4B	\$6,214,584	\$1,942,710	\$8,157,294	\$25,652
2A(2) and 4A	\$6,669,058	\$1,236,328	\$7,905,386	\$24,860
2A(2) and 4B Max Gravity	\$6,669,058	\$1,942,710	\$8,611,768	\$27,081

The Alternative 1B and 2B variations convey flow from the Farmersville and Fairmount Homes areas north along North Farmersville Road, cross the Conestoga River, then serves the Turtle Hill Road area. The homes along West Farmersville Road can be phased into any of the Alternative 1B and 2B variations. These combinations are summarized below:

Table 3-15: Combined Cost of Alternative 1B and 2B Combinations

Comparison of 1B and 2B Combinations				
Combination	1B / 2B Cost	West Farmersville Rd Cost	Combined Cost	Cost per 318 Existing EDUs
1B Max LPSS	\$5,183,779	\$718,318	\$5,902,097	\$18,560
2B(1)	\$7,307,783	\$718,318	\$8,026,101	\$25,239
2B(2)	\$7,806,264	\$718,318	\$8,524,582	\$26,807
2B(3) Max Gravity	\$8,219,833	\$718,318	\$8,938,151	\$28,107
2B(4) Max Gravity	\$8,329,540	\$718,318	\$9,047,858	\$28,452

Similarly, Alternatives 3A or 3B can be done independently with Alternatives 4A or 4B. The homes along West Farmersville Road can be phased into any of the Alternative 3A and 3B alternatives. The combinations are summarized below.

Table 3-16: Combined Cost of Alternative 3A and 3B Combinations

Comparison of 3A/B and 4A/B Combinations						
Combination	3A / 3B Cost	New WWTF	4A / 4B Cost	West Farmersville Rd Cost	Combined Cost	Cost per 318 Existing EDUs
3A and 4A	\$2,925,027	\$2,912,470	\$1,236,328	\$718,318	\$7,792,143	\$24,504
3A and 4B	\$2,925,027	\$2,912,470	\$1,942,710	\$718,318	\$8,498,525	\$26,725
3B(1) and 4A	\$4,399,199	\$2,912,470	\$1,236,328	\$718,318	\$9,266,315	\$29,139
3B(1) and 4B	\$4,399,199	\$2,912,470	\$1,942,710	\$718,318	\$9,972,697	\$31,361
3B(2) and 4A	\$4,847,829	\$2,912,470	\$1,236,328	\$718,318	\$9,714,945	\$30,550
3B(2) and 4B	\$4,847,829	\$2,912,470	\$1,942,710	\$718,318	\$10,421,327	\$32,771

3.6.2. Review of Purchase Price

West Earl Township and West Earl Sewer Authority agreed to a purchase price of \$7.5 million tendered by the Lancaster Area Sewer Authority.

3.6.3. Implementation Needs of Each Alternative

The Brownstown WWTF was upgraded to ensure that capacity exists to serve the Farmersville, Fairmount and Turtle Hill Road areas. West Earl Township will continue to monitor these areas using the OLDS Management Program and share this data with LASA for determining the appropriate time to extend sewer service.

The needs of the Lancaster County Career & Technology Center, Brownstown Campus and the Fairmount Homes Retirement Community will be a key component. For example, the Fairmount Homes WWTF is at capacity. Any plans for expansion of the retirement community is contingent upon either upgrading and expanding their treatment plant or coordinating their growth plans with LASA's plan to extend sewer service.

3.6.3.1. Description of Phased Construction Advantages

Alternative 1B can be developed in phases. For instance, sewer service can be extended first along Turtle Hill Road, then later to Farmersville, then to Fairmount. However, note that Fairmount Homes may have an interest in having the low-pressure main extended to Fairmount as part of the initial phase. There is a process advantage to connecting Fairmount Homes in the initial phase. The addition of wastewater effectively at the end of the main ensures that the detention time in the main is minimized.

An advantage of the low-pressure sewer alternative is that growth can be easily accommodated

3.6.4. Evaluation of Administrative Organizations and Legal Authority Necessary for Plan Implementation

The Lancaster Area Sewer Authority has been in existence since 1965 with the stated mission: "To provide quality service at reasonable cost." With the addition of the West Earl Sewer Authority system, LASA serves nine municipalities in Lancaster County. LASA now owns, operates and maintains a collection and conveyance system comprised of approximately 620 miles of pipe and 44 pumping stations, as well as two wastewater treatment plants.

The Asset Purchase Agreement establishes the legal authority for LASA to own, operate and maintain the sewer system formerly known as the West Earl Sewer Authority.

3.7. INSTITUTIONAL EVALUATION

3.7.1. Analysis of Institutional Alternatives

3.7.1.1. Need for New Municipal Departments or Authorities

With completion of the Asset Purchase Agreement, there is no need for the creation of any new municipal departments or authorities.

3.7.1.2. Functions of Existing and Proposed Organizations

With completion of the Asset Purchase Agreement, operation and maintenance of the sewer facilities serving customers of former West Earl Sewer Authority have become the responsibility of Lancaster Area Sewer Authority. As a regional authority serving approximately 40,000 customers in over nine municipalities in central and western Lancaster County, LASA has the appropriate staffing and is well-suited to manage wastewater collection, conveyance and treatment systems.

For portions of West Earl Township that are served by either the Akron Borough or Upper Leacock sewer systems, there are no changes.

3.7.1.3. Cost of Administration / Implementation and Capability to React to Future Needs

With completion of the Asset Purchase Agreement, LASA will bear all costs for administration, operation and maintenance of sewer service within the previous West Earl Sewer Authority system.

As part of the Asset Purchase Agreement, the billing rate for customers in West Earl Township (\$175.50 per quarter) will remain in place for 20 years, or until LASA's rates (currently \$99.63 per quarter) exceed those in West Earl Township.

The Township will benefit from a larger pool of collection operation and maintenance staff to provide recommended routine and rapid emergency response service.

3.7.2. Administrative and Legal Activities to be Completed

No additional administrative or legal activities remain to be completed.

West Earl Sewer Authority, West Earl Township and Lancaster Area Sewer Authority executed the "Asset Purchase Agreement for the Acquisition of the Assets of the Wastewater System of West Earl Sewer Authority and West Earl Township by Lancaster Area Sewer Authority". The Agreement is included in Appendix A.

Lancaster Area Sewer Authority applied for and received transfer of PA DEP permits including:

- NPDES Permit No. PA0081949 A-1
- WQM Permit No. 3685438 T-1

3.7.2.1. *Incorporation of Authorities or Agencies*

No new authorities or agencies need to be created.

3.7.2.2. *Review of Ordinances, Regulations, Agreements*

On-Lot Disposal Systems (OLDS) Management Programs

The Township adopted the “West Earl Township Sewage Disposal Ordinance” (Ordinance No. 95) on June 22, 1992 after recommendations for an On-Lot Disposal System Management Program was proposed in the Township’s 1991 Act 537 Plan. The 2004 Act 537 Plan proposed modifications to the On-Lot Disposal Systems Management Program. The modified ordinance was adopted in 2006 and took effect on March 1, 2007. No additional modifications to the OLDS Management Program are proposed.

Township Code Chapter 138 Sewers and Sewage Disposal

Chapter 138 of the Township Code was amended by Ordinance 256, adopted on October 26, 2020 that added “Article VI Connection to and Use of Lancaster Area Sewer Authority System”. Specifically, per paragraph 138-70 Lancaster Area Sewer Authority is “designated and appointed as the agent of Township for the purpose of adopting or promulgating rules and regulations for the use of the sewer system...” In addition, “the Township specifically adopts and expressly incorporates by reference in their entirety,” the Authority’s Rules and Regulations, Policies, and Specifications named in the Ordinance.

3.7.2.3. *Review of Rights-of-Way, Easements, and Land Transfers*

The Asset Purchase Agreement lists all land transfers, including the wastewater treatment facility and five pumping stations. Refer to Article 1.3(a) of the Agreement. In addition, rights-of-way and easements are named in Article 1.3(d) of the Agreement.

3.7.2.4. *Adoption of Other Municipal Sewage Facilities Plans*

There are no other Municipal Sewage Facilities Plans that need to be adopted.

3.7.2.5. Additional Legal Documents

The Asset Purchase Agreement lists all existing licenses, permits and authorizations. Refer to Schedule 1.3(e) of the Agreement.

No additional legal documents are required.

3.7.2.6. Timeline for Administrative and Legal Activities

The following dates summarize the sale of the West Earl Township Sewer System to the Lancaster Area Sewer Authority:

Execution of Asset Purchase Agreement	June 10, 2020
Finalize Asset Purchase Agreement	October 30, 2020
Transfer of PADEP Permits	January 14, 2021

3.8. IMPLEMENTATION SCHEDULE AND JUSTIFICATION FOR SELECTED TECHNICAL AND INSTITUTIONAL ALTERNATIVES

3.8.1. Wastewater Disposal Alternative

3.8.1.1. Existing Wastewater Disposal Needs

The existing wastewater disposal needs are being met by the collection, conveyance and treatment facilities purchased by Lancaster Area Sewer Authority, as well as existing portions of the Township that are served by Akron Borough and Upper Leacock Township. Remaining portions of the Township are served by on-lot disposal systems and existing wastewater treatment facilities privately owned, as mentioned previously.

Maintenance of on-lot disposal systems is regulated by Article IV Sewage Disposal Systems of the Township Code as adopted by Ordinance No. 95 in 1992 and as amended by Ordinance No. 194 in 2006.

3.8.1.2. Future Wastewater Disposal Needs

Providing public sewer service to the Farmersville, Fairmount and Turtle Hill Road areas remains part of the long-term planning goal of the Township and Lancaster Area Sewer Authority.

The recommended alternative is to convey wastewater to the Brownstown WWTF using Alternative 1B with continued monitoring of on-lot disposal systems along West Farmersville Road. This alternative is recommended for the following reasons:

- Low-pressure sewer system has the lowest estimated construction cost for the alternatives reviewed.
- The estimated project cost of Alternative 1B is \$5,183,779, which would serve 306 existing EDUs, for a cost per EDU of \$16,940.
- The existing Brownstown WWTF has the capacity to serve the area without any upgrades or changes to staff.
- Savings in operational and maintenance costs by not operating an additional wastewater treatment facility, including electricity, additional staff, monthly reporting requirements, annual reporting requirements, and permit renewals.
- Eliminates the package treatment plant at the LCCTC.
- Eliminates the Fairmount Homes WWTF and allows for expansion of the retirement home.

The recommended alternative to provide public sewer service would connect approximately 306 current EDUs and 320 future EDUs (or 626 total EDUs), and would have a project cost of \$6,012,000 at the time of construction. The project cost for alternative 1B of \$5,183,779 was escalated for inflation based on a construction date of April 1, 2026.

In order to fund the sewer extension project required to serve the needs area identified in this plan, LASA would pay 100% of the \$6,012,000 project costs through its Bond Redemption and Improvement Fund (BRIF) and/or a secondary funding source of bond proceeds.

Based on the recommended alternative and current estimates of costs and the number of resulting connections, LASA would pass \$1,729,000 of the \$6,012,000 project cost onto the affected West Earl customers in the form of a \$2,764 Special Purpose Fee per EDU. LASA would ultimately be responsible for \$4,283,000 of the project cost, and as provided through the Municipality Authorities Act, would collect up to \$1,729,000 of the project cost through the Special Purpose Fees collected from customers served by the project. If the Township was to make a contribution, the Special Purpose Fee would be reduced accordingly. Since the Special Purpose Fee is calculated based on project cost and the number of customers served by the project, the Special Purpose Fee is subject to change based on actual bid costs and any changes to the number of connections resulting from the sewer extension project.

Note that these fees are independent of, and in addition to, the current \$3,927 per EDU Tapping Fee, the current \$750 per EDU Connection Fee, and the costs of the customer installing their own private lateral, providing the required electricity service (for grinder pump customers) and abandoning their septic tank.

Further note that future growth projections have been made based on a review of larger parcels within the study area that could conceivably support development and the applicable zoning of the parcel. It is

recommended that West Earl Township reach out to these landowners to determine the extent of future growth and coordinate with LASA to ensure that the sewer facilities are adequately designed and to adjust the Special Purpose Fee accordingly.

3.8.1.3. Operation and Maintenance Considerations

The existing Brownstown WWTF will continue to be staffed by licensed operators. LASA's complement of licensed collection system personnel will maintain the existing collection and conveyance system.

Future service to the Farmersville, Fairmount and Turtle Hill Road areas will be maintained by LASA personnel. A low-pressure sewer system requires a minimum amount of routine maintenance. The piping is designed to provide minimum scouring velocities. LASA will own and maintain the grinder pump units. Property owners would be responsible for electrical costs to operate the pump(s). LASA will maintain a quantity of spare grinder pumps for quick replacement of units in need of servicing.

3.8.1.4. Available Management and Administrative Systems

The OLDS Management Program will continue to be administered by West Earl Township and the Township's Sewage Enforcement Officer.

The portion of the Township that is served by the Akron Borough Sewer System and Leola Sewer System will continue to have sewer facilities managed by the respective Authorities. Per the Asset Purchase Agreement, residents and businesses formerly served by the West Earl Sewer Authority will now have sewer facilities managed by Lancaster Area Sewer Authority.

3.8.1.5. Environmental Soundness and Compliance with Natural Resource Planning and Preservation Programs

The land surrounding the Farmersville and Fairmount areas, and more importantly the area between Farmersville and the Brownstown WWTF is zoned agricultural, with several parcels enrolled in Ag Security. A low-pressure sewer alternative places far less pressure to develop when compared to conventional gravity sewer and pumping station designs. The individual grinder pumps can be located to suit the needs of the individual property, whereas connecting to a gravity sewer may require plumbing modifications within the home. Also, a low-pressure sewer main is installed 4 feet below ground and follows the surface contours, so excavation is reduced. Horizontal directional drilling further reduces the amount of earth disturbance.

3.8.2. Implementation Schedule

After approval of this Act 537 Plan by West Earl Township, Lancaster Area Sewer Authority and PA DEP, it is anticipated that sewer service to the Farmersville, Fairmount and Turtle Hill Road areas will be **completed five years** after Plan Approval.

Appendix A

Asset Purchase Agreement for the Acquisition of the Assets of the Wastewater System of West Earl Sewer Authority and West Earl Township by Lancaster Area Sewer Authority

ASSET PURCHASE AGREEMENT
FOR THE ACQUISITION OF THE ASSETS OF
THE WASTEWATER SYSTEM OF
WEST EARL SEWER AUTHORITY
AND
WEST EARL TOWNSHIP
BY
LANCASTER AREA SEWER AUTHORITY

TABLE OF CONTENTS

Page

Article 1 - The Transaction	1
1.1 Incorporation of Recitals.....	1
1.2 Sale and Purchase of Assets.....	2
1.3 Description of Assets	2
1.4 Excluded Assets	4
1.5 Assumption of Contracts.....	4
1.6 Assumption of Liabilities.....	5
1.7 Unadjusted Purchase Price Without Equity in the Buyer's System; Allocation	5
1.8 Adjustments to Unadjusted Purchase Price	6
1.9 Proration of Expenses	7
1.10 Closing	7
1.11 Deliveries at Closing by Seller to Buyer.....	8
1.12 Deliveries at Closing by Buyer to Seller.....	8
1.13 Due Diligence Review and Testing	9
1.14 Third-Party Consents	9
Article 2 - Representations and Warranties	10
2.1 Representations and Warranties of Seller and Township	10
2.2 Representations and Warranties of Buyer.....	12
Article 3 - Covenants	13
3.1 Mutual Covenants of Seller and Buyer	13
3.2 Covenants of Seller	14
3.3 Non-Competition and Non-Solicitation Covenants of Seller and Township.....	17
3.4 Covenants of Buyer.....	18
3.5 Special Covenants of Buyer.....	19
3.6 Special Covenants of Seller and Township	20
Article 4 - Conditions Precedent	21
4.1 Conditions Precedent to Buyer's Obligations.....	21
4.2 Conditions Precedent to Seller's Obligations	23
Article 5 - Termination	24
5.1 Termination.....	24
5.2 Effect of Termination.....	24
Article 6 - Indemnification	25
6.1 Definition of Damages	25
6.2 Indemnification by Seller and Township.....	25
6.3 Indemnification by Buyer	25
6.4 General Indemnification Procedures.....	26

6.5	Special Indemnification from Seller Related to Real Estate, Easements and Rights of Way	27
-----	---	----

Article 7 - Survival		28
7.1	Survival	28
7.2	Limitations on Survival	28
7.3	Covenant Running with the Land	28

Article 8 - Miscellaneous		28
8.1	Schedules	28
8.2	Entire Agreement	29
8.3	Amendment	29
8.4	Extension or Waiver of Performance	29
8.5	Assignment or Delegation	29
8.6	Successors and Assigns; Binding Effect	29
8.7	Governing Law	29
8.8	Notices	29
8.9	Captions	31
8.10	Construction	31
8.11	Cumulative Remedies	31
8.12	No Waiver	31
8.13	Time of the Essence	32
8.14	Jurisdiction	32
8.15	Third Party Beneficiaries	32
8.16	Counterparts	32

ASSET PURCHASE AGREEMENT

This Asset Purchase Agreement (“**Agreement**”) is made and entered into this 10th day of June, 2020, by and between, West Earl Sewer Authority, a Pennsylvania municipal authority (“**Seller**”), West Earl Township, a Pennsylvania municipality (the “**Township**”) and Lancaster Area Sewer Authority, a Pennsylvania municipal authority (“**LASA**” or “**Buyer**”).

WHEREAS, Seller is a municipal authority incorporated under the laws of the Commonwealth of Pennsylvania (“**Pennsylvania**” or the “**Commonwealth**”), and owns, operates and maintains a wastewater treatment plant located at 161 Locust Street, Leola, PA (the “**Treatment Plant**”) and a system for the collection, transportation and treatment of wastewater in portions of the Township, Lancaster County, Pennsylvania (collectively with the Treatment Plant, the “**System**”);

WHEREAS, Township is the Seller’s incorporating municipality; and

WHEREAS, Seller owns, operates and maintains the System to serve its customers in its service area in the Township, as further depicted on Exhibit A to this Agreement attached hereto (the “**Service Area**”) and to transport wastewater from the Township and certain neighboring municipalities to disposal and treatment facilities inside the Township; and

WHEREAS, Buyer is a Pennsylvania municipal authority which owns, operates and maintains a system for the collection, transportation and treatment of wastewater; and

WHEREAS, subject to the terms and conditions set forth herein and certain covenants provided by Seller and the Township, Seller desires to sell, and Buyer desires to purchase, substantially all of the real property, assets and rights of Seller used in connection with the System.

NOW THEREFORE, in consideration of the mutual covenants, warranties, representations and agreements set forth herein, and intending to be legally bound, Seller, the Township and Buyer (referred to herein individually as a “**Party**” and collectively as the “**Parties**”) agree as follows:

Article 1 - The Transaction

1.1 Incorporation of Recitals

The recitals set forth above are incorporated herein by reference and are a part of this Agreement.

1.2 Sale and Purchase of Assets

At Closing (as defined in Section 1.10 of this Agreement), subject to the terms and conditions of this Agreement, Seller shall sell, assign, transfer, deliver and convey to Buyer and Buyer shall purchase the Assets (as defined in Section 1.3 of this Agreement) for the Purchase Price (as defined in Sections 1.7 and 1.8 of this Agreement).

1.3 Description of Assets

The term “**Assets**” means, subject to Sections 1.4 and 1.5 of this Agreement, all of Seller’s right, title and interest in, under and to all of the assets, properties and rights related to the System or used in connection with the System as a going concern of every kind, nature and description existing on the Closing Date (as defined in Section 1.10 of this Agreement), wherever such assets, properties and rights are located and whether such assets, properties and rights are real, personal or mixed, tangible or intangible.

Without limiting the generality of the foregoing, the Assets shall include the following:

(a) the Treatment Plant, including all tanks and process equipment, all mechanical and electrical equipment, pumps, pipes, valves, and related equipment and instrumentation, expressly including the following parcels of land:

1) The tract of land containing the Treatment Plant and consisting of approximately 3.0049 acres located in West Earl Township, Lancaster County, Pennsylvania known as 161 Locust Street, Leola Pennsylvania, Parcel ID No. (210) 94628-0-0000 and evidenced by a deed dated August 16, 1985, recorded in the Lancaster County Recorder of Deeds Office at Book T, Volume No. 96, Page No. 100 (“**Parcel A**”);

2) A tract of land consisting of approximately .619 acres located in West Earl Township, Lancaster County, Pennsylvania known as 3869 Oregon Pike, Leola, Pennsylvania, Parcel ID No. (210) 23067-0-0000 and evidenced by a deed dated June 10, 2005, recorded in the Lancaster County Recorder of Deeds Office at Document No. 5468681 (“**Parcel B**”);

3) A tract of land consisting of approximately .141 acres located in West Earl Township, Lancaster County, Pennsylvania known as 1 Eagle Drive, Leola, Pennsylvania, Parcel ID No. (210) 70326-0-0000 and evidenced by a deed dated June 28, 2005, recorded in the Lancaster County Recorder of Deeds Office at Document No. 5532077 (“**Parcel C**”);

4) A tract of land consisting of approximately .286 acres located in West Earl Township, Lancaster County, Pennsylvania known as 90 North Church Street, Ephrata Pennsylvania, Parcel ID No. (210) 46857-0-0000 and evidenced by a deed dated July 11, 1990, recorded in the Lancaster County Recorder of Deeds Office at Book No. 2949, Page No. 645 (“**Parcel D**”);

5) A tract of land consisting of approximately .499 acres located in West Earl Township, Lancaster County, Pennsylvania known as 90 Cocalico Creek Road, Ephrata, Pennsylvania, Parcel ID No. (210) 47254-0-0000 and evidenced by a deed dated July 11, 1990, recorded in the Lancaster County Recorder of Deeds Office at Book No. 5022, Page No. 457 (“**Parcel E**”); and

6) A tract of land consisting of approximately .3014 acres located in West Earl Township, Lancaster County, Pennsylvania known as 1741 Newport Road, Ephrata, Pennsylvania, Parcel ID No. (210) 45439-0-0000 and evidenced by a deed dated April 13, 2005, recorded in the Lancaster County Recorder of Deeds Office at Document No. 5424157 (“**Parcel F**”),

each together with any improvements situate thereon, all easements, rights-of-way, privileges, licenses and other rights and benefits belonging to, running with the owner of, or in any way relating to the aforesaid Parcel A, Parcel B, Parcel C, Parcel D, Parcel E and Parcel F (collectively, the “**Real Estate**”).

(b) Mains, pipes, valves, meters, service wyes in mains, lateral lines running from the main to the curb-line of serviced properties (but excluding sewer service lines and house connections extending past the curb-line of a property), and associated appurtenances, used in connection with the System together with existing record drawings of such facilities;

(c) Equipment located therein together with existing record drawings, operations and maintenance manuals, warranty information and any other available documentation with respect to the equipment located therein, and any available spare parts;

(d) Existing easements and rights of way for System facilities and existing rights of ingress and egress to said facilities;

(e) Seller’s existing licenses, permits and authorizations as set forth on Schedule 1.3(e), to the extent that such licenses, permits and authorizations may be transferred consistent with the applicable law;

(f) Existing customer billing and payment records;

(g) Rights and obligations of the Seller pursuant to the Assumed Contracts (as defined in Section 1.5(a));

(h) To the extent assignable, as of the Closing Date, (i) any prepaid financial security or escrow accounts related to sewer projects in the Township, and (ii) any grants related to sewer projects in the Township;

(i) Those assets specifically listed on Schedule 1.3(i); and

(j) Any inventory or supplies belonging to Seller necessary for the operation of the System, whether located at the Treatment Plant or in the Township’s possession.

Buyer acknowledges that most of the easements and rights of way for System facilities exist by virtue of recorded subdivision and land development plans or lie in public road beds and therefore may not be evidenced by recorded easements.

Except as otherwise provided in this Agreement, all assets are sold “AS IS”.

1.4 Excluded Assets

(a) Notwithstanding the foregoing, the Assets shall not include any accounts receivable (billed and unbilled), including but not limited to reimbursements due to the Seller up to the Closing Date, as further described in Section 1.8(a); these items are collectively referred to herein as the “**Excluded Assets**”.

(b) The Parties hereby acknowledge that the Seller shall remain liable for all accounts payable (billed and unbilled) for services rendered and goods and materials delivered up to the Closing Date.

(c) The Assets shall not include those assets specifically listed on Schedule 1.4.

1.5 Assumption of Contracts

(a) Assumed Contracts. To the maximum extent permitted by law, Seller shall assign, and Buyer shall assume, the contractual rights, duties, liabilities and obligations of Seller with respect to the contracts, agreements and commitments relating to the System, and all extension and reimbursement agreements to which the Seller is a party (the “**Extension and Reimbursement Agreements**”), all such contracts, agreements and commitments being more specifically listed or described in Schedule 1.5(a) (“**Assumed Contracts**”). Without limiting the generality of the foregoing, the Seller will assign, and the Buyer will assume, all Extension and Reimbursement Agreements previously executed by the Seller and the Buyer shall be responsible for any and all reimbursements due after Closing pursuant to said assigned Extension and Reimbursement Agreements. Buyer shall not assume any liabilities or obligations for any breach or default by, or payment obligations of, Seller under the Assumed Contracts occurring or arising on or prior to the Closing Date, or for any obligations set forth in contracts, agreements or commitments not disclosed to Buyer on Schedule 1.5(a).

