

**Application of Pennsylvania-American Water Company for Acquisition of
the Wastewater Assets of Royersford Borough
66 Pa. C.S. §1329
Application Filing Checklist – Water/Wastewater
Docket No. A-2020-3019634**

22. Other requirements - demonstrate compliance with the following:
- b. For **wastewater** system acquisitions, provide a copy of the DEP-approved Act 537 Official Sewage Facilities Plans for the affected municipalities.

AMENDED RESPONSE:

- b. See enclosed a copy of the DEP-approved Act 537 Official Sewage Facilities Plans for Royersford Borough, Limerick Township and Upper Providence Township attached as **Amended Appendix A-22-b**.



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
1875 New Hope Street
Norristown, Pennsylvania 19401
215-270-1975

MAY 21 1987

Barbara H. Bowman, Secretary
Limerick Township
646 West Ridge Pike
Limerick, PA 19468

Re: Royersford Borough 537 Update &
Rerating Study
Limerick Township, Montgomery County

Dear Ms. Bowman:

Please be advised that we completed our review of your municipality's updated official sewage facilities plan entitled "Borough of Royersford, Montgomery County, Pennsylvania Wastewater Treatment Plant Rerating and 537 Plan Revision Report" as prepared by PSC Environmental Services, Inc., as amended. The review was conducted in accordance with the provisions of the Pennsylvania Sewage Facilities Act.

Approval of the study is hereby granted.

If you have any questions regarding this matter, please feel free to contact me at the above number.

Very truly yours,

JOSEPH A. FEOLA
Regional Water Quality Manager

cc: Montgomery County Planning Commission
Lewis E. Ritter
Permits Section
Planning Section
Re 30 WQ78.2

BOROUGH OF ROYERSFORD
WASTEWATER TREATMENT PLANT
REPERATING AND ACT 537 PLAN REVISION REPORT

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APPENDIX

FLOW DIAGRAM - WASTEWATER TREATMENT PLANT

ROYERSFORD BOROUGH SEWER LINES

AREA ROAD PROPOSALS

ZONING MAP

COST ESTIMATE - RERATING ALTERNATIVE

ATTACHMENTS

ROYERSFORD COMPREHENSIVE PLAN

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

ZONING ORDINANCE

1985 CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT REPORT

BOROUGH OF ROYERSFORD
WASTEWATER TREATMENT PLANT
RERATING AND ACT 537 PLAN REVISION REPORT

INTRODUCTION

Requests from developers for sewer service and wastewater treatment capacity have stimulated the Borough to consider alternative measures which could be taken to provide the services to developers within the Borough of Royersford and in areas of the Townships of Limerick and Upper Providence immediately surrounding the Borough.

Wastewater from the proposed developments would be connected to existing sewers, flow through Borough sewers, and be treated at the Borough's wastewater treatment plant.

Analysis of sewer, interceptor and pumping station capacities show that the proposed additional wastewater can be accepted without creating capacity overload problems. Some pumping station pumps may need to be replaced due to age and reliability of equipment, but capacities are adequate.

The wastewater treatment plant capacity is 0.54 MGD, and its design population is 5400 people. The maximum three consecutive month average flow for 1985 was 0.504 MGD, thereby leaving a reserve capacity of only 0.036 MGD or 36,000 gallons per day.

Growth projections which are developed in greater detail within the report show that in the next five years the population served could increase by 2000 to 2500 people, and additional wastewater generated from the growth is estimated to be 0.15 MGD to 0.20 MGD.

The report shows that rerating the plant capacity to 0.75 MGD, including making the necessary improvements to primary settling tanks and the chlorine contact tanks, and the addition of a third raw sewage pump, is

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the most cost-effective alternative for satisfying the projected capacity needs over the next five years. Additional growth beyond the five-year period would necessitate construction of a plant expansion including most likely settling tanks, biological facilities, digestion facilities, and any additional facilities that an upgrading may require.

The current NPDES permit which was recently issued requires that the plant effluent meet the following parameters:

<u>Parameter</u>	<u>Monthly Average</u>	<u>Weekly Average</u>
Flow	0.54 MGD	N/A
BOD ₅	30 mg/l	45 mg/l
Suspended Solids	30 mg/l	45 mg/l
Fecal Coliform	200 col./100 ml	N/A
pH - units	6.0 minimum - 9.0 maximum	

The rerating alternative is not only the most cost effective, but it can be accomplished quickly in proper time phase with the proposed developments so that capacity is available before the need is established through residential construction. Full compliance with the NPDES permit can be achieved throughout the growth period through the rerating alternative.

Most of the growth will occur in the Townships. The Borough's regulations included in its Subdivision and Land Development Ordinance, Zoning Ordinance, and Comprehensive Plan will be incorporated into all intermunicipal agreements with the Townships so that uniform quality of construction, etc., will be achieved in this manner.

1.0 EVALUATION OF EXISTING WASTEWATER TREATMENT AND CONVEYANCE SYSTEMS

1.1 Identification and Description of Wastewater Treatment System

The existing wastewater treatment plant is owned by the Borough of Royersford. The plant is operated by Royersford Borough personnel. The plant is located in Upper Providence Township just east of the most southern portion of the Borough between the Reading Railroad tracks and the Schuylkill River.

The receiving stream is the Schuylkill River. The point of discharge is 40°10'46" Latitude and 75°32'14" Longitude. The ultimate effluent disposal area is the receiving stream.

The current NPDES permit requirements for the plant effluent are as follows:

<u>Parameter</u>	<u>Limitation</u>	
	<u>Monthly Average</u>	<u>Weekly Average</u>
Flow	0.54 MGD	N/A
BOD ₅	30 mg/l	45 mg/l
Suspended Solids	30 mg/l	45 mg/l
Fecal Coliform	200 col./100 ml	N/A
pH	6.0 minimum - 9.0 maximum	

To date almost no effluent limitation violations have been committed with respect to concentration and quantity. On rare occasions, flow violations occur on an instantaneous maximum basis under extreme conditions of heavy rainfall. Recently steps have been taken to reduce recorded flows by replacing an out-of-date meter which was reading erroneously high, installing watertight inserts in manhole covers, repairing leaking manholes, and televising and grouting main sewer lines.

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The existing sewage treatment plant is a two stage biofiltration plant which was designed for secondary treatment of 0.54 MGD. There is two stage anaerobic digestion. Digested sludge is hauled by tank truck to farmlands where it is used as a fertilizer and soil conditioner.

Approximately 50% of the influent flows to a pumping station at the plant site by gravity. That sewage is pumped to the influent chamber and mixes with the other 50% of the sewage which flows to the influent chamber by gravity. All influent is screened and comminuted at the influent channels.

The flow is directed to the primary settling tanks where settleable and floating solids are removed. The primary effluent flows to the primary wetwell from which it is pumped to the primary biofilter. The primary biofilter effluent flows directly to the primary settling tank.

Overflow of the primary wetwell enters the secondary wetwell. The secondary wetwell also receives flow from the secondary settling tanks. Secondary wetwell contents are pumped to the secondary biofilter and the secondary biofilter effluent flows back to the secondary settling tank. Overflow of the secondary settling tank and secondary wetwell is directed to the chlorine contact tank. The chlorinator is equipped with an automatic switchover feature. When a chlorine cylinder is empty, a spare cylinder is automatically put on line. The effluent is disinfected and discharged through the outfall sewer to the Schuylkill River. Prior to disinfection, the flow is metered by a new (1986) flow meter and rectangular weir installed in a rectangular channel.

The involved process of dosing and recirculation through the biofilters and settling tanks brings pollutants in contact with aerobic organisms which inhabit the biological growth that coats the biofilter media. The aerobic organisms feed upon the pollutants and, in so doing, reduce the concentration of pollutants in the wastewater.

Primary and secondary sludges settle in the primary settling tank. They are withdrawn periodically and pumped to the primary anaerobic digester. In the digesters the sludge's organic content is reduced to a stable level. Digested sludge is stored in the secondary digesters until it is hauled to farmland by Contractor Henry Reifsnnyder, who has permitted agricultural sites.

The following basis of design sets forth pertinent data on unit capacities of the existing plant facilities and how rerating the plant to 0.75 MGD compares favorably to current design criteria which is set forth in the DER Sewerage Manual.

The components of and design data for the existing plant are as follows:

1. Comminuting Devices

- | | |
|------------------------|---|
| a. Number of Units | Two (2) - one on each plant influent line |
| b. Auxiliary Equipment | Bypass bar screens |

2. Raw Sewage Pumps

- | | |
|--------------------|--|
| a. Number and Type | Two (2) - one constant speed submersible and one variable speed non-clog centrifugal |
| b. Capacity | Constant speed submersible pump - 720,000 gpd; variable speed pump - 432,000 gpd |
| c. Controls | Centrifugal pump is provided with automatic controls to discharge at approximately the same rate as raw sewage influent; constant speed submersible pump is controlled by a level switch |

$Q_{AV} = 0.75 \text{ mgd}$

$Q_{PK} = 1.5 \text{ mgd}$

$\frac{1}{2} Q_{PK} = 0.75 \text{ mgd}$

Need more pump capacity

3. Primary Settling Tanks

- | | |
|---|---|
| a. Number of Units | Two (2) rectangular tanks |
| b. Dimensions | 72' x 16' wide; water depth varies from 9.5' to 10.5' deep |
| c. Capacity | 86,170 gallons each |
| d. Detention Period
(including recirculation) | 2.55 hours @ 540,000 gpd design ✓
flow; 2.26 hours @ 750,000 gpd ✓
design flow |
| e. Surface Settling Rate
(including recirculation) | 703 gpd/sq.ft. @ 540,000 gpd design ✓
flow; 795 gpd/sq.ft. @ 750,000 gpd ✓
design flow ✓ |
| f. Weir Overflow Rate
(including recirculation) | 50,625 gal/ft. of weir @ 540,000 gpd
design flow; 9,531 gal/ft. of weir
@ 750,000 gpd with modifications |
| g. Sludge Collection
Equipment | Mechanical sludge scrapers to sludge
hoppers; telescopic valves for
sludge withdrawal |
| h. Scum Collecting
Equipment | Sludge scraper flights also act as
scum collectors to a skimmer pipe;
scum collection box can be pumped
to digesters |

4. Primary Trickling Filter

- | | |
|---|--|
| a. Number of Units | One (1) with rotating distributor
arms |
| b. Dimensions | 55'-0" diameter, media depth 3'-6",
6" freeboard; 2,375 sq.ft. of
surface area; 8,311 cu.ft. of
media |
| c. Hydraulic Loading
(including recirculation) | ✓ 455 gpd/sq.ft. @ 540,000 gpd design
flow; 455 gpd/sq.ft. @ 750,000 gpd
design flow |

@ 1.03 mgd

0.0545

20 mgd/acre

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d. Organic Loading (including recirculation) 130 lbs/day/1000 cu.ft. @ 540,000 gpd design flow; 130 lbs/day/1000 cu.ft. @ 750,000 gpd design flow

5. Secondary Trickling Filter

a. Number of Units One (1) with rotating distributor arms

b. Dimensions 55'-0" diameter, media depth 3'-6", 6" freeboard; 2,375 sq.ft. of surface area; 8,311 cu.ft. of media

c. Hydraulic Loading (including recirculation) @ 1.08 mgd

771 gpd/sq.ft. @ 540,000 gpd design flow; 771 gpd/sq.ft. @ 750,000 gpd design flow

vs 455 (same size as primary T.F.)

d. Organic Loading (including recirculation)

130 lbs/day/1000 cu.ft. @ 540,000 gpd design flow; 147 lbs/day/1000 cu.ft. @ 750,000 gpd design flow

6. Final Settling Tanks

(same size as primary settling tanks)

a. Number of Units

Two (2) rectangular tanks

b. Dimensions

72' x 16' wide; water depth varies from 9.5' to 10.5' deep

c. Capacity

86,170 gallons each

d. Detention Period (including recirculation)

2.55 hours @ 540,000 gpd design flow; 2.26 hours @ 750,000 gpd design flow

e. Surface Settling Rate (including recirculation) 2000 gpd

703 gpd/sq.ft. @ 540,000 gpd design flow; 795 gpd/sq.ft. @ 750,000 gpd design flow

f. Weir Overflow Rate (including recirculation)

6,835 gpd/ft. of weir @ 540,000 gpd design flow; 7,722 gpd/ft. of weir @ 750,000 gpd design flow

vs 10,000 gpd/ft

Peak hourly
 $2 \times 0.95 = 1.5$
 + recirculation $\frac{1.087}{2.58 \text{ mgd}}$

SSTR = 1121 gpd/ft²
 vs 1200 gpd/ft² (OK)

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- g. Sludge Collection Equipment Mechanical sludge scrapers to sludge hoppers; telescopic valves for sludge withdrawal

7. Chlorine Contact Tanks

- a. Number of Units Two (2) rectangular tanks
- b. Dimensions No. 1 - 13'-9" x 9'-1" with 5'-7" S.W.D.; No. 2 - 14'-0" x 8'-9" with 5'-7" S.W.D.
- c. Capacity No. 1 - 5,300 gallons; No. 2 - 5,180 gallons Total = 10,480 gal.
- d. Detention Period 28 minutes @ 540,000 gpd design flow; 30 minutes @ 750,000 gpd with modifications

8. Sludge Digestion Facilities

- a. Number of Units Two (2) *anaerobic*
- b. Description One with floating cover and one with fixed cover
- c. Capacity *primary* → Floating cover digester - 45,000 gallons; *secondary* → fixed cover digester - 312,694 gallons Total = 47,700 ³ gal
- d. Digester Loading Current population of approximately 4500 equals 10.63 cu.ft./capita; projected population of 7500 equals 6.37 cu.ft./capita

how will modifications increase capacity (see last page)

The collection system was constructed in 1937 as a WPA Project. In general, sewers constructed at this time were durable but a minimum of emphasis was placed upon using pipe joint materials that were watertight. Therefore, when the groundwater table rises above the

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elevation of the pipes, groundwater infiltration could cause flow increases. Sewers found to be leaking in a plug and weir analysis were televised, grouted and externally repaired where needed.

The two pumping stations located at Tenth Avenue and at Green Street are in average to good condition. The Green Street Station is 22 years old. It has two 4" Chicago pumps which are 22 years old. There is some clogging of pumps due to there being no screening facilities, but otherwise the operation is satisfactory.

The Tenth Avenue Station is 49 years old. It is equipped with one 4" self-priming Buffalo pump and one Peabody-Barnes pump, four gate valves, and two check valves. The building is in sound condition.

The sewage treatment plant as previously described consists of a pumping station and chlorine room, influent chamber, two primary settling tanks, a control building, two final settling tanks, a primary and secondary biofilter and a digester which were constructed 33 years ago. Existing Imhoff tanks were converted to two secondary digesters. The structural portions of all these facilities are in sound condition with the exception of the biological filter retaining walls.

The remaining portion of this section deals with the mechanical equipment. The main pumping station at the plant has two pumps. The one pump is a 6" Flygt submersible pump which is 13 years old, and it is in good condition. The other pump is a 4" Peabody-Barnes self-priming pump which is 5 years old. It is in good condition. The Peabody-Barnes pump is a variable speed pump and it is used as the lead pump.

There are two comminutors. One comminutes the flow of the pumping station and the other comminutes the flow which reaches the plant by gravity. Both are 33 years old. The pumping station comminutor is scheduled to be replaced in 1986 by a sewage grinder known as a Muffin Monster.

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The primary biological filter pumps are 33 years old. Both pumps were rebuilt in 1975.

The rotary distributor arm of the primary biological filter has been replaced in 1974. The center column bearings and races were replaced in 1985. The media, boxes, and main air-intake and effluent discharge channel are in good condition. The cap of the primary filter retaining wall should be reconditioned as previously described.

The secondary settling tank sludge collection mechanism should be replaced as soon as the equipment is available.

~~The chlorine contact tanks have wooden baffles. Defective baffles should be replaced above the water line. The chlorinator was replaced in 1985, and the chlorine room was relocated to a lower level which is more convenient for cylinder delivery.~~

A schematic flow diagram is included in the Appendix of this report.

As previously mentioned, the plant's design capacity is 0.54 MGD. The average daily flows for 1983, 1984 and 1985 are 0.328 MGD, 0.385 MGD and 0.410 MGD, respectively. The wet weather load for the three years is 0.404 MGD for 1983, 0.484 MGD for 1984 and 0.505 MGD for 1985. At the present time there are consummated agreements with two other municipalities which result in capacity allocations. The following table outlines the allocations:

<u>Municipality</u>	<u>Description</u>	<u>Allocation</u>
1. Limerick Township	Existing agreement	In a defined service area, about 100 connections are served
2. Upper Providence Township	Existing agreement	8 connections are served including Spring Ford Senior High School

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The objective of the Act 537 Plan Revision is to have the plant rerated to be able to accommodate several other proposed capacity allocations as described below:

<u>Municipality</u>	<u>Description</u>	<u>Proposed Allocation</u>
1. Royersford	Buckwalter Mills Project	236 residential units plus office and commercial connections
2. Upper Providence Township	Cha-Mar (agreement is in draft form)	40 connections
3. Limerick Township	Cutler Group	70,000 gpd
4. Limerick Township	Dinnocenti Development	Undetermined
5. Limerick Township	Chapel Calcinore	65 connections

There is no scheduled upgrading of the treatment facilities, most likely due to the Schuylkill River having the assimilative capacity to continue accepting a secondary effluent at the Royersford point of discharge. There are presently no connection limitations imposed by DER because responsible action has always been taken in a timely manner by the Borough in order to limit violations and minimize overloads.

Reserve capacity obtained through the plant rerating and infiltration/inflow abatement will be used for planned growth within the Borough of Royersford and the Townships of Upper Providence and Limerick. Growth impetus has been provided by the 17-mile Route 422 highway construction which directly connects these municipalities to the King of Prussia area and then directly to Philadelphia via the vastly improving Schuylkill Expressway.

Royersford and its immediate surroundings, more so than ever, have become desirable as a residential area to people working in the King of Prussia/Philadelphia areas because of the easy access provided by Route 422 to the commercial and industrial center of eastern Pennsylvania.

The treatment facilities and collection system are operated by Borough personnel under the direct supervision of Mrs. Sophie Simon, Superintendent, and Mr. Robert L. Weikel, Borough Manager. Considering the age of the plant, it is in a well maintained and improving condition. An excellent preventive maintenance program is in effect along with a planned replacement program which extends five years beyond the present date. Expenditures are scheduled to be made to cover the planned improvements. Revenues are raised through community growth and/or sewer rate increases. Examples of recent improvements made include replacement of the chlorination facilities and chlorination equipment housing, replacement of the digesting sludge recirculation pump, replacement of the primary recirculation pump, replacement of primary digester gas piping and gas regulation equipment, replacement of the flow meter, replacement of a sewage grinder, replacement of a biological filter distributor, replacement of the mechanical equipment motor control center, upgrading of the plant electrical service, and replacement of settling tank sludge collection equipment. Additional laboratory equipment has been purchased to expand the plant's testing capabilities.

Almost needless to say, past equipment problems have necessitated replacements whenever it was no longer economically feasible to repair equipment.

Industrial flows received are limited to wastewater from a manufacturer of ice cream and wastewater from an industrial laundry which launders garments which are worn by workers in nuclear power plants. The ice cream wastewater is not pretreated. The laundry

waste is pretreated and regulated by the Nuclear Regulatory Commission. At the present time industrial waste loading upon the system is light. Past experience with industries has left the Borough with an experience of having to reduce industrial loading through industrial pretreatment of a bleach and dye wastewater. That experience necessitated the development of a stringent sewer use ordinance and an in-place system of screening industrial applicants, limiting industrial loadings, and monitoring industrial discharges.

1.2 Identification and Description of Sewer System Components

There is a main collection system which is located throughout the Borough of Royersford which conveys wastewater into the wastewater treatment plant. The Royersford system is owned by the Borough of Royersford.

There are two sewer line segments which extend into two surrounding townships. An 8" sanitary sewer extends into Limerick Township. Presently 100 connections are served. A second 8" sewer segment extends into Upper Providence Township. Served by this sewer are seven residential units and the Spring Ford Senior High School. These two sewer segments each have a minimum capacity of 0.45 MGD.

The Royersford Borough collection system consists of 57,730 linear feet of 8" to 15" diameter T.C. sewers ranging in depth from 4' to 14'. There are 500 linear feet of 8" and 12" C.I. sewers under railroad tracks. There are 10,500 linear feet of 6" diameter house connection sewers. There are 3200 linear feet of 8" C.I. force main. There are 218 manholes. The Royersford sewage flows through 8", 10" and 12" diameter street sewers which have carrying capacities ranging from 0.45 MGD to 1.6 MGD. Most of the street sewer flow is collected by the 15" diameter First Avenue Interceptor which conveys the flow to the wetwell at the wastewater treatment plant. The 15" First Avenue Interceptor's capacity is 2.5 MGD. Due to all wastewater not

being able to flow entirely by gravity, there are two pumping stations with the system which discharge at points from which the wastewater can flow the remaining distance by gravity. There is one pumping station known as the Tenth Avenue Pumping Station, which has a capacity of 0.648 MGD. This station pumps about 20% of the entire plant flow. The other station is known as the Green Street Pumping Station. It pumps about 5% of the entire plant flow and its capacity is 0.50 MGD.

As mentioned previously, the average flow for 1983 was 0.328 MGD and the wet weather flow was 0.404 MGD. In 1984 the yearly average flow was 0.385 MGD and the wet weather flow was 0.484 MGD. In 1985 the ~~yearly average flow was 0.410 MGD and the wet weather flow was~~ 0.504 MGD. The magnitude of these flows during recent years has not overloaded any of the collection sewers, interceptor sewers or pumping stations. There have been no flow conditions which have necessitated bypass pumping, overflowing manholes or flooding of basements.

By comparison of the flows with the system capacities mentioned, it can be seen that there is considerable reserve capacity in collection sewers, pumping stations and the interceptor.

At the present time, capacity is allocated on an as-needed basis; however, as capacities are heavily taxed by proposed sewer extensions into residential developments, by agreement developers will be required to make all necessary improvements in order to maintain adequate reserve capacity and in order to maintain all conveyance and treatment facilities in efficient operating condition.

Maintenance of the collection system during 1984 consisted of the following items:

1. Watertight manhole inserts were installed in twenty-five manholes.

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2. Six manhole covers and two manhole frames were replaced.
 3. One main sewer stoppage on Washington Street which was caused by root intrusion was cleared.
 4. A manhole leak survey is being performed and leaks are being repaired when they are found.
 5. Valves in the Tenth Avenue Pumping Station have been replaced so all valves are operative and equipment can be removed without having the force main drain back into the station. Three ball centric valves and two check valves were replaced.
-
6. At the Tenth Avenue Pumping Station, the Peabody-Barnes pump was rebuilt, the interior was repainted and several 3/4" copper lines were replaced.
 7. At the Green Street Pumping Station, two force main cracks were repaired by utilizing repair clamps.
 8. Dead-end manholes were flushed and much of the collection system was flushed.

Past problems were infiltration of pipe joints when high groundwater conditions prevailed. The problem has been minimized through television inspection and joint grouting. As the need arises for additional televising and grouting, it will be done to minimize infiltration.

1.3 Identification of Sludge Generation, Transport and Disposal Methods

All sludge is generated from sewered areas of Royersford Borough and the sewer segments that are extended to Upper Providence Township and Limerick Township. No septage is discharged into the plant or the collection system.

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About 2,500 to 3,000 gpd of primary and trickling filter humus are pumped to the anaerobic digestion system. About 0.4 to 0.5 million gallons of digested sludge are removed from the secondary digester per year. The digested sludge is applied to agricultural land by a contractor in liquid form.

The liquid sludge is applied by Contractor Henry Reifsnyder to any and all of the sites for which Reifsnyder has permits. At the sites, operation consists of some top dressing and mostly subsurface injection of liquid sludge.

The authorities responsible for sludge disposal are the Royersford Borough Council and Contractor Henry Reifsnyder.

2.0 PHYSICAL DESCRIPTION OF PLANNING AREA

2.1 Boundaries and General Physical Characteristics of the Planning Area

The planning areas of Royersford Borough, Upper Providence Township and Limerick Township are shown on the plot plan of sanitary sewers, both existing and proposed, which are shown on the figure entitled Sewer Lines - Royersford Borough, included in the Appendix of this report.

Sewers, pumping stations, the First Avenue interceptor, the wastewater treatment plant and the receiving stream, and the Schuylkill River are shown on the sewer plot plan.

2.2 Comparison and Analysis of Population Information

The Borough's population has increased very slowly over the years, and there is every indication that Borough growth will continue slowly due to essentially all land within the Borough being developed, and all streets are presently sewered. The exception is certainly the Buckwalter Mills proposed project in which 236 residential units are planned to be constructed along with several office-type and commercial connections. The following table illustrates past growth rates from which projections can be made.

<u>Year</u>	<u>Population</u>
1920	3278
1940	3605
1960	3969
1980	4238

Considering the proposed Buckwalter Mills project, the Borough population should be about 5000 people by 1990.

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The objective of the Act 537 Plan Revision is to have the plant rerated to be able to accommodate several other proposed capacity allocations as described below:

<u>Municipality</u>	<u>Description</u>	<u>Proposed Allocation</u>
1. Royersford	Buckwalter Mills Project	236 residential units plus office and commercial connections
2. Upper Providence Township	Cha-Mar (agreement is in draft-form)	40 connections

There is no scheduled upgrading of the treatment facilities, most likely due to the Schuylkill River having the assimilative capacity to continue accepting a secondary effluent at the Royersford point of discharge. There are presently no connection limitations imposed by DER because responsible action has always been taken in a timely manner by the Borough in order to limit violations and minimize overloads.

Reserve capacity obtained through the plant rerating and infiltration/inflow abatement will be used for planned growth within the Borough of Royersford and the Townships of Upper Providence and Limerick. Growth impetus has been provided by the 17-mile Route 422 highway construction which directly connects these municipalities to the King of Prussia area and then directly to Philadelphia via the vastly improving Schuylkill Expressway. There are watershed areas within Limerick Township which may allow flow into the Royersford Plant, on an interim basis.

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Population projections for Royersford coincide well with Pennsylvania and Montgomery County population projections so there is no need for population projections to be changed based upon growth patterns established over the past five to ten years.

Therefore, the majority of the growth which is expected to impact upon this sewer service area will occur in portions of Limerick Township and Upper Providence Township which can logically be served by the Royersford sewer system.

Present sewer service extended to Upper Providence Township includes the connection of seven homes and the Spring Ford Senior High School.

Under consideration in Upper Providence Township is the Cha-Mar Development which is limited to 40 connections by proposed agreement. At 2.9 persons per connection, an additional 116 persons will be served.

In a defined service area of Limerick Township there are presently 100 homes served. At 2.9 people per connection, there are 290 people served.

Based upon present developer activity, it appears that the greatest growth will occur in Limerick Township providing that sewer service and treatment plant capacity are available. In the near future, people in Limerick Township could be served by Royersford, on an interim basis, if the development were in a watershed that allowed flow to Royersford.

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Therefore, the majority of the growth which is expected to impact upon this sewer service area will occur in portions of Limerick Township and Upper Providence Township which can logically be served by the Royersford sewer system.

Present sewer service extended to Upper Providence Township includes the connection of seven homes and the Spring Ford Senior High School.

Under consideration in Upper Providence Township is the Cha-Mar Development which is limited to 40 connections by proposed agreement. At 2.9 persons per connection, an additional 116 persons will be served.

In a defined service area of Limerick Township there are presently 100 homes served. At 2.9 people per connection, there are 290 people served. There are presently three proposed developments in Limerick Township. [The Cutler Group has requested 70,000 gpd of capacity so it apparently expects to serve an additional 700 to 900 people. Chapel Calcinore has requested capacity to serve 65 connections so it intends to serve 189 people. The Dinnocenti Development has not stated its capacity request.]

Based upon present developer activity, it appears that the greatest growth will occur in Limerick Township providing that sewer service and treatment plant capacity are available. In the near future, an additional 1500 people in Limerick Township could be served by Royersford.

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As the connected population approaches 7000 to 7500 about the year 1990, all existing plus rerated capacity will be in use or committed to use. It will then be necessary for the plant to be expanded and, if required, upgraded before additional commitments can be made to prospective developers. At this time it is planned that developers who need capacity will be expected to make capital contributions in proportion to capacity needs of their development. Plant ownership will remain with the Borough of Royersford.

Drinking water is available in the service area through services provided by the Citizens Utilities Water Company. At this time the water supply appears to be abundant so growth should not be limited by availability of water.

As previously stated, Route 422 highway construction connecting Royersford and its surroundings to King of Prussia, etc., is the major factor in residential growth. Favorable mortgage interest rates encourage residential development at this time.

3.0 PLANNING OBJECTIVES AND NEEDS

3.1 Identification of Wastewater Planning

An Act 537 Sewage Facilities Plan was prepared for Montgomery County until recently. The current policy is that each municipality within Montgomery County is required to update its own Plan.

To our knowledge, none of the Royersford wastewater collection system or treatment plant construction costs were funded by either P.L. 84-660 or P.L. 92-500 construction grants. The majority of the collection system and the original primary treatment plant were built under the WPA federal program about 1937.

Each year since the inception of the program, a Chapter 94 Municipal Wasteload Management Report was prepared for the Borough by its engineer, who is now known as PSC Environmental Services, Inc.

A COWAMP 208 study was prepared for the Delaware River Basin Commission by Betz, Converse, Murdoch. Royersford Borough, Upper Providence Township, and Limerick Township were included in the planning effort.

Wastewater planning has been carried out according to these plans. Present planning consists of planned growth in developments through capacity regulation and rerating of the wastewater treatment plant, making the necessary improvements, to meet capacity needs.

Subdivisions not previously contemplated are to be included in wastewater planning by Borough and Township Resolutions which will be submitted to DER.

3.2 Planning Adopted Pursuant to Act 247 Pennsylvania Municipalities Planning Code

Figure V-1, located between pages V-4 and V-5 of the Royersford Borough Comprehensive Plan, is a map which shows land use of the Borough. It shows which areas are dedicated for Residential, Commercial, Industrial, Utility, Institutional, Agricultural, Woodland and Recreational Use. A copy of the Comprehensive Plan is included with this submittal.

The Royersford Comprehensive Plan was prepared by the Montgomery County Planning Commission as the Planning Consultant under the terms of a contract signed by the Pennsylvania Department of Commerce, Royersford Borough and the Montgomery County Planning Commission. The document is the most complete presentation of data ever accumulated concerning the Borough of Royersford. More than two and one-half years of fact finding and various forms of research went into its preparation. It can readily be concluded from this statement that the efforts of the County and the Borough have been well coordinated, thus minimizing planning inconsistencies.

For a comparison of proposed land use and existing sewage facilities planning, your attention is directed to page II-9 of the Royersford Comprehensive Plan and the Subdivision and Land Development Ordinance, pages 50 and 51.

Subdivision regulations that establish lot sizes are shown in V-1 through XIII-8 of the Royersford Zoning Ordinance and on page 43 of the Royersford Subdivision and Land Development Ordinance. None of the lot sizes are predicated on sewage disposal methods since the existing Borough is sewered and the small unsewered portion will be sewered when it is developed.

In addition to the Buckwalter Mills Project which was previously discussed, there are eight acres of land dedicated for residential development. To date there are no firm plans to develop the eight acres of land. Therefore, there is no subdivision map showing location of all subdivisions and there are no records or maps which show undeveloped lots approved in each identified subdivision and their schedule for development.

The Royersford Zoning Ordinance addresses flood plain limitations and special protection areas. Section XIV-1 through XIV-15 contains flood plain limitations. Storm water management is covered on pages 47 and 48 of the Royersford Subdivision and Land Development Ordinance.

The land use planning and flood plain/storm water management programs set forth in the Zoning Ordinance and the Subdivision and Land Development Ordinance are fully compatible.

The use of flood plain land and restrictions which apply to use of flood plain land are fully covered in the Zoning Ordinance, Section XIV-1 through XIV-15.

3.3 Consistency of Wastewater Treatment Planning with Other Environmental Plans

The rerating project involves rerating the existing 0.54 MGD plant to 0.75 MGD of capacity. The project does not involve selection of a site. The site has been used for wastewater treatment since 1937. Sewers and the interceptor have been in existence since 1937. Therefore, concern over consistency with the Comprehensive Water Quality Management Plan and antidegradation objectives in designated watersheds is minimal, and compatibility based upon almost 50 years' experience has been very satisfactory.

The Chapter 94 Wasteload Management Report for 1985 recognized that the annual average flow was 0.410 MGD. The maximum three consecutive monthly average flow for September, October and November averaged 0.505 MGD. The existing capacity of 0.54 MGD is being approached, and the reserve capacity is about 0.036 MGD based upon deducting the maximum three consecutive month average from the capacity of 0.54 MGD. The capacity needs previously described over the next five years approach 0.2 MGD so the need to increase the plant's capacity is clearly established.

There is no inconsistency between the plant's capacity rating and the State Water Plan recommendations with specific respect to yield deficiency, allocation, allocation deficiency, storage capacity, treatment deficiency, filtration plant capacity and filtration plant deficiency. Citizens Utilities Water Company will satisfy any water supply deficiencies that would arise by developing additional well sources. To our knowledge there are no restrictions on water sources in this area or difficulties in obtaining satisfactory water yield from wells.

No mining occurs in Royersford Borough.

3.4 Analysis of Sewage Planning Needs to Provide Adequate Wastewater Treatment with Identified Growth Areas in the Municipalities

The rate of growth has been very gradual over the past years; however, with the previously described highway construction and favorable interest rates, a more rapid rate of growth should soon be experienced.

As each growth area is developed, utilities, including sanitary sewers, will be constructed by developers according to approved specifications as set forth in the Subdivision and Land Development Ordinance. Existing wastewater treatment facilities are not adequate

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to accept area growth of about 2000 people who would generate an additional 150,000 to 200,000 gpd of wastewater. Therefore, the Borough is taking the necessary steps to have wastewater treatment facilities capacity rerated and making the necessary improvements so that there is full compatibility between growth and wastewater treatment facilities capacity.

Within five years, the population served by this plant could reach 7000 to 7500, with about 5000 to 5500 persons served within the Borough and the remaining population served residing in Limerick Township and Upper Providence Township. The ten-year growth projection should show the minimum population served being 8500 persons with a maximum served population being 10,000 persons.

4.0 PLANNING AND FACILITIES ALTERNATIVES, EVALUATIONS AND RECOMMENDATIONS

4.1 Identification and Analysis of Alternatives

Currently the entire Borough of Royersford is served by the sanitary sewer system. An adjoining section of Upper Providence Township which serves eight connections, including the Spring Ford Senior High School, is also sewered under an intermunicipal agreement. An adjoining area containing approximately 100 connections in Limerick Township is also sewered under an intermunicipal agreement.

Considerable development is planned for the Royersford area. The limited availability of capacity at the Royersford sewage treatment plant is the major constraining factor. Wastewater from the proposed developments will be conveyed through gravity sewers to the Royersford sewer system and to the Borough's sewage treatment plant for treatment.

There are no nearby sanitary sewer collection systems or treatment facilities in a position to accept wastewater from these proposed developments at this time.

If the capacity of the treatment facility is not increased, the development of this area will be severely limited.

Treatment plant alternatives are essentially established by past actions and existing facilities. Increasing the capacity can be accomplished by modification of the existing facilities very economically in order to have the plant rerated to a higher capacity.

Another alternative would be to construct additional tankage and install additional treatment equipment. Since the existing plant utilizes the trickling filter process, additional trickling filter or rotating biological contactor units would most likely be constructed.

4.2 Planning Alternatives Undertaken to Meet Existing and Future Sewage Disposal Needs

The Royersford Borough Comprehensive Plan addresses the long term revitalization and continued development of the Borough. The Borough of Royersford Subdivision and Land Development Ordinance sets forth sound economic land development and subdivision regulations as they relate to sewage disposal.

At this time there are no subdivisions in the final planning stage. Estimated locations and estimated sewage flows from proposed development were presented previously in this report.

The Borough submits a Chapter 94 Wasteload Management Report annually to DER. A copy of the 1985 report is submitted as an attachment to this report.

4.3 Proposed Growth and Sewerage Planning

As stated previously, the Borough is nearly completely developed. One development within the Borough is proposed to add 236 residential units plus office and commercial connections to the sewer system.

The potential for growth in the adjoining Upper Providence and Limerick Townships is greater. Increasing the sewage treatment plant capacity would allow this proposed development as well as other development to progress.

It is estimated that the rerating of the sewage treatment plant capacity to 0.75 MGD would provide sufficient capacity for the proposed developments to proceed for the next five to seven years.

5.0 EVALUATION OF ALTERNATIVES

The evaluation of each alternative to increase the sewage treatment plant capacity, based on cost of construction, is as follows:

Alternative No. 1 - Rotating Biological Contactors

Estimated Construction Cost	\$735,000
Engineering, Legal and Administration	<u>80,000</u>
Total	\$815,000

Alternative No. 2 - Trickling Filters

Estimated Construction Cost	\$892,500
Engineering, Legal and Administration	<u>85,000</u>
Total	\$977,500

Alternative No. 3 - Rerating with Modifications to Existing Equipment

Estimated Construction Cost	\$132,065
Engineering, Legal and Administration	<u>39,619</u>
Total	\$171,684

A detailed breakdown of Alternative No. 3 is included in the Appendix of this report.

A no action alternative would limit growth of residential, commercial and industrial development, which would adversely affect community economic conditions.

The construction of package sewage treatment facilities for large developments was eliminated due to high construction, operation and maintenance costs when compared to the cost of the Royersford plant rerating alternative.

The remaining discussion under this section deals with the clearly selected Alternative No. 3.

Financing will be done through contributions from developers wishing to connect to the sewer system and through the reserve funds of the Sewer Revenue Account. Administration costs will be increased. Costs of operation and maintenance will increase about \$28,000 per year. User fees will not be increased. As stated, no funding sources are needed. The rerated plant is expected to meet all requirements of the NPDES permit. Increased operating costs will be offset by revenue from new connections.

Sludge management is done very effectively and legally in Royersford. Digested liquid sludge is applied to agricultural land by Contractor Henry Reifsnyder, who has obtained permits from DER for all sites used. At the present time, the sludge management program needs no improvement. The most cost-effective alternative is being used.

6.0 INSTITUTIONAL EVALUATION AND RECOMMENDED ALTERNATIVE

6.1 Governmental Authority Providing Wastewater Treatment Services

At the present time, wastewater collection and treatment services are solely provided by the Royersford Borough. The sections of sanitary sewers in Limerick and Upper Providence Townships are operated and maintained by the respective Townships. Sewage is treated by Royersford under an intermunicipal agreement.

6.2 Existing Wastewater Treatment Authority, Its Present Performance and Past Actions

The indebtedness of the Royersford Authority has been satisfied. The Authority was phased out when its debt was satisfied. The Borough has adequate available staff and administrative resources. The Borough has the legal authority to implement wastewater planning recommendations. The necessary sewer ordinances are in place to permit operation, maintenance, inspection and testing; imposing rates and user fees; maintaining offices; purchasing equipment; restrain violations; negotiate agreements with other municipalities; and to raise capital for construction and operation of wastewater facilities.

6.3 Institutional Alternatives Necessary to Implement the Recommended Official Plan

Royersford Borough, Limerick Township and Upper Providence Township will need to pass a resolution adopting the rerating alternative as part of the official Act 537 Plan. Copies of the resolutions will be forwarded to the DER Permits Section.

No new authorities will be needed to implement the Plan.

6.4 Justification for the Chosen Alternative for Implementing the Recommended Official Plan

The justification for choosing Alternative No. 3 is the economic feasibility of the alternative and the effective use of existing facilities.

6.5 Necessary Administrative and Legal Activities to Assure Plan Implementation

As stated previously, the Act 537 Plan resolution must be passed by the Borough, Limerick Township and Upper Providence Township. No authorities have to be formed. No new ordinances are required. No rights-of-way, easements or land transfers are necessary to implement the rerating alternative. The intermunicipal agreements will be revised as the need arises.

