
EXHIBIT P5

EAST WHITELAND TOWNSHIP – ACT 537 PLAN DOCUMENTS
(SPECIAL STUDY 2016)

East Whiteland Township

Frame Avenue/Planebrook Road

Act 537 Special Study

August 2016

Engineer's Project No. 10310.21

Prepared By:



ARRO Consulting, Inc.
649 North Lewis Road, Suite 100
Limerick, PA 19468

TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY.....	1
I. PREVIOUS WASTEWATER PLANNING	4
A. Identify and Discuss Existing Wastewater Planning.....	4
II. PHYSICAL AND DEMOGRAPHIC ANALYSIS	6
A. Identify Planning Area, Municipal Boundaries, and Service Area Boundaries Through Mapping.....	6
B. Identify the Physical Characteristics of the Planning Area	6
C. Soils Analysis.....	6
D. Geological Features of the Planning Area	7
E. Topography	6
F. Potable Water Supply Information.....	7
G. Wetlands.....	7
III. EXISTING FACILITIES IN THE PLANNING AREA	8
A. Identify and Describe Municipal Sewage Systems in the Planning Area	8
B. Individual and Community On-Lot Disposal Systems	9
C. Wastewater Sludge and Septage Generation	10
IV. FUTURE GROWTH AND LAND DEVELOPMENT.....	11
A. Identification of Municipal and County Planning Documents.....	11
B. Description of Future Growth and Development	12
V. ALTERNATIVES TO PROVIDE NEW OR IMPROVED WASTEWATER DISPOSAL FACILITIES	17
A. Identify Alternatives.....	17
B. Use of Individual Disposal Systems	19
C. Small Flow Sewage Treatment Facilities.....	19
D. Community Land Disposal	20
E. Retaining Tank	20

F.	Septage Management.....	20
G.	Non-Structural Comprehensive Planning Alternatives	20
H.	No Action Alternative.....	20
VI.	EVALUATION OF ALTERNATIVES	22
A.	Consistency Determination	22
B.	Resolution of Inconsistencies	25
C.	Alternative Evaluation with Respect to Applicable Water Quality Standards and Effluent Limitations	26
D.	Preliminary Cost Opinions	26
E.	Analysis of Available Funding Methods.....	26
F.	Immediate or Phased Implementation	30
G.	Ability of the Township to Implement the Alternative.....	31
VII.	INSTITUTIONAL EVALUATION	32
A.	Analysis of the Township, Past Actions, and Present Performance	32
B.	Institutional Alternatives Necessary to Implement the Technical Alternative	33
C.	Administrative and Legal Activities to be Completed and Adopted to Ensure the Implementation of the Technical Alternative	33
D.	Selected Institutional Alternative... ..	35
VIII.	SELECTED WASTEWATER TREATMENT AND INSTITUTIONAL ALTERNATIVE	36
A.	Identify the Chosen Technical Alternative	36
B.	Selected Capital Financing Plan	38

LIST OF TABLES AND APPENDICES

APPENDICES

Appendix A	Zoning Map
Appendix B	Planning Area
Appendix C	Existing and Proposed Sanitary Sewer Service Area
Appendix D	Topography
Appendix E	Wetlands Map
Appendix F	Proposed Collection/Conveyance System and Flow Path
Appendix G	PNDI Response
Appendix H	PHMC Response
Appendix I	Municipal Comments and Responses
Appendix J	County Comments and Responses
Appendix K	Proof of Publication
Appendix L	Public Comments and Responses
Appendix M	Adopted Resolutions
Appendix N	Approved Plan of Study and Task Activity Report
Appendix O	Communication – Extension of Public Sewers to Serve OLDS Properties

EXECUTIVE SUMMARY

This Act 537 Special Study (Special Study) was prepared for East Whiteland Township (Township) at the request of the Pennsylvania Department of Environmental Protection (PA DEP) in accordance with Act 537 entitled the Pennsylvania Sewage Facilities Act, Title 25, Chapter 71 of the Pennsylvania Code and the Pennsylvania Department of Environmental Protection Act 537 Plan Content and Environmental Assessment Checklist. This Special Study addresses the requirements necessary to implement a regional pump station that is to provide service to the Frame Avenue and Planebrook Road planning area. (See Appendix B for planning area map)

The Plan is comprised of the following components addressed in the Plan of Study:

- I. Previous Wastewater Planning
- II. Physical and Demographic Analysis
- III. Existing Sewage Facilities in the Planning Area
- IV. Future Growth and Development
- V. Alternatives to provide for new or improved wastewater disposal facilities
- VI. Evaluation of Alternatives
- VII. Institutional Evaluation
- VIII. Selected Wastewater Treatment and Institutional Alternative

The primary focus of the Plan is to evaluate alternatives to provide for upgraded Township conveyance system facilities including the implementation of the above-referenced regional pump station and extension of sanitary sewer main to areas currently served by on-lot disposal systems.

To meet the wastewater conveyance needs of the planning area, it is proposed that the Township implement the construction of a regional pump station and force main.

The engineer's opinions of probable construction cost (**planning level costs**) for the selected alternative is:

- Construct a regional pump station that will serve the current public sewer service area that drains to the existing Frame Avenue Pump Station as well as provide for future service to areas currently served by OLDS. \$560,000
- Construct an 8-inch force main that will extend from the proposed regional pump station to a connection point with the existing Whiteland Village interceptor north of the intersection of Planebrook Road and Swedesford Road. \$720,000

With the infrastructure improvements being prompted by the implementation of the proposed regional pump station as well as new development on the Cockerham Tract, these alternatives will be paid for and financed through a combination of monies from developer funds and Township funds.

The following is a schedule for implementing the proposed alternative:

Description	Date
1. Complete rehabilitation of Whiteland Village dry sewer and complete the missing link (Rehabilitation is on-going by others)	5/17
2. Preliminary design Planebrook Road Force Main	5/17
3. Preliminary design Planebrook Road Regional Pump Station	5/17
4. Submit Permit Applications (Part II WQM/E&S/Stormwater)	6/17
5. Receive Permits	9/17
6. Final Design	9/17
7. Project Bid – Force Main	9/17
8. Developer Begin Construction – Pump Station	9/17
9. Award Bid – Force Main	11/17

- | | |
|---|-------|
| 10. Initiate Planning – Public Sewer Extensions to OLDS Properties [Component 3m] | 11/17 |
| 11. Complete Construction – Force Main | 5/18 |
| 12. Complete Construction – Pump Station | 5/18 |
| 13. Initiate Preliminary Design Public Sewer Extensions | 11/17 |

I. PREVIOUS WASTEWATER PLANNING

A. Identify and Discuss Existing Wastewater Planning

1. *Previous Act 537 Planning*

An Act 537 Sewage Facilities Plan, dated May 2, 1995, was prepared for East Whiteland Township. This was a 'township-wide' plan. The primary purpose of the Plan was to consider the extension of the existing public collection and conveyance system to most of the Township, as needed.

The Valley Forge Sewer Authority adopted their Act 537 Planning in November of 2006. The Authority's wastewater treatment plant is the point to where the Township's wastewater flows for ultimate treatment and disposal.

An Act 537 Plan amendment "Special Study" was prepared. It was last revised in September 2011. The purpose of this study was to focus on the wastewater needs to address the replacement and upgrade of the Mill Lane Pump Station. This Special Study was approved by PA DEP in 2011/2012.

An Act 537 Special Study was prepared in 2013 and approved by the Department. This Special Study identified and addressed the requirements necessary to upgrade portions of the Township's conveyance system to accommodate future flow needs from Charlestown Township and East Whiteland Township. The planning area included south central Charlestown Township and north central East Whiteland Township.

An Act 537 Special Study was prepared and approved in 2015. This Special Study identified and addressed the requirements necessary to upgrade the Wilburdale Pump Station as well as adjacent conveyance components to meet the future needs of the Great Valley Corporate Campus.

2. *Planning Not Done in Accordance with an Approved Implementation Schedule*

There has been no planning by the Township that has not been completed in accordance with an approved implementation schedule.

3. *Additional Planning*

Planning that is anticipated by the Township above and beyond the planning associated with this Act 537 Special Study is associated with the extension of public sanitary sewer service to properties currently served by on-lot disposal systems along and adjacent to Planebrook Road. Planning for this will need to be completed via a Component 3m Planning Module. This planning component is for Minor Act 537 Update revisions for proposed sanitary sewer extensions to serve existing development. This will facilitate specifics associates with costs to the residents and will allow for additional public involvement. Note that the initiation of this planning shall be triggered by the start of construction of the Planebrook Road Regional Pump Station and force main.

4. *Planning Via Planning Modules or Addenda.*

Three (3) revisions were made to the Township-wide 537 Plan. The first was the Special Study for the Mill Lane Pump Station that was last revised in September 2011. The second was the Special Study (approved by the Department in September 2013) addressing conveyance system upgrades to accommodate future flows in East Whiteland and Charlestown Township. The third was the Special Study (approved 2015) addressing upgrades to the Wilburdale Pump Station to accommodate GVCC needs.

II. PHYSICAL AND DEMOGRAPHIC ANALYSIS

A. Identify Planning Area, Municipal Boundaries, and Service Area Boundaries Through Mapping

This Act 537 Special Study is being prepared to address the sewage facilities needs of existing and new development in the area served by the Frame Avenue Pump Station, the temporary pump station on the Cockerham Tract, and properties surrounding Planebrook Road. Refer to the Plan in Appendix B that shows the boundary for the planning area addressed in this Special Study.

B. Identify the Physical Characteristics of the Planning Area

East Whiteland Township is located in Chester County, due east of Exton, PA. The topography of the planning area varies from a low elevation of 350 feet near the temporary pump station on the Cockerham Tract to an elevation of 550 feet near Glen Loch Way and Ravine Road. A topographical map of the area is found in Appendix D.

In addition, the wetlands per the National Wetlands Inventory Map are detailed on the map found in Appendix E.

C. Soils Analysis

In the identified planning area, most areas are served by public sewer. There is a portion of the planning area that is served by on-lot disposal systems. The soils in this area are UudB (UuB) "Urban Land-Udorthents complex, 0 to 8 percent slopes." For the application of wastewater to areas with this type of soil, the soil is very limited, has low absorption, slow water movement, and is too acidic.

D. Geological Features of the Planning Area

The primary geologic formations in the planning area include:

1. C1 - Ledger Dolomite

- 2. Ce - Elbrook Limestone
- 3. OCc - Conestoga Limestone

The ledger formation is light gray, locally mottled, pure, coarsely crystalline dolomite, and siliceous in the middle part. Elbrook Limestone is light blue, laminated, containing argillaceous limestone and calcareous shale and some dolomite. Conestoga Limestone is light gray, thin-bedded, impure, contorted limestone having shale partings.

E. Topography

As referenced in Section II.B. of this Plan, the topography of the planning area varies from a low elevation of 350 feet near the temporary pump station on the Cockerham Tract to an elevation of 550 feet near Glen Loch Way and Ravine Road. A topographical map of the area is presented in Appendix D.

F. Potable Water Supply Information

The entire area is served by public water supplied by Aqua PA.

G. Wetlands

There are no wetland areas within the planning area as identified on the map found in Appendix E. The source for the wetlands information is the National Wetlands Inventory Mapping provided by the U.S. Fish and Wildlife Service.

III. EXISTING FACILITIES IN THE PLANNING AREA

A. Identify and Describe Municipal Sewage Systems in the Planning Area

1. *Location, Size, and Ownership of Facilities*

Currently, there are collection and conveyance facilities in the planning area. The sanitary sewer mains that currently make up the collection system are 8 inches in diameter.

There is one (1) wastewater pump station in the planning area. The Frame Avenue Pump Station is located at the end of Frame Avenue in the northeast portion of the planning area. This pump station has a design capacity of 0.360 MGD. Wastewater is pumped through an existing 6-inch force main to the gravity sewer main located in Lancaster Avenue.

2. *Narrative and Schematic Diagram of the Basic Treatment Process*

Since the focus of this Special Study is to address the needs associated with the collection and conveyance system in the planning area, a narrative and schematic diagram of the basic treatment process is not applicable.

3. *Description of Problems with the Existing Facilities*

Currently, there are no specific problems with the existing facilities.

4. *On-Going Upgrades or Expansion of Facilities*

Adjacent to the planning area, there are some upgrades being made. These include:

- a. Maintenance and placing into service the Whiteland Village Interceptor.
- b. Construction of the sanitary sewer “connector” that will allow wastewater to be conveyed from the Whiteland Village Interceptor to the Mill Lane Pump Station.

5. *Operations and Maintenance Requirements and the Status of Past and Present Compliance*

The Township will be the facility permittee and the owner. They will perform routine maintenance on the collection and conveyance system to keep the facilities operating satisfactorily.

B. *Individual and Community On-Lot Disposal Systems*

Properties along Planebrook Road, Elk Drive, Fairway Drive, Golf View Lane, Bracken Avenue, Prospect Avenue, and Davis Avenue are currently served by individual on-lot disposal systems.

The property owners have expressed interest in connecting to the public sewer system. In the early 2000’s, a public meeting was held and a survey was conducted to gather public input. Documentation showing this is found in Appendix O.

Act 537 Planning, completed and approved by the Department in 2011, included these properties within the proposed public sewer service area. A ‘Sewage Needs Identification’ evaluation for these properties is not needed as part of the planning process.

Upon initiation of the construction of the Planebrook Road Regional Pump Station and force main, Act 537 Planning (via Module Component 3m) will begin for the extension of the public sewer main to serve these properties. Preliminary design of the gravity sewer extensions will occur in parallel to the planning. This will enable OLDS property owners to get a better sense for what is planned and what the preliminary costs might be.

Upon completion of the Component 3m planning and the construction of the regional pump station, permit applications shall be submitted for construction of the proposed sanitary sewer extensions.

C. Wastewater Sludge and Septage Generation

Identification of wastewater sludge and septage generation is not considered applicable to this Special Study.

IV. FUTURE GROWTH AND LAND DEVELOPMENT

A. Identification of Municipal and County Planning Documents

1. *Identify Land Use Plans and Zoning Maps*

The Chester County Comprehensive Plan entitled “Landscapes2” establishes guidelines for the following land use categories.

- Growth Management
- National Resource Protection and Open Space
- Agricultural and Farmland Protection

The categories are used to provide the municipalities with “planning strategies to assist them in implementing their growth boundaries.”

The Township has three (3) municipal planning documents that govern Land Use and Zoning.

- The East Whiteland Township Comprehensive Plan (Adopted 2001)
- The East Whiteland Township Zoning Ordinance (Adopted 2007)
- Subdivision and Land Development Ordinance (Adopted 2007)

A zoning map showing the designated zoning districts is found in Appendix A.

2. *Identify Zoning Regulations That Establish Lot Sizes*

The Zoning Ordinance adopted by the Township establishes the criteria for lot sizes for the following zoning districts in the planning area. Zoning mapping is found in Appendix A.

Zoning District		Minimum Lot Area
R1	Low Density Residential District	40,000 Sq. Feet
O/BP	Office/Business Park	80,000 Sq. Feet
OS	Open Space	-----
RM	Medium Density Residential	5,000 Sq. Feet
R-2	Low Density Residential	20,000 Sq. Feet
VMX	Village Mixed Use	10,000 Sq. Feet
FC	Frontage Commercial	20,000 Sq. Feet

B. Description of Future Growth and Development

1. *Areas with Existing Development and Plotted Subdivisions*

Existing development and plotted subdivisions are described as follows:

- Cockerham Tract
- Celia Tract
- Frame Avenue
- Elk Drive
- Fairway Drive
- Golf View Lane
- Bracken Avenue
- Davis Avenue
- Prospect Avenue
- Planebrook Road
- Ravine Road
- Whitewoods Tract
- Glenloch Tract

2. Land Use Designations

Land use in East Whiteland Township is governed by the Township's Zoning Ordinance. Land use is given the following designations per the zoning ordinance.

R-1	Low Density Residential
R-2	Low Density Residential
R-3	Low Density Residential
RM	Medium Density Residential
RMH	Medium-High Density Residential
CMX	Commercial Mixed-Use
VMX	Village Mixed-Use
FC	Frontage Commercial
ROC	Regionally Oriented Commercial
ROC/R	Regionally Oriented Commercial/Res
PO	Professional Office
O/BP	Office/Business Park
O/BPS	Office/Business Park Services
I	Industrial
INS	Institutional
NS	Neighborhood Schools
C	Cemetery
OS	Open Space

3. Future Growth Areas and Projections

For the planning area identified for this Special Study, there are areas that have existing development and areas that are planned for growth. The planned growth is:

- Cockerham Tract
- Celia Tract
- Existing Development served by the Frame Avenue P.S.
- Existing Development served by OLDS

These are detailed in Tables 1 and 2 below.

4. *Subdivision Regulations as they Pertain to Planned Developments*

East Whiteland Township has established guidelines for development, use, and protection of land. The guidelines are established in the Township's Zoning Ordinance.

The Zoning Ordinance regulates:

- Building height, area, and location on the lot;
- Flood plains and uses within the flood plains;
- Where certain land uses are allowed to occur in the Township;
- Quality, location, or size of signs;
- Minimum lot areas for various uses.

5. *Required Sewage Planning*

Sections V and VI of this Special Study will examine the technical alternatives necessary to meet the sewage facilities needs of the planning area. Projected wastewater flows for the planning area are classified by origin.

Table 1

Existing Flow Needs Summary

Source	EDUs	Population (1)	Avg. Daily Flows (gpd) (2)
1. Existing Development served by the Frame Avenue Pump Station	~327	1023	90,000
2. Cockerham Tract	50	157	13,750
3. Celia Tract	60	188	16,500
TOTAL			120,250
(1) 3.13 People Per EDU.			
(2) 275 gpd/EDU.			

Table 2

Flow Projection Summary (Future Wastewater Needs)

Source	EDUs	Population (1)	Avg. Daily Flows (gpd) (2)
Elk Drive	20	63	5,500
Fairway Drive	11	34	3,025
Planebrook Road	12	9	3,300
Golf View Lane	16	50	4,400
Bracken Avenue	8	25	2,200
David Avenue	1	3	275
Prospect	24	75	6,600
Miscellaneous Properties	15	47	4,125
TOTAL			29,425
(1) 3.13 People Per EDU.			
(2) 275 gpd/EDU.			

Summarizing Pump Station Needs:

The proposed Planebrook Road Pump Station will be a public submersible pump station that will serve existing development, new development, and properties with existing on-lot disposal systems. The projected average daily flow/need is:

120,250 gpd	Existing
<u>29,425 gpd</u>	Future
149,675	TOTAL

The planned peak flow, utilize the peaking factors established by PA DEP's Southeast Regional Office,

$$149,675 \times 3.75 = 561,281 \text{ gpd}$$
$$\approx 390 \text{ gpm}$$

V. ALTERNATIVES TO PROVIDE NEW OR IMPROVED WASTEWATER DISPOSAL FACILITIES

A. Identify Alternatives

1. *Regional Wastewater Treatment Concepts*

Wastewater from East Whiteland Township is conveyed to the Valley Forge Sewer Authority's Wastewater Treatment Plant. This regional treatment of the Township's wastewater is not planned to change.

2. *Extension of Existing Municipal Sewage Facilities to Areas in Need*

Currently, there are public collection and conveyance facilities that serve the Frame Avenue Pump Station's drainage area. As discussed in Part A.1. of this section, wastewater collected in these facilities is ultimately conveyed to the Valley Forge Sewer Authority for treatment. Refer to the plan found in Appendix C that shows the existing and proposed sanitary sewer service area. Adjacent areas served by existing OLDS are planned to receive future public sewer service. Conceptual facilities are reflected on the plan in Appendix F.

3. *Continued Use of Existing Community Treatment Facilities*

There are no community systems in the planning area. This is not applicable to this Special Study.

4. *New Community Sewage Systems and Treatment*

Since this Plan is examining the public sewer needs and the impact on existing conveyance system components, the implementation of new community sewage systems is not applicable to this Special Study.

5. *Repair and Replacement of Existing Collection and Conveyance System Components*

As stated in Part A.2. of this section, there are wastewater collection and conveyance facilities that serve the Frame Avenue drainage area. The planning area is served by gravity sewers and pump stations that collect and convey the wastewater to the gravity sewer main located in Lancaster Avenue originating near Davis Avenue.

Alternatives, as part of this Special Study, include:

Alternative 1: Retain the existing Frame Avenue Pump Station. Keep the small pump station recently constructed on the Cockerham Tract, in service, and continue to use the Frame Avenue Pump Station to serve both the Cockerham and Celia Tracts along with the existing flows. Properties with on-lot systems would continue to utilize their respective systems.

Alternative 2: Construct a regional pump station that will handle wastewater flows from the Cockerham and Celia tracts, from properties currently served by the existing Frame Avenue Pump Station, and from properties currently served by individual on-lot disposal systems. The existing Frame Avenue Pump Station would be decommissioned.

Under Alternative 1, the utilization of the Frame Avenue Pump Station will continue to discharge flow to the gravity sewer main in Route 30 and will continue to utilize the Church Road Pump Station and the Westgate Pump Station. A regional station (as identified under Alternative 2) will not only remove and redirect flow away from the Route 30 sewers and pump stations, it will provide a means for more effectively accommodating the wastewater needs of adjacent properties with OLDS.

New gravity sewer infrastructure and the restoration of an existing dry sewer main (Whiteland Village Interceptor) being completed by others, will complete the conveyance path for Alternative 2. Refer to the Exhibit found in Appendix F which shows the gravity sewer improvements and the “flow-path” for the wastewater discharged from the proposed Planebrook Road Force Main. These gravity sewer improvements are in progress and are planned for completion late 2016 or early 2017. Wastewater, through this portion of the collection and conveyance system, will ultimately pass through the Mill Lane Pump Station.

The installation of a regional pump station eliminates the need for the existing older station (Frame Avenue Pump Station), and removes flow from the Route 30 gravity sewers and pump stations. This frees-up capacity in the existing gravity mains and lightens the load on the existing pump stations, thus reducing O&M costs. This also eliminates the duplicity of keeping the smaller Cockerham Pump Station and the Frame Avenue Pump Station in operation.

6. *Alternative Methods of Collection and Conveyance to Serve Areas in Need*

Given that this Special Study addresses the needs associated with the upgrade of existing facilities to serve future flows, alternative methods of collection and conveyance to serve areas in need are not applicable to this Special Study.

B. *Use of Individual Disposal Systems*

Properties in the planning area, identified in Section IV.B.1, are served by individual on-lot disposal systems. These properties are planned to receive future public sewer service.

C. *Small Flow Sewage Treatment Facilities*

Assessment of alternatives based on the use of small flow sewage treatment facilities, land treatment alternatives, or package treatment facilities to serve individual homes or clusters of homes is not applicable to this Special Study.

D. Community Land Disposal

Assessment of alternatives based on the use of community land disposal is not applicable to this Special Study.

E. Retaining Tank

The use of retaining tanks will not be evaluated as part of this Special Study.