(b) Excluded Contracts. Without limiting the generality of the foregoing, Buyer shall specifically not assume any liabilities or obligations for any contracts, agreements or commitments listed on Schedule 1.5(b) (“**Excluded Contracts**”).

1.6 Assumption of Liabilities

(a) Except to the extent otherwise provided herein, and without limitation of the foregoing, Buyer shall assume and agree to pay, discharge and/or honor the following liabilities and obligations of Seller: (i) all rights, duties, liabilities and obligations of Seller under the Assumed Contracts not required to be performed prior to the Closing Date (including, but not limited to, the obligation to pay reimbursements due after Closing pursuant to the assigned Extension and Reimbursement Agreements); (ii) any change orders on projects in progress that were entered into between the date hereof and the Closing Date and that were requested by Buyer and approved by Seller before the Closing Date; (iii) any change orders that are approved or requested by Buyer after the Closing Date; (iv) all prepaid connection permits, where the connection has not been made on or before Closing as set forth on Schedule 1.6(a)(iv); and (v) all of the Seller's liabilities and obligations arising out of any Corrective Action Plans or Consent Orders as identified in Schedule 1.6(a)(v) (collectively, the "**Assumed Liabilities**").

(b) Seller shall retain and discharge: (i) all rights, duties, liabilities and obligations required to be performed under the Excluded Contracts; (ii) all rights, duties, liabilities and obligations of Seller under the Assumed Contracts required to be performed prior to the Closing Date; (iii) any change orders on projects in progress that were approved by Seller but were not requested by Buyer before the Closing Date; (iv) ongoing regulatory obligations regarding waste under agreements with any other municipalities; (v) all liabilities and obligations of Seller arising out of the ownership, operation or use of the Assets or System not disclosed under this Agreement; and, (vi) all the liabilities and obligations arising out of the ownership, operation or use of the Assets or System prior to the Closing Date, excepting only the Assumed Liabilities ("**Retained Liabilities**").

1.7 Unadjusted Purchase Price Without Equity in the Buyer's System; Allocation

(a) The total purchase price for the Assets to be paid by Buyer to Seller, Without Equity (as defined below), is the amount of Seven Million and Five Hundred Thousand and 00/00 Dollars (\$7,500,000.00) (the "**Unadjusted Purchase Price**"), which shall be subject to adjustment as set forth in Section 1.8 of this Agreement. The Unadjusted Purchase Price, after making the adjustments provided for in Section 1.8, shall be referred to as the Purchase Price ("**Purchase Price**"). For the purpose of this Agreement, "**Without Equity**" means the Seller shall not become a member municipality of the Lancaster Area Sewer Authority.

(b) The Parties agree that the portion of the Purchase Price allocated to the Real Estate as a whole shall be determined by an appraiser selected and paid for by the Buyer and who is satisfactory to the Seller and that such appraiser shall provide the Parties with a valuation of the Real Estate based on the fair market value of the Real Estate's land and improvements (the "**Real Estate Appraised Value**") following the execution of this Agreement. Once the Parties have received the Real Estate Appraised Value, they agree to jointly prepare and execute a Purchase Price Allocation Agreement setting forth the Real Estate Appraised Value and the value allocated to the remaining Assets not including the Real Estate, which shall be equal to the Purchase Price minus the Real Estate Appraised Value (the "**Purchase Price Allocation Agreement**").

1.8 Adjustments to Unadjusted Purchase Price

(a) The Purchase Price to be paid to Seller shall be determined by reducing and/or increasing the Unadjusted Purchase Price, on a dollar for dollar basis, as follows:

- 1) Reduce the Unadjusted Purchase Price by the amount of expenses for which Seller is responsible under Section 1.9 of this Agreement;
- 2) Reduce the Unadjusted Purchase Price by the amount of any customer payments received by Seller prior to Closing, for sewer service (but not prepaid connection permits) to be rendered after Closing, including the prorated portion of any yearly capacity reservation fee paid to Seller by a customer for the portion of the capacity reservation year following the Closing Date;
- 3) Increase the Unadjusted Purchase Price by the amount of any customer charges to be billed by Buyer after Closing for sewer service rendered by Seller prior to Closing; and
- 4) Increase the Unadjusted Purchase Price by the amount of the verifiable cost to Seller of any capital improvements which Seller makes to the System after the date first written above and prior to Closing; provided, that any such capital improvement is approved in writing by Buyer. This Subsection shall not apply to repairs, replacements and items occurring in the normal course of business to provide adequate service to Seller's customers. A list of such capital improvements which will cause the Unadjusted Purchase Price to be adjusted, shall be delivered by Seller to Buyer at least five (5) business days prior to Closing.

(b) The Parties hereto acknowledge that no adjustment will be made to the Unadjusted Purchase Price for connection or tapping fees paid to the Seller prior to Closing for sewer permits, even if the customer or property has not been connected to the System by the time of Closing. The Buyer shall honor such pre-paid permits as demonstrated in Schedule 1.6(a)(iv), and shall not charge any additional fee to such customers for connecting to the System after Closing.

(c) The Parties hereto also acknowledge that no adjustment will be made to the Unadjusted Purchase Price for reimbursements that may be due after Closing, to persons who constructed extensions or who paid the Seller prior to Closing for extensions constructed by or dedicated to the Seller prior to Closing. Agreements with respect to such reimbursement owed by the Seller to such persons are set forth on Schedule 1.5(a).

(d) The Parties acknowledge that the Unadjusted Purchase Price specified in Section 1.7 was calculated on the basis of a twenty (20) year cash flow model reduced to present worth, with the assumption that there will be zero (0) new connections within the Seller's service area over the twenty (20) years. In consideration of the value of growth within the Township's municipal boundaries, Buyer agrees that, from the Closing Date until the 10th anniversary thereof (the "**Reimbursement Period**") to pay Seller a growth reimbursement, calculated in

accordance with Schedule 1.8(d) for any connection within the municipal boundaries of the Township other than those properties which are set forth on Schedule 1.6(a)(iv). Seller's right to receive growth reimbursement shall terminate absolutely at the end of the Reimbursement Period.

(e) Notwithstanding the foregoing, the Parties acknowledge and agree that (i) reimbursements under subsection (d) above shall be owed to Seller only for connections made to extensions or other facilities which are paid for entirely by a developer or other third party, and (ii) no reimbursement shall be owed to Seller for connections to extensions or other facilities which are financed, in whole or in part, by the Buyer.

(f) Any growth reimbursement due from Buyer to Seller under subsection (d) above shall be calculated and paid semi-annually on the first business day of November for the prior six (6) month period beginning April 1 and ending September 30 and the first business day of May for the six (6) month period beginning October 1 and ending March 31 (the "**Reimbursement Payment**"). The Reimbursement Payment made by Buyer to Seller shall include a list of the connections to the System which qualify for reimbursement under subsection (d) above, and the number of EDU's connected to the System for each connection during the applicable six (6) month period.

(g) The covenants in subsections 1.8(f) and (g) and Schedule 1.8(d) shall survive Closing and remain in effect for the Reimbursement Period.

1.9 Proration of Expenses

The Parties hereto agree that the following expenses shall be calculated and pro-rated as of the Closing Date, with Seller responsible for such expenses for the period up to the Closing Date, and Buyer to be responsible for the period on and after the Closing Date:

(a) Electric, fuel, gas, telephone, and other utility charges, in each case, to the extent relating to the System; and

(b) Rentals and other charges under the Assumed Contracts pursuant to Section 1.5(a) of this Agreement.

1.10 Closing

The date of closing of this transaction ("**Closing Date**") shall occur on or before October 30, 2020, or such other date mutually agreed to by the Parties in writing. Closing is conditional on the satisfaction (or waiver) of the conditions to Closing set forth in Article 4 of this Agreement, and the mutual agreement of the Parties, by supplement to this Agreement, of the final schedules and exhibits to this Agreement if such schedules and exhibits are not in final form at the time this Agreement is executed.

On the Closing Date (at a time of day to be mutually agreed upon by the Parties), subject to the terms and conditions of this Agreement, the acts of closing pertaining to this transaction ("**Closing**") shall occur and title and possession of the Assets shall be sold, assigned, transferred, delivered and conveyed to Buyer.

The Closing shall take place at the offices of the Township, or such other location as the Parties may mutually agree.

1.11 Deliveries at Closing by Seller to Buyer

Subject to the terms and conditions of this Agreement, at the Closing, Seller shall deliver (or cause to be delivered) to Buyer:

- (a) Bills of sale and instruments of assignment to the Assets, duly executed by Seller;
- (b) Deeds for the conveyance of any interests in real property;
- (c) All existing easements for, or one or more assignments of the existing easements, and/or rights-of-way for real property on which System facilities are located (including a blanket assignment of all easements or rights-of-way shown on recorded plans), and for ingress and egress to such property, duly executed and acknowledged by Seller, and in recordable form;
- (d) Seller's Closing Certificates pursuant to Section 4.1(d) of this Agreement;
- (e) All agreements, existing record drawings, operations and maintenance manuals for equipment and other documents required by this Agreement;
- (f) Seller's updated customer billing information, including the meter reading information, where applicable, pursuant to Section 3.2(g) of this Agreement;
- (g) Seller's Opinion of Counsel pursuant to Section 4.1(j) of this Agreement;
- (h) the Purchase Price Allocation Agreement;
- (i) A receipt for the payment of the Purchase Price;
- (j) All such other instruments of conveyance as shall be, in the reasonable opinion of Buyer and its counsel, necessary to transfer to Buyer the Assets in accordance with this Agreement and where necessary or desirable, in recordable form; and
- (k) Consents of third parties (wherever required) to assignment of the Assumed Contracts.

1.12 Deliveries at Closing by Buyer to Seller

Subject to the terms and conditions of this Agreement, at the Closing, Buyer shall deliver (or cause to be delivered) to Seller:

- (a) A wire transfer of immediately available funds in an amount equal to the Purchase Price to such account (or accounts) as shall be designated by Seller;
- (b) Buyer's Opinion of Counsel pursuant to Section 4.2(h) of this Agreement;
- (c) Buyer's Closing Certificates pursuant to Section 4.2(c) of this Agreement;

- (d) All agreements and other documents required by this Agreement; and
- (e) All such other documents that are, in the reasonable opinion of Seller and its counsel, necessary to consummate the transactions contemplated by this Agreement.

1.13 Due Diligence Review and Testing

Buyer and, where applicable, Seller, agree, promptly after the execution of this Agreement, to take the following steps:

(a) Buyer will, promptly after execution of this Agreement, arrange for all environmental testing of the real property and all field inspections and testing of the System facilities desired by Buyer prior to Closing. Buyer will cause such testing and inspection to proceed promptly and to be completed within sixty (60) days of the date this Agreement is executed (or such shorter time period as the Buyer may consent to). Seller agrees to give Buyer and its representatives access to the real property and System facilities for such purposes.

(b) Buyer, with cooperation of Seller, will contact the Pennsylvania Department of Environmental Protection (“**DEP**”) to arrange for and to meet with DEP representatives to obtain DEP approval to assign all permits held by Seller to Buyer in connection with the System, such approval to be received within sixty (60) days of the date this Agreement is executed (or such shorter time period as the Buyer may consent to).

(c) Buyer will make such review of the easements, rights-of-way and rights-of-way shown on recorded plans as Buyer deems necessary. Seller agrees to provide Buyer and its representatives with access to such documents, during normal business hours, promptly after the execution of this Agreement and Buyer shall have up to sixty (60) days (or such shorter time period as the Buyer may consent to) to make such review after such documents or access to such documents are made available to Buyer.

(d) At the end of the due diligence review and testing described in this Section 1.13, Buyer will identify and disclose to Seller any issues or concerns arising out of the review and testing and which Buyer has been unable to resolve. The Parties agree thereafter to negotiate in good faith to resolve such issues. If the Parties cannot resolve such issues to their mutual satisfaction, Buyer shall have the right to terminate this Agreement as provided in Article 5.

1.14 Third-Party Consents.

To the extent that, as the case may be, Seller or the Township’s rights under any contract constituting an Asset, or under any other Asset, may not be assigned to Buyer without the consent of another person which has not been obtained by Closing, this Agreement shall not constitute an agreement to assign the same if an attempted assignment would constitute a breach thereof or be unlawful, and Seller or Township, at its expense, shall use its reasonable best efforts to obtain any such required consent(s) as promptly as possible following Closing. If any such consent shall not be obtained or if any attempted assignment would be ineffective or would impair Buyer’s rights under the Asset in question so that Buyer would not in effect acquire the benefit of all such rights, Seller or Township, to the maximum extent permitted by law and the Asset, shall act after the Closing as Buyer’s agent in order to obtain for it the benefits thereunder

and shall cooperate, to the maximum extent permitted by law and the Asset, with Buyer in any other reasonable arrangement designed to provide such benefits to Buyer. Notwithstanding any provision in this Section 1.14 to the contrary, Buyer shall not be deemed to have waived its rights under Section 4.1(h) hereof unless and until Buyer either provides written waivers thereof or elects to proceed to consummate the transactions contemplated by this Agreement at Closing. In the event that Seller or Township discovers a contract(s) after Closing which it believes needs to be assigned to Buyer to permit Buyer to utilize the Assets as contemplated by this Agreement, then Seller or Township shall notify Buyer and Buyer and Seller or Township agree to attempt to reach a mutually satisfactory agreement regarding the assignment of such contract(s).

Article 2 - Representations and Warranties

2.1 Representations and Warranties of Seller and Township

Seller and Township, each in their individual capacities, represent and warrant to Buyer as follows:

(a) **Organization and Good Standing.** Seller is a municipal authority incorporated and in good standing under the laws of the Commonwealth of Pennsylvania. Township is a township incorporated and in good standing under the laws of the Commonwealth of Pennsylvania.

(b) **Authorization and Enforceability.** Seller and Township each have the full power and lawful authority to execute this Agreement and to consummate and perform the transactions contemplated hereby and have duly and validly authorized the execution of this Agreement (including such other necessary agreements, instruments and documents in connection herewith) and all necessary proceedings.

This Agreement constitutes the legal, valid and binding obligation of each of Seller and Township, enforceable against each in accordance with its terms, except as such enforceability may be limited by applicable laws relating to bankruptcy, insolvency, fraudulent conveyance, reorganization or affecting creditors' rights generally.

(c) **No Violations of Laws or Agreements.** Neither Seller nor Township's performance of this Agreement, as of the Closing Date, shall (i) require any further approvals or consents from any other party; (ii) violate any law, ordinance or regulation; or, (iii) conflict with or result in a breach of, or constitute a default under, any contract, lease, permit or other agreement or commitment to which Seller or Township, as the case may be, is a party.

(d) **Brokerage.** Seller has not made any agreement or taken any other action which might cause any person to become entitled to a broker's or finder's fee or commission as a result of the transactions contemplated hereunder which could result in liability to Buyer.

(e) **Title to Assets.** Seller owns and shall convey (subject to matters of public record other than mortgages, liens and security interests): (i) good and valid title to any real property, easement or right of way included in the Assets and required for the operation and maintenance of the System, including the Treatment Plant; and (ii) good title to, or valid interest in, any personal property included in the Assets. Except as disclosed in Schedule 2.1(e), all sewer lines and appurtenances to be conveyed to Buyer are located in land owned by the Seller or in

easements or rights of way owned by Seller, or are depicted on subdivision or land development plans of record or are in public streets dedicated to Seller or the Commonwealth, and Seller shall on the Closing Date, convey such real property, rights of way or easements to Buyer.

Additionally, Buyer and Seller agree that:

- 1) the exceptions disclosed on Schedule 2.1(e), if any, constitute easements, rights of way and real property interests which are “Necessary Easements, Rights of Way and Real Property” as set forth in Section 6.5(a) and, therefore, Seller covenants and agrees to acquire for the benefit of Buyer and assign to Buyer all Necessary Easements, Rights of Way and Real Property disclosed on Schedule 2.1(e) within ninety (90) days following Closing;
- 2) the notice provision required by Section 6.5(b) is hereby satisfied with respect to the Necessary Easements, Rights of Way and Real Property disclosed on Schedule 2.1(e);
- 3) in the event that Seller does not acquire for the benefit of Buyer and assign to Buyer all of the Necessary Easements, Rights of Way and Real Property set forth on Schedule 2.1(e) within such ninety-day period, then Buyer shall be entitled to proceed with respect thereto as set forth in Section 6.5(c); and
- 4) nothing in this Section 2.1(e) shall prevent Buyer from enforcing Section 6.5 with respect to any other Necessary Easements, Rights of Way and Real Property which are not set forth on Schedule 2.1(e).

The Assets will be conveyed in “AS IS” condition, free and clear of all liens, pledges and security interests, excepting only the following: (i) those in respect of pledges or deposits under workmen’s compensation laws or similar legislation; (ii) those for property taxes, assessments or governmental charges not yet subject to penalties for nonpayment; and, (iii) those affecting real property, which is owned by third parties, containing easements or rights of way relating to the Assets.

(f) Seller has all necessary licenses and permits to own and operate the System and is in compliance with all agreements, directives, corrective action plans or other enforcement actions or correspondence issued by the Pennsylvania Department of Environmental Protection (“**DEP**”) and/or the United States Environmental Protection Agency (“**EPA**”) or any other regulatory agency of the federal government or the Commonwealth, or any local regulatory agency except as disclosed on Schedule 2.1(f). Copies of all such agreements, directives, corrective action plans or related correspondence are attached to Schedule 2.1(f).

(g) Except as otherwise disclosed on Schedule 2.1 (g), Seller owes no third party consideration for the use of the easements or rights of ways or assets to be conveyed to Seller excepting only the obligation to repair or restore any property damaged while utilizing the easements or rights of way or compensating the owner of the land on which such rights of way or easements are located the fair market value for such damage during use of the rights of way or easements.

(h) Except as disclosed on Schedules 2.1(f) and 2.1 (h), the real estate owned or occupied by Seller to be conveyed to Buyer, including the Real Estate, is not and has not been, to the best of Seller's knowledge, contaminated by Seller, nor has it ever been the subject of environmental clean-up or remediation, while in Seller's possession. Except as disclosed on Schedules 2.1 (f) and 2.1 (h), there are no proceedings affecting any of such properties pending or, to the best of Seller's knowledge threatened, which could have an adverse effect on the present or future use of any such property for the purposes for which it was acquired or the purpose for which it is used. Except as disclosed on Schedules 2.1 (f) and 2.1 (h), Seller has not received any notice from any governmental agency or other party seeking any information or alleging any liability with regard to the real property occupied or used by Seller and to be conveyed to Buyer, with regard to any off-site environmental conditions. There are no unrecorded agreements relating to the Real Estate which will survive Settlement.

For the purposes of this Agreement, to the best of Seller's knowledge means the knowledge of the Seller's current Board Members and Engineer and information Seller has relied upon from the current Township Manger and staff or information which is available by reviewing the Seller's files and records relating to the real property to be conveyed to Buyer.

(i) Seller represents that:

1) Parcel A is presently zoned A (Agricultural) and is used as a site for sewage treatment;

2) Parcel B is presently zoned A (Agricultural) and is used as a pump station site;

3) Parcel C is presently zoned R-2 (Residential High) and is used as a pump station site;

4) Parcel D is presently zoned R-1 (Residential low) and is used as a pump station site;

5) Parcel E is presently zoned I (Industrial) and is used as a pump station site;
and

6) Parcel F is presently zoned I (Industrial) and is used as a pump station site.

(j) Seller warrants that there are no existing leases or rental agreements on the Real Estate. While Seller has agreements with neighboring municipalities to provide sewage collection and transportation services, Seller provides no direct sewer service to customers outside the geographic boundaries of the Service Area, other than as set forth in the customer information to be provided under Section 3.2(g).

2.2 Representations and Warranties of Buyer

Buyer represents and warrants to Seller as follows:

(a) **Organization and Good Standing.** Buyer is a Pennsylvania municipal authority duly organized and validly existing and in good standing under the laws of the Commonwealth of Pennsylvania, and is legally authorized to own and operate sanitary sewer systems in Lancaster County, Pennsylvania.

(b) **Authorization and Enforceability.** Buyer has the full power and lawful authority to execute this Agreement and to consummate and perform the transactions contemplated hereby and has duly and validly authorized the execution of this Agreement (including such other necessary agreements, instruments and documents in connection herewith) and all necessary proceedings.

This Agreement constitutes the legal, valid and binding obligation of Buyer, enforceable against Buyer in accordance with its terms, except as such enforceability may be limited by applicable laws relating to bankruptcy, insolvency, fraudulent conveyance, reorganization or affecting creditor's rights generally.

(c) **No Violations of Laws or Agreements.** Buyer's performance of this Agreement, as of the Closing Date, shall not (i) require any further approvals or consents from any other party; (ii) violate any law, ordinance or regulation; or, (iii) conflict with or result in a breach of any contract, lease or permit to which Buyer is a party.

(d) **Brokerage.** Neither Buyer nor any of its affiliates has made any agreement or taken any other action which might cause any person to become entitled to a broker's or finder's fee or commission as a result of the transactions contemplated hereunder which could result in liability to Seller.

Article 3 - Covenants

3.1 Mutual Covenants of Seller and Buyer

The Parties mutually covenant and agree that, except as otherwise approved by each other Party in advance and in writing:

(a) **Cooperation.** The Parties shall cooperate and shall cause their respective officers, employees, agents and representatives to cooperate to allow Buyer to complete its due diligence review of the System and the Assets prior to Closing and to ensure the orderly transition of the Assets from Seller to Buyer and to minimize any disruption to the customers of the System from the transactions contemplated by this Agreement.

The Parties shall furnish to the other Parties any necessary information or reasonable assistance as the other Parties may request in connection with the consent, approval or authorization of, or registration with or filing or submission to any third party (including any governmental or regulatory agency).

(b) **Further Assurances.** The Parties shall cooperate and deliver such instruments and take such action as may be reasonably requested by the other Parties in order to carry out the provisions and purposes of this Agreement and the transactions contemplated hereby.

After the Closing, the Parties shall take such other actions and execute such other documents as may be reasonably requested by the other Parties (i) in order to transfer more effectively to Buyer or to put Buyer more fully in possession of any of the Assets; or, (ii) in connection with the preparation of any tax return, audit or examination by any governmental or taxing authority

(c) Expenses. The Parties shall each bear their own respective accounting, and other expenses incurred in connection with the transactions contemplated by this Agreement.

(d) Unbilled Service. Seller shall maintain its normal billing cycle prior to Closing. After Closing, Seller shall issue bills to the customers transferred from Seller to Buyer for sewer service which was (i) provided by Seller to the transferred customers prior to Closing; (ii) provided during the billing period in which Closing occurs; and, (iii) not previously billed by Seller (“**Unbilled Service**”).

(e) The cost of preparation of the Deed, examination of title, and title insurance shall be paid by Buyer. The selling, conveying and granting of the Real Estate shall be by special warranty deed.

3.2 Covenants of Seller

Seller hereby covenants and agrees that, except as otherwise approved in advance in writing by Buyer:

(a) Continuation of Business. Seller shall operate the System until the Closing Date in the ordinary course of business, consistent with past practice, so as to preserve the relationships of the System with suppliers, customers and others. From the date this Agreement is executed, until the Closing Date, Seller shall maintain its rates in effect on the date this Agreement is executed, which rates are set forth on Schedule 3.2(a).

During the continued operation of the System by the Seller, the Seller will use reasonable efforts to operate the System in compliance with all applicable rules and regulations consistent with past practice. Seller will keep Buyer apprised of any violations, including any such violation that may result in an actual (and/or threatened) action, proceeding, or investigation by or before any court, arbitrator, governmental body or agency, and shall not commit to any settlement or resolution of any such violations without the knowledge and written consent of Buyer.

If such action, proceeding or investigation shall require capital additions or improvements to the System which have not been disclosed to Buyer on Schedule 3.2(e), Buyer shall have the right to reduce the Purchase Price to take into account the cost of such capital additions or improvements.

(b) Access. Seller shall (i) give to Buyer and its representatives, from the date first written above until the Closing Date, full access during normal business hours, upon reasonable notice, to all the properties, books, data, contracts, agreements, documents and records connected to the Assets and/or the System; and, (ii) make available to Buyer and its representatives all other information with respect to the Assets and/or the business and affairs of the System as Buyer

may reasonably request. Provided, such access does not interfere with Seller's operation of the System and the Assets in the ordinary course of business.

(c) **FIRPTA Certificate. [Reserved].**

(d) **Contractual Consents.** Seller shall, at all times, use its best efforts and diligently pursue all approvals, authorizations and consents of transfer to all material transferable or assignable contracts, agreements, licenses and permits to the extent specifically required by the terms of such contracts, agreements, licenses or permits.

(e) **Projects in Progress.** The capital improvements projects and/or studies which may still be in progress at the time of Closing, and the costs associated with such projects and/or studies, are listed on Schedule 3.2(e).

Should there be any capital improvements projects and/or studies still in progress at the time of Closing, Seller shall place into an escrow account for each project the balance of the contracted project costs including retainage held and including any change orders approved by Seller up to the Closing Date. Payments on the contracts will be made by Buyer from the escrow account after the Closing. Prior to Closing, Seller shall be required to approve any and all change orders that are known to be necessary at that time in order to complete the scope of each capital improvement project in progress at or prior to Closing.