7.0 SELECTED WASTEWATER TREATMENT ALTERNATIVE

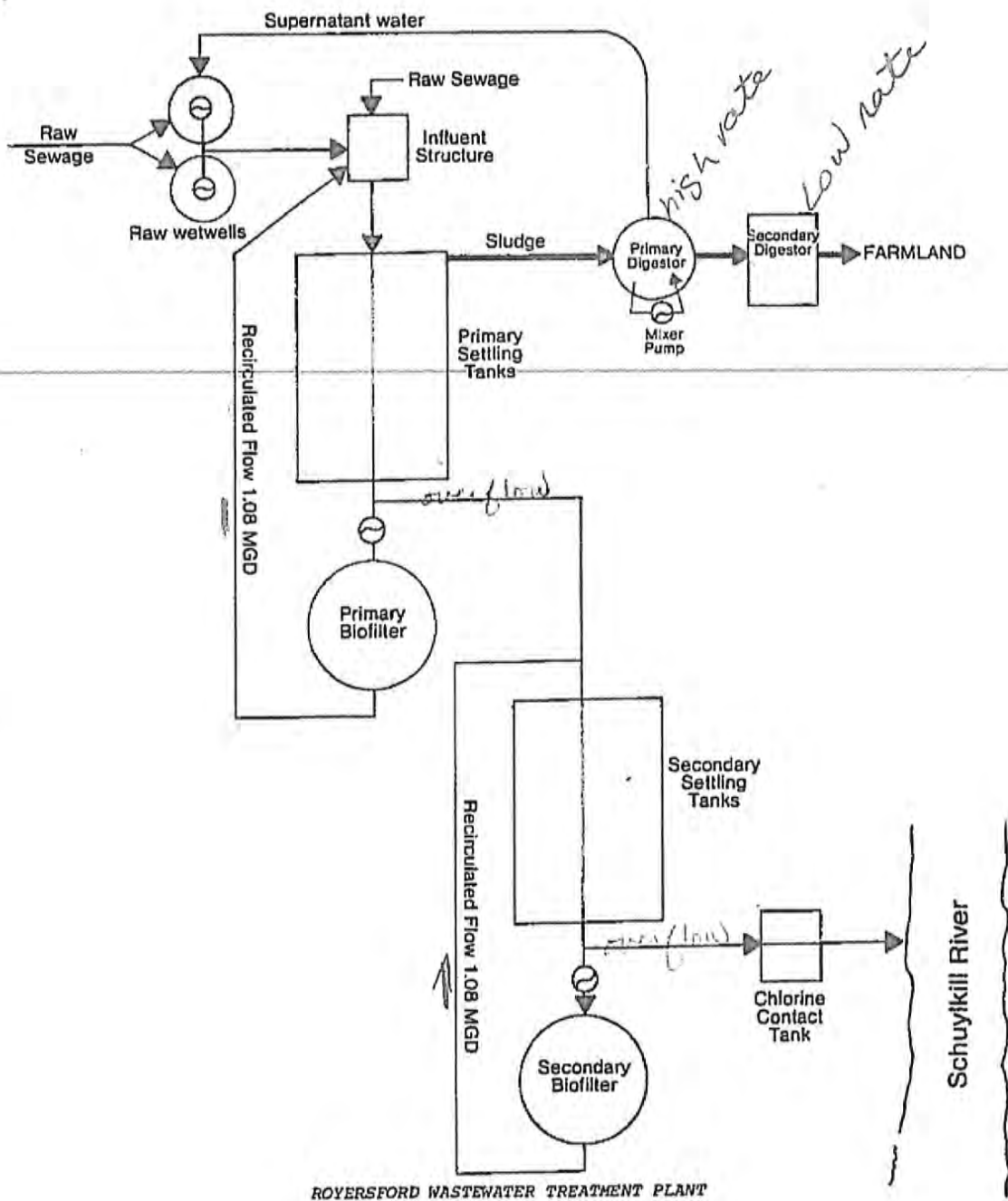
Alternative No. 3, Rerating with Modifications to Existing Equipment, best meets the Borough's wastewater treatment needs over the next five to seven years due to the economics of maximizing the use of existing facilities.

8.0 IMPLEMENTATION SCHEDULE

The schedule of implementation for carrying out the recommended official Plan is as follows:

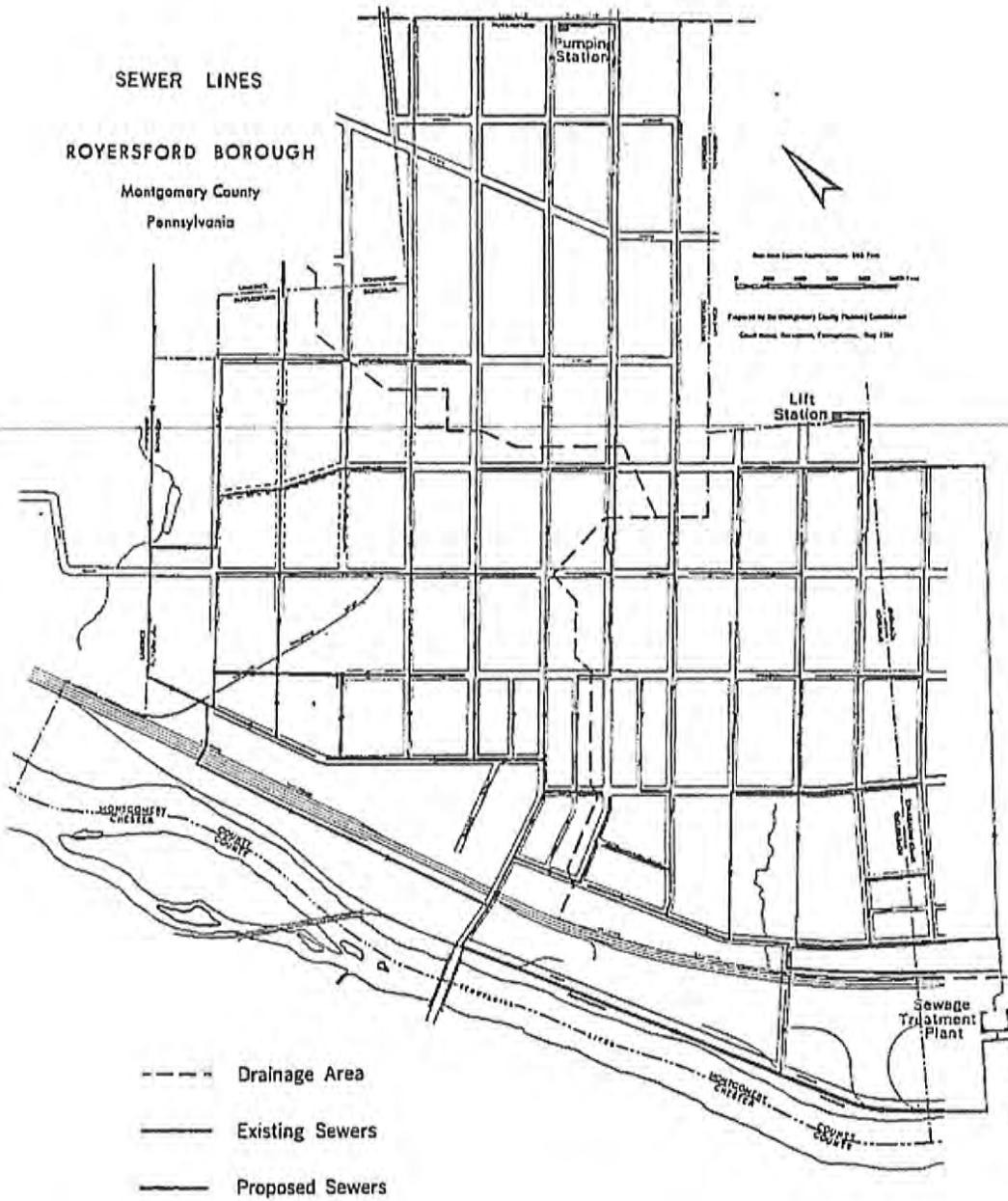
Adoption of Resolutions	2 Months
Design of Plant Modifications	3 Months
Bidding and Award of Contract	3 Months
Construction	<u>4 Months</u>
Total	12 Months

APPENDIX



ROYERSFORD WASTEWATER TREATMENT PLANT

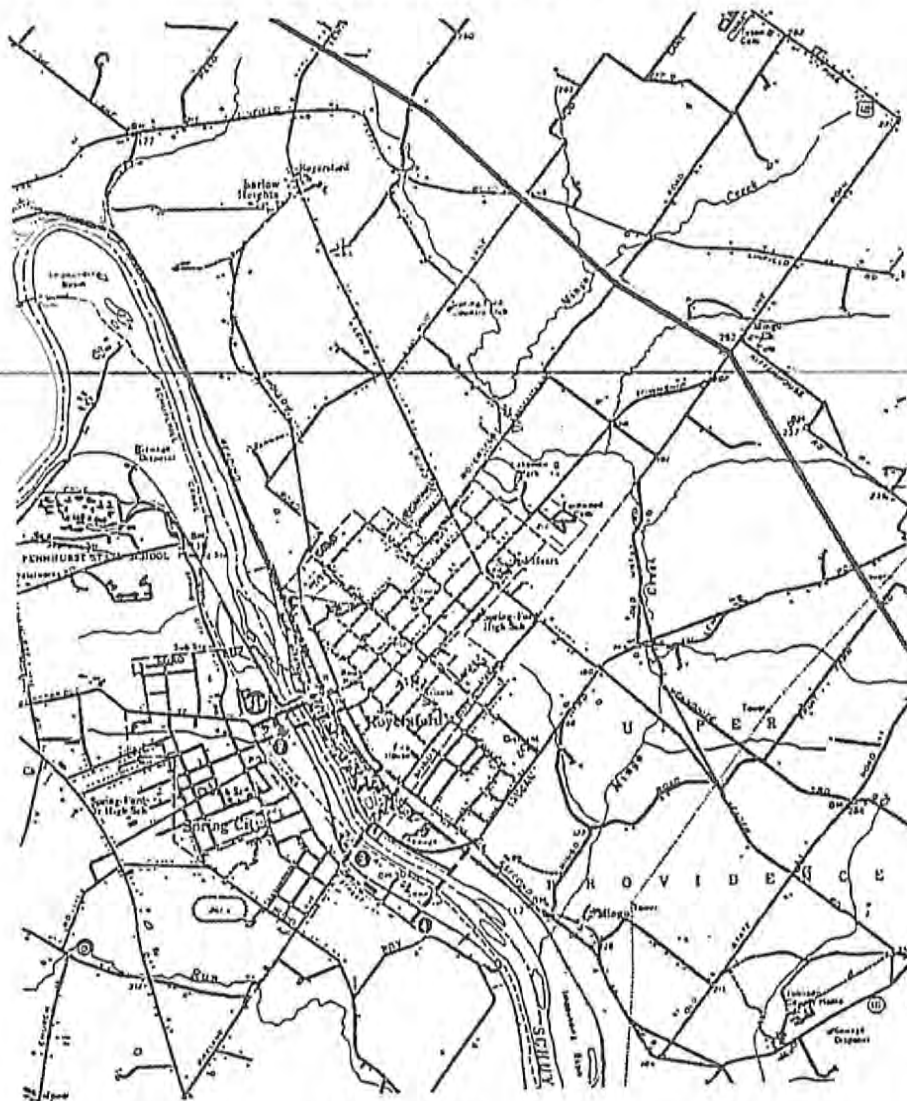
Flow Diagram



Source: Borough Engineer; Sanders and Thomas, Pottstown, Penn.

AREA ROAD PROPOSALS

Royersford Borough, Pennsylvania

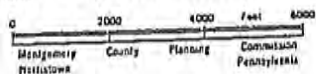


— ROAD ADDITIONS AND REALIGNMENTS

Ⓜ PROPOSED MAIN STREET BRIDGE WIDENING

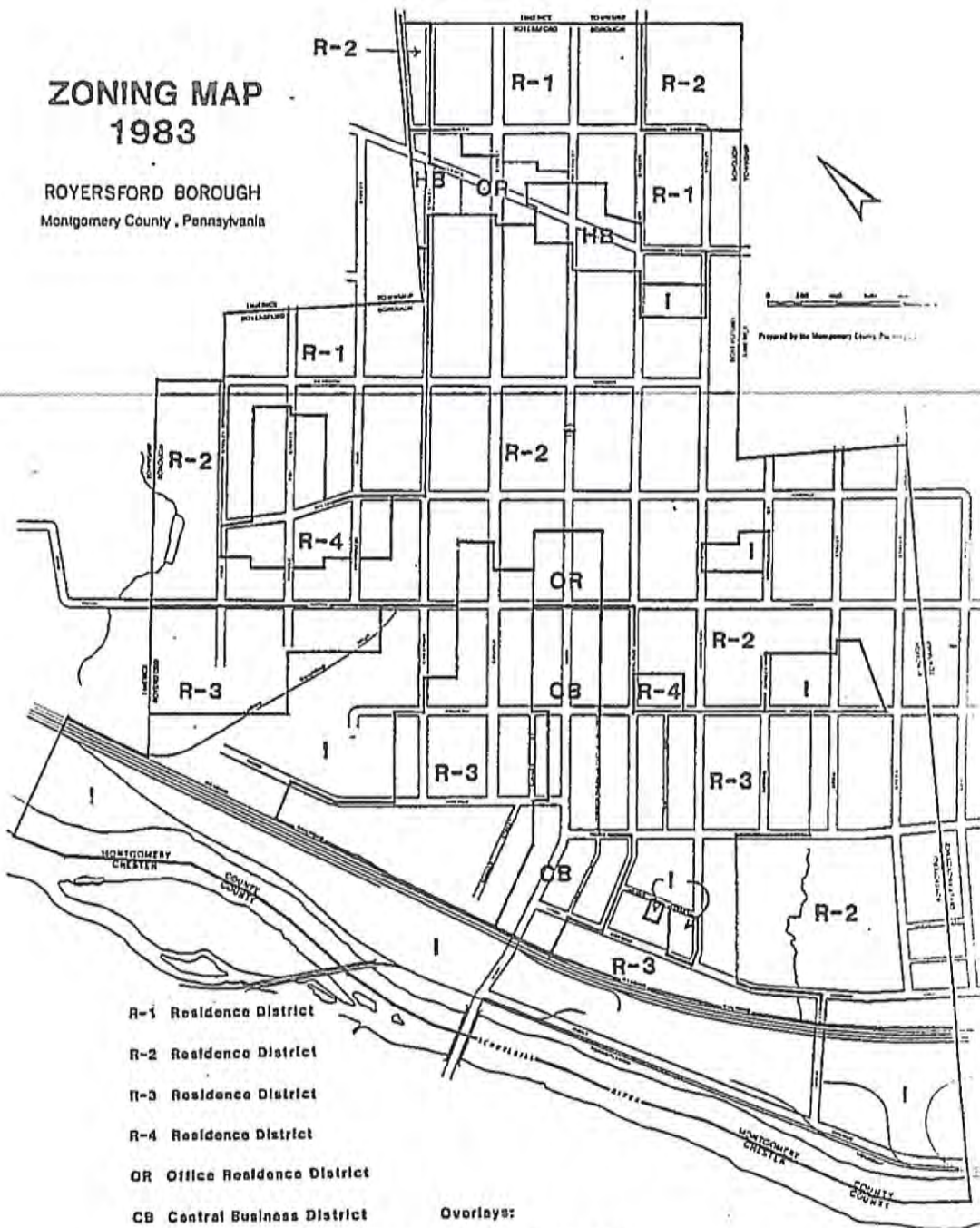
ALTERNATE BRIDGE PROPOSALS

- ② WALNUT STREET — NEW STREET HIGH LEVEL BRIDGE
- ③ GREEN STREET — PIKELAND AVENUE HIGH LEVEL BRIDGE
- ① VAUGHN ROAD BRIDGE AND EXTENSION



ZONING MAP 1983

ROYERSFORD BOROUGH
Montgomery County, Pennsylvania



- R-1 Residence District
- R-2 Residence District
- R-3 Residence District
- R-4 Residence District
- OR Office Residence District
- CB Central Business District
- HB Highway Business District
- I Industrial District

- Overlays:
- INS Institutional District
 - FP Floodplain Conservation District

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BOROUGH OF ROYERSFORD

COST ESTIMATE FOR PROPOSED MODIFICATIONS TO WASTEWATER TREATMENT PLANT NECESSARY FOR RERATING PLANT CAPACITY TO 750,000 GPD

Modifications to Primary Settling Tank

Install Concrete Beams	\$ 2,500
Cut Holes in Existing Concrete	4,800
Install New Fiberglass Weir Troughs	22,500
Install New Scum Pipe	10,000
Replace Sludge Collectors	27,300
Replace Idler Sprockets	<u>3,400</u>
Sub-Total	\$ 70,500

Modifications to Chlorine Contact Tank

Install New Weirs	\$ 1,050
Replace Wood Baffles	1,950
Replace Sluice Gates	12,000
Replace Manhole Steps	<u>1,650</u>
Sub-Total	\$ 16,650

Addition of a Third Raw Sewage Pump

Install New 6" Submersible Pump in Existing Wetwell	\$ 25,000
Mobilization and General Requirements	\$ 8,700
Contingency - 10%	11,215
Total Estimated Construction Cost	\$132,065
Engineering - 20%	\$ 26,413
Legal and Fiscal - 5%	6,603
Administrative - 5%	<u>6,603</u>
TOTAL ESTIMATED PROJECT COST	<u>\$171,684</u>

*Secondary Sludge Collectors (P 10)
T.F. wall repairs (P 9)*



Borough of Royersford

Montgomery County, PA



Comprehensive Plan

January 2017



Consultants:
Urban Research & Development Corporation
Bethlehem, Pennsylvania



This Plan Was Prepared
by
Urban Research & Development Corporation
(URDC)
of Bethlehem, Pennsylvania
Under the Direction of the Following
Royersford Officials – 2016



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This Plan was adopted by the Royersford Borough Council on January 31, 2017.

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INTRODUCTION

What is the Comprehensive Plan?

How Was This Plan Prepared?

This Comprehensive Plan provides an overall set of policies and recommendations for the future development, redevelopment and conservation of Royersford over the next 15 years. This Plan helps to ensure that Royersford retains the qualities that make people want to live, work and enjoy recreational activities within the Borough.

This Plan is not a regulation, but instead provides the basis for suggested changes to the Borough's development regulations.



Borough Hall

This Plan was developed in draft form during monthly meetings of a Steering Committee, with members appointed by Borough Council. First, maps showing existing conditions were prepared, as well as summaries of previous plans and reports. Information was collected on existing conditions, and interviews were held with various groups and officials to understand key issues. An online citizen survey was conducted.

A Vision Statement, Mission Statement and a set of Goals were prepared to provide overall direction for the Plan. A public meeting was then held to discuss the initial set of overall recommendations. Next, the Plan document was prepared.

Public meetings were held by the Borough Planning Commission and Borough Council to obtain public input on the complete Plan, prior to adoption.

Major Benefits of the Comprehensive Plan

The Comprehensive Plan offers many benefits, including the following:

- addressing land uses in coordination with transportation issues, to avoid future traffic problems;
- avoiding conflicts between different types of development, such as avoiding allowing intense business uses adjacent to a residential neighborhood;
- recommending actions and improvements to strengthen the Downtown and to revitalize older blocks;
- considering development policies in a comprehensive and coordinated manner, as opposed to piecemeal review of individual lots; and
- recommending ways to meet recreational needs of residents.

MAJOR FINDINGS: EXISTING CONDITIONS

The Appendices include information about existing conditions and trends in Royersford.

The following are highlights of those findings:

- Royersford has a desirable regional location, with two nearby interchanges of the Route 422 expressway, within a region with substantial employment opportunities and above average incomes. However, increasing congestion along Route 422 will continue to increase commuting times to King of Prussia and other employment centers. Main Street also carries substantial traffic because it connects to one of the limited number of bridges over the Schuylkill River. One goal is to capture some of this pass-by traffic to serve as customers for local businesses.

Map 1



- Royersford in 2014 had an estimated population of 4,785. This was a significant increase from the 2000 population of 4,246, which primarily resulted from new housing along 1st Avenue.
- Royersford has experienced continual decreases in the percentage of housing units that are owner-occupied - from 63 percent in 1970, to 55 percent in 1980, to 52 percent in 2000, to 50 percent in 2010. Nationwide, the owner-occupancy rate has decreased after the Great Recession.
- An inventory of historic buildings in Royersford identified 87 significant buildings, most of which are clustered in the older parts of the Borough between Washington and Chestnut Streets. There currently are no regulations that would prevent demolition of any of these buildings.

- The main natural features within Royersford include flood-prone areas along the Schuylkill Riverfront and scattered areas of steep slopes near the railroad corridor.
- The Royersford Economic Revitalization Plan was updated in 2011. It identified the following assets of Royersford:
 - the Riverfront Park and Trail,
 - the Downtown streetscape improvements,
 - the availability of municipal parking lots in the downtown,
 - the town’s location within a growing region where many residents have above average incomes,
 - the hundreds of new housing units built along First Avenue, and
 - the relatively low crime rate.
- Some of the constraints identified in the Economic Revitalization Plan included:
 - certain underutilized buildings along Main Street that need rehab or replacement,
 - the need for more businesses that would cause through-traffic to stop and do business in Royersford, 3)
 - the limited amount of modern building space within the town for offices and business park uses, and
 - the need for rehabilitation of some of the older housing in the Borough.

THE OVERALL DIRECTION OF THIS PLAN

The following Vision Statement, Mission Statement and Goals provide overall direction for this Comprehensive Plan.

Vision Statement

Royersford is committed to:

- a character that is pedestrian-friendly and bicycle-friendly,
- highly livable neighborhoods,
- a healthy environment,
- a strong and stable economy, including a vibrant downtown, and
- citizens who are inspired to be valuable partners in creative problem solving.



Mission Statement

Our community is dedicated to offering a healthy environment with diverse economic opportunities, an environment that is conducive to bicycling and walking, clean and safe streets, convenient public transit options, and a respect for our rich heritage.

Royersford promotes economic vitality through well-planned growth, in a manner that maintains a high quality of life for residents.

We will offer expanded opportunities through public engagement, volunteerism, innovation and community collaboration.

Major Goals and Objectives

The following are the major goals of this Plan, along with objectives. The main body of this Plan provide strategies in boldface to carry out these goals and objectives.

Historic Preservation Plan

Goal Emphasize historic preservation, sensitive building rehabilitation, and suitable adaptive reuses of older buildings.

Objective: Use demolition controls for the most important buildings, incentives and public education to protect historic buildings and areas.

Land Use and Housing Plan

Goal Provide for compatible transitions between different land uses and different intensities of development, to protect residential areas.

Objective: Promote compatible mixes of land uses, in a way that reduces dependence upon motor vehicles for everyday needs and encourages people to live closer to their work.

Goal Maintain an attractive and walkable historic "small town" character throughout Royersford.

Objective: Seek that new development have similar scale and setbacks to existing older development.

Goal Provide for a range of housing types to meet varied needs.

Objective: Encourage a higher level of homeownership, while also meeting the needs of older persons and persons with disabilities.

Objective: Make sure that the existing housing stock is properly maintained, through assertive code enforcement and linking property-owners to available resources.

Natural Features Plan

Goal Protect and enhance important natural features, particularly including the Schuylkill River corridor.

Objective: Improve the quality of stormwater runoff by managing it at its source, allowing it to soak into the ground, and slowing it down.

Objective: Encourage increased energy conservation and use of renewable energy.

Objective: Promote street tree plantings and the establishment of a tree canopy over most parking lots and open areas in the Borough.

Community Facilities and Services Plan

Goal Provide high quality community and municipal facilities and services in the most cost-efficient manner.

Objective: Seek additional grants to fund community needs.

Objective: Make sure facilities are adequate for public services.

Transportation Plan

Goal Manage streets to improve traffic safety, promote use of public transit, provide for pedestrian and bicycle travel, and moderate traffic speeds while also providing room for trees and greenery.

Objective: Make Royersford more bicycle and pedestrian-friendly and seek safe connections to stores, schools, parks and trails within Royersford and neighboring municipalities.

Objective: Promote expanded use, availability and frequency of service of public transit.

Revitalization and Capital Improvements Plan

Goal Promote business development, in order to increase employment opportunities and tax revenues, and while fostering entrepreneurship.

Objective: Continue to strengthen Downtown Royersford as a town center with a mix of office, retail, service, civic, arts, cultural, entertainment and residential uses.

Putting This Plan Into Action

Goal: Continually work to put this Plan into action - through a program of intergovernmental cooperation and updated planning, and many short-term actions within a long-range perspective.

Objective: Promote substantial citizen input, including making sure residents are well-informed about community issues and have plentiful opportunities to provide their opinions on Borough matters.

Objective: Coordinate transportation, development and infrastructure across municipal borders, and seek out opportunities for additional shared municipal services.

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EXECUTIVE SUMMARY

The following are highlights of major recommendations in this Plan.

Preserve Important Historic Buildings and Areas

- Establish zoning provisions to require pre-approval of the demolition of important historic buildings, but without regulating routine changes to buildings.



Plan for Future Land Uses and Housing

- Maintain the character and livability of existing residential areas, while avoiding excessive densities and parking problems.
- Make sure that new development is compatible with older neighborhoods, including maintaining similar setbacks, planting street trees, promoting front porches and placing most parking to the side or rear of buildings.
- Carefully manage industrial uses to protect adjacent residential neighborhoods, while attracting new employers.

Strengthen the Downtown

- Promote active street-front uses along Main Street. Promote upper story office and residential uses. Direct new parking to the rear of lots, on-street spaces and eventually a parking structure.
- Strengthen the Downtown, with additional special events, marketing, attraction of new businesses, and well-managed parking.

Improve Sustainability

- Carry out a full set of efforts to improve sustainability, including promoting renewable energy (including solar energy, such as over vehicle parking), seeking additional carpool parking areas in the surrounding region, providing incentives for green buildings, improving the quality of stormwater runoff, promoting groundwater recharge, improving the Schuylkill River corridor as a scenic and recreational asset, and emphasizing tree planting.

Provide Quality Community Facilities and Services

- Continue to make needed improvements to Borough Parks and complete the Riverfront Trail.
- Seek funding to add recorded security cameras in key areas.

Improve Transportation and Carefully Manage Parking

- Manage parking so that the most convenient spaces are available for high turnover by customers.
- Over the long-run, seek to re-establish commuter rail service to Royersford.
- Make the Royersford area safer and more convenient for bicyclists and pedestrians, in cooperation with adjacent municipalities.

HISTORIC PRESERVATION PLAN

GOAL Emphasize historic preservation, sensitive building rehabilitation, and suitable adaptive reuses of older buildings.

Objective: Use demolition controls for the most important buildings, incentives and public education to protect historic buildings and areas.

Historic preservation is critical to preserve the attractiveness and character of Royersford. Royersford's historic character attracts businesses, customers, and residents. The craftsmanship of historic buildings cannot be replicated today. Historic preservation also provides links to the area's rich heritage. Furthermore, historic rehabilitation reduces consumption of energy and resources and provides higher levels of employment, compared to spending the same dollars for new construction.



Strategy H.1. – Enact zoning provisions to require pre-approval of demolition of important historic buildings.

Many buildings contribute to the historic streetscape along a block, even if the building is not significant by itself. For example, a pattern of front porches and a lack of front yard parking is a critical aspect of many older blocks. There currently are no regulations to prevent the demolition of historic buildings in Royersford.

Zoning provisions should be adopted to protect the most important buildings with historic architecture. These provisions would require Borough Council approval prior to any partial or complete demolition, or the removal of a porch or historic architectural features visible from a public street. A set of ordinance standards should guide Council's decision on whether to propose a demolition. For example, a demolition could be approved if a building owner proves the building cannot be reused in a cost-effective manner, or if the building demolition needs to occur to allow a new project that will provide substantial public benefits (such as a street safety improvement).

This type of provision would be less burdensome than the typical local "historic district" regulations that are used in some other municipalities. In comparison, the provisions proposed in Royersford would not regulate routine replacements of doors, windows and roofing materials.

The Appendices includes a listing and map of older buildings in the Borough. That listing should be the starting point for deciding which buildings are worthy of demolition controls. A volunteer committee of interested persons could be asked to narrow down that list to result in a list of the most important buildings. For example, even though building may be

old, it may be in poor condition or may have been substantially altered so that it should not be targeted for demolition controls.

Strategy H.2. – Offer zoning incentives for rehabilitation of important older buildings.

The Borough could consider additional zoning incentives for selected important historic buildings. For example, certain uses could be allowed within selected historic buildings that would otherwise not be allowed within that zoning district. As a condition, the exterior of the building would need to be rehabilitated in a historically sensitive manner. The Zoning Hearing Board could also be given authority to modify selected zoning requirements by special exception where it is shown to be needed to allow for a reasonable use of an important historic building.

Zoning and subdivision regulations should be further updated to maintain the historic character of various areas of the City. For example, new front yard parking should be avoided in older areas, and most parking should be placed to the rear of buildings.

Strategy H.3. – Use public education to promote interest in historic rehabilitation.

There should be an emphasis on public education to increase appreciation of Royersford's historic buildings, and to provide information about proper rehabilitation methods. Many prospective home buyers in the region may be unaware that Royersford has a wealth of large historic homes. Realtors and the Spring-Ford Area Historical Society may assist in these efforts. The Borough should form a partnership with the Spring-Ford Area Historical Society to provide information to the public about the proper ways to repair, maintain and update older buildings without harming historic features.

Additional historic preservation information and links to informational resources should be added on the Borough website. For example, links can be provided to the free online National Park Service preservation reports on various building features and issues. Workshops could also be offered to property owners about proper methods of historic rehabilitation.

A standardized historic building plaque should be designed for Royersford. Most communities use a bronze-style plaque of about 10 inches by 7 inches, which can be customized with the date of the building. Owners of older buildings should then be encouraged to order and pay for one of these plaques, and mount it next to their front door. The goal is to spur greater interest in historic rehabilitation.

Strategy H.4. – Promote financing options for historic rehabilitation.

If a state-certified Historic District would be established, federal tax credits for historic rehabilitation would be available. However, the current federal tax credits are only available for investment properties, and not for owner-occupied homes.

It would be desirable to seek funds to establish a revolving low-interest loan fund to rehabilitate historic buildings. This type of program would be particularly useful to de-convert houses from multiple apartments to one family homes. A revolving loan fund could potentially be established with state grants and/or with the voluntary involvement of local financial institutions.

LAND USE AND HOUSING PLAN

This section addresses future land use and housing policies, including recommendations for new development and redevelopment. This section is intended to provide the basis for recommended revisions to development regulations of the Borough to carry out the Plan.

GOAL Provide for compatible transitions between different land uses and different intensities of development, to make sure that the livability of residential areas are prioritized.

Objective: Promote compatible mixes of land uses, in a way that reduces dependence upon motor vehicles for everyday needs and encourages people to live closer to their work.

GOAL Maintain an attractive and walkable historic "small town" character throughout Royersford.

Objective: Seek that new development have a similar scale and setbacks to existing older development.

GOAL Provide for a range of housing types to meet varied needs.

Objective: Encourage a higher level of homeownership, while also meeting the needs of older persons and persons with disabilities.

Objective: Make sure that the existing housing stock is properly maintained, through assertive code enforcement and linking property-owners to available resources.

This Land Use and Housing Plan also is designed to: a) encourage reuse of vacant and under-utilized buildings, b) directing higher density housing to areas near the central business district, c) utilize a "Main Street Program" to revitalize the downtown, while working to preserve historic buildings along Main Street, d) encourage adaptive reuse of mill-style industrial buildings, into residential, retail and office uses, and e) avoid heavy truck traffic on residential streets.

The 2016 Citizen Survey results are included as an Appendix. When Borough residents were asked which types of housing was most needed in the Borough, the results were:

- 1) single family detached houses,
- 2) townhouses,
- 3) side-by-side twin houses,
- 4) apartments above businesses,
- 5) nursing or personal care homes, and
- 6) apartment buildings.

Strategy L.1. – Base land use policies upon the Future Land Use Plan Map, and update development regulations to carry it out.

The following sections describe the policies of the various land use categories, as shown on the Future Land Use Plan Map (Map 2). In most cases, these categories are intended to correspond to existing or proposed zoning districts. The Borough's Zoning Ordinance includes various zoning districts that allow different types and intensities of development within each geographic area.

Low Density Residential – These areas are the lowest density residential areas. These areas should continue to mainly provide for single family detached houses, at an average of 3 to 4 homes per acre.



Medium Low Density Residential – These areas are mainly intended to include a mix of single family detached and side-by-side twin homes, at an average of 4 to 5 homes per acre.



Medium Density Residential – These areas include most of the older residential areas of Royersford. These areas are intended to provide a mix of housing types at 8 to 12 homes per acre. New buildings should be required to be placed a maximum of 20 feet from the street right-of-way or to match the majority of existing buildings on a mostly developed block. The existing pattern of streets and alleys should be required to be continued or extended. In most cases, garages or parking pads should be accessed from a rear alley.

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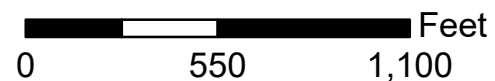
Borough of Royersford

SOURCE:
Base information provided by
Montgomery County.



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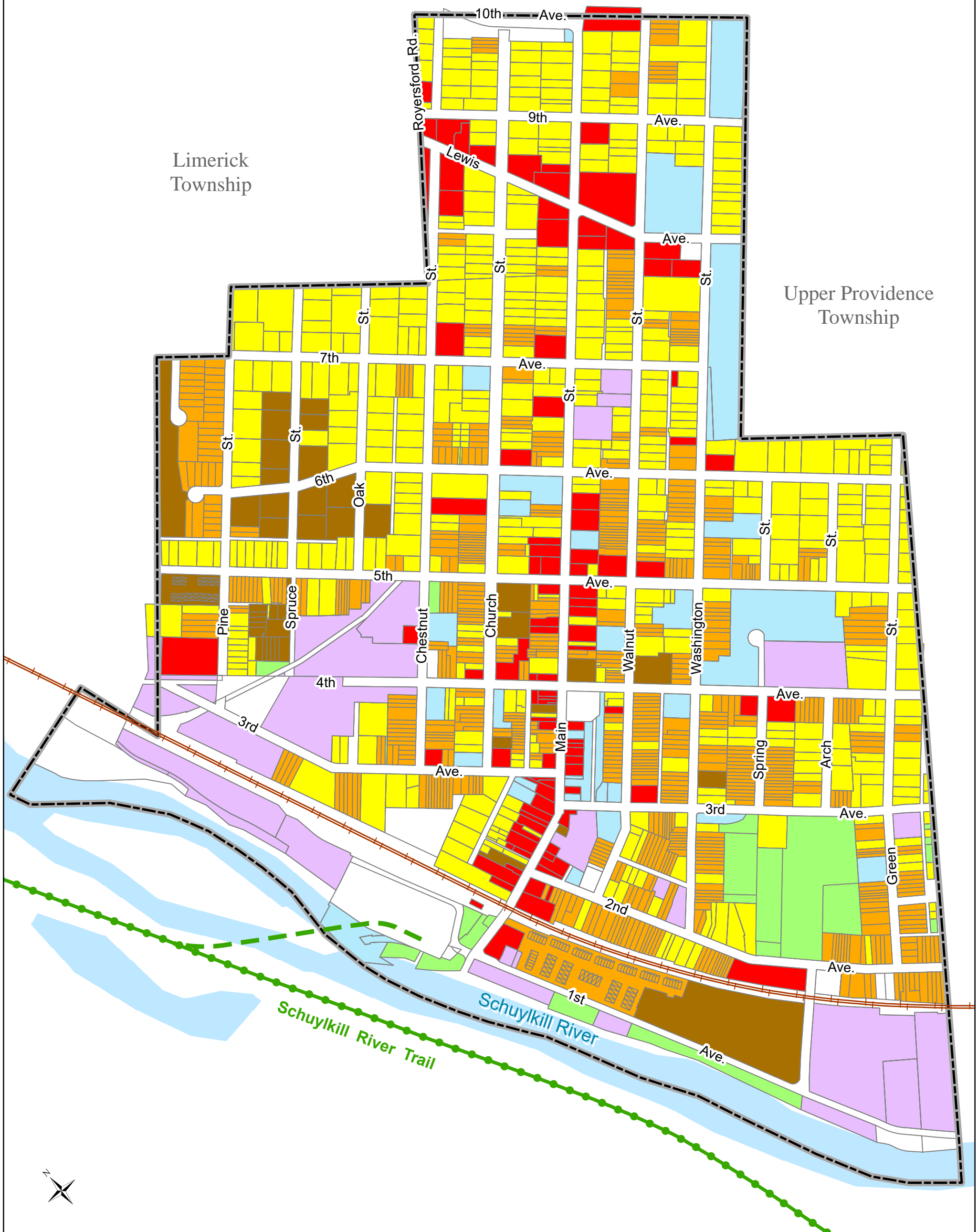

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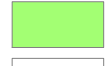




Limerick Township

Upper Providence Township



Borough of Royersford

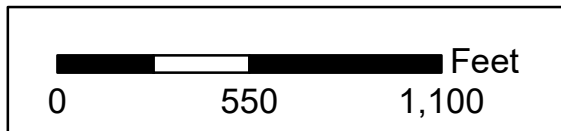
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Base information and land use provided by Montgomery County.
Not yet field checked by URDC.

- | | |
|--|--|
|  Single Family Detached |  Industrial |
|  Single Family Attached |  Recreation |
|  Multi-Family |  Vacant |
|  Institutional/Public-Semi Public | |
|  Commercial | |

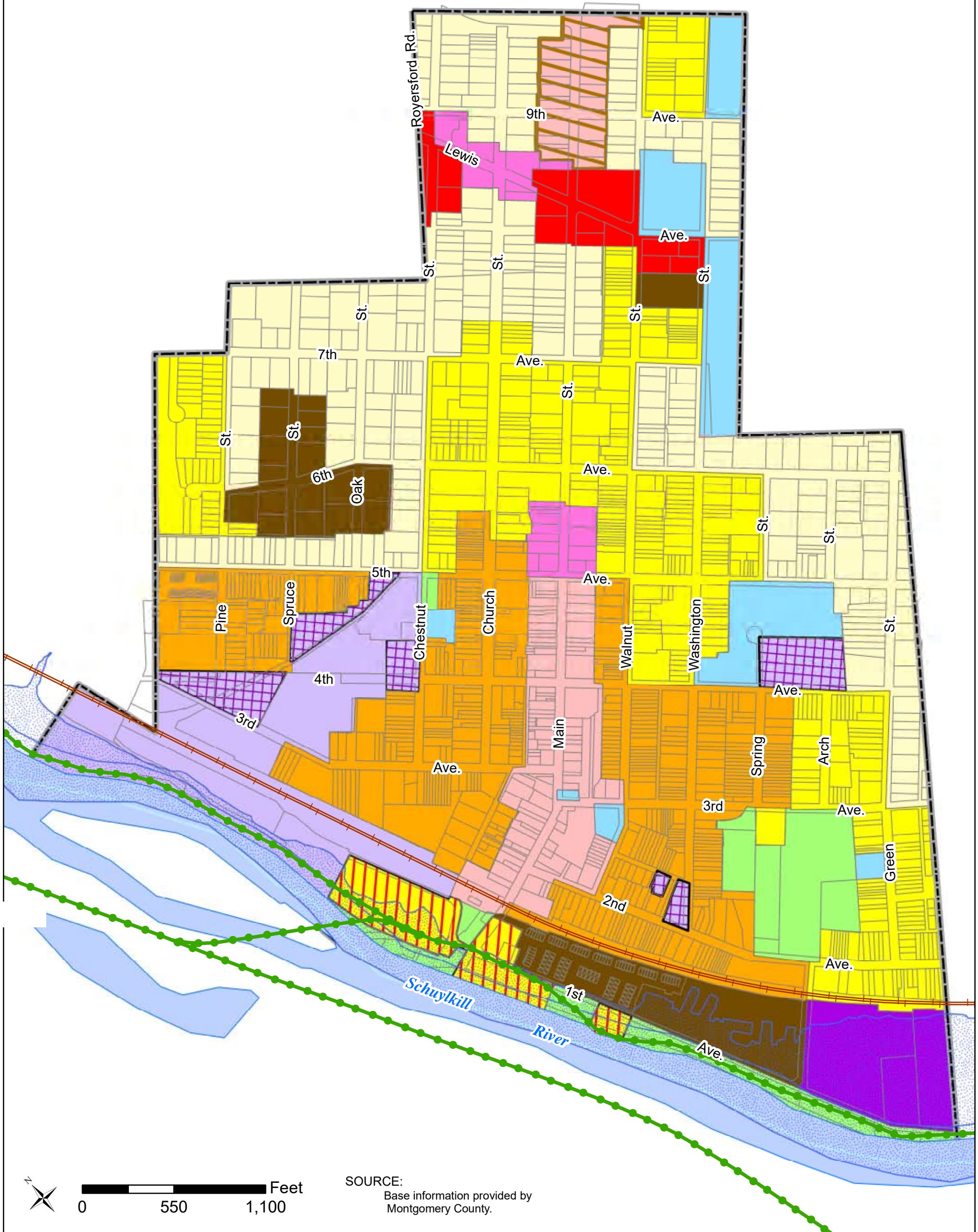
GENERALIZED EXISTING LAND USE

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April 2016



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SOURCE:
Base information provided by
Montgomery County.

Borough of Royersford

Low Density Residential	Neighborhood Business	Public Recreation
Medium Low Density Residential	Highway Business	Schools and "Other Major Community Facilities"
Medium Density Residential	Light Industrial/Commercial	Recreation Trail
High Density Residential	Limited Light Industrial/Commercial	100 Year Flood Plain
Residential - Office	Business/Upper Story Residential	
Central Business	General Industrial	

FUTURE LAND USE PLAN



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High Density Residential

This category mainly applies to larger townhouse and apartment developments, at a density of up to 15 units per acre. A higher density should be allowed for apartment developments that are limited to older persons (such as age 55 or older, or age 62 and older, as well as persons with physical disabilities).

Residential-Office

These areas along Main Street between 9th and 10th Avenues are intended to mainly provide for single family detached houses and offices.

Central Business (Downtown)

This category includes the Downtown, generally along Main Street from the railroad east to 5th Avenue. These areas should continue to provide for a mix of residential, retail, restaurant, service, office, public and institutional uses. New taverns that primarily sell alcohol and that will be open after midnight should need zoning approval from Borough Council, and should be carefully controlled near residential areas. New gas stations, auto repair, auto sales uses, car washes and drive-through restaurants should not be allowed in these areas, in order to emphasize a pedestrian orientation.

A set of expanded design standards would be valuable to address new construction and changes to existing buildings. For example, the Borough could list a variety of architectural elements that may be used to provide architectural interest along the facade of a major new building and require that a builder include at least two of those elements.

Buildings in the Downtown should be required to be placed very close to the street. Within the Downtown, new surface parking lots should not be permitted immediately along Main Street, and any new vehicle access should be required to be from an alley or side street, so that they do not interfere with pedestrians on sidewalks along Main Street. Any new parking in the Downtown should be placed to the rear of buildings.

The Downtown is further discussed in sections that follow.

The current requirements for off-street parking in the Town Center should be reviewed. Many similar communities do not require any off-street parking in their Downtown, particularly in areas that are accessible to municipal parking lots and decks. When off-street parking is required, it should be allowed to be placed on another lot that is within a reasonable walking distance.

In the event that a parking area is located along Main Street, it should be separated by the sidewalk by plant buffering or architectural walls. However, these buffers should be designed to still allow sight lines into parking areas from the street, for security purposes, as illustrated on the following page.



Example: Safety in Parking Areas

Neighborhood Business

The goal is to allow selected types of commercial uses that are likely to be compatible with the nearby homes. These areas are intended to provide for less intensive commercial uses, such as offices, day care centers, funeral homes (without a crematorium), banks, dance studios, personal service businesses, and bed and breakfast inns. Medium density housing should also continue to be allowed.