F. Septage Management

A discussion of the need for and implementation of a sewage management program will not be addressed as part of this Special Study.

G. Non-Structural Comprehensive Planning Alternatives

It is not anticipated that there will be any modifications to the Township Comprehensive Plan. Non-structural comprehensive planning alternatives shall not be addressed as part of this Special Study.

H. No Action Alternative

1. *Water Quality and Public Health*

If wastewater collection and conveyance system upgrades are not implemented, water quality and public health may be impacted. Downstream conveyance might be impacted by present and increased future flows that could lead to the potential for sanitary sewer surcharging.

2. *Growth Potential*

The potential for growth in the planning area would be impacted by a no-action alternative. Even though development of both the Celia and Cockerham tracts has moved forward, potential in-fill development of OLDS area would not occur.

3. *Community and Economic Conditions*

With no-action to provide means for upgraded conveyance of wastewater, development in adjacent commercial areas may not go forward. Consequently, future connections would be limited, thus restricting commercial development and economic growth that would supplement the Township tax base.

4. *Recreational Opportunities*

A no-action alternative for this Special Study would not have an impact on recreational opportunities.

5. *Drinking Water Sources*

If the proposed conveyance system upgrades are not constructed, there may be future indirect impacts on groundwater water sources since the existing OLDS will remain in place.

6. *Other Environmental Issues*

If the proposed conveyance system upgrades are not implemented, it does not appear that other environmental issues would be impacted.

VI. EVALUATION OF ALTERNATIVES

A. Consistency Determination

1. *Clean Stream Law*

The construction of upgrades to the conveyance facilities in the planning area does not conflict with the Clean Stream Law. Flow generated by the planning area will ultimately be treated at Valley Forge Sewer Authority's wastewater treatment plant and disposed of in accordance with requirements and NPDES limits set forth by PA DEP.

2. *Chapter 94 Report*

The East Whiteland Township 2015 Chapter 94 Report indicates that the Frame Avenue Pump Station has capacity to meet current flow needs. Based on the needs identified in this Special Study, the capacity of this station will be exceeded if flows from the properties served by OLDS are directed to this station.

The Chapter 94 Report shows that the current capacity of the Frame Avenue Pump Station is 360,000 gpd which equates to 250 gpm. Flows projected for the planning area equate to 561,600 gpd (390 gpm). Refer to Section IV of this Special Study for a tabulation of projected flows.

3. *Clean Water Act (Title II)*

This Act and the Federal Water Quality Act establish specific planning requirements for wastewater facilities planning. These requirements only apply to municipalities intending to apply for financial assistance from the Federal Government for the construction of sewage facilities. Since the funding of the construction of the alternatives would be through financial contributions by the municipality and developers, this analysis is not applicable.

4. *Comprehensive Plans*

The Chester County Planning Commission (CCPC) Comprehensive Plan, entitled “Landscapes2,” was adopted in November of 2009. The alternatives to upgrade public sanitary sewer service to accommodate proposed development in the planning area is consistent with the implementation strategy, policies and goals of the current Landscapes2 as shown in the Utilities and Infrastructure section of the plan.

East Whiteland Township adopted a Comprehensive Plan in 2001 that identifies Township policies on future preservation and development.

In September 2002, Chester County adopted a water resources management plan, titled ‘**Watersheds**’. This is an element of the County’s Comprehensive Plan. In Part 4 of the Plan (Goals and Objectives – Achieving the Vision), Goal 7 describes the need to integrate utility and municipal planning to meet future water supply and wastewater needs.

It further discusses the need to delineate municipal planned public water/wastewater service areas and evaluate infrastructure alternatives. This Special Study is consistent with the objectives set forth in Watersheds.

5. *Antidegradation Requirements Contained in Chapters 93, 95 and 102 of the Clean Water Act*

Implementation of any of the alternatives for this Special Study will not impact the antidegradation requirements contained in Chapters 93, 95, 102 of the Clean Water Act.

6. *State Water Plans*

There are no anticipated conflicts with the State Water Plan for this submission.

7. *Pennsylvania's Prime Agricultural Land Policy*

East Whiteland Township is committed to protecting prime agricultural land within the Township's boundaries.

For the planning area in this Special Study, the Township's Zoning Ordinance and Comprehensive Plan give the land area residential, office/business park, open space, village mixed use, and frontage commercial designations. The development of this land is consistent with its land use designation.

It should be noted that the Chester County Planning Commission's agricultural conservation easement plan indicates that there are no agricultural conservation easements in East Whiteland Township. This plan was developed by the Chester County Department of Open Space Preservation utilizing information from the County Agricultural Preservation Board and the Chester County Bureau of Land Records. The latest update is January 2014.

8. *County Stormwater Management Plan*

A County-wide PA Act 167 Stormwater Management Plan (SWMP) has been completed and approved for Chester County. The Valley Creek Watershed (East) is a part of this Plan. PA DEP approved it July 2013. The Valley Creek (East) is designated as an exceptional value stream. From a consistency perspective, it appears that the concept to provide sewer service to existing and potential development is consistent with the SWMP. This special study planning area falls within the Valley Creek Watershed and the prescribed system improvements not only accommodate existing and future flows but provide for minimizing inflow and infiltration of stormwater into the sanitary sewer system.

9. *Wetlands Protection*

As referenced in Section II.G. of this Plan, there are no mapped wetland areas within the planning area as identified on the map found in Appendix E. The source for the wetlands information is the National Wetlands Inventory Mapping provided by the U.S. Fish and Wildlife Service.

10. *Protection of Threatened, Rare, and Endangered Plant and Animal species (PNDI)*

A Pennsylvania National Diversity Inventory (PNDI) search was completed for the planning area. See Appendix G. The U.S. Fish and Wildlife Service asked that, during construction of the force main, in-stream impacts should be avoided by spanning the creek (Waterway) or going under the creek via boring or directional drilling. If in-stream impacts cannot be avoided, the Fish and Wildlife Service requests that in-stream work be carried out between October 1 and March 31. Therefore, as a means for resolving this conflict, notes shall be placed on the force main design plans to instruct the contractor to install the force main accordingly.

11. *Historic and Archaeological Resource Protection*

The Pennsylvania Historic and Museum Commission (PHMC) were contacted to determine if there were any potential conflicts within the proposed infrastructure. PHMC reviews for the proposed sewerage facilities have been completed. The results of the PHMC's review for the proposed sewerage facilities can be found in Appendix H. It has been determined that the pump station and force main will have no impact on historic resources.

B. *Resolution of Inconsistencies*

Upon review of the constraints discussed in items 1 through 11, there is one apparent inconsistency with applicable PNDI requirements and that inconsistency has been resolved.

C. Alternative Evaluation with Respect to Applicable Water Quality Standards and Effluent Limitations

The planned alternatives to provide a sanitary sewer collection and conveyance system for this planning area will not impact water quality standards or effluent limitation. Wastewater will be discharged to the existing public collection and conveyance system. Ultimately, wastewater will be treated at the Valley Forge Sewer Authority's WWTP.

D. Preliminary Cost Opinions

Planning-level cost opinions were developed for the primary alternatives discussed in Section V. These cost opinions reflect the following:

Alternative 1: No additional capital costs.

O&M costs (20 yr. PW): \$560,000

TOTAL: \$560,000

Alternative 2: Pump Station: \$560,000

Force Main: \$720,000

O&M Costs (20 yr. PW): \$321,000

TOTAL: \$1,441,000

It should be noted that under Alternative #1, O&M expenses on existing infrastructure would continue at the current rate. Under Alternative #2 it is anticipated that O&M expenses could be reduced.

E. Analysis of Available Funding Methods

This section of the Plan addresses methods available to finance the proposed Phases. Three financing alternatives exist for this particular project.

1. Municipal Bond Issue

a. General

There are several types of bonds; some are taxable and some are tax-exempt. However, the general classification of municipal bonds usually

refers to tax-exempt bonds. There are three (3) types of municipal bonds generally used in financing public works.

- *General Obligation Bonds* are tax-free bonds that are secured by the pledge of the full faith, credit, and taxing power of the issuing agency. This means that this type of bond is backed by all of the taxes on real estates and personal property within the jurisdiction of the issuing agency. It involves minimum risk to the investor and therefore requires a lower rate of interest than other types of bonds.
- ▶ *Dedicated Tax Bonds* are payable only from the proceeds from a special tax and are not guaranteed by the full faith, credit and taxing power of the issuing agency. Examples of special dedicated taxes are the special assessments against property which is adjacent to and the principal beneficiary of the improvement, and gasoline taxes used to finance highway construction.
- ▶ *Revenue Bonds* are payable from revenues derived from the use of the improvement such as tolls, sewer bills, or rents paid by the users of the improvement and do not otherwise represent an obligation of the issuing agency. Revenue bonds are not ordinarily subject to statutory or constitutional debt limitations. They are often issued by commissions, authorities, and other public agencies created for the specific purpose of financing, constructing, and operating essential public projects.

Typically, municipal bonds are sold to an investment-banking firm, which then resells the bonds to individual investors. The advantage of municipal bonds to the investor is their tax-free status. A bond discount (a percentage of the total bond issue) serves as the investment banker's

commission. Before bonds are sold, they must be rated on the basis of risk to the investor by a rating agency such as Standard and Poor's or Moody's. The higher the rating, the lower the risk to the investor and, consequently, the lower the interest rate paid on the bond.

The legal instrument, which sets the rules that must be observed by the issuing agency, is the Trust Indenture. The Trust Indenture is prepared by the Bond Counsel and must be printed along with the bonds. Due to specific requirements as to the denominations of the bonds and methods and materials for printing, printing costs can be substantial. A trustee is required to administer the bond issue and insure the terms of the Trust Indenture are observed. This results in an Annual Trustee Fee. Investment bankers indicate that it does not pay to extend the term beyond 25 years because the interest rate increases dramatically.

b. Advantages of Municipal Bond Issue Funding

- ▶ This program affords long-term fixed rate financing.
- ▶ Tax-exempt municipal bonds are in high demand.
- ▶ There is local investment opportunity.
- ▶ Municipal credit is established.
- ▶ It retains flexibility for future borrowing.

c. Disadvantages of Municipal Bond Issue Funding

- ▶ A cover may be required.
- ▶ A Debt Service Reserve Fund is generally required.
- ▶ There are trustee fees and costs of preparing a Trust Indenture.

2. Bank Loan

Another financing option for the implementation of this project is the bank loan. There are four (4) basic categories of bank loans. These are:

- ▶ Real Estate Loans (Mortgage)
- ▶ Participation and Interbank Loans
- ▶ Installment Loans (Personal)
- ▶ Commercial and Industrial Loans

Of the four (4) types, a commercial and industrial loan would be the most applicable to this project.

Commercial and industrial loans may be made on a demand or time basis. A demand basis loan allows the bank to call for repayment at any time, or the borrower can repay when convenient. A time basis loan provides for a specific loan maturity date.

Most commercial and industrial loans are unsecured. The credit is extended on the basis of an analysis of all available information pertaining to the customer and the bank's confidence in that customer's ability and willingness to repay.

For this planned project, it appears that it would be prudent to seek a time basis loan. An interest rate offering would be established, and an amortization schedule set. Interest rates may range from 5% to 10%.

Advantages of the Bank Loan Financing

- ▶ Ability to shop around for a loan structure that best fits the customer's needs.
- ▶ Flexibility in establishing repayment schedules.
- ▶ Working with and through a local financial institution.
- ▶ Municipal credit is established.

- ▶ Ability to obtain fixed rate financing.

Disadvantages of Bank Loan Financing

- ▶ Interest rates are charged for loan repayment.
- ▶ Processing fees may be required.
- ▶ Processing and issuances fees may be expensive.

3. *Direct Funding by Developers, Supplement by Township Funds*

A third financing option for the implementation of this project is direct funding by those who have developed the property in the planning area. This would involve capital expenditures by the developer from his own funds along with the supplementing of costs by the Township.

Advantages of Direct Funding by Developer

- ▶ Avoid any third party involvement. Payment for services can be made directly to the manufacturer or contractor by the Developer.
- ▶ There are no interest rate charges.
- ▶ Bank processing and issuance fees are avoided.
- ▶ Removes part or the majority of the financial burden from the Township.

Disadvantages of Direct Funding

- ▶ There are no disadvantages to this method of financing.

F. Immediate or Phased Implementation

It is planned that the force main and pump station will be constructed as two separate projects. However, the timing of the construction will be such that the force main will be in concert with the pump station's construction. Planning for extension of sanitary sewers to serve properties (currently served by OLDS) will take place upon the start of construction of the pump station and force main.

G. Ability of the Township to Implement the Alternative

The Township is well established and has the ability to implement the technical alternatives presented in this Plan.

VII. INSTITUTIONAL EVALUATION

A. Analysis of the Township, Past Actions, and Present Performance

1. *Financial and Debt Status*

The Township is a well-established entity that will be able to oversee the implementation of the proposed technical alternative. Financially, through the funding mechanisms identified above, the construction of the proposed conveyance facilities can be accomplished. Ultimately, the Township will take dedication of these facilities and will be required to operate and maintain them. The funds for facility O&M are planned to originate from the Township's Sewer Fund.

2. *Available Staff and Administrative Resources*

The Township is governed by a three-member Board of Supervisors elected at-large, who each serve six-year terms that include executive and legislative responsibilities. Others associated with the Township are:

- ▶ Township Manager
- ▶ Director of Public Works
- ▶ Assistant Director of Public Works
- ▶ Solicitor
- ▶ Consulting Engineer

The Township has the necessary staff and administrative resources already in place. No further evaluation of staffing and resources is necessary at this time.

3. Existing Legal Authority

As provided for under Pennsylvania Law, the Township has the necessary legal authority to oversee the implementation of the technical alternatives presented in this Special Study.

B. Institutional Alternatives Necessary to Implement the Technical Alternative

1. Need for a New Authority

East Whiteland Township does not have an Authority in place at this time. It is not deemed necessary that a new Authority be established to meet the needs of the alternatives identified in this Special Study. The Township and public works personnel are capable of implementing the identified alternatives.

2. Function of the Authority

This is not applicable given that there is no sewer authority in place at this time.

3. Cost of Administration

This is not applicable given that there is no sewer authority in place at this time.

C. Administrative and Legal Activities to be Completed and Adopted to Ensure the Implementation of the Technical Alternative

1. Legal Authorities of Incorporation

No new wastewater Authorities of Incorporation are necessary and there will be no changes to the Township's structure to implement these projects.

2. Required Ordinances, Standards, Regulations, and Intermunicipal Agreements

In 1971, an Intermunicipal Agreement was signed by East Whiteland Township, the former East Whiteland Municipal Authority, Malvern Municipal Authority, Malvern Borough, and the Valley Forge Sewer Authority for conveyance of

wastewater through the Valley Creek Trunk Sewer to the Valley Forge Sewer Authority's WWTP for treatment and disposal. In December 1979, an amendment was issued to the existing 1971 intermunicipal agreement between East Whiteland Municipal Authority, East Whiteland Township, Malvern Municipal Authority, Borough of Malvern, and the Valley Forge Sewer Authority. This amendment facilitates the transmission of wastewater from an area in Charlestown Township adjacent to East Whiteland Township through the East Whiteland Township Trunk Line and the Valley Creek Trunk Line.

This intermunicipal agreement was amended in April 2014 to reflect the latest flow and cost sharing conditions. This effort to amend the agreement took place in accordance with the September 2013 East Whiteland Township/Charlestown Township (Southside) Special Study approved by the Department.

3. *Provisions of Rights-of-Way, Easements, and Land Transfers*

Proposed wastewater collection and conveyance system components will extend through the streets of new development (Cockerham Tract), through an easement already obtained through that same development and then through a newly acquired easement between existing homes near Planebrook Road. Once the force main is at Planebrook Road, it will follow the road right-of-way north to the point of connection to the existing gravity sewer.

4. *Other Sewage Facilities Plan Adoptions*

It is not anticipated that other sewage facilities plans will need to be adopted as part of this planning process.

5. *Legal Documents*

Revisions to intermunicipal agreements are not necessary for this Special Study.

6. *Dates and Timeframes of 1 Through 5 Above*

The dates and timeframes for the items in this section are found in the implementation schedule in the Executive Summary of this Plan.

D. *Selected Institutional Alternative*

No changes are needed to the existing municipal structure.

VIII. SELECTED WASTEWATER TREATMENT AND INSTITUTIONAL ALTERNATIVE

A. Identify the Chosen Technical Alternative

The selected alternative which best meets the wastewater treatment needs of the proposed and existing development in the planning area is:

Alternative #2:

Construct a regional pump station and force main to serve the Frame Avenue Pump Station Drainage Area, to serve the Cockerham and Celia Tracts, and to ultimately serve properties with on-lot disposal systems located along and adjacent to Planebrook Road.

1. Existing Wastewater Disposal Needs

Within the planning area, wastewater disposal needs are currently met through the use of the Frame Avenue Pump Station, and individual on-lot disposal systems. This pump station can meet the existing wastewater disposal needs of the planning area provided the existing OLDS remain in service. If the OLDS are decommissioned and wastewater from these properties is directed to the existing Frame Avenue station, then there won't be adequate capacity at this station.

2. Future Wastewater Treatment Needs

Future wastewater disposal needs, identified in Section IV of this Plan show that in order to serve existing development, new development, and properties served by OLDS, a central regional pump station will be needed to meet the flow requirements and the wastewater needs.

3. Operations and Maintenance Considerations

The proposed wastewater facilities will be owned and operated by East Whiteland Township upon completion. Operations and maintenance of the new facilities will be the responsibility of the Township which currently

operates and maintains existing wastewater facilities within the Township.

Since the Frame Avenue Pump Station is an existing pump station, a new station will improve upon the operations and maintenance that is currently needed by Township personnel.

4. *Cost Effectiveness*

In accordance with the cost opinions for the alternatives presented in Section VI of this study, the separate construction of the force main is the most cost effective approach. Construction of the regional pump station can follow under the purview of the developer. Economically, Alternative 1 appears to be more favorable than Alternative 2. This is due to the lack of initial capital expenses to construct new infrastructure in Alternative 1. However, the environmental benefits of regionalizing the conveyance system and connecting existing OLDS to the public sewer system outweigh the financial implications.

5. *Available Management and Administrative Systems*

The Township has the management and administrative staff in place to implement the selected alternative.

6. *Available Financing Methods*

Of the financing methods discussed in Section VI, each method can provide the necessary funding for the selected alternative. Refer to Section VIII.B. for the selected capital financing plan.

7. *Environmental Soundness*

Environmentally, the Valley Forge Sewer Authority's WWTP can adequately treat the projected average and peak flows within the permitted concentration limits.

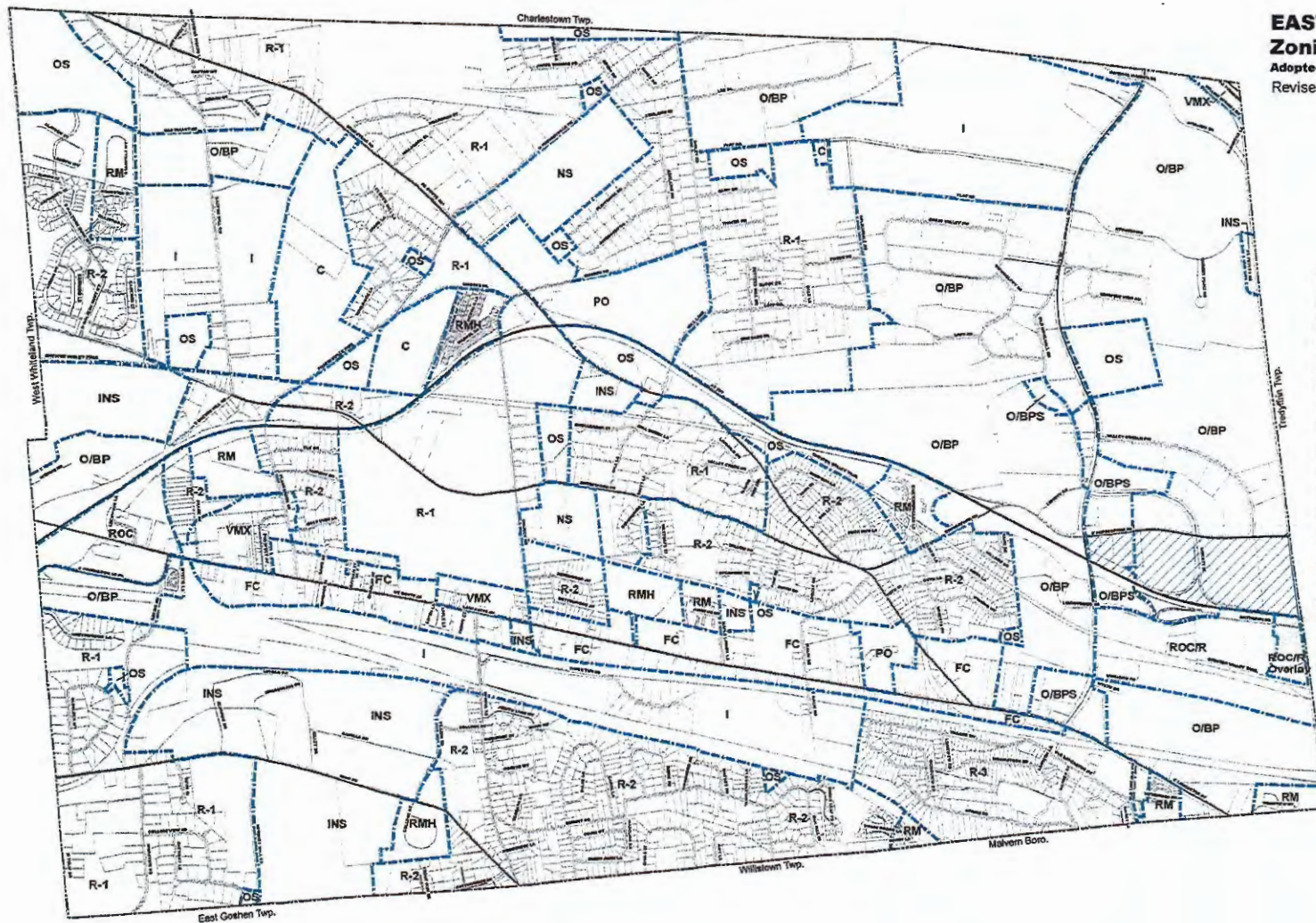
B. Selected Capital Financing Plan

The selected technical alternative will be paid for and financed through the sharing of costs via Township capital funds and developer funds.

The planning level costs are shown in Section VI.