Any change order requested by Buyer that changes the scope of the project and is not required to be approved by Seller in the normal course of business prior to Closing and all change orders generated after the Closing will be the responsibility of Buyer to pay. After the Closing, it will be the responsibility of Buyer to complete any project contract and to approve any change orders. Seller will not be responsible for any change orders approved by Buyer. Any costs incurred for the close out of the project not specifically included in the escrow account will also be the responsibility of Buyer. Prior to the Closing, the Parties will calculate and agree to the amounts of the outstanding balances on projects in progress before the escrow account is established.

(f) **Regulatory Consents.** To the extent applicable, Seller shall, at all times, use its best efforts and diligently pursue all approvals, authorizations, consents and permits required to be obtained by Seller for Seller to sell the Assets.

Seller shall (i) as promptly as practicable, make or cause to be made such filings and submissions under laws, rules and regulations applicable to it as may be required for Seller to sell the Assets pursuant to the terms of this Agreement; and, (ii) keep Buyer apprised of the status of any filing or submission to any such governmental or regulatory agency.

Buyer agrees to provide its reasonable cooperation to Seller to obtain such consents upon Seller's request.

(g) **Customer Information.** Within fifteen (15) days of the execution of this Agreement, Seller shall provide Buyer with a list of customers, including names, service addresses and billing addresses and account information including bill and payment history and account balances. This customer information shall be updated and provided to Buyer at Closing

so as to be true and correct on the Closing Date. Commencing immediately after the execution of this Agreement, Seller will allow Buyer and its software vendor, such access to all customer information as may be necessary or desirable to convert such information to an electronic format which is accessible by Buyer. Buyer will pay all conversion costs required to make such information electronically accessible to Buyer.

(h) Prior to Closing, the Township's Board of Supervisors shall enact and continuously maintain in effect following Closing an ordinance to require property owners to connect to and use the System in accordance with the authorization in the Second Class Township Code and to require landowners connected to the System to comply with Buyer's Rules and Regulations (the "**Mandatory Connection Ordinance**").

(i) Township agrees, at all times after execution of this Agreement and at all times after Closing, that it will require, as a condition to issuance of a building permit in the Township (in those instances where such permit relates to a project or property requiring public sewer under the Township ordinance), that the party applying for a building permit shall have obtained a sewer connection permit and provided evidence of such sewer connection permit to the Township at the time the building permit is applied for.

(j) Future Capital Projects. Attached as Schedule 3.2(j) is a list of Future Capital Projects anticipated by Seller to its System and those capital projects contractually obligated by Seller to others.

(k) Seller shall not create or permit to be created any lien, easement, encumbrance or other matter adversely affecting title to the Real Estate. Seller shall deliver good and marketable fee simple title to the Real Estate, free and clear of all liens and encumbrances but subject to recorded rights-of-way and easements. To the extent such liens or encumbrances are created by Seller, Seller shall indemnify Buyer and hold it harmless from any liability thereunder. All contractors, subcontractors and other persons or entities furnishing work, labor, materials or supplies to Seller for the Real Estate have been paid in full and there are no claims against Seller or the Real Estate in connection therewith. Title to the Real Estate shall be insurable as good and marketable and free and clear at ordinary rates by any reputable title insurance company licensed to do business in the Commonwealth of Pennsylvania. Buyer shall obtain a title search/commitment within thirty (30) days of the date of this Agreement. If there are title matters unacceptable to Buyer, Buyer shall promptly notify Seller of these title matters. Seller shall then have twenty (20) days to address these title matters. If Seller elects not to address these title matters, Seller shall notify Buyer in writing. Buyer shall have fifteen (15) days from the receipt of such notice from Seller to terminate this Agreement or Buyer shall be deemed to have accepted the title subject to these title matters not addressed by Seller.

(l) Seller shall not enter into any new leases for the Real Estate from the date of this Agreement until the Closing Date.

(m) All risk of loss or damage to the Real Estate or taking of the Real Estate or any part thereof by eminent domain shall be on Seller until the Settlement date. Seller shall maintain the present level of Seller's fire and extended coverage insurance during the term of the Agreement.

(n) From the date hereof until Closing, Seller shall be responsible, at Seller's sole expense, to maintain the Real Estate in its current condition, reasonable wear and tear excepted. Such maintenance shall include, but not be limited to, weed control on the Real Estate.

3.3 Non-Competition and Non-Solicitation Covenants of Seller and Township.

(a) The following definitions apply to this Section 3.3:

"Affiliates" means Seller or Township's relationship with one or more persons or entities, and when used, means any individual, trust, corporation, partnership, limited partnership, limited liability company or other business association or entity, court, governmental body or governmental agency that, directly or indirectly, through one or more intermediaries, is created by, controls or is controlled by, or is under common control with, the Seller or Township, including any successor, assign or transferee to Seller's NPDES Permit other than Buyer.

"Restricted Business" means Seller or the Township's (i) use of the System, or (ii) any business or activity that involves the receipt or treatment of sewage or trucked waste.

"Territory" means within the geographical boundaries of the Township.

(b) For a period of twenty (20) years commencing on the Closing Date (the **"Restricted Period"**), Seller and the Township each shall not, and shall not permit any Affiliate directly or indirectly, to (i) engage in or assist others in engaging in the Restricted Business in the Territory; (ii) have an interest in any person or entity that engages directly or indirectly in the Restricted Business in the Territory in any capacity, including as an incorporator, partner, shareholder, member, principal, agent, trustee or consultant; or (iii) intentionally interfere in any material respect with the business relationships (whether formed prior to or after the date of this Agreement) between Buyer and customers or suppliers of Buyer.

(c) During the Restricted Period, Seller and the Township each shall not, and shall not permit any Affiliate to, directly or indirectly, hire or solicit any employee of Buyer or encourage any such employee to leave such employment or hire any such employee who has left such employment, except pursuant to a general solicitation which is not directed specifically to any such employees; *provided that* nothing in this Section 3.3(c) shall prevent Seller and the Township or any Affiliate from hiring (i) any employee whose employment has been terminated by Buyer; or (ii) after one (1) year from the date of termination of employment, any employee whose employment has been terminated by the employee.

(d) During the Restricted Period, Seller and the Township each shall not, and shall not permit any Affiliates to, directly or indirectly, solicit or entice, or attempt to solicit or entice, any customers of the Buyer or potential customers of Buyer for purposes of diverting their business or services from Buyer.

(e) Seller and the Township each acknowledge that a breach or threatened breach of this Section 3.3 would give rise to irreparable harm to Buyer, for which monetary damages would not be an adequate remedy, and hereby agrees that in the event of a breach or a threatened breach by Seller or Township of any such obligations, Buyer shall, in addition to any and all other rights and remedies that may be available to it in respect of such breach, be entitled to

equitable relief, including a temporary restraining order, an injunction, specific performance and any other relief that may be available from a court of competent jurisdiction (without any requirement to post bond).

(f) Seller and the Township each acknowledge that the restrictions contained in this Section 3.3 are reasonable and necessary to protect the legitimate interests of Buyer and constitute a material inducement to Buyer to enter into this Agreement and consummate the transactions contemplated by this Agreement. In the event that any covenant contained in this Section 3.3 should ever be adjudicated to exceed the time, geographic, product or service, or other limitations permitted by applicable law in any jurisdiction, then any court is expressly empowered to reform such covenant, and such covenant shall be deemed reformed, in such jurisdiction to the maximum time, geographic, product or service, or other limitations permitted by applicable law. The covenants contained in this Section 3.3 and each provision hereof are severable and distinct covenants and provisions. The invalidity or unenforceability of any such covenant or provision as written shall not invalidate or render unenforceable the remaining covenants or provisions hereof, and any such invalidity or unenforceability in any jurisdiction shall not invalidate or render unenforceable such covenant or provision in any other jurisdiction.

3.4 Covenants of Buyer

Buyer hereby covenants and agrees that, except as otherwise approved in advance in writing by Seller:

(a) **Regulatory Consents.** Buyer shall, at all times, use its best efforts and diligently pursue all approvals, authorizations, consents and permits required to be obtained to consummate the transactions contemplated by this Agreement, including, without limitation, the approval of every regulatory agency of federal, state or local government that may be required.

Buyer shall (i) as promptly as practicable, make or cause to be made such filings and submissions under laws, rules and regulations applicable to it as may be required to consummate the terms of this Agreement; and, (ii) keep Seller apprised of the status of any filing or submission to any governmental or regulatory agency.

(b) **Maintenance of Books and Records.** No files, books, documents or records existing on the Closing Date and relating to the Assets or the operation of the System shall be destroyed by Buyer for a period of five (5) years after the Closing Date without giving Seller at least thirty (30) days prior written notice, during which time Seller shall have the right to examine (during normal business hours) and copy (at Seller's expense) such files, books, documents or records.

(c) **Confidentiality.** Until the Closing Date, Buyer will maintain in confidence, and will cause the directors, officers, employees, agents and advisors of Buyer to maintain in confidence, and not use to the detriment of Seller, any written, oral or other information that is designated by Seller to be private, proprietary privileged or obtained in confidence from Seller in connection with this Agreement or the transactions contemplated by this Agreement unless (i) such information is already known to Buyer or to others not bound by a duty of confidentiality; (ii) such information becomes publicly available through no fault of Buyer; (iii) the use of such

information is necessary or appropriate in making any filing or obtaining any approval, authorization or consent required for the consummation of the transactions contemplated by this Agreement; (iv) the furnishing or use of such information is required by legal proceedings; or, (v) Seller otherwise consents to the use of such information.

Except as otherwise provided in this Agreement, for purposes of this Section, the following information is designated by Seller as private, proprietary, privileged or obtained in confidence from Seller: (i) information not required to be disclosed by Seller under Pennsylvania's Right-to-Know Act; (ii) information entitled to confidential treatment under statute, regulation, case law, administrative or court order, or other legal authority; and (iii) any other information designated or identified, in writing, by Seller as private, proprietary, privileged or confidential.

If this Agreement is terminated pursuant to Article 5 of this Agreement, Buyer will return such private, proprietary, privileged or confidential information to Seller. In the event of a breach or threatened breach by Buyer of this Section 3.4(c), Seller shall be entitled to an injunction restraining Buyer from utilizing or disclosing, in whole or in part, such information.

Nothing in this Section 3.4(c) shall be construed as prohibiting Seller from pursuing any other available remedy for such breach or threatened breach, including, without limitation, the recovery of damages.

Nothing in this subsection 3.4(c) shall prohibit either Buyer or Seller from disclosing the terms of this Agreement to the public at a public meeting or hearing, prior to, or as a part of the process of obtaining approval of this Agreement, provided the Party intending to discuss such information at a public meeting gives written notice of such intent to the other Party at least five (5) business days prior to the meeting or hearing at which this Agreement will be discussed

(d) Taxes. Buyer shall be responsible for all state and local sales, use, transfer, real property transfer, documentary stamp, recording and other taxes arising from and with respect to the sale and purchase of the Assets.

3.5 Special Covenants of Buyer

Buyer hereby covenants and agrees to comply with the following special covenants:

(a) Rates. At Closing, Buyer shall implement Seller's rates for residential, commercial and industrial properties in the Township (collectively called the "**Rates**"), in effect at the time of Closing. Seller's entire rate structure is set forth in Schedule 3.2(a). Seller may not change its rate structure shown on Schedule 3.2(a) prior to Closing. These rates as set forth in Schedule 3.2(a) implemented after Closing shall remain in effect for service in the Township until the earlier of (a) such time as Buyer's rates in the rest of its sewer system are equal to the Seller's rates at the time of Closing, or (b) until twenty (20) years shall have elapsed since the Closing Date.

Seller acknowledges that Buyer's industrial and commercial rate tiers have volume breaks that differ from Seller's volume breaks. Nothing in this section shall prohibit Buyer from establishing volume breaks in rate tiers that correspond to Buyer's volume breaks in its rate tiers,

provided such changes in the Township industrial and commercial rates, in the aggregate, after making adjustments in the rate tiers, are revenue neutral overall.

Nothing in this Subsection shall prevent Buyer from applying its Rules and Regulations regarding conditions of service after the Closing.

(b) Local Office. Buyer shall not maintain a local office for the drop-off of payments by sewer customers. Walk-in payments by sewer customers shall be limited to the Buyer's office at 130 Centerville Road, Lancaster Pennsylvania

(c) Compliance with Law. The Buyer shall comply with all applicable Township ordinances, rules and regulations concerning the design, construction, operation and maintenance of a sewer system within the Township and any other regulatory body.

(d) Reasonable Accommodations. The Buyer shall make reasonable accommodations for growth and current development projects in the Township, consistent with the Township's Act 537 Plan currently in process and any future Act 537 Plans.

(e) Service Area. Provided that Seller or the Township are not otherwise in breach of Section 3.3, Buyer agrees at all times to not provide service to customers in the Township located outside of the Service Area.

3.6 Special Covenants of Seller and Township

Seller hereby covenants and agrees to comply with the following special covenants:

(a) Service Area. In the event that the Township or Seller desires to expand or diminish the Service Area (a "**Change in Service Area**"), it shall not take any action to do so without first obtaining Buyer's written consent. Any proposed Change in Service Area from the Seller or Township shall be proposed to Buyer in reasonable detail along with a map showing the proposed changes to the Service Area in a manner satisfactory to Buyer.

(b) Right of First Refusal to Serve.

1) At any time, the Buyer shall have a right of first refusal if the Seller or Township receives an offer from any public or private sewer service provider (a "**Provider**") to provide sewer service to any person within the Territory that the Seller or Township, or both, desires to accept (a "**Request to Serve**"). Each time either of the Seller or Township receives a Request to Serve from a Provider, it shall first make an offering of the Request to Serve to the Buyer prior to accepting in any manner the Request to Serve from the Provider.

2) Upon receipt of a Request to Serve, the Seller or Township, or both, shall provide Buyer with notice (the "**Notice of Request**") that it has received the Request to Serve and specifying in detail the identity of the Provider and the terms of the Request to Serve, including any terms relating to the location in the Territory of the Request to Serve, the number of EDUs the Request to Serve seeks and any other material terms.

3) Upon receipt of a Notice of Request, the Buyer shall have ninety (90) days to inform the Seller or Township, or both, whether or not it shall elect to fulfill the Notice of Request on substantially similar terms as set forth in the Request to Serve. If the Buyer does not inform such party within the ninety (90) days, then it shall be deemed to have denied the Notice of Request and Seller or Township, or both, shall be free to proceed with the Provider's Request to Serve in any manner it sees fit provided that such party is not otherwise in breach of this Agreement.

4) In the event the Buyer elects to fulfill a Notice of Request, it and the Seller and Township shall take all actions as may be reasonably necessary to consummate the transactions contemplated thereby, including, without limitation, entering into agreements and delivering certificates and instruments and consents as may be deemed necessary or appropriate.

(c) Zoning. Any proposed reclassification of zoning of land within the Service Area by the Township or Seller (a "**Change in Zoning**") (a) shall not require Buyer's consent as a prerequisite, but (b) shall be subject to the indemnification provisions of Section 6.2(d).

Article 4 - Conditions Precedent

4.1 Conditions Precedent to Buyer's Obligations

The obligation of Buyer to consummate the transactions contemplated by this Agreement is subject to the satisfaction, on or prior to the Closing Date, of each of the following conditions (any one or more of which may be waived in writing, in whole or in part, by Buyer, in its sole discretion):

(a) Representations and Warranties. Seller's representations and warranties contained in this Agreement or in any schedule, list, certificate or document delivered pursuant to the provisions of this Agreement shall be true in all material respects at and as of the time of Closing, except for changes in the ordinary course of business after the date first written above that are in conformity with the covenants, warranties, representations and agreements contained in this Agreement.

(b) Performance of Agreements. Seller shall have performed and complied, in all material respects, with all covenants, agreements and conditions required by this Agreement to be performed, or complied with by it prior to or at the Closing.

(c) Adverse Change. There shall not have been a Material Adverse Change, occurrence or casualty, financial or otherwise, to the Seller, Buyer, System or the Assets, whether or not covered by insurance.

(d) Closing Certificates. Seller shall have delivered to the Buyer: (i) a certificate of the Secretary (or Assistant Secretary) of Seller, to the best of such Secretary's knowledge, certifying and attaching true and complete copies of resolutions adopted by its Board of Directors relating to this Agreement and the transactions contemplated hereby; and, certifying the incumbency of the officers of Seller executing this agreement or any documents delivered hereunder; and, (ii) a certificate signed by the Chairman (or Vice Chairman) of Seller's Board of

Directors, confirming, to the best of such Chairman's (or Vice Chairman's) knowledge, satisfaction of the conditions set forth in Subsections (a) to (c), inclusive, of Section 4.1 of this Agreement.

(e) Closing Deliveries. Seller shall have delivered the documents and other items described in Section 1.11 of this Agreement.

(f) No Litigation. Except as otherwise disclosed in this Agreement or the Schedules attached hereto, there shall not be any pending, or to the knowledge of Seller, threatened action, proceeding or investigation by or before any court, arbitrator, governmental body or agency which shall seek to restrain, prohibit or invalidate the transactions contemplated hereby or which, if adversely determined, would result in a breach of a representation, warranty or covenant of the Parties herein.

(g) Regulatory Consents. Buyer shall have obtained the written, final and unappealable approvals, authorizations and consents (including consents for permit transfers) that are required to consummate the transactions contemplated by this Agreement, including, without limitation, the approval of every regulatory agency of federal, state or local government that may be required in the reasonable opinion of either Buyer or Seller, including but not limited to the approval by the DEP to allow the transfer of the NPDES Permits to Buyer.

(h) Contractual Consents. Seller shall have obtained written approvals, authorizations and consents of transfer to all material transferable or assignable contracts, agreements, licenses and permits to the extent specifically required by the terms of such contracts, agreements, licenses or permits, including, but not limited to, consent to the assignment to Buyer of the Treatment Plant operator's contract, or Buyer's negotiation to its satisfaction of a new contract with such operator.

(i) Defeasance. As of the Closing, all mortgages, liens and security interests associated with the Assets or the System will be removed.

(j) Opinion of Counsel. Seller shall have delivered to Buyer a favorable written opinion of Seller's counsel, dated as of the Closing Date and addressed to Buyer.

(k) Financing. The transactions contemplated by this Agreement are contingent on the (i) issuance of Sewer Revenue Bonds by Buyer in an amount sufficient to fund the Purchase Price at a net interest rate not to exceed five and 00/100 (5.00%) percent, and (ii) refinancing of the Borough of Columbia Build America Bonds, which Buyer has agreed to subsidize pursuant to that certain Subsidy Agreement between Buyer and the Borough of Columbia dated May 27, 2015. Buyer covenants to use its best efforts to obtain such financing. This covenant shall survive for a period of one (1) year from the date of this Agreement.

(l) Due Diligence. The Due Diligence review and testing described in Section 1.13 shall have been completed with results satisfactory to Buyer.

(m) Amendment of Ordinances. The Township shall amend the Mandatory Connection Ordinance to require connection to Buyer's sewer system. Following Closing,

Township agrees to cooperate with Buyer to amend any other ordinance which Buyer deems necessary, in its reasonable discretion, to its operation of the System.

4.2 Conditions Precedent to Seller's Obligations

The obligation of Seller to consummate the transactions contemplated by this Agreement is subject to the satisfaction, on or prior to the Closing Date, of each of the following conditions (anyone or more of which may be waived in writing, in whole or in part, by Seller, in its sole discretion):

(a) **Representations and Warranties.** Buyer's representations and warranties contained in this Agreement or in any Schedule, list, certificate or document delivered pursuant to the provisions of this Agreement shall be true in all material respects at and as of the time of Closing, except for changes in the ordinary course of business after the date first written above that are in conformity with the covenants, warranties, representations and agreements contained in this Agreement.

(b) **Performance of Agreements.** Buyer shall have performed and complied, in all material respects, with all covenants, agreements and conditions required by this Agreement to be performed or complied with by it prior to or at the Closing.

(c) **Closing Certificates.** Buyer shall have delivered to Seller: (i) a certificate of the Secretary (or Assistant Secretary) of Buyer, to the best of such Officer's knowledge, certifying and attaching true and complete copies of the resolutions of the Board of Directors of Buyer authorizing the execution and delivery of this Agreement and the transactions contemplated hereby and the performance of the obligations of Buyer hereunder; and, certifying the incumbency of the officers of Buyer executing this Agreement or any documents delivered hereunder; and, (ii) a certificate of the Chairman (or Vice Chairman) of Buyer confirming, to the best of such Officer's knowledge, satisfaction of the conditions set forth in Subsections (a) and (b) of Section 4.2 of this Agreement.

(d) **Closing Deliveries.** Buyer shall have (i) paid the Purchase Price to Seller as described in Sections 1.7, 1.8 and 1.12(a) of this Agreement; and, (ii) delivered the documents and other items described in or required by Section 1.12 of this Agreement.

(e) **No Litigation.** Except as otherwise discussed in this Agreement, there shall not be any pending, or to the knowledge of Buyer, threatened action, proceeding or investigation by or before any court, arbitrator, governmental body or agency which shall seek to restrain, prohibit or invalidate the transactions contemplated hereby or which, if adversely determined, would result in a breach of a representation, warranty or covenant of either Party herein.

(f) **Regulatory Consents.** Buyer shall have obtained the written, final and unappealable approvals, authorizations and consents (including consents for permit transfers) that are required to consummate the transactions contemplated by this Agreement, including, without limitation the approval of every regulatory agency of federal, state or local government that may be required in the opinion of either Buyer or Seller.

(g) Other Consents. Buyer shall have obtained any other approvals, authorizations and consents that are required to enable Buyer to consummate the transactions contemplated by this Agreement and to operate the System.

(h) Opinion of Counsel. Buyer shall deliver to Seller a written opinion of Buyer's counsel, dated as of the Closing Date and addressed to Seller.

Article 5 - Termination

5.1 Termination

This Agreement may be terminated prior to the Closing Date only as follows and in each case only by written notice:

- (a) By the mutual written consent of the Parties;
- (b) by either Seller or Buyer, if the Closing has not occurred (other than through the failure of any Party seeking to terminate this Agreement to comply fully with its obligations under this Agreement) within six months after the date first written above, or such later date as the Parties may agree upon;
- (c) by either Seller or Buyer, if a material breach of any covenant, warranty, representation, agreement or provision of this Agreement has been committed by the other Party and such breach has not been (i) cured within thirty (30) days after the non-breaching Party gives written notice of said breach to the breaching Party; or, (ii) waived by the non-breaching Party;
- (d) by Buyer, in accordance with Section 1.13, or if any of the conditions in Section 4.1 of this Agreement (i) have not been satisfied as of the Closing Date; or, (ii) have become impossible (other than through the failure of Buyer to comply with its obligations under this Agreement); and Buyer has not waived such condition on or before the Closing Date;
- (e) by Seller if any of the conditions in Section 4.2 of this Agreement (i) have not been satisfied as of the Closing Date; or, (ii) have become impossible (other than through the failure of Seller to comply with its obligations under this Agreement); and, Seller has not waived such condition on or before the Closing Date and

5.2 Effect of Termination

Each Party's right of termination under Section 5.1 of this Agreement is in addition to any other rights it may have under this Agreement or otherwise, and the exercise of a right of termination will not be an election of remedies. If this Agreement is terminated pursuant to Section 5.1 of this Agreement, all further obligations of the Parties under this Agreement will terminate, except that the obligations in Sections 3.1(c) (Expenses), 3.4(c) (Confidentiality) and 8.14 (Jurisdiction) of this Agreement shall survive. Provided, however, that if this Agreement is terminated by a Party because of the breach of this Agreement by the other Party or because one or more of the conditions to the terminating Party's obligations under this Agreement is not satisfied as a result of the other Party's failure to comply with its obligations under this

Agreement, the terminating Party's right to pursue all legal remedies will survive such termination unimpaired.

Article 6 - Indemnification

6.1 Definition of Damages

For purposes of this Agreement, "**Damages**" means the aggregate amount of all damages, claims, losses, obligations, liabilities (including any governmental penalty, fines or punitive damages), deficiencies, interest, costs and expenses arising out of or relating to a matter and any actions, judgments, costs and expenses (including reasonable attorney's fees and all other expenses incurred in investigating, preparing, or defending any litigation or proceeding, commenced or threatened) incident to such matter or to the enforcement of this Agreement.

6.2 Indemnification by Seller and Township

Seller and the Township, jointly and severally, to the extent permitted by law, agree to indemnify, defend and hold harmless Buyer, and its respective officers, directors and agents from and against any and all Damages arising out of or resulting from:

- (a) Any material misrepresentation, breach of warranty, or non-fulfillment of any covenant or agreement made by Seller or Township in this Agreement or in any Schedule, statement, certificate or other document furnished or to be furnished to Buyer in connection with the transactions contemplated by this Agreement;
- (b) Any and all liabilities of Seller or Township of any nature, (whether due or to become due), (whether accrued, absolute, contingent or otherwise), existing prior to the Closing Date or arising out of any transaction entered into, any state of facts existing or any event occurring prior to the Closing Date, other than Assumed Liabilities;
- (c) The Retained Liabilities;
- (d) A Change in Zoning of a tract(s) for which Buyer and/or the Seller have received any contact concerning proposed development on such tract(s); and
- (e) The successful enforcement of this Section of this Agreement.

Except as provided hereafter, Seller and Township's obligations under this Section of this Agreement shall be discharged, and all amounts payable hereunder (including costs and fees in the defense of any litigation), shall be paid to Buyer as they are incurred by Buyer.