Highway Business

These areas are intended to provide for almost all types of commercial uses, including auto sales, gas stations, restaurants with drive-through service and car washes.

Light Industrial/Commercial

This category is proposed to include the Royersford Industrial Park and various adjacent and scattered industrial uses. Offices, certain commercial uses and a set of light industrial uses should be allowed by right. However, the most intensive types of industrial uses or uses that would generate substantial truck traffic should need zoning approval from the Zoning Hearing Board (as a special exception use) or Borough Council (as a conditional use).

Owners of older industrial buildings should continue to be offered alternatives for various types of adaptive reuse, such as for commercial uses. At the same time, the legal rights of non-conforming uses to continue needs to be respected.

Business/Upper Story Residential – This category is intended to provide for a range of light industrial and commercial uses, while also allowing an option for upper story residential uses, as long as they would be compatible with first floor business uses.

Limited Light Industrial/Commercial

This category would be similar to the Light Industrial/Commercial. However, it should be more limited in the types of industrial uses that are allowed because of the proximity of these areas to numbers of existing homes.

General Industrial

These areas southwest of the railroad and southeast of Arch Street are intended to allow for a wide range of industrial uses. At least one area of the Borough needs to provide opportunities for various types of heavy industrial uses and adult uses to comply with Federal and State law.

Floodplain

The Future Land Use Plan Map shows the approximate extent of the 100-year floodplain. These areas include the Schuylkill Riverfront.

Within the main “floodway” channel, new buildings and other obstructions to floodwaters should be prohibited. The outer parts of the floodplain that are expected to experience more shallow and less frequent flooding are named the “flood fringe.” In the flood fringe, new buildings typically must be elevated above the flood level and development must not result in increased flood levels. The flood fringe may be suitable for vehicle parking, but the floodway should be maintained in thick natural vegetation and trees.

There are few buildings within the 100-year floodplain. Alterations to those buildings need to comply with a series of federally-mandated floodplain regulations. In an adaptive reuse project, these regulations may spur portions of a lower level to be used for parking or open storage.

Public Recreation and Recreation Trail

The recreation areas are existing public parks, which are described in the Community Facilities and Services section. Also, portions of the public school properties provide recreation. The intent is to complete the Riverfront Trail along the Royersford side of the Schuylkill River, and to link it to the main Schuylkill River Trail in Spring City. Eventually, an unused railroad trestle across the river should be improved to be part of a looped trail system.

Major Community Facilities

This category mainly includes the Borough Hall, the Public Works complex, the new Fire Station location, and schools.

Strategy L.2. – In the Downtown, emphasize a mix of retail businesses, restaurants, service businesses, offices and upper story apartments.

There is a need to improve the appearance and economic vitality and pedestrian and bicycle accessibility the Downtown and areas around it. While substantial streetscape improvements and tree plantings have been completed, there is a need to attract additional retail business and restaurants to the Downtown, to promote upper story apartments, and to improve the condition of certain buildings.

The largest underused sites involve buildings of the former Lebo furniture store. It would be desirable to have the site redeveloped with first floor businesses and upper story apartments. Ideally, new construction would include architectural features that respect

the older architecture along Main Street. The sketch below shows how a larger building can be made to appear to be a connected set of smaller buildings, and how awnings, traditional-window sizes and cornices can add character to new construction.



Variation in New Construction Example

The photos above and below illustrate the type of mixed commercial-residential building that might be encouraged in this area. Those photos are of a successful mixed commercial-residential development named Birkdale Village in Huntersville, North Carolina.



Strategy L.3. – Establish a Main Street Revitalization Program in the Downtown.

Royersford should establish a Main Street Revitalization Program. This should emphasize attracting new retail, service and restaurant businesses to the Downtown. A Main Street Manager should be hired for an initial period of time. It is envisioned that this staff-person may be shared with one or more other municipalities, which may make the position eligible for a State grant to cover up to 50 percent of the costs.

Downtown revitalization requires a full range of continued activities: holding special events to attract customers, organizing joint promotions and coordinated advertising, maintaining an attractive and historic character (such as through design and financing of building facade improvements), linking building owners and businesses to available resources (such as financing and workshops in business skills), managing available parking to serve the needs of various types of users, and providing a safe and clean environment. It also is valuable to have a contiguous set of retail businesses that encourage shoppers to visit more than one business at a time.

Active uses (such as retail stores and restaurants) should be sought on ground levels along main streets, including in any new parking deck. Upper stories should be renovated or built for apartments or offices. Where narrow existing buildings make it difficult to meet code requirements for upper story uses, two adjacent buildings should be merged or renovated together, with a common fire-safe stairwell and/or elevator. It is possible for two adjacent buildings in different ownership to share an emergency access stairwell, if there are proper controls to permanently guarantee access.

The results of the 2016 Citizen Survey are included in the Appendices. One question asked persons to choose which types of businesses they would like to see attracted to Downtown Royersford.

The top choices were:

- 1) restaurants,
- 2) farmers market,
- 3) entertainment uses,
- 4) bar or brewpub,
- 5) types of retail uses,
- 6) gifts and antique retail stores, and
- 7) clothing stores.

The Survey also asked persons to select the most needed improvements in the Downtown.

The top responses were:

- 1) Rehabilitation of older buildings,
- 2) Demolition of buildings in poor condition,
- 3) Additional parking,
- 4) Development of vacant lots,
- 5) Improvements to traffic flow,
- 6) Additional street trees, and
- 7) Bicycling improvements.

The Survey asked which three initiatives would cause you to do more business downtown.

The top responses were:

- 1) activities, festivals and special events,
- 2) a wider range of commercial businesses,
- 3) more convenient parking,
- 4) longer hours for businesses,
- 5) improved traffic flow, and
- 6) better pedestrian and bicycle access.

Opportunities should be offered for Live-Work Units in business areas, in which persons live and work in the same space, without the restrictions of a home occupation. Live-Work Units can be particularly useful for artists and for offices.

For many years, Royersford has been completing streetscape improvements on various Downtown blocks. These improvements involve brick pavers, street trees and older styles of street lights. These improvements should be further extended as funding allows.

The goal is to make the Downtown an even more active place to live, work, shop and enjoy entertainment. The following recommendations should be considered.

There should be a continuously active set of storefronts along key blocks, to offer a pedestrian shopping and entertainment experience. As an interim measure, vacant storefronts should be filled with art exhibits, seasonal display, advertisements for special events and temporary “pop-up” retail stores.

A priority should be placed in filling retail space vacancies on the blocks of Main Street between Second and Fifth Avenues. The remaining open lots fronting on Main Street should be encouraged to be developed with commercial buildings that will attract customers to the downtown. This includes a site on the north side of Main Street, between the river and the railroad tracks at Main Street and Second Avenue, and a site at the southwestern corner of 4th Avenue and Main Street. Any parking should be placed at the back of the lot, or possibly under the building in the case of 4th Avenue and Main Street. Any residential uses should be on upper stories.

An emphasis should be placed upon seeking additional high quality upper story housing in the Downtown.

Extended business hours during special events or a “First Fridays” of the month can lay the ground work for later hours on a more regular basis.

Sculptures, murals and other public art can enliven Downtown spaces and encourage customers to walk along the length of the Downtown. Highly modern designs should be placed in the less historic blocks. Some public art may be on loan for temporary display in Royersford, and then rotated with new art to create greater public interest. The photo to the right shows a public sculpture that can capture the interests of pedestrians.



Heritage-based tourism involves attracting visitors to the area to enjoy the area's historic and scenic character and recreational assets, and to appreciate the stories of lives from the past. The intent is to link together the extensive historic, artistic and cultural attractions and trails within the area and to promote additional tourism.

New restaurants often need a liquor license to be successful. However, the number of available licenses in the Borough is limited. The Borough can assist prospective restaurant owners in obtaining an "Economic Development" liquor license, under State regulations. This type of license should mainly be available along portions of Main Street in the Central Business Area. The Borough Council would be requested to hold a hearing and approve an application before it could be approved by the State.

To promote economic development, the Borough should review its regulations and approval processes to see if any aspects can be streamlined to avoid unnecessary costs and delays.

Tax increment financing (TIF) can also be used to providing financing for infrastructure or public parking that is needed to support desirable types of new development. Under TIF, new real estate tax revenues from a new development are allowed to be used to pay for street improvements, sidewalks, public recreation areas and public parking facilities that are needed to support a new development. Typically, a bond is issued to pay for those public improvements, and then the new real estate tax revenues are diverted to make the bond payments until the bond is paid off. After the bond is paid off, the new real estate taxes flow in a normal fashion to the jurisdictions.

The Borough can also offer real estate tax abatements within targeted geographic areas. These tax abatements could be structured to seek to make new housing or new business development more cost-effective. These abatements reduce the real estate taxes that would otherwise apply to new construction and improvements. The increases in real estate taxes are typically phased in over a ten year period. For example, in the first year, a property owner is often only required to pay 10 percent of the increase in real estate taxes that would result from the project. This percentage usually increases 10 percent per year, until the full real estate taxes must be paid after ten years.

A set of three state laws (which include “LERTA”) authorize these tax abatements for various types of development. These abatements could be directed towards new construction, improvements to existing buildings, and/or the conversion of a deteriorated business property into new uses. These tax abatements are most effective when the School District and the County also agree to offer similar real estate tax benefits.

Local entrepreneurs should be linked to advice that is available at Small Business Centers at the University of Pennsylvania and Temple University. There also should be business retention efforts. This involves regularly contacting area businesses to find out if there are factors that the Borough could control that would help them succeed and/or expand within Royersford, as opposed to moving to another municipality.

It would be desirable to promote the establishment of a business incubator for start-up businesses, that offers shared services, such as a shared conference room, shared copier and shared receptionist.

The Borough is establishing a matching grant program to assist with improving the appearances of downtown building facades and signs.

The Borough is emphasizing code enforcement to improve the conditions of older buildings. An ordinance was adopted that requires regular inspections of rental housing.

Strategy L.4. - On the Royersford Industrial Park tract and adjacent areas, promote businesses and redevelopment that is compatible with adjacent housing.

The Royersford Industrial Park is a former steel plant complex that includes portions of buildings that are underused or are in need to investment. There also are some more modern industrial buildings in the vicinity.

Redevelopment should be planned to generate substantial tax revenue and jobs. The tract could be suitable for offices, research and development facilities, a hotel, flex space buildings, light industrial uses, fitness centers, building contractor headquarters, retail sales, wholesale sales, commercial recreation uses and banks.

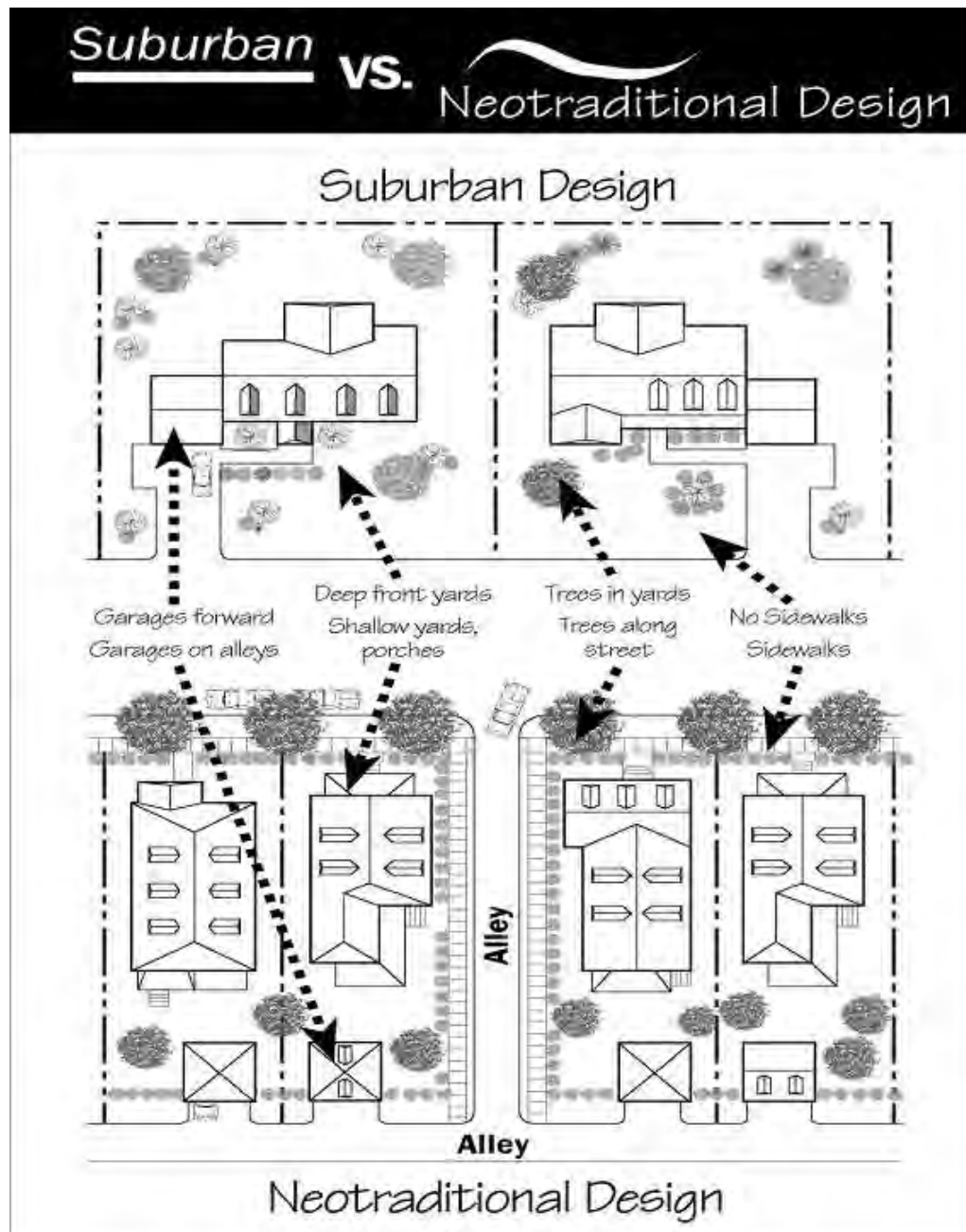
Development of the tract should be required to include extensive landscaping to buffer trucking, storage and industrial activities from adjacent homes. Care is needed to avoid uses that would generate late night noise, substantial tractor-truck traffic or health hazards. There are many light industrial uses that would be expected to cause only limited adverse effects, such as food and beverage processing uses.

If the site has environmental contamination, it might not be cost-effective for a developer to clean up the land to a sufficient standard that would meet the strict federal environmental requirements that apply for new residential redevelopment. However, the Borough should be open to consider requests for rezoning of edges of the site to allow residential development, if the applicant proves there will be a sufficient level of environmental remediation.

Strategy L.5. – Continue the best features of older blocks into new and infill development.

Royersford should strongly emphasize “traditional neighborhood development” with a pedestrian orientation. This involves extending the best features of the older areas into new construction, and making sure that redevelopment of lots within the downtown and older neighborhoods occurs in a way that fits within the “urban fabric.” This concept is illustrated on the sketch below. Traditional neighborhood development primarily involves the following:

- Buildings should be placed relatively close to the street. New homes should be encouraged to include front porches, to encourage interaction among neighbors. On a corner lot, a side porch can have the same effect. If residents spend time on their front porch, they can help oversee the neighborhood and report suspicious activity to the police.
- There should be an orientation to pedestrians, with an ability to walk or bicycle to stores, schools and parks. Where vehicle access can be provided from rear alleys, lots can be relatively narrow, to reduce construction costs. Sidewalks should be required along both sides of all streets. Overly wide streets and intersections should be avoided to discourage speeding and to make it easier for pedestrians to cross the street.



- Off-street parking and any garage doors should be located to the rear or side of buildings, so that the front yard can be landscaped and/or used for a front porch or pedestrian area.
- An existing alley should be used for access to parking, and be improved as needed. Where an alley does not exist, a new alley should be constructed or extended. This design avoids conflicts between sidewalks and vehicles backing into the street or turning into driveways, and allows the entire curbside to be available for on-street parking. Otherwise, a new driveway may replace existing on-street parking, which may reduce the total number of available parking spaces.

- If rear access to garages is not practical, then garages should enter onto the side of homes whenever possible, particularly on corner lots. If a front-entrance garage is unavoidable, it should be designed so that it is not an overly prominent part of the street. For example, a one lane driveway can pass along the side of a house and then widen to enter a two-car garage that is setback from the front of the house.
- If it is not possible to build new twins and townhouses without driveways and garage doors entering directly from the front, then larger lot widths should be required. This standard is needed to make sure that there is green space in the majority of the front yards and room for some on-street parking spaces.
- Street trees should be planted to eventually provide a canopy of shade over streets. Studies show that mature street trees can increase the value of homes up to 10 to 15 percent. New street lights should be required to meet a design standard with a limited height that is similar to older styles of street lights.

In older business areas of Royersford, parking should not be located in the area between the street and the building.

Strategy L.6. – Promote housing rehabilitation and code enforcement.

Additional outside funding should be sought for rehabilitation of housing units, particularly for housing that is owned by seniors and persons of limited income.

The Montgomery County Department of Housing and Community Development is the lead organization for housing programs. The Department contracts with other organizations that provides counseling to prospective homebuyers. Funding programs are available to provide assistance to moderate income households in paying for the initial closing costs of a home purchase. These programs should be publicized within the Borough. Many households could afford the monthly costs of a mortgage, taxes and insurance if they bought a home, but they cannot save sufficient up-front dollars to pay real estate transfer taxes and other settlement costs.

The Borough should also cooperate with local non-profits, such as Habitat for Humanity of Montgomery County, so that they can help moderate income households purchase quality housing. Habitat for Humanity emphasizes the use of volunteer labor and requires prospective homebuyers to complete hundreds of hours of “sweat equity.”

Some non-profit housing organizations have also offered lease-to-purchase homes. In this case, a portion of the initial lease payments are credited to be used towards closing costs. After a household has earned a higher credit rating and showed stability in income, that household then can be eligible for a mortgage to purchase the home they have been leasing.

Developers can also be encouraged to apply for federal low income tax credits for new construction and rehabilitation projects. However, the competition for those tax credits is intense.

Another aspect of protecting residential neighborhoods involves controlling nearby uses that could potentially cause major nuisances. The Borough should work with the Liquor

Control Board to establish and enforce “Conditional Licensing Agreements” on any new establishments with liquor licenses. These types of agreements can assist in reducing impacts, such as by establishing limited late night hours. Limits on hours of operation should also be placed on outdoor areas, which are more likely to result in noise carrying longer distances. If outdoor café areas are within a public right-of-way, the Borough has additional authority to control outdoor hours in those areas.

As additional business activity is attracted to Downtown Royersford, parking shortages are likely to arise. The goal will be to make sure that the most conveniently located on-street parking spaces are available for high turnover rates by customers. Persons parking for longer periods (including employees of local businesses and residents) should be encouraged to park on side streets or lots that are not in prime locations along Main Street. Eventually, this policy may require the establishment of time limits (such as a 3 hour time limit) on parking along the blocks of Main Street with the most business activity during certain hours of the day. It also may be eventually necessary to establish time limits during the day on the spaces closest to Main Street in the Borough’s main municipal lot.

Strategy L.7. - Manage Downtown parking so that the most convenient spaces are available for high-turnover by customers.

As parking demand increases in the future, consideration should be given to establishing maximum time periods for parking on the prime parking spaces along Main Street in the Downtown. For instance, this could include a maximum parking limit of three hours between 9 AM and 6 PM during weekdays and Saturdays.

The Borough should look for opportunities to expand the amount of off-street parking in the Downtown, such as if a deteriorated building would need to be removed. The main public parking lot could be extended onto a vacant lot next to the old Humane Fire Company building. As demand increases for parking in the future, consideration should be given to adding a second level to the main public parking lot south of Main Street. Because of the existing slopes, it should be feasible to add a second level of parking without needing to construct ramps between the two levels.

The perception of a parking problem could be mitigated with better signage to parking areas and more publicity about available parking.

NATURAL FEATURES PLAN

GOAL Protect and enhance important natural features and the urban tree canopy, with an emphasis on energy conservation.

Objective: Improve the quality of stormwater runoff by managing it at its source, allowing it to soak into the ground, and slowing it down.

Objective: Encourage increased energy conservation and use of renewable energy sources (such as solar energy).

Objective: Promote street tree plantings and the establishment of a tree canopy over most parking lots and open areas in the Borough.

Strategy N.1. – Carry out a full set of sustainability initiatives, in cooperation with area businesses, residents and other entities.

Sustainability needs to be promoted through many actions that will conserve energy, address global climate change and reduce the consumption of natural resources. To address climate change, it is essential to reduce greenhouse gas emissions (such as Carbon Dioxide and Methane).

The use of more fuel-efficient or electric vehicles can have the greatest effect in reducing greenhouse gas emissions. Energy efficiency can also be accomplished through more efficient indoor and outdoor lighting (such as LED or solar-power lights), as well as increased insulation and more efficient HVAC systems. Residents and businesses should be encouraged to upgrade to more energy-efficient appliances, lighting, heating and air conditioning systems. Any available State or Federal funding assistance or incentives should be publicized.

Sustainability also involves promotion of walking and bicycling and use of public transit as alternatives to many types of vehicle trips. Sustainability involves greater use of renewable energy (such as solar, wind and geothermal). It involves increased use of recycling and reducing the amount of waste that is generated, as well as promoting composting. Trees are critical to convert Carbon Dioxide into Oxygen.

Efforts should be considered to encourage use of more energy efficient lighting and appliances, promote green practices in new development (which could include some zoning incentives), encourage purchase by the Borough of more fuel efficient vehicles, provide information to residents, businesses and non-profits, and hold energy conservation workshops.

There are several additional actions that could be undertaken at the local level to promote sustainability, including:

- Additional bicycle racks should be installed, which can also be required as part of larger new developments. Residential developments should also be encouraged to provide secure bicycle lockers. Particularly where parking meters are replaced by payment kiosks, a piece of metal can be welded onto the old parking meter post to convert it into a bicycle parking post.



Typical bike sharing station

- The Borough could cooperate with a vendor to provide a bicycle sharing / rental business in the Downtown near the Schuylkill River Trail. Most stations are placed within the public right-of-way, unless a landowner wishes to volunteer use of their space.
- There should be efforts to promote a greater amount of composting by residents and businesses. This can involve informing residents of sources of affordable composting barrels, as well as providing educational information about the proper ways to compost in order to avoid odors and vectors. Restaurants should also participate in efforts to collect their food waste for composting or other purposes. To promote composting of yard waste, the Borough should periodically consider opening its yard waste facility to the public and reviewing the hours the facility is open to the public, to target the hours of the year and week when there is the highest demand.
- Solar-powered outdoor lights can be valuable in parks, particularly if they avoid the need for expensive or unattractive electrical wiring.

- The Borough should consider the addition of solar panels over the roofs of additional parking structures and other Borough buildings. Solar canopies can also be encouraged to be placed over parking lots, which helps to keep vehicles cool on hot summer days. Buildings should also be encouraged to install light colored roofs, which in the aggregate can reduce the overall heat in the town on hot summer days.



An example of solar panels installed over a parking area

- The Borough should make sure that development regulations do not unnecessarily interfere with the installation of solar panels on roof tops and over parking. For example, solar panels could be allowed to extend five feet above the height limit on the top of existing flat-roofed buildings. That additional height is often needed to allow panels to be angled for maximum solar exposure. Solar canopies attached to buildings should be allowed to extend into building setbacks. Minimum setbacks should be relaxed as needed to allow solar canopies over parking areas.
- The Borough could work with car share services to offer a highly visible and convenient location for the parking of their vehicles. This convenience will encourage the use of car sharing services, which will reduce the need for each household to maintain multiple vehicles of their own. Car share services also effectively promote use of public transportation, because a household can access a vehicle occasionally when public transit is not convenient.
- The Borough should make sure that the Zoning Ordinance does not require excessive amounts of parking, which will help to reduce the amount of paved areas. It may be appropriate to reduce parking requirements for new dwellings located near the Downtown, where residents are more likely to walk and use public transit and where there are public parking options.
- Carpooling is one of the most energy efficient methods of commuting. Carpool matching services of the Delaware Valley Regional Planning Commission should be promoted. If a person participates in that carpool or vanpool service, they may be eligible for an emergency ride home, if needed in the future. Employers could offer preferential or reduced price parking for carpoolers, or could subsidize vanpooling from a transit station. Owners of shopping centers in the region with large parking lots should be encouraged to allow use of part of their parking lots for carpooling and for park and ride services for bus riders. In many cases, those drivers will then patronize businesses in the shopping center before or after work, because it will be convenient.
- The Borough should consider offering development regulation incentives for buildings that meet LEED certified standards or for the installation of green vegetated roofs. This type of incentive could include allowing an increased

maximum building or impervious coverage if a green roof is installed. In general, a municipality in Pennsylvania cannot add additional requirements to the statewide Construction Codes, but can provide incentives.

Strategy N.2. – Carefully manage stormwater and other water resources.

The Federal MS4 Program is intended to address water quality problems that result from stormwater runoff. In response, the Borough has conducted a public education program and completed regular street-sweeping to vacuum up pollutants. MS4 also requires pollution prevention measures in municipal public works operations, such as during vehicle maintenance, washing and fueling, as well as in the storage of road salt and other materials.

The MS4 program is now establishing more expensive requirements upon urban and suburban municipalities to reduce pollution and sedimentation.

The following methods could be useful to minimize stormwater runoff and to improve water quality:

- Methods can be used to promote infiltration into the ground, such as using porous pavement wherever practical. Porous pavement can involve types of asphalt, concrete or paving blocks. Where materials are regulated, the Borough should establish a set of specifications for pervious sidewalks and parking that can receive quick permits. Some communities have installed “green alleys” that are built with pervious materials and that are designed to avoid the need for expanded storm sewer systems.
- Methods using vegetation to absorb and slow runoff and filter out pollutants and sediment, such as rain gardens that are low-lying areas with plantings above a sand or gravel infiltration bed.
- Methods to capture and reuse runoff, particularly to water plants, such as by using cisterns or water barrels.
- Methods to reduce the amount of stormwater runoff that enters storm sewers, such as installing vegetated green roofs on top of buildings, and disconnecting downspouts from storm sewers and directing the water instead over vegetated areas.

Tree trenches (as seen in the photo to the right) are used in many cities. They involve vegetated areas with shade trees and low-level vegetation that are installed between the curb and the street or between aisles of parking spaces. Runoff is directed into these trenches, which are designed with sub-surface materials that promote infiltration. These trenches can also work with tree grates where pedestrian crossings



are needed or where there is a limited width available.

Vegetated curb extensions can be installed where pavement width can be reduced along segments of a street. These curb extensions can be placed where no parking areas already exist, such as near intersections. They can be combined with bulb-out curbs to reduce the width of street that must be crossed by pedestrians.

Streetscape improvements should also be designed with stormwater management in mind. Pervious brick pavers are now available. Also, brick pavers can be installed without the use of mortar, which reduces runoff and also allows easier removal and reinstallation when underground utilities need repair. Where the main pedestrian pathway is constructed of concrete, un-mortared pavers can be used between the main sidewalk and the curb, and between the main sidewalk and a building.

Strategy N.3. – Minimize the disturbance of steeply sloped lands.

It is important to minimize alteration of steeply sloped lands in order to avoid steep driveways that are difficult to use in snow and ice, to avoid stormwater problems and to minimize soil erosion. Provisions should be added to the Zoning Ordinance to limit their disturbance, particularly where there are concentrations of steeply sloped lands.

Strategy N.4. – Carefully manage flood-prone areas.

The 100-Year Floodplain is the area expected to be flooded during the worst storm in a 100-year period. More recently, it has been said to have a one percent chance of being flooded each year. However, throughout the region, the frequency and severity of severe storms have been increasing.

The Floodplain is comprised of the Floodway (which is the main flood channel) and the Flood-fringe (which typically has more shallow floodwaters).

Wetlands are required to be identified as part of development plans for individual sites. A minimum setback (such as 20 feet) should be required between delineated wetlands and new buildings or parking areas.

Strategy N.5. – Improve the Schuylkill River corridor as a scenic and recreational asset.

It is essential to have trees and thick vegetation along waterways to filter pollutants from runoff, minimize erosion, maintain habitats for aquatic life, and protect water quality. A minimum setback should be established from the top of the primary bank of the river for buildings, paving and outdoor business storage. If existing vegetation is removed from along the river, it should be required to be replaced with new vegetation that serves the same or better ecological purpose. Also, if development occurs along the river, the Borough could require the planting of “stream trees” in the same way that street trees are required. Funds can be sought through the County Conservation District or the State TreeVitalize Program for additional plantings along the river.

Strategy N.6. – Emphasize street tree plantings and parking lot plantings.

Royersford should seek to have most streets, parking lots, the riverfront and most parts of parks covered by a tree canopy. Trees improve air quality, add natural beauty, reduce air conditioning costs, and increase property values. Royersford should consider seeking designation as a “TreeCity USA.” That would involve having a Shade Tree Commission, having a modern ordinance to address the planting and maintenance of street trees, celebrating Arbor Day, and spending at least \$2 per resident per year on tree programs.

The Borough could offer to pay to plant a new street tree if the adjacent property owner pays the Borough’s cost to buy the tree. This policy would be designed to have trees planted where they will receive proper care, and would make public funds go further.

With proper selection of species and proper installation, conflicts between trees and sidewalks and utility lines can be avoided. The more open area that is provided around tree trunks, the less chance there is that the tree roots will damage sidewalks. Un-mortared porous pavers that resemble brick or tree grates should be used near street trees, where a hard surface is needed. These pavers allow more air and water to reach the tree roots, which reduces the likelihood that the tree roots grow in a manner that heaves the sidewalk. If a tree root heaves these pavers, the pavers can be easily removed, the root can be trimmed, and then the pavers can be laid back into place. Vegetated areas around trees should not be allowed to be paved.

Damage to sidewalks could be reduced by using “Structural Soils” around street trees and under adjacent sidewalks. This is a mix that include stones and soil that allows air and water to be more accessible to trees, and results in spaces for roots to expand without uprooting sidewalks. It is more expensive than regular soil, and therefore is mainly useful in constrained urban locations. There are also root barrier systems that are designed to inhibit street tree roots from growing under a sidewalk. Alternatively, where an adjacent concrete sidewalk is being installed adjacent to the street, a concrete lip can be installed.

Where there is insufficient room for a street tree within the public right-of-way, street trees should be encouraged to be planted with the trunks immediately outside the right-of-way, where feasible.

Canopy tree plantings should be encouraged throughout the Borough, especially over parking lots. If the public parking lot south of Main Street would have additional tree plantings, it may be more suitable to use part of the lot for summer special events.

COMMUNITY FACILITIES AND SERVICES PLAN

GOAL Provide high quality community and municipal facilities and services in the most cost-efficient manner.

Objective: Seek additional grants to fund community needs.

Objective: Make sure facilities are adequate for public services.



A summary of existing conditions is included in the Appendices of this Plan.

Strategy C.1. – Seek funding to carry out needed parks and recreation projects over various years, including completion of the Riverfront Trail.

There are four existing borough-owned parks in Royersford:

1. Victory Park, which is the main community park that serves the entire Borough,
2. Chestnut Street Park, a neighborhood park and tot lot at N. 5th Avenue and Chestnut Street,
3. Foundry Park, a passive open space and gateway park along Main Street between N. 1st Avenue and the Railroad.
4. Royersford Riverfront Park and Trail which contains a trail, parking and open space along the riverfront trail adjacent to 1st Avenue south between Main Street and Arch Street. Future plans are to extend the trail along the riverfront to both the north and south.

There also are recreation facilities at Royersford Elementary School and around the 9th Grade school building and the Senior High School near the Borough border. Their locations are shown on the Existing Land Uses Map.

In 2016, a Citizen Survey was conducted. One of the questions asked about the preferences for various recreation facilities. Persons responding were asked to check off the two improvements that should be emphasized. The following percentages of persons felt that these improvements should be emphasized:

Recreation trails, including completion of the riverfront trail	65%
Improvements to existing recreation facilities	40%
Dog park	31%
Children’s water spray area	25%
New small park with a children’s playground	13%
Skateboard park	6%
Basketball courts	5%
Volleyball courts	2%
No new facilities are needed	5%

Ideally, a recreation trail would be extended along the length of the Schuylkill River in Royersford. Cooperation will be needed with private property-owners, which may require flexibility in the route. Where a property-owner does not wish to sell land for a trail, a trail easement can be used. A large section of the trail has been completed south of Main Street along First Avenue.

The main Schuylkill River trail extends through Spring City along the south side of the river and extends from Philadelphia to Valley Forge to Pottstown to Reading, and is intended to be extended to Hamburg. The Royersford Riverfront Trail serves as an important connection to the main trail. Limerick and Upper Providence Township each have plans to construct additional segments of their riverfront trails, which will eventually connect to the Royersford segment.

A former 800 feet long railroad trestle bridge crosses the river northwest of the Main Street bridge. Eventually, this bridge should be improved as a pedestrian and bicycle bridge to form a “loop,” and to provide an alternative for persons who do not wish to travel along Main Street traffic. The improvement of this bridge would probably require financial and maintenance involvement by Chester and/or Montgomery Counties.

The 2006 Royersford Riverfront Trail Master Plan included plans and sketches of the proposed trail along the length of the riverfront. As part of this Plan, Foundry Park was developed near the Main Street bridge.

The Borough improved sidewalks and added a mural to make Arch Street a more pedestrian-friendly connection between Victory Park and the Riverfront Trail.

Victory Park offers opportunities for additional improvements. It is intended to be used for a summer playground program. Installing a children’s water spray facility would provide a way for children to cool off on summer days. A spray facility is much more cost-effective to build and operate than a swimming pool, and is usually motion-activated. An example of a spray facility is shown to the right.



Victory Park would benefit from tree branch trimming. The upper parking lot needs improved wheelchair-accessible pathways from the ADA parking space and to the restroom building. The maintenance building will need a new roof, and repaving will be advisable in the future of the driveway off of 2nd Avenue.



A dog park should be considered to meet public requests. It should be located where there are few homes nearby. One potential location would be at the south end of First Avenue on Borough-owned land next to the Wastewater Treatment Plant. That location will soon be accessible by an extension of the Riverfront Trail. Typically, a dog park includes two

fenced areas – one for larger dogs and one for smaller dogs. A clear set of rules need to be prominently posted.

There has been discussion about whether an additional small neighborhood park should be developed south of Main Street and east of 5th Avenue. That type of park is not considered to be a high priority because the neighborhood is served by the facilities at the Royersford Elementary School and recreation land around the other public schools.

The intent is to seek various funding sources to assist in completing these projects, including State Department of Conservation and Natural Resources funding and County funding.

Opportunities should also be explored to improve opportunities for kayaks, canoes and small boats along the Schuylkill River banks. There is currently a launch for kayaks and canoes at the end of Arch Street, which should be better publicized. A sign in a more visible location should direct persons to the launch. There have been discussions about adding a removable slip that could allow the site to be used for small sculling (competitive rowing) boats.

Strategy C.2. – Work with the School District to coordinate plans for growth and recreation.

The Borough should regularly communicate with the Spring-Ford Area School District to make them aware of development proposals that may affect student enrollments. Also, the Borough and the School District should work cooperatively to find the most cost-effective ways of meeting the recreation needs of students and community members.

The Borough and School District should also consider whether a regional recreation program could be re-established with neighboring municipalities. This could involve the provision of some shared recreation programs, and allowing a resident of one municipality to participate in recreation programs of other municipalities. Through shared programs, a much wider range of recreation programs can be offered, in a cost-effective manner that best utilizes the limited number of available volunteers.

In 2016, a Facilities Feasibility Study was completed for the School District. The immediate issues involve possible expansions of fitness and performing arts spaces in the High School. The longer-term issues involve building capacities. The Study projected that the District will experience capacity problems at the elementary school level within ten years. Although the Royersford Elementary School site has little room for expansion, the nearby

Brooke Elementary School site on Lewis Road has substantial land for an expansion, if needed.

Strategy C.3. – Continue to provide high-quality police protection services, and seek funding for additional security cameras.

The Police Department headquarters are located in the Borough Hall on Main Street. The Police Department currently includes seven full-time officers, plus part-time officers.

As the population and business activity in Royersford expands, the public safety needs of the Borough need to be periodically reconsidered. This may include, for instance, adding an additional full-time police officer, as funding allows.

To allow more efficient use of police officer's time, the Borough could encourage citizens to file reports of minor incidents online or over the phone.

The Police Chief reports that the security cameras in Victory Park have been helpful, and that additional security cameras would be useful along Main Street and other troublesome areas. These types of recorded digital cameras can be beneficial to spot criminal behavior while it is occurring, to follow a vehicle after a crime, and also to investigate incidents afterwards.

Strategy C.4. – Continue to provide high-quality Fire Protection and Emergency Medical services.

The Royersford Fire Department primarily serves Royersford and a portion of Upper Providence. Their apparatus includes: a 2016 105 feet aerial ladder truck, a 2002 pumper with a 750 gallon tank, a 2012 pumper with a 500 gallon tank, a 2006 utility truck, and a 2006 sport utility vehicle. The Department responded to 261 calls during the first 9 months of 2016.

A new fire station is under construction at Walnut Street and 3rd Avenue for the Royersford Fire Department. The building will have four vehicle bays and include a training room. The Department was formed through the merger of the Friendship and Humane Fire Companies. The Humane Fire Building at Walnut Street and 3rd Avenue is expected to be offered for sale. The desire is that a buyer be sought who will maintain the historic nature of the building.

The Friendship building on Green Street will continue to be used for the Friendship Ambulance Company, in addition to continuing to include the banquet hall. The Friendship Ambulance Company provides emergency medical and paramedic services. The Company has two 2014 ambulances and two 2012 ambulances. The Company serves several surrounding municipalities, in addition to Royersford.

Continued efforts are needed to attract sufficient numbers of trained volunteers. Some municipalities provide incentives for their municipal workers to serve as volunteer firefighters, and provide flexibility for those workers to leave work as needed to respond to emergencies.

Strategy C.5. – Continue to provide quality Public Works services.

The Public Works Department is headquartered in a complex on Chestnut Street near 5th Avenue. The Public Works Department maintains streets, maintains parks, plows snow, and repairs storm sewers. The Department also conducts seasonal collection of leaves and tree limbs, and oversees trash and recycling collections by a private contractor.

The Public Works Department needs to put into effect many pollution prevention measures as part of the federal MS4 storm water requirements. These measures require certain methods for materials storage and vehicle maintenance to protect water quality. The Borough enforces a modern storm water management ordinance.

The Borough has an underground storm sewer system in many areas. As this system ages, there will be a need to make repairs and improvements. Recently problems with a large storm water pipe arose in Victory Park.

The Borough operates a wastewater treatment plant, which is located just south of the Borough border at the end of 1st Avenue. The plant has a treatment capacity of one million gallons per day. However, because of water pollution control limitations, the plant has an effective average monthly flow capacity under its permits of 700,000 gallons per day. The Borough has been working over the past few years to reduce the amount of inflow and infiltration into the system after heavy rains. These efforts have included identifying leaks and requiring that unauthorized connections to sewer lines be removed, such as from drain pipes.

TRANSPORTATION PLAN

GOAL Manage streets to improve traffic safety, promote use of public transit, provide for safe pedestrian and bicycle travel, and moderate traffic speeds, while also providing room for street trees and greenery.

Objective: Make Royersford more bicycle and pedestrian-friendly and seek safe connections to the stores, schools, parks and trails within Royersford and neighboring municipalities.

Objective: Promote expanded use, availability and frequency of service of public transit.

This Plan is intended to allow wider options in mobility, by promoting bicycling, walking and public transit.

Strategy T.1. – Over the long-term, seek to re-establish commuter rail service to Royersford.

Commuter rail service could make Royersford more desirable as a business and residential location, and could reduce traffic congestion along the Route 422 corridor. Rail service also would serve households that do not have access to a car, or that have more drivers than vehicles.



Regular passenger rail service currently stops at Norristown. Light rail service is currently planned by SEPTA to be extended to King of Prussia from Norristown.

One alternative would be to electrify the existing tracks, but the costs would likely be too high. A second alternative would use diesel-powered trains. It is possible that the service could be operated by another railroad that already has rights to use the Norfolk-Southern tracks.

The Montgomery County Comprehensive Plan recommends this passenger rail service extension to Royersford and Pottstown over the long-term. To improve chances for funding, efforts are needed to have the project added to the DVRPC's Long-Range Transportation Plan. However, plans for this service have not actively advanced because of a lack of funding and higher priorities in the SEPTA system.

In 2009, the Montgomery County Planning Commission sponsored the preparation of the Norristown Line Service Extension Study. The Study envisioned use of the historic train station on Main Street in Royersford, which is privately owned. The Study proposed use of a portion of the right-of-way owned by Norfolk-Southern for commuter parking, as well as possible adjacent land that is currently vacant.

The project would face challenges because of the amount of freight rail traffic on the rail lines. Norfolk-Southern owns the tracks and could refuse to cooperate or could constrain the scheduling of passenger rail service. To reduce conflicts, one alternative would be to construct a third set of tracks along portions of the corridor, which make it easier for trains to pass each other.

The Plan proposes one long-range transit improvement in the area - the extension of passenger rail service along the Schuylkill River corridor from Norristown to Pottstown, and possibly to the Reading area. This project has been studied for decades, but has not moved forward because of a lack of funding.

Strategy T.2. – Expand public transit services throughout the area.

The public bus service is not currently as convenient as is needed to reach rail transit stations, human services, and all of the employment centers in the region. The nearest stations of the commuter rail system and Norristown High Speed Line are in Norristown. The typical bus ride between Main Street in Royersford and Norristown is a 70 to 95 minute trip during rush hours. The typical bus ride between Main Street in Royersford and the King of Prussia Mall is a 52 minute trip.