APPENDIX A

Zoning Map

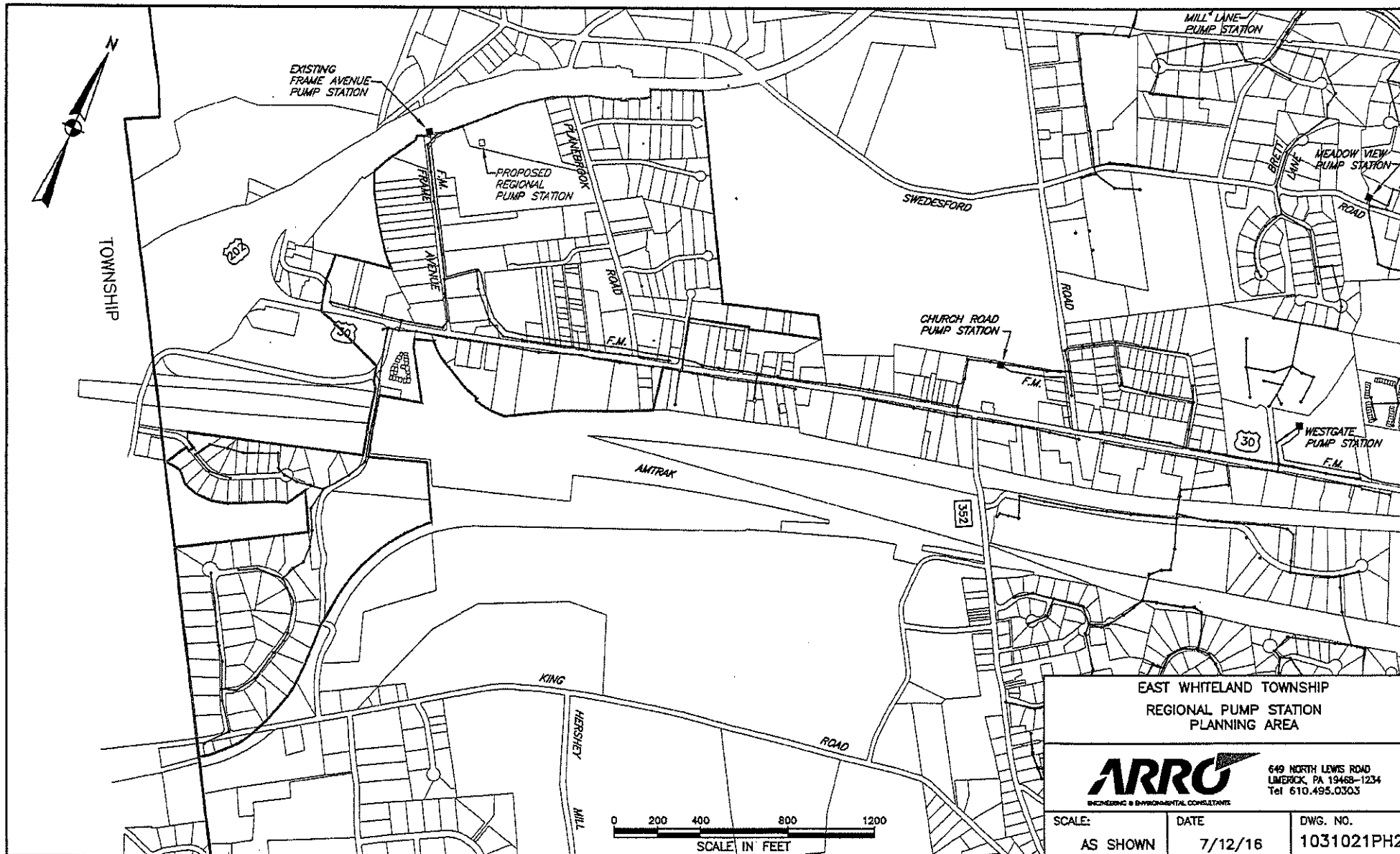


EAST WHITELAND TOWNSHIP **Zoning Map** Adopted February 21, 2007 Revised August 13, 2008

- ZONING DISTRICTS**
- R-1 Low Density Residential
 - R-2 Low Density Residential
 - R-3 Low Density Residential
 - RM Medium Density Residential
 - RMH Medium-High Density Residential
 - CMX Community Mixed-Use
 - VMX Village Mixed-Use
 - FC Frontage Commercial
 - ROC Regionally-Oriented Commercial
 - ROC/R Regionally-Oriented Comm/Res
 - PO Professional Office
 - O/BP Office/Business Park
 - O/BPS Office/Business Park Services
 - I Industrial
 - INS Institutional
 - NS Neighborhood Schools
 - C Cemetery
 - OS Open Space
- Corporate Gateway Overlay
- Regionally-Oriented Comm/Res Overlay 8/13/08

APPENDIX B

Planning Area



EAST WHITELAND TOWNSHIP
REGIONAL PUMP STATION
PLANNING AREA

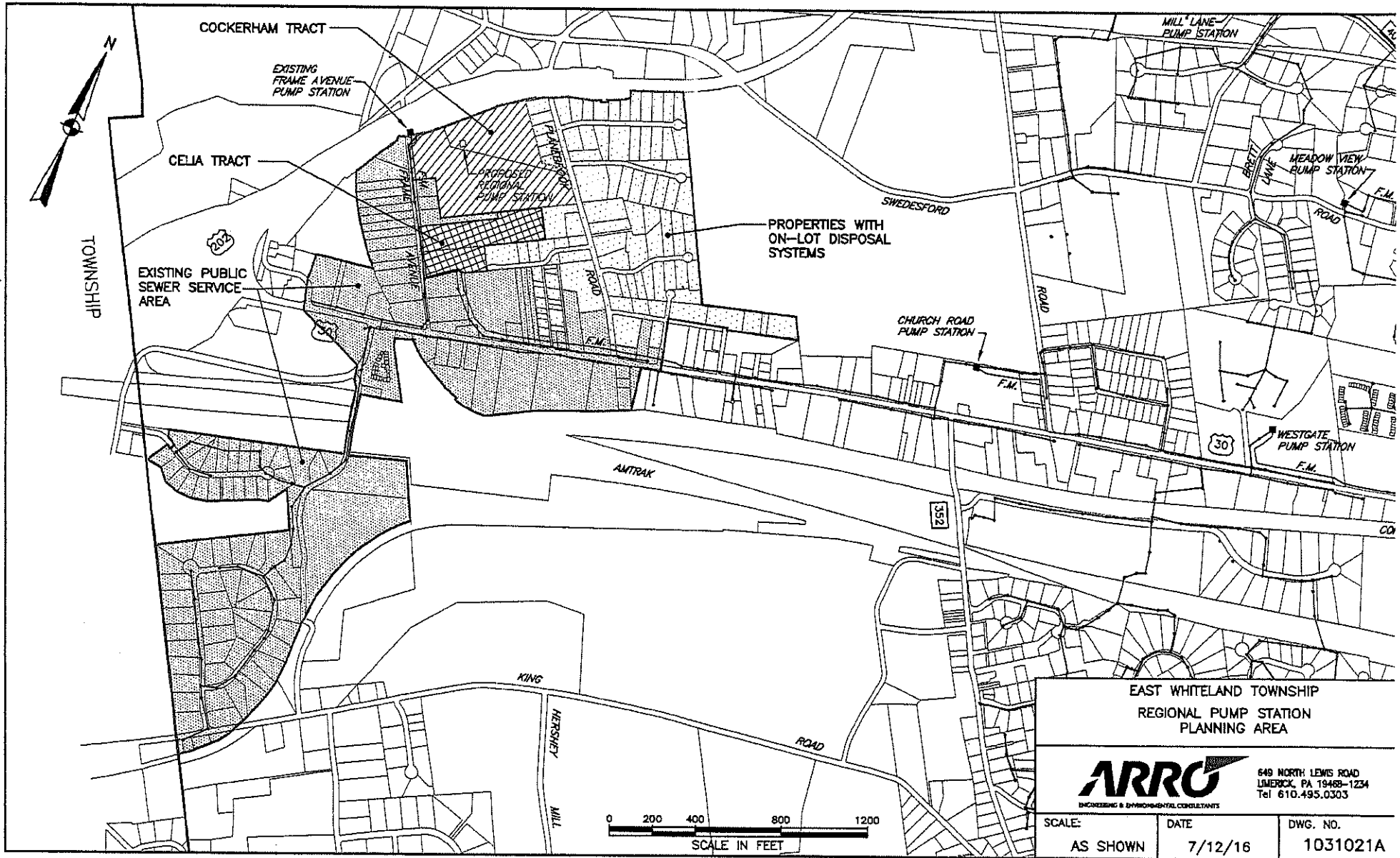


649 NORTH LEWIS ROAD
LIMERICK, PA 19468-1234
Tel 610.495.0303

SCALE: AS SHOWN	DATE 7/12/16	DWG. NO. 1031021PH2
--------------------	-----------------	------------------------

APPENDIX C

Existing and Proposed Sanitary Sewer Service Area



EAST WHITELAND TOWNSHIP
REGIONAL PUMP STATION
PLANNING AREA

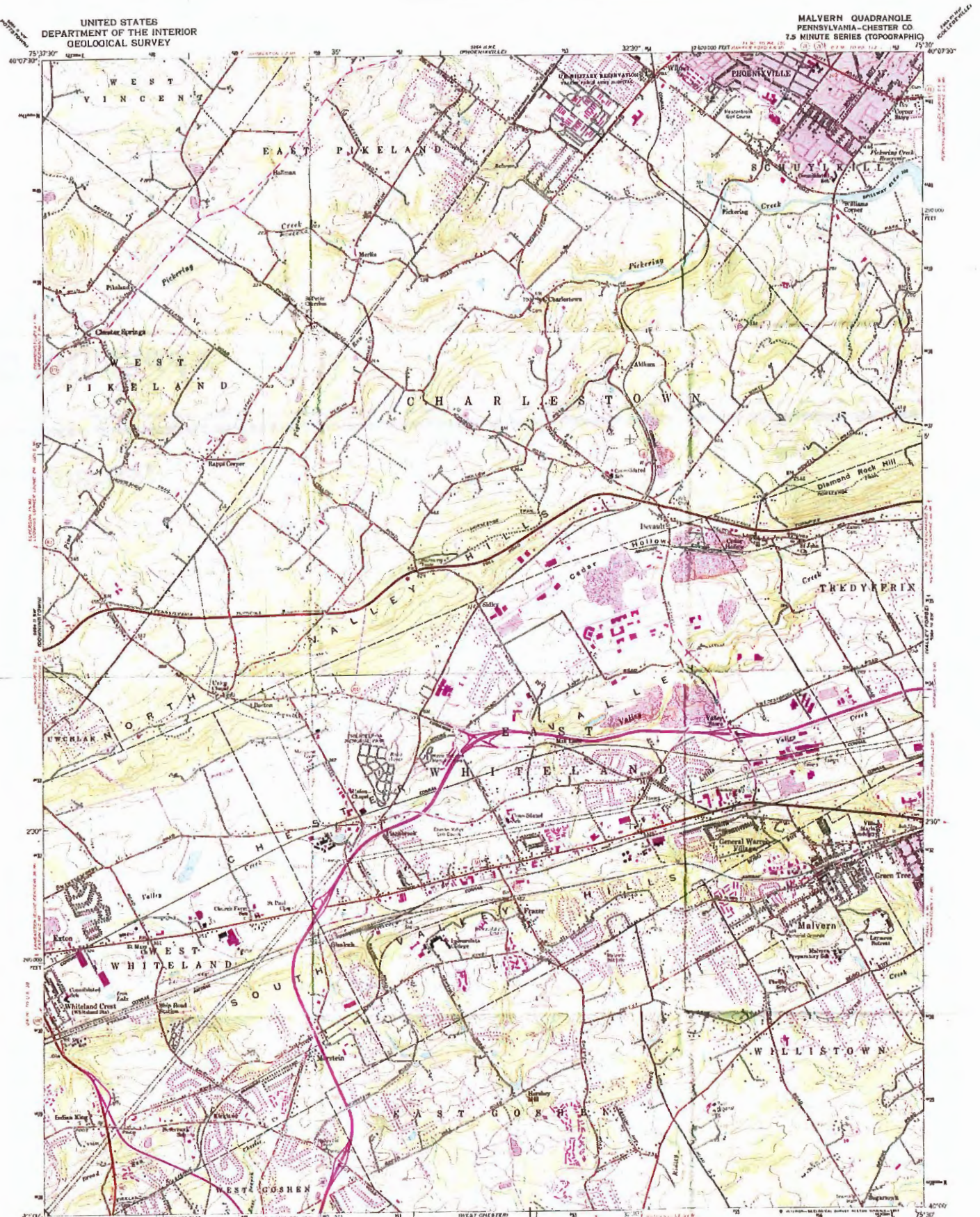


648 NORTH LEWIS ROAD
LIMERICK, PA 19469-1234
Tel 610.495.0303

SCALE:	DATE	DWG. NO.
AS SHOWN	7/12/16	1031021A

APPENDIX D

Topography



Maped, edited, and published by the Geological Survey

Control by USGS and NOAA

Topography by photogrammetry and aerial photography taken 1951. Field checked 1955

Photocopy projection. 10,000-foot grid ticks based on Pennsylvania coordinate system, South zone

1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue

1927 North American Datum

To place on the projected North American Datum 1983 move the projection lines 6 meters south and 30 meters west as shown by dashed corner ticks

There may be private intrusions within the boundaries of the National or State reservations shown on this map

ONE GRID AND ONE MAGNETIC NORTH
REMARKS: AS SHOWN BY TICKS
Revisions shown in purple and scattered compared from aerial
photography taken 1961 and other sources. This information
is not checked. Map as of 1983.
Published with the understanding of the USGS



ROAD CLASSIFICATION
Heavy duty ——— Light duty ———
Medium duty ——— Unimproved dirt ———
Feeder Road ——— U.S. Route ——— State Route ———

YOAS SERVICES, INC.
509 W. 4th St.
Williamsport, PA 17701
1-800-322-4546

MALVERN, PA.
40075-4571 024
1950
PHOTOREVISED 1983
Data 2004 01 SE-SERIES V01

THIS MAP COMPLETES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, RESTON VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

APPENDIX E

Wetlands Map



U.S. Fish and Wildlife Service

National Wetlands Inventory

Frame

Ave/Planebrook Rd

Planning Area

Jan 19, 2016



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

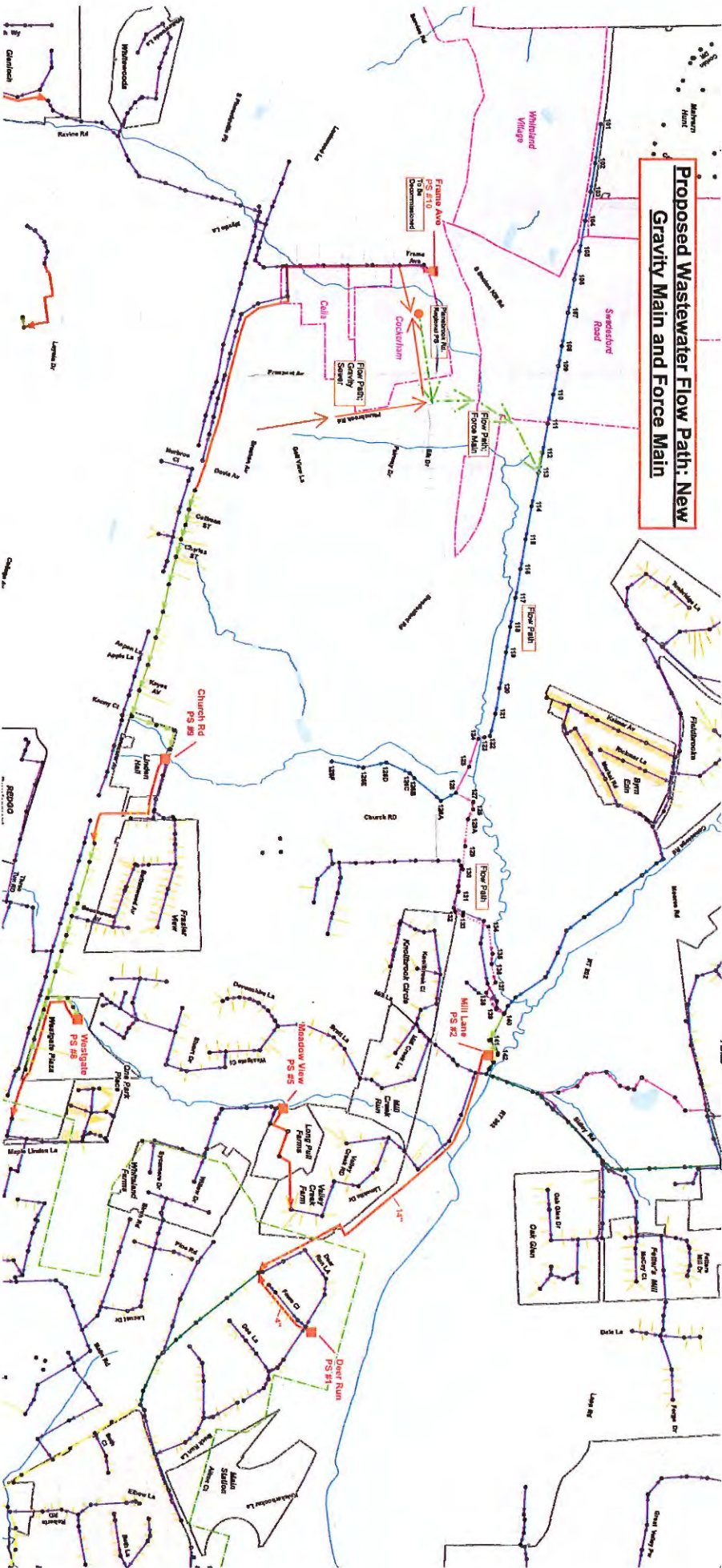
User Remarks:
Wetlands Mapping

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX F

Proposed Collection/Conveyance System and Flow Path

Proposed Wastewater Flow Path: New Gravity Main and Force Main



APPENDIX G

PNDI Response

Category	Response	Comments
1. Department of the Interior, Bureau of Land Management	No comment	
2. Department of the Interior, Bureau of Reclamation	No comment	
3. Department of the Interior, Bureau of Indian Affairs	No comment	
4. Department of the Interior, Bureau of Mines	No comment	
5. Department of the Interior, Bureau of Ocean Energy Management	No comment	
6. Department of the Interior, Bureau of Prisons	No comment	
7. Department of the Interior, Bureau of the Census	No comment	
8. Department of the Interior, Bureau of the Census	No comment	
9. Department of the Interior, Bureau of the Census	No comment	
10. Department of the Interior, Bureau of the Census	No comment	

As part of the PNDI process, the Department of the Interior, Bureau of Land Management, Bureau of Reclamation, Bureau of Indian Affairs, Bureau of Mines, Bureau of Ocean Energy Management, Bureau of Prisons, Bureau of the Census, and Bureau of the Census have been contacted and have provided their comments on the proposed project. The comments are as follows:

1. Department of the Interior, Bureau of Land Management: No comment.

2. Department of the Interior, Bureau of Reclamation: No comment.

3. Department of the Interior, Bureau of Indian Affairs: No comment.

4. Department of the Interior, Bureau of Mines: No comment.

5. Department of the Interior, Bureau of Ocean Energy Management: No comment.

6. Department of the Interior, Bureau of Prisons: No comment.

7. Department of the Interior, Bureau of the Census: No comment.

8. Department of the Interior, Bureau of the Census: No comment.

9. Department of the Interior, Bureau of the Census: No comment.

10. Department of the Interior, Bureau of the Census: No comment.

1. PROJECT INFORMATION

Project Name: **East Whiteland Township - Planebrook Rd. Regional Pump Station and Force Main**
Date of Review: **4/7/2016 03:16:08 PM**
Project Category: **Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Sewage module/Act 537 plan**
Project Area: **2.68 acres**
County(s): **Chester**
Township/Municipality(s): **EAST WHITELAND**
ZIP Code: **19355**
Quadrangle Name(s): **MALVERN**
Watersheds HUC 8: **Schuylkill**
Watersheds HUC 12: **Little Valley Creek-Valley Creek**
Decimal Degrees: **40.040187, -75.576318**
Degrees Minutes Seconds: **40° 2' 24.6716" N, 75° 34' 34.7431" W**

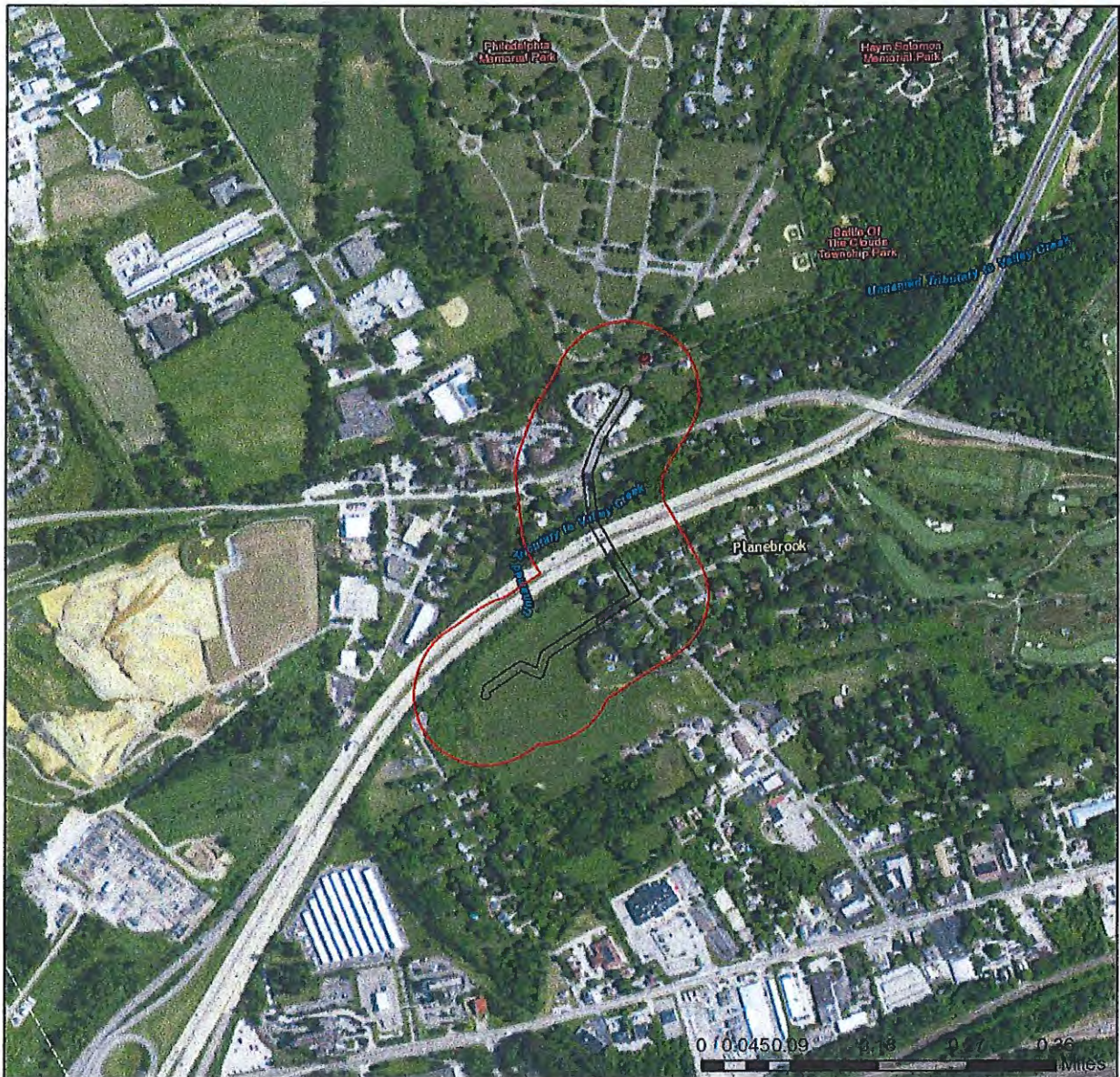
2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Avoidance Measure	See Agency Response