6.3 Indemnification by Buyer

Buyer agrees to indemnify, defend and hold harmless Seller and Township and their respective officers, directors and agents from and against any and all Damages arising out of or resulting from:

(a) Any material misrepresentation, breach of warranty, or non-fulfillment of any covenant or agreement made by Buyer in this Agreement or in any Schedule, statement, certificate or other document furnished or to be furnished to Seller in connection with the transactions contemplated by this Agreement;

(b) The ownership, operation or use of the Assets or System on or after the Closing Date, excepting only (i) the Retained Liabilities; and (ii) liabilities resulting from breaches by Seller of covenants, warranties, representations and agreements hereunder;

(c) The Assumed Liabilities; and

(d) The successful enforcement of this Section of this Agreement.

Buyer's obligations under this Section of this Agreement shall be discharged, and all amounts payable hereunder (including costs and fees in the defense of any litigation), shall be paid to Seller and Township with respect to their individual amounts incurred, as they are incurred by Seller or Township, as the case may be.

6.4 General Indemnification Procedures

(a) During the applicable survival period specified in Article 7 of this Agreement, a Party seeking indemnification pursuant to Article 6 of this Agreement (an "**Indemnified Party**") shall give prompt written notice to the Party(ies) from whom such indemnification is sought (the "**Indemnifying Party**") of the assertion of any claim, the incurrence of any Damages, or the commencement of any action, suit or proceeding, of which it has knowledge in respect of which indemnity may be sought hereunder, and will give the Indemnifying Party such information with respect thereto as the Indemnifying Party may reasonably request, but failure to give such required notice shall relieve the Indemnifying Party of any liability hereunder only to the extent that the Indemnifying Party has suffered actual prejudice thereby.

The Indemnifying Party shall have the right exercisable by written notice to the Indemnified Party after receipt of notice from the Indemnified Party of the commencement of or assertion of any claim or action, suit or proceeding by a third party in respect of which indemnity may be sought hereunder (a "**Third Party Claim**"), to assume the defense of such Third Party Claim which involves (and continues to involve) solely monetary damages; provided, that (i) the Indemnifying Party expressly agrees in such notice that, as between the Indemnifying Party and the indemnified Party, solely the Indemnifying Party shall be obligated to satisfy and discharge the Third Party Claim; (ii) such Third Party Claim does not include a request or demand for injunctive or other equitable relief; and, (iii) the Indemnifying Party makes reasonably adequate provision to assure the Indemnified Party of the ability of the Indemnifying Party to satisfy the full amount of any adverse monetary judgment that is reasonably likely to result.

(b) Neither the Indemnified Party nor the Indemnifying Party shall settle any Third Party Claim without the prior written consent of the other, which consent shall not be unreasonably withheld or delayed.

(c) The Indemnifying Party or the Indemnified Party, as the case may be, shall have the right to participate (but not control), at its own expense, in the defense of any Third Party Claim which the other Party is defending as provided in this Agreement.

(d) Notwithstanding any other provision of Article 6 of this Agreement, no claim for indemnification may be asserted under Article 6 of this Agreement, and no indemnification shall be due and owing from any Party unless and until the aggregate of all such claims which may be made against such Party exceeds Twenty Thousand Dollars (\$20,000), and then only for the amount by which such Damages exceed Twenty Thousand Dollars (\$20,000).

6.5 Special Indemnification from Seller Related to Real Estate, Easements and Rights of Way

(a) In the event Seller breaches the covenants set forth in Section 2.1(e), then, notwithstanding any other remedies Buyer may have under this Agreement, or in law or equity, Seller agrees, at its own cost and expense, to acquire by purchase or condemnation, for the benefit of the Buyer, any and all easements, rights of way or real property interests required by the Buyer for the operation of the System or the Assets conveyed pursuant to this Agreement (hereinafter referred to as “**Necessary Easements, Rights of Way and Real Property**”).

(b) In the event Buyer discovers a breach of Section 2.1(e), it shall give Seller written notice with respect to the breach and the need to acquire an easement, right of way or other interest in real property. Seller shall promptly thereafter, take such actions as may be necessary to acquire and to convey to Buyer all Necessary Easements, Rights of Way and Real Property.

(c) If, after ninety (90) days following such written notice, Seller has failed to acquire, for the benefit of the Buyer, any and all Necessary Easements, Rights of Way and Real Property pursuant to this Agreement, Buyer shall have the right to acquire, on its own with or without assistance from Seller, such Necessary Easements, Rights of Way and Real Property, and to invoice Seller for all such costs, which shall include all legal, engineering, and easement or property costs in acquiring said Necessary Easements, Rights of Way and Real Property. Seller shall promptly pay Buyer from said invoice within thirty (30) days of receipt.

(d) If within five (5) years from the date of Closing, Buyer discovers Necessary Easements, Rights of Way and Real Property that were not identified in this Agreement, or if Seller discovers and reports to Buyer any Necessary Easements, Rights of Way and Real Property that were not identified in this Agreement, then Seller agrees, at its own cost and expense to acquire by purchase or condemnation, for the benefit of the Buyer, such Necessary Easements, Rights of Way and Real Property.

The provisions of this Section 6.5 shall survive the Closing for a period of ten (10) years from the date of Closing.

Article 7 - Survival

7.1 Survival

All covenants, warranties, representations and agreements made by the Parties in this Agreement or in any Schedule, document, statement or certificate furnished in connection with the transaction contemplated by this Agreement shall survive the Closing.

7.2 Limitations on Survival

(a) The covenants, warranties, representations and agreements set forth in subsections (h) and (i) of Section 3.2, subsections (b), (d) and (e) through (h) of Section 3.5, Section 3.6 and Section 7.3 of this Agreement shall survive the Closing for an unlimited period of time.

(b) The covenants, warranties, representations and agreements set forth in subsections (e), (f) and (g) of Section 1.8 and Schedule 1.8(d) and subsections (a) and (c) of Section 3.5 of this Agreement shall survive the Closing for the periods of time specified in those provisions.

(c) The covenants, warranties, representations and agreements set forth in Section 3.1(a) to (c), inclusive, and Section 3.4(b) of this Agreement shall survive the Closing for a period of five (5) years.

(d) Article 6 of this Agreement shall survive the Closing for the applicable period(s) of the indemnified covenants, warranties, representations and agreements as limited by this Article 7.

(e) The covenants, warranties, representations, and agreements that are not explicitly limited by Subsections (a) to (d), inclusive, of Section 7.2 of this Agreement shall survive the Closing for a period of three (3) years.

7.3 Covenant Running with the Land

The special covenants in Section 3.5 of this Agreement, to the extent they are in effect under Article 7 of this Agreement, are covenants running with the land binding on any owner, assignee, lessee or transferee of all or any part of the Assets used to provide sewer service to the public.

Article 8 - Miscellaneous

8.1 Schedules

All Exhibits and Schedules (“**Schedules**”) annexed or referred to in this Agreement are hereby incorporated in and made a part of this Agreement as if set forth in full herein.

Schedules are made to the best of the Parties’ knowledge as of the date first written above. Prior to Closing, each Party shall promptly notify the other Party(ies) when it becomes aware of any change in fact, condition or information which may require an amendment or supplement to any Schedule or which may result in a breach of a representation, warranty or

covenant of any Parties herein. Schedules may be amended or modified only by the mutual consent of the Parties.

8.2 Entire Agreement

This Agreement constitutes the entire agreement between the Parties concerning the sale and purchase of the Assets, and supersedes all prior oral or written agreements, understandings, representations and warranties, and courses of conduct and dealing between the Parties on the subject matter hereof.

8.3 Amendment

This Agreement may be amended or modified only by a writing executed by the Parties.

8.4 Extension or Waiver of Performance

Either Seller or Buyer may extend the time for or waive the performance of any of the obligations of the other, waive any inaccuracies in the warranties or representations by the other, or waive compliance by the other with any of the covenants, conditions or agreements contained in this Agreement, provided that any such extension or waiver shall be in writing and signed by the waiving Party in the case of a waiver, or by both Seller and Buyer in the case of an extension.

8.5 Assignment or Delegation

The Parties shall not assign, delegate or otherwise transfer any of their duties, rights or obligations under this Agreement without the prior written consent of the other Parties.

8.6 Successors and Assigns; Binding Effect

This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns.

8.7 Governing Law

This Agreement shall be governed by and construed under the laws of the Commonwealth of Pennsylvania, without reference to its conflict of laws provisions.

8.8 Notices

All notices provided for in this Agreement shall be in writing, addressed to Seller, Township or Buyer, as the case may be, at the addresses set forth in this Paragraph and may be (a) delivered in person; (b) sent by United States registered or certified mail, return receipt requested; (c) sent by

Federal Express or any other nationally recognized overnight courier or delivery service from which a receipt may be obtained; or, (d) sent by facsimile or telefax transmission during regular business hours (9:00 a.m. to 5:00 p.m., Monday-Friday, excluding holidays):

To Seller: West Earl Sewer Authority
157 West Metzler Road
P. O. Box 725
Brownstown, PA 17508
Phone: 717-859-3201
Fax: 717-895-3499

To Township: Board of Supervisors
West Earl Township
157 West Metzler Road
P. O. Box 787
Brownstown, PA 17508
Phone: 717-859-3201
Fax: 717-895-3499

In the case of notice delivered to either the Seller or Township, with a copy to:

Josele Cleary, Esquire
Morgan, Hallgren, Crosswell & Kane, P.C.
700 N Duke Street
PO Box 4686
Lancaster, PA 17604-4686
(717) 299-5251
Fax: 717-299-6170

To Buyer: Michael A. Kyle, Executive Director
Lancaster Area Sewer Authority
130 Centerville Road
Lancaster, PA 17601
(717) 299-4843
Fax: (717) 299-9658

With a copy to: Daniel Desmond, Esquire
Barley, Snyder
126 East King Street
Lancaster, PA 17602
(717) 299-5201
Fax: (717) 291-4660

The Parties shall have the right to designate a new address for the receipt of notices by written notice to the other Parties as provided in this Section 8.8.

8.9 Captions

The headings and captions used with the subsections, sections, schedules, and articles of this Agreement are for convenience of reference only and shall not be deemed to modify or limit the provisions of this Agreement

8.10 Construction

The Parties have participated jointly in the negotiation and drafting of this Agreement. In the event any ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement.

Any reference to any federal, state, local or foreign statute shall be deemed to refer to all rules and regulations promulgated thereunder, unless the context requires otherwise.

Words used herein, regardless of the number and gender specifically used, shall be deemed and construed to include any other number, singular or plural, and any other gender, masculine, feminine or neuter, as the context may require. The word “including” means included, without limitation.

With regards to references to “Seller or Township” or vice versa herein, if the collective action of each party is needed to effectuate the provision of this Agreement in question, then such phrase shall be deemed to include both the Seller and Township collectively.

“**Material Adverse Change**” means a change or effect (or series of related changes or effects) which has or is reasonably likely to have a material adverse change in or effect upon the business, assets, condition (financial or otherwise), or results of operations of the Seller, Buyer, System or Assets, taken as a whole, including any public health, fiscal or other change resulting from the COVID-19 pandemic.

8.11 Cumulative Remedies

The remedies afforded in this Agreement are cumulative to each other and to all other remedies provided by law.

8.12 No Waiver

No delay of or omission in the exercise of any right, power or remedy accruing to any Party as a result of any breach or default by any other Party under this Agreement shall impair any such right, power or remedy; nor shall it be construed as a waiver of or acquiescence in any such breach or default, or any similar breach or default occurring later; nor shall any waiver of a single breach or default be deemed a waiver of any other breach or default occurring before or after that waiver.

8.13 Time of the Essence

Time is of the essence of this Agreement.

8.14 Jurisdiction

The Parties each irrevocably submit to the exclusive jurisdiction of the Court of Common Pleas for Lancaster County in the Commonwealth of Pennsylvania for the purposes of any suit, action or other proceeding arising out of this Agreement or any transaction contemplated by this Agreement.

When the above-mentioned court may properly exercise jurisdiction over an action, suit or proceeding relating to this Agreement, the Parties agree not to commence or maintain any such action, suit or proceeding in a court or forum other than the above-mentioned court.

8.15 Third Party Beneficiaries

Nothing herein expressed or implied is intended or should be construed to confer upon or give to any person (other than the Parties) any rights or remedies under or by reason of this Agreement.

8.16 Counterparts

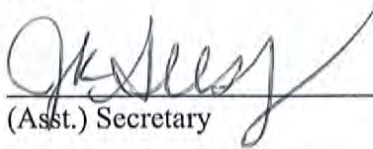
This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original copy of this Agreement and all of which, when taken together, shall be deemed to constitute one and the same agreement.

[Signature Page Follows]

WHEREFORE, in consideration of the foregoing and intending to be legally bound by the terms herein, the Parties have caused this Agreement to be executed as set forth below.

WEST EARL TOWNSHIP

Attest:



(Asst.) Secretary

by: 

(Vice) Chairman

WEST EARL SEWER AUTHORITY

Attest:



(Asst.) Secretary

by: 

(Vice) Chairman

LANCASTER AREA SEWER AUTHORITY

Attest:

(Asst.) Secretary

by: _____
(Vice) Chairman

WHEREFORE, in consideration of the foregoing and intending to be legally bound by the terms herein, the Parties have caused this Agreement to be executed as set forth below

Attest:


(Asst.) Secretary

WEST EARL TOWNSHIP

by: 
(Vice) Chairman

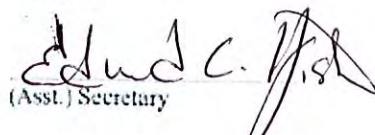
Attest:


(Asst.) Secretary

WEST EARL SEWER AUTHORITY

by: 
(Vice) Chairman

Attest:


(Asst.) Secretary

LANCASTER AREA SEWER AUTHORITY

by: 
(Vice) Chairman

Schedules:

- 1.3 (e) – Permits, licenses, authorizations
- 1.3 (i) – Included Assets
- 1.4 – Excluded Assets
- 1.5 (a) – Assumed Contracts
- 1.5 (b) – Excluded Contracts
- 1.6 (a)(iv) – Prepaid Connection Permits
- 1.6 (a)(v) – Seller Liabilities under any consent orders
- 1.8 (d) – Growth Reimbursement
- 2.1 (e) – Missing easements and rights of way
- 2.1 (f) – DEP and EPA documentation and disclosure
- 2.1 (g) – Listing of easements with special consideration provisions
- 2.1 (h) – Violations not listed on 2.1 (f)
- 3.2 (a) – Seller’s current rates
- 3.2 (e) – Projects in progress
- 3.2 (j) – Future capital projects

1.3(e) – Permits, licenses, authorizations

- Underground fuel tank registrations
 - DER Bureau of Water Quality Management Storage Tank Certificate #320066 Expires June 4, 1999, Brownstown Sewage Treatment, 2,500-gallon Tank ID 36-63282 001A “Other” product, certificate is void this tank no longer in service
 - DER Bureau of Water Quality Management Storage Tank Certificate #277634 Expires June 4, 1995, Brownstown Sewage Treatment, 275 gallons Tank ID 36-63282 002A Diesel product
 - Brownstown Sewage Treatment, 500 gallons Tank ID 36-63282 001 Installed 01-01-85, closed
- NPDES Permit
 - NPDES Permit No. PA0081949 dated December 27, 2018
- Part II Permits
 - WQM Part II Permit No. 3609403 (Talmage Sewer Extension)
 - WQM Permit No. WQG02361103 (Oregon Pike Sewer Extension)
 - WQM Permit No. WQG02361701 (Conestoga View Sewer Extension)
 - WQM Permit No. 3685438 (Treatment Plant)
 - WQM Part II Permit No. 3685418 (Sewer Interceptor)
 - WQMP Part II Permit No. 3685401 (Sanitary Sewer Extension)
 - WQM Part II Permit No. 3685433 (Sewer Extension)
- PADOT driveway permits (for pump stations)
 - None
- PADOT highway occupancy permits
 - Highway Occupancy Permit No. 08094276 dated 4/18/2017 (Conestoga View Sewer Extension)
 - Highway Occupancy Permit No. 08078563 dated 07/20/11 (Oregon Pike Sewer Extension)
 - Highway Occupancy Permit No. 08100375 dated 7/22/2020 (Bobby Rahal Automotive Group)
 - Highway Occupancy Permit No. 08097266 dated 6/8/2018 (241 E. Main St.)
 - Highway Occupancy Permit No. 08097206 dated 6/1/2018 (Monger Subdivision)
 - Highway Occupancy Permit No. 479761 dated 5/7/85
 - Highway Occupancy Permit No. 498659 dated 10/23/85
 - Supplemental Highway Permit No. 84942 dated 2/10/86
 - Supplemental Highway Permit No. 84860 dated 12/9/85
- Railroad occupancy agreements
 - None
- PPL agreements
 - None
- Stream crossing permits

- None
- Sewage Planning Modules
 - Act 537 Planning Special Study dated January 30, 2008
 - Approval Letter – Update Revision Act 537 Planning dated February 3, 2017 (Conestoga View Sewer Extension)
 - Approval Letter – Exemption Act 537 Planning dated May 31, 2019 (Transition to Community)

1.3 (i) – Included Assets

Personal property and contents located at the Treatment Plant

Personal property and contents located at the Real Estate

Flow metering facilities

Collection and conveyance lines

1.4 Excluded assets

- All motor vehicles
- Any assets owned by Seller or the Township in the “Upper Leacock Township Service Area” or “Akron Borough Service Area” as set forth on Exhibit A

1.5 (a) – Assumed Contracts

Other miscellaneous agreements

- Agreement: West Earl Sewer Authority and Team Rahal of Mechanicsburg, Inc. notarized June 12, 2019
- Letter of Credit: Team Rahal of Mechanicsburg, Inc. dated May 9, 2014 from Fifth Third Bank
- Letter of Credit: Summit Land Holdings dated December 19, 2014 from Fulton Bank
- Agreement: West Earl Sewer Authority and Marlee Properties, LLC dated November 15, 2019
- Letter of Credit: Marlee Properties LLC dated October 11, 2019 from Fulton Bank

1.5 (b) – Excluded Contracts

Any and all contracts related to the operation and/or maintenance and sludge hauling of the Seller's wastewater treatment facility and collection system.

1.6(a)(iv) – Prepaid Connection Permits

- None

1.6(a)(v) – Seller Liabilities under any consent orders or plans

None

1.8 (d) – Growth Reimbursement

The growth reimbursement for new connections for properties with individual dwelling units shall be \$4,000.00 per dwelling unit. The growth reimbursement for properties with no individual dwelling units (including additional permitted flow required to be purchased in accordance with Section 30-8 – Additional Usage - of the Buyer's Rules and Regulations) shall be \$16.81 ($\$4,000/238$ gallons) per gallon.

2.1 (e) - Missing easements and rights of way

None

2.1 (f) – DEP and EPA documentation and disclosure

None

2.1 (g) – Listing of easements with special consideration provisions

- None

2.1 (h) – Violations not listed on 2.1 (f)

- None

3.2 (a) – Seller’s current rates

User fees:

- Residential Flat rate \$58.50 per month per EDU
- Commercial/Industrial Metered rate (base): 4,000 gal @ \$58.50 per month;
\$14.625 per thousand over base

3.2 (e) – Projects in progress

The Authority does not currently have any capital projects in process.

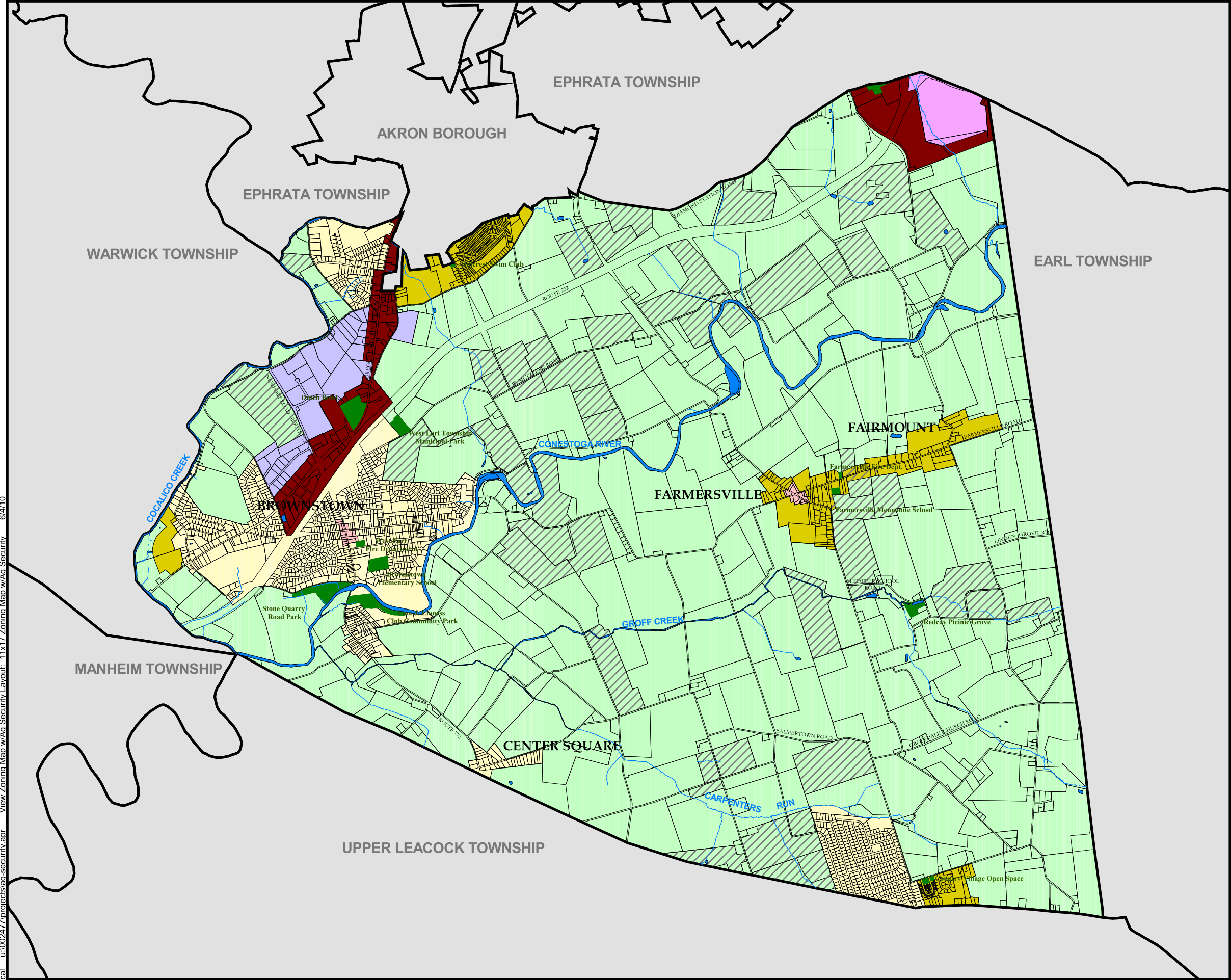
3.2 (j) – Future capital projects

None.