There are often difficulties in addressing "the first mile" and "the last mile" of travel by public transit. This is because many persons need to walk or bicycle at least a mile from their home to a transit stop, and from their transit stop to their job or other destination. These distances can be particularly burdensome in bad weather, or for people with limited mobility. The time to walk to and from a station can also discourage use of public transit, particularly early in the morning. Some Transportation Management Associations help address this issue by providing shuttle-van services from train stations to nearby employers.

Strategy T.3. – Seek additional bus passenger shelters.

A few additional bus shelters are recommended along Main Street, with benches, security lighting and trash receptacles. The shelters should be placed at locations where persons commonly wait for buses, such as each side of the 4th and 10th Avenue intersections. Where the right-of-way is not wide enough, an adjacent property should be asked to provide an easement. If the Borough allows an off-premises advertising sign on a shelter, a private company



is typically willing to pay to install and maintain the shelter. Illuminated signs on shelters could be limited to business zoning districts. Only one commercial sign should be allowed per shelter. The intensity of lighting of any sign should be carefully controlled, and electronically changing advertising signs should not be allowed. Accessible sidewalk connections are needed to reach transit stops.

SEPTA has prepared Bus Stop Design Guidelines, which should be considered. The photo to the right shows a new shelter design being used in Philadelphia. Montgomery County Planning Commission is also preparing a set of bus shelter design guidelines that should be considered.

Strategy T.4. – Incorporate “Complete Streets” policies when planning transportation improvements, particularly along Main Street.

Main Street east of the bridge as of 2015 experienced an average daily traffic volume of 18,400 vehicles a day, according to a Delaware Valley Regional Planning Commission count. Additional efforts are needed to reduce speeding and to make it easier for pedestrians and bicyclists to cross the street. There is limited right-of-way to make additional improvements beyond the streetscape improvements that have already been completed.

Traffic law enforcement and police visibility would assist in managing Main Street traffic. This includes enforcement of the signs that direct motorists to stop for pedestrians in crosswalks. Royersford should also support statewide efforts to allow municipal police to use radar for speed enforcement.

The “Complete Streets” concept considers all of the different users of a public right-of-way, as opposed to placing the priority on motor vehicle movements and higher speeds. Complete Streets considers the needs of pedestrians, persons in wheelchairs, bicyclists and public transit users.

As seen on the graphic below, curb extensions can be used to reduce the distance of street that pedestrians must cross at intersections. They can be used along both commercial and residential streets. This type of design also helps to reduce speeding by vehicles that are turning at intersections. These curb extensions can be designed with a curb radius that does not interfere with buses, trucks and emergency vehicles that are turning. Curb extensions would be particularly valuable along wide mostly-residential streets, such as portions of Church Street.

As seen on the sketch to the right, curb extensions can also help to prevent illegal parking near fire hydrants and street corners.

Highly visible pedestrian crosswalks should be used. A high priority must be placed upon curb ramps that meet standards for wheelchairs. Shelters and benches should be provided for transit riders.

“Traffic calming” techniques should also be used to reduce speeding, and to also discourage excessive amounts of through-traffic from traveling along residential streets. In addition to curb extensions, these



Curb Extension Example

methods could include one way streets, additional stop signs, highly visible raised crosswalks, and re-timing of traffic signals.

A municipality can also install well-marked speed tables on local residential streets where speeding occurs. These speed tables are less abrupt than the speed humps of the past.

Strategy T.5. – Make the Royersford Area safer and more convenient for bicyclists and pedestrians.

Vehicle-pedestrian accidents typically cause much less serious injuries at low speeds.

Additional pedestrian crosswalks should be made highly visible and well-illuminated.

Where sidewalks are being replaced, one alternative would be to encourage concrete along the main pedestrian walkway, and then pervious brick pavers or grass between the curb and the main walkway. The concrete walkway works well for snow shoveling and is safer for wheelchairs and persons wearing high heels.

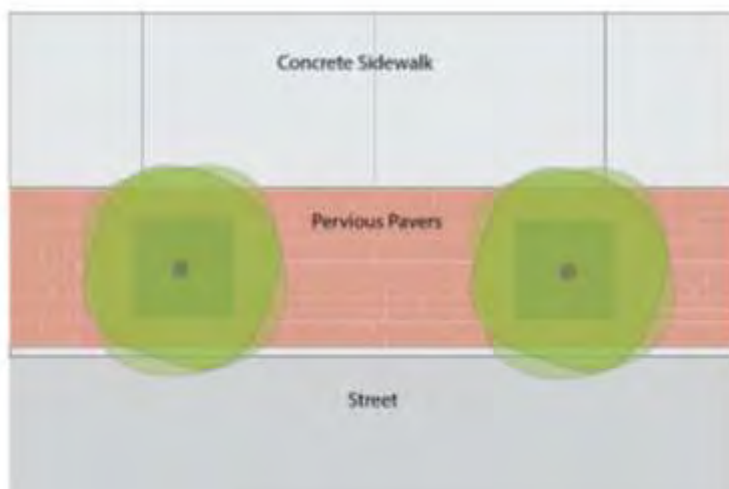
If un-mortared pervious pavers or grass are used along the curb, it would allow easier access to underground utilities, because the pavers can be put back in place after the work is done. Also, these pavers allow water and air to reach the roots of street trees, and reduce problems from tree roots damaging sidewalks.

Many municipalities also pay the costs of needed upgrades of ADA ramps at street intersections, which may utilize CDBG funds or other grants.

Continued efforts are also needed to upgrade wheelchair ramps at street intersections and to add warning strips for persons with limited eyesight.

Strategy T.6. – Provide additional locations for bicycle parking.

The Borough, School District, apartment complexes and business owners should install additional bicycle racks. The Borough can also use zoning to require major new developments to provide bike racks or other suitable facilities for the securing of bicycles.



Pervious Paver Use

White lines are helpful along the sides of wide streets to leave space for informal bike lanes. Regular street sweeping is valuable along the shoulder so that there is not a build-up of stones or debris that create hazards for bicyclists.

Strategy T.7. – Seek additional park and ride locations in the region to encourage carpooling and public transit use.

Park and ride lots can encourage persons to share rides or to use public buses. Carpooling can result in the most energy-efficient form of transportation. Federal funds are often available for the development of new park and ride lots. Also, park and ride lots may be provided through agreements to use currently underused portions of parking lots of large commercial centers in the region.

Strategy T.8. – Address various traffic problems in a cost-effective manner, including upgrading signals.

Federal or state funding should be sought for upgrading of the electronics of traffic signals. This should include an “adaptive” system that allows timing of traffic signals to be automatically adjusted based upon actual traffic at various intersections, to allow for smoother traffic flows. This system uses overhead video detection cameras.

Where a stretch of street is timed to allow a motorist to avoid red lights if they travel at a certain speed, that speed should be noted on signs. The goal is to convince motorists that they will not save time if they drive at a faster speed, because they will need to constantly stop for red lights.

In 2016, PennDOT announced they will be funding upgrades to certain traffic signals along Main Street and Township Line Road to smooth traffic flows.

The County Comprehensive Plan proposes one major road improvement in the region. This would be the widening of Township Line Road from Route 422 to Cemetery Road, including the addition of turn lanes and shoulders.

Strategy T.9. - Consider limiting heavy trucks along certain residential streets.

There are concerns about tractor-trailer trucks and other heavy trucks using residential streets such as Church and Chestnut Streets. One option would be for the Borough to establish truck weight limits on selected residential streets that are not State roads and that are less suitable for the traffic.

PUTTING THIS PLAN INTO ACTION

GOAL Continually work to put this Plan into action—through a program of updated planning and many short-term actions within a long-range perspective.

Objective: Continue work to carry out this Plan through a Comprehensive Plan Implementation Committee.

Objective: Promote substantial citizen input, including making sure residents are well-informed about community issues and have plentiful opportunities to provide their opinions on Borough matters.

Objective: Coordinate transportation, development and infrastructure across municipal borders as appropriate, and seek out opportunities for additional shared municipal services.

This section describes methods that should be considered to implement this Plan, which should actively involve a Revitalization Committee and the Borough Planning Commission. This Plan will need to be reviewed periodically and, if necessary, updated to reflect changing trends.

ROYERSFORD BOROUGH CANNOT IMPLEMENT THIS COMPREHENSIVE PLAN ALONE. INVOLVEMENT IS NEEDED BY MUNICIPAL OFFICIALS, RESIDENTS, ORGANIZATIONS, BUSINESSES, INSTITUTIONS, PROPERTY OWNERS AND MANY OTHER GROUPS.

Royersford has been working to maximize use of the web, email and social media to regularly update residents with information that will help spur public interest, enthusiasm and involvement. Opportunities for citizen involvement should also be highlighted through the newspaper, newsletters, posters and other media. The Borough has installed an electronic sign at each end of Main Street to highlight matters of public interest.

Strategy A.1. – Update the Zoning Ordinance.

The Zoning Ordinance is the primary legal tool to regulate the uses of land and buildings. The Zoning Ordinance and Map should be updated to be generally consistent with this Comprehensive Plan, to modernize standards and to address public concerns. The Zoning Ordinance includes a Zoning Map that divides the Borough into different zoning districts. Each district permits a set of activities and establishes a maximum density of development. Zoning also controls the following:

- the heights of buildings,
- the percentage of a lot that may be covered by buildings and paving,
- the minimum distances that buildings may be placed from streets and property lines,
- the minimum size of lots,
- the maximum sizes and heights of signs, and
- the protection of important natural features, such as setbacks from creeks.

Strategy A.2. – Update the Subdivision and Land Development Ordinance (SALDO).

The SALDO mainly regulates the creation of new lots, the construction of new streets by developers, and the site engineering of new multi-family, commercial, industrial and institutional buildings.

Strategy A.3. – Continue to emphasize the Property Maintenance Code and Rental Inspection Codes.

The Borough's Property Maintenance Code is a valuable tool to make sure that buildings are maintained to a minimum level and to address problem properties before they become blighted. The Borough also enforces an ordinance requiring the licensing and periodic inspections of housing units that are rented, as described in the Land Use and Housing section.

Strategy A.4. – Consider adopting an Official Map.

The State Municipalities Planning Code grants each municipality with the authority to adopt an "Official Map." An Official Map can designate proposed locations of new streets, street widenings, intersection improvements, municipal uses and future parks and trails. The Map may cover the entire Borough or only certain areas. This process may be particularly useful, for example, to reserve right-of-way for a future intersection widening or trail connection.

Once an Official Map is officially adopted by Borough Council, then the Borough is provided with a limited amount of authority to reserve land for the projects on the Map. If the land affected by the proposed project is proposed for development, then the Borough would have up to one year to either purchase the land for its fair market value or decide not to go forward with the project. This one year period is intended to provide time to raise funds to acquire the land, and avoid lost opportunities. If this one year period is not in effect, a person could obtain a building permit almost immediately in many cases and construct a building that could obstruct an important project. An Official Map also serves to provide notice to property owners about the Borough's future plans, which increases the chance that a proposed project can be incorporated into a developer's site design.

Strategy A.5. – Plan for major capital improvements.

"Capital" improvements are projects involving a substantial expense for the construction or improvement of major public facilities that have a long life span and that are not annual operating expenses. Examples of capital projects include major street improvements, acquisition of parkland, and construction or expansion of buildings.

The identification of projects should initially be identified and then be considered in more detail, with more refined cost estimates, and then be regularly tied into the annual budgets, borrowing plans and grant applications. A Capital Improvements Program (CIP) should prioritize the projects and identify possible funding sources. Establishing a schedule of major street, streetscape, and sanitary sewage and storm sewer reconstruction projects will help allow coordination with underground construction projects by utility companies. This coordination minimizes the need to cut into a street after it has been recently repaved.

Through a CIP, many different projects can be combined into a single bond issue, which avoids the high administrative costs of multiple bond issues. A CIP also can allow the Borough to carefully time any bond issues to take advantage of the lowest interest rates.

Strategy A.6. – Seek additional grants to meet community needs.

The Borough should continue to identify Federal, State and County grant opportunities to address community needs. This should include highlighting grant deadlines for major programs a few months in advance so that there is time to complete a quality grant application. The Appendix of this Plan lists a large number of federal and state funding programs for community and economic development.

Strategy A.7. – Increase inter-governmental cooperation efforts, including holding periodic joint meetings with other municipalities.

Inter-governmental cooperation can decrease the costs of many services, while also improving the quality of services. The Pennsylvania Inter-governmental Cooperation Act provides broad and flexible authority to organize joint efforts as municipalities deem appropriate. In general, the Act allows two or more municipalities to jointly accomplish anything that an individual municipality is allowed to do. In most cases, the Act is carried out through the adoption of an ordinance by each municipality to formalize an agreement. One option involves one municipality providing a service to a second municipality through a contract.

A Council of Governments (COG) can emphasize joint purchasing among the municipalities. A COG may provide the foundation for expanded discussion and cooperation among the municipalities on planning and transportation matters. These same concepts can also apply between a municipality and a school district. For example, a municipality may agree to plow snow from school parking lots and driveways in return for free municipal use of some school facilities.

The toughest issue in joint municipal services is determining a fair allocation of costs. The State Department of Community and Economic Development has several publications that can assist in these issues.

The following types of inter-governmental cooperation efforts should be considered:

- **Shared Services and Shared Staff-persons** – Shared staff-persons can be particularly beneficial for specialized staff, such as different types of construction inspectors. Two or more municipalities could hire the same person to do the same job, with certain hours assigned to each municipality. This allows each municipality to hire a highly qualified person who is working full-time, as opposed to each trying to find a part-time person. This can reduce turnover, which reduces training costs and reduces the potential for mistakes being made by inexperienced staff. In addition, sharing staff makes staff-persons available during more hours of the day, which is beneficial to residents and business-persons. It also provides greater coverage during periods of illness or vacation.
- **Shared Recreation Programs** – When municipalities share and coordinate recreation programs, it greatly increases the types of programs that can be offered. For example, one municipality may offer a gymnastics program, while another municipality offers basketball programs. Residents of each municipality could be allowed to participate in each of those programs at the same cost per person as a municipal resident. There has been great success in parts of Pennsylvania with multi-municipal recreation programs, where each municipality contributes funds towards one set of programs. These programs are often organized in partnership with a school district.
- **Joint Yard Waste Collection and Composting** – This is a very cost-effective way of handling the disposal of yard waste, which requires significant land and expensive equipment.

- **Joint Purchasing** – Joint purchasing can reduce the costs to each municipality of preparing bid documents and legal ads. It also can result in lower costs because larger volumes are being purchased, or a larger service area is being bid. The State also has arrangements that allow municipalities to "piggyback" upon State purchases. State law allows a similar process of "piggyback" bids between municipalities and a county. The State Intergovernmental Cooperation Act includes rules for joint municipal purchasing. Under State law, one municipality can be the lead municipality in purchases, without requiring multiple municipalities to seek bids.
- **Sharing of Equipment** – This method of sharing is most beneficial for expensive equipment that is needed by each municipality for only portions of the year. The equipment could be jointly owned, or be owned by one municipality and leased to other municipalities. Alternatively, an arrangement could allow trading of equipment.
- **Incentives for Intergovernmental Cooperation in Grants** – Many competitive State grant programs provide preference to projects that involve cooperation between more than one municipality. Therefore, if two similar projects are in competition for a grant, and one involves cooperation between two municipalities, the two municipality project is most likely to be funded.

ACTION PROGRAM

The following table summarizes the major recommendations of this Plan, along with recommended priorities. The timing of each recommendation is listed, as well the entities which should have the primary responsibility to carry out the recommendation. Additional information for each strategy is included in the main body of this Plan. Abbreviations for the agencies and entities are listed as follows:

Abbreviations of Responsible Agencies/Groups:

Adj. Mun.	=	Adjacent Municipalities
B. Council	=	Mayor and Borough Council
COG	=	Council of Governments
Con. Dis.	=	Montgomery County Conservation District
DVRPC	=	Delaware Valley Regional Planning Commission
Historical Society	=	Spring-Ford Area Historical Society
MCD	=	Montgomery County Commerce Development
MCHCD	=	Montgomery County Department of Housing & Community Development
MCPC	=	Montgomery County Planning Commission Staff
PaDCNR	=	Pennsylvania Department of Conservation and Natural Resources
PC	=	Borough Planning Commission
PennDOT	=	Pennsylvania Department of Transportation
PHFA	=	Pennsylvania Housing Finance Agency
PHMC	=	Pennsylvania Historical and Museum Commission
RC	=	Royersford Revitalization Committee (Proposed)
SEPTA	=	Southeastern Pennsylvania Transportation Authority
Staff	=	Borough Staff
TMA	=	Greater Valley Forge Transportation Management Association
ZHB	=	Zoning Hearing Board

HISTORIC PRESERVATION PLAN

In the left-hand column listing responsible entities, the entity that is proposed to have the lead responsibility is boldfaced.

Recommended Strategy.	Priority: H = High M = Med L = Low	Timing	Prime Responsibilities (see abbreviations above)
H.1. Establish zoning regulations to require pre-approval of partial or complete demolitions or removal of porches and other architectural features from the most important historic buildings.	H	Short-range	B. Council, PC, Staff, Historical Society
H.2. Offer additional zoning incentives to promote the rehabilitation of important older buildings. This could include allowing certain uses within restored historic buildings that otherwise would not be allowed in the zoning district.	L	Short-range	B. Council, PC, Staff
H.3. Use public education to promote interest in historic rehabilitation, including posting links to information on the Borough website.	L	Continuous	Historical Society, Staff
H.4. Seek additional funding for preservation, such as sources of low-interest loan funding for historic rehabilitation. Publicize the availability of federal tax credits, which are offered for certain types of historic rehabilitation.	L	Continuous	Staff, MCD, banks

LAND USE AND HOUSING PLAN

Recommended Strategy	Priority H = High M = Med L = Low	Timing	Prime Responsibilities (see abbreviations)
L.1. Update the Borough's zoning and subdivision ordinances to carry out the Land Use and Housing Plan. Among other matters, this will require careful controls on potentially hazardous or nuisance-causing uses.	H	Short-range	PC, B. Council, Staff
L.2. In the Downtown, emphasize a mix of retail businesses, restaurants, service businesses and upper story apartments.	H	Continuous	B. Council, Staff
L.3. Establish a Main Street Revitalization Program in the Downtown, including a Main Street Manager. Cooperate with prospective Downtown businesses in applying for Economic Development Liquor Licenses.	H	Continuous	B. Council, Staff, DCED, Adj.Mun., RC, Down-town Merchants
L.4. On the Royersford Industrial Park track and adjacent areas, promote businesses and redevelopment that is compatible with adjacent housing.	H	Continuous	B. Council, Staff, MCD
L.5. Continue the best features of older development into new and infill development, including using alleys for vehicle access, requiring sidewalks and street trees, requiring front yard setbacks similar to nearby older buildings, and promoting front porches.	H	Continuous	PC, B. Council, Staff
L.6. Promote housing rehabilitation and code enforcement. Help link residents with available resources, including organizations providing housing financing (such as assistance with closing costs), homebuyer counseling assistance, and energy conservation improvements.	M	Continuous	B. Council, Staff, MCHCD, PHFA
L.7. Manage Downtown parking so that the most convenient spaces are available for high turnover by customers.	M	Continuous	B. Council, RC

NATURAL FEATURES PLAN

Recommended Strategy	Priority H = High M = Med L = Low	Timing	Prime Responsibilities (see abbreviations)
N.1. Carry out a full range of sustainability initiatives with businesses and other entities, including installing bicycle racks, seeking a vendor and a location for a bicycle sharing business, promoting composting, increasing use of solar energy, making sure Borough ordinances are streamlined in allowing solar energy use, and providing convenient parking spaces in parking areas for car sharing services.	H	Continuous	B. Council, PC, Staff, Property owners.
N.2. Carefully manage stormwater and other water resources, to improve water quality, promote groundwater recharge, and comply with Federal MS4 requirements.	H	Continuous	Staff, B. Council, PC, Con. Dis., property owners.
N.3. Minimize the disturbance of steeply sloped lands, including reviewing development regulations that protect them.	M	Continuous	PC, B. Council, Staff
N.4. Carefully manage flood prone areas.	M	Continuous	Staff, B. Council, PC, Con. Dis., property owners.
N.5. Improve the Schuylkill River corridor as a scenic and recreational asset. Require building and paving setbacks from the River to protect water quality and fishing habitats. Encourage landowners to plant and maintain native vegetation and native trees along creeks.	M	Short-range	Staff, B. Council, PC, Property owners
N.6. Emphasize street tree plantings. Minimize unnecessary removal of trees during construction.	M	Continuous	Public Works, B. Council, PC

COMMUNITY FACILITIES AND SERVICES PLAN

Recommended Strategy	Priority H = High M = Med L = Low	Timing	Prime Responsibilities (see abbreviations)
C.1. Seek funding to carry out needed parks and recreation projects over various years, including completion of the Riverfront Trail.	H	Continuous	B. Council, Riverfront property owners, Donors, PADCNR
C.2. Work with the School District to coordinate plans for growth and recreation.	M	Continuous	Staff, School District
C.3. Continue to provide high quality police protection and seek funding for additional security cameras.	H	Mid-range	B. Council, Staff, Police
C.4. Continue to provide high-quality fire and emergency medical services, with joint training and cooperation between providers. Consider incentives and recognition to recruit and retain volunteers.	H	Continuous	Fire Dept., Friendship Ambulance, B. Council, Staff, Co. Emergency Management
C.5. Continue to provide quality Public Works facilities.	H	Mid-range	Staff, B. Council

TRANSPORTATION PLAN

Recommended Strategy	Priority H = High M = Med L = Low	Timing	Prime Responsibilities (see abbreviations)
T.1. Over the long-term, seek to re-establish passenger commuter rail service to Royersford. Over a mid-range period, seek improved public bus service.	M	Long-range	SEPTA, PennDOT, DVRPC, MCPC, TMA, B. Council
T.2. Expand public transit services throughout the area.	M	Mid-range	SEPTA, TMA, DVRPC, MCPC
T.3. Seek additional bus passenger shelters.	M	Continuous	Staff, SEPTA, B. Council, Private companies
T.4. Carry out a “Complete Streets” policy when planning transportation and circulation improvements.	M	Continuous	Staff, PC, B. Council, PennDOT, MCPC
T.5. Make the Royersford Area safer and more convenient for bicyclists and pedestrians, including through greater use of highly visible crosswalks, “Walk” signals and bulb-out curb extensions.	H	Continuous	PC, PennDOT, Staff, MCPC, B. Council, Adj. Municipalities.
T.6. Provide additional locations for bicycle parking.	L	Continuous	B. Council, PC, Property owners
T.7. Seek an additional park and ride lot in the region to promote carpooling and transit usage.	L	Continuous	PennDOT, DVRPC, Adjacent Municipalities, shopping center owner, TMA
L.8. Address traffic problems in a cost-effective manner, including upgrading of traffic signals.	M	Continuous	PennDOT, DVRPC, Staff

Recommended Strategy	Priority H = High M = Med L = Low	Timing	Prime Responsibilities (see abbreviations)
L.9. Consider limiting heavy trucks along certain residential streets.	M	Continuous	B. Council, Borough Engineer, Staff

PUTTING THIS PLAN INTO ACTION

Recommended Strategy	Priority H = High M = Med L = Low	Timing	Prime Responsibilities (see abbreviations)
A.1. - Update the Zoning Ordinance to carry out this Plan.	H	Short-range	PC, B. Council, Staff
A.2. - Update the Subdivision and Land Development Ordinance.	M	Short-range	PC, B. Council, Staff, Bor. Eng.
A.3. - Continue to emphasize the Property Maintenance Code and the Rental Inspection Code.	H	Continuous	Staff
A.4.- Consider adopting an "Official Map" to seek to reserve land that is expected to be needed to improve existing intersections or other public improvements.	M	Short-range	PC, B. Council, Staff
A.5. - Plan for major capital improvements.	H	Continuous	Staff, B. Council, MCPC
A.6. - Seek additional grants to meet community needs.	H	Continuous	Staff, MCPC, CCDCD, State agencies.
A.7. - Increase inter-governmental cooperation efforts, including holding periodic joint meetings with other municipalities.	M	Continuous	Staff, B. Council, PC, Adj. Municipalities

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APPENDICES

The Background Studies and Maps provide a foundation for decision-making, by analyzing existing conditions and trends.

A. REGIONAL SETTING AND COUNTY PLANS

Regional Influences

Royersford is located in western Montgomery County, along the Schuylkill River between Limerick Township and Upper Providence Township. Royersford is in the middle of a major growth area, which was spurred by the completion of the Route 422 Expressway in the 1980s. This regional growth was aided by the availability of substantial public wastewater capacity and developable land.

Montgomery County is the most populous county in the Delaware Valley and one of the most affluent in Pennsylvania. The County is a regional employment center with a diverse and well-balanced economic base.

Limerick and Upper Providence Townships have seen most of the region's growth, while Royersford had limited vacant land. Royersford is in a very strategic location, with excellent access to two nearby interchanges of the Route 422 Expressway, at Township Line Road and Lewis Road. Route 422 provides connections to the King of Prussia area, the Route 202 corridor, the Schuylkill Expressway and the Pennsylvania Turnpike. Royersford has potential to serve the residents of the surrounding area, as well as offering an alternative for persons wishing to live in a traditional town or historic homes, instead of a suburban environment.

As open land in the region becomes more scarce, there will be increased pressures for "infill development," re-development of underused sites, and re-use of older buildings.

Montgomery County Comprehensive Plan

The Montco 2040: A Shared Vision Plan was adopted in 2015 and provides overall policies for the County. A volume of background studies was completed in 2014. The County Plan emphasizes ways to promote use of transit, walking and bicycling. An emphasis is placed upon revitalizing downtowns, including promoting a mix of uses with entertainment offerings that will attract and retain young creative workers to older communities. The Plan also promotes compatible mixtures of uses, which may allow people to walk to work or to do some of their shopping.

The Future Land Use Plan categories downtown Royersford as a "Town Center," and most of the rest of Royersford as a "Town Residential" area. The Town Centers are primarily intended to have a mix of retail, office, day care, entertainment and residential uses. Where a green space does not exist in a downtown, it should be added, and new surface parking should be placed behind buildings.

The Town Residential areas are intended to have a mix of housing types, provided there is compatibility with existing housing. Use of rear alleys is encouraged to allow sidewalks to be safer for use by children, and to allow green front lawn or front porches.

The area around the Route 422 interchange is identified as a "Community Mixed Use" area, which include provisions for major retail and office centers, with the potential of some residential uses as a transitional use. The Schuylkill riverfront is recommended to

be preserved as “Open Space,” while the other areas surrounding Royersford are categorized as “Suburban Residential Areas,” which are intended to have a lower density on average than the Town Residential Areas.

The Plan promotes various types of inter-municipal cooperation, including joint recreation programs. To promote public health, the Plan seeks expanded access to fresh fruits and vegetables and other healthy foods, particularly for residents who do not live near large supermarkets.

The Plan seeks to expand the amount of affordable housing in the County, as well as housing designed to serve the needs of older persons and persons with disabilities.

The Plan seeks that “infill development” be encouraged on vacant and underused land within existing developed areas. This development should be designed to be compatible with adjacent uses, and preferably promote walkable neighborhoods.

Walk Montco Study

The 2016 Walk Montco Walkability Study by the Montgomery County Planning Commission seeks to promote increased walking in order to improve public health, reduce obesity, reduce energy consumption, reduce travel costs, serve young and older persons who do not drive, and support downtown revitalization. The Study also recommends ways to make walking safer and more convenient. This includes “traffic calming” methods that function to reduce the speeds of traffic, particularly where there are pedestrian crossings.

Royersford is recognized as a highly walkable community. The intent is to extend some of those features into adjacent suburban areas, including through the construction of sidewalks or pathways and through improved crosswalks. The Study recommends sidewalks on both sides of most streets. Where the densities are too low to justify sidewalks on both sides, the Study recommends a sidewalk on one side and shoulders that are walkable on both sides of the street.

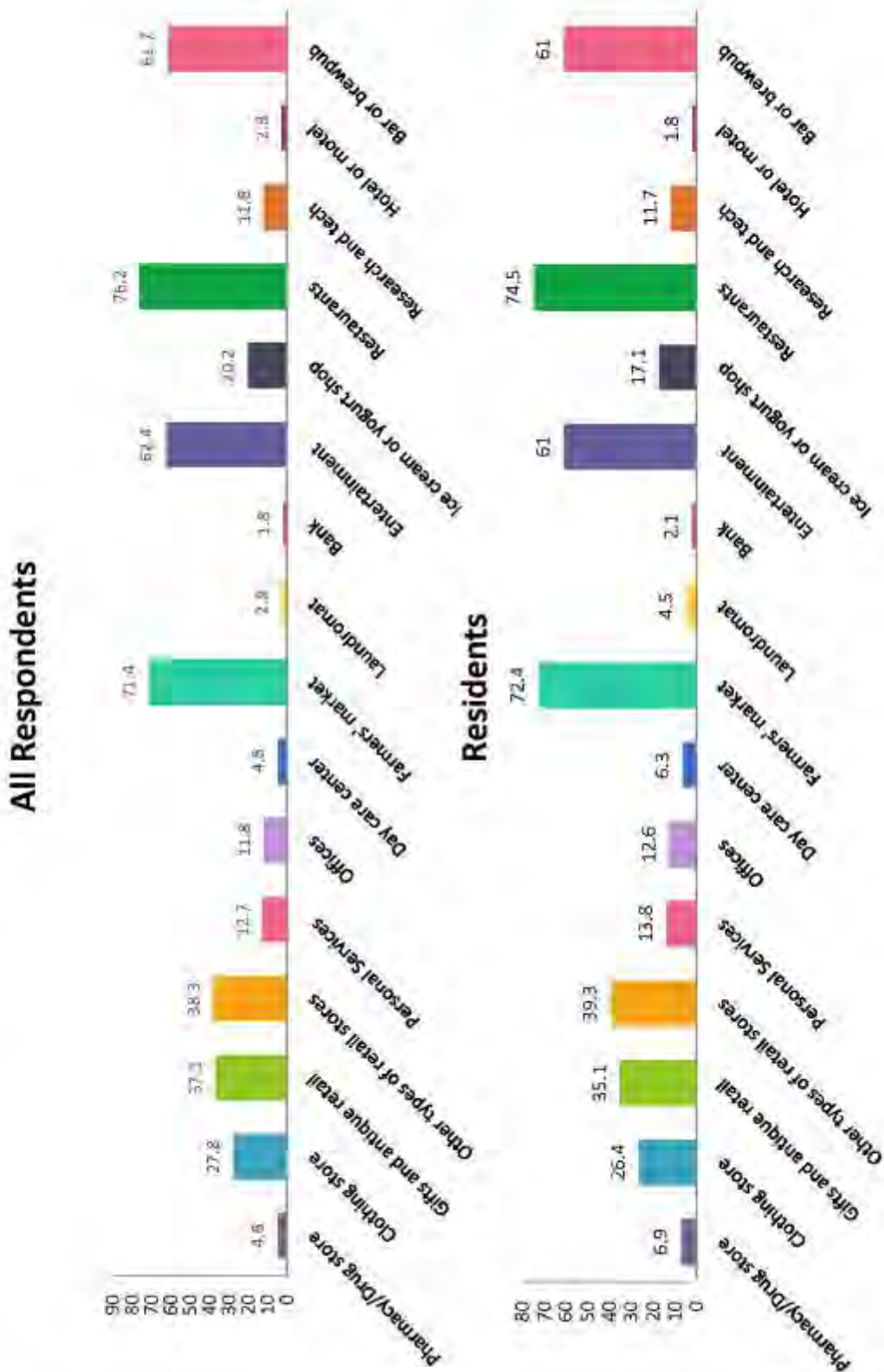
Another objective is to make it possible to children to safely walk to school, which is part of the “Safe Routes to School” approach. This accessibility is not only important during school hours, but also for after-school activities when buses may not be available.

The study also includes maps and illustrations of how improvements can be made to a cross-section of different situations in the County.

To promote walking in commercial areas, the Study recommends seeking a continuous line of active storefronts with display windows along main streets. Street trees are encourage to make walking more enjoyable, particularly on hot summer days.

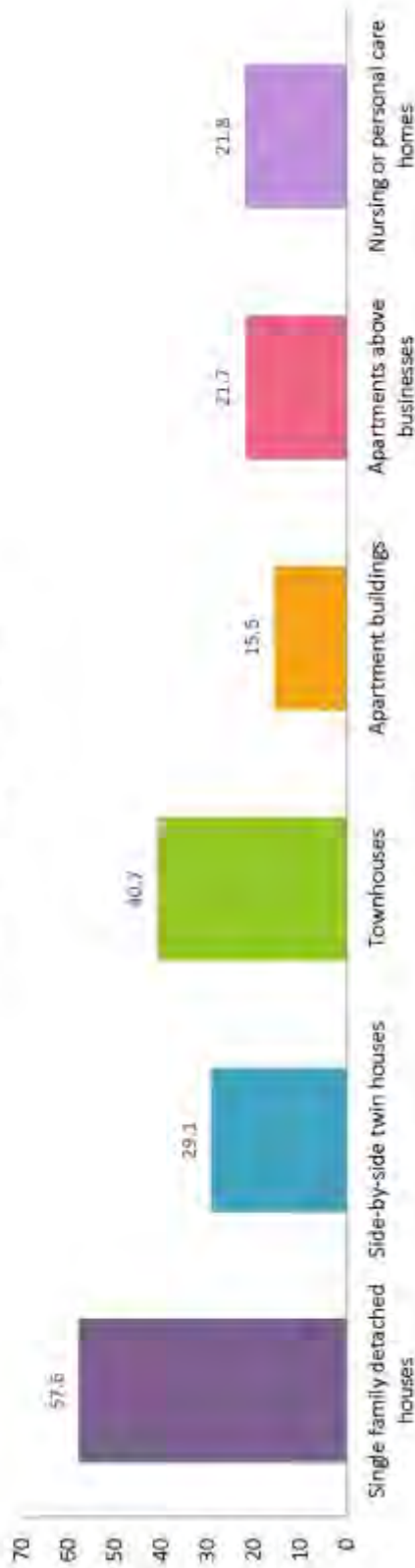
B. COMMUNITY SURVEY RESULTS

Please select the top five types of businesses you would most like to see attracted to or expanded upon in Downtown Royersford and immediately adjacent areas.

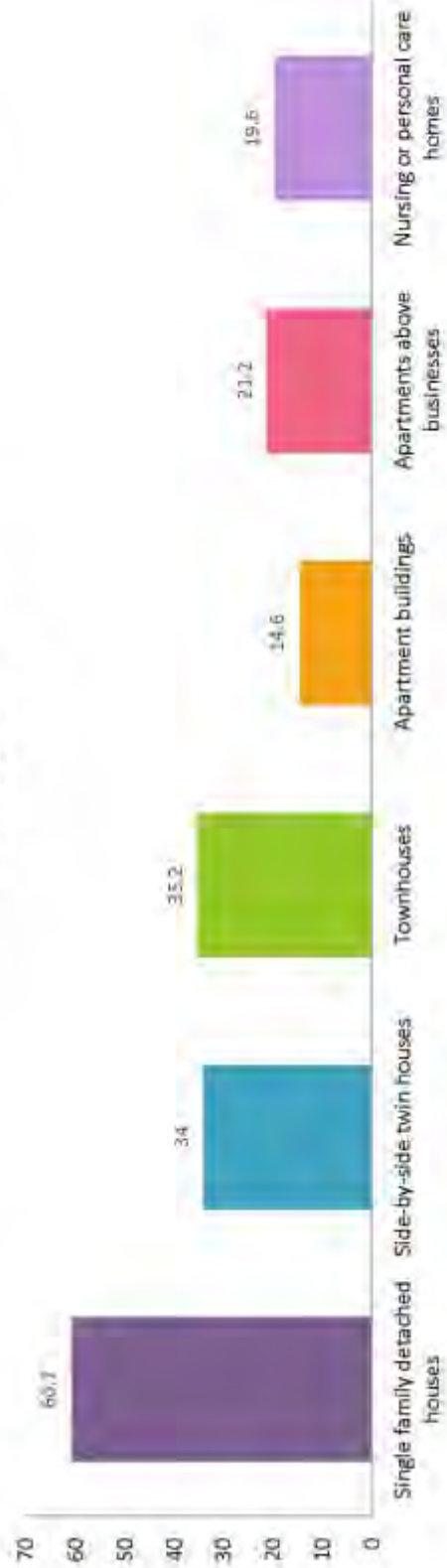


Please select the top two types of new housing that you believe are the most needed in the Borough.

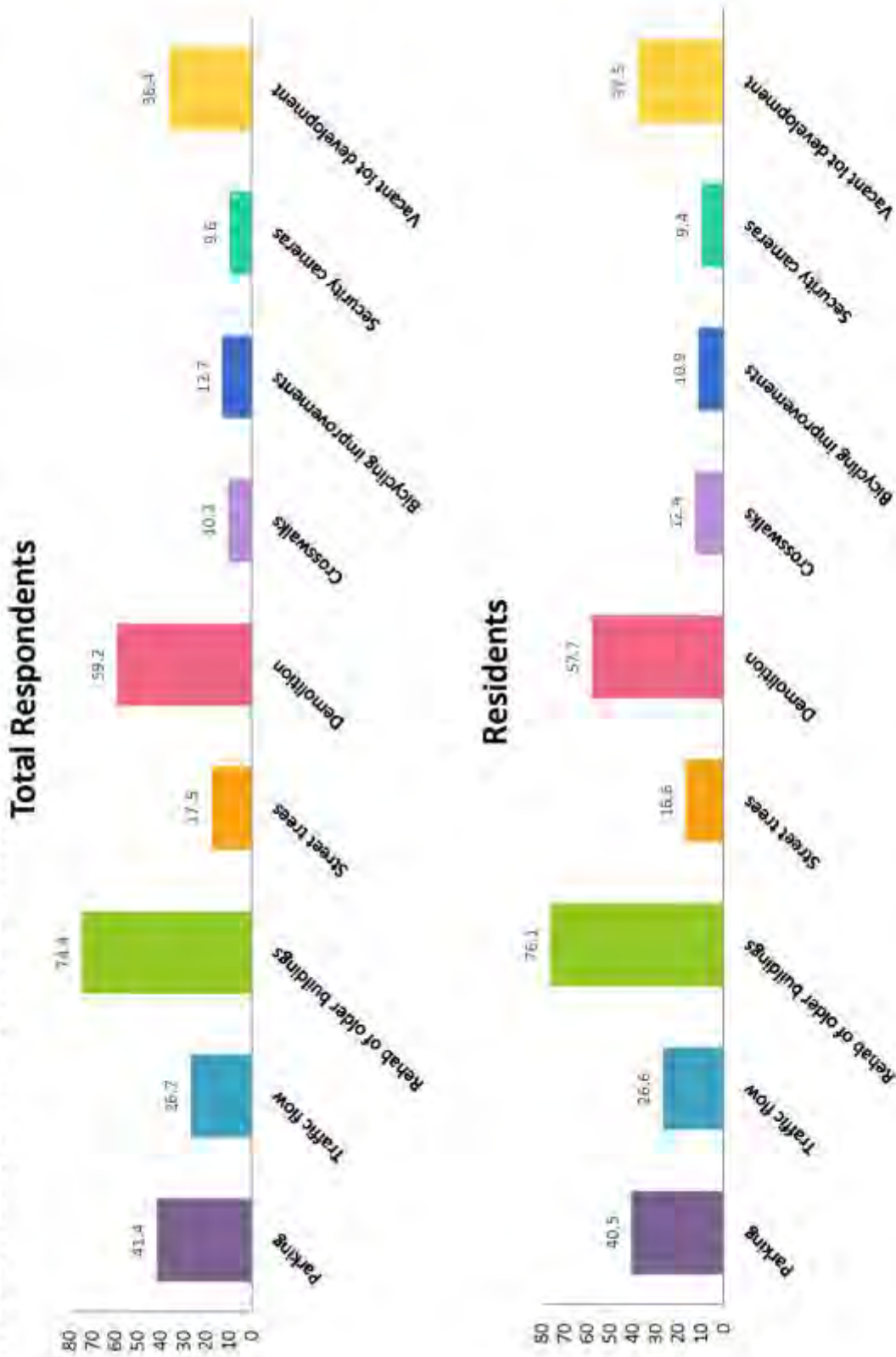
Total Respondents



Residents

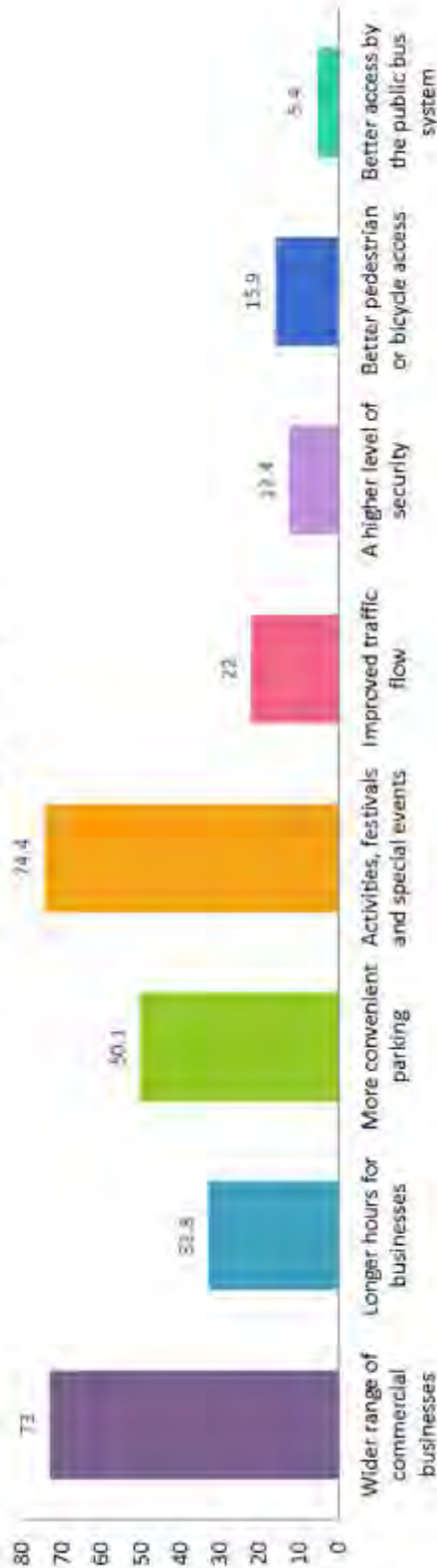


Please select the top three types of improvements you believe are most needed in the Downtown.