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

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

East Whiteland Township - Planebrook Rd. Regional Pump Station and Force Main

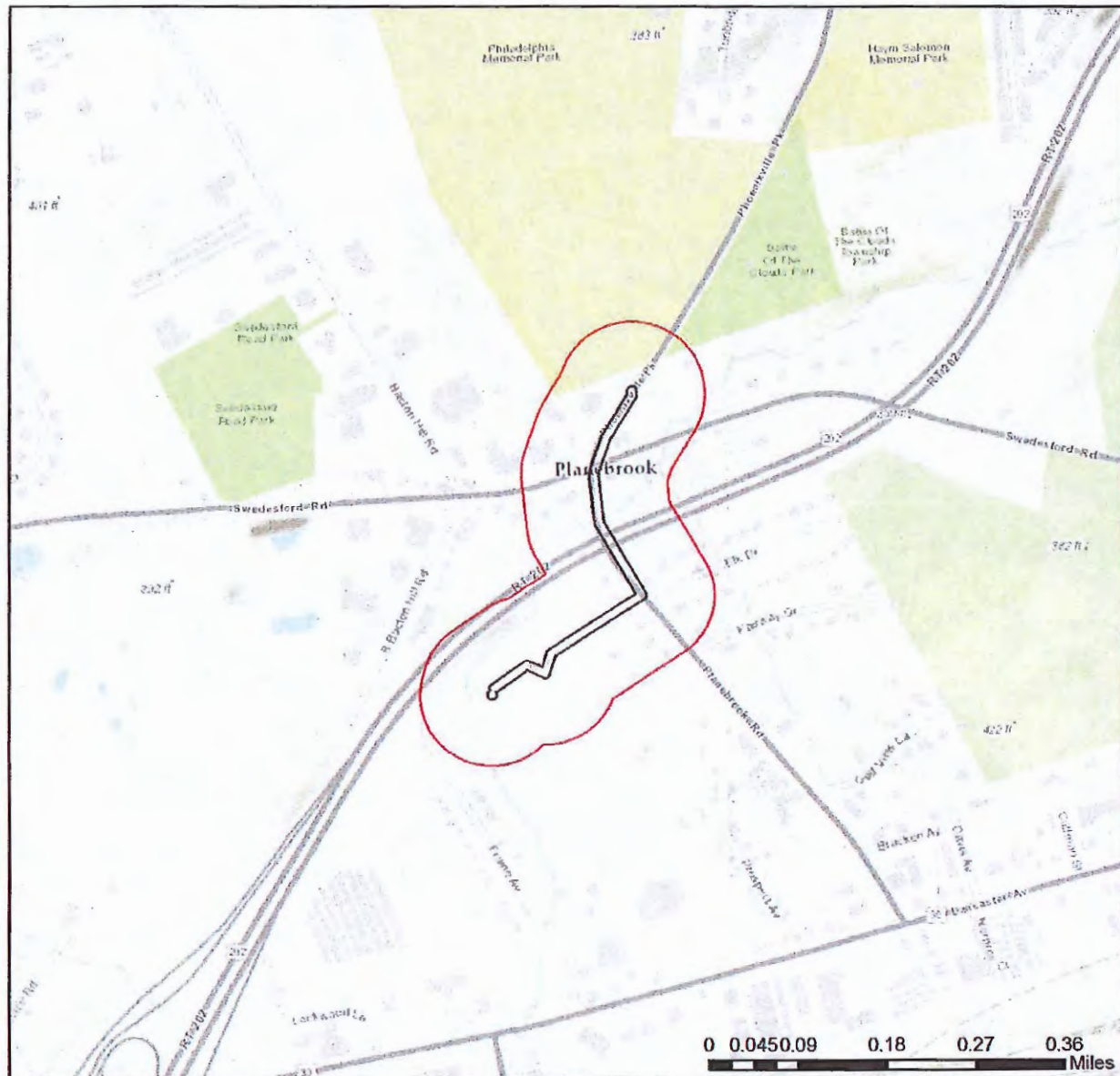


- ☐ Project Boundary
- ☐ Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

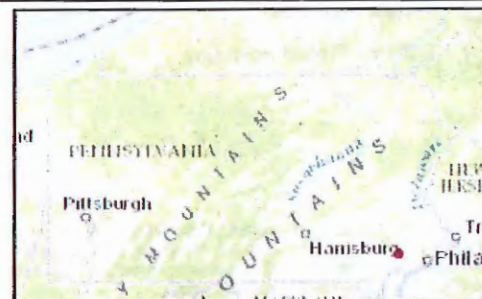


East Whiteland Township - Planebrook Rd. Regional Pump Station and Force Main



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



RESPONSE TO QUESTION(S) ASKED

Q1: Will this project or any project-related activities require any in-stream work, or a permanent or temporary crossing of a waterway (stream, river, creek, tributary)?

Your answer is: Yes

Q2: Describe how wastewater (effluent) will be handled (select one). For the purpose of this question, wastewater/effluent does not include stormwater runoff. If the project involves solely the renewal or modification of an existing discharge permit (e.g., NPDES permit), select from options 3, 4, 5, or 6 below.

Your answer is: All wastewater/effluent from this project/activity will be routed to an existing municipal wastewater treatment plant.

Q3: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

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

3. AGENCY COMMENTS

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

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

PA Game Commission

RESPONSE:

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

PA Department of Conservation and Natural Resources

RESPONSE:

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

PA Fish and Boat Commission

RESPONSE:

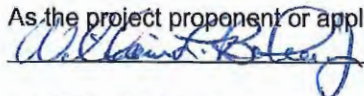
No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

Avoidance Measure: Avoid in-stream impacts by spanning the waterway or going under it (e.g., via horizontal boring or directional drilling). If in-stream impacts cannot be avoided, carry out instream work -- including installation of permanent structures (e.g., pipelines, livestock crossings, riprap), or installation, use, and removal of temporary structures (e.g., temporary road crossings) -- between October 1 and March 31.

As the project proponent or applicant, I certify that I will implement the above Avoidance Measure:

 (Signature)

SPECIAL NOTE: If you agree to implement the above Avoidance Measure, no further coordination with this agency regarding threatened and endangered species and/or special concern species and resources is required. If you are not able to comply with the Avoidance Measures, you are required to coordinate with this agency - please send project information to this agency for review (see "What to Send" section).

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

***Note:** U.S. Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

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

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

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

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

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

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

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

4. DEP INFORMATION

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

5. ADDITIONAL INFORMATION

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

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

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov
Fax: (717) 772-0271

PA Fish and Boat Commission

Division of Environmental Services
450 Robinson Lane, Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Game Commission

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

7. PROJECT CONTACT INFORMATION

Name: William L. Bohner, Jr. P.E.
Company/Business Name: ARRO Consulting, Inc.
Address: 649 N. Lewis Road Suite 100
City, State, Zip: Liverick PA 19468
Phone: (610) 495-2102 Fax: (610) 495-5855
Email: bill.bohner@thearrogroup.com

8. CERTIFICATION

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

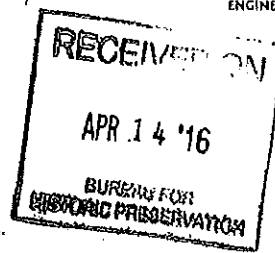
William L. Bohner, Jr.
applicant/project proponent signature

4/7/16
date



April 11, 2016

CERTIFIED MAIL #7008 0150 0000 7716 9902
RETURN RECEIPT REQUESTED



Limerick Office
649 North Lewis Road
Suite 100
Limerick, PA 19468
T 610.495.0303
F 610.495.5855

Pennsylvania Historical and Museum Commission
State Historic Preservation Office
400 North Street
Commonwealth Keystone Building; 2nd Floor
Harrisburg, PA 17120-0093

RE: East Whiteland Township (Chester County);
Act 537 Planning – Special Study;
Planebrook Road Regional Pump Station and Force Main; PHMC Review
ARRO # 10310.21

Dear Historical and Museum Commission:

On behalf of East Whiteland Township, we are assisting with the preparation of an Act 537 Sewage Facilities Special Study to update the Township's Act 537 Plan. This Special Study is to reflect the improvements necessary to meet the future wastewater needs of the western portion of East Whiteland Township near Frame Avenue and Planebrook Road. Improvements will require the construction of a regional wastewater pump station, a force main from the pump station to Planebrook Road, then along Planebrook Road to just north of the intersection of Planebrook and Swedesford Roads.

Enclosed, for your review, is the Project Review Form, the Malvern 7.5 Minute Quadrangle identifying the location of the proposed project, and an aerial photograph using 'Google Maps' data. The total area to be disturbed is approximately 0.5 acres. No structures are planned to be disturbed as a result of implementing the planned alternatives. The pump station is going to be installed on a parcel that has been designated for the station in a new development. The proposed force main will be installed through an easement and then will be primarily installed in the street right of way.

Please review this documentation and provide us with any comments or concerns that you may have at your earliest convenience. If you have any questions, please do not hesitate to call me at 610-495-2102.

Sincerely,

William L. Bohner, Jr., P.E.
Project Engineer

WLB:car

Enclosures

ER No.	2016-1123-029-A
There are NO HISTORIC PROPERTIES in the area of potential effect	
Date	4/13/16
Reviewer	William L. Bohner Jr. Douglas McCreary

H:\East Whiteland\10310.21 Act 537 Special Study Jan 2016 ph 02\PHMC\lrc.doc

Corporate Headquarters • 108 West Airport Road • Lititz, PA 17543

T 717.569.7021 • F 717.560.0577 • www.thearrogroup.com

OUT IN FRONT

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Postage and Fees Due - In Advance)

For delivery information visit our website at www.usps.com
OFFICIAL USE

Postage	\$ 1.36
Certified Fee	3.45
Return Receipt Fee (Endorsement Required)	2.80
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.61

Postmark
 Here

7008 0150 0000 7716 9902

Sent To
 PA Historical and
 Museum Commission
 Bureau of Historic Preservation
 400 North Street, 2nd Floor
 Harrisburg, PA 17120-0093

PS Form

actions

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
- Complete items 1, 2, and 3. - Print your name and address on the reverse so that we can return the card to you. - Attach this card to the back of the mailpiece, or on the front if space permits.		A. Signature  B. Received by (Printed Name) _____ C. Date of Delivery APR 13 2016 D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No	
1. Article Addressed to: PA Historical and Museum Commission Bureau of Historic Preservation 400 North Street, 2nd Floor Harrisburg, PA 17120-0093		3. Service Type ☐ Adult Signature ☐ Adult Signature Restricted Delivery ☒ Certified Mail® ☐ Certified Mail Restricted Delivery ☐ Collect on Delivery ☐ Collect on Delivery Restricted Delivery ☐ Priority Mail Express® ☐ Registered Mail™ ☐ Registered Mail Restricted Delivery ☐ Return Receipt for Merchandise ☐ Signature Confirmation ☐ Signature Confirmation Restricted Delivery	
2. Article Number (Transfer from service label) 9590 9403 0179 5120 5138 94 7008 0150 0000 7716 9902		Restricted Delivery	



April 11, 2016

CERTIFIED MAIL #7008 0150 0000 7716 9902
RETURN RECEIPT REQUESTED

Pennsylvania Historical and Museum Commission
State Historic Preservation Office
400 North Street
Commonwealth Keystone Building; 2nd Floor
Harrisburg, PA 17120-0093

Limerick Office
649 North Lewis Road
Suite 100
Limerick, PA 19468
T 610.495.0303
F 610.495.5855

RE: East Whiteland Township (Chester County);
Act 537 Planning – Special Study;
Planebrook Road Regional Pump Station and Force Main; PHMC Review
ARRO # 10310.21

Dear Historical and Museum Commission:

On behalf of East Whiteland Township, we are assisting with the preparation of an Act 537 Sewage Facilities Special Study to update the Township's Act 537 Plan. This Special Study is to reflect the improvements necessary to meet the future wastewater needs of the western portion of East Whiteland Township near Frame Avenue and Planebrook Road. Improvements will require the construction of a regional wastewater pump station, a force main from the pump station to Planebrook Road, then along Planebrook Road to just north of the intersection of Planebrook and Swedesford Roads.

Enclosed, for your review, is the Project Review Form, the Malvern 7.5 Minute Quadrangle identifying the location of the proposed project, and an aerial photograph using 'Google Maps' data. The total area to be disturbed is approximately 0.5 acres. No structures are planned to be disturbed as a result of implementing the planned alternatives. The pump station is going to be installed on a parcel that has been designated for the station in a new development. The proposed force main will be installed through an easement and then will be primarily installed in the street right of way.

Please review this documentation and provide us with any comments or concerns that you may have at your earliest convenience. If you have any questions, please do not hesitate to call me at 610-495-2102.

Sincerely,

William L. Bohner, Jr., P.E.
Project Engineer

WLB:car

Enclosures



Pennsylvania
Historical & Museum
Commission

PROJECT REVIEW FORM

Request to Initiate SHPO Consultation on
State and Federal Undertakings

SHPO USE ONLY

DATE RECEIVED:

ER NUMBER:

REV: 10/2014

SECTION A: PROJECT NAME & LOCATION

Is this a new submittal? ☒ YES ☐ NO OR ☐ This is additional information for ER Number:

Project Name Planebrook Rd. Regional PS Act 537 Plan County Chester Municipality East Whiteland Township
Project Address City/State/ Zip

SECTION B: CONTACT INFORMATION & MAILING ADDRESS

Name William L. Bohner, Jr., P.E. Phone (610) 495-2102
Company ARRO Consulting, Inc. Fax (610) 495-5855
Street/PO Box 649 North Lewis Road; Suite 100 Email bill.bohner@thearrogroun
City/State/Zip Limerick PA 19468

SECTION C: PROJECT DESCRIPTION

This project is located on: ☐ Federal property ☐ State property ☒ Municipal property ☐ Private property
(check all that apply)

List all federal and state agencies and programs providing funds, permits, licenses.	Agency Type	Agency/Program/Permit Name	Project/Permit/Tracking Number (if applicable)
	State	PA DEP Sewage Facilities Planning Program	Act 537 Planning (pump station and force main)

Proposed Work – Attach project description, scope of work, site plans, and/or drawings

Project includes (check all that apply): ☒ Construction ☐ Demolition ☐ Rehabilitation ☐ Disposition

Total acres of project area: 0.8 Total acres of earth disturbance: 0.5

Are there any buildings or structures within the project area? ☐ Yes ☒ No Approximate age of buildings: 35 to 40 yrs.

Does this project involve properties listed in or eligible for the National Register of Historic Places, or designated as historic by a local government? Yes ☐ No ☒ Unsure ☐ Name of historic property or historic districts N/A

Please print and mail completed form and all attachments to:

PHMC
State Historic Preservation Office
400 North St.
Commonwealth Keystone Building, 2nd Floor
Harrisburg, PA 17120-0093

Attachments – Please include the following information with this form

- ☒ Map – 7.5' USGS quad showing project boundary and Area of Potential Effect
- ☒ Description/Scope – Describe the project, including any ground disturbance and previous land use
- ☒ Site Plans/Drawings – Indicate the location and age, if known, of all buildings in the project area
- ☒ Photographs – Attach prints or digital photographs showing the project site, including images of all buildings and structures keyed to a site plan

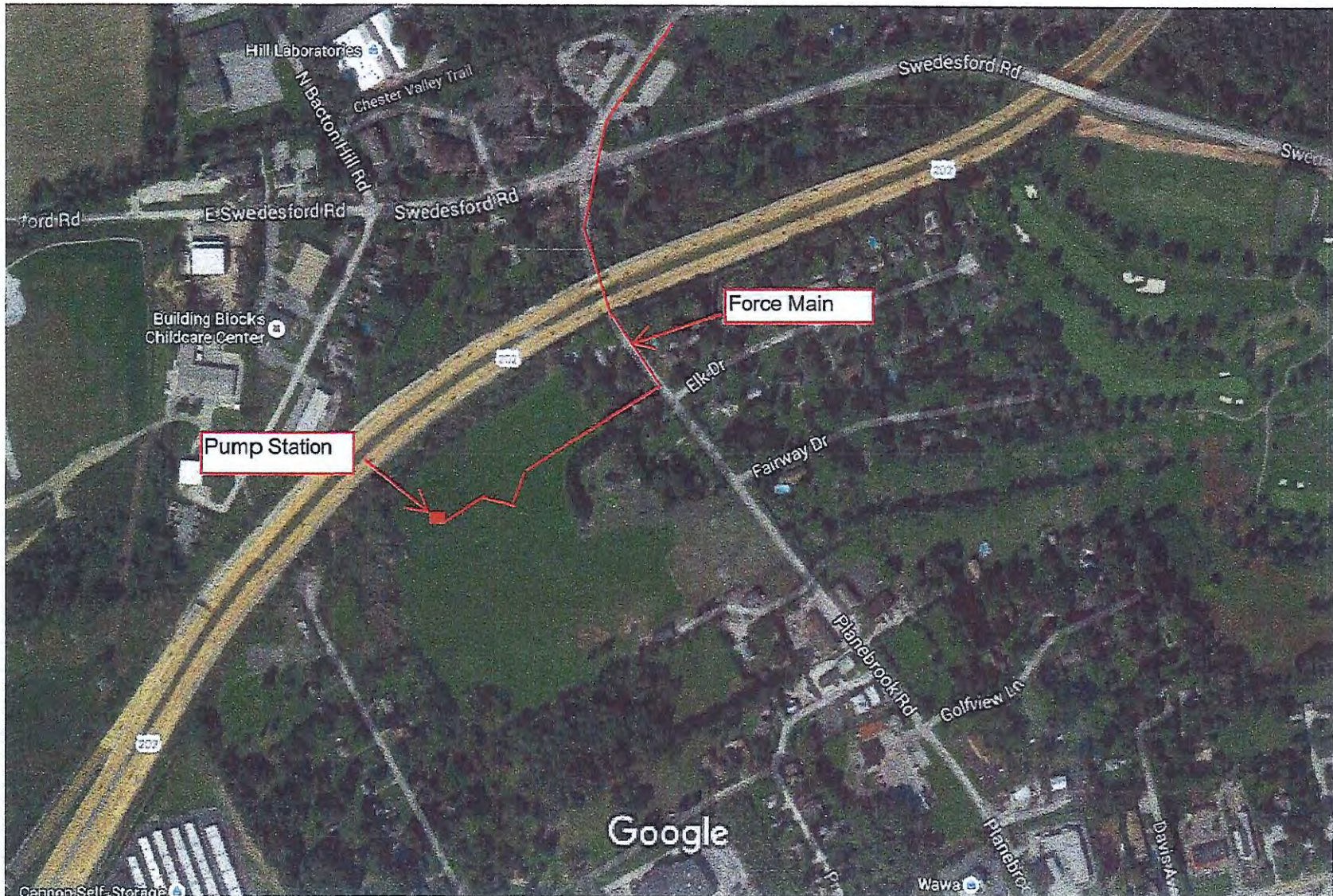
SHPO DETERMINATION (SHPO USE ONLY)

- ☐ There are NO HISTORIC PROPERTIES in the Area of Potential Effect
- ☐ The project will have NO EFFECT on historic properties
- ☐ The project will have NO ADVERSE EFFECTS on historic properties:
- ☐ The project will have NO ADVERSE EFFECTS WITH CONDITIONS (see attached)
- ☐ SHPO REQUESTS ADDITIONAL INFORMATION (see attached)

SHPO REVIEWER: _____ DATE: _____

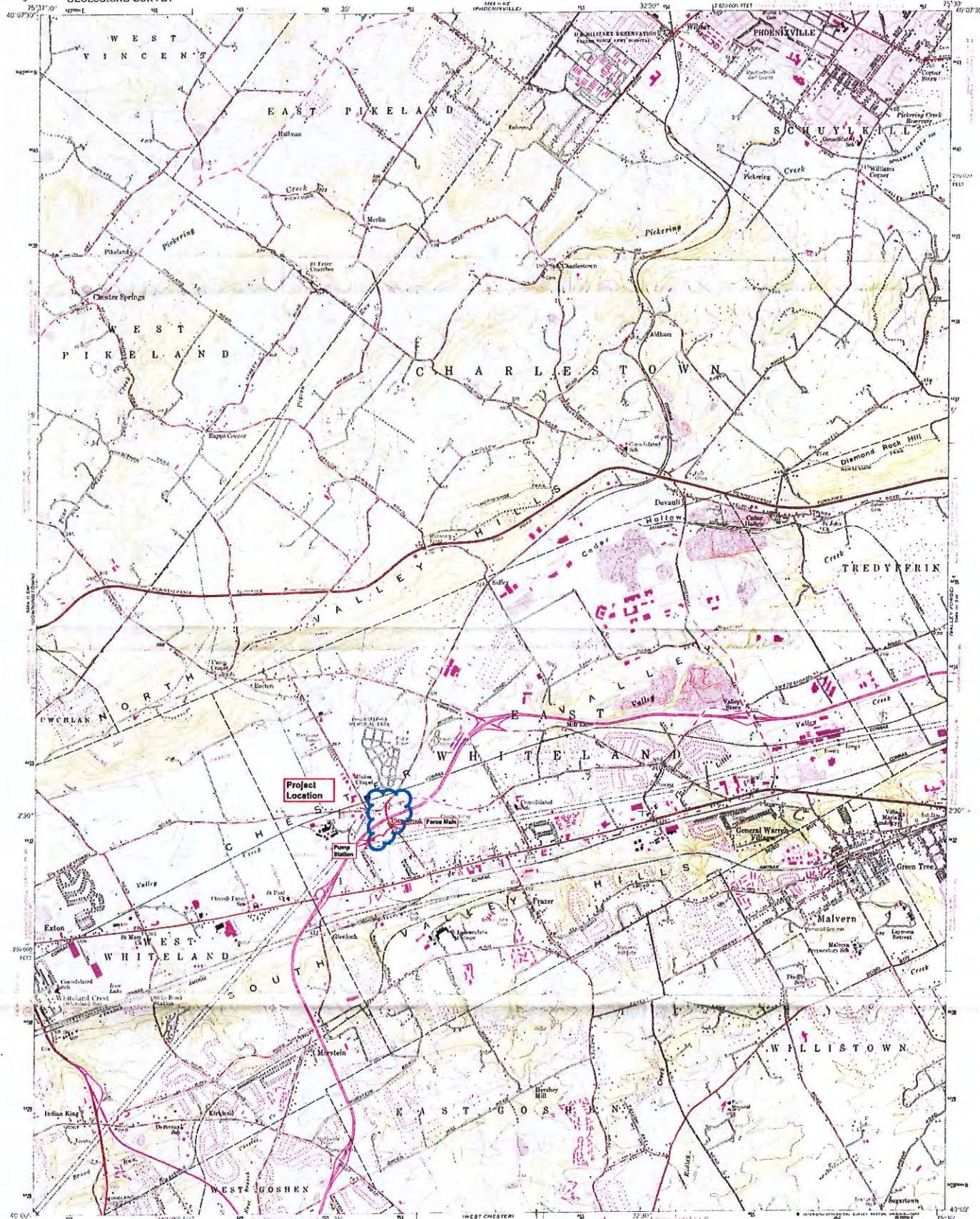
Google Maps

**East Whiteland Twp.
Planebrook Rd. Regional
Pump Station and Force
Main**



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MALVERN QUADRANGLE
PENNSYLVANIA-CHESTER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Covered by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial
photographs taken 1951. Field checked 1955
Polyconic projection. 10,000-foot grid ticks based on
Pennsylvania coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
1927 North American Datum
To place on the projected North American Datum 1983
move the projection lines 6 meters south and
30 meters west as shown by dashed corner ticks

There may be private knowledge within the boundaries of
the National or State boundaries shown on this map

NEW GRID AND 1983 MAGNETIC NORTH
REVISION OF CENTER OF GRAVITY
Resection shown as points and water map compiled from aerial
photographs taken 1951 and 1955. This information
not field checked. Map edited 1967
Topographic data from 1951-1955

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 20192
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND STANDARDS IS AVAILABLE ON REQUEST



YORK SERVICES, INC.
215 W. 4th St.
Williamsport, PA 17701
1-800-283-2546

MALVERN, PA.
40075 AS-17-024
1965

PHOTOGRAPHED 1953
DATA 5044 B SE-SERIES V831

APPENDIX I

Municipal Comments and Responses



VIA UPS GROUND

August 08, 2016

East Whiteland Township Planning Commission
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355

Limerick Office
649 N. Lewis Road
Suite 100
Limerick, PA 19468
T 610.495.0303
F 610.495.5855

RE: East Whiteland Township
Act 537 Plan Special Study for Planning Commission Review;
Planebrook Road Regional Pump Station and Force Main
ARRO# 10310.21

Dear Planning Commission Members:

On behalf of East Whiteland Township (Township), we are submitting a copy of the enclosed draft Act 537 Plan/Special Study for Planning Commission review. The primary focus of the Special Study is to evaluate alternatives to address the requirements necessary to implement a regional pump station that is to provide service to the Frame Avenue and Planebrook Road planning area.