Appendix B

West Earl Township Zoning Map

cal_u:\02477\projects\ag-security\apr... View Zoning Map w/Ag Security Layout: 11x17 Zoning Map w/Ag Security 6/4/10

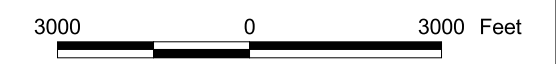
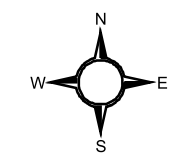


West Earl Township



Zoning Map

- Municipal Bndry
- Streams
- Parks
- Zoning**
- A
- C-1
- C-2
- I
- R-1
- R-2 (TRDO)
- PE
- Ag Security



Prepared By:
ARRC
ARRC Consulting, Inc.
June 2010

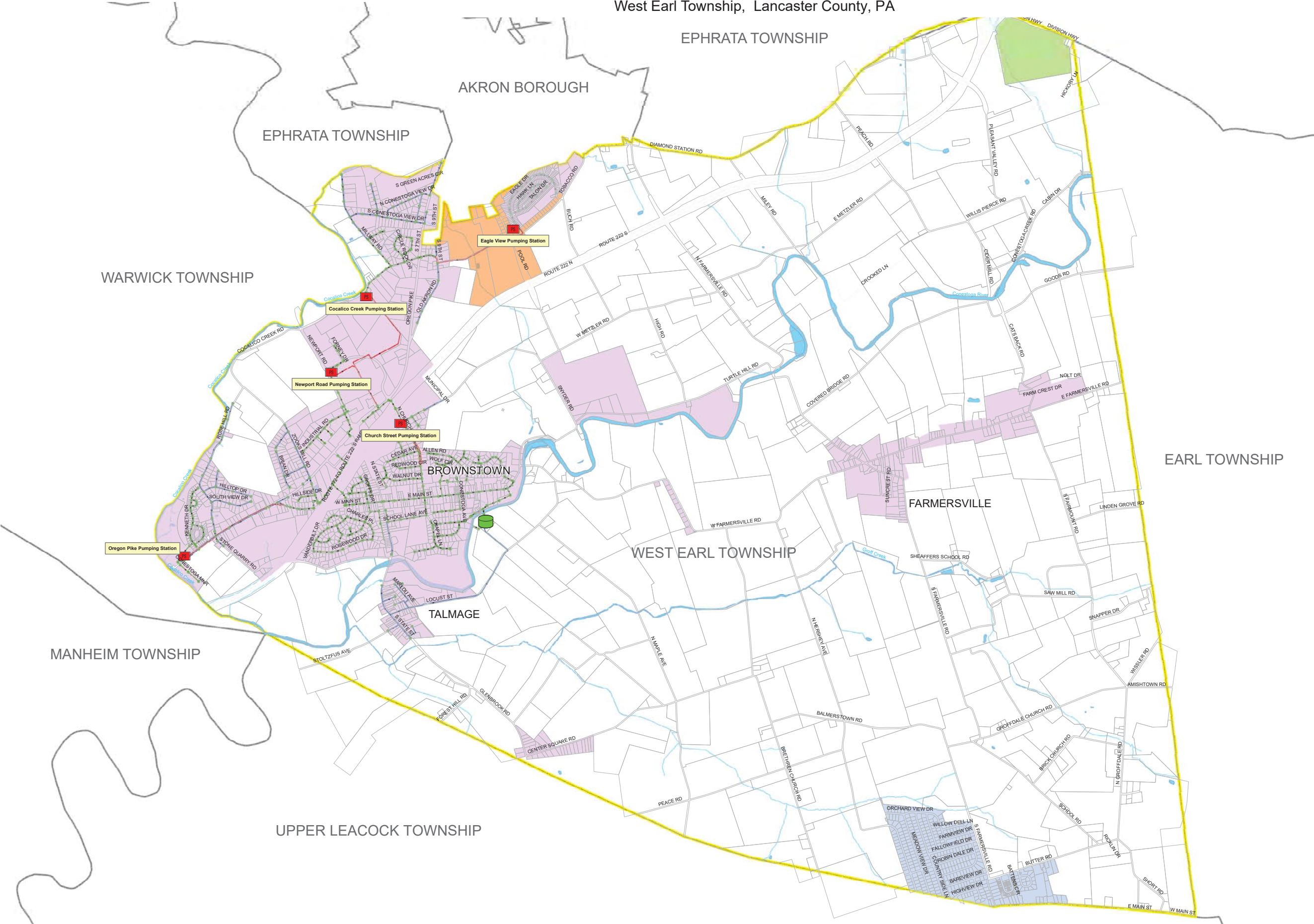
Appendix C

Lancaster Area Sewer Authority Sewer Service Area Map

LANCASTER AREA SEWER AUTHORITY

Sanitary Sewer Service Area Map

West Earl Township, Lancaster County, PA



Legend

- LASA Sewer Service Area
- Akron Borough Service Area
- Upper Leacock Township Service Area
- LGH Service Area
- Brownstown Waste Water Treatment Facility
- LASA Pumping Stations
- LASA Manholes
- LASA Force Mains
- LASA Gravity Sewers
- Low Pressure Force Mains
- Parcel
- Roadway Centerline
- Streams
- West Earl Township
- Municipal Boundary

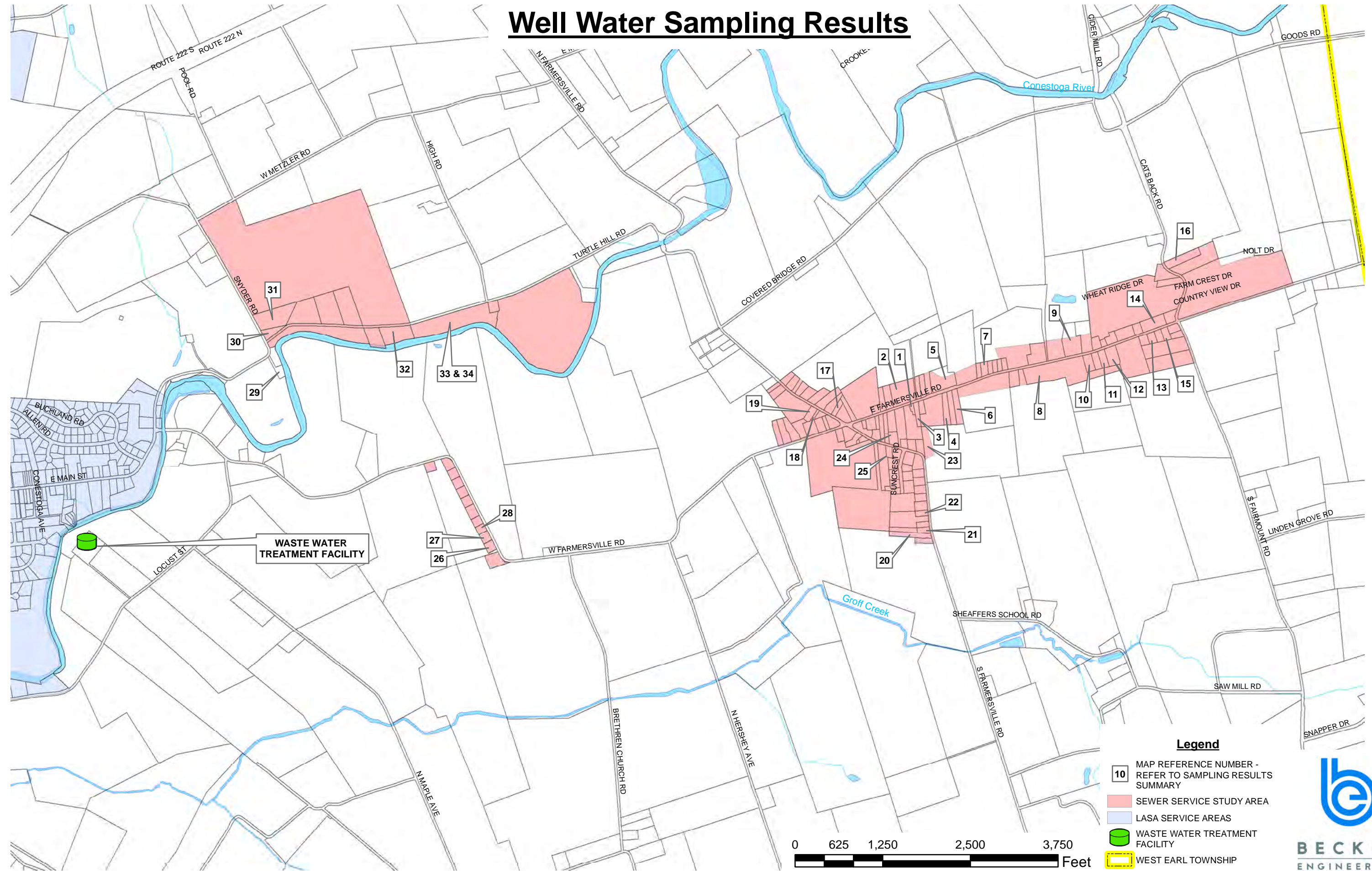


BECKER
ENGINEERING
525 Greenfield Road | Suite 201
Lancaster, PA 17601
717-295-4975 P | 717-295-4974 F

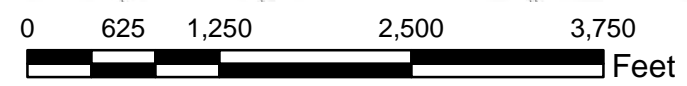
Appendix D

Well Water Sampling Results Map

Well Water Sampling Results

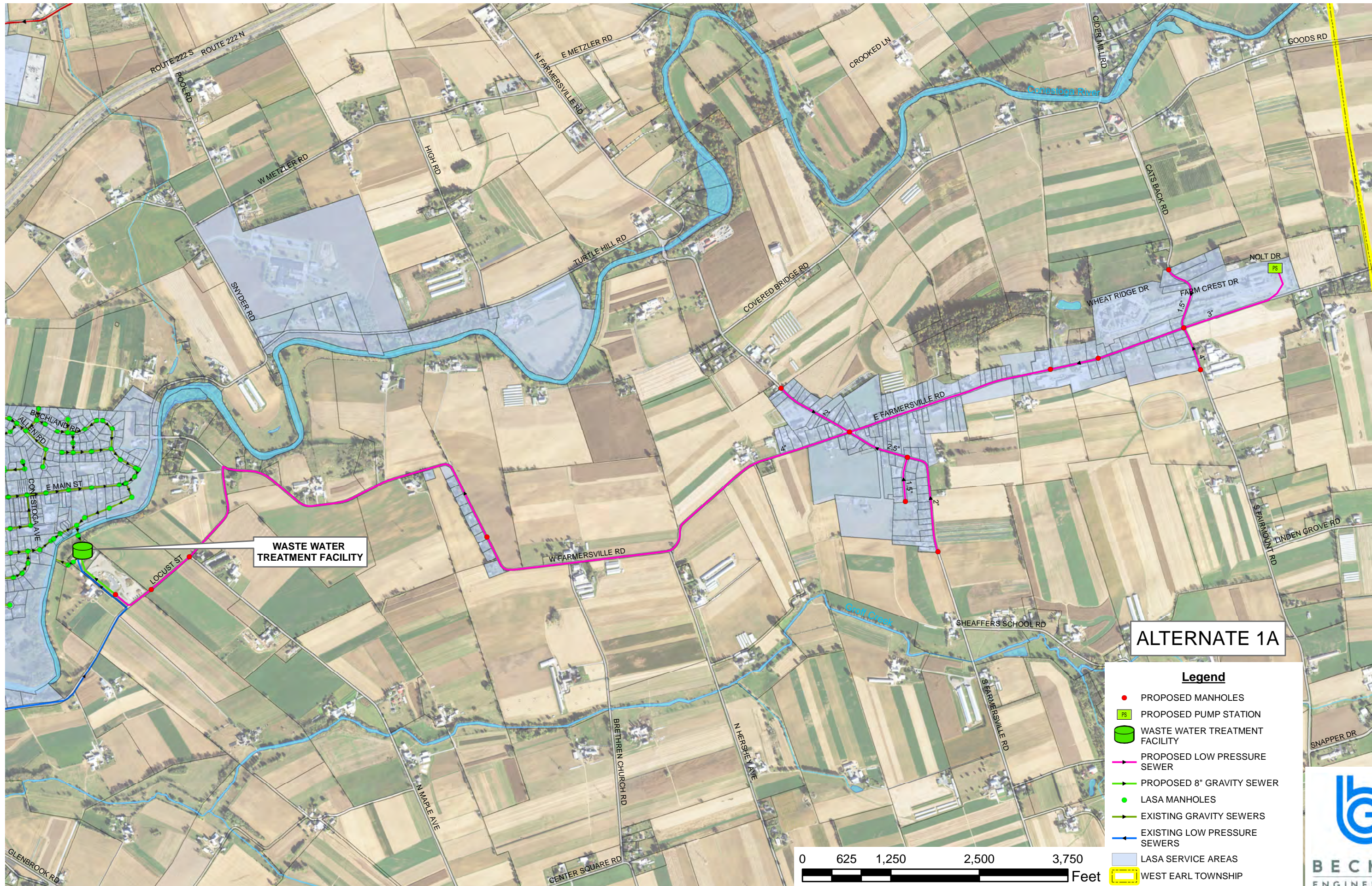


- Legend**
- 10 MAP REFERENCE NUMBER - REFER TO SAMPLING RESULTS SUMMARY
 - SEWER SERVICE STUDY AREA
 - LASA SERVICE AREAS
 - WASTE WATER TREATMENT FACILITY
 - WEST EARL TOWNSHIP



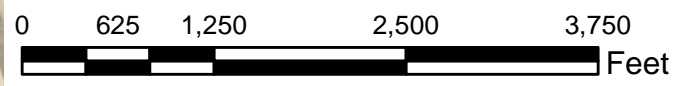
Appendix E

***Sewer Alternatives for Extension to Farmersville, Fairmount, and Turtle Hill Road
– Maps and Cost Opinion Worksheets***



ALTERNATE 1A

- Legend**
- PROPOSED MANHOLES
 - PS PROPOSED PUMP STATION
 - WASTE WATER TREATMENT FACILITY
 - PROPOSED LOW PRESSURE SEWER
 - PROPOSED 8" GRAVITY SEWER
 - LASA MANHOLES
 - EXISTING GRAVITY SEWERS
 - EXISTING LOW PRESSURE SEWERS
 - LASA SERVICE AREAS
 - WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 1A**

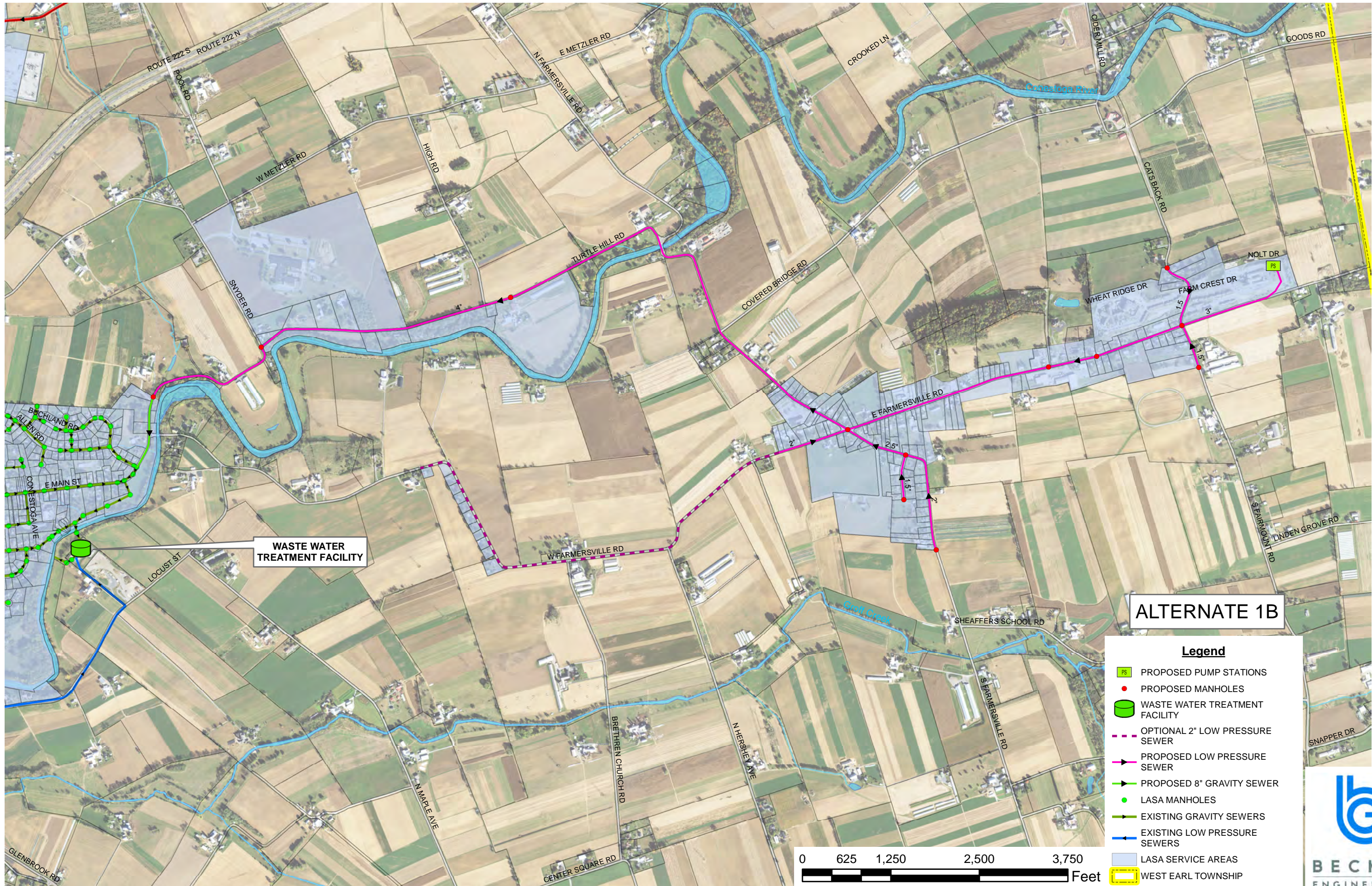
AUGUST 2021

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	1,320	\$43,560
	1.5-inch Directional Drill - IN ROCK	\$33	LF	440	\$14,520
	2-inch Directional Drill - IN SOIL	\$34	LF	2,032	\$69,088
	2-inch Directional Drill - IN ROCK	\$44	LF	677	\$29,788
	2.5-inch Directional Drill - IN SOIL	\$35	LF	678	\$23,730
	2.5-inch Directional Drill - IN ROCK	\$46	LF	226	\$10,396
	3-inch Directional Drill - IN SOIL	\$36	LF	5,532	\$199,152
	3-inch Directional Drill - IN ROCK	\$47	LF	1,844	\$86,668
	4-inch Directional Drill - IN SOIL	\$49	LF	10,278	\$503,622
	4-inch Directional Drill - IN ROCK	\$64	LF	3,426	\$219,264
					\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	5	\$50,500
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	18	\$190,800
	Cleanout Manhole - Type 1 (4")	\$11,200	EA	24	\$268,800
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	2	\$24,852
	Cleanout Manhole - Type 2 (4")	\$13,100	EA	-	\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA	-	\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA	1	\$14,500
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	5	\$70,000
					\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	147	\$1,323,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	-	\$0
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	147	\$8,232
					\$0
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	932	\$100,656
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF	-	\$0
	Rock Removal	\$300	CY	35	\$10,500
					\$0
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA	5	\$55,000
	Manhole (8-10 feet deep)		EA	-	\$0
					\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	-	\$0
					\$0
	Temporary Paving	\$7	LF	932	\$6,524
	Permanent Paving	\$56	LF	932	\$52,192
					\$0
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA		\$0
					\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA	1	\$150,000
					\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA		\$0
					\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF		\$0
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF		\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA		\$0
					\$0
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$3,525,340
	CONSTRUCTION CONTINGENCY	25.00	%		\$881,335
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$705,068
	TOTAL ESTIMATED PROJECT COST				\$5,111,743

Fairmount Homes

Estimate of Rock: Length % Length in Rock
 0
 Assume 25% of length 932 25 233
 LENGTH 233
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 35

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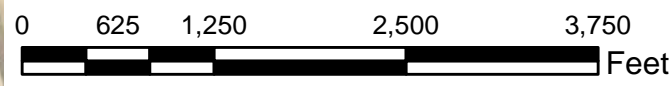


**WASTE WATER
TREATMENT FACILITY**

ALTERNATE 1B

Legend

- PS PROPOSED PUMP STATIONS
- PROPOSED MANHOLES
- WASTE WATER TREATMENT FACILITY
- OPTIONAL 2" LOW PRESSURE SEWER
- ▶ PROPOSED LOW PRESSURE SEWER
- ▶ PROPOSED 8" GRAVITY SEWER
- LASA MANHOLES
- ▶ EXISTING GRAVITY SEWERS
- ▶ EXISTING LOW PRESSURE SEWERS
- LASA SERVICE AREAS
- WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 1B**

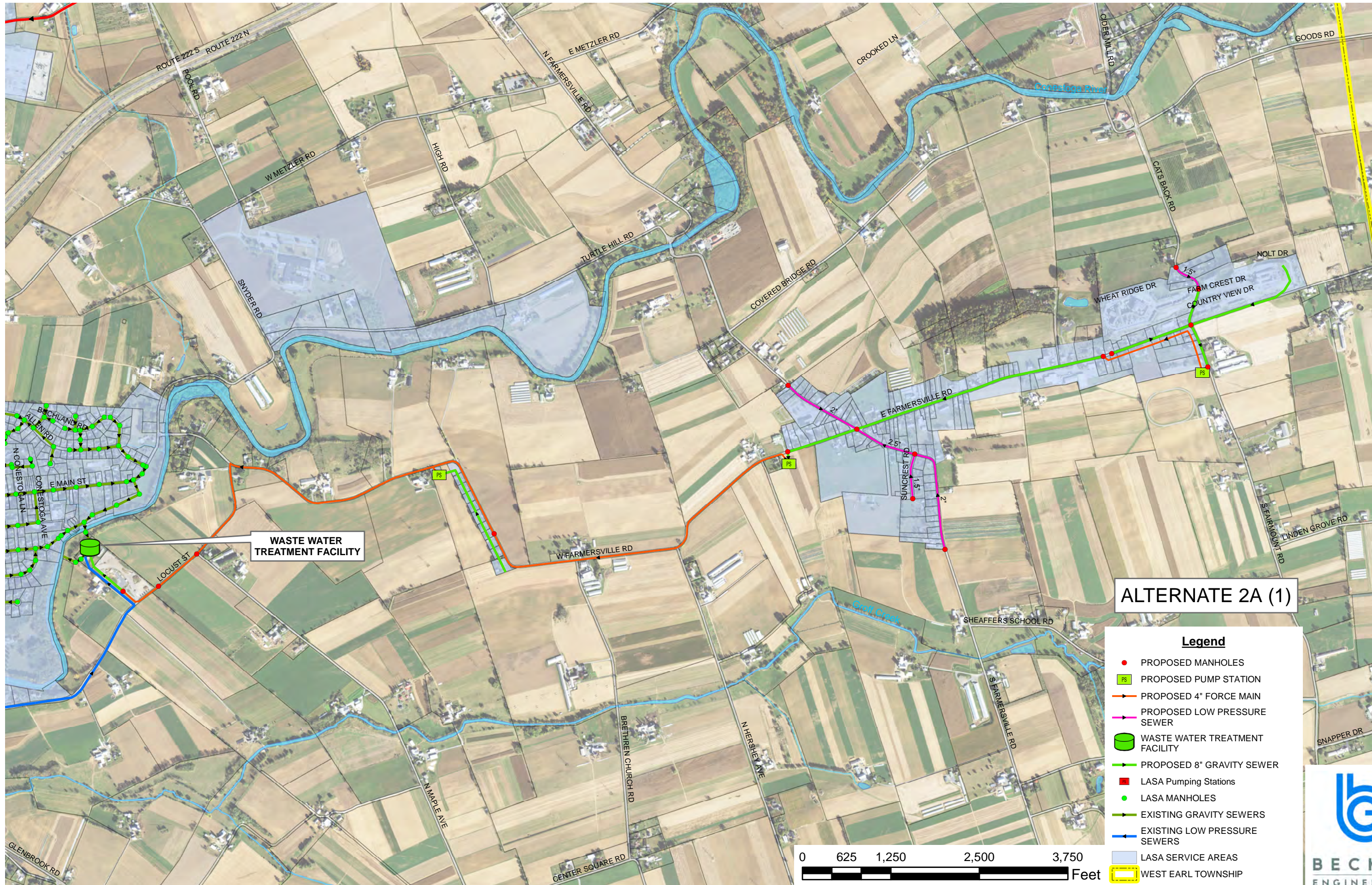
AUGUST 2021

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	1,320	\$43,560
	1.5-inch Directional Drill - IN ROCK	\$33	LF	440	\$14,520
	2-inch Directional Drill - IN SOIL	\$34	LF	1,916	\$65,144
	2-inch Directional Drill - IN ROCK	\$44	LF	639	\$28,116
	2.5-inch Directional Drill - IN SOIL	\$35	LF	678	\$23,730
	2.5-inch Directional Drill - IN ROCK	\$46	LF	226	\$10,396
	3-inch Directional Drill - IN SOIL	\$36	LF	5,532	\$199,152
	3-inch Directional Drill - IN ROCK	\$47	LF	1,844	\$86,668
	4-inch Directional Drill - IN SOIL	\$49	LF	9,155	\$448,595
	4-inch Directional Drill - IN ROCK	\$64	LF	3,051	\$195,264
					\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	5	\$50,500
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	18	\$190,800
	Cleanout Manhole - Type 1 (4")	\$11,200	EA	22	\$246,400
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	2	\$24,852
	Cleanout Manhole - Type 2 (4")	\$13,100	EA	-	\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA	-	\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA	1	\$14,500
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	4	\$56,000
					\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	163	\$1,467,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	1	\$22,000
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	164	\$9,184
					\$0
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	1,011	\$109,188
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF	-	\$0
	Rock Removal	\$300	CY	37	\$11,100
					\$0
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA	4	\$44,000
	Manhole (8-10 feet deep)		EA	-	\$0
					\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	4	\$660
					\$0
	Temporary Paving	\$7	LF	1,011	\$7,077
	Permanent Paving	\$56	LF	1,011	\$56,616
					\$0
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA		\$0
					\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA	1	\$150,000
					\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA		\$0
					\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF		\$0
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF		\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA		\$0
					\$0
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$3,575,020
	CONSTRUCTION CONTINGENCY	25.00	%		\$893,755
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$715,004
	TOTAL ESTIMATED PROJECT COST				\$5,183,779

Fairmount Homes

Estimate of Rock: Length % Length in Rock
 0
 Assume 25% of length 1011 25 252.75
 LENGTH 253
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 37

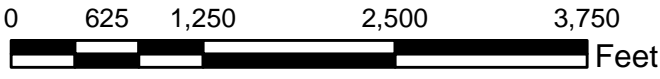
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ALTERNATE 2A (1)

Legend

- PROPOSED MANHOLES
- PS PROPOSED PUMP STATION
- PROPOSED 4" FORCE MAIN
- PROPOSED LOW PRESSURE SEWER
- WASTE WATER TREATMENT FACILITY
- PROPOSED 8" GRAVITY SEWER
- LASA Pumping Stations
- LASA MANHOLES
- EXISTING GRAVITY SEWERS
- EXISTING LOW PRESSURE SEWERS
- LASA SERVICE AREAS
- WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