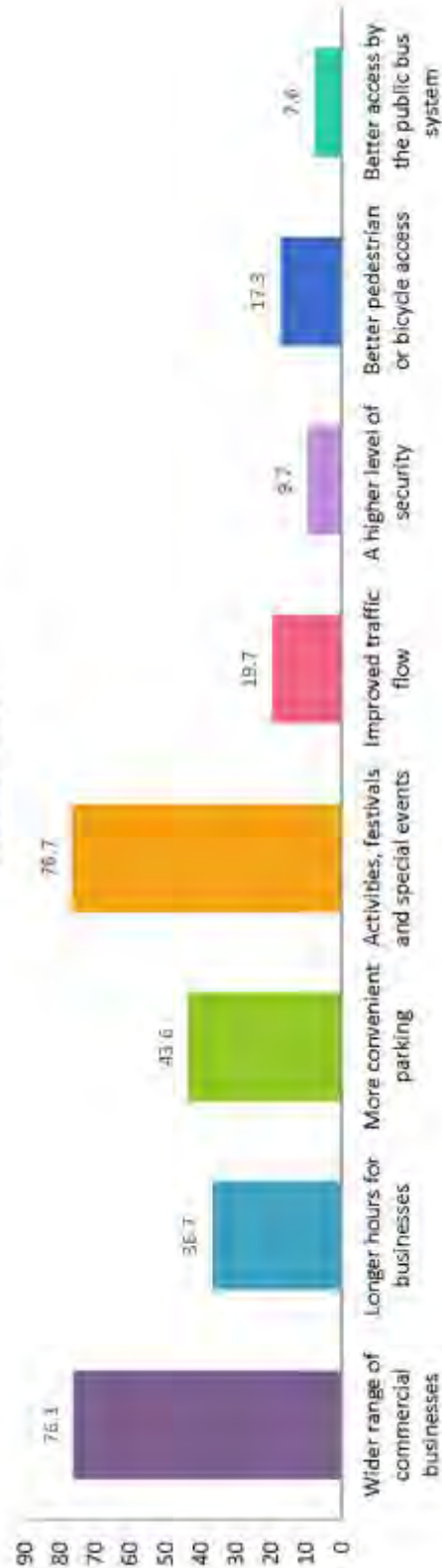


Please select three of the following that would be most valuable to cause you to do more of your business in the downtown.

Total Respondents



Residents



Which two types of parks and recreation improvements do you believe should be emphasized in Royersford?

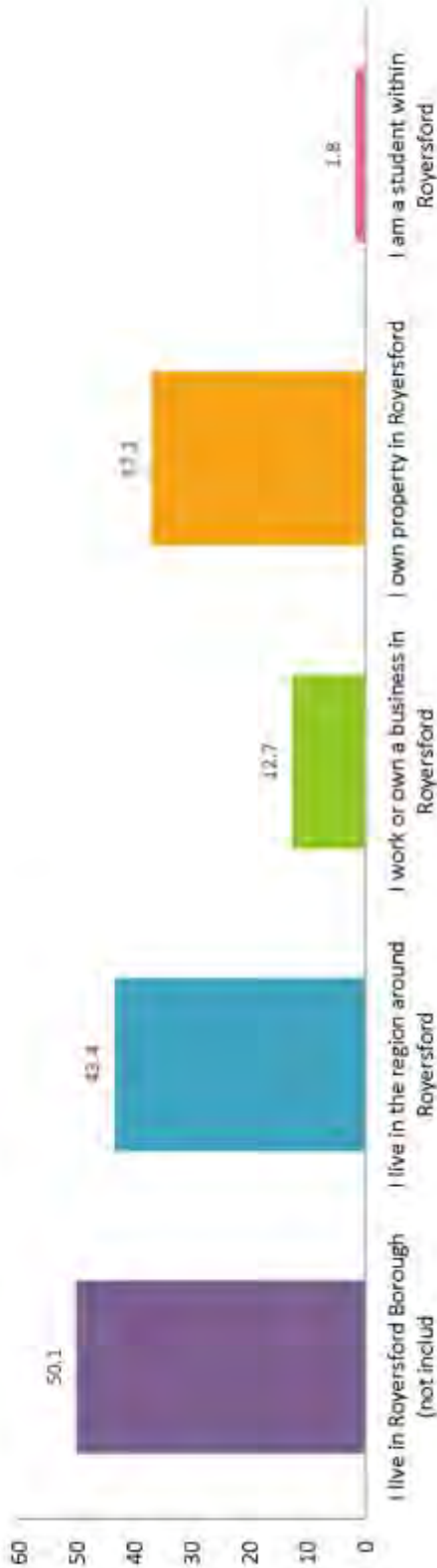
Total Respondents



Residents



Please check off all that apply.



What is the 5-digit zip code for your home?



C. HISTORIC OVERVIEW AND HISTORIC BUILDINGS

The area that now comprises Royersford was first settled in early 1700s by Welsh, English and German immigrants. Limerick Township was established in 1722. Royersford was part of Limerick Township until it was established as a separate borough in 1879.

The Schuylkill Canal provided a commercial transportation route using barges pulled by mules parallel to the Schuylkill River. The local segment was constructed in 1813. By the 1830s, the Reading Railroad extended its line through Royersford. A train station was established in Royersford, and most traffic shifted from the canal to the railroad. Royersford became a thriving center of industry and commerce during the 1800s, along with other river towns such as Norristown, Pottstown, Spring City and Phoenixville. Products such as stoves, glass, hardware, brick, hosiery, iron and bedsprings are all part of Royersford's 19th century industrial heritage.

In 1879, Main Street was formally named and widened to accommodate the Borough's burgeoning commercial activity. The Pennsylvania Railroad followed the Reading Railroad to Royersford in the 1880s, along parallel tracks. Two hotels, three dry goods stores, three groceries, a drugstore and several other stores were clustered in Royersford by 1885. In the ensuing fifteen years prior to 1900, a weekly newspaper, a water company and a Board of Health were established in Royersford.

The current pattern of development in the Borough was largely set by the early 1900s. By the end of the 1920s, Royersford contained two schools, nine churches, two banks and seventeen industries. The Borough built a sanitary sewerage system between 1935 and 1938. During World War II, many of the Borough's industries devoted themselves to manufacturing war-related goods.

The post WWII housing construction boom was first concentrated in eastern Montgomery County, and then extended to central Montgomery County. Many new industries were attracted to new single story buildings and some retail activity moved to new shopping centers.

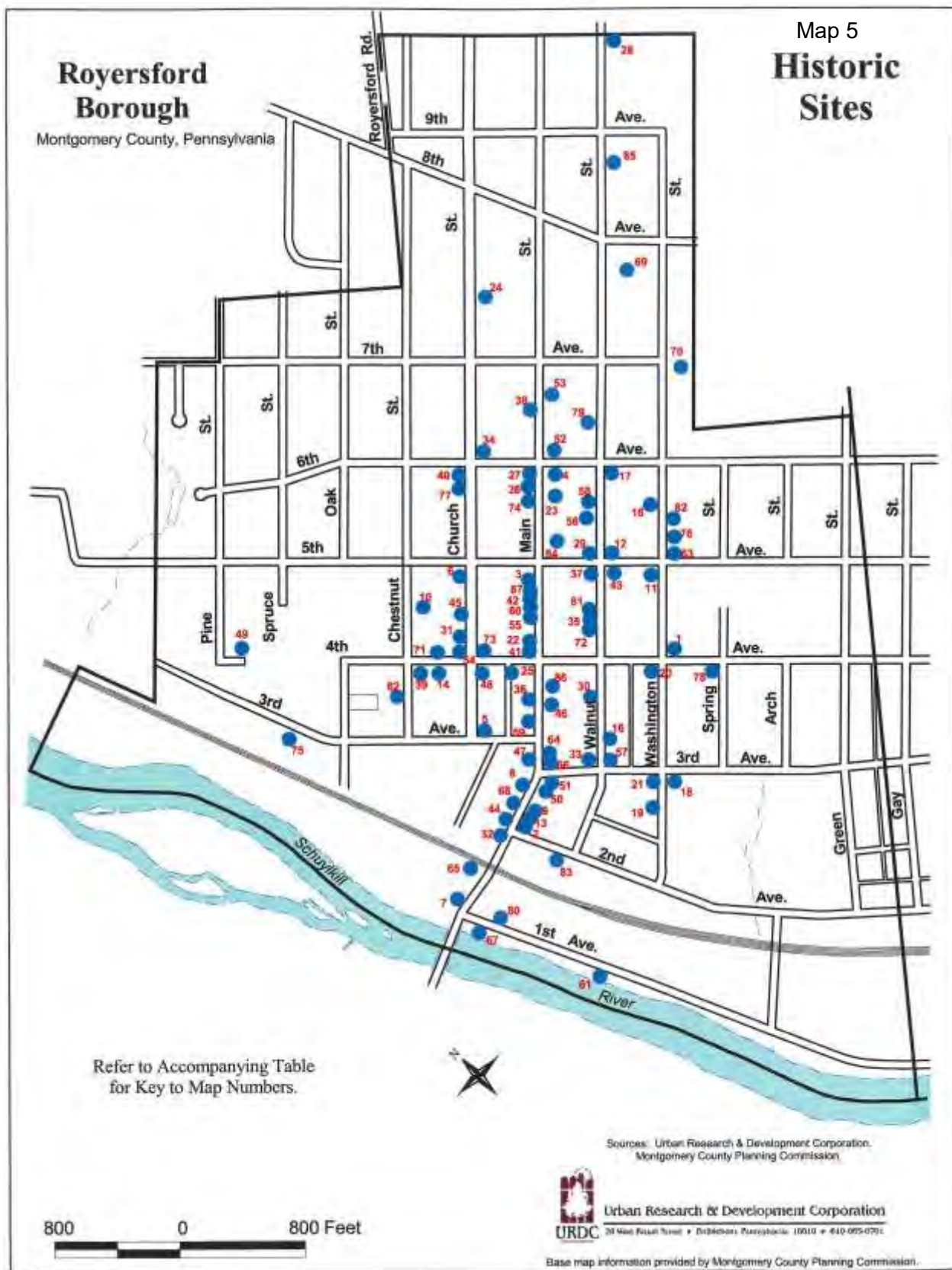
Historic Buildings

The former Buckwalter Stove Company site is the only property in Royersford on the National Register of Historic Places. This property is located west of Main Street adjacent to the Norfolk-Southern tracks and has since been demolished. The following Royersford Borough sites appear on a 1985 historic properties inventory prepared by a consultant to Montgomery County.

Historic Buildings Inventory

1	Adam's School	45	Mather Residence and Adjacent Home
2	Banker's Bar and Grill	46	Mckissic Owned Homes
3	Baumgartner Residence	47	Melenke Residence
4	Bertolet Residence and Adjacent Home	48	Methodist-Episcopal Church of Royersford
5	Brant, B. B. House	49	Montgomery County Industrial Development Authority Owned Home
6	Buchanan Residence and Adjacent Home	50	National Bank of Royersford Original Building
7	Buckwalter & Company Stove Works	51	National Bank of Royersford Second Building
8	Buckwalter Stove Company	52	Nelson Owned Home, 45 Brenner
9	Bud's Luncheonette	53	Nelson Owned Home, 757 Main
10	Campbell Residence and Adjacent Home	54	New Testament Baptist Church
11	Church of the Nazarene	55	O'Brien Residence and Adjacent Home
12	Cole, Henry A. House	56	Oelschlager Residence
13	Cooper Owned Homes	57	Osgood Owned Home
14	Desante Residence and Adjacent Home	58	Peterman, M. House
15	Edmark Residence and Adjacent Home	59	Peterson Residence
16	Emery Residence and Adjacent Home	60	Quay Residence
17	Emmers, Edward House	61	R & S Upholstery
18	Episcopal Church of the Epiphany	62	Reilley Residence
19	Evans Residence and Adjacent Homes	63	Rogalski Residence
20	First United Church of Christ	64	Royal Mens Wear
21	First Bretheren Church	65	Royersford Station
		66	Royersford Trust Company
		67	Royersford Spring Company
		68	Royersford Hotel and Adjacent Homes

22	Freed, Yelis House	69	Royersford Needle Works
23	Freed, Samuel Residence	70	Royersford High School
24	Freed House	71	S. B. Latshaw Real Estate & Insurance Office
25	Funk Owned House	72	Shantz Owned Homes
26	Grace Lutheran Church Personage	73	Shulman Owned Home
27	Grace Evangelical Lutheran Church	74	Shulman Residence, 539 Main
28	Grime Residence and Adjacent Home	75	Slaughter, Residence
29	Habman, E. L. House	76	Smith Residence and Adjacent Home
30	Harwood Residence and Adjacent Home	77	Springford Medical Center
31	Hollenbach Residence and Adjacent Home	78	Sutch Owned Home
32	Home National Bank	79	The Mennonite Bretheren in Christ Church
33	Humane Steam Fire Engine Company	80	Townsend Furniture Gallery
34	Jahigen Residence	81	Trinity United Evangelical Church
35	Johnstone Residence	82	Vogt Residence and Adjacent Home
36	Kuntz Owned Homes	83	Wagner Residence
37	Latshaw, William House	84	Weikel Residence
38	Latshaw Farm House	85	Wunder Residence
39	Latshaw, W. L. House	86	Zenker Jewelers
40	Latshaw Residence	87	Zerr Residence and Adjacent Home
41	Latshaw's Hall		
42	Lewin, John Milton House		
43	Markert Residence		
44	Masteller's Store		



D. POPULATION AND HOUSING OF ROYERSFORD

All of the data in this section is from the U.S. Census, unless otherwise stated.

Population Change

The Census estimated that Royersford included 4,785 residents in 2014. Royersford's 2010 population was 4,752, which was a 506 person increase (12 percent) from the 2000 population of 4,246. Montgomery County grew by 6.8 percent during the same ten-year period. During the 1990s, a net decrease of 212 residents was recorded in Royersford.

TABLE 1
TOTAL POPULATION

Royersford Borough and Montgomery County
1970 - 2014

YEAR	ROYERSFORD BOROUGH			MONTGOMERY COUNTY		
	Persons	Number Change	Percent Change	Persons	Number Change	Percent Change
1970	4,235	266	6.7	624,080	107,398	20.8
1980	4,243	8	0.2	643,371	19,291	3.1
1990	4,458	215	5.1	678,111	34,740	5.4
2000	4,246	-212	-4.8	748,987	70,876	10.5
2010	4,752	506	11.9	799,874	50,886	6.8
2014 Estimate	4,785	33	0.6	816,857	16,983	2.1
2015 Estimate	4771	-14	-0.3	819,264	2407	0.3

Source: DVRPC 2016.

Limerick Township and Upper Providence Township each grew rapidly in recent decades, as seen in the table below. In addition, in the 1990s, Limerick's population grew by 102 percent and Upper Providence's population grew by 229 percent.

TABLE 2
POPULATION CHANGE
Royersford Borough and Adjacent Municipalities
2000 - 2010

MUNICIPALITY	2010 Population	2000 Population	Numeric Increase	Percent Change
Royersford Borough	4,752	4,246	506	11.9
Limerick Township	18,074	13,534	4,540	33.5
Spring City Borough (Chester County)	3,323	3,305	18	0.5
Upper Providence Township	21,219	15,398	5,821	37.8

Population Forecasts

The Delaware Valley Regional Planning Commission's (DVRPC) latest population forecasts projected that Royersford will add 620 residents between 2010 and 2040, for a growth rate of 13 percent. Higher growth rates of 30 percent were forecast for Limerick and 26 percent for Upper Providence.

TABLE 3
POPULATION FORECASTS
 County and Royersford Area
 2010 to 2045

MUNICIPALITY	Montgomery County	Royersford Borough	Limerick Township	Upper Providence Township	Spring City Borough
2010 Estimate	799,874	4,752	18,074	21,219	3,433
2015 Estimate	819,264	4,771	18,718	23,460	3,322
2020 Forecast	840,934	4,893	19,854	24,622	3,514
2025 Forecast	863,327	5,014	20,904	25,777	3,705
2030 Forecast	884,387	5,136	21,970	26,951	3,898
2035 Forecast	903,114	5,243	22,894	27,967	4,066
2040 Forecast	918,918	5,330	23,653	28,802	4,204
2045 Forecast	932,820	5,404	24,296	29,510	4,321
Numeric Change 2010-2045	132,946	652	6,222	8,291	888
Percent Change 2010-2045	17%	14%	34%	39%	26%

Source: DVRPC 2016.

Racial Backgrounds

In 2010, 5.1 percent of Royersford residents reported they were Black / African-American, compared to 8.7 percent for Montgomery County. Among Royersford residents, 4.2 percent reported they were Hispanic / Latino (vs. 5.2 percent for the County), 1.7 percent reported they were Asian (vs. 6.5 percent for the County), and 2.4 percent reported they had two or more races in their background (vs. 1.9 percent for the County).

Household Size

Royersford's average of 2.2 persons per household in 2010 was slightly smaller than the County's average household size of 2.5 persons. This reflects the greater proportion of smaller, non-traditional households in the Borough than in the County overall.

Reflecting a national trend, average household size shrank in the 1980s and 1990's in both Royersford and Montgomery County, and since then has leveled off. Later marriages, more divorces, fewer children and more elderly households contributed to this trend.

TABLE 4
AVERAGE PERSONS PER HOUSEHOLD
Royersford Borough and Montgomery County
1980 - 2010

YEAR	ROYERSFORD BOROUGH	MONTGOMERY COUNTY
1980	2.5	2.8
1990	2.4	2.6
2000	.2	2.5
2010	2.2	2.5

Age Groups

According to the U.S. Census, from 2000 to 2010, Royersford actually experienced a significant decrease in the numbers of residents aged 65 to 74 and only a small increase in residents age 75 or older.

The median age of Royersford residents in 2010 was 35.7, meaning that half of residents were older than this age and half were younger. This was younger than the median for the County of 40.6.

In Royersford, 21.1 percent of 2010 residents were under age 18, compared to 22.9 percent for the County. Residents age 65 and older made up 11.4 percent of Royersford residents in 2010, compared to 15.1 percent for the County as a whole.

TABLE 5
AGE DISTRIBUTION
Royersford Borough
2010

AGE GROUP	2010	
	Number	Percent
0 - 4	298	6.3
5 - 17	75	6.2
18 - 24	494	10.3
25 - 34	839	17.6
35 - 44	614	12.9
45 - 54	719	15.1
55 - 64	542	11.4
65 - 74	264	5.5
75+	277	5.8
Total	4,752	100.0

Total Housing Units

Royersford's housing stock grew by 15 percent between 2000 and 2010, a rate higher than the 9.5 percent increase experienced County-wide.

TABLE 6
TOTAL HOUSING UNITS
Royersford Borough and Montgomery County
1990 - 2000

YEAR	ROYERSFORD BOROUGH			MONTGOMERY COUNTY		
	Housing Units	Number Change	Percent Change	Housing Units	Number Change	Percent Change
1990	1,942	156	8.7	265,856	33,287	14.3
2000	2,039	97	5.0	297,434	31,578	11.9
2010	2,351	312	15.3	325,735	28,301	9.5

In 2010, the Census reported that Royersford had a 3.4 percent vacancy rate, among for sale rental units and an 11.4 percent vacancy rate among housing units offered for rent. The "for sale" rate was fairly typical, but the "for rent" rate is higher than usual. At times, a for rent vacancy rate can be over-stated if residents do not cooperate with the Census.

Housing Ownership

In 2010, among Royersford's occupied housing units, 50.1 percent were reported to be owner-occupied, as opposed to renter-occupied. This was a decrease from the 52.4 percent owner-occupied rate for Royersford in 2000. Meanwhile, in 2010, 73.1 percent of occupied housing units in Montgomery County were owner-occupied.

Housing Types

Single-family attached units (twin homes and townhouses) are the most numerous housing type in Royersford, followed by single-family detached homes. Together, these two housing types account for 53.4 percent of the Borough's housing total stock. Units in structures with 10 to 19 units (small to medium-size apartment buildings) are the only other housing type in Royersford to make up at least 10 percent of the total housing stock. This distribution is typical of a borough, whereas suburban townships typically have a higher proportion of single-family detached homes.

TABLE 7
HOUSING TYPES

Royersford Borough - 2010

Housing Type	Number	Percent
Single-Family Attached Units (Row Homes & Townhouses)	751	34.5
Twin or Duplex Units	182	8.4
Units in Structures with 3 or 4 Units	138	3.0
Units in Structures with 5 to 9 Units	214	9.8
Units in Structures with 10 to 19 Units	277	12.7
Units in Structures with 20 or More Units	202	9.3
Manufactured/Mobile Homes	0	0

Housing Values and Rents

Royersford's median housing value in 2010 was \$181,600. While average home values are significantly higher in most suburban townships, Royersford's housing values are above-average compared to many similar boroughs.

The median monthly rent in 2010 was \$840, which was lower than the County median of \$1,028.

TABLE 8
HOUSING VALUES

Montgomery County and Royersford Area - 2000 to 2010

Place	Median Housing Value of Owner Occupied Housing		Change, 2000-2010		Median Monthly Gross Rent		Change, 2000-2010	
	2000	2010	Numeric	Percent	2000	2010	Numeric	Percent
Montgomery County	\$160,700	\$297,200	\$136,500	84.9	\$797	\$1,028	\$231	28.9
Royersford Borough	\$105,100	\$181,600	\$76,500	72.7	\$640	\$840	\$200	31.2
Limerick Township	\$116,100	\$293,900	\$177,800	153.1	\$999	\$1,219	\$220	22.0
Upper Providence Township	\$188,400	\$331,500	\$143,100	75.9	\$825	\$910	\$85	10.3
Spring City Borough (Chester County)	\$98,200	\$163,600	\$65,400	66.5	\$573	\$758	\$185	32.3

Source: U.S. Census and 2006-2010 American Community Survey 5-Year Estimates

Median Income

According to 2010 Census estimates, Royersford's median household income was \$49,924. As part of a national trend, median household incomes actually decreased in Royersford and much of the County after adjusting for inflation. It also needs to be considered that many households were also experiencing effects from the Great Recession in 2010. The American Community Survey estimated that the average income per Royersford resident in 2010 was \$27,797, compared to \$40,076 for Montgomery County as a whole.

TABLE 9
ESTIMATED MEDIAN HOUSEHOLD INCOME
 Montgomery County and Royersford Area
 2000 to 2010

Place	Median Household Income		Change 2000-2010	
	2000	2010*	Numeric	Percent
Montgomery County	\$79,597	\$76,380	-\$3,217	-4.0
Royersford Borough	\$51,661	\$49,924	-\$1,687	-3.3
Limerick Township	\$84,731	\$76,682	-\$8,049	-9.5
Upper Providence Township	\$99,173	\$107,438	\$8,265	8.3
Spring City Borough	\$52,694	\$52,694	-\$34,362	-39.4

Source:* American Community Survey 5-Year Estimates. Year 2000 Income have been adjusted to 2010 dollars to allow comparisons.

Education Level

The table below compares education levels in Royersford with those of Montgomery County as a whole. Among Royersford residents 25 years and older, 90.3 percent reported in 2010 that they had graduated from high school and 25.4 percent reported that they had received a college bachelor's degree. In both cases, these numbers were increased from the Borough's 2000 levels. Montgomery County as a whole reported higher educational attainment numbers: 92.6 percent for high school graduation and 44.2 percent for college graduation.

TABLE 10
EDUCATION LEVEL AMONG RESIDENTS AGE 25 AND OLDER
Royersford and Montgomery County
2000 to 2010

Highest Level Attained	Royersford		Montgomery County	
	2000 =2,929	2010 =3,171	2000 =515,871	2010 =555,690
Less than 9 th grade	5.5	1.9	3.0	2.2
9 th to 12 th grade, no diploma	13.6	7.8	8.5	4.8
High school graduate	38.7	38.2	27.3	25.6
Some college, no degree	17.4	17.2	16.5	15.9
Associate degree	7.4	9.6	5.9	6.5
Bachelor's degree	12.3	18.6	23.1	26.5
Graduate/professional degree	5.1	6.8	15.7	18.4
Percent high school graduate or higher	80.9	90.3	88.5	94.7
Percent bachelor's degree or higher	17.4	25.4	38.7	54.7

Sources: U. S. Census and American Community Survey 5-Year Estimates

Mode of Commuting

The U.S. Census reported on the methods that Royersford residents used in 2010 to travel to work. Among residents, 86.0 percent drove alone to work, 6.9 percent drove with another person or carpooled, 0.7 percent used a bus, 6.0 percent walked, and zero percent said they used a bicycle.

E. ADJACENT ZONING

The following section describes the zoning districts that exist adjacent to Royersford's borders, in Limerick Township, Upper Providence Township and Spring City.

Limerick Township

R-3 B Medium Density District B - This district includes most of the northwestern border of Royersford, west of Lewis Road. The main allowed uses include:

Single-family detached dwellings (maximum density of .85 units per acre)

Twins or duplexes dwellings (maximum density of 1.65 units per acre)

Single-family attached dwellings (townhouses) (maximum density of 1.80 units per acre)

HC B Highway Commercial B - This district includes lots on both sides of Lewis Road, west of Tenth Avenue. It provides for a wide range of commercial businesses. The main allowed uses include:

Offices

Banks

Retail

Restaurants

Day Care

Personal Services

RB B Retail Business B - This district includes land northeast of Royersford, between Tenth Avenue and the Route 422 interchange. It provides for a wide range of commercial businesses, including the following:

Offices

Banks

Hotel and Motel

Day Care

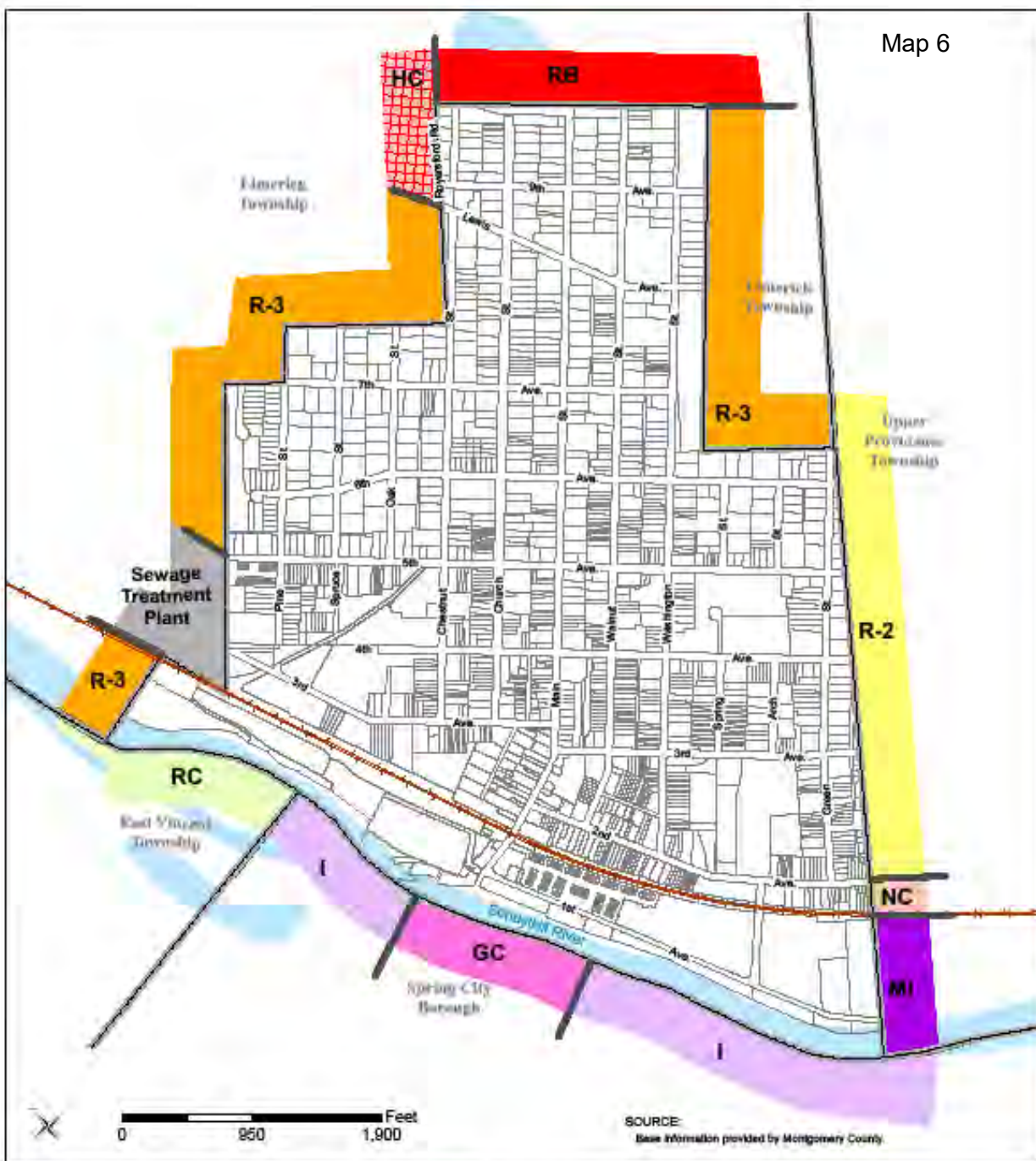
Personal Services

Theaters

Golf courses

Research facilities

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Borough of Royersford

RC Rural Conservation	GC General Commercial District	2016 ADJACENT ZONING Urban Research & Development Corporation 28 West Broad St. • Baltimore, PA 10010 • 410-955-0700
R-2 Residential District	HC Highway Commercial District	
R-3 Medium Density District	I Industrial District	
NC Neighborhood Convenience Commercial District	MI Manufacturing Industrial District	
SB Sewage Treatment Plant	STP Sewage Treatment Plant	

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Upper Providence Township

R-2B Residential District B - This district includes most of the land along Royersford's southwestern border. The main allowed uses include:

- Single-Family Detached Dwelling Units
- Residential Cluster Development by Conditional Use
- Retirement Community by Conditional Use
- Educational Uses by Conditional Use
- Hospital/Medical Center/Nursing Home by Conditional Use

Neighborhood Convenience Commercial District B - This district includes a few lots along both sides of Second Avenue. The main allowed uses include:

- Single-Family Detached Dwelling Units
- General Agriculture

Manufacturing Industrial District B - This district includes the land between the railroad tracks and the river. The major allowed uses include:

- Manufacturing, Warehousing and Industrial Parks by Conditional Use
- Offices by Conditional Use
- Mobile Home Parks by Special Exception
- Adult Businesses by Special Exception
- Commercial Campgrounds by Special Exception
- Solid Waste Facilities by Special Exception
- Intensive Agriculture by Special Exception

Borough of Spring City

General Commercial B - This district includes Downtown Spring City near the Main Street bridge/Bridge Street. Major Permitted Uses include:

- Single-Family Detached Dwelling Units
- Educational Uses By Special Exception
- Day Care by Special Exception
- Institutional by Conditional Uses
- Various Residential Types in Historic Structures Only

Manufacturing Industrial District B - This district includes most of the riverfront that is northwest and southeast of the downtown. The district mainly allows a variety of industrial uses.

F. NATURAL FEATURES BACKGROUND INFORMATION

Natural features refer to water resources, soils, slopes, vegetation, and wildlife, among other environmental characteristics. In Royersford, natural features are primarily present along the Schuylkill River corridor. Most of Royersford has physical characteristics that are well-suited for development, including well-drained soils.

Steep Slopes

The slope of the land, expressed as a percentage, is determined by dividing the vertical change by the horizontal distance. For example, a 5-foot rise in elevation over a 100-foot distance is expressed as a 5% slope. Land with a 15 to 25 percent slope is considered to have moderately steep slopes, and are usually only suitable for low-intensity development. Land with slopes of greater than 25% are considered very steeply sloped and in most cases should not be developed, except for small isolated areas. Most steep slopes in the Borough are concentrated between Fifth Avenue and the Norfolk-Southern railroad. These steeply sloping areas form a bluff along the Schuylkill River and can also be found along the edges of small unnamed streams within the Borough.

Steep slopes are prone to erosion. Removing the existing and stabilizing vegetation via grading or other disturbances accelerates the erosion process. The eroded sediment and rapid storm water run-off can be damaging to surface water biology, scour streambanks and cause structural failure of buildings, roads, and other man-made structures. Excessive erosion can also raise flood heights by reducing the water carrying capacity of streams.

Watershed/Drainage Areas

The entire Borough of Royersford eventually drains into the Schuylkill River. Approximately one-third of Royersford is part of the Mingo Creek watershed, and drains either into an unnamed tributary of the Mingo Creek or directly into the Mingo Creek, which in turn empties into the Schuylkill River. The remainder of the Borough drains either into small unnamed tributaries of the Schuylkill River or directly into the Schuylkill River.

Woodlands

Woodlands contribute to the physical character of the Borough and perform ecological functions such as stabilizing soil and providing wildlife habitats. Wooded areas also provide shade, diffuse noise and acting as a visual buffer. Royersford's few remaining woodlands are found mainly along the banks of the Schuylkill River and along steeply sloping areas between Third Avenue and the Norfolk-Southern railroad.

Pennsylvania Natural Diversity Inventory (PNDI) Sites

The Pennsylvania Department of Conservation and Natural Resources identifies only one rare/endangered plant species (PNDI) site - near where Fifth Avenue crosses into Limerick Township. A potential habitat of one wildlife species was identified as possibly extending into Royersford on the PNDI.

Water Resources

The Schuylkill River forms one of the Borough's boundaries. Two minor unnamed streams pass through the Borough. The first crosses briefly into the Borough from Limerick Township near Sixth Avenue, and the other lies underground, surfacing only in Victory Park before disappearing underground again.

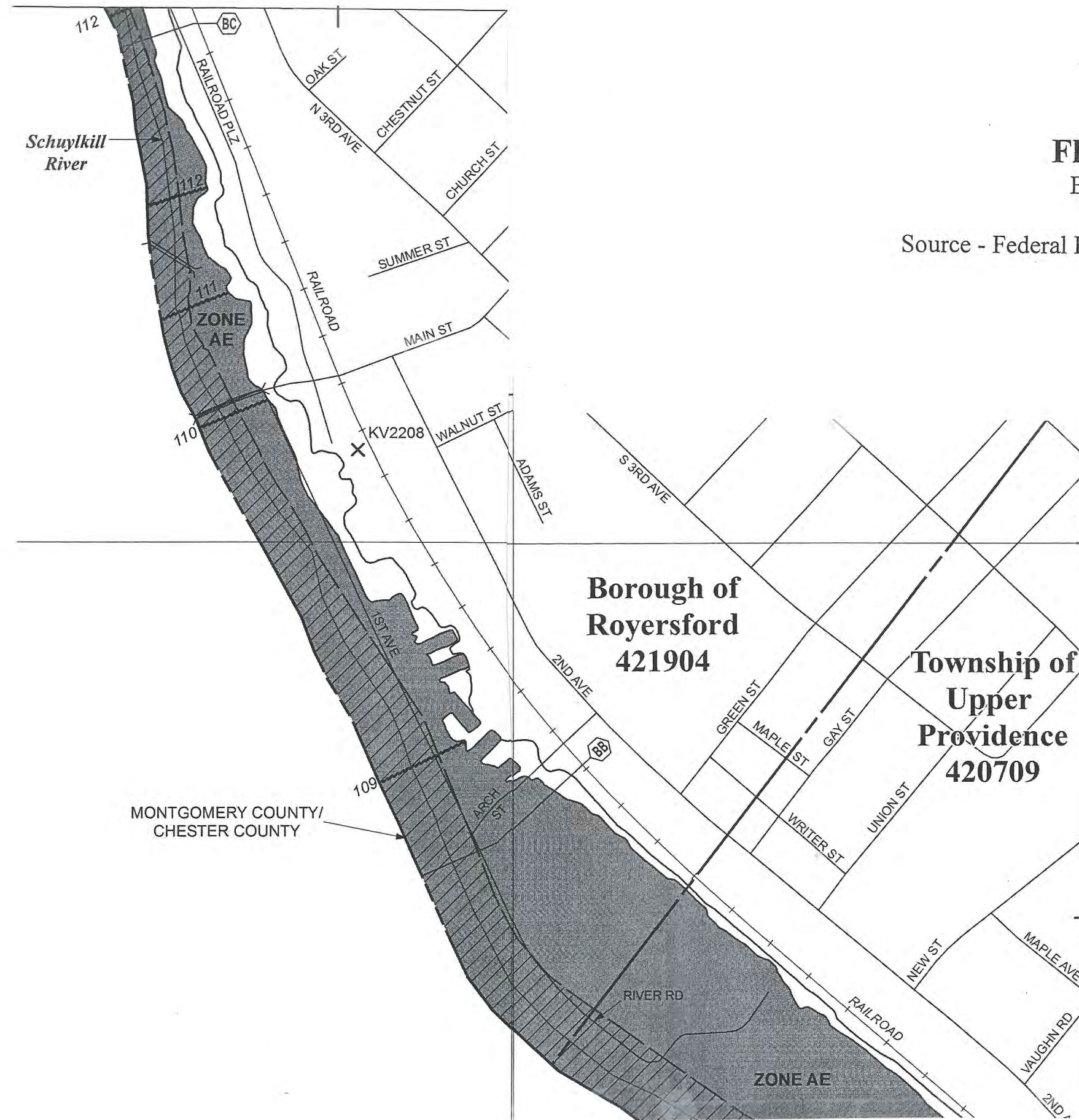
100-Year Floodplains

A floodplain is an area adjoining a watercourse which is vulnerable to flooding. The "100-year floodplain" is an area expected to be covered by water during and/or after a storm of an intensity which occurs once every 100 years (or that has a one percent chance of being flooded in any one year). The only identified 100-year floodplain is along the length of the Schuylkill River, as seen on the Flood-Prone Areas Map. The 100-year floodplain is divided into the floodway, which is the channel that carries the deepest and fastest floodwaters, and the flood-fringe, which often involves more shallow flooding. Royersford's regulations restrict development within the 100-year floodplain, including a prohibition on new buildings within 100 year floodway.

Wetlands

Wetlands are valuable natural areas that serve as groundwater recharge sites and wildlife habitats. Wetland disturbances are regulated at both the state and federal levels in Pennsylvania because wetlands have sensitive ecologies very susceptible to pollution. No wetlands have been identified by the National Wetlands Inventory. However, wetlands may still be present in Royersford, and should be the subject of a more detailed analysis by a wetlands specialist in suspect areas that are proposed for alteration.

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Flood-Prone Areas Borough of Royersford

Source - Federal Emergency Management Agency, 2016

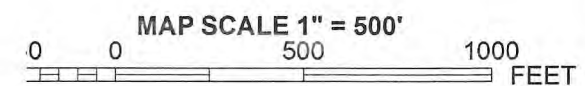
SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE-VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



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G. COMMUNITY FACILITIES AND SERVICES BACKGROUND INFORMATION

The majority of this background information has been incorporated into the main body of the text.

Primary and Secondary Schools

The Spring-Ford School District serves Royersford, Spring City, and Limerick and Upper Providence Townships.

The Royersford Elementary School is at 450 Spring Street in Royersford. Brooke Elementary School is at 339 N. Lewis Road, north of Royersford. The 8th Grade Center is mostly within Royersford at 700 Washington Street, while the football stadium is immediately south of the Borough line. Just to the south of Royersford are the 9th Grade building at 400 S. Lewis Road and the Senior High School at 350 S. Lewis Road, as well as numerous athletic fields.

There are several other elementary schools, as well as the 5th - 6th and 7th Grade Centers at 833 S. Lewis Road. The School District also operates an online cyber-school, which is being expanded to provide alternatives to private cyber-charter schools.

The School District is primarily funded by local real estate taxes, with the second largest source of funding being State funds, and the third largest source of funding being local earned income taxes.

The Western Montgomery Career and Technical Center at 77 Graterford Road in Limerick provides a wide variety of practical education, such as culinary arts, auto technology, HVAC, and various building trades.

In addition, the Sacred Heart School at 100 S. Lewis Road serves grades K to 8, and Pope John Paul II High School is along Township Line Road north of the Route 422 interchange.

H. EXISTING LAND USES

An aerial photo of Royersford and a map of existing uses of land are provided in the Land Use and Housing Plan chapter.

Residential Land Uses

As seen on the Existing Land Uses Map, housing in the Borough is a mix of single-family detached homes, single-family attached homes (twins and rowhouses), and apartments. Single-family detached homes are present throughout the Borough, including both historic structures of significant architectural merit and more recently constructed models. Single-family detached homes most common on blocks that are closer to the borders of Royersford. A number of former single family detached houses have been converted into two or more apartments over the years.

Multi-family housing in the Borough includes unified apartment complexes, structures that have been converted from single-family homes to apartments and upper story apartments located above non-residential uses (which are primarily along Main Street). Apartments include the Spruce Court Apartments at Sixth Avenue and Spruce Street,

Golden Age Manor at Fourth Avenue and Walnut Street, the Needleworks Apartments on Washington Street and Royersford Gardens at Fifth Avenue and Church Street. There also are assisted living housing arrangements, such as the Atrium House at 7th Avenue and Elm Street.

Commercial Uses

Commercial uses in Royersford are primarily clustered in two locations - along the Lewis Road corridor north of Washington Street, and in the downtown along Main Street. Most uses along the Lewis Road corridor have their own parking lots. The core of the downtown commercial district extends along Main Street between Second and Fifth Avenues.

Industrial Uses

The area along the Schuylkill Riverfront and an area north of Chestnut Street between Third and Fifth Avenues contain most of Royersford's industrial development. The larger industrial uses along the riverfront are concentrated in two areas: 1) south of Arch Street and 2) north of Main Street. The former Cann and Saul Steel Plant north of Chestnut Street is now known as Royersford Industrial Park, and is occupied by a mix of industrial uses. Another industry is Nelson's Creamery, near Seventh Avenue and Walnut Street.