Please review this Special Study and offer any comments or concerns that the Planning Commission may have. Thank you for your assistance with the review of this planning document. If you have any questions, please contact me at 610-495-2102.

Sincerely,

William L. Bohner, Jr., P.E.

WLB:car

Enclosure

- c: John Nagel, Township Manager – East Whiteland Township (w/o enclosure)
William Steele, Director of Public Works – East Whiteland Township (w/o enclosure)
Kevin McGahon, P.E. – ARRO (w/o enclosure)

Rauch, Cynthia

From: UPS Quantum View <pkginfo@ups.com>
Sent: Tuesday, August 09, 2016 10:12 AM
To: Rauch, Cynthia
Subject: UPS Delivery Notification, Tracking Number 1Z1667160391225524



Your package has been delivered.

Delivery Date: Tuesday, 08/09/2016
Delivery Time: 09:13 AM

At the request of ARRO CONSULTING INC, , this notice alerts you that the status of the shipment listed below has changed.

Shipment Detail

Tracking Number: 1Z1667160391225524
Ship To: Planning Commission
East Whiteland Township
209 CONESTOGA RD
MALVERN, PA 19355
US
UPS Service: UPS GROUND
Number of Packages: 1
Weight: 3.0 LBS
Delivery Location: FRONT DESK
Signed by: MOORE
Reference Number 1: 10310.21 Phase 01
Reference Number 2: EWT - Planning Commission



[Get the UPS My Choice app for Facebook](#)



[Download the UPS mobile app](#)

APPENDIX J

County Comments and Responses



VIA UPS GROUND

August 08, 2016

Jeanne E. Casner, MPH, PMP
County Health Director
Chester County Health Department
Government Services Center
Suite 290
601 Westtown Road
West Chester, PA 19380-0990

Limerick Office
649 N. Lewis Road
Suite 100
Limerick, PA 19468
T 610.495.0303
F 610.495.5855

RE: East Whiteland Township
Act 537 Plan Special Study for Health Department Review;
Planebrook Road Regional Pump Station and Force Main
ARRO# 10310.21

Dear Ms. Casner:

On behalf of East Whiteland Township (Township), we are submitting a copy of the enclosed draft Act 537 Plan/Special Study for Health Department review. The primary focus of the Special Study is to evaluate alternatives to address the requirements necessary to implement a regional pump station that is to provide service to the Frame Avenue and Planebrook Road planning area.

Please review this Special Study and offer any comments or concerns that the Health Department may have. Thank you for your assistance with the review of this planning document. If you have any questions, please contact me at 610-495-2102.

Sincerely,

William L. Bohner, Jr., P.E.

WLB:car

Enclosure

c: John Nagel, Township Manager – East Whiteland Township (w/o enclosure)
William Steele, Director of Public Works – East Whiteland Township (w/o enclosure)
Kevin McAghon, P.E. – ARRO (w/o enclosure)

H:\East Whiteland\10310.21 Act 537 Special Study Aug 2016 ph 02\Health Dept Cty_080816.doc

Corporate Headquarters • 108 West Airport Road • Lititz, PA 17543

T 717.569.7021 • F 717.560.0577 • www.thearrogroup.com

OUT IN FRONT

Rauch, Cynthia

From: UPS Quantum View <pkginfo@ups.com>
Sent: Tuesday, August 09, 2016 1:32 PM
To: Rauch, Cynthia
Subject: UPS Delivery Notification, Tracking Number 1Z1667160393988706



Your package has been delivered.

Delivery Date: Tuesday, 08/09/2016
Delivery Time: 09:53 AM

At the request of ARRO CONSULTING INC, , this notice alerts you that the status of the shipment listed below has changed.

Shipment Detail

Tracking Number: 1Z1667160393988706

Ship To: Jeanne E. Casner
CHESTER COUNTY HEALTH DEPARTMENT
601 WESTTOWN RD
WEST CHESTER, PA 19382
US

UPS Service: UPS GROUND

Number of Packages: 1

Weight: 3.0 LBS

Delivery Location: DOCK

Signed by: WILLIAMS

Reference Number 1: 10310.21 Phase 01

Reference Number 2: Jeanne Casner, CCHD



Get the UPS My Choice app for Facebook



Download the UPS mobile app



VIA UPS GROUND

August 08, 2016

Mr. Brian N. O'Leary, AICP
Executive Director
Chester County Planning Commission
Government Services Center
Suite 270
601 Westtown Road
P.O. Box 2747
West Chester, PA 19380-0990

Limerick Office
649 N. Lewis Road
Suite 100
Limerick, PA 19468
T 610.495.0303
F 610.495.5855

RE: East Whiteland Township
Act 537 Plan Special Study for Planning Commission Review;
Planebrook Road Regional Pump Station and Force Main
ARRO# 10310.21

Dear Mr. O'Leary:

On behalf of East Whiteland Township (Township), we are submitting a copy of the enclosed Act 537 Plan/Special Study for Planning Commission review. The primary focus of the Special Study is to evaluate alternatives to address the requirements necessary to implement a regional pump station that is to provide service to the Frame Avenue and Planebrook Road planning area.

Please review this Special Study and offer any comments or concerns that the Planning Commission may have. Thank you for your assistance with the review of this planning document. If you have any questions, please contact me at 610-495-2102.

Sincerely,

William L. Bohner, Jr., P.E.

WLB:car

Enclosure

- c: John Nagel, Township Manager – East Whiteland Township (w/o enclosure)
William Steele, Director of Public Works – East Whiteland Township (w/o enclosure)
Kevin McAghon, P.E. – ARRO (w/o enclosure)

Rauch, Cynthia

From: UPS Quantum View <pkginfo@ups.com>
Sent: Tuesday, August 09, 2016 11:30 AM
To: Rauch, Cynthia
Subject: UPS Delivery Notification, Tracking Number 1Z1667160394092510



Your package has been delivered.

Delivery Date: Tuesday, 08/09/2016
Delivery Time: 09:53 AM

At the request of ARRO CONSULTING INC, , this notice alerts you that the status of the shipment listed below has changed.

Shipment Detail

Tracking Number: 1Z1667160394092510
Brian O'Leary
Chester County Planning Commission
601 WESTTOWN RD
WEST CHESTER, PA 19382
US

Ship To:

UPS Service: UPS GROUND

Number of Packages: 1

Weight: 3.0 LBS

Delivery Location: DOCK

Signed by: WILLIAMS

Reference Number 1: 10310.21 Phase 01

Reference Number 2: Brian O'Leary, CCPC



[Get the UPS My Choice app for Facebook](#)



[Download the UPS mobile app](#)

APPENDIX K

Proof of Publication

PHILADELPHIA GROUP

AFFIDAVIT OF PUBLICATION
307 Derstine Avenue • Lansdale, PA 194

ARRO CONSULTING
649 N LEWIS RD

LIMERICK, PA 19468
Attention:

Ste 100

**STATE OF PENNSYLVANIA,
COUNTY OF MONTGOMERY**

The undersigned *Maureen Schmid*, being duly sworn the he/she is the principal clerk of Daily Local News, Daily Local News Digital, published in the English language for the dissemination of local or transmitted news and intelligence of a general character, which are duly qualified newspapers, and the annexed hereto is a copy of certain order, notice, publication or advertisement of:

ARRO CONSULTING

Published in the following edition(s):

Daily Local News	10/27/16
Daily Local News Digital	10/27/16

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
MAUREEN SCHMID, Notary Public
Upper Dublin Twp., Montgomery County
My Commission Expires March 31, 2017

Sworn to the subscribed before me this 10/28/2016.

Maureen Schmid
Notary Public, State of Pennsylvania
Acting in County of Montgomery

Advertisement Information

Client Id: 891884 Ad Id: 1160482 PO:

PUBLIC NOTICE

An Act 537 Plan (Special Study) has been prepared for East Whiteland Township, Chester County, Pennsylvania. The Special Study addresses the planning requirements necessary to provide for public sanitary conveyance improvements to existing portions of the Township's system. These improvements would provide the capacity for existing and planned development located in the Frame Avenue and Planebrook Road areas in the western portion of East Whiteland Township. Wastewater from the planning area identified in this Special Study will be conveyed via upgraded wastewater conveyance infrastructure from the Cockerham Tract to

Planebrook Road and then to the existing sanitary sewer system. The existing system discharges through East Whiteland Township and Tredyffrin Township to the Valley Forge Sewer Authority's Wastewater Treatment Plant.

To meet the wastewater conveyance needs of the planning area, it is proposed that the Township implement the selected alternatives as follows:

Implement Alternative 2 as identified in the Special Study. This alternative includes the construction of a regional pump station via the upgrading of the existing temporary pump station currently located on the Cockerham property. With the construction of this regional station, the existing Frame Avenue Pump Station would be decommissioned. In addition, the construction of approximately 2,000 feet of new 8 inch force main will be completed. This regional pump station and force main will provide capacity for the existing and projected future flows.

The engineer's opinions of probable construction cost for these alternatives and the respective phases are:

Regional Pump Station: \$590,000

Force Main: \$720,000

The selected technical alternative will be paid for and financed through the sharing of costs between East Whiteland Township and the developer of the Cockerham and Cella properties. Costs shall be recouped through established tapping fees and user rate structures.

In accordance with Chapter 71.3(c) of the Pennsylvania Code, the Township is providing a 30-day public comment period. The plan is available, for review, at the Township's offices, 209 Conestoga Road, Frazer, PA 19355 from 9:00 AM to 4:00 PM, Monday through Friday. Comments may be addressed to Mr. John Nagel, Township Manager, and are due no later than thirty (30) days from the date of this advertisement.
DL-Oct 27-1a

digitalfirst

MEDIA

PENNSYLVANIA GROUP

Account: 891884	Date: 10/24/16
Name: BILL BOHNER	Start Date: 10/27/16
Company: ARRO CONSULTING	Stop Date: 10/27/16
	Class: 1201 - Legal Notices
Address: 649 N LEWIS RD	Ad ID: 1160482
Ste 100	Ad Taker: CRMASCHMID
LIMERICK, PA 19468	Sales Person: Kathy Vincent (093304)
	Words: 359
Telephone: (610) 374-5285	Lines: 93
Fax:	Agate Lines: 93
Description: PUBLIC NOTICE An Act 537 Plan (Speci	Depth: 10.333
	Inserts: 2
	Blind Box:
	PO Number:

Ad sample

Total: \$275.69

Paid Amount: \$275.69

Amount Due: \$0.00

PUBLIC NOTICE

An Act 537 Plan (Special Study) has been prepared for East Whiteland Township, Chester County, Pennsylvania. The Special Study addresses the planning requirements necessary to provide for public sanitary conveyance improvements to existing portions of the Township's system. These improvements would provide the capacity for existing and planned development located in the Frame Avenue and Planebrook Road areas in the western portion of East Whiteland Township. Wastewater from the planning area identified in this Special Study will be conveyed via upgraded wastewater conveyance infrastructure from the Cockerham Tract to Planebrook Road and then to the existing sanitary sewer system. The existing system discharges through East Whiteland Township and Tredyffrin Township to the Valley Forge Sewer Authority's Wastewater Treatment Plant. To meet the wastewater conveyance needs of the planning area, it is proposed that the Township implement the selected alternatives as follows:

Implement Alternative 2 as identified in the Special Study.

This alternative includes the construction of a regional pump station via the upgrading of the existing temporary pump station currently located on the Cockerham property. With the construction of this regional station, the existing Frame Avenue Pump Station would be decommissioned. In addition, the construction of approximately 2,000 feet of new 8 inch force main will be completed. This regional pump station and force main will provide capacity for the existing and projected future flows. The engineer's opinions of probable construction cost for these alternatives and the respective phases are:

Regional Pump Station: \$590,000
Force Main: \$720,000

The selected technical alternative will be paid for and financed through the sharing of costs between East Whiteland Township and the developer of the Cockerham and Celia properties. Costs shall be recouped through established tapping fees and user rate structures. In accordance with Chapter 71.3(c) of the Pennsylvania Code, the Township is providing a 30-day public comment period. The plan is available, for review, at the Township's offices, 209 Conestoga Road,

Frazer, PA 19355 from 9:00 AM to 4:00 PM, Monday through Friday. Comments may be addressed to Mr. John Nagel, Township Manager, and are due no later than thirty (30) days from the date of this advertisement.
DL-Oct 27-1a

Publication

Daily Local News, Daily Local News Digital

We Appreciate Your Business!
Thank You BILL BOHNER!

APPENDIX L

Public Comments and Responses

The Township of
EAST WHITELAND

BOARD OF SUPERVISORS: SUSAN FREEMOND • WILLIAM HOLMES • RICHARD ORLAW
TOWNSHIP MANAGER: JOHN NAGEL

November 30, 2016

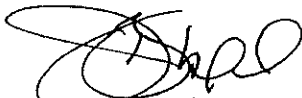
William L. Bohner, Jr., P.E.
ARRO Consulting, Inc.
649 N. Lewis Road
Suite 100
Limerick, PA 19468

RE: East Whiteland Township Sewage Facilities
Planning Special Study for the
For the Planebrook Rd. Regional PS and Force Main;
Public Comment Period – No Public Comment.

Dear Mr. Bohner:

In accordance with Title 25, Chapter 71 of the Pennsylvania Code, a 30-day public comment period was conducted for the above referenced East Whiteland Township Sewage Facilities Planning Special Study. The public comment period began on October 27, 2016 and ended on November 25, 2016. During that period, no public comments were received by East Whiteland Township.

Sincerely,



John Nagel
Township Manager

cc: file

APPENDIX M

Adopted Resolution

EAST WHITELAND TOWNSHIP

RESOLUTION NO. 41-2016

RESOLUTION FOR PLAN REVISION

WHEREAS, A RESOLUTION OF THE BOARD OF SUPERVISORS OF EAST WHITELAND TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA (hereinafter "the Township").

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

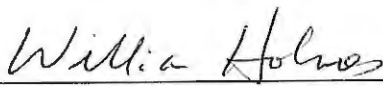
NOW, THEREFORE, BE IT RESOLVED, that East Whiteland Township Board of Supervisors hereby adopts and submits to the Pennsylvania Department of Environmental Protection for its approval, as a revision to the "Official Plan" of the Township, this Act 537 Special Study.

East Whiteland Township hereby approves and adopts the Act 537 Special Study which establishes the planning requirements necessary to provide public sanitary sewer infrastructure improvements to the Planebrook Road Pump Station and Force Main. The Township is committed to implementing the recommendations of this Special Study in accordance with the Study's implementation schedule.

The Township finds that the Act 537 Special Study described above conforms to applicable zoning, subdivision, other municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

ADOPTED this 14th day of December, 2016.

**BOARD OF SUPERVISORS
EAST WHITELAND TOWNSHIP**



William Holmes, Chairman

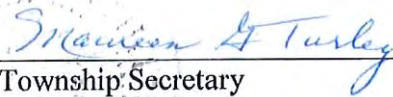


Richard Orlow, Vice Chairman



Susan Drummond

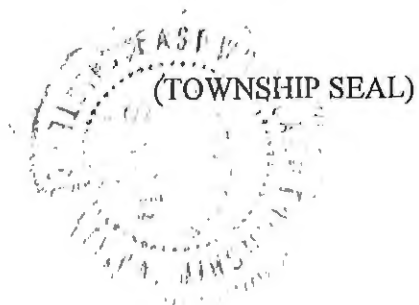
Attest:



Township Secretary



I, Maureen G. Turley, Secretary, East Whiteland Township, hereby certify that the foregoing is a true copy of Township Resolution No. 41-2016, adopted December 14, 2016.



Maureen G. Turley
Township Secretary

APPENDIX N

Approved Plan of Study and Task Activity Report

RECEIVED
MAR 24 2016

March 18, 2016

ARRO Consulting, Inc.

Mr. John Nagel, Manager
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355-1699

Re: Act 537 - Plan of Study
Planebrook Road Regional Pump Station Planning Area Special Study
East Whiteland Township
Chester County

Dear Mr. Nagel:

We have completed our review of your municipality's proposed Plan of Study, as prepared by Mr. William L. Bohner, Jr., P.E. of ARRO Engineering and Environmental Consultants, dated March 10, 2016, and a proposed Task Activity Report dated February 2016.

The proposed Special Study will provide planning to address the implementation of a regional pump station that is to provide service to the Frame Avenue and Planebrook Road area in East Whiteland Township, Chester County. As part of the implementation of this station, the existing Frame Avenue pump station will be decommissioned. The completed Special Study is scheduled to be submitted to the Department of Environmental Protection (DEP) in January 2017.

Approval of this proposed plan of study is hereby granted. The estimated cost of the plan is \$39,988. Please be advised the approval of this scope of work is not a guarantee of eligibility of planning costs for reimbursement by the Commonwealth pursuant to Section 6 (a) of Act 537 and 25 Pa Code Chapter 71 of DEP's regulations.

This Plan of Study approval does not constitute a final action by DEP. When a completed plan is submitted to us, we will act upon it consistent with Pa. Code Title 25, Chapter 71.

Please consider the following comments as your municipality prepares its Act 537 Official Plan Update:

Your municipality's Act 537 Official Plan Update is to be formatted as suggested in the "A Guide for Preparing Act 537 Update Revisions" including the necessary items listed in the "Act 537 Plan Content and Environmental Assessment Checklist". All necessary items must be included, and a copy of the completed checklist must be included with your Act 537 Plan.

Mr. John Nagel, Manager

- 2 -

March 18, 2016

This form is available on our website at:

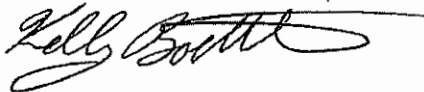
http://www.dep.state.pa.us/dep/deputate/watermgt/wqp/Forms/Act537/Forms_537Plan.htm

Also, please be advised that DEP will not pay grants under the act for planning costs incurred prior to the date of this Plan of Study approval or for information that has been completed previously under local, state or federal funding programs. In addition, approval of this POS/TAR does not guarantee that all tasks listed will be eligible for reimbursement.

Please note that any new land developments associated with this plan will not be eligible for exemptions from sewage facilities planning under Chapter 71, Section 71.51(b)(2), until after the receiving facilities have been constructed. Applicants proposing projects that will coordinate new development construction with the construction of municipal conveyance or treatment facilities must submit Sewage Facilities Planning Modules for adoption by the municipality and approval by DEP.

If you have any questions, please contact me at 484.250.5184.

Sincerely,



Kelly Boettlin
Sewage Planning Specialist 2
Clean Water

cc: Chester County Planning Commission
Chester County Health Department
Mr. Bohner – ARRO Engineering and Environmental Consultants
Ms. Vollero - RCSOB, 11th Floor, Sewage Facilities
Planning Section
Re 30 (GJE16CLW)078-2



March 10, 2016

Ms. Kelly Boettlin
Sewage Planning Specialist
Water Management Program
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, PA 19401-4915

Limerick Office
649 North Lewis Road
Suite 100
Limerick, PA 19468
T 610.495.0303
F 610.495.5855

RE: East Whiteland Township; Chester County;
Act 537 Special Study -- Plan of Study
Planebrook Road Regional Pump Station Planning Area.
ARRO #10310.21

Dear Ms. Boettlin:

As discussed on Wednesday, I am sending you the enclosed Plan of Study (POS) for the Planebrook Road Regional Pump Station Act 537 Sewage Facilities Plan (Special Study). This is to supplement the Task Activity Report and Planning Area Map that was sent to you previously under separate cover.

Please give your consideration for approval of the POS and TAR. If you have any questions about these documents, please contact me at 610-495-2102.