Project No. 21-114-05

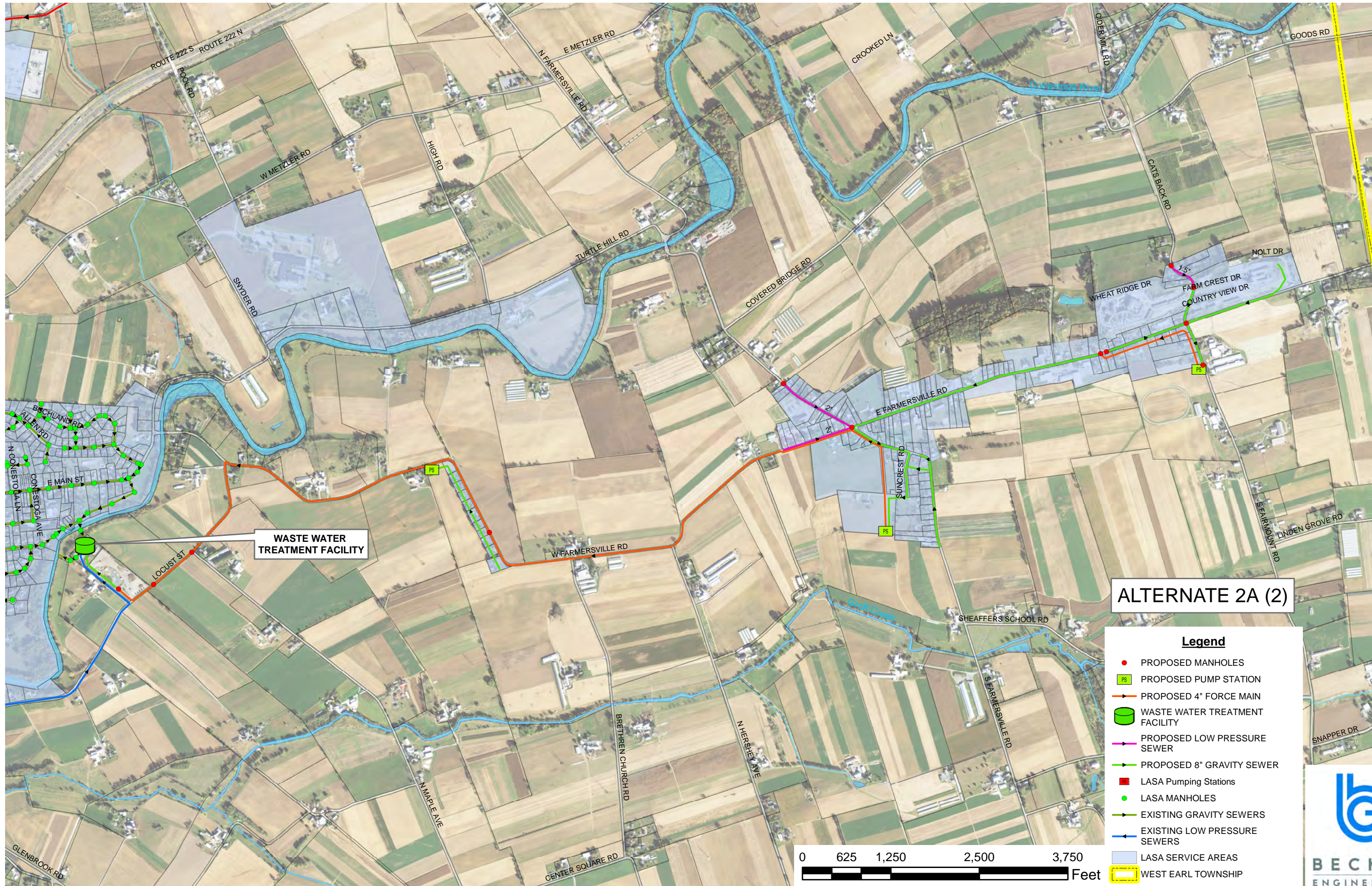
**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 2A(1) - GRAVITY SEWER TO BROWNSTOWN WWTF; REMAIN SOUTH OF CONESTOGA RIVER
SOUTH FARMERSVILLE AS LOW PRESSURE SEWER
AUGUST 2021**

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	878	\$28,974
	1.5-inch Directional Drill - IN ROCK	\$33	LF	292	\$9,636
	2-inch Directional Drill - IN SOIL	\$34	LF	2,032	\$69,088
	2-inch Directional Drill - IN ROCK	\$44	LF	677	\$29,788
	2.5-inch Directional Drill - IN SOIL	\$35	LF	678	\$23,730
	2.5-inch Directional Drill - IN ROCK	\$46	LF	226	\$10,396
	3-inch Directional Drill - IN SOIL	\$36	LF	-	\$0
	3-inch Directional Drill - IN ROCK	\$47	LF	-	\$0
	4-inch Directional Drill - IN SOIL	\$49	LF	-	\$0
	4-inch Directional Drill - IN ROCK	\$64	LF	-	\$0
					\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	4	\$40,400
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	4	\$42,400
	Cleanout Manhole - Type 1 (4")	\$11,200	EA	-	\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	1	\$12,426
	Cleanout Manhole - Type 2 (4")	\$13,100	EA	-	\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA	-	\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA	-	\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	-	\$0
					\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	60	\$540,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	1	\$22,000
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	60	\$3,360
					\$0
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	11,869	\$1,281,852
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF		\$0
	Rock Removal	\$300	CY	440	\$132,000
					\$0
	Manhole (6-8 feet deep)	\$11,000	EA		\$0
	Manhole (8-10 feet deep)		EA		\$0
					\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	87	\$14,355
					\$0
	Temporary Paving	\$7	LF	11,869	\$83,083
	Permanent Paving	\$56	LF	11,869	\$664,664
					\$0
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA	2	\$20,000
					\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA		\$0
					\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA	2	\$450,000
					\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF	10,888	\$533,512
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF	3,629	\$232,256
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	3	\$42,000
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$4,285,920
	CONSTRUCTION CONTINGENCY	25.00	%		\$1,071,480
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$857,184
	TOTAL ESTIMATED PROJECT COST				\$6,214,584

Serves West Farmersville Road 12 EDUs

Estimate of Rock: Length % Length in Rock
 0
 Assume 25% of length 11869 25 2967.25
 LENGTH 2967
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 440

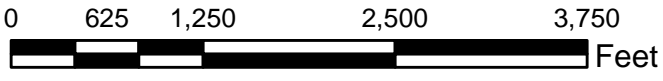
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ALTERNATE 2A (2)

Legend

- PROPOSED MANHOLES
- PS PROPOSED PUMP STATION
- PROPOSED 4" FORCE MAIN
- WASTE WATER TREATMENT FACILITY
- PROPOSED LOW PRESSURE SEWER
- PROPOSED 8" GRAVITY SEWER
- LASA Pumping Stations
- LASA MANHOLES
- EXISTING GRAVITY SEWERS
- EXISTING LOW PRESSURE SEWERS
- LASA SERVICE AREAS
- WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

Project No. 21-114-05

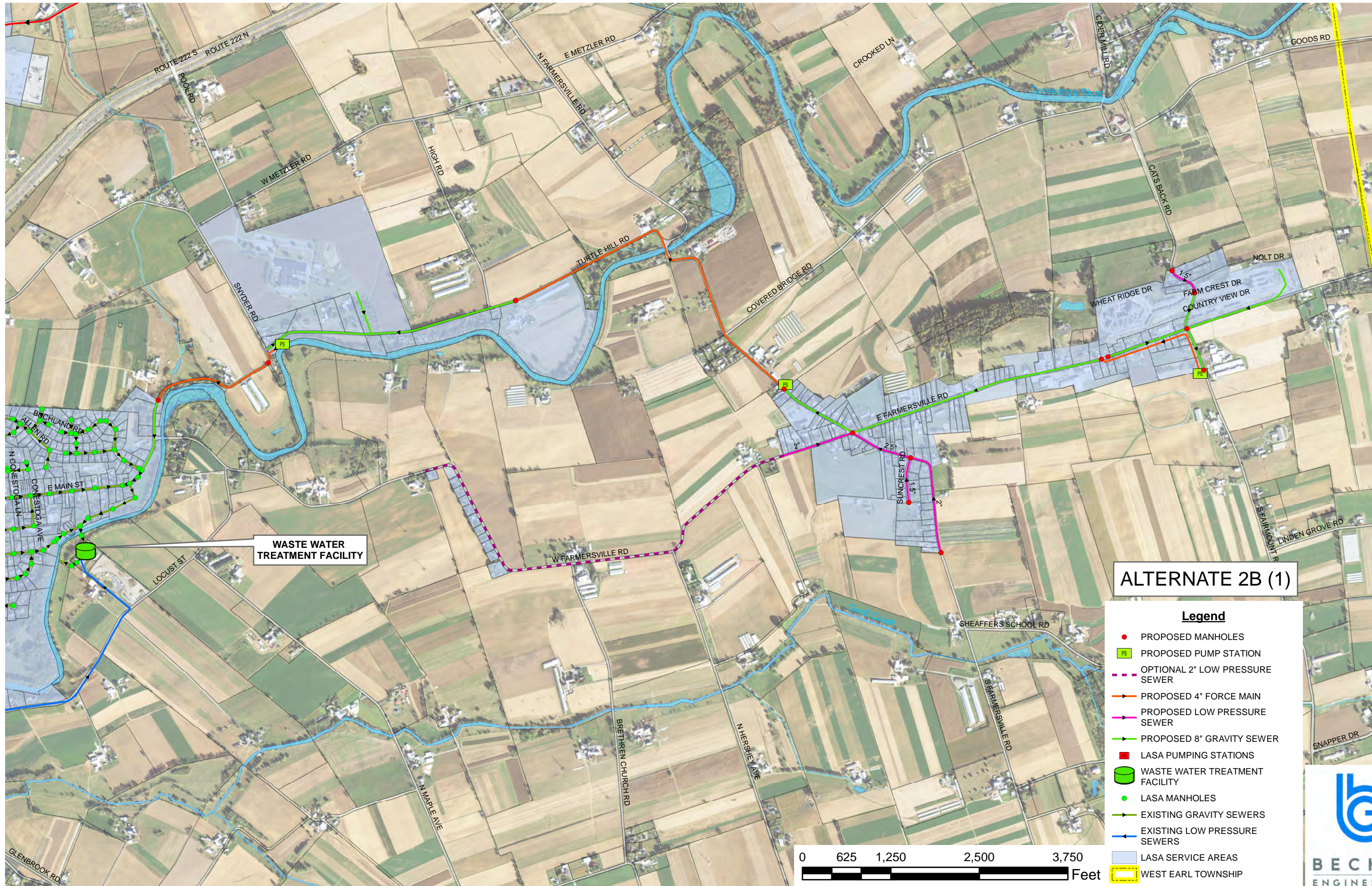
**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 2A(2) - GRAVITY SEWER TO BROWNSTOWN WWTF; REMAIN SOUTH OF CONESTOGA RIVER
SOUTH FARMERSVILLE AS GRAVITY SEWER
AUGUST 2021**

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	395	\$13,035
	1.5-inch Directional Drill - IN ROCK	\$33	LF	132	\$4,356
	2-inch Directional Drill - IN SOIL	\$34	LF	1,638	\$55,692
	2-inch Directional Drill - IN ROCK	\$44	LF	546	\$24,024
	2.5-inch Directional Drill - IN SOIL	\$35	LF	-	\$0
	2.5-inch Directional Drill - IN ROCK	\$46	LF	-	\$0
	3-inch Directional Drill - IN SOIL	\$36	LF	-	\$0
	3-inch Directional Drill - IN ROCK	\$47	LF	-	\$0
	4-inch Directional Drill - IN SOIL	\$49	LF	-	\$0
	4-inch Directional Drill - IN ROCK	\$64	LF	-	\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	3	\$30,300
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	2	\$21,200
	Cleanout Manhole - Type 1 (4")	\$11,200	EA	-	\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	-	\$0
	Cleanout Manhole - Type 2 (4")	\$13,100	EA	-	\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA	-	\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA	-	\$0
	Air/Vacuum Release Manhole	\$14,000	EA	-	\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	34	\$306,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	1	\$22,000
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	34	\$1,904
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	15,046	\$1,624,968
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF		\$0
	Rock Removal	\$300	CY	557	\$167,100
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA		\$0
	Manhole (8-10 feet deep)		EA		\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	113	\$18,645
	Temporary Paving	\$7	LF	13,891	\$97,237
	Permanent Paving	\$56	LF	13,891	\$777,896
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA	2	\$20,000
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA		\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA	2	\$450,000
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF	12,924	\$633,276
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF	4,308	\$275,712
	Air/Vacuum Release Manhole	\$14,000	EA	4	\$56,000
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$4,599,350
	CONSTRUCTION CONTINGENCY	25.00	%		\$1,149,838
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$919,870
	TOTAL ESTIMATED PROJECT COST				\$6,669,058

Serves West Farmersville Road 12 EDUs

Estimate of Rock: Length % Length in Rock
 Assume 25% of length 15046 25 3761.5
 LENGTH 3762
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 557

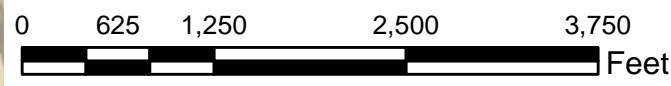
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ALTERNATE 2B (1)

Legend

- PROPOSED MANHOLES
- PROPOSED PUMP STATION
- OPTIONAL 2" LOW PRESSURE SEWER
- PROPOSED 4" FORCE MAIN
- PROPOSED LOW PRESSURE SEWER
- PROPOSED 8" GRAVITY SEWER
- LASA PUMPING STATIONS
- WASTE WATER TREATMENT FACILITY
- LASA MANHOLES
- EXISTING GRAVITY SEWERS
- EXISTING LOW PRESSURE SEWERS
- LASA SERVICE AREAS
- WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

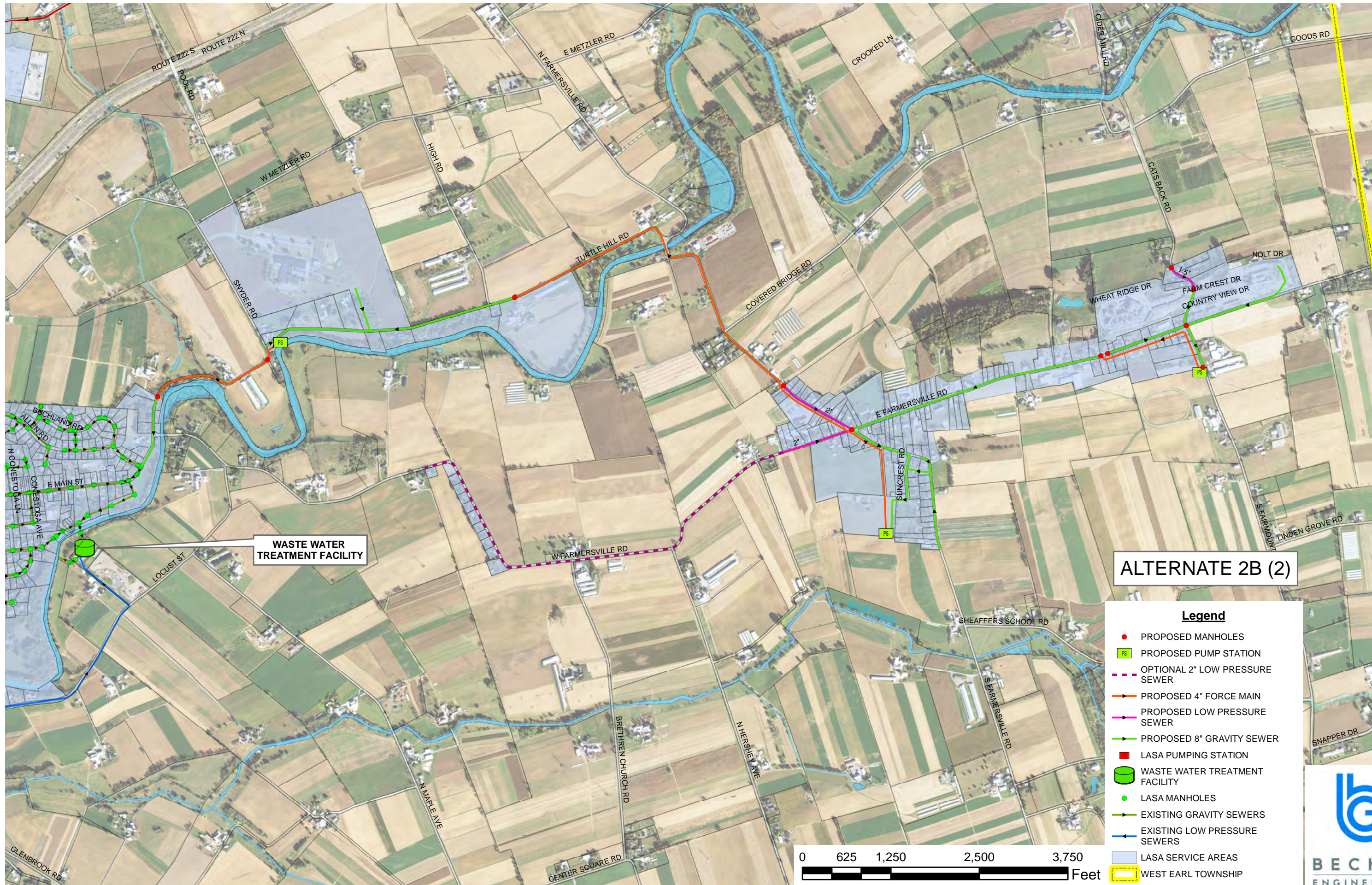
Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 2B(1) - GRAVITY SEWER TO BROWNSTOWN WWTF; INCLUDE TURTLE HILL RD
SOUTH FARMERSVILLE AS LOW PRESSURE SEWER
AUGUST 2021**

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	878	\$28,974
	1.5-inch Directional Drill - IN ROCK	\$33	LF	292	\$9,636
	2-inch Directional Drill - IN SOIL	\$34	LF	1,916	\$65,144
	2-inch Directional Drill - IN ROCK	\$44	LF	639	\$28,116
	2.5-inch Directional Drill - IN SOIL	\$35	LF	678	\$23,730
	2.5-inch Directional Drill - IN ROCK	\$46	LF	226	\$10,396
	3-inch Directional Drill - IN SOIL	\$36	LF	-	\$0
	3-inch Directional Drill - IN ROCK	\$47	LF	-	\$0
	4-inch Directional Drill - IN SOIL	\$49	LF	-	\$0
	4-inch Directional Drill - IN ROCK	\$64	LF	-	\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	4	\$40,400
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	4	\$42,400
	Cleanout Manhole - Type 1 (4")	\$11,200	EA	-	\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	1	\$12,426
	Cleanout Manhole - Type 2 (4")	\$13,100	EA	-	\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA	-	\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA	-	\$0
	Air/Vacuum Release Manhole	\$14,000	EA	-	\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	70	\$630,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	-	\$0
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	70	\$3,920
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	14,084	\$1,521,072
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF	-	\$0
	Rock Removal	\$300	CY	522	\$156,600
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA	40	\$440,000
	Manhole (8-10 feet deep)		EA	-	\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	93	\$15,345
	Temporary Paving	\$7	LF	14,084	\$98,588
	Permanent Paving	\$56	LF	14,084	\$788,704
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA	3	\$30,000
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA	1	\$150,000
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA	2	\$450,000
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF	6,830	\$334,670
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF	2,277	\$145,728
	Air/Vacuum Release Manhole	\$14,000	EA	1	\$14,000
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$5,039,850
	CONSTRUCTION CONTINGENCY	25.00	%		\$1,259,963
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$1,007,970
	TOTAL ESTIMATED PROJECT COST				\$7,307,783

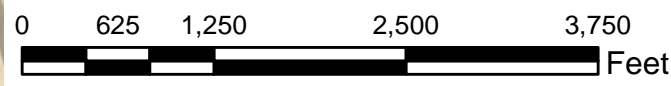
Estimate of Rock: Length % Length in Rock
 Assume 25% of length 14084 25 3521
 LENGTH 3521
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 522

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ALTERNATE 2B (2)

- Legend**
- PROPOSED MANHOLES
 - PS PROPOSED PUMP STATION
 - OPTIONAL 2" LOW PRESSURE SEWER
 - PROPOSED 4" FORCE MAIN
 - PROPOSED LOW PRESSURE SEWER
 - PROPOSED 8" GRAVITY SEWER
 - LASA PUMPING STATION
 - WASTE WATER TREATMENT FACILITY
 - LASA MANHOLES
 - EXISTING GRAVITY SEWERS
 - EXISTING LOW PRESSURE SEWERS
 - LASA SERVICE AREAS
 - WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

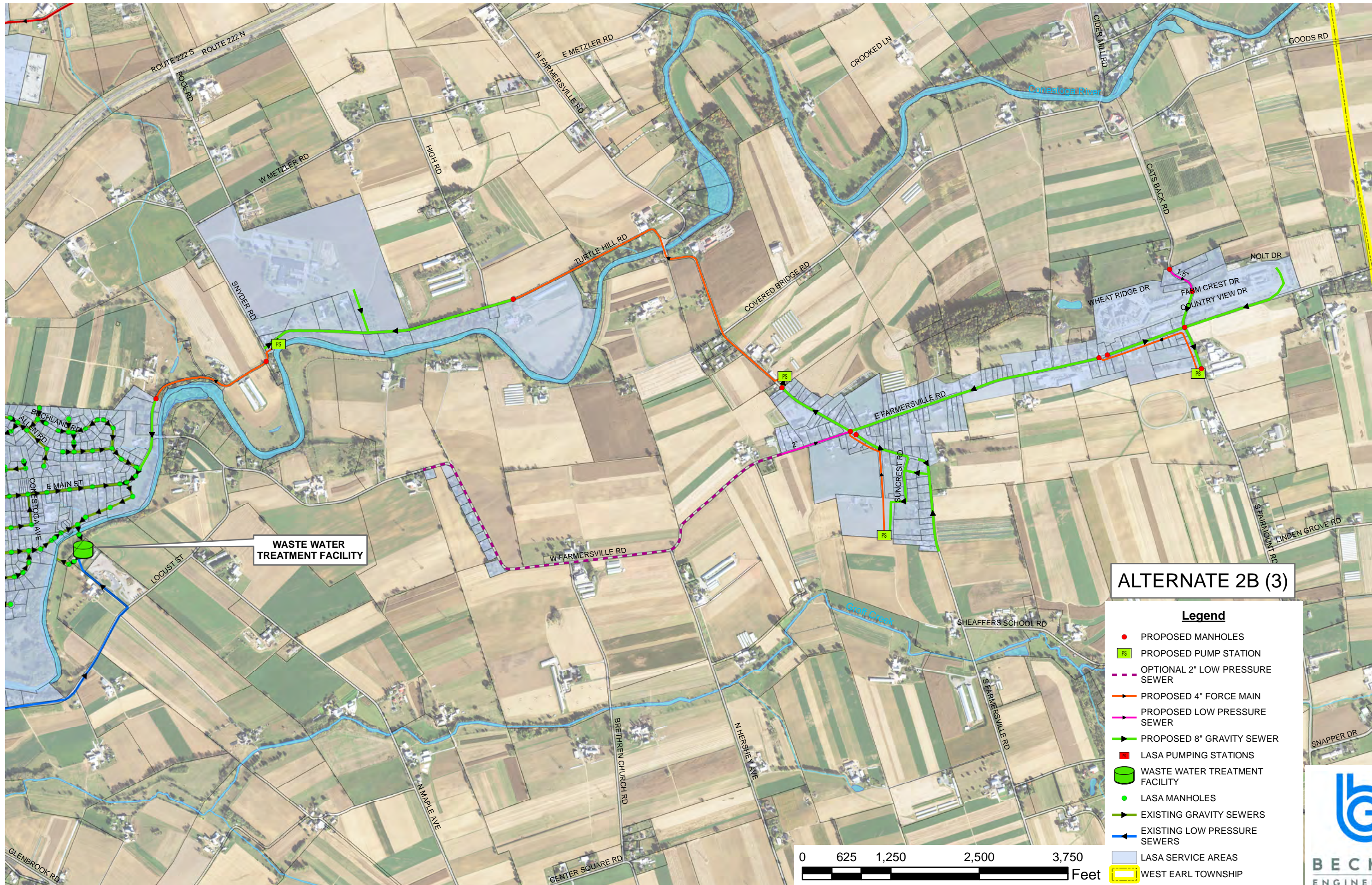
Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 2B(2) - GRAVITY SEWER TO BROWNSTOWN WWTF; INCLUDE TURTLE HILL RD
SOUTH FARMERSVILLE AS GRAVITY SEWER; NORTH FARMERSVILLE AS LOW PRESSURE
AUGUST 2021**