Public Recreation

Victory Park, located between Third Avenue and Second Avenue, is Royersford's large public park. Chestnut Street Park is a playground at the corner of Fifth Avenue and Chestnut Street was completed in 2003. Playground equipment and a baseball field exist at the Royersford Elementary School at Fifth Avenue and Spring Street. The Spring-Ford 8th Grade Center includes two baseball ballfields, two overlapping multi-purpose fields, a football stadium and tennis courts. Additional athletic fields are nearby around the Senior High School.

Other Public/Semi-Public Uses

Public/semi-public uses include places of worship, public buildings, institutional uses and related activities. This category includes:

- Royersford Borough Hall - Main Street and Third Avenue,
- Borough Public Works garage - Chestnut Street,
- Borough parking lot - Third Avenue and Summer Street,
- Borough parking lot - between Third and Fourth Avenues,
- Royersford Fire Department's Humane Fire Company building and the proposed new fire station site at Third Avenue and Walnut Street,
- Royersford Fire Department's Friendship Hook, Ladder and Hose Company building on Green Street west of Third Avenue operates as the social hall,
- Royersford Elementary School - Fifth Avenue and Spring Street,

- Spring-Ford Middle School 8th Grade Center - Seventh Avenue and Washington Street,
- Sacred Heart School - Walnut Street and Lewis Road, and
- Royersford Free Public Library and Community Center - Fourth Avenue and Washington Street.

I. TRANSPORTATION BACKGROUND INFORMATION

Street Functional Classifications

Street patterns and access from development should be planned according to the function each street is intended to serve within the overall network. The Borough Subdivision and Land Development Ordinance includes different standards for different classifications of streets. Roads are classified according to the following major types: Arterial Streets, Collector Streets, and Local Streets.

Arterial Streets – These roads provide access between major commercial developments and different towns. Arterials are designed for high volumes of traffic at moderate speeds. Main Street is an Arterial.

Collector Streets – These roads provide connections between arterial streets, connect together residential neighborhoods and gather traffic from local streets. Collector streets are intended to provide for moderate volumes of traffic at low speeds. Examples include Washington Street, Chestnut Street, First Avenue and Second Avenue.

Local Streets – These streets provide direct access from many adjacent properties, and channel traffic towards collector streets.

Public Transit

The main public transit service in Royersford is the SEPTA Route 139 bus. It extends from Ridge Avenue to along Township Line Road to the Limerick Square Shopping Center to along the length of Main Street in Royersford to Spring City, and along Route 724 to Phoenixville. In Phoenixville, it has a transfer to reach the King of Prussia area. At Ridge Avenue, a transfer is available to a bus that connects to Pottstown and Norristown. From Norristown, a person can use the Norristown High Speed Line to connect to the Market Street line or take a commuter rail line to Philadelphia.

J. TIMING & AMOUNT OF DEVELOPMENT

Royersford has very limited land for new development. The timing and amount of development in Royersford will be greatly affected by the Borough's zoning policies, including opportunities for redevelopment. Employment growth in the region will also affect growth pressures within Royersford. Residential growth in adjacent municipalities will help to spur commercial development within Royersford. Realtors report that there is a high demand to live within Royersford, by families and other households.

An intent of this Plan is to manage and direct that growth pressure to carefully selected locations that can accommodate redevelopment, without harming the historic character of Royersford and the livability of the neighborhoods.

K. SUMMARY OF POTENTIAL FUNDING SOURCES

The following table lists various State and federal grant programs that can be used for revitalization, economic development and community development purposes. Funding sources are always changing, with new programs being added and older programs being revised or deleted. Therefore, it is important to keep up-to-date with current funding opportunities, the amount of funding available and competitiveness in each program, and the likelihood that a program would fund a particular project.

While most programs are administered through departments of the Pennsylvania state government, some others are administered by the Commonwealth Financing Authority (CFA).

Potential applicants should always contact the regional or central office of the funding source to discuss a project and to fully understand the program requirements.

The websites of the primary funding programs are:

PA Department of Community and Economic Development (DCED):

<http://www.newpa.com/find-and-apply-for-funding/>

PA Department of Conservation and Natural Resources (DCNR):

<http://www.dcnr.state.pa.us/>

PA Department of Environmental Resources (DEP):

<http://www.dep.state.pa.us/>

PA Historical and Museum Commission (PHMC):

<http://www.portal.state.pa.us/>

Funding Programs for Community and Economic Development

Program Name	Program Type	Overview of Program	Administering Agency(ies)
1. Alternative and Clean Energy Program (ACE) and Alternative Fuels Incentive Grant (AFIG)	Grants, Loans & Loans Guarantees	Provides financial assistance to utilize, develop, and construct alternative and clean energy projects in the state. A funding match is required.	DCED and DEP
2. Alternative Fuel Vehicle Rebate Program (AFVRP)	Grants	Provides rebates for the purchase of new, non-leased, plug-in hybrid, plug-in electric, natural gas, propane and hydrogen fuel cell vehicles.	DEP
3. Automated Red Light Enforcement Grant Program	Grants	Offers grants to improve traffic signals and related electronic systems, to update signal timing, to add turn lanes at intersections to increase capacity, to improve traffic signs and pavement markets (including around school zones), to make pedestrian safety improvements along a road, to install guiderails, and to make drainage improvements that are directly related to a road improvement.	PennDOT
5. Building PA	Loans	Provides mezzanine capital for developers for real estate assets in small to mid-sized Pennsylvania communities.	DCED
6. Business in Our Sites	Grants and Loans	Provides grants and low interest loans to improve ready-to-build business sites. Funds can be used to acquire land, conduct environmental assessment and remediation, perform demolition, install infrastructure, and construct on-site and off-site transportation improvements.	DCED
7. Business Opportunities Fund (BOF)	Loans	Installment loans, lines of credit and technical assistance for minority business enterprises, women-owned business enterprises and small businesses.	DCED

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BOROUGH OF ROYERSFORD COMPREHENSIVE PLAN

Program Name	Program Type	Overview of Program	Administering Agency(ies)
9. Circuit Rider Program (Part of the Community Conservation Partnerships Program - C2P2)	Grants (match required)	Grants to initiate new programs and services for a county, Council of Government, and/or multi-municipal entity that individually does not have the financial resources to hire a professional full-time staff person. The Circuit Rider's purpose is to initiate new programs to more efficiently and effectively meet recreation, park, or open space needs. The grantee will be responsible for any funding of the position after the State funding expires.	DCNR
10. Community Development Block Grant (CDBG)	Grants, Technical Assistance	Provides funding for projects that serve households or geographic areas with low to moderate incomes, or that eliminate blight, or that improve access for persons with disabilities. Typical projects include housing rehabilitation, stormwater improvements or construction of ADA ramps at curbs.	DCED and Mont. Co. Dept. Of Housing and Comm. Development
11. Community Recreation and Conservation Program (Part of C2P2).	Grants (match required)	Grants are awarded to municipalities and authorized nonprofit organizations for: <ul style="list-style-type: none"> • Planning for feasibility studies, trail studies, conservation plans • Master site development plans • Comprehensive recreation, park, open space, and greenway plans • Land acquisition for active or passive parks, trails, and conservation purposes • New development and rehabilitation of parks, trails and recreation facilities 	DCNR
12. Greenways, Trails and Recreation Program (GTRP)	Grant (match required)	Allocates funds via the CFA from the Marcellus Legacy Fund to plan, acquire, develop, rehabilitate, and repair greenways, recreational trails, open space, parks and beautification projects.	DCED

Amended Appendix A-22-b

BOROUGH OF ROYERSFORD COMPREHENSIVE PLAN

Program Name	Program Type	Overview of Program	Administering Agency(ies)
13. High Performance Building Program (HPB)	Grants Loans Guarantees	Underwrites the cost premiums associated with the design and construction or major renovation of high performance buildings in the state.	DCED and DEP
14. Historic Marker Nomination Program	Grants	Nominations for state historic markets must be submitted by January of each year.	PHMC
15. Historic Preservation Tax Credit (HPTC)	Tax Credits	Offers tax credits to qualified taxpayers who restore a qualified historic structure into an income-producing property. All projects must include a qualified rehabilitation plan approved by the Pennsylvania Historical and Museum Commission (PHMC).	DCED
16. HOME	Grants Loans Tech. Asst.	Provides federal grant, loan, and technical assistance to municipalities to expand the supply of decent and affordable housing for low- and very low-income Pennsylvanians.	Montgomery Co. Housing and Comm. Development (Federal funds)
17. Housing Rehabilitation and Home Buyer's Programs	Grants and Loans	Provides financing to rehabilitate existing housing, and to assist households in purchasing housing.	Montgomery Co. Housing and Comm. Development
18. Industrial Sites Reuse Program (ISRP)	Grants Loans (match required)	Supports performing environmental site assessment and remediation work at former industrial sites.	DCED
19. Job Creation Tax Credits (JCTC)	Tax Credits	A \$1,000-per-job tax credit to approved businesses that create new jobs in the state within 3 years.	DCED
20. Joint Opportunity Business Partnership Fund (JOB Partnership Fund)	Loans	Provides loans to private equity partnerships for investment in Pennsylvania companies.	DCED

Program Name	Program Type	Overview of Program	Administering Agency(ies)
21. Keystone Communities Program (KCP) (The Elm Street Program is currently not separately funded, but that could change in future years).	Grants	<p>Promotes revitalization by designating and funding communities that are implementing Main Street, Elm Street, Enterprise Zone efforts or other community development efforts by supporting physical improvements to designated and/or other communities that are undertaking revitalization activities. Also, provides accessible modifications for the homes of persons with physical disabilities. Components include:</p> <ul style="list-style-type: none"> • PA. Accessible Housing • Housing and Redevelopment Assistance • Keystone Main Streets • Keystone Elm Streets • Keystone Enterprise Zones • Keystone Communities • Keystone Communities Development Projects 	DCED
22. Keystone HELP Energy Efficiency Program	Loans	Provides low-interest loans to residents for energy efficiency improvements to homes, including the installation of energy-efficient heating and air conditioning systems, geothermal systems, insulation and air sealing, and more.	DEP (partnered with PA Treasury Dept., PHFA, and AFC First Financial)
23. Keystone Historic Preservation Grant Program	Grants	Funding for historic preservation projects.	PHMC
24. Local Government Capital Project Loan Program (LGCPLP)	Loans	Low-interest loans to local government for equipment and facility needs.	DCED
25. Machinery and Equipment Loan Fund (MELF)	Loans	Low-interest loans for businesses to acquire and install new or used machinery and equipment or to upgrade existing machinery and equipment	DCED

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BOROUGH OF ROYERSFORD COMPREHENSIVE PLAN

Program Name	Program Type	Overview of Program	Administering Agency(ies)
26. Multi-modal Transportation Fund (MTF)	Grants (match required)	Provides grants to encourage economic development and ensure that a safe and reliable system of transportation is available to the residents of the commonwealth.	DCED and PennDOT
27. Municipal Assistance Program (MAP)	Grants (match required)	Provides funding to assist local governments to plan for and efficiently implement services and improvements, and manage development, with an emphasis on intergovernmental approaches. Funding is available for three groups of activities: shared services, community planning and floodplain management.	DCED
28. Municipal Recycling Program (MRP)	Grants	Grants to assist municipalities and counties in developing and implementing recycling programs.	DEP
29. Municipal Signal Partnership Program (also known as the "Green Light-Go" Program)	Grants (50% match required)	Grants to improve safety and mobility by reducing congestion and improving efficiency of existing traffic signals on state highways. The program is comprised of the Local Grant Element (Designated only Corridors) and the PennDOT Project Element (Critical Corridors).	PennDOT
30. Neighborhood Assistance/ Enterprise Zone Tax Credit (NAP/EZP)	Tax credits	Incentive program for private companies investing in rehabilitating, expanding, or improving buildings or land located within designated enterprise zones.	DCED
31. New Markets Tax Credits (NMTC)	Tax credits	Federal tax credits administered by the PA Housing Finance Agency (PHFA). Individual and corporate taxpayers may receive a credit against federal income taxes for making equity investments in community development projects. The credit provided to the investor totals up to 39 percent of the cost of the investment and is claimed over a seven-year period. Program is competitive.	PHFA

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BOROUGH OF ROYERSFORD COMPREHENSIVE PLAN

Program Name	Program Type	Overview of Program	Administering Agency(ies)
32. New PA Venture Capital Investment Program	Loans	Loans to venture capital partnerships to invest in growth-stage PA companies.	DCED
33. New PA Venture Guarantee Program	Loan Guarantees	Guarantees to top-tier venture capital partnerships for investments in growth stage PA companies	DCED
34. Non-point Source Implementation Program (Section 319)	Grants	Provides funding to assist in implementing PA's Non-point Source Management Program, including funds for urban run-off, and natural channel design/streambank stabilization projects.	DEP
35 Non-point Source Pollution Educational Mini-Grants (PACD)	Grants	Helps County Conservation District inform and educate people about the causes, consequences, and clean-up of non-point source water pollution.	DEP
36. PA Housing Finance Agency (PHFA)	Grants Loans Tax credits	<p>PHFA programs include:</p> <ul style="list-style-type: none"> • Assistance in achieving home ownership. • Homeowners' Emergency Mortgage Assistance Program (HEMAP). • Programs to support rental housing, including: <ul style="list-style-type: none"> – Low-income Housing Tax Credits (LIHTC). – Federal HOME funding. – Allocation of private equity bond cap. – Homeownership Choice Program (HCP). 	PHFA
More information is available at www.phfa.org .			

Program Name	Program Type	Overview of Program	Administering Agency(ies)
37. Peer-to-Peer Program (Part of C2P2)	Grants (match required)	Peer-to Peer grants are awarded to help municipalities improve park, recreation. and conservation services through a collaborative process. Projects are accomplished through contracts with experienced park, recreation. and conservation professionals from nearby communities who will work closely with local leaders. Examples include: <ul style="list-style-type: none"> • Projects that form new intergovernmental recreation and park agencies (which is a high priority for DCNR), • Improving management of a specific facility such as a community center, trail or pool, • Conducting management assessment of services, and park and recreation board training. 	DCNR
38. PA Energy Development Authority (PEDA)	Grants Loan guarantees	Provides grants and loan guarantees for alternative energy projects and related research involving: Solar energy, Wind, Low-impact hydropower, Geothermal, Biologically-derived methane gas, Waste coal, Gasification, and demand management measures.	PEDA
39. Pennsylvania Capital Access Program (PennCAP)	Loan guarantees	Through participating banks, to support a wide variety of business purposes.	DCED
40. PA Community Development Bank Loan Program (PCD Bank)	Loans	Debt financing for Community Development Financial Institutions (CDFIs)	DCED
41. PA Economic Development Financing Authority (PEDFA) Tax-Exempt Bond Program	Bonds	Tax-exempt bonds to be used to finance land, building, equipment, working capital and re-financings.	

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BOROUGH OF ROYERSFORD COMPREHENSIVE PLAN

Program Name	Program Type	Overview of Program	Administering Agency(ies)
42. PEDFA Taxable Bond Program	Bonds	Taxable bonds to be used to finance land, building, equipment, working capital and refinancings.	DCED
43. Pennsylvania First (PA First)	Grants Loans Loan Guarantees	Funding to facilitate increased investment and job creation.	DCED
44. PA Industrial Development Authority (PIDA)	Loans	Financing through Industrial Development Corporations for land and building acquisition, construction, and renovation resulting in the creation or retention of jobs.	DCED
45. Pennsylvania Infrastructure Bank (PIB)	Loans	For the design, engineering, right-of-way and repair, reconstruction and construction of public highways, bridges, public and private airports and railroads and public transportation systems.	PennDOT
46. PA Infrastructure Investment Auth. (PennVEST)	Low-interest loans, and limited grants	For design, engineering and construction of publicly- and privately-owned drinking water distribution and treatment facilities, storm water conveyance, and wastewater treatment and collection systems.	PennVEST
47. PA Minority Business Devel. Auth. (PMBDA)	Loans	Loans to businesses owned and operated by under-represented minorities	DCED
48. PA Natural Gas Energy Development Program	Grants	Funding purchase and conversion costs of heavy-duty natural gas vehicles.	DEP
49. PA Recreational Trails Program (Part of C2P2)	Grants (match required)	Grants to state agencies, local governments, non-profit and for-profit organizations to assist with the construction, renovation, and maintenance of trails and trail-related facilities for both motorized and non-motorized recreational trail use, and the purchase or lease of equipment for trail maintenance.	DCNR

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Program Name	Program Type	Overview of Program	Administering Agency(ies)
50. PA Small Business Credit Initiative (SSBCI)	Loans	Increases access to credit for small businesses, through existing DCED programs to partner organizations and the Machinery and Equipment Loan Fund (MELF).	DCED
51. Pollution Prevention Assistance Account Program (PPAA)	Loans	Assistance for small businesses to implement pollution prevention and energy-efficiency projects, enabling the businesses to adopt or install equipment or processes that reduce pollution, energy use or raw materials.	DCED
52. Pollution Prevention Reimbursement Grant Program (Pump and Plug Underground Storage Tank)	Grants	Grants for the reimbursement for costs of pumping and plugging underground storage tanks.	DEP
53. Public Disaster Assistance Grant Program	Grants	Provides grants to municipalities to recover from floods, major storms, and other natural disasters to replace destroyed infrastructure.	PA Emergency Mgt. Agency (PEMA)
54. Rail Freight Assistance (RFA)	Grants (match required)	Grants to build or repair rail lines or spurs	PennDOT
55. Rails-to-Trails Program (Part of C2P2)	Grant (match required)	<p>Awarded to county and municipal governments, prequalified land trusts, educational institutions, and non-profit organizations to preserve and protect abandoned railroad corridors as trails. Projects can include:</p> <ul style="list-style-type: none"> • feasibility, master site development, and special purpose studies, • land acquisition, and • development of railroad rights-of-way for trails, including trail heads, access roads, parking areas, interpretive facilities, comfort facilities and signs. 	DCNR

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Program Name	Program Type	Overview of Program	Administering Agency(ies)
56. Redevelopment Capital Assistance Grant (RCAP)	Grants (50% match required)	Grants for projects with strong economic development benefits, and that are not eligible for primary funding support through other State programs. Project must meet federal eligibility requirements for tax-exempt bonds. Project must first be listed in State Capital Project Itemization legislation. Typical grants include assistance in funding parking decks and building facilities for major downtown employers.	State Office of the Budget, DCED
57. Renewable Energy Program (REP)	Grants Loans Loan Guarantees	Provides financial assistance to promote the use of alternative energy (e.g., geothermal and wind).	DCED and DEP under CFA direction
58. Research and Development (R&D) Tax Credit	Tax credits	Allows companies holding qualifying R&D tax credits to apply for approval to sell those tax credits and assign them to the buyer(s).	PA Dept. of Revenue
59. Rivers Conservation Program (Part of C2P2)	Grants (match required)	Grants to municipalities and nonprofit organizations. Funding is to develop or implement watershed/ river-corridor conservation plans. Priority is given to projects that implement plan recommendations in watersheds that are recorded on the PA Rivers Registry. DCNR will consider early implementation development projects for funding in watersheds not linked to a Rivers Conservation Plan if the project presents a significant and/or unique opportunity.	DCNR
60. Second Stage Loan Program	Loan guarantees	For working capital for 2–7 year old manufacturing, biotech, and technology-oriented companies	DCED through CFA

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Program Name	Program Type	Overview of Program	Administering Agency(ies)
61. Section 108 Program	Loan guarantees	Enables local governments participating in the Community Development Block Grant (CDBG) program to obtain federally guaranteed loans to fund large economic development projects and undertake revitalization activities. The municipality commits the use of future CDBG funds to pay off the loan in case of default.	DCED and Co. Dept. of Housing and Community Dev.
62. Small Business Advantage Grant Program (SBAG)	Grants	Provides 50 percent matching grants, up to a maximum of \$9,500, to enable a PA small business to adopt or acquire energy efficient or pollution prevention equipment or processes.	DEP
64. Small Business Pollution Prevention Assistance Account (PPAA) Program	Loans	Provides low interest loans to small businesses in undertaking projects that reduce waste, pollution or energy use. Loans will be used to fund 75 percent of the total eligible project cost, up to a maximum of \$100,000.	DEP
65. Small Business First (SBF)	Loans	Funding for small businesses, including: <ul style="list-style-type: none"> • low-interest loan financing for land & building acquisition and construction, • machinery and equipment purchases, and • working capital 	Local Area Loan Organizations (ALOs)
66. Solar Energy Program (SEP)	Grants Loans Loan Guarantees	Provides financial assistance to promote the use of alternative solar energy.	DCED and DEP under CFA direction
67. Sustainable Energy Fund Program	Loans	Low-interest loans to local governments to complete energy efficiency or renewable energy projects, such as solar photovoltaic and wind energy systems, lighting retrofits, HVAC upgrades, and building envelope enhancements.	Sustainable Energy Fund

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68. Tax Increment Financing (TIF) Guarantee Program	Loan guarantees	Promotes development, redevelopment and revitalization of sites in accordance with the TIF Act. The program provides credit enhancement for TIF projects to improve market access and lower capital costs through the use of guarantees to issuers of bonds or other indebtedness.	DCED
69. Technical Evaluation of HSCA Remedial Response	Grants	A Hazardous Sites Cleanup Act (HSCA) host municipality can receive a grant to conduct an independent technical evaluation of a proposed remedial response at a HSCA site. The grant money is locally administered by and available through the County.	DEP and the County
70. Transportation Alternatives Program (TAP)	Grants (match required)	Provides federal grants to enhance pedestrian and bicycle facilities, improve access to public transportation, create safe routes to schools, preserve historic transportation structures, provide environmental mitigation, create trails that serve a transportation purpose, and promote safety and mobility.	PennDOT and Del. Valley Regional Planning Commission
71. Tree-Vitalize Tree Planting Program	Grants	Provides grants to municipalities and established non-profit organizations to buy and plant trees along public streets and within public parks.	PA. Horticultural Society and PA. DCNR
72. Water Supply and Wastewater Infrastructure Program (PennWorks)	Loans, with some Grants to Distressed Areas	Funding to ensure safe water supply and proper wastewater infrastructure. The program is for: <ul style="list-style-type: none"> • water and sewer projects not used solely for residential purposes, • land and building acquisition, • demolition, • water/sewer project construction costs, and • project engineering and other fees. 	DCED

68. Tax Increment Financing (TIF) Guarantee Program	Loan guarantees	Promotes development, redevelopment and revitalization of sites in accordance with the TIF Act. The program provides credit enhancement for TIF projects to improve market access and lower capital costs through the use of guarantees to issuers of bonds or other indebtedness.	DCED
74. Weatherization Assistance Program (WAP)	Grants	Increases energy efficiency for low-income homeowners, including through installation of insulation.	Montgomery Co. Housing and Community Development (DCED funding)

Source: Websites of the various agencies, as accessed 2015.

Chapter 22

SUBDIVISION AND LAND DEVELOPMENT

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Part 1
GENERAL PROVISIONS

§ 101. Title. [Ord. 641, 5/14/1985, § 100]

This chapter shall be known and may be cited as the "Royersford Borough Subdivision and Land Development Ordinance of 1985."

§ 102. Enactment. [Ord. 641, 5/14/1985, § 101]

This chapter has been enacted in conformance with the provisions of Act 247 of 1968, the Pennsylvania Municipalities Planning Code, as amended.

§ 103. Contents. [Ord. 641, 5/14/1985, §§ 102-102.2]

This chapter contains regulations which include but are not limited to the following:

1. Provisions for the submittal and processing of plats for subdivisions and land development, and specifications for such plats, including provisions for tentative sketch, preliminary, and final plan processing and approvals, and for processing of final approval by stages or sections of development.
2. Provisions governing the standards by which streets shall be graded and improved, walkways, curbs, gutters, streetlights, fire hydrants, water, sewage, storm drainage facilities, and other improvements which shall be installed or guaranteed as conditions precedent to formal approval of plats.

§ 104. Purposes. [Ord. 641, 5/14/1985, §§ 103-103.10]

The following are the purposes of this chapter.

1. To ensure that new development and/or redevelopment within the Borough will be orderly, efficient, integrated, and harmonious.
2. To ensure that the layout and arrangement of subdivisions or land developments shall conform to the Royersford Borough Comprehensive Plan and to any regulations, maps, studies, and reports adopted in furtherance thereof.
3. To ensure that streets in and bordering a subdivision or land development shall be coordinated and be of such widths and grades and in such locations as deemed necessary to accommodate prospective traffic and parking and to facilitate fire protection.
4. To require adequate, appropriately located easements or rights-of-way for utilities and storm drainage facilities.

5. To ensure any lands offered for dedication or otherwise reserved for use as public or common grounds shall be of suitable size, configuration, and topographical character for their designated uses.
6. To ensure conformance of subdivision and land development proposals with the availability of municipal services and public facilities and the coordination of intermunicipal programs.
7. To preserve lands subject to inundation or flooding from subdivision or land development which would endanger life or property or further aggravate or increase the existing flooding or inundation conditions.
8. To encourage and promote flexibility, economy, and ingenuity in the layout and design of subdivisions and land development, including provisions authorizing the Borough to modify the requirements of this chapter in accordance with concepts and practices consistent with the modern and evolving, generally accepted principles of site planning and land development.
9. To provide equitable handling of all subdivision and land development proposals by providing uniform procedures and standards.
10. To encourage subdivision and land development in accordance with principles and practices which conserve energy, both during and after construction, and which encourage the use of alternative energy sources by the layout of the proposal and the siting of buildings.

§ 105. Interpretation. [Ord. 641, 5/14/1985, § 104]

The provisions of this chapter shall be the minimum requirements to meet the above-stated purposes. Where the provisions of this chapter impose greater restrictions than those of any other statute, ordinance, or regulations, then the provisions of this chapter shall prevail. Where the provisions of any other statute, ordinance or regulations impose greater restrictions than those of this chapter, the provisions of such statute, ordinance or regulations shall take precedence.

§ 106. Subdivision and Land Development Control. [Ord. 641, 5/14/1985, §§ 105-105.3]

1. Subdivision of a Lot or Construction, Opening, or Dedication of a Street. No subdivision or land development of any lot, tract, or parcel of land shall be made, and no street, alley, sanitary sewer, storm drain, water main, gas, oil or electric transmission line, or other improvements in connection therewith, shall be laid out, constructed, or dedicated for public use, or travel, or for the common use of occupants of a building abutting thereon, except in strict accordance with this chapter.
2. Sale of Lots, Issuance of Building Permits, or Erection of Buildings. No lot in a subdivision or land development may be sold, and no permit to erect, alter, or repair any building upon land in a subdivision or land development will be issued, unless and until a subdivision and/or land

development plan has been approved, and where required, recorded, and until the required improvements in connection therewith have either been constructed or guaranteed for construction in the form of bond, escrow, or other means suitable to the Borough Council and approved by the Borough Engineer and Solicitor, in accordance with the laws of the Commonwealth of Pennsylvania.

3. Condominiums. No provision of this chapter shall be construed to prohibit condominium ownership as permitted by the applicable enabling legislation of the Commonwealth of Pennsylvania.

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Part 2
DEFINITIONS

§ 201. Language Interpretation. [Ord. 641, 5/14/1985, §§ 200-200.7]

For purposes of this chapter, certain words shall be interpreted as follows:

1. Words used in the present tense include the future.
2. The singular number includes the plural, and the plural includes the singular.
3. The phrase "used for" includes "arranged for," "designed for," "intended for," "maintained for," and "occupied for."
4. The word "person" includes an individual, corporation, partnership, incorporated association, and/or any other similar entity.
5. The words "include" or "including" shall not limit the term to the specified examples but are intended to extend the meaning to all other instances of like kind and character.
6. The word "building" shall always be construed as if followed by the words "or part thereof."
7. The word "may" is permissive, and the words "shall" and "will" are always mandatory.

§ 202. Definition of Terms. [Ord. 641, 5/14/1985, §§ 201-201.50; as amended by Ord. 703, 9/26/1989, §§ 1 & 2]

Words and terms used in this chapter shall have the meanings given in this § 202. Unless expressly stated otherwise, any pertinent word or term not a part of this listing, but vital to the interpretation of this chapter, shall be construed to have its legal definition, or in absence of a legal definition, its meaning as commonly accepted by practitioners including civil engineers, surveyors, architects, landscape architects, and planners.

ACCEPTED ENGINEERING PRACTICE — That which conforms to accepted principles, tests and standards of nationally recognized technical, scientific, and/or engineering authorities.

ALLEY — A public or privately owned right-of-way, on which no new dwelling, stores, or other principle buildings are intended to front, serving as the secondary means of access to two or more properties.

APPLICANT — A person who has filed an application for approval of subdivision or land development plans, including his/her heirs, successors, agents, and assigns. This term also includes landowner, developer, builder, and/or other persons responsible for the plans and construction of buildings and/or other improvements on any parcel of land.

BASE FLOOD — See definition under "floodplain."

BLOCK — An area bounded by streets or streets and natural or man-made features.

BOROUGH COUNCIL — The elected governing body of the Borough of Royersford; also referred to as "Council."

BUFFER — An area designed to separate the uses of land which abut it and which functions to ease the transition between them. Unless otherwise specified, buffers may be included as part of the required setbacks and yard areas. Buffers may be divided into two or more types as explained in the Design Standards of this chapter.

BUILDER — See "applicant."

BUILDING — Any structure, whether built conventionally or in a manner generally referred to as "mobile," "modular," or "manufactured," and having enclosing walls and roof, permanently located on the land, the ordinary use of which requires people to enter the structure.

CARTWAY — The portion of a street, alley, or driveway intended for vehicular use.

COMMON OPEN SPACE — A parcel or parcels of land, or a combination of land and water, within a development site designed and intended for the use or enjoyment of residents of a development, not including streets, off-street parking areas and areas set aside for public facilities; also referred to as "open space."

COMPREHENSIVE PLAN — The current, officially adopted Comprehensive Plan for the Borough of Royersford and all amendments thereto.

CONSTRUCTION — The construction, reconstruction, renovation, repair, extension, expansion, alteration, or relocation of a building or structure, including the placement of mobile homes.

CURBLINE — The outermost edge of a cartway.

CUT — An excavation; the difference between a point on the original ground and a designated point of lower elevation on the final grade; also, the material removed in an excavation.

DEVELOPER — See "applicant."

DEVELOPMENT — Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, the placement of mobile homes, streets and other paving, utilities, mining, dredging, filling, grading, excavation, or drilling operations.

DEVELOPMENT PLAN — The provisions for guiding development, including a plan of subdivision, all covenants relating to use, location and bulk of buildings and other structures, intensity of use or density of development, streets, parking facilities, ways, common open space, and public facilities. The phrase "provisions of the development plan" shall mean the written and graphic materials referred to in this definition.

DRAINAGE — The natural or man-made features of the land that are specifically designed to store or carry surface water runoff.

DRIVEWAY — A private way providing for vehicular and pedestrian access between a public street and a parking area within a lot or property.

EASEMENT — A right-of-way or other right granted by a property owner for the use of a designated part of his/her property for public, quasi-public, or private purposes, including utilities, drainageways, and access.

ENGINEER — A professional engineer licensed as such in the Commonwealth of Pennsylvania.

EXCAVATION — Any act by which natural materials are dug into, cut, quarried, uncovered, removed, displaced, relocated or bulldozed, as well as the conditions resulting therefrom.

FILL — Any act by which natural materials are placed pushed, dumped, pulled, transported, or moved to a new location above the natural surface of the ground or on top of the stripped surface, as well as the conditions resulting therefrom.

FLOODPLAIN-RELATED TERMS —

- (1) BASE FLOOD — The flood which has been selected to serve as the basis upon which the floodplain management provisions of this chapter and other ordinances have been prepared. For the purposes of this chapter, it shall be the one-hundred-year flood as referenced in the current Flood Insurance Study and delineated on the Flood Insurance Rate Map of the Federal Insurance Administration.
- (2) BASE FLOOD ELEVATION — The one-hundred-year flood elevation as referenced in the Flood Insurance Study. Within the approximated floodplain, alluvial soils floodplain, or other similarly documented areas, the one-hundred-year flood elevation shall be established as a point on the boundary of the floodplain nearest to the construction site in question.
- (3) FEMA and FIA — The Federal Emergency Management Agency and the Federal Insurance Administration who have jurisdiction over the National Flood Insurance Program and its related studies and regulations. FEMA is the parent agency of the FIA.
- (4) FLOOD — A temporary condition of partial or complete inundation of normally dry land areas.
- (5) FLOOD INSURANCE RATE MAP — The official FIA map which shows special hazard zones and risk areas for insurance rating purposes. For the purposes of this chapter, it also delineates floodplain areas.
- (6) FLOOD INSURANCE STUDY — The examination and determination of flood hazards by the FIA. The flood elevations contained in this study are used for floodplain management purposes as related to this chapter and other ordinances.
- (7) FLOODPLAIN — A relatively flat or low land area adjoining a stream, river, or watercourse, which is subject to partial or complete inundation

during a one-hundred-year flood, or any area subject to the unusual and rapid accumulation of surface water from any source; also referred to as "flood-prone area."

- (8) FLOODPLAIN MANAGEMENT — The application of a program or activities which may consist of both corrective and preventive measures for reducing flood damages.
- (9) FLOODPROOFING — Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents. Such measures are set forth in Flood Proofing Regulations published by the Office of the Chief Engineers, U.S. Army, Publication Number EP 1165 2 314 (June 1972, and as subsequently amended). Floodproofing measures for all new construction and substantial improvements of structures shall satisfy the requirements of the Completely Dry Spaces (W1) and Essentially Dry Spaces (W2) classes reference in these regulations. In said publication where reference is made to "below" (or above) the "BFD" (base flood datum), it shall be interpreted as meaning below (or above) the base flood elevation.
- (10) ONE-HUNDRED-YEAR FLOOD — A flood that has one chance in 100 or a one-percent chance of being equaled or exceeded in any one year; for the purposes of this chapter, the one-hundred-year flood (base flood) as defined by the Federal Insurance Administration in the Flood Insurance Study.
- (11) REGULATORY FLOOD ELEVATION — The one-hundred-year flood elevation plus a freeboard safety factor of 1 1/2 feet.
- (12) SUBSTANTIAL IMPROVEMENT —
 - (a) Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure either:
 - (1) Before the improvement or repair is started; or
 - (2) If the structure has been damaged and is being restored, before the damage occurred.
 - (b) For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either:
 - (1) Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or

- (2) Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

FRONTAGE — The length of the lot line abutting a street right-of-way.

GRADE — The slope of a street, parcel of land, utility lines, drainageways, etc., specified in percent, and shown on plans as required herein.

GROUND COVER — Low-growing plant materials planted in a manner to provide continuous plant cover of the ground surface; lawn, ivy, and other low plant materials are included. Nonplant ground cover may also include bark or wood chips, gravel, and stone, provided they are maintained as a continuous pervious cover.

HEIGHT OF BUILDING — The vertical distance measured from the average elevation of the existing grade at the location of the building to the highest point of the roof, as further defined below:

- (1) Flat: highest point measurable.
- (2) Mansard: deckline.
- (3) Gable, hip, gambrel: height between the eaves and ridge.
- (4) For a building with two or more roof heights, to the higher roof.
- (5) Chimneys, spires, towers, mechanical penthouses, tanks, and similar projections not intended for human occupancy shall be excluded.

IMPROVEMENT — The physical additions, installations and changes required to render land suitable for the use proposed, including streets, curbs, sidewalks, utilities, and drainage facilities.

LAND DEVELOPMENT — Any of the following activities:

- (1) The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving:
 - (a) A group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots, regardless of the number of occupants or tenure; or
 - (b) The division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of, streets, common areas, leaseholds, condominiums, building groups, or other features.
- (2) A subdivision of land.
- (3) The following are excluded from the "land development" definition:
 - (a) The conversion of an existing single-family detached dwelling or single-family semidetached dwelling into not more than three

residential units, unless such units are intended to be a condominium; or

- (b) The addition of an accessory building, including farm buildings, on a lot or lots subordinate to an existing principal building.

LANDOWNER — The legal or beneficial owner or owners of land, or a building thereon, or a portion of either, including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition), a lessee if he is authorized under the lease to exercise the rights of the landowner, or other person having proprietary interest in land.

LOT — A contiguous tract, parcel, or unit of land held by a landowner and/or intended for use, development, lease, or transfer of ownership, and for which a deed description is recorded or is intended to be recorded at the office of the Recorder of Deeds for Montgomery County.

LOT AREA — The horizontal land area of a lot, further defined as follows:

- (1) **GROSS LOT AREA** — The total horizontal land area lying within the lot or tract boundaries.
- (2) **NET LOT AREA** — Gross lot area minus:
 - (a) The area lying between the street center line and the ultimate right-of-way line or equivalent right-of-way line.
 - (b) The land of the access strip to rear, flag, or interior lots.

LOT, REAR — A lot which conforms in all respects to the dimensional requirements of the zoning district in which it is located, except that the only road frontage and access is limited to an access strip. This definition does not include the commonly used wedge-shaped lots located on a cul-de-sac turnaround. Also known as "flag or interior lot."

NARROW LOT — Any lot abutting a street that shall have less than the required width at the street line or at any point between the street line and a point 25 feet beyond the proposed building. **[Added by Ord. 848, 11/8/2011]**

PLAN — A graphic representation of a proposal for subdivision and/or land development, including necessary written notes.

RESERVE STRIP — A parcel of land separating a street from adjacent properties.

REVERSE FRONTAGE LOTTING — Lotting which extends between two streets of differing classifications, with vehicular access provided from the lesser street, in order to promote traffic flow and safety on the greater street.

RIGHT-OF-WAY — A strip of land over which are provided rights for various purposes, including vehicular access and travel, storm drainage, and utilities; also see "street rights-of-way."

SIGHT DISTANCE — The distance of unobstructed view along the center line of a street from the driver's eye height of 3.75 feet to the furthest visible point six inches above the street surface.

SOIL SURVEY — The Montgomery County Soil Survey of 1967, prepared by the Soil Conservation Service of the United States Department of Agriculture.

STREET or ROAD — A public or private right-of-way serving primarily as a means of vehicular and pedestrian travel, furnishing access to abutting properties, and which may also be used for utilities, shade trees, and stormwater control.

STREET LINE — The dividing line between a lot and a street, identical to the ultimate right-of-way line.

STREET RIGHTS-OF-WAY — Rights-of-way for street purposes are defined as follows:

- (1) **LEGAL RIGHT-OF-WAY** — The street right-of-way legally in the public domain at the time a plan is submitted.
- (2) **ULTIMATE RIGHT-OF-WAY** — The street right-of-way projected as necessary for adequate handling of anticipated maximum traffic volumes.
- (3) **EQUIVALENT RIGHT-OF-WAY** — A street right-of-way required to be reserved where private streets are permitted. The width shall be determined by the street's function, in accordance with the street classifications contained in this chapter.

STRUCTURE — Any form or arrangement of building material involving the necessity of providing proper support, bracing, tying, anchoring, or other protection against the forces of the elements; also see "building" definition.

SUBDIVISION — The division or redivision of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels, or other divisions of land, including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building or lot development. The subdivision by lease of land for agricultural purposes into parcels of more than 10 acres, not involving any new street or easement of access or any residential dwelling, is exempted from this definition.

ULTIMATE RIGHT-OF-WAY LINE — The dividing line between a lot and the outside limit of a street ultimate right-of-way.

VISUAL SCREEN — A barrier whose purpose is to obscure a view; generally comprised of plant materials suitable for the purpose.

WATERCOURSE — A place intended or used for the directed surface flow of water, including permanent and intermittent streams, brooks, creeks, channels, ditches, swales, and rivers.

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YARD — An open, generally unoccupied area of a lot which must remain free of buildings, but which may contain lawn or planted areas, parking and/or driveways, walks, walls, fences, and similar appurtenances.

Part 3
PLAN SUBMISSION REQUIREMENTS

§ 301. Applicability. [Ord. 641, 5/14/1985, § 300]

The procedures set forth in this Part 3 shall be followed by all applicants proposing to subdivide or develop land in the Borough of Royersford.

§ 302. Classification of Subdivision and Land Development Plans. [Ord. 641, 5/14/1985, §§ 301-301.2]

1. Minor Plans. A plan which satisfies the criteria set forth in § 303, Subsections 1 and 2, herein shall be considered a minor subdivision or minor land development and may be used to satisfy the preliminary and final plan requirements for standard subdivisions and land developments as set forth in § 305, Subsections 1 and 2, below.
2. Standard Plans. For a proposal not meeting the criteria set forth in § 303, Subsections 1 and 2, herein, the following plans are required for submission:
 - A. A Tentative Sketch Plan — as described in § 305, Subsection 1A, herein, may be submitted by an applicant to the Borough Planning Commission for informal discussion. Said tentative sketch plan shall not be considered as a formal application.
 - B. A Preliminary Plan — as described in § 305, Subsection 1B, herein, is required for all applicable subdivisions and land developments proposed within the Borough.
 - C. A Final Plan — as described in § 305, Subsection 1C, herein, is required for all applicable subdivisions and land developments proposed within the Borough.
 - (1) A final plan shall consist of two parts:
 - (a) Record Plan — as described in § 305, Subsection 1C(1), herein.
 - (b) Improvements Construction Plan — where applicable, as described in § 305, Subsection 1C(2), herein.