Sincerely,

William L. Bohner, Jr., P.E.
Project Engineer

WLB:car

Enclosure

H:\East Whiteland\10310.21 Act 537 Special Study Jan 2016 ph 02\DEP-Ltr(POS-TAR) Rev 1.doc

Corporate Headquarters • 108 West Airport Road • Lititz, PA 17543

T 717.569.7021 • F 717.560.0577 • www.thearrogroup.com

OUT IN FRONT

**EAST WHITELAND TOWNSHIP
FRAME AVENUE/PLANE BROOK ROAD ACT 537 SPECIAL STUDY**

In accordance with Title 25, Chapter 71, Administration of the Sewage Facilities Planning Program, of the Pennsylvania Code, a Plan of Study has been developed, for the preparation of a revision to the East Whiteland Township (Township) Act 537 Sewage Facilities Plan (Plan). This is being prepared to establish the planning elements that are necessary to meet the requirements of the Pennsylvania Department of Environmental Protection (PADEP) as they relate to the preparation of an Act 537 Plan Special Study (Special Study). This Special Study is to address the planning requirements necessary to implement a regional pump station that is to provide service to the Frame Avenue and Planebrook Road planning area. As part of the implementation of this station, the existing Frame Avenue pump station will be decommissioned. The area, as delineated on the attached location plan, will be the planning area for this Special Study. The Special Study shall become an amendment to the current Township Act 537 Plan.

Based on the PADEP Act 537 Plan Content and Environmental Assessment Checklist, the following addresses the planning requirements necessary to complete the study:

Executive Summary

1. Prepare a table of contents for the document.
2. Prepare a plan summary (Executive Summary).
 - A. Identify the planning area to be served by the future pump station as well as the future collection and conveyance system.
 - B. Identify the alternative chosen alternative.
 - C. Include the cost opinion for implementing the proposed alternative.
 - D. Identify the municipal commitments necessary to implement the plan.
 - E. Provide a schedule for implementing the proposed project.
3. Include original signed and sealed Resolutions of Adoption.
4. Include comments provided by the Township Planning Commission, Chester County Planning Commission, and Chester County Health Department.
5. Include Proof of Public Notice.
6. Include a copy of all written comments received and written responses to each comment.

7. Prepare a project implementation schedule.
8. If any planning inconsistencies are identified, documentation will be provided discussing the resolution of the inconsistencies. If none are identified, a statement will be made to that effect.

General Plan

I. Previous Wastewater Planning

- A. Identify and discuss existing wastewater planning.
 1. Discuss previous Act 537 planning.
 2. Discuss planning that has not been done in accordance with an approved implementation schedule.
 3. Discuss additional planning, if any, that is anticipated or planned by East Whiteland Township.
 4. Discuss planning that has been done via official plan revision such as planning modules or addenda.

II. Physical and Demographic Analysis

- A. Identify the planning area, municipal boundaries and service area boundaries utilizing existing mapping.
- B. Identify physical characteristics of the planning area. Existing mapping will form the basis for this identification supplemented by USGS and National Wetlands Inventory maps, as required.
- C. Discuss soils characteristics in the planning area.
- D. Discuss geological features in the planning area.
- E. Discuss topographic features in the service area.
- F. Identify the potable water supply in the planning area.
- G. Identify wetlands in the area utilizing National Wetlands Inventory Mapping.

III. Existing Sewage Facilities in the Planning Area

- A. Identify and describe municipal sewerage systems in the planning area.

1. Discuss location, size and ownership of existing collection and conveyance facilities. A map will be provided to show the location of the collection and conveyance facilities within East Whiteland Township that could potentially serve the planning area.
 2. Providing a narrative and schematic diagram of the basic treatment process is not applicable to this Special Study.
 3. Providing a description of the problems, if any, with the existing treatment plant is not applicable to this Special Study. However, a description of problems, if any, associated with the existing conveyance system will be discussed.
 4. Providing details, if any, relative to ongoing upgrading or expansion of the treatment facilities is not applicable to this Special Study. However, a description of ongoing upgrades or expansion, if any, of the conveyance system will be discussed.
 5. Provide a description of operation and maintenance requirements and the status of past and present compliance with these requirements.
 6. A description of disposal areas, other than stream discharge, is not applicable to this special study.
- B. Identify the areas served by on-lot disposal systems located along the following roads:
- Planebrook Road
 - Elk Drive
 - Fairview Drive
 - Golf View Lane
 - Bracken Avenue
 - Prospect Avenue
1. These areas were identified to be in the proposed public sanitary sewer service area in the 2011 Township wide Act 537 Plan approved by the Department. No further planning, to establish the need for public sewer, is required.
 2. The planning area is served by public water. The public water supplier will be identified as part of this Special Study.
- C. Identification of wastewater sludge and septage generation is not considered applicable to this Special Study.

IV. Future Growth and Development

- A. Identify and briefly summarize municipal and County planning documents for the planning area as defined by this Special Study.
 - 1. Discuss the planning area in the context of land use planning and zoning.
 - 2. Discuss zoning or subdivision regulations that establish lot sizes .
 - 3. Discuss limitations and plans relating to the floodplain and stormwater management and special protection areas.
- B. Describe future growth and development through mapping, text and analysis for the planning area as defined by this Special Study.
 - 1. Discuss areas with existing development or plotted subdivisions.
 - 2. Discuss land use designations including residential, commercial and industrial areas.
 - 3. Discuss future growth areas, population and EDU projections for these areas.
 - 4. Briefly discuss zoning and subdivision regulations as they pertain to planned development.
 - 5. Discuss the sewage planning required to provide adequate wastewater conveyance for planned development.

V. Alternatives to Provide New or Improved Wastewater Disposal Facilities

- A. Identify the alternative to provide for improved sewage facilities
 - 1. Identification of regional wastewater treatment concepts as an alternative shall make mention that wastewater is conveyed to the Valley Forge Sewer Authority's Wastewater Treatment Plant.
 - 2. The potential for extension of existing municipal sewage facilities to areas in need.
 - 3. A brief discussion regarding the potential for continued use of existing on-site or on-lot systems.

4. Analysis of a new community sewage system is not applicable to this Special Study.
 5. Analysis of alternatives as they relate to repair, replacement, and upgrade of existing conveyance system components will be discussed.
 6. Discussion as it relates to the use of alternate methods of collection/conveyance to serve needs areas is not applicable to this Special Study.
-
- B. The implementation of individual sewage disposal systems beyond the existing systems identified above, is not applicable to this Special Study.
 - C. Assessment of alternatives based on the use of small flow sewage treatment facilities, land treatment alternatives or package treatment facilities to serve individual homes or clusters of homes is not applicable to this Special Study.
 - D. Analysis based on the use of community land disposal is not applicable to this Special Study.
 - E. Addressing the use of retaining tank alternatives is not applicable to this Special Study.
 - F. A discussion of the Township's sewage management program is not applicable to this Special Study.
 - G. Non-structural comprehensive planning alternatives are not applicable to this Special Study.
 - H. Provide a no-action alternative which includes impacts on:
 1. Water Quality and Public Health.
 2. Growth Potential.
 3. Community and economic conditions.
 4. Recreational opportunities.
 5. Drinking water sources.
 6. Other environmental concerns.

VI. The Evaluation of Alternatives

- A. Evaluate the alternatives, identified in Section V, for consistency with respect to the following:
 - 1. Plans developed under the Clean Streams Law.
 - 2. Plans developed under the Municipal Wasteload Management Plan (Chapter 94).
 - 3. Plans developed under Title II of the Clean Water Act.
 - 4. Comprehensive plans developed under the Pennsylvania Municipalities Planning Code.
 - 5. Anti-degradation requirements as contained in PA Code, Title 25, Chapters 93, 95 and 102 and the Clean Water Act.
 - 6. State water plans developed under the Water Resources Planning Act.
 - 7. Pennsylvania Prime Agricultural Land Policy.
 - 8. The County Stormwater Management Plan.
 - 9. Wetlands Protection.
 - 10. Protection of rare, endangered or threatened plant and animal species as identified by the PNDI.
 - 11. Historical and Archeological Resource Protection (PHMC).
- B. Provide for the resolution of any inconsistencies with items 1 through 11 above, if necessary.
- C. Evaluate the alternatives with respect to applicable water quality standards and effluent limitations.
- D. Provide cost opinions for construction, financing and engineering fees for the alternatives identified in Section V.
- E. Provide an analysis of funding methods available to finance the proposed alternatives including financial contributions from private entities.
- F. Analyze the need for immediate or phased implementation.

- ii
- G. Analyze the ability of the Township to implement the alternative.

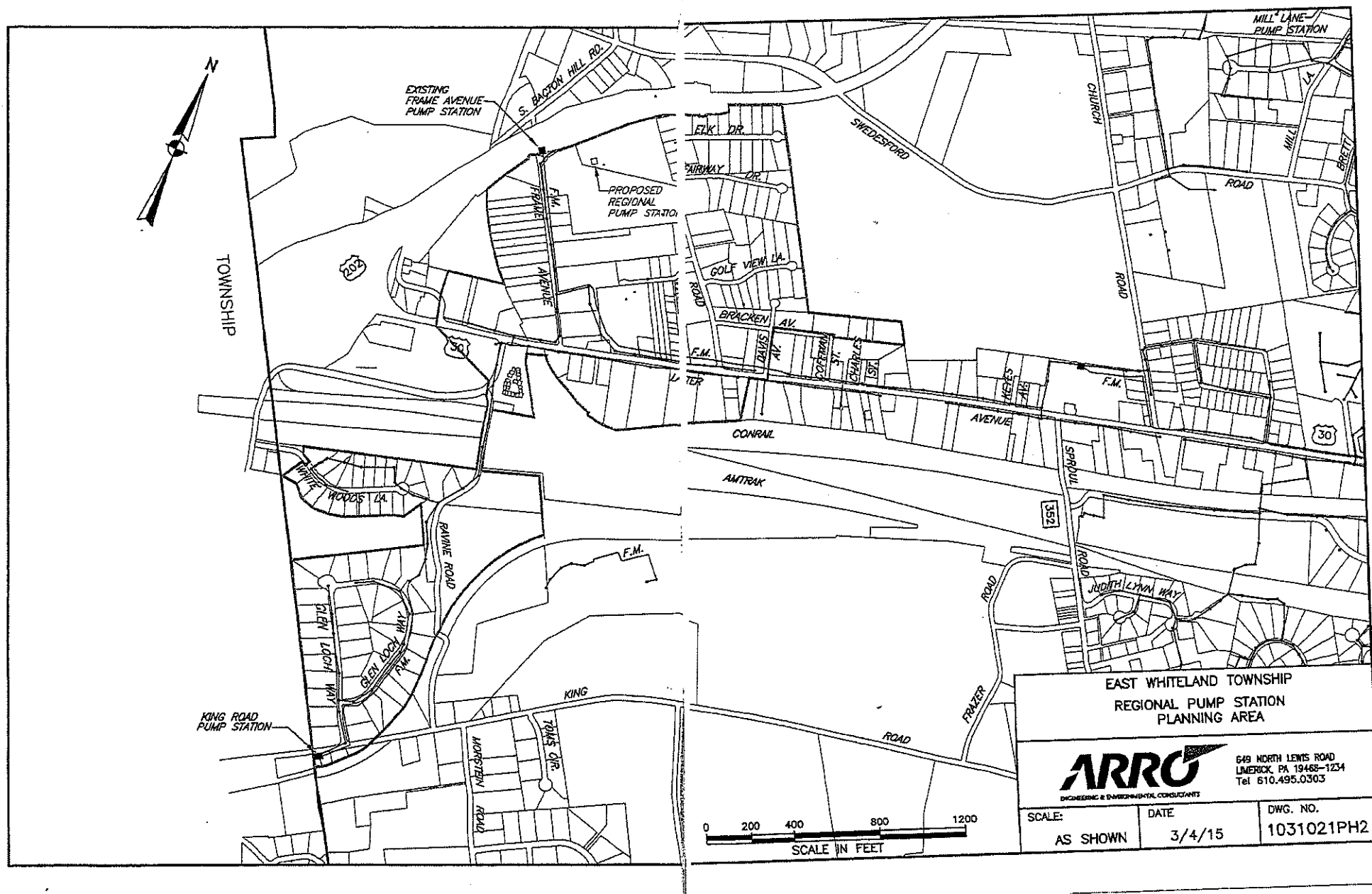
VII. Institutional Evaluation

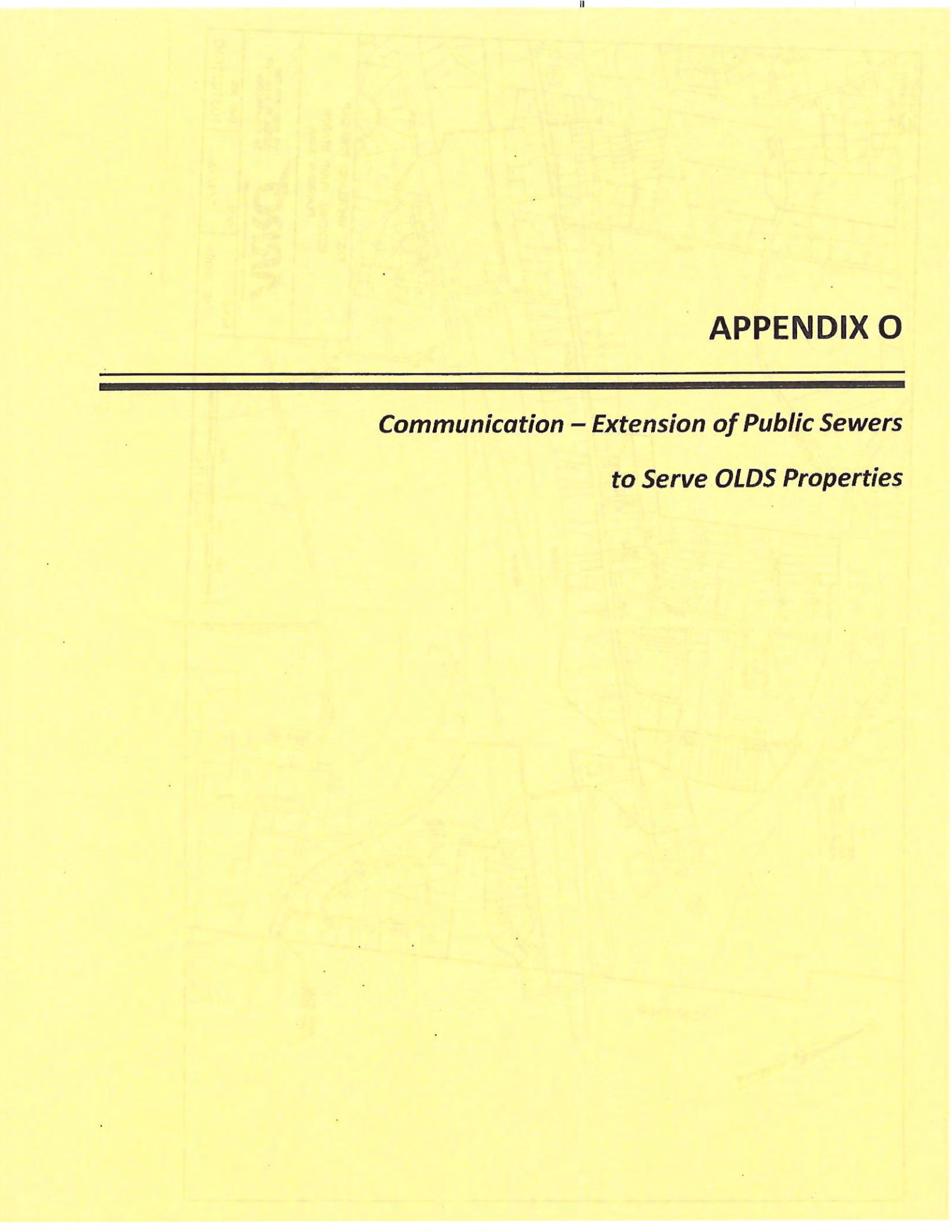
- A. Provide a brief discussion of the Township, their past actions and present performance including:
 - 1. Financial and debt status
 - 2. Available staff and administrative resources
 - 3. Provide an analysis of the Township's legal authority to implement wastewater planning recommendations, implement system-wide operation and maintenance activities, set user fees, take purchasing actions, take actions against ordinance violators, negotiate agreements with other parties and raise capital for construction, operation and maintenance of facilities.
- B. Describe the various institutional alternatives necessary to implement the technical alternatives, including:
 - 1. There is no need for a new Authority. No analysis will be completed for this.
 - 2. Function of the Township.
 - 3. Cost of administration, implementability, and capability of the Township to provide for future needs.
- C. Describe necessary administrative and legal activities, if any, to be completed and adopted to ensure the implementation of the alternatives, including:
 - 1. Legal authorities of incorporation.
 - 2. Required ordinances, standards, regulations and inter-municipal agreements.
 - 3. Provisions of rights-of-way, easements, and land transfers.
 - 4. Other sewage facilities plan adoptions.
 - 5. Legal documents, if any.
 - 6. Dates or timeframes of 1-5 above on the implementation schedule.

- D. Identify the proposed institutional alternative for implementing the selected technical alternative.

VIII. Selected Wastewater Treatment and Institutional Alternative

- A. Identify the alternative that is the most feasible from a technical, financial, and institutional standpoint. Justify the choice based on:
1. Existing wastewater disposal needs.
 2. Future wastewater disposal needs.
 3. Operations and maintenance considerations.
 4. Cost effectiveness.
 5. Availability management and administrative systems.
 6. Available finance methods.
 7. Environmental soundness.
- B. Describe the capital financing plan chosen to implement the selected alternative.
- C. Designate and describe the implementation schedule (see Executive Summary).





APPENDIX O

Communication – Extension of Public Sewers to Serve OLDS Properties

Bohner, Bill

From: Boettlin, Kelly <kboettlin@pa.gov>
Sent: Wednesday, March 30, 2016 11:19 AM
To: Bohner, Bill
Cc: Mahoney, Elizabeth
Subject: RE: Planebrook Rd. Regional PS - Special Study (OLDS Properties)

Bill,

As long as your triggers are clearly defined, we would not have any objections to this approach.

Thank you.

Kelly Boettlin | Sewage Planning Specialist 2
Department of Environmental Protection | Clean Water
Southeast Regional Office
2 East Main Street | Norristown, PA 19401
Phone: 484.250.5184 | Fax: 484.250.5971
www.depweb.state.pa.us

From: Bohner, Bill [<mailto:Bill.Bohner@TheARROGroup.Com>]
Sent: Monday, March 28, 2016 1:32 PM
To: Boettlin, Kelly
Subject: Planebrook Rd. Regional PS - Special Study (OLDS Properties)

Hi Kelly,

We have been having an internal discussion regarding the planning for extending public sewer service to the OLDS properties as part of the Planebrook Road Regional PS Special Study.

Approximately 10 years ago, notifications were sent to these properties and a public meeting was held whereby property owners had the opportunity to express their interest or lack thereof. Generally, the Township found that these property owners were receptive to the extension of public sewer. The Township has also noted that there has been little owner turnover in these neighborhoods. So, the current desire for public sewer should remain consistent with what the Township determined in the past.

In thinking some more about how we would integrate this into the Special Study, we would like to consider making these notifications and the public meeting information a part of this Special Study and include in text that these properties are a part of the planned public sewer service area in accordance with the approved 2011 537 Plan Update.

Then, similar to what we discussed at our meeting in February, we would like to write text that describes triggers for the preparation of Component 3m's that will provide specifics for the extension of public sewer mains to the OLDS properties. During the 3m planning process, the Township would plan to issue new letters to each property owner and the Township could provide them with a more defined time line relative to when public sewers will be extended. This, from the Township's perspective, would avoid getting the property owners' hopes too high without clearer definition of a time line.

Please let me know what you think and if this approach sounds reasonable.

Thanks,

Bill

William L. Bohner, Jr., P.E.

P 610.495.2102

F 610.495.5855

www.thearrogroup.com



NOTE: This electronic message may contain PRIVILEGED AND CONFIDENTIAL INFORMATION intended only for the use of the addressee(s) named above. If you are not the intended recipient of this electronic message, or the employee or agent responsible for delivering it to the intended recipient, you have no legal right to read this message and are hereby notified that any dissemination, copying or disclosure of this message is strictly prohibited. If you have received this message in error, please notify the sender immediately via reply electronic message then delete the original message.

Board of Supervisors

MICHELE VAUGHN, Chair
VIRGINIA McMICHAEL, Vice-Chair
GREGORY F. DAVIS, Member

TERRY H. WOODMAN
Township Manager

East Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

VIRGINIA FENNIMORE
Assistant Township Manager
G.ERIC REED
Codes Enforcement Officer
KENNETH N. BATTIN
Director of Codes & Life Safety
WILLIAM H. STEELE
Public Works Director

March 1, 2001

Dear Resident:

This is to inform you of the rescheduled date of the special meeting to discuss potential sewers for Planebrook Road, including Elk Drive, Fairway Drive, Golfview Lane and Prospect Avenue, which was cancelled due to the snowstorm on February 22, 2001. The meeting has been rescheduled to **Thursday, March 15, 2001, at 6:00 PM** in the Municipal Building, 209 Conestoga Road, Frazer, PA.

Sincerely,

BOARD OF SUPERVISORS
EAST WHITELAND TOWNSHIP

Cc: file

Proof of Publication of Notice in Daily Local News

Under Newspaper Advertising Act No. 587, Approved May 16, 1929

State of Pennsylvania

County of Chester

{ ss:

{ No. 361250 Term, 2001

Debra S. Wood, Legal Advg. Rep of the Daily Local News Company, a corporation, of the County and State aforesaid, being duly affirmed, deposes and says that the Daily Local News, a newspaper of general circulation, published at 250 N. Bradford Ave., West Chester, PA, County and State aforesaid, was established November 19, 1872, and Incorporated December 11, 1911, since which date the Daily Local News has been regularly issued in said county, and that the printed notice or publication attached hereto is exactly the same as printed and published in the regular editions and issues of the said Daily Local News on the following dates viz:

March 9 and 14

A.D. 2001

Affiant further deposes that he/she is the proper person duly authorized by the Daily News Company, a corporation, publishers of said Daily Local News, a newspaper of general circulation, to verify the foregoing statement under oath, and that affiant is not interested in the subject matter of the aforesaid notice or advertisement, and that all allegations in the foregoing statements as to time, place and character of publication are true.

Debra S. Wood

COPY OF NOTICE OR PUBLICATION

affirmed to and subscribed before me this 15th

day of March 2001

Beverly A. Wolfe

Notary Public

My Commission Expires:

Notarial Seal
Beverly A. Wolfe, Notary Public
East Fallowfield Twp., Chester County
My Commission Expires June 4, 2001

Statement of Advertising Costs

East Whiteland Township

209 Conestoga Road

Frazer, PA 19355-1699



To DAILY LOCAL NEWS COMPANY, Dr.
For publishing the notice or publication attached

hereto on the above stated dates..... \$

Probating same..... \$

Total..... \$

Publisher's Receipt for Advertising Costs

The Daily Local News Company, a corporation, publishers of the Daily Local News, a newspaper of general circulation, hereby acknowledges receipt of the aforesaid notice and publication costs and certifies that the same has been duly paid.

DAILY LOCAL NEWS, a Corporation, Publishers of DAILY LOCAL NEWS, a newspaper of General Circulation.