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	395	\$13,035
	1.5-inch Directional Drill - IN ROCK	\$33	LF	132	\$4,356
	2-inch Directional Drill - IN SOIL	\$34	LF	1,638	\$55,692
	2-inch Directional Drill - IN ROCK	\$44	LF	546	\$24,024
	2.5-inch Directional Drill - IN SOIL	\$35	LF	-	\$0
	2.5-inch Directional Drill - IN ROCK	\$46	LF	-	\$0
	3-inch Directional Drill - IN SOIL	\$36	LF	-	\$0
	3-inch Directional Drill - IN ROCK	\$47	LF	-	\$0
	4-inch Directional Drill - IN SOIL	\$49	LF	-	\$0
	4-inch Directional Drill - IN ROCK	\$64	LF	-	\$0
					\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	3	\$30,300
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	2	\$21,200
	Cleanout Manhole - Type 1 (4")	\$11,200	EA	-	\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	-	\$0
	Cleanout Manhole - Type 2 (4")	\$13,100	EA	-	\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA	-	\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA	-	\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	-	\$0
					\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	49	\$441,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	-	\$0
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	49	\$2,744
					\$0
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	17,107	\$1,847,556
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF	-	\$0
	Rock Removal	\$300	CY	634	\$190,200
					\$0
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA	40	\$440,000
	Manhole (8-10 feet deep)		EA		\$0
					\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	114	\$18,810
					\$0
	Temporary Paving	\$7	LF	15,952	\$111,664
	Permanent Paving	\$56	LF	15,952	\$893,312
					\$0
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA	3	\$30,000
					\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA	1	\$150,000
					\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA	2	\$450,000
					\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF	8,982	\$440,118
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF	2,994	\$191,616
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	2	\$28,000
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$5,383,630
	CONSTRUCTION CONTINGENCY	25.00	%		\$1,345,908
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$1,076,726
	TOTAL ESTIMATED PROJECT COST				\$7,806,264

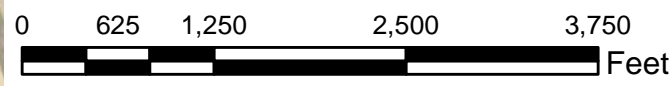
Estimate of Rock: Length % Length in Rock
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 Assume 25% of length 17107 25 4276.75
 LENGTH 4277
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 634

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ALTERNATE 2B (3)

- Legend**
- PROPOSED MANHOLES
 - PS PROPOSED PUMP STATION
 - OPTIONAL 2" LOW PRESSURE SEWER
 - PROPOSED 4" FORCE MAIN
 - PROPOSED LOW PRESSURE SEWER
 - PROPOSED 8" GRAVITY SEWER
 - LASA PUMPING STATIONS
 - WASTE WATER TREATMENT FACILITY
 - LASA MANHOLES
 - EXISTING GRAVITY SEWERS
 - EXISTING LOW PRESSURE SEWERS
 - LASA SERVICE AREAS
 - WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

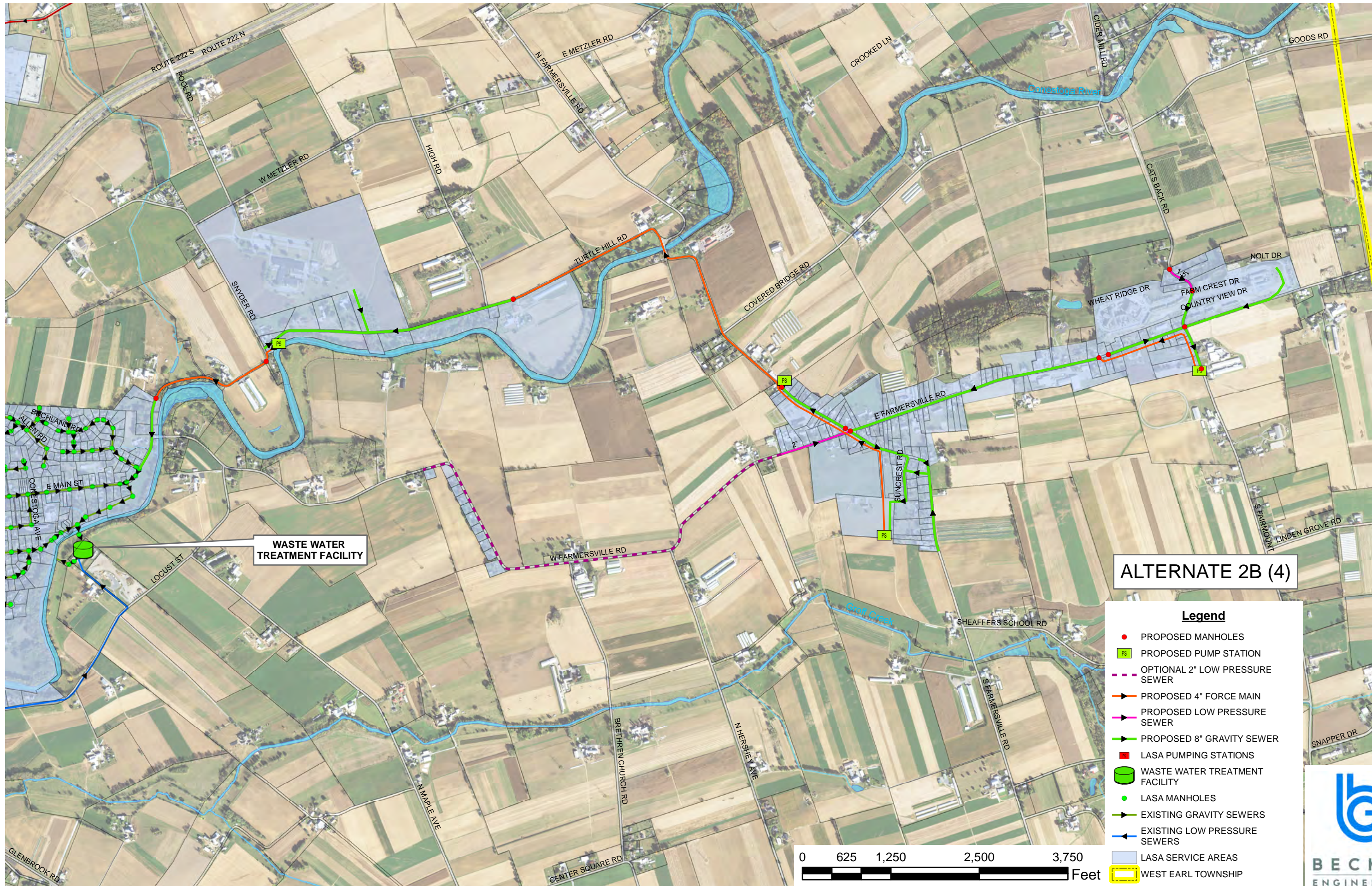
Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 2B(3) - GRAVITY SEWER TO BROWNSTOWN WWTF; INCLUDE TURTLE HILL RD
SOUTH FARMERSVILLE AS GRAVITY SEWER W/ SMALL PS; NORTH FARMERSVILLE AS GRAVITY W/ LARGE PS
AUGUST 2021**

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	395	\$13,035
	1.5-inch Directional Drill - IN ROCK	\$33	LF	132	\$4,356
	2-inch Directional Drill - IN SOIL	\$34	LF	761	\$25,874
	2-inch Directional Drill - IN ROCK	\$44	LF	254	\$11,176
	2.5-inch Directional Drill - IN SOIL	\$35	LF	-	\$0
	2.5-inch Directional Drill - IN ROCK	\$46	LF	-	\$0
	3-inch Directional Drill - IN SOIL	\$36	LF	-	\$0
	3-inch Directional Drill - IN ROCK	\$47	LF	-	\$0
	4-inch Directional Drill - IN SOIL	\$49	LF	-	\$0
	4-inch Directional Drill - IN ROCK	\$64	LF	-	\$0
					\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	2	\$20,200
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	1	\$10,600
	Cleanout Manhole - Type 1 (4")	\$11,200	EA	-	\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	-	\$0
	Cleanout Manhole - Type 2 (4")	\$13,100	EA	-	\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA	-	\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA	-	\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	-	\$0
					\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	32	\$288,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	-	\$0
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	32	\$1,792
					\$0
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	18,252	\$1,971,216
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF	-	\$0
	Rock Removal	\$300	CY	676	\$202,800
					\$0
	Manhole (6-8 feet deep) (1 per 350 LF)	\$11,000	EA	52	\$572,000
	Manhole (8-10 feet deep)		EA		\$0
					\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	131	\$21,615
					\$0
	Temporary Paving	\$7	LF	17,097	\$119,679
	Permanent Paving	\$56	LF	17,097	\$957,432
					\$0
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA	4	\$40,000
					\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA	1	\$150,000
					\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA	3	\$675,000
					\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF	8,105	\$397,145
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF	2,702	\$172,928
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	1	\$14,000
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$5,668,850
	CONSTRUCTION CONTINGENCY	25.00	%		\$1,417,213
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$1,133,770
	TOTAL ESTIMATED PROJECT COST				\$8,219,833

Estimate of Rock: Length % Length in Rock
 0
 Assume 25% of length 18252 25 4563
 LENGTH 4563
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 676

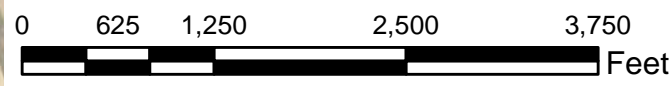
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ALTERNATE 2B (4)

Legend

- PROPOSED MANHOLES
- PS PROPOSED PUMP STATION
- OPTIONAL 2" LOW PRESSURE SEWER
- PROPOSED 4" FORCE MAIN
- PROPOSED LOW PRESSURE SEWER
- PROPOSED 8" GRAVITY SEWER
- LASA PUMPING STATIONS
- WASTE WATER TREATMENT FACILITY
- LASA MANHOLES
- EXISTING GRAVITY SEWERS
- EXISTING LOW PRESSURE SEWERS
- LASA SERVICE AREAS
- WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

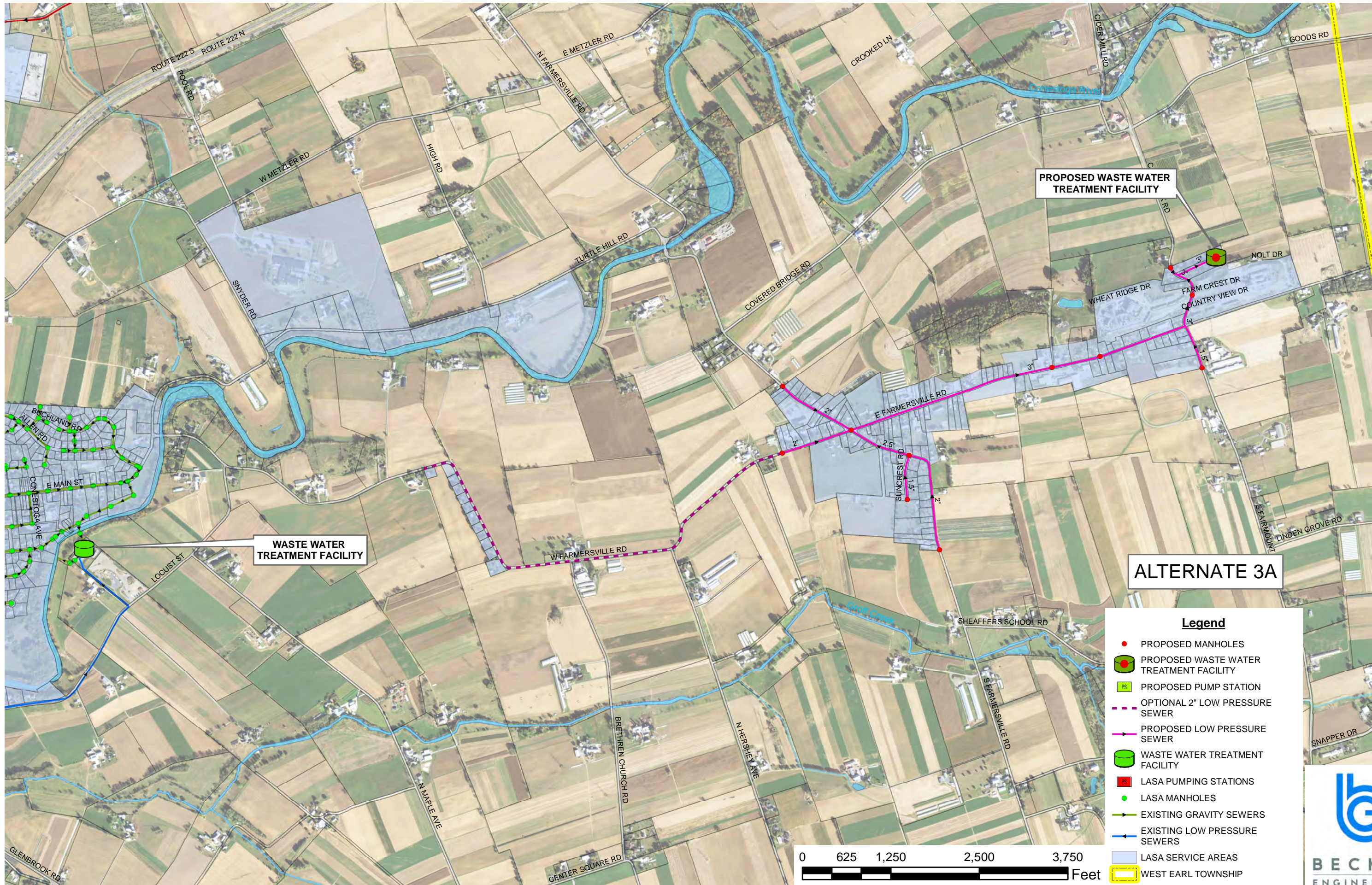
Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 2B(4) - GRAVITY SEWER TO BROWNSTOWN WWTF; INCLUDE TURTLE HILL RD
SOUTH FARMERSVILLE AS GRAVITY SEWER W/ LARGE PS; NORTH FARMERSVILLE AS GRAVITY W/ SMALL PS
AUGUST 2021**

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	395	\$13,035
	1.5-inch Directional Drill - IN ROCK	\$33	LF	132	\$4,356
	2-inch Directional Drill - IN SOIL	\$34	LF	761	\$25,874
	2-inch Directional Drill - IN ROCK	\$44	LF	254	\$11,176
	2.5-inch Directional Drill - IN SOIL	\$35	LF	-	\$0
	2.5-inch Directional Drill - IN ROCK	\$46	LF	-	\$0
	3-inch Directional Drill - IN SOIL	\$36	LF	-	\$0
	3-inch Directional Drill - IN ROCK	\$47	LF	-	\$0
	4-inch Directional Drill - IN SOIL	\$49	LF	-	\$0
	4-inch Directional Drill - IN ROCK	\$64	LF	-	\$0
					\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	2	\$20,200
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	1	\$10,600
	Cleanout Manhole - Type 1 (4")	\$11,200	EA	-	\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	-	\$0
	Cleanout Manhole - Type 2 (4")	\$13,100	EA	-	\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA	-	\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA	-	\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	-	\$0
					\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	32	\$288,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	-	\$0
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	32	\$1,792
					\$0
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	18,252	\$1,971,216
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF	-	\$0
	Rock Removal	\$300	CY	676	\$202,800
					\$0
	Manhole (6-8 feet deep) (1 per 350 LF)	\$11,000	EA	52	\$572,000
	Manhole (8-10 feet deep)		EA		\$0
					\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	131	\$21,615
					\$0
	Temporary Paving	\$7	LF	17,097	\$119,679
	Permanent Paving	\$56	LF	17,097	\$957,432
					\$0
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA	4	\$40,000
					\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA	1	\$150,000
					\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA	3	\$675,000
					\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF	8,982	\$440,118
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF	2,994	\$191,616
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	2	\$28,000
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$5,744,510
	CONSTRUCTION CONTINGENCY	25.00	%		\$1,436,128
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$1,148,902
	TOTAL ESTIMATED PROJECT COST				\$8,329,540

Estimate of Rock: Length % Length in Rock
 0
 Assume 25% of length 18252 25 4563
 LENGTH 4563
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 676

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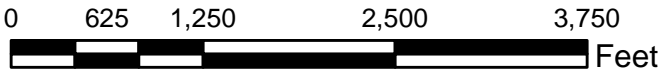
PROPOSED WASTE WATER TREATMENT FACILITY

WASTE WATER TREATMENT FACILITY

ALTERNATE 3A

Legend

- PROPOSED MANHOLES
- PROPOSED WASTE WATER TREATMENT FACILITY
- PS PROPOSED PUMP STATION
- OPTIONAL 2" LOW PRESSURE SEWER
- PROPOSED LOW PRESSURE SEWER
- WASTE WATER TREATMENT FACILITY
- PS LASA PUMPING STATIONS
- LASA MANHOLES
- EXISTING GRAVITY SEWERS
- EXISTING LOW PRESSURE SEWERS
- LASA SERVICE AREAS
- ▭ WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

Project No. 21-114-05

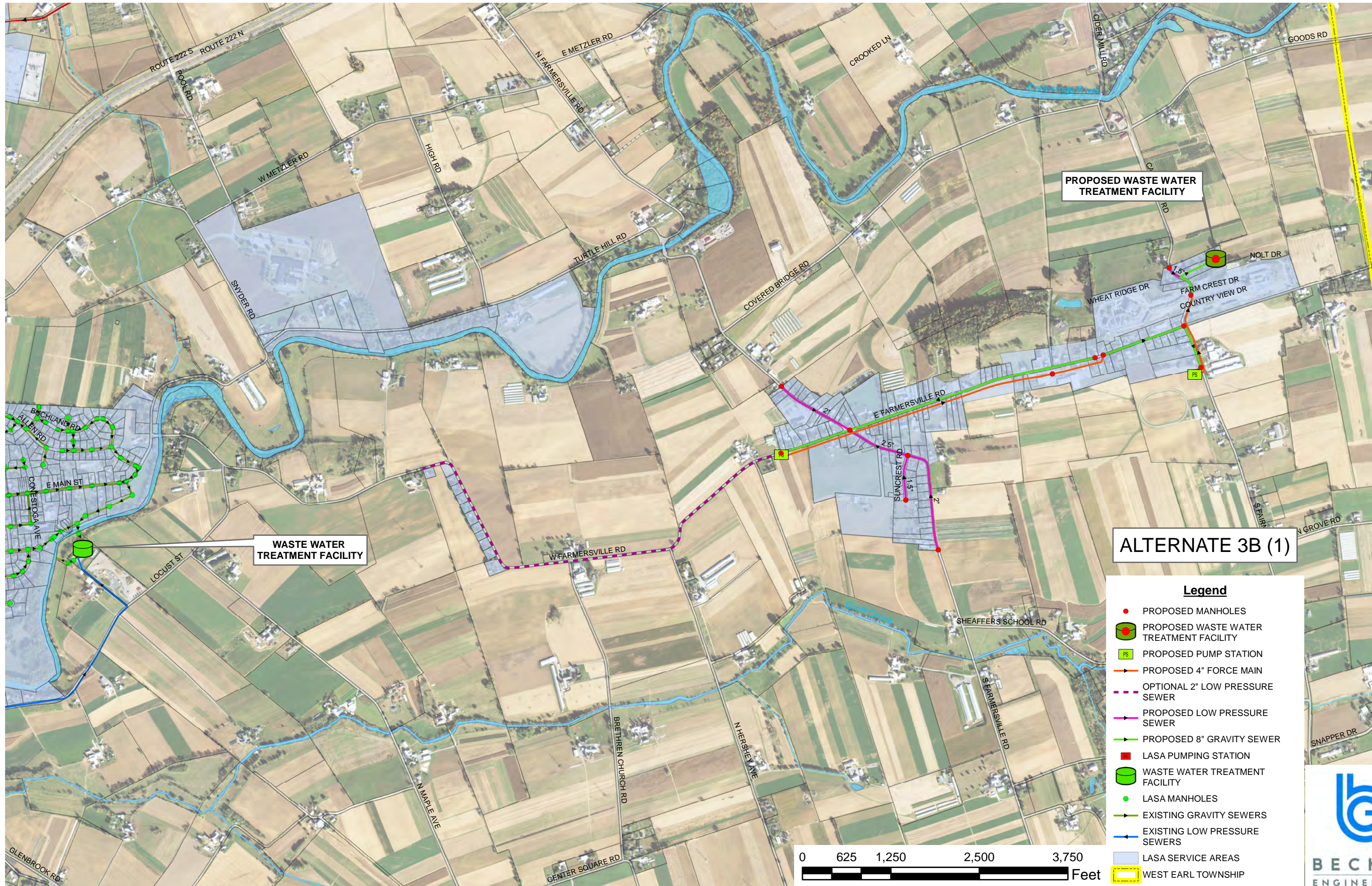
**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 3A - LOW PRESSURE SEWER TO WWTF AT FAIRMOUNT HOMES**

AUGUST 2021

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	1,020	\$33,660
	1.5-inch Directional Drill - IN ROCK	\$33	LF	340	\$11,220
	2-inch Directional Drill - IN SOIL	\$34	LF	2,793	\$94,962
	2-inch Directional Drill - IN ROCK	\$44	LF	931	\$40,964
	2.5-inch Directional Drill - IN SOIL	\$35	LF	678	\$23,730
	2.5-inch Directional Drill - IN ROCK	\$46	LF	226	\$10,396
	3-inch Directional Drill - IN SOIL	\$36	LF	4,729	\$170,244
	3-inch Directional Drill - IN ROCK	\$47	LF	1,577	\$74,119
	4-inch Directional Drill - IN SOIL	\$49	LF		\$0
	4-inch Directional Drill - IN ROCK	\$64	LF		\$0
					\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	6	\$60,600
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	16	\$169,600
	Cleanout Manhole - Type 1 (4")	\$11,200	EA		\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	4	\$49,704
	Cleanout Manhole - Type 2 (4")	\$13,100	EA		\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA	1	\$13,500
	Cleanout Manhole - Type 3 (4")	\$14,500	EA		\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	3	\$42,000
					\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	135	\$1,215,000
	Duplex Grinder Assembly, including controls	\$22,000	EA		\$0
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	135	\$7,560
					\$0
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	-	\$0
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF		\$0
	Rock Removal	\$300	CY	-	\$0
					\$0
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA	-	\$0
	Manhole (8-10 feet deep)		EA		\$0
					\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	-	\$0
					\$0
	Temporary Paving	\$7	LF	-	\$0
	Permanent Paving	\$56	LF	-	\$0
					\$0
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA		\$0
					\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA		\$0
					\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA		\$0
					\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF		\$0
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF		\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA		\$0
					\$0
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$2,017,260
	CONSTRUCTION CONTINGENCY	25.00	%		\$504,315
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$403,452
	TOTAL ESTIMATED PROJECT COST				\$2,925,027

Estimate of Rock: Length % Length in Rock
 0
 Assume 25% of length 25 0
 LENGTH 0
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 0

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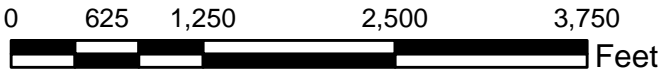


PROPOSED WASTE WATER TREATMENT FACILITY

WASTE WATER TREATMENT FACILITY

ALTERNATE 3B (1)

- Legend**
- PROPOSED MANHOLES
 - PROPOSED WASTE WATER TREATMENT FACILITY
 - PS PROPOSED PUMP STATION
 - PROPOSED 4" FORCE MAIN
 - - - OPTIONAL 2" LOW PRESSURE SEWER
 - PROPOSED LOW PRESSURE SEWER
 - PROPOSED 8" GRAVITY SEWER
 - LASA PUMPING STATION
 - WASTE WATER TREATMENT FACILITY
 - LASA MANHOLES
 - EXISTING GRAVITY SEWERS
 - EXISTING LOW PRESSURE SEWERS
 - LASA SERVICE AREAS
 - WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

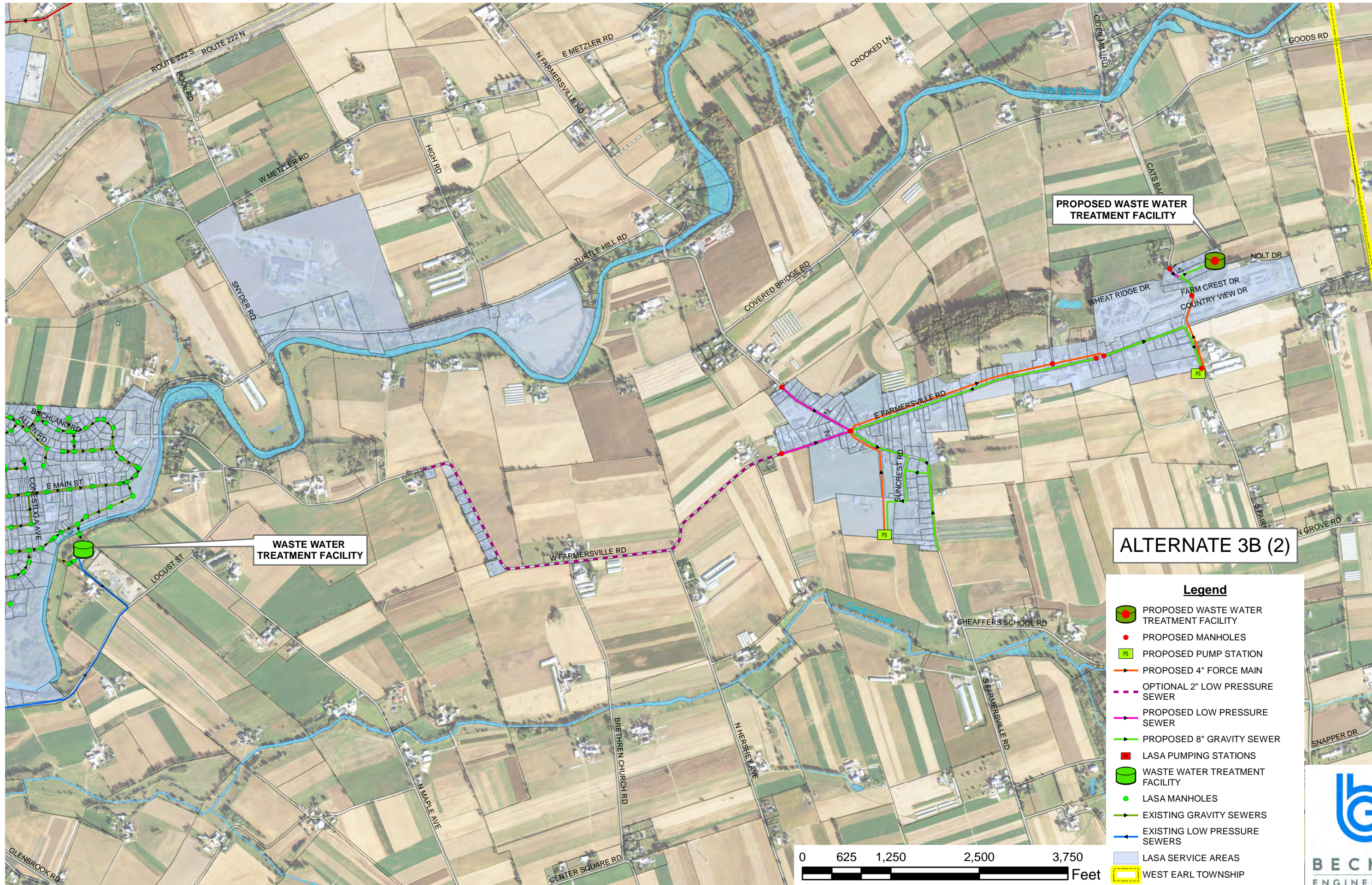
Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 3B(1) - GRAVITY SEWER TO WWTF AT FAIRMOUNT HOMES
SOUTH FARMERSVILLE AS LOW PRESSURE SEWER
AUGUST 2021**