§ 303. Criteria for Minor Plans. [Ord. 641, 5/14/1985, §§ 302-302.2]

It is the purpose of this section to provide simplified plan submission and processing requirements for minor subdivisions and land developments. Plans submitted under the provisions of this section must meet the following criteria:

1. Criteria for Minor Subdivisions. A subdivision of a tract of land that:
 - A. Contains less than four lots;

- B. Has not been part of a subdivision submitted under the same ownership within the past three years;
 - C. Proposes all lots to front on a physically improved street that is legally open to the public;
 - D. Will not involve a new access, right-of-way, easement, and/or the construction of any new street or road, the extension of municipal facilities or the creation of any other public improvements;
 - E. Requires not more than one dimensional variance from the Borough Zoning Chapter for not more than one of the proposed lots on which new construction will occur or may occur in the future;
 - F. Is in general conformance with the Borough Comprehensive Plan and other applicable plans.
2. Criteria for Minor Residential Land Developments. A land development that:
- A. Contains only one residential building with less than five dwelling units;
 - B. Has not been part of a land development submitted under the same ownership within the past three years;
 - C. Presently fronts on a physically improved street that is legally open to the public;
 - D. Will not involve the construction of any new street or road, the extension of municipal facilities or the creation of any other public improvements;
 - E. Is in general conformance with the Borough Comprehensive Plan and other applicable plans.
 - F. Will be served by existing public sewer and water.

§ 304. Minor Subdivision and Land Development Plan Requirements. [Ord. 641, 5/14/1985, §§ 303-303.2]

1. Minor Subdivisions Plans. Proposals qualifying as minor subdivision plans as defined in § 303, Subsection 1, herein shall meet the following established standards and provide the following information:
- A. Drafting Standards.
 - (1) A minor subdivision or land development plan shall be clearly and legibly drawn to a scale not in excess of one inch equals 50 feet; except if the parcel being subdivided is five acres or larger, the plan may be drawn to a scale not in excess of one inch equals 100 feet.

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- (2) Dimensions shall be in feet and decimals, and bearings in degrees, minutes, and seconds.
 - (3) The plan shall show the courses and distances of the boundary line survey of the entire land to be subdivided.
 - (4) The sheet or sheets shall be one of the following sizes: 15 x 18 inches, 18 x 30 inches, or 24 x 36 inches. If more than one sheet is necessary, each sheet shall be the same size and consecutively numbered to show its relation to the total number of sheets comprising the plan, i.e., Sheet No. 1 of 5 sheets, etc.
 - (5) Where there are two or more sheets, a key map shall be provided sufficient to show their relationship.
- B. Location and Identification. Each plan shall provide:
- (1) The name and address of the subdivider and/or developer and the registered surveyor or other qualified person who developed the plan.
 - (2) The name of the subdivision or development, its location in terms of significant bounding roads, and the name of the municipality.
 - (3) The date of preparation (or revision) of the plan, the scale, and a North point.
 - (4) The entire tract boundary, with bearings and distances, and a statement of the tract size.
 - (5) Layout and dimensions of all lots and net lot area of each.
 - (6) A key map relating the subdivision to at least three existing intersections of Borough streets.
 - (7) A legend sufficient to indicate clearly between existing and proposed conditions.
 - (8) The plan shall include a note setting forth the zoning requirements, including the applicable lot size and yard requirements. The plan also shall show the requirements of any other Borough ordinance, if any, on both the land to be subdivided or developed and the adjacent land.
- C. Existing and Proposed Features.
- (1) Within 100 feet of any part of the land being subdivided or developed, the plan shall show the following information:
 - (a) Property lines, existing buildings, present use and current owners.

- (b) The location, names and width (both cartway and right-of-way) of existing and proposed streets and alleys.
 - (c) The location and size of all watercourses and the boundaries of floodplains (not limited to the established flood level and regulatory flood elevation, where applicable).
 - (d) Man-made structures and natural features, such as steep slopes (over 15%), which may affect the potential layout of lots and buildings.
 - (e) Areas subject to deed restriction or easements.
 - (f) Other information deemed necessary by Borough Council.
- (2) Within the land to be subdivided or developed, the plan shall show the following:
- (a) Location and character of buildings located on the land, including the buildings to be demolished, as well as those to be retained and/or preserved.
 - (b) If applicable, the location, names, width and other dimensions of existing streets and alleys, including paving widths, curblines, rights-of-way and curblines radii at intersections and street location tie-ins by courses and distances to the nearest intersection of existing streets and alleys.
 - (c) The location and size of all watercourses and boundaries of floodplains (not limited to the regulatory flood elevation, where applicable).
 - (d) Man-made structures and natural features which limit the potential layout of lots and buildings, including the location of marshland, slopes over 15% and other topographical features. Whenever the parcel contains slopes in excess of 16%, topographical data may be required by the Borough Engineer.
 - (e) Areas subject to deed restrictions or easements.
 - (f) The plan shall reference any land to be dedicated or reserved for future road widening or other public or common use.
 - (g) Location and size of all soil types, if requested.
 - (h) Tentative sketch of future street and lot layout for remaining land not proposed for subdivision or development.
 - (i) Other information deemed necessary by Borough Council.

- (j) Contour lines at vertical intervals of five feet, except for floodplains, which shall be shown at intervals of two feet. Where reasonably practical, data shall refer to known established elevations or to the USGS datum.
 - (k) The location and size of utilities above or below the ground e.g., electric facilities, fire hydrants, gas mains, water lines.
- D. Additional Requirements for Subdivisions Within Floodplains. Minor subdivision applications for land within floodplains must conform to the applicable requirements for lands within such areas outlined in various sections of this chapter.
- E. Plan Submission. Minor subdivision plans shall be submitted in accordance with the plan processing procedures identified in Part 4 of this chapter.
2. Minor Land Development Plans. Proposals qualifying as minor land development plans, as defined in § 303, Subsection 2, herein, shall meet the following established standards and provide the following information:
- A. General Information.
- (1) Man-made features for the use of two or more prospective occupants.
 - (2) The lot size, floor area and/or gross leasable area, as applicable.
 - (3) The density.
 - (4) The total building coverage and the area of the total tract devoted to each use or group of uses, if applicable.
 - (5) The location and placement of all structures and facilities, including accessory structures.
 - (6) All roads, parking facilities and pedestrianways (including the total number of parking spaces).
 - (7) The areas of common open space or facilities.
 - (8) A conceptual site utilization layout defining the general location of all proposed uses and activities.
 - (9) Specifications for required improvements and changes to be effected upon the existing terrain or existing structures thereon, provided the improvements are not to be dedicated for public use.
 - (10) All covenants, deed restrictions or easements relating to use of property.

- (11) Location and size of on-site sewage facilities, if applicable, and documentation of approval of proposed facilities by local sewage enforcement officer.
- (12) Any other information deemed necessary by Borough Council.
- B. Drafting Standards and Additional Information. In addition to the information required in § 304, Subsection 2A, above, all the requirements of § 304, Subsection 1A, B and C, above shall be met.
- C. Additional Requirements for Developments Within Floodplains. Minor land development applications for land within floodplains must conform to the applicable requirements for lands within such areas outlined in various sections of this chapter.
- D. Plan Submission. Minor land development plans shall be submitted in accordance with the plan processing procedures identified in Part 5 of this chapter.
- E. Plan Approval. Plan approval shall be obtained through the procedure identified in Part 4 of this chapter. After Borough Council approves the minor land development plan, the plan shall become a final plan when the following certificates are obtained:
 - (1) The signature of the registered engineer or surveyor certifying that the plan represents a survey made by him, that the monuments shown thereon exist as located, and that the dimensional and geodetic details are correct.
 - (2) The signature of the developer certifying his adoption of the plan and any changes thereto.
 - (3) The signature of the Borough Manager certifying that Borough Council has approved the minor land development plan and any changes thereto on the date shown.
 - (4) Certification by the Zoning Hearing Board that any required special exceptions and variances have been granted.

Following final approval, the plan must be recorded in accordance with § 403 of this chapter.

§ 305. Regular Subdivision and Land Development Plan Requirements. [Ord. 641, 5/14/1985, §§ 304-304.3]

- 1. Regular Subdivision Plans. Plans which do not meet the criteria established in § 303, Subsection 1, herein, and which are submitted in accordance with the provisions of this section, shall conform to the following established standards and provide the following information:
 - A. Tentative Sketch Plan. Sketch plans shall be drawn legibly to scale, but not necessarily showing precise dimensions, and shall show the following information:

- (1) Name of the subdivision or land development.
 - (2) Name and address of the owner and the engineer, surveyor, or architect.
 - (3) The tract boundary and location by deed plotting.
 - (4) A North point and approximate scale.
 - (5) The location plan showing relationship of the subject tract to the surrounding street network.
 - (6) The existing and proposed road and lot (or building) layout.
 - (7) Significant topographical and physical features, such as floodplains, steep slopes (over 15%), woodlands, and existing structures.
 - (8) Proposals for control of drainage runoff and community facilities.
 - (9) Zoning requirements.
- B. Preliminary Plan. A preliminary plan shall be submitted for all proposed subdivisions not eligible for submission as a minor subdivision and for all applicable land developments. A preliminary plan shall conform to the following standards:
- (1) Drafting Standards.
 - (a) The preliminary plan of a proposed subdivision or land development shall be clearly and legibly drawn to a scale not in excess of one inch equals 50 feet; except if the parcel being subdivided or developed is five acres or larger, the plan may be drawn to a scale not in excess of one inch equals 100 feet.
 - (b) Dimensions shall be in feet and decimals, and bearings in degrees, minutes and seconds.
 - (c) The plan shall show the courses and distances of the boundary line survey of the entire land to be subdivided.
 - (d) The sheet or sheets shall be one of the following sizes: 15 x 18 inches, 18 x 30 inches, 24 x 36 inches. If more than one sheet is necessary, each sheet shall be the same size and consecutively numbered to show its relation to the total number of sheets comprising the plan; i.e., Sheet No. 1 of 5 sheets, etc.
 - (e) Where there are two or more sheets, a key map shall be provided sufficient to show their relationship.
 - (2) Location and Identification. Each plan shall provide:

- (a) A title consisting of the name and address of the subdivider, developer or builder and the registered engineer and/or surveyor who developed the plan.
 - (b) The name of the subdivision or land development, its location in terms of significant bounding roads and the name of the municipality.
 - (c) The date of preparation (or revision) of the plan, the scale, and a North point.
 - (d) The entire tract boundary, with bearings and distances, and a statement of the total size of the tract.
 - (e) Layout and dimensions of all lots and net lot area of each.
 - (f) A key map relating the subdivision to at least three existing intersections of Borough streets.
 - (g) A legend sufficient to indicate clearly between existing and proposed conditions.
 - (h) The plan shall include a note setting forth the zoning requirements, including the applicable lot size and yard requirements. The plan also shall show the requirements of any other Borough ordinance, if any, on both the land to be subdivided and the adjacent land.
- (3) Existing and Proposed Features.
- (a) Within 400 feet of any part of the land being subdivided or developed, the plan shall show the following information:
 - 1) Property lines, existing buildings, present use and current owners.
 - 2) The location, names, width (both cartway and right-of-way), radii and surface conditions of existing and proposed alleys and streets.
 - 3) The location and size of all watercourses and the boundaries of floodplains (not limited to the regulatory flood elevation, where applicable).
 - 4) The location of existing and proposed flood- or erosion-protective facilities.
 - 5) The location and size of existing and proposed sanitary sewers, manholes, storm sewers, and inlets.
 - 6) The location and size of existing and proposed utilities above and below ground (e.g. electric facilities, fire hydrants, gas mains, water lines and other utilities).

- 7) Man-made structures and natural features which may affect the potential layout of lots and buildings, including steep slopes (over 15%), marshland and other topographical features.
 - 8) Areas subject to deed restrictions or easements.
 - 9) Other information deemed necessary by Borough Council.
- (b) Within the land to be subdivided or developed, the plan shall show the following:
- 1) The location and character of existing and proposed buildings, including those existing buildings to be demolished as well as those to be retained.
 - 2) The location, names, widths and other dimensions of existing and proposed streets, including center line courses, distances and curve data, paving widths, curblines, rights-of-way and curblines radii at intersections and street location tie-ins by courses and distances to the nearest intersection of existing and proposed streets and alleys.
 - 3) For proposed streets, the plan shall show tentative grades to an existing street at a point 400 feet beyond the boundaries of the site.
 - 4) The plan shall show measured distances from the center line of existing and proposed streets to existing and proposed buildings, to existing and proposed trees and plantings, and to control points and monuments.
 - 5) The plan shall show all building setback lines with distances from the right-of-way line.
 - 6) The location and size of existing and proposed sanitary sewers, manholes, storm sewers and inlets.
 - 7) The location and size of all watercourses and boundaries of floodplains (not limited to the regulatory flood elevation, where applicable).
 - 8) Contour lines at vertical intervals of five feet, except for floodplains, which shall be shown at intervals of two feet. Where reasonably practicable, data shall refer to known established elevations or to the USGS datum.

- 9) The location and size of utilities above or below the ground, e.g., electric facilities, fire hydrants, gas mains, water lines.
 - 10) Man-made structures or natural features which limit the potential layout of buildings and lots, including tree masses, marshlands, steep slopes (over 15%) and other topographical features.
 - 11) The location and size of any area to be used for open space/recreation purposes.
 - 12) The location and size of all soil types, if requested by the Borough Engineer or Planning Commission.
 - 13) Areas subject to deed restrictions or easements, including land to be dedicated or reserved for future road widening or other public or common use.
 - 14) The location of any lots or areas which shall contain a use or uses other than residential.
 - 15) When a preliminary plan covers only a part of the owner's entire holding a tentative sketch shall be submitted of the prospective street and lot layout for the remaining area of the tract.
 - 16) The depth of the water table shall be noted on the plan or in a separate report, along with the location of test borings, where applicable.
 - 17) Other information deemed necessary by Borough Council.
- (4) Proposed Improvements.
- (a) The plan shall contain a tentative cross section and center line profile for each proposed or widened cartway shown on the preliminary plan, including the profile for proposed sanitary sewers and storm drains, showing the manholes, inlets and catch basins.
 - (b) The plan shall show preliminary design of any bridges, culverts or other structures and appurtenances which may be required.
- (5) Floodplains.
- (a) Within floodplains, all subdivision and land development plans shall be drawn to assure that:
 - 1) Proposals are consistent with the need to minimize flood damage;

- 2) Public utilities and facilities, such as sewer, gas, electrical and water systems, are located and constructed to minimize or eliminate flood damage; and
 - 3) Adequate drainage is provided so as to reduce exposure to flood hazards.
- (b) Where the subdivision or land development lies partially or completely in a floodplain or where the subdivision or land development borders on a floodplain, the plan shall include detailed information giving the location and elevation of existing and proposed streets, water supply and sanitary facilities, building sites, structures, soil types and proposed floodproofing measures. Such plan shall also show contour lines as described in § 305, Subsection 1B, of this chapter, and identify accurately the boundaries of the floodplain and the base flood elevation. When floodproofing measures are proposed for a structure within a floodplain, a registered professional engineer or architect shall certify that the floodproofing measures are adequate to meet the requirements of this chapter and other Borough ordinances.
- (c) The developer shall provide proof that adequate precautions against flood damage have been taken with respect to the design of any buildings or structures located wholly or partially within a floodplain area.
- (d) A copy of all plans for new construction in floodplain areas shall be submitted by the Borough to the Montgomery County Conservation District for review and comment prior to the issuance of a building permit. The recommendations of the Conservation District shall be considered by the Borough Council for possible incorporation into the proposed plan.
- (6) Certificates. Upon approval, the preliminary plan must show:
- (a) The signature of the subdivider, developer or builder, certifying his adoption of the plan and any changes thereto.
 - (b) The signature of the Borough Manager, certifying that the Borough Council has approved the plan and any charges thereto on the date shown.
- C. Final Plan. A final plan shall conform to the following standards:
- (1) Record Plan.

- (a) Drafting Standards. The same standards shall be required for a record plan as for a preliminary plan, and in addition, for recording purposes, the plans shall be placed on sheet sizes of 15 x 18 inches, 18 x 30 inches, or 24 x 36 inches. All lettering and lines should be drawn so as to still be legible should the plan be reduced to half size.
- (b) Information to be Shown. The plan, which shall include all portions of an approved preliminary plan, shall show:
- 1) A title, as required for a preliminary plan, including the name of the surveyor who prepared the plan.
 - 2) Courses and distances sufficient for the legal description of all the lines shown on the plan. The error of closure shall not be greater than one part in 10,000.
 - 3) The names of abutting owners; names, locations, widths and other dimensions of all roads, including center line courses, distances and curve data; descriptive data of ultimate right-of-way line, so that a single deed may be drawn to the appropriate authority for the dedication of roads by the subdivider, developer or builder.
 - 4) Evidence should be provided that the plans are in conformance with the Borough Zoning Chapter and other applicable Borough ordinances and regulations.

In any instance where such plans do not conform, evidence shall be presented which identifies the special exceptions or variances that have been officially authorized.
 - 5) When only a portion of the tract is being reviewed relative to subdivision or land development, but where future subdivision or development is imminent, the applicant shall demonstrate that the remainder of the tract or parcel may be subdivided or developed in conformance with the existing zoning classification of land use in a logical and satisfactory manner, as a condition of approval of his plan.
 - 6) The location, material and size of all monuments.
 - 7) Building setback lines with distances from the ultimate right-of-way line.
 - 8) Restrictions in the deed affecting the subdivision or development of the property.

- 9) The location of all floodplains, and steep slopes (over 15%).
- (c) Certificates. When approved, the record plan must show:
- 1) The signature of the surveyor certifying that the plan represents a survey made by him; that the monuments shown thereon exist as located; and that the dimensional and geodetic details are correct.
 - 2) The signature of the subdivider, developer or builder, certifying that the Borough Council approved the plan on the date shown.
 - 3) The signature of the Borough Manager, certifying that the Borough Council approved the plan on the date shown.
 - 4) Certification by the Zoning Hearing Board that any required special exceptions and variances have been granted.
- (2) Improvement Construction Plan (where applicable).
- (a) Drafting Standards. The same standards shall be required for an improvement construction plan as for a preliminary plan, except that the horizontal scale of the plan and profile shall not be in excess of 50 feet to the inch and the vertical scale of the plan shall be two, five or 10 feet to the inch, whichever is most appropriate.
 - (b) Information to be Shown. The plan shall contain sufficient information to provide working plans for the construction of the proposed roads, or any portion thereof, including all appurtenances, sewers and utilities, as shown on the approved preliminary plan from one existing or approved road to another, or in the case of a cul-de-sac, to its turnaround. Said information shall include:
 - 1) Horizontal Plan. The horizontal plan shall show details of the horizontal layout as follows:
 - a) Information shown on the approved preliminary plan.
 - b) The beginning and end of proposed immediate construction.
 - c) Stations corresponding to those shown on the profile.

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- d) The curb elevation at tangent points or horizontal curves at road or alley intersections and at the projected intersections of the curblines.
 - e) The location and size of sanitary sewers and lateral connections with distances between manholes, water, gas, electric, and other utility pipes or conduits and of storm drains, inlets and manholes.
 - f) The location, type and size of curbs and all paving widths.
 - g) The location and species of all shade trees and location and type of fire hydrants and streetlights.
- 2) Profiles. The profile shall be a vertical section of the road with details of vertical alignment as follows:
- a) Profiles and elevations of the ground along the center lines of proposed roads.
 - b) Profiles of sanitary sewers with a profile over the sewer of the present and finished ground surface showing manhole locations beginning at the lowest manhole.
 - c) Profiles of storm drains showing manhole and inlet locations.
- 3) Cross Section. The cross section shall comply with the Borough Engineer's standards and specifications as minimum requirements. It shall show a typical cross section across the road with details of grading and construction as follows:
- a) The road and the location and width of paving within the road.
 - b) The type, depth and crown of paving.
 - c) The type and size of curb.
 - d) When sidewalks are required, grading of the sidewalk area should be carried to the full width of the road and slopes of cut or fill extended beyond the road.
 - e) The location, width, type and depth of sidewalks, when required.
 - f) The typical location, size and depths of sewers and utilities.

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2. Regular Land Development Plans. Plans which do not meet the criteria set forth in § 303, Subsection 3, herein, and which are submitted in accordance with the provisions of this section, shall provide the information required in § 304, Subsection 2A, and § 305, Subsection 1B and C, above.
3. Additional Final Plan Requirements for Floodplain Areas. The following information shall be required as part of the final plan and shall be prepared by a registered engineer or surveyor:
 - A. All information required for the submission of the preliminary plan, incorporating any changes requested by the Borough Council of the Borough of Royersford.
 - B. A map showing the exact location and elevation of all proposed buildings, structures, roads, and public utilities to be constructed within any designated floodplain district. All such maps shall show contours at intervals of two feet and identify accurately the boundaries of the flood-prone areas.
 - C. Submission of the final plan shall also be accompanied by all required permits and related documentation from the Department of Environmental Resources, and any other commonwealth agency, or local municipality where any alteration or relocation of a stream or watercourse is proposed.
 - D. Documentation shall be submitted indicating that all affected adjacent municipalities have been notified of the proposed alteration or relocation. The Department of Community Affairs and the Federal Insurance Administrator shall also be notified whenever any such activity is proposed.

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Part 4
PLAN SUBMISSION PROCEDURES

§ 401. Plan Processing. [Ord. 641, 5/14/1985, §§ 401-401.8; as amended by Ord. 703, 9/26/1989, §§ 3 & 4]

All required subdivision and land development plans, as defined in Part 3 herein, shall be submitted in accordance with the following procedures.

1. All plans filed for approval shall be submitted in the following order:
 - A. Tentative sketch plan (may be submitted to the Borough Planning Commission for informal discussion and guidance).
 - B. Minor subdivision plan or minor land development plan (may be submitted in satisfaction of preliminary and final plan requirements for all applicable subdivision or land developments).
 - C. Preliminary plan.
 - D. Final plan.
2. Each plan, whether tentative, minor subdivision or minor land development, preliminary or final, shall be filed one at a time; no subsequent plans shall be filed until a decision on the preceding plan has been reached.
3. When the decision reached concerning an application for approval of a specific plan results in a denial of the plan, then the applicant, when/if he should reapply requesting approval of the plan, shall do so in accordance with the plan sequences outlined in § 401, Subsection 1, herein, and additional procedures below.
4. Applications for approval of a subdivision or land development plan shall be received by the Borough Manager. Submittal and processing fees for plans and specifications for such plans shall accompany the applications. An application shall not be considered complete until such fees are paid. No fee is required for a sketch plan submission.
5. The applicant, or his agent, shall be required to appear in person at the Borough Hall in order to make application for approval of a plan and file plans therewith.
6. Formal application shall be received at any time during normal Borough working hours. All applications for approval of a plan shall be acted upon by the Borough Council, and such decisions shall be communicated to the applicant, in writing, not later than the prescribed time period according to the Pennsylvania Municipalities Planning Code.
7. The applicant must submit a tentative, minor subdivision, minor land development, preliminary, or final plan for review prior to applying to the Zoning Hearing Board for the granting of variances or special

exceptions. If, during the review process, it is determined that a variance or special exception is necessary, then the applicant shall apply to the Zoning Hearing Board for such.

8. Schedule of Plan Processing Steps.
 - A. Applications for subdivisions or land development, accompanied by a minimum of five copies of the proposed plan, shall be received at the Borough Hall by the Borough Manager.
 - (1) For tentative sketch plans, only one copy is required.
 - (2) No fee is required for Borough Planning Commission review of tentative sketch plans. However, if a County Planning Commission review is requested, with a written response, then the Montgomery County Act 247 review fee will be charged.
 - B. The date shall be stamped on each copy of the plan, and two fees shall be received:
 - (1) The Borough filing fee, in accordance with the fee schedule adopted by resolution of Borough Council.
 - (2) The Montgomery County Planning Commission Act 247 review fee.
 - C. A cursory examination of the plan will be conducted to ensure basic compliance with the plan submission requirements of this Part 4.
 - D. The Borough Manager shall distribute copies of the plan to the following persons, agencies, or groups:
 - (1) Borough Planning Commission.
 - (2) Montgomery County Planning Commission, along with appropriate fee.
 - (3) Borough Engineer.
 - (4) Borough Solicitor.
 - E. Application for approval of a subdivision or land development plan shall be placed on the agenda of the next Borough Planning Commission meeting following submission of the application.
 - F. Application for approval of a subdivision or land development plan shall be placed on the agenda of the next Borough Council meeting following receipt by the Borough Manager of the recommendation

of the Montgomery County Planning Commission,¹ Borough Planning Commission and Borough Engineer.

- G. The Borough Council shall require the applicant to submit copies of all necessary permits from those governmental agencies from which approval is required by federal or state law.
- H. The Borough Council shall act on the plan within 90 days after the date of the next regular meeting of the Borough Planning Commission following the date the application is submitted. If, however, the next regular meeting of the Borough Planning Commission occurs more than 30 days following the filing of the application, the said ninety-day period shall be measured from the 13th day following the day the application has been filed. The following optional consequences shall result from action by the Council.
 - (1) If the Council approves the plan, the Borough Manager will so certify thereon and two copies of the approved plan will be forwarded to the applicant. The applicant would then resubmit four copies of the approved plan (two paper copies and two mylar or linen copies for seal and signature).
 - (2) The Council may conditionally approve a plan, in which case the applicant shall appear at a subsequent Council meeting to demonstrate compliance with the conditions stipulated.
 - (3) If the Council disapproves the plan, the Borough Manager will notify the applicant, in writing, of the defects in the application, will describe the requirements which have not been met and shall cite the provisions of state law or Borough ordinance relied upon.
- I. Approval will be effective for a period of five years, unless extended by Council. Where final approval is preceded by preliminary approval, the five-year period shall be counted from the date of preliminary approval. No subsequent change or amendment in the zoning, subdivision or other governing ordinance or plan shall be applied to affect adversely the right of the applicant to commence and to complete any aspect of the approved development in accordance with the terms of such approval within five years from such approval.

1. Note regarding § 401, Subsection 8F: According to the requirements of the Pennsylvania Municipalities Planning Code, Act 247, and the policies of the Montgomery County Planning Commission, the recommendations of the County Planning Commission shall be submitted to the Borough Council no later than the time period currently specified in Act 247. In accordance with the policies of the Montgomery County Planning Commission, the date that the county review period begins shall be the date the application is received at the county. A review will be considered late only if the date on the county's report is more than the mandated number of days of the review period, unless a time extension has been granted or the proposal was temporarily withdrawn. When the review period has been suspended for any valid reason, the review period will continue counting from the date on which it was stopped upon resolution of the problem. In no case, however, shall the review period be resumed with less than 15 days remaining.

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- J. When deemed desirable, the applicant may be requested to agree, in writing, to an extension of the time prescribed herein, in which case the Council, when rendering its decision, shall communicate it to the applicant prior to the termination of the extended time period.
- K. If the Borough Council determines that only a portion of a proposed plan can be safely developed, it shall limit development to that part and shall require that development proceed consistent with this determination.
- L. When a developer does not intend to develop the plan himself and the Borough Council determines that additional controls are required to ensure safe development, it may require the developer to impose appropriate deed restrictions on the land. Such deed restrictions shall be inserted in every deed and noted on the record plan.
- M. No applicant shall be permitted to submit a new subdivision or land development plan for which there exists a prior approved plan, unless the applicant agrees, in writing, that as a condition of approval of the new application, the applicant will withdraw the prior approved application.
- N. The approval of a subdivision or land development plan near or within the floodplain shall not constitute a representation, guarantee or warranty of any kind by the municipality, or by an official or employee thereof, of the practicability or safety of the proposed plan and shall create no liability upon the Borough, its officials, or employees. The degree of floodproofing intended to be provided by the Borough floodplain management regulations is considered reasonable for regulatory purposes and is based on engineering and scientific methods or study. These regulations do not imply that areas outside floodplains or subdivisions or land developments permitted within such areas will always be totally free from flooding or flood damage.
- O. When requested by the applicant, the Borough Council shall furnish the developer with a signed copy of a resolution indicating approval of the final plan contingent upon the applicant obtaining a satisfactory financial security. The final plan shall not be signed or recorded until any financial improvements agreement is executed. The resolution of contingent approval shall expire and be deemed to be revoked if any financial security agreement is not executed within 90 days unless a written extension is granted by the Borough Council.

§ 402. Recording the Plan. [Ord. 641, 5/14/1985, § 402]

Upon approval of a final plan of subdivision or land development, the applicant shall, within 90 days of such final approval, record such plan in

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the office of the Recorder of Deeds of Montgomery County, Pennsylvania. The approved final plan shall bear the official signature and seal of the Borough of Royersford, and the review stamp of the Montgomery County Planning Commission, prior to recording.

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Part 5
DESIGN STANDARDS

§ 501. General. [Ord. 641, 5/14/1985, §§ 500-500.8; as amended by Ord. 703, 9/26/1989, § 5]

The following principles of subdivision and land development, general requirements, and minimum standards of design shall be observed by the applicant in all instances.

1. All portions of a tract being subdivided shall be taken up in lots, streets, public lands or other proposed uses so that remnants and landlocked areas shall not be created.
2. Whenever possible, applicants shall preserve trees, groves, waterways, scenic points, historic spots and other community assets and landmarks.
3. Subdivision and land developments should be laid out so as to avoid the necessity for excessive cut or fill unless specifically warranted by terrain or location.
4. Applicants shall observe the ultimate rights-of-way for contiguous existing streets as prescribed by the Official Street Map for the Borough. Additional portions of the corridors for such streets shall be offered to the government agency having jurisdiction at the time the subdivision or land development is consummated. Applicable building setback lines, as defined by the Borough Zoning Chapter of current adoption, shall be delineated as measured from the street line or ultimate right-of-way.
5. The standards of design in this chapter will be used to judge the adequacy of subdivision and land development proposals. The standards included in these regulations are minimum design requirements. The Borough Council reserves the right in any case to request that development features exceed these standards if conditions so warrant.
6. The Borough Council may modify or adjust the standards to permit reasonable utilization of property while securing substantial conformance with the objectives of the regulations. All requests for a modification shall:
 - A. Be in writing and part of an application for subdivision and/or land development;
 - B. State the grounds and facts of unreasonableness or hardship on which the request is based;
 - C. List the provision(s) of the ordinance involved; and
 - D. State the minimum modification necessary.

7. Developers and subdividers shall, if deemed necessary by Borough Council, provide areas and easements for schools and other public buildings, parks, playgrounds, and playfields, and rights-of-way and easements for storm and sanitary sewer facilities in any area that cannot immediately be joined to the existing storm and sanitary sewer systems of the Borough.
8. Areas provided or reserved for such community facilities should be adequate to provide for building sites, landscaping and off-street parking as appropriate for the proposed use. Borough Council reserves the right to accept or refuse offers of dedication for public uses.

§ 502. Recommendation of Borough Planning Commission. [Ord. 641, 5/14/1985, § 501]

In reviewing subdivision or land development plans, the Borough Council shall refer such plans to the Borough Planning Commission for recommendations concerning the adequacy of existing and proposed community facilities to serve the additional dwellings proposed by the subdivision or land development.

§ 503. Streets. [Ord. 641, 5/14/1985, §§ 502-502.4]

In accordance with the Borough Code, all new streets and culs-de-sac, and widened portions of all existing rights-of-way, intended for public use shall be dedicated to the Borough subject to final acceptance based on compliance with the following requirements and § 702 of these regulations.

1. Street System.
 - A. Conformance with Adopted Plans. The proposed street pattern shall conform to existing streets, to any Borough Official Street Map, and to such county and state road and highway plans as have been duly adopted by said agencies.
 - B. Arrangement. Streets shall be arranged in a manner which is consistent with both existing and planned streets and located so as to allow proper development of surrounding properties. Collector streets and primary arterials shall be connected with such existing streets and highways to form continuations thereof. Residential streets shall be laid out so as to discourage their use as collector streets or primary arterials. Where, in the opinion of Borough Council, it is desirable to provide for street access to adjoining property, streets shall be extended by dedication to the boundary of such property.
 - C. Conformity with Topography. Streets shall be adjusted to the contour of the land so as to produce usable lots and streets of reasonable grade, alignment and drainage.

- D. Grading. The street shall be graded to the full width of the right-of-way and provision made for slopes beyond the right-of-way in conformance with Borough specifications.
- E. Provisions of Streets for Future Development. Access shall be given to all lots and portions of the tract in the subdivision and to adjacent unsubdivided territory. Streets giving such access shall be improved to the limits of the subdivision. Remnants, reserve strips and landlocked areas shall not be created.
- F. New Streets. New streets shall be designed to continue existing streets at equal or greater right-of-way and cartway width, where practical.
- G. Dead-End Streets. Dead-end streets are prohibited unless designed for access exclusively to neighboring tracts.
- H. Street Names. Continuations of existing streets shall be known by the same name. Names for new streets shall not duplicate or closely resemble names of existing streets. All street names are subject to the approval of Borough Council.
- I. Half Street. The dedication of half streets at the edges of a new subdivision is prohibited. If circumstances render this impracticable, adequate provision for the concurrent dedication of the remaining half of the street must be furnished by the subdivider, developer or builder. When there exists a half street in an adjoining subdivision, the remaining half shall be provided by the proposed development.
- J. Private Street. Whenever a subdivider or developer proposes to establish a street which is not offered for dedication to public use, Borough Council shall require the applicant to submit, and also to record with the plan, a copy of the agreement made with the Borough on behalf of his heirs and assigns. This agreement must be signed by the Borough Solicitor and shall establish the conditions under which the street may later be offered for dedication. The agreement should stipulate:
 - (1) That the street shall conform to the Borough's specifications or that the owner of the abutting lot shall include with the offer of dedication sufficient money, as estimated by the Borough Engineer, to restore the street to conformance with Borough specifications.
 - (2) That an offer to dedicate the street shall be made only for the street as a whole.
 - (3) That agreement by the owners of 51% of the front footage shall be binding on the owners of the remaining lots. Such condition shall be noted in the deeds for these properties.

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(4) When, in the determination of Borough Council, it becomes necessary for the Borough to assume responsibility for a private street in order to maintain the health, safety and welfare of the residents, the Borough may do so.

K. Streets in Floodplains. The finished elevations of any proposed street shall not be more than one foot below the regulatory flood elevation. The Borough Council may require, where necessary, profiles and elevations of streets to determine compliance with the requirements. Drainage openings shall be sufficient to discharge flood flows without unduly increasing flood heights.

2. Street Alignment.

A. Sight Distance. For all streets, a sight distance of 200 feet should be maintained. Sight distance should be measured at the center line of the street and at a driver's eye height of 3.75 feet.

B. Street Grades.

(1) There shall be a minimum grade of at least 1% on all streets.

(2) Grades in excess of 5% shall be avoided where possible, and no grade shall exceed 10% without approval of Borough Council. The grade shall be measured along the center line.

(3) All streets shall be graded to the grades shown on the street profile and cross section plan submitted and approved with the preliminary plan of subdivision or land development. They shall be inspected and checked for accuracy by the Borough Engineer.

3. Right-of-Way Width, Paving Width, and Curbing.

A. Street. The minimum widths of the right-of-way and the paving, and the requirements for curbing, shall not be less than those of an existing street of which the new street is to be a continuation, nor less than the following:

Type of Street	ROW Width (feet)	Paving Width (feet)	Curbing
Primary arterial	80	50	Required
Collector	60	40	Required
Residential	53	33	Required
Cul-de-sac	53	33	Required

B. Additional widths may be required by the Borough:

(1) Where necessary for public safety and convenience.

- (2) For parking in commercial or industrial areas.
- (3) Where old streets do not provide the proper width and additional dedication is necessary.
- C. Minimum right-of-way width for development along existing streets shall correspond with the Official Street Map.
- D. The area between an existing right-of-way line and ultimate right-of-way line should be offered for dedication to the authority having jurisdiction over the road when land is subdivided or developed along an existing right-of-way.
- E. Islands, medial strips, and channelization may be required in any area where traffic volumes warrant their use for safety and efficiency and may be permitted in any area at the discretion of the Borough Council. Such devices on state roads must meet or exceed the requirements of the Pennsylvania Department of Transportation.
- F. A cul-de-sac will not be approved when a through street is practicable. The developer or subdivider shall have the burden of showing the impracticability of the through street in order to justify a cul-de-sac.

A cul-de-sac shall not be more than 500 feet in length, except in cases approved by Borough Council where conditions of the land so warrant the increase in length. A cul-de-sac shall have a right-of-way of 50 feet and shall have a circular turnaround with a minimum right-of-way radius of 50 feet and an outer paving radius of 40 feet.
- G. Where it is proposed that a street be constructed to an abutting property line with the intention that such a street will be extended onto the property at a future date, a temporary circular turnabout shall be built, wholly within the right-of-way. The right-of-way whether permanent or temporary shall have a minimum radius of 50 feet, and the cartway of the turnabout shall have a radius of 40 feet.
- H. The developer extending a temporary cul-de-sac is responsible for removing the excess paving beyond the width of the normal cartway and regarding the area to match the surrounding grade. The extension of any driveways or walkways or planting of the area shall also be the responsibility of the developer. The area of a temporary cul-de-sac beyond the normal right-of-way width shall revert back to the adjacent property owners when the cul-de-sac is extended.
- I. No fences, hedges, trees, shrubbery, walls, plantings, or other obstructions shall be located or be permitted within the right-of-way, except for ground covers such as grass, ivy, crown-vetch, or

horizontally spreading shrubs less than one-foot high, or retaining walls necessitated by street widening and constructed by the authority having jurisdiction over the street.

4. Street Intersections.

- A. Number of Intersections. No more than two streets shall cross at the same point. Four-way intersections are to be avoided in the layout of minor streets in residential areas when three-way or T-intersections can be utilized. When existing streets intersect at odd angles, or have more than four approaches, the subdivider, developer or builder shall be required to make corrective changes to eliminate the odd angle or reduce the number of approaches to the intersection by curving the lesser street.
- B. Minimum Angle of Intersection. Right-angle intersections shall be used whenever practicable. There shall be no intersection angle, measured at the center line, of less than 60°.
- C. Center Line. Where center lines of streets open into opposite sides of a major artery within 100 feet of each other, they shall be made to coincide by curving the minor street or streets.
- D. Sight Distance. Proper sight lines should be maintained at all intersections of streets. There shall be measured along the center line a minimum clear sight triangle of 75 feet from the point of intersection. No building, trees, hedge, shrubbery or other obstruction whatsoever shall be permitted in this area. Any obstruction to sight shall be removed at the time a building or structure is erected, whichever shall first occur.
- E. Approach Alignment. Approaches to an intersection shall follow a straight line for a minimum of 100 feet.
- F. Approach Grades. All approaches to an intersection shall not exceed 3% for a distance of 50 feet measured from the nearest right-of-way line of intersecting street.
- G. Radii of Pavement and Right-of-Way at Intersections. Street intersections shall be rounded with tangential arcs at pavement edge (curbline) and right-of-way lines as listed below. Where two streets of different right-of-way widths intersect, the radii of curvature for the widest street shall apply.

Type of Street	Minimum Radius of Arc at Intersection of Pavement Edge or Curbline (feet)	Minimum Radius of Arc at Intersection of Right-of-Way Line (feet)
Primary arterial	40 (or more as may be required)	20
Collector	30	20
Residential	25	15
Cul-de-sac	25	15

§ 504. Alleys, Driveways, and Parking Areas. [Ord. 641, 5/14/1985, §§ 503-503.3]

1. Alleys. Alleys are prohibited in the Borough except as the completion or extension of one in existence. In commercial or industrial districts without expressly designed loading areas, alleys with a minimum width of 25 feet shall be required. Where such alleys dead-end, they shall be provided with a cul-de-sac having a radius of not less than 25 feet. The cartway shall be a minimum of 20 feet.
2. Driveways:
 - A. Driveways shall be so located as to provide reasonable sight distance at intersections with streets. Whenever practicable, driveways shall be located not less than 40 feet from the street intersection. Where two or more streets of different classifications are involved, access shall be provided to the street of a lesser classification.
 - B. All driveways shall be located, designed and constructed in such a manner as not to interfere or be inconsistent with the design, maintenance, and drainage of the highway.
 - C. Access driveways should be located in such manner that they will not unduly cause:
 - (1) Interference to the traveling public.
 - (2) A hazard to the free movement of normal street traffic.
 - (3) Areas of traffic congestion on the street.
 - D. Frontages of 50 feet or less shall be limited to one driveway. No more than two driveways shall be provided to any single property, tract, or commercial/business establishment, except where the frontage exceeds 300 feet in length.
 - E. Driveways shall be paved to the widths and grades as follows:

Minimum* Paving Width

Land Use	(feet)
Single-family residential	10
Multifamily residential	12 (one way)
	24 (two way)
Commercial and industrial	12 (one way)
	24 (two way)

* Curb depression shall be five feet wider than the width of the driveway.

- F. The Borough Council shall have the authority to approve driveways intended for the use of two or more families, multifamily developments, commercial and industrial projects where usage by the occupants constitutes essentially a private street. Driveways constituting private streets are those accessways used by two or more families daily or 10 or more workers daily for vehicular circulation. Driveways serving as private streets shall not be dedicated to the Borough, nor does the Borough assume any responsibility for their maintenance.
- G. Location and placement of driveways serving as private streets shall comply with the provisions of this section. Additionally, provisions for drainage and stormwater runoff shall be approved by the Borough Engineer.
- H. The Borough Council shall evaluate the location, placement and alignment of driveways serving as private streets based upon the ease of accessibility to and efficient maneuverability through the development for protective services of fire and police.
- I. The owner, and all successors, of any property which is to abut any driveway serving as a private street shall be fully responsible for the permanent improvement of the driveway(s) and for the maintenance thereof in a good and safe condition.
3. Parking Areas.
- A. Automobile parking facilities shall be provided off street in accordance with requirements of the Zoning Chapter and this chapter.
- B. At no time shall angle or perpendicular parking along the curbs of local, public and private access roads and streets be permitted, except where permitted by Borough ordinance. All parking lots and bays allowing any parking other than parallel shall be physically separated from the cartway by a minimum of seven feet and confined by barrier curbing.