By _____

**EAST WHITELAND TOWNSHIP
SPECIAL MEETING
March 15, 2001**

Chair, Michele Vaughn, called the meeting to order at 6:10 p.m. The meeting was advertised in the *Daily Local News* on March 9 and 14, 2001, the subject being discussion of proposed sewer installations in the Planebrook Road area. Terry Woodman, Township Manager, William Steele, Public Works Director, Surender Kohli, Township Engineer, and Mary Lou Knight, Assistant Township Secretary, were present. There were approximately thirty-five (35) people in the audience at the onset of the meeting. Virginia McMichael, Vice-Chair, joined the meeting at 6:15 p.m.

The Chair indicated that the meeting was informational only and intended to ascertain residents' interest in having sewers installed. Ms. Vaughn introduced Terry Woodman.

Ms. Vaughn gave a summary of costs to the homeowner associated with the sewer project:

- \$4,000.00 tapping fee (one time fee) paid to the Township
- \$25.00 per linear foot (approximate) fee to hook into the sewer line (one time fee) paid to the plumber
- \$300.00 to \$500.00 fee to close current septic tank (one time fee) paid to the plumber.
- \$350.00 connection fee (one time fee) paid to the Township
- \$260.00 per year usage fee (sewer rental) paid to the Township

The Chair noted that the tapping fee charged to the homeowner is one-third of its actual cost, the balance being paid by the Township.

Ms. Vaughn explained that the plumber is only required to place the piping and do the hook-up, and the homeowner has the option of digging the pipe trench, thereby saving on this part of the cost. Savings might also be realized if neighborhood groups utilized the services of one plumber, as the contractor can realize savings, i.e., buying stone in bulk, placing equipment over a period of time.

Ms. Vaughn stated that state and federal government funds to aid homeowners with costs involved with connecting to the sewer line are not available, as East Whiteland Township, as a whole, does not qualify for these funds. She said that area banks have been approached regarding homeowner loans to cover these costs. The banks have indicated their willingness to help in this regard.

In response to a question regarding timing of the project, the Chair indicated that a letter would go out to residents to get their overall feeling on the project. If the response is favorable (51% of residents in agreement), Mr. Kohli would send a letter requesting details which relate to the piping connection for individual residents. The residents would have thirty (30) days to respond. If the project goes forward, completion would be expected between one to one and one-half years.

Mr. Davis joined the meeting at 6:25 p.m.

Mr. Cockerham brought up the fact that not all neighbors received notification of the meeting and asked that the Township review the mailing list of residents in the designated area under discussion.

In response to a question regarding the necessity for sewers, Ms. Vaughn stated that there have been a number of complaints regarding failing septic systems. This presents an environmental issue regarding the safety, health and welfare of residents. If enough failing systems turn up over time, the Department of Environmental Protection has the authority to mandate sewer installation. The Township is being proactive by offering residents the option of connecting to a sewer system. Several residents indicated that they were having a problem with their septic systems.

Ms. Vaughn stated that if the project did not go forward at this time, the price to the homeowner would likely increase.

The Township Engineer outlined the tapping fee as strictly for the sewer collection system design. The connection fee is for the house/street connection. In response to a question, Mr. Kohli stated that each property would require one connection, even if that property has two apartments.

The Chairperson of the East Whiteland Fire Company inquired if the Fire Company would be considered a business and, if so, would the cost be different than that charged to homeowners. This cost would be based on EDUs used.

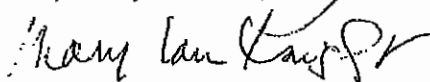
A resident spoke to the charges which might be incurred when running the connection line from the house to the street due to particular piping lay-outs, oil tanks, trees, etc., on each individual property. He felt that the \$25.00 per foot estimate mentioned above is low. Mr. Kohli responded that when individual responses are received, the lateral would be designed according to those responses. Ms. McMichael encouraged residents to contact a plumber to ascertain individual costs. In response to a question, Mr. Kohli responded that under the Ordinance, each home is required to have an individual hook-up, as opposed to sharing a line. Regarding placement of lines on individual property, Mr. Kohli stated that there is interplay between individual property owners and the Township on how things will be done.

Mr. Kohli gave a presentation of the project using the tax parcel map. Approximately 84 properties would be connected along Prospect, Gulfview, Elk, Fairview, Bracken and Planebrook. The sewer would be a gravity design. A number of properties will require an injector pump system, and the Township will supply this system which includes a pump, back-up pump, wet well and electrical panel. The pump will be located outside the residence. The resident will be responsible for the cost of installation. Mr. Kohli estimates that the actual cost for this particular neighborhood is \$14,900.00 per household, however, the cost to the homeowner remains at \$4,000.00. The main pump station is an approximately 10-ft. X 12-ft. building and will be maintained by the Township. Depth of the main line will be determined when the final engineering design is complete. Discussion ensued regarding placement of trunk lines. Sewer fees were discussed. Mr. Kohli explained that if the majority of neighbors elect to have sewers, everyone within 150 ft. of the line must connect. Anyone outside of that range does not have to connect.

The residents were invited to look at the plan.

There being no further business, Ms. Vaughn made a motion to adjourn the meeting. Ms. McMichael seconded the motion, and the meeting was adjourned at 7:20 p.m.

Respectfully submitted,



Mary Lou Knight
Assistant Township Secretary

Board of Supervisors
MICHELE VAUGHN, CHAIR
VIRGINIA McMICHAEL,
Vice Chair
GREGORY F. DAVIS
Member
TERRY H. WOODMAN
Township Manager

East Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

VIRGINIA FENNIMORE
Assistant Township Manager
G. ERIC REED
Codes Enforcement Officer
KENNETH N. BATTIN
Director of Codes
& Life Safety
WILLIAM H. STEELE
Public Works Director

TO: PLANE BROOK ROAD AREA RESIDENTS

FROM: WILLIAM STEELE

DATE: APRIL 2, 2001

RE: PUBLIC SEWER

East Whiteland Township has conducted a feasibility study in your area for the possibility of installing public sewer. There was a public meeting held on March 15, 2001 in the Municipal Building to discuss this potential project. (Meeting minutes attached) **As a follow up to that meeting we are asking all residents to respond on the enclosed post card.** This will help us to determine the interest in your area with regard to the addition of public sewer.

As discussed the costs to each homeowner would include a \$4,000.00 tapping fee and a \$350.00 connection fee. These would be the only fees paid to the Township to connect to the system. After connecting to the public sewer the sewer rental charge is \$65.00 per quarter per EDU (equivalent dwelling unit) to total \$260.00 per year.

There would be additional costs to each homeowner to contract with a plumber to install the lateral piping from the right of way to the house. Also to clean out and backfill the septic tank per Township regulations. These costs are estimated to be \$25.00 per foot for the piping and \$500.00 for the septic tank work. These costs could vary depending on conditions around your house.

The feasibility study has shown some homes would need a grinder pump to discharge your sewage into the Township system. The pit and pump would be supplied by the Township (at no addition cost) and installed by your plumber. It would then be owned and maintained by the property owner.

If you have any questions or concerns, please contact me at your earliest convenience. If you would like to contact the Township Supervisors you may reach them by calling Michele Vaughn (610-408-0793), Virginia McMichael (610-993-8725), or Gregory Davis (610-647-3586). **Please complete the enclosed post card and return it to the Township by April 30, 2001.** Thank you for your cooperation in this survey.

EAST WHITELAND TOWNSHIP
PLANE BROOK ROAD AREA
SEWER SURVEY APRIL 2001

PLEASE MARK ONE LINE BELOW

_____ I WOULD be interested in connecting to public sewer if it were
made available to my property.

_____ I WOULD NOT be interested in connecting to public sewer.

Signature

We received a total of 82 responses.

52 - Yes

30 - No

KOTROBA FRANK J 1 FAIRWAY DR MALVERN PA	19355	EADEH FAMILY LIMITED C/O EADEH ENTEI 511 OLD LANCASTER BERWYN PA	19312	SHERMAN THERESA M 2 ELK DR MALVERN PA	19355
RE: 1 FAIRWAY DR		RE: 971 SWEDESFORD RD		RE: 2 ELK DR	
BRYAN LEWIS F JR 13 FAIRWAY DR MALVERN PA	19355	AXIS FRAZER STORAGE LLC 24 LOUELLA CRT STE 240 WAYNE PA	19087	GOLDEN GREGORY T 4 FAIRWAY DR MALVERN PA	19355
RE: 13 FAIRWAY DR		RE: 32 BACTON HILL RD		RE: 4 FAIRWAY DR	
MCGUIRE DANIEL J 60 PLANE BROOK I FRAZER PA	19355	ONEILL RUAIRI 20 ELK DR MALVERN PA	19355	DOMENICK THOMAS W 159 PLANE BROOK FRAZER PA	19355
RE: 60 PLANE BROOK RD		RE: 20 ELK DR		RE: 159 PLANE BROOK RD	
FZF ASSOCIATES 69 W INDIAN LA NORRISTOWN PA	19403	LOTZ CARL P 1 GOLF VIEW LA FRAZER PA	19355	EAST WHITELAND TOWNSHIP VOLUNTI 170 PLANE BROOK FRAZER PA	19355
RE: 5 S BACTON HILL RD		RE: 3 GOLF VIEW LA		RE: 162 PLANE BROOK RD	
BRADLEY DAVID D 570 PARK RD DOWNTOWN PA	19335	SHEVLAND WILLIAM T 1738 TOWNE DR WEST CHESTER PA	19380	EAST WHITELAND 170 PLANE BROOK FRAZER PA	19355
RE: 11 ELK DR		RE: 31 COFFMAN ST		RE: 170 PLANE BROOK RD	
NEFF PAUL C 10 FAIRWAY DR MALVERN PA	19355	GRAY KIMBERLE M 14 COFFMAN LA MALVERN PA	19355	WAREHOUSE PARTNERSHIP L P 100 LAWRENCE D WEST CHESTER PA	19380
RE: 10 FAIRWAY DR		RE: 14 COFFMAN ST		RE: 961 SWEDESFORD RD	
LEMAN FRANK 11 GOLF VIEW RD FRAZER PA	19355	BLACKBURN ELIZ C 12 ELK DR MALVERN PA	19355	BRD GENERAL PARTNERSHIP 8 BACTON HILL R FRAZER PA	19355
RE: 11 GOLF VIEW LA		RE: 12 ELK DR		RE: 72 BACTON HILL RD	
POWELL DONALD C 9 ELK DR MALVERN PA	19355	PARK LANE GROUP INC 2 FOREST LAKE D MEDIA PA	19063	EADEH FAMILY LIMITED C/O EADEH ENTEI 511 OLD LANCASTER BERWYN PA	19312
RE: 9 ELK DR		RE: 1 BACTON HILL RD STE 201		RE: 101 N PHOENIXVILLE PK	
MILLER RUTHERFORD S 606 SWEDESFORD FRAZER PA	19355	KASH OSSAMA 6 BIRCH RD MALVERN PA	19355	SEGERMARK RICHARD L 316 N WAYNE AVI WAYNE PA	19087
RE: 606 SWEDESFORD RD		RE: 19 PROSPECT AV		RE: 20 BACTON HILL RD	
B & B HOMES INC 112 MOORES RD STE 200 MALVERN PA	19355	MITCHELL ALBERT JR 8 S BACTON HILL MALVERN PA	19355	FERNANDES RICHARD A JR 10 BACTON HILL I MALVERN PA	19355
RE: 102 N PHOENIXVILLE PK		RE: 8 S BACTON HILL RD		RE: 10 BACTON HILL RD	

WAREHOUSE PARTNERS L P 100 LAWRENCE D WEST CHESTER PA 19380	AMERIGAS PROPANE LP 460 N GULPH RD KING OF PRUSSIA PA 19406	CAPRIOLA ROBERT J 522 E SWEDESFOR MALVERN PA 19355
RE: 963 SWEDESFORD RD	RE: 9 BACTON HILL RD	RE: 522 SWEDESFORD RD
REDFERN EDNA W 76 PLANE BROOK I MALVERN PA 19355	FLIECK KAREN L 15 FAIRWAY DR MALVERN PA 19355	HINKLE BARRY L 16 GOLFVIEW LA MALVERN PA 19355
RE: 76 PLANE BROOK RD	RE: 15 FAIRWAY DR	RE: 16 GOLF VIEW LA
ABEL H JOHN 111 PHOENIXVILL MALVERN PA 19355	CHESTER VALLEY GOLF CLUB 430 SWEDESFORD FRAZER PA 19355	MCKAY SARA MAE TRU 9 PROSPECT AVE MALVERN PA 19355
RE: 111 N PHOENIXVILLE PK	RE: 430 SWEDESFORD RD	RE: 9 PROSPECT AV
GREAT VALLEY SCHOOL 47 CHURCH RD MALVERN PA 19355	FORCINE JOSEPH A 282 WOODLAND R STRAFFORD PA 19087	COCKERHAM GLENN H 420 LANCASTER A MALVERN PA 19355
RE: 5 BACTON HILL RD	RE: 964 SWEDESFORD RD	RE: 24 PROSPECT AV
FOGG EDWARD C 32 SABRINA DR REHOBOTH BEACH D I 19971	S R S LEASING A PRTN C/O UTZ QUALITY 900 HIGH ST 17331 HANOVER PA	FRANCIS BRADLEY L 824 MONTEITH DR WAYNE PA 19087
RE: 7 ELK DR	RE: 11 S BACTON HILL RD	RE: 25 DAVIS AV
AZAT JACK A 577 LANCASTER A FRAZER PA 19355	SEKOLA ROBERT T 68 PLANE BROOK I MALVERN PA 19355	WRIGHT CHRISTOPHER 12 FAIRWAY DR MALVERN PA 19355
RE: 577 LANCASTER AV	RE: 68 PLANE BROOK RD	RE: 12 FAIRWAY DR
AZAT JACK A 577 LANCASTER A FRAZER PA 19355	GREAT VALLEY SCHOOL ATTN CHARLES E 47 CHURCH RD 19355 MALVERN PA	HERWIG JOANNE M 6 GOLF VIEW LA MALVERN PA 19355
RE: 12 PROSPECT AV	RE: 7 BACTON HILL RD	RE: 2 PROSPECT AV
WATTS STOUGHTON L 16 FAIRWAY DR MALVERN PA 19355	HILL HOWARD A 3 BACTON HILL R FRAZER PA 19355	EDWARDS MICHAEL CHARLES 6 FAIRWAY DR MALVERN PA 19355
RE: 16 FAIRWAY DR	RE: 3 BACTON HILL RD	RE: 6 FAIRWAY DR
ANTHONY MARTIN J 37 COFFMAN ST MALVERN PA 19355	EADEH FAMILY LIMITED C/O EADEH ENTEI 511 OLD LANCASTER 19312 BERWYN PA	DAVIS WILLIAM E 92 PLANE BROOK I MALVERN PA 19355
RE: 37 COFFMAN ST	RE: 969 SWEDESFORD RD	RE: 92 PLANE BROOK RD
SMITH-LITTLE SHELLEY 6 S BACTON HILL FRAZER PA 19355	SMITH CRAIG S 18 ELK DR MALVERN PA 19355	ABRAHAM JAMES W JR 27 PROSPECT AVE MALVERN PA 19355
RE: 16 S BACTON HILL RD	RE: 18 ELK DR	RE: 27 PROSPECT AV

SAMPATH ANAND 511 SWEDESFORD MALVERN PA 19355	AZAT JACK A 577 LANCASTER A FRAZER PA 19355	WAITE FREDRIC J 509 SWEDESFORD MALVERN PA 19355
RE: 511 SWEDESFORD RD	RE: 581 LANCASTER AV	RE: 509 SWEDESFORD RD
KIRKPATRICK DONALD M JR 32 N BACTON HILL FRAZER PA 19355	ZIMMERMAN DAVID P 13 ELK DR MALVERN PA 19355	PROTESTO ROBERT V 2021 GRANTHAM BERWYN PA 19312
RE: 32 BACTON HILL RD	RE: 13 ELK DR	RE: 157 PLANE BROOK RD
CAPETOLA ANGELO 8 FAIRWAY DR MALVERN PA 19355	PELLE CHARLES 31 ISABELLA RD ELVERSON PA 19520	TAYLOR MELONY 30 PROSPECT AVE FRAZER PA 19355
RE: 8 FAIRWAY DR	RE: 36 BRACKEN AV	RE: 30 PROSPECT AV
TROFFO FRANK L 9 GOLF VIEW LA FRAZER PA 19355	GILMORE THOMAS C 1 DAVIS AVE MALVERN PA 19355	BAYLES WILLIAM H JR 514 SWEDESFORD MALVERN PA 19355
RE: 9 GOLF VIEW LA	RE: 31 DAVIS AV	RE: 514 SWEDESFORD RD
AZAT ADIL J 7 GOLF VIEW LA MALVERN PA 19355	COCKERHAM BARRY M 148 PLANE BROOK FRAZER PA 19355	EADEH LESLIE W REVOCABLE TRUST 511 OLD LANCASTER BERWYN PA 19312
RE: 7 GOLF VIEW LA	RE: 148 PLANE BROOK RD	RE: 967 SWEDESFORD RD
THOMAS MICHAEL 532 SWEDESFORD FRAZER PA 19355	EUSTICE THOMAS F 15 ELK DR MALVERN PA 19355	WHETSTONE DAVID D 610 SWEDESFORD FRAZER PA 19355
RE: 532 SWEDESFORD RD	RE: 15 ELK DR	RE: 610 SWEDESFORD RD
STANTON DOUGLAS F 612 SWEDESFORD FRAZER PA 19355	PHILA ELECTRIC CO 2301 MARKET ST PHILADELPHIA PA 19101	RE:
RE: 612 SWEDESFORD RD	RE:	
BLACKLOCK ALLEN H 902 SHILOH RD WEST CHESTER PA 19382	BACTON HILL ROAD 28 N BACTON HILL MALVERN PA 19355	BLACKLOCK ALLEN H 902 SHILOH RD WEST CHESTER PA 19382
RE: 4 GOLF VIEW LA	RE: 28 BACTON HILL RD	RE: 24 DAVIS AV
LORINE JEFFREY J 15 GOLFVIEW RD FRAZER PA 19355	LACONI ROBERTA ANN 10 COFFMAN ST FRAZER PA 19355	CODY PROPERTIES INC 131 SUGARTOWN DEVON PA 19333
RE: 15 GOLF VIEW LA	RE: 10 COFFMAN ST	RE: 960 SWEDESFORD RD
BABCOCK LLOYD J 10 DAVIS AVE PO BOX 727 FRAZER PA 19355	BEVEVINO MARK A 23 SPRING LEA LA CHESTER SPRINGS PA 19425	CLONBEAG INC 17 S BACTON HILL FRAZER PA 19355
RE: 14 DAVIS AV	RE: 24 BACTON HILL RD	RE: 14 S BACTON HILL RD

JULIANA RALPH L 2 S BACTON HILL FRAZER PA 19355	EAST WHITELAND TOWNSHIP 209 CONESTOGA I MALVERN PA 19355	VIGUERS SCOTT J 4 ELK DR MALVERN PA 19355
RE: 2 S BACTON HILL RD	RE: 160 PLANE BROOK RD	RE: 4 ELK DR
JULIANA VINCENT A 973 E SWEDES FOR EXTON PA 19341	REDFERN TRACE G 10 S BACTON HILL FRAZER PA 19355	JAMES SPRING & WIRE CO PO BOX 878 FRAZER PA 19355
RE: 973 SWEDES FORD RD	RE: 10 S BACTON HILL RD	RE: 6 BACTON HILL RD
SHEINBACH HAROLD 33 COOL VALLEY MALVERN PA 19355	LEHMANN GRACE W 5 ELK DR FRAZIER PA 19355	BRAUN RAYMOND J 84 PLANE BROOK I MALVERN PA 19355
RE: 11 BACTON HILL RD	RE: 5 ELK DR	RE: 84 PLANE BROOK RD
HAPP EDWARD M III 513 SWEDES FORD MALVERN PA 19355	DELLAPENNA LILLIAN 2 FAIRWAY DR MALVERN PA 19355	HARNSBERGER ROBERT C 16 ELK DR MALVERN PA 19355
RE: 513 SWEDES FORD RD	RE: 2 FAIRWAY DR	RE: 16 ELK DR
BROOME JAY 21 ELK DR MALVERN PA 19355	BROGAN STEPHEN J C/O CHRISTINE M 280 SNYDER AVE WEST CHESTER PA 19382	SUTER DAVID A & KERRI L 23 PROSPECT AVE MALVERN PA 19355
RE: 21 ELK DR	RE: 33 PROSPECT AV	RE: 23 PROSPECT AV
BEVEVINO MARK A 23 SPRING LEA LA CHESTER SPRINGS PA 19425	AUGUSTINE ALBERT A 1914 BRANDON RI NORRISTOWN PA 19403	PURCELL KATHRYN MCKEEMAN 7524 RENATO CRT SARASOTA FL 34238
RE: 26 BACTON HILL RD	RE: 113 PLANE BROOK RD	RE: 45 PROSPECT AV
CANTRELL G BARCLAY JR 965 E SWEDES FOR EXTON PA 19341	COCKERHAM MCCOY R 150 PLANE BROOK FRAZER PA 19355	FRAZER EXTON DEVELOPMENT 1075 ANDREW DR SUITE I 19380
RE: 965 SWEDES FORD RD	RE: 150 PLANE BROOK RD	RE: 954 SWEDES FORD RD
ANTHONY MARTIN J 37 COFFMAN ST MALVERN PA 19355	COCKERHAM MCCOY R 150 PLANE BROOK FRAZER PA 19355	KCBD ASSOCIATES LP 22A BACTON HILL FRAZER PA 19355
RE: 45 COFFMAN ST	RE: 150 PLANE BROOK RD	RE: 22 BACTON HILL RD
SLONE WADE 5 CHARLES ST MALVERN PA 19355	R & B INVESTMENTS 176 PLANE BROOK FRAZER PA 19355	LOTZ CARL P 1 GOLF VIEW LA FRAZER PA 19355
RE: 5 CHARLES ST	RE: 176 PLANE BROOK RD	RE: 1 GOLF VIEW LA
COATE JAMES M 10 ELK DR MALVERN PA 19355	BROGAN STEPHEN J C/O CHRISTINE M 280 SNYDER AVE WEST CHESTER PA 19382	HERWIG KARL F 6 GOLF VIEW LA MALVERN PA 19355
RE: 10 ELK DR	RE: 35 PROSPECT AV	RE: 175 PLANE BROOK RD