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	577	\$19,041
	1.5-inch Directional Drill - IN ROCK	\$33	LF	193	\$6,369
	2-inch Directional Drill - IN SOIL	\$34	LF	2,032	\$69,088
	2-inch Directional Drill - IN ROCK	\$44	LF	677	\$29,788
	2.5-inch Directional Drill - IN SOIL	\$35	LF	678	\$23,730
	2.5-inch Directional Drill - IN ROCK	\$46	LF	226	\$10,396
	3-inch Directional Drill - IN SOIL	\$36	LF		\$0
	3-inch Directional Drill - IN ROCK	\$47	LF		\$0
	4-inch Directional Drill - IN SOIL	\$49	LF		\$0
	4-inch Directional Drill - IN ROCK	\$64	LF		\$0
					\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	4	\$40,400
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	4	\$42,400
	Cleanout Manhole - Type 1 (4")	\$11,200	EA		\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	1	\$12,426
	Cleanout Manhole - Type 2 (4")	\$13,100	EA		\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA		\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA		\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	-	\$0
					\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	56	\$504,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	-	\$0
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	56	\$3,136
					\$0
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	7,433	\$802,764
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF		\$0
	Rock Removal	\$300	CY	275	\$82,500
					\$0
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA	23	\$253,000
	Manhole (8-10 feet deep)		EA	-	\$0
					\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	79	\$13,035
					\$0
	Temporary Paving	\$7	LF	7,433	\$52,031
	Permanent Paving	\$56	LF	7,433	\$416,248
					\$0
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA	2	\$20,000
					\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA	2	\$300,000
					\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA		\$0
					\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF	4,345	\$212,905
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF	1,448	\$92,672
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	2	\$28,000
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$3,033,930
	CONSTRUCTION CONTINGENCY	25.00	%		\$758,483
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$606,786
	TOTAL ESTIMATED PROJECT COST				\$4,399,199

Estimate of Rock: Length % Length in Rock
 0
 Assume 25% of length 7433 25 1858.25
 LENGTH 1858
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 275

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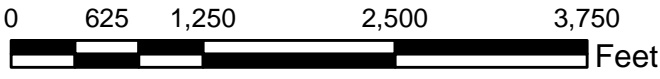
PROPOSED WASTE WATER TREATMENT FACILITY

WASTE WATER TREATMENT FACILITY

ALTERNATE 3B (2)

Legend

- PROPOSED WASTE WATER TREATMENT FACILITY
- PROPOSED MANHOLES
- PROPOSED PUMP STATION
- PROPOSED 4" FORCE MAIN
- OPTIONAL 2" LOW PRESSURE SEWER
- PROPOSED LOW PRESSURE SEWER
- PROPOSED 8" GRAVITY SEWER
- LASA PUMPING STATIONS
- WASTE WATER TREATMENT FACILITY
- LASA MANHOLES
- EXISTING GRAVITY SEWERS
- EXISTING LOW PRESSURE SEWERS
- LASA SERVICE AREAS
- WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

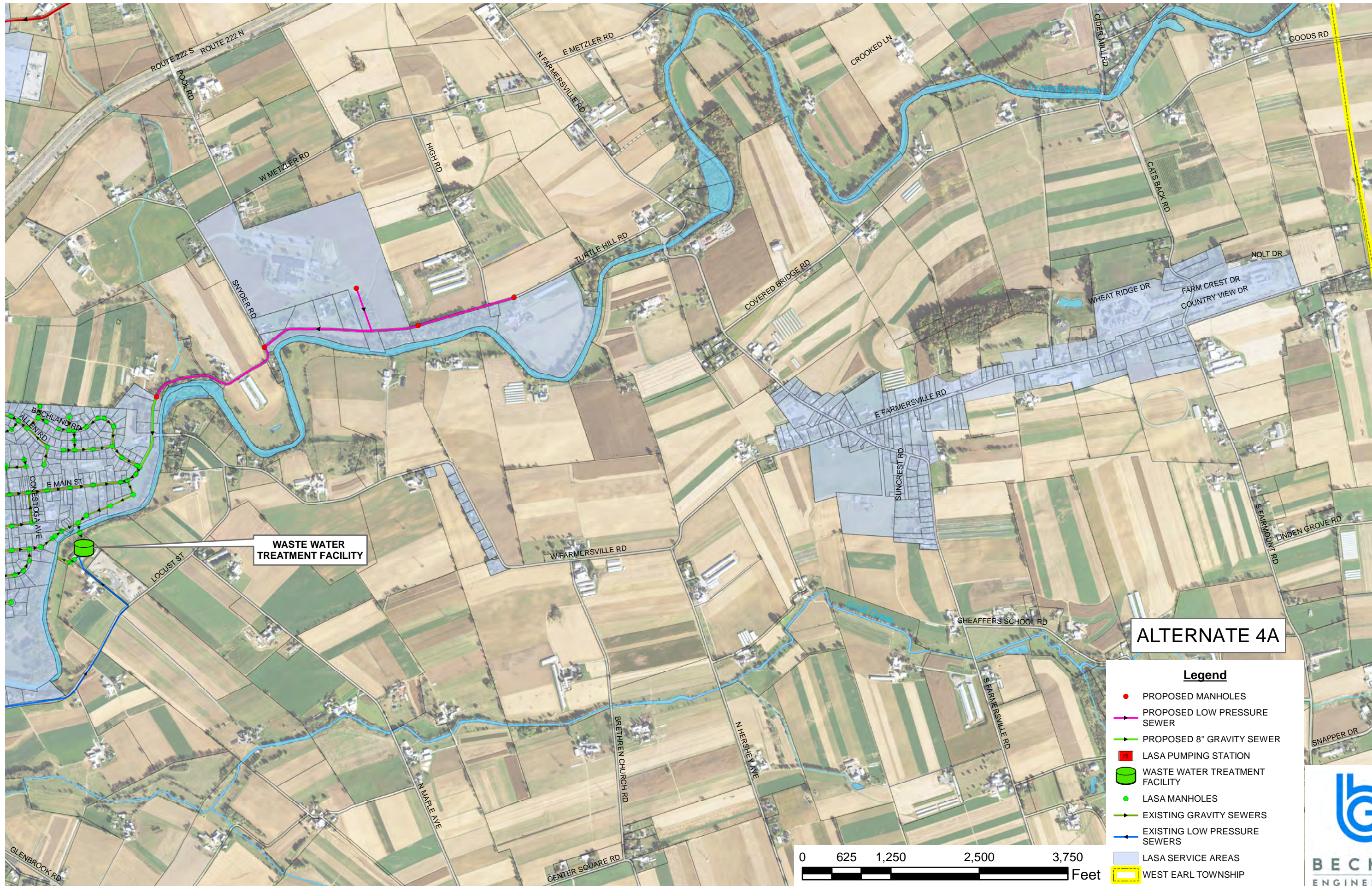
Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 3B(2) - GRAVITY SEWER TO WWTF AT FAIRMOUNT HOMES
SOUTH FARMERSVILLE AS GRAVITY SEWER
AUGUST 2021**

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer				\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF	95	\$3,135
	1.5-inch Directional Drill - IN ROCK	\$33	LF	32	\$1,056
	2-inch Directional Drill - IN SOIL	\$34	LF	1,638	\$55,692
	2-inch Directional Drill - IN ROCK	\$44	LF	546	\$24,024
	2.5-inch Directional Drill - IN SOIL	\$35	LF		\$0
	2.5-inch Directional Drill - IN ROCK	\$46	LF		\$0
	3-inch Directional Drill - IN SOIL	\$36	LF		\$0
	3-inch Directional Drill - IN ROCK	\$47	LF		\$0
	4-inch Directional Drill - IN SOIL	\$49	LF		\$0
	4-inch Directional Drill - IN ROCK	\$64	LF		\$0
					\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	3	\$30,300
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	2	\$21,200
	Cleanout Manhole - Type 1 (4")	\$11,200	EA		\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA		\$0
	Cleanout Manhole - Type 2 (4")	\$13,100	EA		\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA		\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA		\$0
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	-	\$0
					\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	30	\$270,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	-	\$0
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	30	\$1,680
					\$0
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	10,610	\$1,145,880
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF		\$0
	Rock Removal	\$300	CY	393	\$117,900
					\$0
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA	27	\$297,000
	Manhole (8-10 feet deep)		EA	-	\$0
					\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	105	\$17,325
					\$0
	Temporary Paving	\$7	LF	10,610	\$74,270
	Permanent Paving	\$56	LF	10,610	\$594,160
					\$0
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA	2	\$20,000
					\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA	2	\$300,000
					\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA		\$0
					\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF	4,859	\$238,091
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF	1,619	\$103,616
					\$0
	Air/Vacuum Release Manhole	\$14,000	EA	2	\$28,000
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$3,343,330
	CONSTRUCTION CONTINGENCY	25.00	%		\$835,833
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$668,666
	TOTAL ESTIMATED PROJECT COST				\$4,847,829

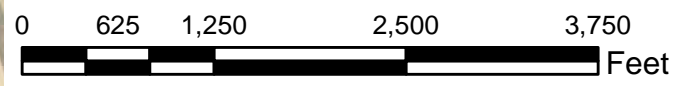
Estimate of Rock: Length % Length in Rock
 0
 Assume 25% of length 10610 25 2652.5
 LENGTH 2653
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 393

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ALTERNATE 4A

- Legend**
- PROPOSED MANHOLES
 - PROPOSED LOW PRESSURE SEWER
 - PROPOSED 8" GRAVITY SEWER
 - LASA PUMPING STATION
 - WASTE WATER TREATMENT FACILITY
 - LASA MANHOLES
 - EXISTING GRAVITY SEWERS
 - EXISTING LOW PRESSURE SEWERS
 - LASA SERVICE AREAS
 - ▭ WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 4A - TURTLE HILL ROAD - LOW PRESSURE SEWER SYSTEM**

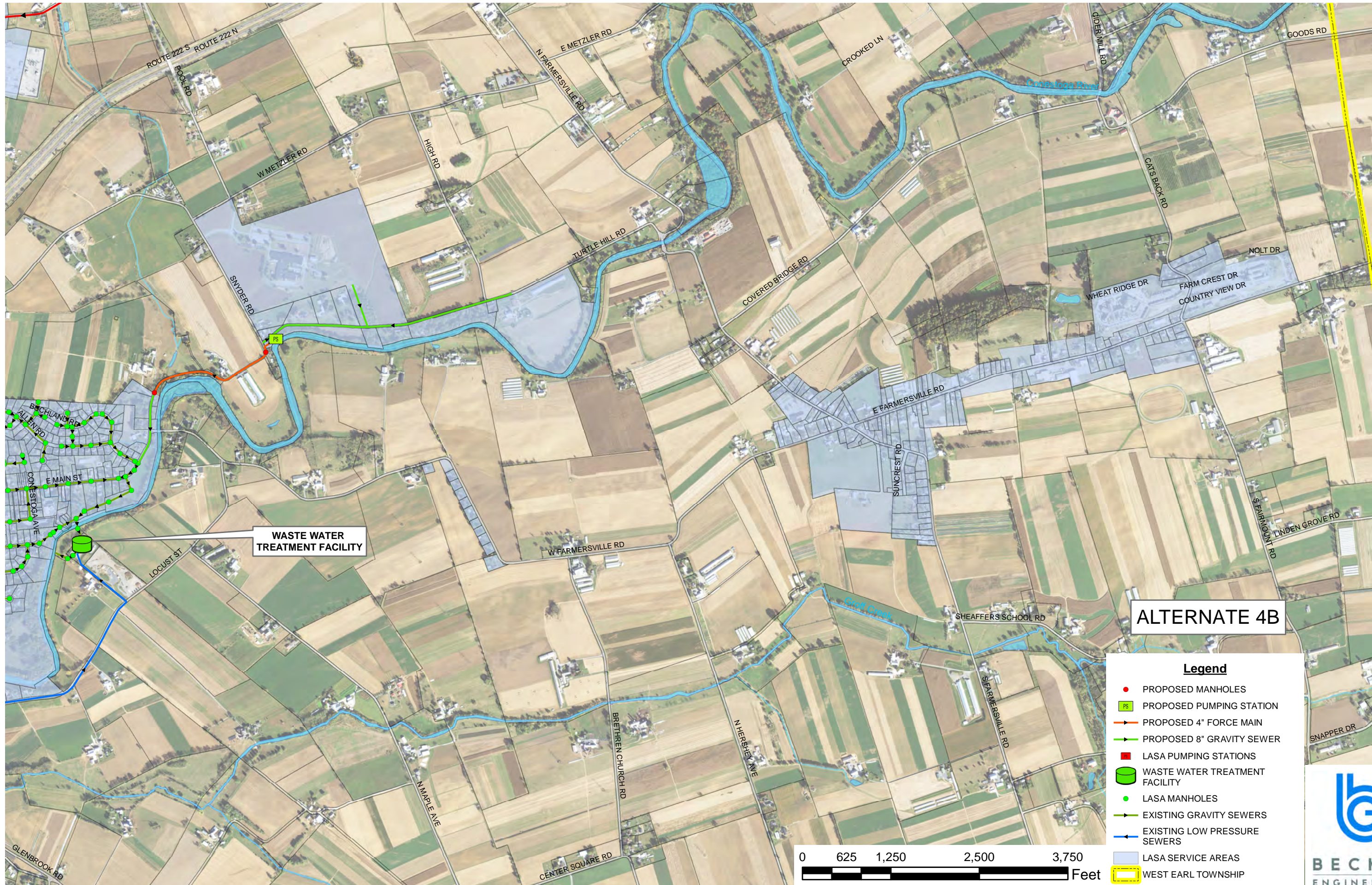
AUGUST 2021

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer		LF		\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF		\$0
	1.5-inch Directional Drill - IN ROCK	\$33	LF		\$0
	2-inch Directional Drill - IN SOIL	\$34	LF		\$0
	2-inch Directional Drill - IN ROCK	\$44	LF		\$0
	2.5-inch Directional Drill - IN SOIL	\$35	LF	4,564	\$159,740
	2.5-inch Directional Drill - IN ROCK	\$46	LF	1,521	\$69,966
	3-inch Directional Drill - IN SOIL	\$36	LF		\$0
	3-inch Directional Drill - IN ROCK	\$47	LF		\$0
	4-inch Directional Drill - IN SOIL	\$49	LF		\$0
	4-inch Directional Drill - IN ROCK	\$64	LF		\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	1	\$10,100
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	10	\$106,000
	Cleanout Manhole - Type 1 (4")	\$11,200	EA		\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA	2	\$24,852
	Cleanout Manhole - Type 2 (4")	\$13,100	EA		\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA		\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA		\$0
	Air/Vacuum Release Manhole	\$14,000	EA	1	\$14,000
	Simplex Grinder Assembly, including controls	\$9,000	EA	24	\$216,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	1	\$22,000
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	24	\$1,344
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	1,011	\$109,188
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF	-	\$0
	Rock Removal	\$300	CY	37	\$11,100
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA	4	\$44,000
	Manhole (8-10 feet deep)		EA	-	\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	4	\$660
	Temporary Paving	\$7	LF	1,011	\$7,077
	Permanent Paving	\$56	LF	1,011	\$56,616
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA		\$0
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA		\$0
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA		\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF		\$0
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF		\$0
	Air/Vacuum Release Manhole	\$14,000	EA		\$0
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$852,640
	CONSTRUCTION CONTINGENCY	25.00	%		\$213,160
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$170,528
	TOTAL ESTIMATED PROJECT COST				\$1,236,328

LCCTC

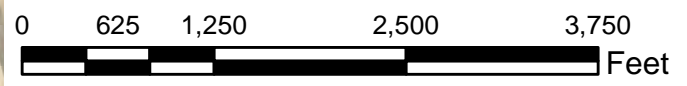
Estimate of Rock: Length % Length in Rock
 Assume 25% of length 1011 25 252.75
 LENGTH 253
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 37

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ALTERNATE 4B

- Legend**
- PROPOSED MANHOLES
 - PS PROPOSED PUMPING STATION
 - PROPOSED 4" FORCE MAIN
 - PROPOSED 8" GRAVITY SEWER
 - LASA PUMPING STATIONS
 - WASTE WATER TREATMENT FACILITY
 - LASA MANHOLES
 - EXISTING GRAVITY SEWERS
 - EXISTING LOW PRESSURE SEWERS
 - LASA SERVICE AREAS
 - WEST EARL TOWNSHIP



**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
ALTERNATIVE 4B - TURTLE HILL ROAD - GRAVITY SEWER SYSTEM**

AUGUST 2021

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
	Low Pressure Sewer		LF		\$0
	1.5-inch Directional Drill - IN SOIL	\$33	LF		\$0
	1.5-inch Directional Drill - IN ROCK	\$33	LF		\$0
	2-inch Directional Drill - IN SOIL	\$34	LF		\$0
	2-inch Directional Drill - IN ROCK	\$44	LF		\$0
	2.5-inch Directional Drill - IN SOIL	\$35	LF		\$0
	2.5-inch Directional Drill - IN ROCK	\$46	LF		\$0
	3-inch Directional Drill - IN SOIL	\$36	LF		\$0
	3-inch Directional Drill - IN ROCK	\$47	LF		\$0
	4-inch Directional Drill - IN SOIL	\$49	LF		\$0
	4-inch Directional Drill - IN ROCK	\$64	LF		\$0
	Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA		\$0
	Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA		\$0
	Cleanout Manhole - Type 1 (4")	\$11,200	EA		\$0
	Cleanout Manhole - Type 2 (1.5" - 3")	\$12,426	EA		\$0
	Cleanout Manhole - Type 2 (4")	\$13,100	EA		\$0
	Cleanout Manhole - Type 3 (1.5" - 3")	\$13,500	EA		\$0
	Cleanout Manhole - Type 3 (4")	\$14,500	EA		\$0
	Air/Vacuum Release Manhole	\$14,000	EA		\$0
	Simplex Grinder Assembly, including controls	\$9,000	EA	15	\$135,000
	Duplex Grinder Assembly, including controls	\$22,000	EA	-	\$0
	Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	15	\$840
	Gravity Sewer				\$0
	8-inch SDR-35 PVC, (6-8 feet deep)	\$108	LF	4,969	\$536,652
	8-inch SDR-35 PVC, (8-10 feet deep)	\$120	LF	-	\$0
	Rock Removal	\$300	CY	184	\$55,200
	Manhole (6-8 feet deep) (1 per 350LF)	\$11,000	EA		\$0
	Manhole (8-10 feet deep)		EA	-	\$0
	Gravity Lateral Connection (assume 20LF average)	\$165	EA	14	\$2,310
	Temporary Paving	\$7	LF	4,969	\$34,783
	Permanent Paving	\$56	LF	4,969	\$278,264
	Pumping Stations				\$0
	Allowance for Land Acquisition (assume 0.1 acres)	\$10,000	EA	1	\$10,000
	Pumping Station Type 1 SMALL - duplex submersible	\$150,000	EA	1	\$150,000
	Pumping Station Type 2 LARGE - duplex submersible	\$225,000	EA		\$0
	Force Mains				\$0
	Base				\$0
	4-inch HDPE Force Main, Directional Drilling - IN SOIL	\$49	LF	1,745	\$85,505
	4-inch HDPE Force Main, Directional Drilling - IN ROCK	\$64	LF	582	\$37,248
	Air/Vacuum Release Manhole	\$14,000	EA	1	\$14,000
					\$0
					\$0
	SUBTOTAL ESTIMATED CONSTRUCTION COST				\$1,339,800
	CONSTRUCTION CONTINGENCY	25.00	%		\$334,950
	ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$267,960
	TOTAL ESTIMATED PROJECT COST				\$1,942,710

LCCTC IS GRAVITY

24+LCCTC+FUTURE

Estimate of Rock: Length % Length in Rock
 0
 Assume 25% of length 4969 25 1242.25
 LENGTH 1242
 Volume of Rock Removal = (Length x 2' trench width x 2' depth)/27 CF/CY CY= 184

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**LANCASTER AREA SEWER AUTHORITY
FARMERSVILLE SEWER ALTERNATIVES**

Project No. 21-114-05

CONCEPTUAL PROJECT COST OPINION

**ADDER TO SERVE WEST FARMERSVILLE ROAD AREA
AUGUST 2021**

DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
2-inch Directional Drill - IN SOIL	\$34	LF	4,838	\$164,492
2-inch Directional Drill - IN ROCK	\$44	LF	1,612	\$70,928
Terminal Cleanout Manhole (1.5" - 4")	\$10,100	EA	1	\$10,100
Cleanout Manhole - Type 1 (1.5" - 3")	\$10,600	EA	12	\$127,200
Air/Vacuum Release Manhole	\$14,000	EA	1	\$14,000
Simplex Grinder Assembly, including controls	\$9,000	EA	12	\$108,000
Low Pressure Lateral Connection (assume 20LF average)	\$56	EA	12	\$672
				\$495,392
CONSTRUCTION CONTINGENCY	25.00	%		\$123,848
ENGINEERING, PERMITTING, AND LEGAL	20.00	%		\$99,078
TOTAL ESTIMATED PROJECT COST				\$718,318

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**LANCASTER AREA SEWER AUTHORITY
 FARMERSVILLE SEWER ALTERNATIVES**

Project No. 21-114-05

**CONCEPTUAL PROJECT COST OPINION
 NEW WASTEWATER TREATMENT FACILITY**

AUGUST 2021

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	PRICE
					\$0
	Erosion & Sediment Control	\$5,000	LS	1	\$5,000
	Site Demolition	\$20,000	LS	1	\$20,000
	Excavation	\$10	CY	1,000	\$10,000
	Allowance for rock excavation	\$300	CY	50	\$15,000
	Site restoration	\$15,000	LS	1	\$15,000
	Paving	\$7	SY	1,600	\$11,200
	Fencing w/ Gate	\$20	LF	1,340	\$26,800
					\$0
	Influent Structure	\$400	CY	40	\$16,000
	Vertical Screen w/ controls, cold weather protection and bagger	\$113,000	LS	1	\$113,000
	Influent Pumps	\$12,500	EA	2	\$25,000
	Influent Pump Controls	\$10,000	EA	1	\$10,000
	Influent Mag Meter	\$5,000	EA	1	\$5,000
	Influent Composite Sampler	\$7,500	EA	1	\$7,500
					\$0
	SBR Structure including Room for blowers, alum, MCC	\$400	CY	584	\$233,600
	SBR Equipment	\$635,000	EA	1	\$635,000
	Aerobic Digestion Equipment	\$118,000	EA	1	\$118,000
	Post WQ Equipment	\$63,000	EA	1	\$63,000
					\$0
	UV Disinfection Structure	\$400	CY	55	\$22,000
	UV Disinfection Equipment	\$25,000	EA	2	\$50,000
	Effluent Composite Sampler	\$7,500	LS	1	\$7,500
	Outfall Sewer - connect to existing	\$100	LF	400	\$40,000
					\$0
	Alum Feed System	\$20,000	LS	1	\$20,000
					\$0
					\$0
	Control Building	\$150,000	EA	1	\$150,000
					\$0
	Emergency Generator	\$120,000	EA	1	\$120,000
					\$0
	Allowance for SCADA	\$15,000	EA	1	\$15,000
					\$0
					\$0
	Plumbing Work	\$30,000	LS	1	\$30,000
					\$0
	HVAC Work	\$75,000	LS	1	\$75,000
					\$0
	Electrical Work	\$150,000	LS	1	\$150,000
					\$0
					\$0
					\$0
					\$0
					\$0
					\$0
					\$0
					\$0
					\$0
					\$0
					\$0
					\$0
SUBTOTAL ESTIMATED CONSTRUCTION COST					\$2,008,600
CONSTRUCTION CONTINGENCY		25.00	%		\$502,150
ENGINEERING, PERMITTING, AND LEGAL		20.00	%		\$401,720
TOTAL ESTIMATED PROJECT COST					\$2,912,470

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