HERWIG KARL F 6 GOLF VIEW LA MALVERN PA 19355	SHERIDAN GARY J 14 GLEN LOCH W/ MALVERN PA 19355	WAY CHRISTOPHER V 503 SWEDESFORD MALVERN PA 19355
RE: 173 PLANE BROOK RD	RE: 13 PROSPECT AV	RE: 503 SWEDESFORD RD
MILLER RUTHERFORD S 606 SWEDESFORD FRAZER PA 19355	KRUEMMLING ERNST K 440 CREEKSIDE DR DOWNTOWN PA 19335	MCGARVEY THOMAS J 31 PROSPECT AVE MALVERN PA 19355
RE: 606 SWEDESFORD RD	RE: 177 PLANE BROOK RD	RE: 31 PROSPECT AV
HOERR BRUCE TIMOTHY 52 PLANE BROOK MALVERN PA 19355	KIRK JOHN 10 GOLFVIEW LA MALVERN PA 19355	CATREN ROBERT H 3 CHARLES ST MALVERN PA 19355
RE: 52 PLANE BROOK RD	RE: 10 GOLF VIEW LA	RE: 3 CHARLES ST
GU BAOHUA 505 SWEDESFORD MALVERN PA 19355	COZZONE FLORENCE 507 GREEN HILL L BERWYN PA 19312	WARREN MARY C/O KATHLEEN A 250 CARLYN CRT DOWNTOWN PA 19335
RE: 505 SWEDESFORD RD	RE: 16 PROSPECT AV	RE: 14 PROSPECT AV
CALHOUN WILLIAM M 3 ELK DR MALVERN PA 19355	GALLAGHER MEGAN E 18 PROSPECT AVE MALVERN PA 19355	FEDOR RUDOLPH A JR 69 W INDIAN LA NORRISTOWN PA 19403
RE: 3 ELK DR	RE: 18 PROSPECT AV	RE: 4 CHARLES ST
ABEL CECIL B. 1 ELK DR MALVERN PA 19355	AMODEI MICHAEL L 19 ELK DR MALVERN PA 19355	AZAT JACK A 577 LANCASTER A FRAZER PA 19355
RE: 1 ELK DR	RE: 19 ELK DR	RE: 17 PROSPECT AV
GOSLIN DONALD N JR & ELIZABETH BL. 6 ELK DR MALVERN PA 19355	MARTINDALE GARY L 12 GOLFVIEW LA MALVERN PA 19355	HEDGLIN MARGARET E 4 S BACTON HILL MALVERN PA 19355
RE: 6 ELK DR	RE: 12 GOLF VIEW LA	RE: 4 S BACTON HILL RD
CLONBEAG INC 17 S BACTON HILL FRAZER PA 19355	SHAVER DAVID N 15 WINDING WAY MALVERN PA 19355	EAST WHITELAND TOWNSHIP 209 CONESTOGA I MALVERN PA 19355
RE: 17 S BACTON HILL RD	RE: 26 PROSPECT AV	RE: 158 PLANE BROOK RD
BRADSHAW MICHAEL H PO BOX 757 FRAZER PA 19355	WAWA INC 260 W BALTIMORE WAWA PA 19063	MCKEEMAN RALPH L 41 PROSPECT AVE FRAZER PA 19355
RE: 600 SWEDESFORD RD	RE: 567 LANCASTER AV	RE: 47 PROSPECT AV
DIMARCELLO NICHOLAS 223 PLANE BROOK FRAZER PA 19355	SWEDESFORD CORP CENTER C/O MICHAEL S LI ONE BACTON HILL SC 19355 FRAZER PA	BEVEVINO MARK 23 SPRING LEA LA CHESTER SPRINGS PA 19425
RE: 223 PLANE BROOK RD	RE: 601 SWEDESFORD RD	RE: 28 BACTON HILL RD

MERCER ERIC
14 FAIRWAY DR
MALVERN PA 19355

RE: 14 FAIRWAY DR

AZAT JACK A
577 LANCASTER A
FRAZER PA 19355

RE: 585 LANCASTER AV

HERWIG KARL F
6 GOLF VIEW LA
MALVERN PA 19355

RE: 6 GOLF VIEW LA

CLARK KEVIN M
17 ELK DR
MALVERN PA 19355

RE: 17 ELK DR

WATSON DONALD F
13 GOLFVIEW LA
MALVERN PA 19355

RE: 13 GOLF VIEW LA

GILLESPIE LEONARD J
14 GOLFVIEW RD
MALVERN PA 19355

RE: 14 GOLF VIEW LA

DOMENICK THOMAS W
159 PLANE BROOK
FRAZER PA 19355

RE: 12 FAIRWAY DR

SEGERMARK RICHARD L
316 N WAYNE AV
WAYNE PA 19087

RE: 45 COFFMAN ST

LIPSON ERIK
507 SWEDES FORD
MALVERN PA 19355

RE: 507 SWEDES FORD RD

NORCINI MARY MCKEEMAN
43 PROSPECT AVE
FRAZER PA 19355

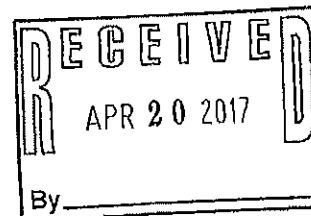
RE: 43 PLANE BROOK RD

MCKEEMAN RALPH L
41 PROSPECT AVE
FRAZER PA 19355

RE: 41 PROSPECT AV

BRANDER PETER
14 ELK DR
MALVERN PA 19355

RE: 14 ELK DR



APR 17 2017

Mr. John Nagel, Manager
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355-1699

Re: Act 537 Special Study
Frame Avenue/Planebrook Road Regional Pump Station
and Force Main
Status: ISSUED
APS ID 38912, AUTH ID 1175131
East Whiteland Township
Chester County

Dear Mr. Nagel:

We have completed our review of your municipality's proposed Official Sewage Facilities Plan Special Study for the Planebrook Road Regional Pump Station and Force Main in East Whiteland Township (Township), Chester County. The Special Study, titled East Whiteland Township Frame Avenue/ Planebrook Road Act 537 Special Study (Special Study), was prepared by ARRO Engineering & Environmental Consultants, and is dated December 2016. This Special Study was submitted to the Department of Environmental Protection (DEP) and a review was conducted in accordance with the provisions set forth by Section 5 of the Pennsylvania Sewage Facilities Act and Chapter 71, the Administration of Sewage Facilities Program. Additional information in support of the December 2016 Special Study was received by DEP on March 29, 2017.

Approval of the Special Study is hereby granted. This approval provides for the following:

1. The construction of a regional pump station in place of the existing temporary pump station currently serving the Cockerham Tract Development. This regional pump station will be designed to accommodate total average annual flows of 151,325 gallons of sewage per day (gpd), which accounts for the existing flows to the Frame Avenue pump station, including flows from the Cockerham Tract and Celia Tract developments, and for flows from the properties currently served by individual on-lot disposal systems along and adjacent to Planebrook Road. The sewer service area for the regional pump station is delineated in the East Whiteland Township Regional Pump Station Planning Area plan found in Appendix C of the Special Study. The permitting and construction of the proposed regional pump station shall be completed consistent with the implementation schedule received by DEP on March 29, 2017.

2. The construction of an 8-inch force main that will extend from the proposed regional pump station through a sewer easement within the Cockerham Tract development, through an easement between existing homes near Planebrook Road, and along Planebrook Road to the point of connection with the existing Whiteland Village Interceptor north of the intersection of Planebrook Road and Swedesford Road. The permitting and construction of the proposed force main shall be completed consistent with the implementation schedule received by the DEP on March 29, 2017.
3. The decommissioning of the existing Frame Avenue Pump Station and the abandonment of the existing Frame Avenue force main that extends from the Frame Avenue pump station along Frame Avenue, through various properties to the point of connection to the existing gravity sewer within Lancaster Avenue (Route 30).
4. Commitment for additional sewage facilities planning for the proposed collection system to serve the properties currently served by on-lot disposal systems along and adjacent to Planebrook Road. This additional sewage facilities planning will be required to be adopted by the Township and approved by DEP prior to the connection of these properties to public sewer. The timing of this future planning effort will be triggered by the start of construction of the Planebrook Road Regional Pump Station and force main consistent with the implementation schedule received by the DEP on March 29, 2017.

The Special Study states that construction is currently ongoing on the sanitary sewer "connector" that will allow wastewater to be conveyed from the Whiteland Village Interceptor to the Mill Lane Pump Station. The Special Study also states that the Township is currently performing maintenance on the Whiteland Village Interceptor in preparation of placing the interceptor into service. As the proposed regional pump station and force main will be connecting the existing sewer system via the Whiteland Village Interceptor, construction of the proposed regional pump station and force main must be coordinated with the construction and completion of the missing link "connector" sewer.

The approved project will also require East Whiteland Township to secure a Water Quality Management (Part II) permit for the construction and operation of the proposed sewage collection and conveyance facilities. Issuance of a Part II permit will be based upon a technical evaluation of the permit application and supporting documentation. Starting construction prior to obtaining a Part II permit is a violation of the Pennsylvania Clean Streams Law (CSL).

APR 17 2017

Other DEP permits may be required for construction if encroachment to streams or wetlands will result. Information regarding the requirements for such permits or approvals can be obtained from DEP's Watershed Management Program at the letterhead address, by telephone at 484.250.5970 or downloaded from the Internet at www.dep.state.pa.us/dep/deputate/watermgt/wqp/forms/forms_home.htm.

Please note that any new land developments associated with this plan will not be eligible for exemptions from sewage facilities planning under Chapter 71, Section 71.51(b)(2), until after the receiving facilities have been constructed. Applicants proposing projects that will coordinate new development construction with the construction of municipal conveyance or treatment facilities must submit Sewage Facilities Planning Modules for adoption by the municipality and approval by the DEP.

We note that the Chester County Health Department, in their letter of October 7, 2016, advised the Township of issues with the existing on-lot sewage disposal system serving the Chester Valley Golf Club. In response, the Township noted that the golf course property lies outside of the planning area of the Special Study but that the property was included in the public sewer service area in the Township's Mill Lane Pumping Station Special Study. The Township anticipates that future extension of the sanitary sewer system to serve Church Road will provide a connection for the golf course property. As the timing of this future sanitary sewer extension is currently unknown, we recommend that the Township work with the Chester Valley Golf Club to explore the possibility of connecting to Manhole 126F once the missing link "connector" sewer construction is complete and in operation.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

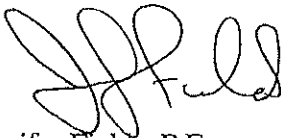
IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

APR 17 2017

IMPORTANT LEGAL RIGHTS ARE AT STAKE; HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483) FOR MORE INFORMATION.

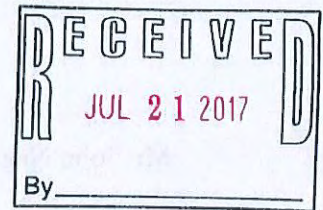
If you have any questions, please contact Ms. Kelly Boettlin of this office at 484.250.5184.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jenifer Fields', with a stylized, cursive script.

Jenifer Fields, P.E.
Regional Manager
Clean Water

cc: Chester County Planning Commission
Chester County Health Department
Chester County Conservation District
Mr. Steele – East Whiteland Township
Valley Forge Sewer Authority
Tredyffrin Township
Mr. Bohner – ARRO Engineering & Environmental Consultants
Planning Section
Re 30 (GJE17CLW)130-6



July 18, 2017

CERTIFIED MAIL NO. 7015 0640 0002 3146 7453

Mr. John Nagel, Manager
East Whiteland Township
209 Conestoga Road
Frazier, PA 19355-1633

Re: WQM Permit - Sewage
Planebrook Road Regional Pump Station
Permit No. 1517401
Authorization ID No. 1170374
East Whiteland Township
Chester County

Dear Mr. Nagel:

Your Water Quality Management (WQM) permit is enclosed. You must comply with all Standard and Special Conditions attached to this Permit. Construction must be done in accordance with the permit application and all supporting documentation. Please review the permit conditions and the supporting documentation submitted with your application before starting construction.

Please note that you are responsible for securing all other required permits, approvals and/or registrations associated with the project, if applicable, under Chapters 102 (erosion and sedimentation control), 105 (stream obstructions and encroachments) and 106 (floodplains) of DEP's regulations. Construction may not proceed until all other required permits have been obtained.

Enclosed is the "Water Quality Management Post Construction Certification" form. A Pennsylvania-registered Professional Engineer must sign and complete this form prior to startup of the facilities. You or your authorized representative must also sign the form. This certification and other post-construction documentation must be submitted to DEP within 30 days of completion of the project and must be received by DEP prior to commencing operation of the facilities.

Mr. John Nagel, Manager

- 2 -

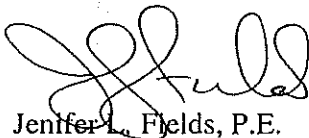
Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

If you have any questions, please contact Mr. James Roth at 484.250.5169.

Sincerely,



Jennifer L. Fields, P.E.
Regional Manager
Clean Water

Enclosures

cc: Chester County Health Department
Mr. Bohner, P.E. – ARRO Consulting, Inc.
Operations
Re 30 (GJE17CLW)109-1



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

**WATER QUALITY MANAGEMENT
PERMIT**

PERMIT NO. 1517401

AMENDMENT NO. _____

APS ID. 933885AUTH. ID. 1170374

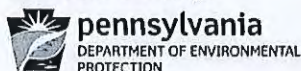
A. PERMITTEE (Name and Address): CLIENT ID#: 78789 East Whiteland Township 209 Conestoga Road Frazier, PA 19355-1633	B. PROJECT/FACILITY (Name): Planebrook Road Regional Pump Station
C. LOCATION (Municipality, County): SITE ID#: 527339 East Whiteland Township, Chester County	
D. THIS PERMIT APPROVES THE CONSTRUCTION AND OPERATION OF SEWAGE FACILITIES CONSISTING OF: a pump station and force main.	
Pump Stations: <u>Planebrook Road</u> Design Capacity: <u>394</u> GPM ACT 537 Flow: <u>151,325</u> GPD	Manure Storage: Volume: _____ MG Freeboard: _____ inches
Sewage Treatment Facility: Annual Average Flow: _____ MGD Design Hydraulic Capacity: _____ MGD Design Organic Capacity: _____ lb/day	
E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING: 1. New Permits: All construction, operations and procedures shall be in accordance with the Water Quality Management Permit application dated <u>1/13/2017</u> , its supporting documentation and addendums dated _____, which are hereby made a part of this permit. Amendments: All construction, operations and procedures shall be in accordance with the Water Quality Management Permit Amendment application dated _____ and its supporting documentation and addendums dated _____, which are hereby made a part of this amendment. Except for any herein approved modifications, all terms, conditions, supporting documentation and addendums approved under Water Quality Management Permit No. _____ dated _____ shall remain in effect. Transfers: Water Quality Management Permit No. _____ dated _____ and conditions, supporting documentation and addendums are also made part of this transfer. 2. Permit Conditions Relating to Sewerage are attached and made part of this permit. 3. Special Conditions _____ are attached and made part of this permit.	
F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS: 1. If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply. 2. Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit. 3. This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 <i>et seq.</i> Issuance of this permit shall not relieve the permittee of any responsibility under any other law.	
PERMIT ISSUED: <u>July 18, 2017</u>	BY: Jennifer L. Fields, P.E. TITLE: Clean Water Program Manager Southeast Regional Office



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

**WATER QUALITY MANAGEMENT
POST CONSTRUCTION CERTIFICATION**

PERMITTEE IDENTIFIER	
Permittee	East Whiteland Township
Municipality	East Whiteland Township
County	Chester
WQM Permit No.	1517401
Facility Type	Sewage (Planebrook Road Regional Pump Station)
All of the above information should be taken directly from the Water Quality Management Permit.	
CERTIFICATION	
This certification must be completed and returned to the permits section of the DEP's regional office issuing the WQM permit within 30 days of completion of the project and received by DEP prior to operation, and if requested, as-built drawings, photographs (if available) and a discussion of any DEP-approved deviations from the design plans during construction.	
I, being a Registered Professional Engineer in Pennsylvania, do hereby certify to the best of my knowledge and belief, based upon personal observation and interviews, that the above facility approved under the Water Quality Management Permit has been constructed in accordance with the plans, specifications and modifications approved by DEP.	
Construction Completion Date (MM/DD/YYYY): _____	
	Professional Engineer
	Name _____ (Please Print or Type)
	Signature _____
	Date _____
	License Expiration Date _____
	Firm or Agency _____
	Telephone _____
	Permittee or Authorized Representative
	Name _____ (Please Print or Type)
	Signature _____
	Title _____
	Telephone _____



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

PERMIT CONDITIONS RELATING TO SEWERAGE
For use in Water Quality Management Permits

(Check boxes that apply)

General

- ☒ 1. The Department of Environmental Protection (DEP) considers the licensed Professional Engineer whose seal is affixed to the design documents to be fully responsible for the adequacy of all aspects of the facility design.
- ☐ 2. The permittee shall adopt and enforce an ordinance requiring the abandonment of privies, cesspools or similar receptacles for human waste and onlot sewage disposal systems on the premises of occupied structures accessible to public sewers. All such structures must be connected to the public sewers.
- ☐ 3. The outfall sewer or drain shall be extended to the low water mark of the receiving body of water. Where necessary to ensure proper mixing and waste assimilation, an outfall sewer or drain may be extended with appurtenances below the low water mark and into the bed of a navigable stream provided that the permittee has secured an easement, right-of-way, license or lease from DEP in accordance with Section 15 of the Dam Safety and Encroachments Act, the Act of November 26, 1978, P.L. 1375, as amended.
- ☒ 4. The approval is specifically made contingent on the permittee acquiring all necessary property rights, by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along or across private property with full rights of ingress, egress and regress.
- ☐ 5. When construction of the approved sewerage facilities is completed and before they are placed in operation, the permittee shall notify DEP in writing so that a DEP representative may inspect the facilities.
- ☒ 6. The approval of the plans, and the authority granted in this permit, if not specifically extended, shall cease and be null and void 2 years from the issuance date of this permit unless construction or modification of the facilities covered by this permit has begun on or before the second anniversary of the permit date.
- ☒ 7. If, at any time, the sewerage facilities covered by this permit create a public nuisance, including but not limited to, causing malodors or causing environmental harm to waters of the Commonwealth, DEP may require the permittee to adopt appropriate remedial measures to abate the nuisance or harm.
- ☐ 8. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537 (Pennsylvania Sewage Facilities Act, the Act of January 24, 1966, P.L. 1535 as amended) in which sewage from the herein approved facilities will be treated and disposed of at other planned facilities, the permittee shall, upon notification from the municipality or DEP, provide for the conveyance of its sewage to the planned facilities, abandon use and decommission the herein approved facilities including the proper disposal of solids, and notify DEP accordingly. The permittee shall adhere to schedules in the approved official plan, amendments to the plan, or other agreements between the permittee and municipality. This permit shall then, upon notice from DEP, terminate and become null and void and shall be relinquished to DEP.
- ☒ 9. This permit does not relieve the permittee of its obligations to comply with all federal, interstate, state or local laws, ordinances and regulations applicable to the sewerage facilities.
- ☒ 10. This permit does not give any real or personal property rights or grant any exclusive privileges, nor shall it be construed to grant or confirm any right, easement or interest in, on, to or over any lands which belong to the Commonwealth.
- ☐ 11. The authority granted by this permit is subject to all effluent requirements, monitoring requirements and other conditions as set forth in NPDES Permit No. _____ and all subsequent amendments and renewals. No discharge is authorized from these facilities unless approved by an NPDES Permit.

Construction

- ☒ 12. This permit is issued under the authorization of The Clean Streams Law and 25 Pa. Code Chapter 91. The permittee shall obtain all necessary permits, approvals and/or registrations under 25 Pa. Code Chapters 102, 105 and 106 prior to commencing construction of the facilities authorized by this permit, as applicable. The permittee should contact the DEP office that issued this permit if there are any questions concerning the applicability of additional permits.

- ☒ 13. The facilities shall be constructed under the supervision of a Pennsylvania licensed Professional Engineer in accordance with the approved reports, plans and specifications.
- ☒ 14. A Pennsylvania licensed Professional Engineer shall certify that construction of the permitted facilities was completed in accordance with the application and design plans submitted to DEP, using "Post Construction Certification" form (3800-PM-WSFR0179a). It is the permittee's responsibility to ensure that a Professional Engineer is on-site to provide the necessary oversight and/or inspections to certify the facilities. The certification must be submitted to DEP before the facility is placed in operation. As-built drawings, photographs (if available) and a description of all deviations from the application and design plans must be submitted to DEP within 30 days of certification.
- ☒ 15. Manhole inverts shall be formed to facilitate the flow of the sewage and to prevent the stranding of sewage solids. The manhole structure shall be built to prevent undue infiltration, entrance of street wash or grit and provide safe access to facilitate manhole maintenance activities.
- ☐ 16. The local Waterways Conservation Officer of the Pennsylvania Fish and Boat Commission (PFBC) shall be notified when the construction of any stream crossing and/or outfall is started and completed. A written permit must be secured from the PFBC if the use of explosives in any waterways is required and the permittee shall notify the local Waterways Conservation Officer when explosives are to be used.

Operation and Maintenance

- ☒ 17. The permittee shall maintain records of "as-built" plans showing all the treatment facilities as actually constructed together with facility operation and maintenance (O&M) manuals and any other relevant information that may be required. Upon request, the "as-built" plans and O&M manuals shall be filed with DEP.
- ☒ 18. The sewers shall have adequate foundation support as soil conditions require. Trenches shall be back-filled to ensure that sewers will have proper structural stability, with minimum settling and adequate protection against breakage. Concrete used in connection with these sewers shall be protected from damage by water, freezing, drying or other harmful conditions until cured.
- ☒ 19. Stormwater from roofs, foundation drains, basement drains or other sources shall not be admitted directly to the sanitary sewers.
- ☒ 20. The approved sewers shall be maintained in good condition, kept free of deposits by flushing or other cleaning methods and repaired when necessary.
- ☒ 21. The sewerage facilities shall be properly operated and maintained to perform as designed.
- ☒ 22. The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air and to the highly toxic character of certain gases arising from such digestion or from sewage in poorly ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion or danger from toxic gases may occur, the permittee shall post conspicuous permanent and legible warnings. The permittee shall instruct all employees concerning the aforesaid hazards, first aid and emergency methods of meeting such hazards and shall make all necessary equipment and material accessible.
- ☐ 23. An operator certified in accordance with the Water and Wastewater Systems Operator Certification Act of February 21, 2002, 63 P.S. §§1001, *et seq.* shall operate the sewage treatment plant.
- ☐ 24. The permittee shall properly control any industrial waste discharged into its sewerage system by regulating the rate and quality of such discharge, requiring necessary pretreatment and excluding industrial waste, if necessary, to protect the integrity or operation of the permittee's sewerage system.
- ☒ 25. There shall be no physical connection between a public water supply system and a sewer or appurtenance to it which would permit the passage of any sewage or polluted water into the potable water supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.
- ☒ 26. All connections to the approved sanitary sewers must be in accordance with the official Act 537 Plan and, if applicable, a corrective action plan as contained in the approved Title 25 Pa. Code Chapter 94 Municipal Wasteload Management Annual Report.
- ☒ 27. Collected screenings, slurries, sludge and other solids shall be handled and disposed of in compliance with Title 25 Pa. Code Chapters 271, 273, 275, 283 and 285 (related to permits and requirements for land filling, land application, incineration and storage of sewage sludge), Federal Regulations 40 CFR 257 and the Federal Clean Water Act and its amendments.