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- C. No one area for off-street parking of motor vehicles in residential areas shall exceed 30 cars in capacity. Separate parking areas on a parcel shall be physically separated from one another by ten-foot planting areas.
- D. Parking stall dimensions shall be not less than specified in § 504, Subsection 3E, below. Ten percent of the total stall area may be maintained in grass, provided that such grass area shall be separated from the paved area by a suitable car wheel stop or bumper, the same to be approved by the Borough Engineer.
- E. Parking lot dimensions shall be no less than those shown in the following table and diagrams:

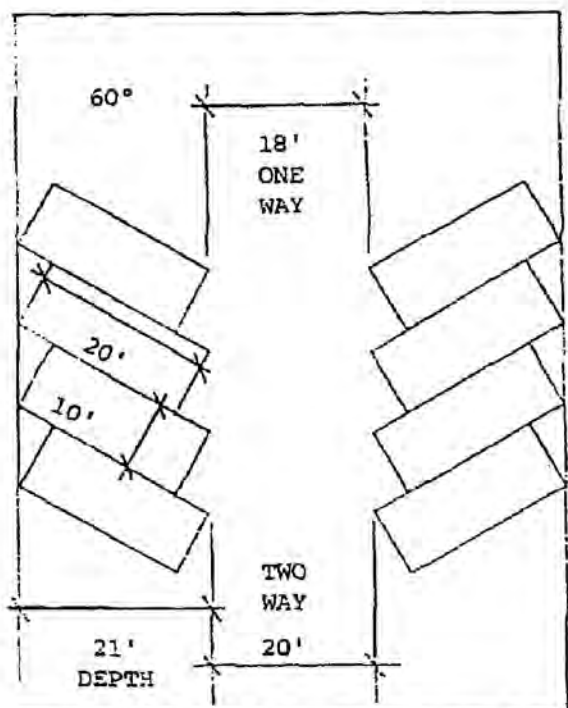
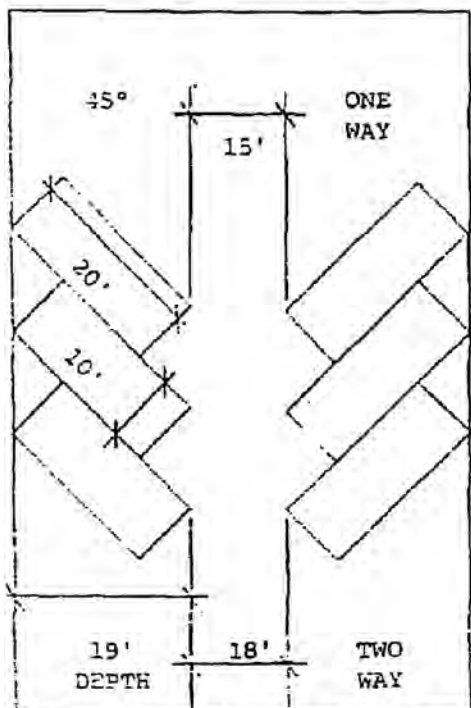
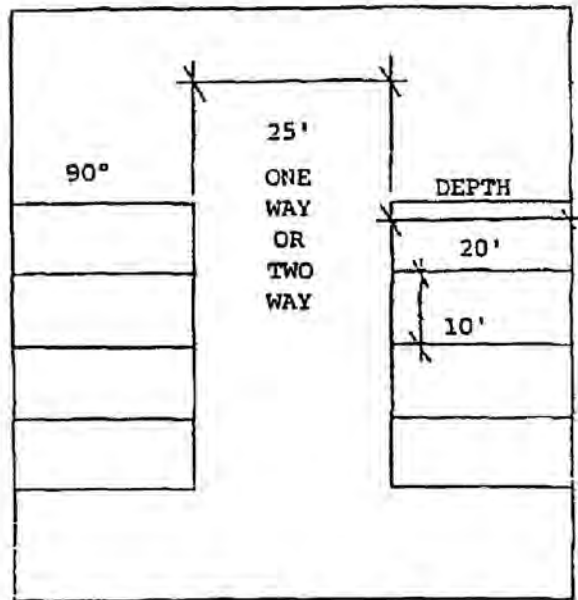
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Angle of Parking	Parking Stall		Aisle Width	
	Depth	Width	One-Way	Two-Way
90°	20	10	25'	25'
60°	21	10	18'	20'
45°	19	10	15'	18'



- F. Screen planting requirements shall be applicable to parking lot facilities, along the area fronting streets and along the area adjacent to other properties.
- G. All dead-end parking lots shall be designed to provide sufficient backup area for the end stalls.
- H. No less than a five-foot radius of curvature shall be permitted for all curblines in all parking areas.
- I. Tire bumpers shall be installed where necessary so as to prevent vehicle overhang on any sidewalk area.

§ 505. Sidewalks and Curbs. [Ord. 641, 5/14/1985, §§ 504-504.2]

All sidewalks and curbs shall be constructed in accordance with the following regulations.

1. Sidewalks. Sidewalks shall be constructed to the following minimum specifications.
 - A. Sidewalks shall conform to the standards in the Borough Sidewalk and Curb Ordinance.
 - B. In land developments with common areas, sidewalks should be located appropriately to serve as access between parking areas and buildings and in common areas to serve as internal site circulation.
 - C. Sidewalks shall be located as prescribed by the Borough Sidewalk and Curb Ordinance.
 - D. Crosswalks not less than 10 feet wide, and with concrete or asphalt paving not less than four feet wide, may be required where necessary to provide access to schools, churches, parks and commercial areas. They shall be maintained by the abutting property owners in the same manner as sidewalks on public streets.
 - E. Sidewalks shall be constructed so as to discharge drainage to the street.
 - F. All construction and materials to be in conformance with PennDOT Form 408.
2. Curbs. Curbs shall be constructed to the following minimum specifications.
 - A. Concrete curbs shall be installed along each side of every street.
 - B. Curbing shall be built in ten-foot lengths, and an approved expansion joint shall be used at each joint.
 - C. All concrete used in the construction of improvements shall meet the requirements of the Borough Sidewalks and Curb Ordinance.

- D. Concrete shall be placed in forms that are straight and securely braced. Care shall be taken to control the water content to prevent separation of the aggregates. All concrete shall be thoroughly tamped into the forms. After the concrete has set sufficiently, the form shall be removed and the exposed surface shall be rubbed to provide an even finish. All edges shall be furnished with an approved edging tool.
- E. To provide for driveways, depressions in the curbing may be constructed and finished during the time of pouring.
- F. All construction and materials to be in accordance with PennDOT Form 408.

§ 506. Blocks. [Ord. 641, 5/14/1985, §§ 505-505.3]

1. General. The length, width and shape of blocks shall be determined with due regard to:
 - A. Provision of adequate sites for buildings of the type proposed.
 - B. Zoning requirements.
 - C. Topography.
 - D. Requirements for safe and convenient vehicular and pedestrian circulation, including the reduction of intersections with primary arterials.
2. Size. Block length and width or acreage within bounding roads shall be such as to accommodate the size of lot required in the area by the Zoning Chapter and to provide for convenient access, circulation control and vehicular and pedestrian safety. Whenever practicable, blocks shall be of such width as to provide two tiers of lots of the minimum size permitted under the applicable zoning classification.
3. Commercial and Industrial Blocks. For commercial or industrial use, the block size shall be sufficient in the judgment of Borough Council to meet all area and yard requirements for such use. Adequate provision shall be made for off-street parking and loading areas as well as for the flow of pedestrian and vehicular traffic so as not to inhibit the flow of such traffic on public rights-of-way.

§ 507. Lots. [Ord. 641, 5/14/1985, §§ 506-506.10; as amended by Ord. 848, 11/8/2011]

1. Area. All lots must conform to the zoning district requirements applicable to the parcel being subdivided. All lots shall be no smaller than the minimum lot area requirements of the applicable zoning classification.
2. Depth and Irregular Configuration.

- A. A lot may not be created whose depth is greater than two times its width.
 - B. A lot may not be created that is excessively irregular unless reasonably dictated by the topography of the land or other natural features. An excessively irregular lot is one that is not four-sided or that has a boundary line the length of which is more than 2.5 times the width of the opposite or adjacent boundary line.
3. Narrow Lots. Narrow lots may be created only when authorized by the Borough Council as a conditional use under the provisions of § 419 of Part 4 of Chapter 27 (Zoning) of the Code of the Borough of Royersford.
 4. Floodplain Districts. No lot shall be approved for a subdivision where the access crosses a floodplain district, unless approved by the Zoning Hearing Board, or where access could be gained only by violating the standards for driveways contained within this chapter or where the lot does not contain sufficient legal buildable area for the intended use.
 5. Width. The minimum width of a lot shall be that width that is measured at the building line, in feet, specified for the applicable zoning district.
 6. Corner Lots. All corner lots shall be of sufficient size to comply with all yard and frontage (i.e., lot width) requirements of the applicable zoning district.
 7. Frontage. The frontage of a lot shall not be less than the minimum requirements set forth in the Zoning Chapter.
 8. Side Lines. The side lines of a lot shall be set at right angles or radial to the right-of-way lines and shall follow a straight course.
 9. Building Lines. Building lines for all lots shall be in conformance with the minimum front, side and rear yard requirements of the applicable zoning district.
 10. Through Lots. Double-frontage lots shall not be permitted except where reversed frontage is desired away from a major thoroughfare to a street of lesser traffic volume.
 11. Lot Numbers. For the purposes of development, each subdivision may have an overall system of lot numbers, the number one being assigned to a lot in the first section to be developed. (Such system of lot numbers shall not be confused with the regular house or building numbering system based on a Borough-wide plan.)
 12. Building Numbers. House or building numbers shall be assigned by the Borough based on an overall street plan. Numbers will be assigned in such a way as to allow for vacant parcels and future development.
 13. Consolidation. Adjacent lots owned by the same person may be consolidated by recording a deed describing the lots as a single parcel, without subdivision plan approval, where the only change being made

to a lot line is the elimination of one or more of them, subject to administrative review by the Zoning Officer. This exemption from the approval procedures set forth in this chapter shall be subject to the following:

- A. A statement must be placed in the deed acknowledging that it is a deed of consolidation intended to merge the lots and that any future independent use of the lots would require subdivision approval.
- B. The application to register the deed shall constitute an application to amend the Borough's plan of properties to show the consolidation.
- C. Prior to registering such deed, the Borough Manager shall notify the Zoning Officer of the consolidation.
- D. Each deed submitted for registration and recording shall have attached thereto a plan, prepared, signed and sealed by a registered surveyor, showing the metes and bounds, gross and net (after deducting the rights-of-way of any public or private street) areas and error of closure of the consolidated lot. The error of closure shall not be greater than one part in 5,000.
- E. Upon merger by deed, use or subdivision approval, adjacent lots shall lose their separate identity for all purposes relating to their development.

§ 508. Subdivision and Land Developments with Existing Structures on the Land. [Ord. 641, 5/14/1985, §§ 507-507.3]

Except in the case of a residential building with more than one dwelling unit that is held in single and separate ownership and where the proposed subdivision line(s) logically divides the dwelling units, no subdivision or land development will be approved with a property line extending through any portion of any existing structure.

1. If Structure(s) is to Remain.
 - A. In residential zoning districts of the Borough, the lot and lot dimensions of the newly created lot containing the structure(s) must be in scale with the height and bulk of the structure, even if this requires a lot area and/or dimensions exceeding the minimum zoning requirements for that district.
 - B. In cases where the principal building has not been used as a dwelling, its conversion to a dwelling shall comply with all of the requirements of the Zoning Chapter and the Building Code of the Borough.
2. If Existing Structure(s) is to be Removed. Final subdivision or land development approval will be issued upon the condition of the

expeditious removal of existing structures in complete conformity to all other Borough procedural requirements. In commercial and industrial areas, plots of land that have been cleared, as well as the existing vacant portions of such lands, should be developed in conformance with the long-range needs of the area, to the greatest extent possible, and all developmental requirements of the Building Code and Zoning Chapter.

3. If Existing Structure is to be Replaced or is to be Added on to. Demolition plans and/or construction plans must be detailed as part of the subdivision plan review and any subsequent subdivision approval will be conditional upon compliance with said proposed details. Renovation work to the remaining portion of a structure following partial demolition must be completed promptly and expeditiously.

§ 509. Grading. [Ord. 641, 5/14/1985, §§ 508-508.4]

1. Excavation. No permanent excavation shall be made with a cut face steeper in slope than 1 1/2 horizontal to one vertical, 66.7%, except under on or more of the following conditions:
 - A. The excavation is located so that a line having a slope of 1 1/2 horizontal to one vertical and passing through any portion of the face will be entirely inside of the property lines of the property on which the excavation or fill is made.
 - B. The material in which the excavation is made is sufficiently stable to sustain a slope of steeper than 1 1/2 horizontal to one vertical. A written statement of a civil engineer, licensed by the Commonwealth of Pennsylvania and experienced in erosion control, indicating such stability shall be submitted to the Borough Engineer and approved by him and shall state that the site has been inspected and that injury to persons or damage to property will not result from exceeding the maximum slope established in § 509, Subsection 1A, above.
 - C. A concrete or stone masonry wall constructed according to present or future designs of the Borough is provided to support the face of the excavation or fill.
2. Slopes and Fences. The top or bottom edge of slopes shall be a minimum of three feet from property or right-of-way lines of streets or alleys in order to permit the normal rounding of the edge without encroaching on the abutting property. All property lines, (where walls or slopes are steeper than one horizontal to one vertical and five feet or more in height) shall be protected by a chain-link fence four feet in height approved by the Borough. The fence shall be an integral part of any wall.
3. Site Grading Plan. The Borough Engineer shall require a grading plan in conjunction with the plan of subdivision or land development in order to ensure compliance with the above standards. The grading plan must

be approved by the Borough Engineer before grading is started. Before undertaking any excavation or grading, the developer shall obtain a grading and excavation permit required by the Borough.

4. Excavation and Grading. Where significant excavation or grading is proposed or where any existing trees, shrubs or other vegetative cover will be removed, the developer shall consult the County Conservation District representative concerning plans for erosion and sediment control and to also obtain a report on the soil characteristics of the site so that a determination can be made as to the type and degree of development the site may accommodate.

§ 510. (Reserved)²

**§ 511. Reserve Strips, Rights-of-Way and/or Easements, Deeds.
[Ord. 641, 5/14/1985, §§ 510-510.4]**

1. Reserve strips controlling access to streets, alleys, subdivisions or adjacent areas are prohibited.
2. Rights-of-way and/or easements for sanitary utilities, road construction or maintenance, drainage purposes, public utilities, or for any specific purpose shall be required by the Borough Council as needed. The Borough Council shall determine the location and width in each case.
 - A. Building setback lines shall be measured from the nearest side of the right-of-way or easement to the proposed building.
 - B. Nothing shall be permitted to be placed, planted, set or put within the areas of an easement. The area shall be kept as lawn.
 - C. The owner of any lot, upon written request by the Borough and at the owner's sole expense, shall remove anything placed, planted, set or put (with or without knowledge of this regulation) within the area of any easement.
 - D. To the fullest extent possible, easements shall be adjacent to rear or side lot lines.
3. No right-of-way nor easement for any purpose whatsoever shall be recited or described in any deed unless the same has been shown on the approved plan.
 - A. Any error found in a deed shall be immediately corrected and rerecorded in the office of Recorder of Deeds for Montgomery County at Norristown, Pennsylvania, at the sole expense of the subdivider or landowner.
4. Utility Easements. A minimum width of 20 feet shall be provided for common utilities and drainage when provided in undedicated land.

2. **Editor's Note: Former § 510, Stormwater Management, as amended, was repealed 10/9/2018 by Ord. No. 897. For current provisions, see Ch. 26, Part 1, Stormwater Management.**

Nothing shall be permitted to be placed, planted, set or put within the area of an easement, but it shall be maintained as lawn.

§ 512. Public Utilities. [Ord. 641, 5/14/1985, §§ 511-511.3]

1. All water and gas mains and other underground facilities shall be installed prior to street paving at locations approved by the Borough for the full width of the right-of-way.
2. All gas and water mains shall be installed underground. All electric, telephone, and communication services, both main and service lines, shall be provided by underground cables, installed in accordance with the prevailing standards and practices of the utility or other companies providing such services. All main underground cables which are within the right-of-way of a street shall be located as specified to the satisfaction of the Borough Engineer.
 - A. In order to facilitate the burying of utility distribution lines, a letter of endorsement shall be required from the suppliers of utility service (not limited to electrical, telephone, or cable television) of the developer's choice wherein the applicant acknowledges that underground utilities are feasible and shall be consummated as part of the improvement plan. A statement relative to the intent of the developer to provide underground utility service shall be placed on the final plan requisite to final approval of such plan.
 - B. The provisions in this chapter shall not be construed as to limit or interfere with the construction, installation, operation and maintenance of public utility structures or facilities which may hereafter be located with public easements or rights-of-way designated for such purposes.
 - C. Light standards are to be placed as required by the Borough Engineer. Power source for such standards shall be placed underground as required.
 - D. Along collector roads and major highways, all new electrical service shall be placed underground.
3. All new or replacement public or private utilities and facilities in floodplain areas shall be elevated or floodproofed to a point 1 1/2 feet above the base flood elevation.

§ 513. Sanitary Sewers. [Ord. 641, 5/14/1985, §§ 512-512.6]

1. Sanitary sewers shall be installed and connected to the Borough sanitary sewer system. Where the subdivision or land development necessitates a capital improvement of the Borough's sanitary sewer system, the applicant shall pay that portion of said capital expenditure as is necessitated by the subdivision or land development.

2. When private streets are utilized, the subdivider or the applicant shall execute a recordable covenant with the Borough and/or the Borough Sewer Authority that, for the purposes of sewer connections, assessments and rentals, the rights and liabilities of himself and his grantees, heirs, successors, and assigns shall be the same as if his property abutted a public street.
3. Size and Grade. Sanitary sewers shall have a minimum inside diameter of eight inches and a minimum grade of 0.5%.
4. Manholes. Manholes shall be located as specified by the Borough Engineer. Manhole appurtenances shall conform to current Borough standards.
5. Laterals. Lateral connections to each lot shown on the final plan shall be installed to the right-of-way line of the street. Each building shall have a separate connection to the Borough sanitary sewer system, when accessible.
6. All new or replacement sanitary sewer systems, whether public or private, located in floodplain areas shall be floodproofed up to a point 1 1/2 feet above the base flood elevation.

§ 514. Water Supply. [Ord. 641, 5/14/1985, §§ 513-513.4]

1. Each lot shall connect to an approved water system, with the connection to a public water service being required whenever practical.
2. The location of any existing or proposed well shall be shown on the preliminary plan for each lot and adjoining lot, where applicable.
3. All new or replacement water systems, whether public or private in floodplain areas, shall be floodproofed to a point of 1 1/2 feet above the base flood elevation.
4. Fire hydrants shall be located at accessible points throughout the subdivision when central water supply is available and shall be sufficient in number to ensure adequate fire protection.

§ 515. Floodplain Areas. [Ord. 641, 5/14/1985, §§ 514-514.8]

1. The regulations in this section are additional requirements and shall apply to areas identified as floodplain in the Floodplain District of the Borough Zoning Chapter. The floodplain boundaries can be determined by referring to the Federal Emergency Management Agency, Type 15, Flood Insurance Study for the Borough, which is available for inspection at the Borough Building.
2. The regulations contained herein are intended to conform to the requirements of Section 60.3d of the National Flood Insurance Program, P.L. 93-234. Furthermore, the purpose of these regulations is to:

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SUBDIVISION AND LAND DEVELOPMENT

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- A. Regulate the subdivision and development of floodplain land areas in order to promote the general health, welfare, and safety of the community.
 - B. Require that each subdivision lot or development site in floodplain areas be provided with a safe building site with adequate access and that public facilities which serve such sites be designed and installed to preclude flood damage at the time of initial construction.
 - C. Protect individuals from buying lands which are unsuitable for use because of flood hazards by prohibiting the subdivision and development of unprotected flood-prone areas.
 - D. Maintain the certification of the Borough and the eligibility of the property owners in the Borough for the benefits of the National Flood Insurance Program, P.L. 93-234.
3. Prospective developers shall consult with the Zoning Officer to make a determination as to whether or not the proposed subdivision or land development is located within an identified floodplain.
 4. Where not prohibited by this chapter or any other codes or ordinances, land located in flood-prone area(s) may be subdivided or developed with the provision that the developer construct all buildings and structures to preclude flood damage in accordance with this chapter and any other codes or ordinances regulating such development.
 5. The Borough Council may, when it is deemed necessary for the health, comfort, safety, or welfare of the present and future population of the area, and necessary facilities, restrict subdivision or development of any portion of the property which lies within the floodplain of any stream or drainagecourse.
 6. When a developer does not intend to develop the plat himself and the Borough Council determines that additional controls are required to ensure safe development, the Council may require the developer to impose appropriate deed restrictions on the land. Such deed restrictions shall be inserted on every deed and noted on every recorded plat.
 7. All streets, sanitary sewers, water systems, public or private utilities and storm drainage facilities located in floodplain areas shall be controlled by provisions in the respective sections of this chapter.
 8. Waivers. Guidelines for relaxation from the requirements set forth in this section are as follows:
 - A. A waiver shall not be issued within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.
 - B. A waiver shall only be issued if there is:

- (1) A showing of good and sufficient cause;
 - (2) A determination that failure to relax the requirements would result in exceptional hardship to the applicant;
 - (3) A determination that the relaxing of a requirement would not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- C. A waiver shall only be issued upon a determination that the waiver is the minimum necessary, considering the flood hazard, to afford relief.
- D. The Borough shall maintain a record of all waivers, including justification for their issuance, and report such decisions issued in its annual report submitted to the Federal Insurance Administrator.

§ 516. Special Drainage Problems with Watercourses. [Ord. 641, 5/14/1985, §§ 515-515.3]

1. Any development which creates a significant change in the characteristics of the watershed, thus increasing volume and velocity of surface water runoff, due to the decrease in retention and infiltration of stormwater, shall not be permitted until guarantees are made of improvements that will reduce the likelihood of erosion, sedimentation, inundation, and water drainage from peak periods of precipitation and provide for controlled disposal of excess surface water. Such improvements must satisfy the requirements and regulations of the Pennsylvania Department of Environmental Resources, Bureaus of Water Quality Management and Dams and Encroachments.
2. All continuously flowing natural watercourses shall be maintained at their natural alignments and gradients.
3. Intermittent watercourses shall be maintained essentially at their existing alignments and gradients. Paving of such watercourses shall not be allowed, nor shall piping, except under roads, driveways and walkways.

§ 517. Erosion and Sediment Control. [Ord. 641, 5/14/1985, §§ 516-516.7]

1. Where any excavation or grading is proposed, or where any existing trees, shrubs or other vegetative cover will be removed, the developer shall consult the Montgomery County Conservation District representative concerning plans for erosion and sediment control and the geologic conditions of the site in order to determine the type and magnitude of development the site may safely accommodate. Before undertaking any excavation or grading, the developer shall conform to

all pertinent laws, regulations and ordinances of the Commonwealth of Pennsylvania and Royersford Borough.

2. No subdivision or land development plan shall be approved unless: (1) there has been a plan approved by the Borough Council that provides for minimizing erosion and sedimentation consistent with this section, and an improvement bond or other acceptable securities are deposited with the Borough which will insure installation and completion of the required improvements; or (2) there has been a determination by the Borough Council that a plan for minimizing erosion and sedimentation is not necessary.
3. The Borough Council, in its approval of any preliminary plan of subdivision and land development, shall condition its approval upon the execution of measures designed to prevent accelerated soil erosion and resulting sedimentation, as required by the Pennsylvania Department of Environmental Resources. All applicable regulations and permit requirements of said Department as stipulated in its Soil Erosion and Sedimentation Control Manual shall be followed by all parties engaged in earthmoving activities. The manual is available at the office of the Montgomery County Conservation District, Norristown, Pennsylvania. The Borough Engineer shall assure compliance with the appropriate specifications and requirements.
4. Performance Principles. The following measures are effective in minimizing erosion and sedimentation and shall be included where applicable in the control plan:
 - A. Stripping of vegetation, regrading, or other development shall be done in accordance with the Montgomery County Soil Erosion and Sedimentation Control Manual so as to minimize erosion.
 - B. Development plans shall preserve salient natural features, keep cut-fill operations to a minimum, and ensure conformity with topography so as to create the least erosion potential and adequately handle the volume and velocity of surface water runoff.
 - C. Whenever feasible, natural vegetation shall be retained and protected during construction and supplemented if necessary.
 - D. Any disturbed area and the duration of exposure shall be kept to a minimum, and disturbed soils shall be stabilized as quickly as feasible.
 - E. Temporary vegetation and/or mulching shall be used to protect exposed critical areas during development.
 - F. The permanent (final) vegetation and structural erosion control and drainage measures shall be installed as soon as practical in the development.

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- G. Provisions shall be made to effectively accommodate the increased runoff caused by changed soil and surface conditions during and after development. Where necessary, the surface water runoff will be physically detained.
 - H. Sediment in the runoff water shall be trapped until the disturbed area is stabilized by the use of debris basins, sediment basins, silt traps, or similar measures.
5. Excavations and Fills.
- A. Cut and fill slopes shall not be steeper than 1 1/2:1, unless stabilized by a retaining wall or cribbing, except as approved by the Borough Council and handled under special conditions.
 - B. Adequate provisions shall be made to prevent surface water from damaging the cut face of excavations of the sloping surfaces of fills.
 - C. Cut and fills shall not endanger adjoining property.
 - D. Fill shall be placed and compacted so as to minimize sliding or erosion of the soil.
 - E. Fills shall not encroach on natural watercourses or constructed channels.
 - F. Fills placed adjacent to natural watercourses or constructed channels shall have suitable protection against erosion during periods of flooding.
 - G. Grading will not be done in such a way so as to divert water onto the property of another landowner without the written consent of that landowner and the approval of the Borough Council.
 - H. During grading operations, necessary measures for dust control will be exercised.
 - I. Grading equipment will not be allowed to cross flowing streams. Provisions will be made for the installation of temporary culverts or bridges, if necessary.
6. Responsibility.
- A. Whenever sedimentation is caused by stripping vegetation, regrading or other development, it shall be the responsibility of the person, corporation or other entity causing such sedimentation to remove it from all adjoining surfaces, drainage systems and watercourses and to repair any damage at their own expense as quickly as possible.
 - B. Maintenance of all drainage facilities and watercourses within any subdivision or land development is the responsibility of the developer, his heirs or assignees, until such time as they may be

accepted by the Borough or some other official agency, after which they become the responsibility of the accepting agency.

- C. It is the responsibility of any person, corporation, or other entity doing any act on or across a communal stream, watercourse or swale, or upon the floodplain or right-of-way thereof, to maintain, as nearly as possible, in its present state the stream, watercourse, swale, floodplain or right-of-way during the activity and to return it to its original or equal condition after such activity is completed.
 - D. Maintenance of drainage facilities or watercourses originating and completely on private property is the responsibility of the owner. This responsibility shall extend to their point of open discharge at the property line or at a communal watercourse within the property.
 - E. No person, corporation, or other entity shall block, impede the flow of, alter, construct any structure, or deposit any material or thing, or commit any act which will affect normal or flood flow in any communal stream or watercourse without having obtained prior approval from the Borough or Pennsylvania Department of Environmental Resources, whichever is applicable.
 - F. Each person, corporation, or other entity which makes any surface changes shall be required to handle existing and potential off-site runoff through the development by anticipating stormwater runoff from a fully developed area upstream.
7. Compliance with Regulations and Procedures.
- A. Stream channel construction on watersheds with drainage areas in excess of three 320 acres, or in those cases where downstream hazards exist, will conform to criteria established by the Pennsylvania Department of Environmental Resources.
 - B. Final plans for minimizing erosion and sedimentation as approved will be incorporated into the agreement and bond requirements as required under Part 6 of this chapter.
 - C. The approval of plans and specifications for the control of erosion and sedimentation shall be concurrent with the approval of the final plats of subdivision or land development and become a part thereof.
 - D. In the event the developer proceeds to clear and grade prior to recording plats, the Borough Council may revoke the approval of the preliminary plan.

§ 518. Bridges and Culverts. [Ord. 641, 5/14/1985, §§ 517-517.2]

- 1. Bridges and culverts shall be designed to meet current Pennsylvania Department of Transportation Standards to support expected loads and

to carry expected flows. They shall be constructed to the full width of the right-of-way.

2. Approval of the Department of Environmental Resources is required when the area drained upstream of the point under consideration exceeds an area of 1/2 square mile.

§ 519. Survey Monuments. [Ord. 641, 5/14/1985, §§ 518-518.3]

1. Monuments shall be of stone or concrete and located on the right-of-way lines at corners, angle points, beginning and end of curves, and as otherwise required. Monuments shall be indicated on all plans. They shall be placed after a new street has been completed. The center line of all new streets shall be marked with spikes and referenced to permanent monuments or structures. A certified copy of this referenced information shall be given to the Borough Engineer. Permanent reference monuments of case concrete or durable stone 20 inches by four inches by four inches, with 45° beveled edges, shall be set by the subdivider, developer, or builder at all corners and angle points of the boundaries of the original tract to be subdivided and at all street intersections and intermediate points as may be required.
2. Benchmarks. The Borough elevations are based on the Borough sanitary sewer system datum. Location and elevation is available to all engineers and surveyors upon request to the Borough Engineer's office. All contours and elevations shown on plans must be based on the system.
3. Staking Requirements. All lots shall be staked by the registered surveyor for the subdivider, builder or developer when final grading has been completed. This stake out shall be visible and completed before an owner or occupant moves into the property. All lot corner markers shall be permanently located and shall be at least a five-eighths-inch metal pin with a minimum length of 24 inches located in the ground to existing grade.

§ 520. Natural or Historic Feature Preservation. [Ord. 641, 5/14/1985, §§ 519-519.4]

1. Limit of Contract. Where the applicant is offering for dedication or is required to establish a reservation of open spaces or preserve an area of scenic or historic importance, a "limit of contract," which will confine excavation, earthmoving procedures and other changes to the landscape, may be required to ensure preservation and prevent destruction of the character of the area.
2. Tree Preservation. All trees six inches or more in caliper at breast height should not be removed unless within the proposed right-of-way line of a street or impracticable for development. Relocation of noteworthy plant material should be encouraged where retention is impracticable.

3. Topsoil Preservation. No topsoil shall be removed from the site or used as spoil. Topsoil must be removed from the areas of construction and stored separately. Upon completion of the construction, the topsoil must be redistributed on the site uniformly. All areas of the site shall be stabilized by seeding or planting on slopes of less than 10% and shall be stabilized by sodding on slopes of 10% or more and planted in ground cover on slopes of 20% or more.
4. Preserved Landscaping. When there is a conscientious effort to preserve the existing natural integrity and character of a site and where such preservation includes areas of woodland and trees comparable to required planting improvements (i.e., landscaping and buffer screening), the plan may be received in lieu of additional landscaping requirements.

§ 521. Planting. [Ord. 641, 5/14/1985, §§ 520-520.4]

1. Lot Siting, Planting and Beautification for Subdivisions and Land Developments. In order to promote the highest environmental quality possible, the success to which the applicant of a subdivision or land development plan has preserved existing salient natural features and landforms intrinsic to the site shall be assessed. Terms of approval of a plan may be subject to the manner in which the layout or design of the plan has preserved existing natural features.
2. Landscaping. For all multifamily, commercial, and industrial districts, the developer should incorporate sufficient planting into his design so as to gain approval of the Borough Planning Commission. The landscaping can include open space, planting strips, screening, formal gardens, shade trees, natural barriers or other types of acceptable growth.
3. Shade Trees. Shade trees shall be provided by the developer and planted a minimum distance of five feet inside the lot lines paralleling the right-of-way line. Trees shall be so located so as not to interfere with the installation and maintenance of sidewalks and utilities. Trees shall be planted not less than 40 feet apart nor more than 50 feet apart.
4. Screen Planting Requirements. Each multifamily development or nonresidential use shall be screened as a necessary safeguard to the character of an adjacent area. Such screening shall be permanently maintained and replaced where necessary to present an attractive appearance. Screen planting requirements shall be applicable to parking lot facilities, along the area fronting streets and along the area adjacent to other properties.

§ 522. Open Space Areas and Community Assets. [Ord. 641, 5/14/1985, § 521]

Whenever practicable, provision shall be made for suitable open space for parks, playgrounds, and recreational facilities and areas. In commercial

areas, provisions shall be made for suitable open space for walkways (connecting parking facilities with commercial structures), malls, sitting areas, etc. Due consideration shall be given to the preservation of natural features, including large trees, groves, waterways, scenic areas, historical buildings or areas, and other amenity areas.

§ 523. Building Sites in the Floodway. [Ord. 641, 5/14/1985, §§ 522-522.2]

1. Building sites for residences or any other type of dwelling or accommodation shall not be permitted in any designated floodway. Sites for these may be permitted outside the floodway if the sites or dwelling units are elevated up to the regulatory flood elevation. If fill is used to raise the elevation of a site, the fill area shall extend out laterally for a distance of at least 15 feet beyond the limits of the proposed structures.
2. Building sites for structures or buildings other than for residential uses shall also not be permitted in any designated floodway. Also, such sites for structures or buildings outside the floodway shall be protected as provided for in § 523, Subsection 1, above. However, the governing body may allow the subdivision and/or development of areas or sites for commercial and industrial uses at an elevation below the regulatory flood elevation if the developer otherwise protects the area to that height or assures that the buildings or structures will be floodproofed at least up to that height.

Part 6
IMPROVEMENT CONSTRUCTION REQUIREMENTS

§ 601. Applicability. [Ord. 641, 5/14/1985, § 600]

The improvement construction requirements set forth in this Part 6 apply to all applicants submitting a final plan for subdivision or land development in Royersford Borough. No lot in a subdivision may be sold; no permit to erect, alter or repair any building upon land may be issued; and no building may be erected, unless the improvements required by the Borough Council in connection therewith have either been constructed or guaranteed as required in this chapter.

§ 602. Required Improvements. [Ord. 641, 5/14/1985, § 601]

The applicant shall agree in writing to construct streets and other improvements required by this chapter from the lot or lots to be sold or built upon to an existing improved street, subject to the provisions of § 106, Subsection 2, herein. The work shall be performed in strict accordance with the approved plans and Borough standards and specifications or the applicable provisions of the Pennsylvania Department of Transportation specifications or other agency having jurisdiction over the improvement. No plan shall be finally approved until the developer has completed all of the necessary and appropriate improvements as required, or until such time as the applicant has provided a proper financial guarantee as required by this Part 6, in accordance with the Municipalities Planning Code, to cover the estimated construction cost and engineering cost for such improvements. The applicant shall also guarantee that no lot will be sold or building constructed in any flood-prone area prior to completion of all floodproofing measures planned for such lot and necessary access facilities.

§ 603. Financial Security. [Ord. 641, 5/14/1985, §§ 602-602.7; as amended by Ord. 703, 9/26/1989, §§ 6, 7 & 8]

In lieu of the completion of any improvements required for final plan approval, financial security in an amount sufficient to cover the costs of any improvements or common amenities shall be provided to the Borough in accordance with this Part 6.

1. Type of Security. Without limitations as to the type of financial security which the Borough may approve, which approval shall not be unreasonably withheld, irrevocable letters of credit from a federal or commonwealth chartered lending institution and/or restrictive or escrow accounts in such lending institutions shall be deemed acceptable financial security for the purposes of this Part 6.

- Such financial security shall be posted with a bonding company or federal or commonwealth chartered lending institution chosen by the developer, builder or subdivider posting the financial security, provided said bonding company or lending institution is authorized to conduct business within the commonwealth.
2. Amount. The amount of the financial security shall be equal to 110% of the cost of the required improvements for which financial security is to be posted.
 3. Determination of Improvement Costs. The amount of financial security required shall be based upon an estimate of the cost of completion of the required improvements, submitted by an applicant or developer and prepared by a professional engineer licensed as such in the Commonwealth of Pennsylvania and certified by such engineer to be a fair and reasonable estimate of such cost. The Borough Council, upon the recommendation of the Borough Engineer, may refuse to accept such estimate for good cause. If the applicant or developer and Borough Council are unable to agree upon an estimate, then the estimate shall be recalculated and recertified by another professional engineer chosen mutually by Borough Council and the applicant or developer. The estimate certified by the third engineer shall be presumed fair and reasonable and shall be the final estimate.
 4. Time Limit. Such financial security shall provide for and secure to the public the completion of all subdivision improvements for which such security is being posted on or before the date fixed in the subdivision plan or subdivision agreement for completion of such improvements.
 5. Delayed Completion. If the subdivider, developer, or builder requires more than one year from the date of posting of the financial security to complete the required improvements, Borough Council may adjust the amount of the financial security by comparing the actual cost of the improvements which have been completed and the estimated cost for the completion of the remaining improvements as of the expiration of 90 days after either the original date scheduled for completion or a rescheduled date of completion. After this adjustment, the Borough Council may require the developer to post additional security in order to assure that the financial security equals 110% of the cost of completion.
 6. Development in Stages. In the case where development is projected over a period of years, the Borough Council may authorize submission of final plat by sections or stages of development in accordance with this chapter and subject to such requirements or guarantees as to improvements in future sections or stages of development as it finds essential for the protection of any finally approved section of the development.
 7. Water and Sewer Facilities. If water mains or sanitary sewer lines, or both, along with apparatus or facilities related thereto, are to be

installed under the jurisdiction and pursuant to the rules and regulations of a public utility or municipal authority separate and distinct from Royersford Borough, financial security to assure proper completion and maintenance thereof shall be posted in accordance with the regulations of the controlling public utility or municipal authority and shall not be included within the financial security as otherwise required by this Part 6.

§ 604. Release from Liability. [Ord. 641, 5/14/1985, §§ 603-603.4]

1. Partial Release. As the work of installing the required improvements proceeds, the party posting the financial security may request the Borough Council to release or authorize the release, from time to time, of such portions of the financial security necessary for payment to the contractor(s) performing the work. Any such request shall be in writing addressed to the Royersford Borough Council and subject to the provisions for release as established in Section 509 of Act 247, the Pennsylvania Municipalities Planning Code.
2. Release in Full. The portion of the financial security unencumbered by the post-completion security of § 504, Subsection 4, shall be released only upon completion of installation of the required improvements in accordance with the approved improvement construction plan. Strict compliance with procedures established by Section 510 of Act 247, the Pennsylvania Municipalities Planning Code, shall be followed with respect to the release of financial security posted by the subdivider, owner, developer, or builder. If the Borough Council fails to comply with the time limitations of Section 510 of Act 247, all improvements will be deemed to have been approved and the developer shall be released from all liability pursuant to the financial security.
3. Incomplete Improvements. If the required improvements are not completely installed within the period fixed or extended by the Borough Council, the Borough Council shall declare the financial security in default to collect the amount payable thereunder. Upon receipt of such amount, the Borough shall install such improvements as were covered by the security and are commensurate with the extent of building development which has taken place in the subdivision or land development, not exceeding in cost, however, the amount collected upon the security. Strict compliance with procedures established by Section 511 of Act 247, the Pennsylvania Municipalities Planning Code, shall be followed.
4. Post-Completion Security. The developer shall be responsible for maintenance of all subdivision or land development improvements until such improvements are offered for dedication and accepted by the Borough, and 10% of the performance guarantee shall be held back until a maintenance guarantee has been posted as provided for in § 702, Subsection 3.

§ 605. Inspection of Work and Materials. [Ord. 641, 5/14/1985, §§ 604-604.3]

1. Notice. The Borough Engineer shall be notified 48 hours in advance of the commencement of any construction or installation operation in order that provision may be made for inspection by the Borough.

Construction and installation operations shall also be subject to inspection by Borough officials during the progress of the work. The subdivider, developer or builder shall pay for all inspections.

2. Improvement Specifications. All required road improvements shall be constructed in accordance with the applicable provisions of the Pennsylvania Department of Transportation, Form 408, dated 1976, including the latest revisions, and other applicable regulations. All other required improvements shall be constructed in accordance with approved specifications.
 - A. Specifications. The specifications will be furnished to the applicant by the Borough. If any of the specifications are unavailable at the Borough Hall, the Borough Engineer shall provide the applicable specifications.
 - B. Sample of Materials. During or after construction of any required improvement, should the Borough require a sample of materials, said sample shall be furnished by the appropriate contractor, in a form specified by the Borough Engineer.
3. Delivery Slips. Copies of all delivery slips for materials used in the construction of any storm sewers, sanitary sewers, roads, curbs, sidewalks, or any other facility within a Borough right-of-way or easement shall be supplied to the Borough.

§ 606. Off-Site Improvements. [Ord. 641, 5/14/1985, § 605]

Certain improvements beyond the geographical boundaries of a site to be subdivided and/or developed, including but not limited to road improvements, may be required to be constructed where it can clearly be demonstrated that such improvements have been made necessary solely through the additional burden imposed by the subdivision and/or development of the site. The Solicitor shall render final judgment in any instances where a dispute arises as to the direct causal relationship for the improvement(s). The subdivider or developer may be required to cover costs which must be incurred by the Borough or other governmental jurisdiction in order to make these improvements feasible. The legal and financial arrangements to cover costs of the off-site improvements shall be the same as those prescribed in § 603.

§ 607. Requiring Payment of Designated Impact Fees. [Ord. 641, 5/14/1985; as added by Ord. 695, 8/30/1988]

There shall be a sum used towards the cost of road and traffic improvements (including but not limited to off-site capacity enhancement projects) and stormwater drainage improvements and facilities. The purpose of said payment is to provide funds towards the increased cost to the Borough of road construction, repair and maintenance and stormwater improvement and facilities which are necessitated by the anticipated impact of development and construction within the ARU Adaptive Reuse Zoning District of the Borough of Royersford. The payment shall be calculated as follows:

1. For all residential developments within the ARU Adaptive Reuse District, the sum of \$350 per dwelling unit.
2. For all nonresidential development and construction within the ARU Adaptive Reuse Zoning District, the sum of \$0.25 per square foot of total floor area. "Total floor area" is the floor area within the perimeter of the outside walls, without deduction for hallways, stairs, closets, thickness of walls, columns or other features.
3. All payments pursuant to the terms hereof shall be deposited in a separate account; and, thereafter, all disbursements shall be made therefrom to satisfy the cost of necessary improvements, construction and repair of roads and traffic, including but not limited to off-site capacity enhancement projects, as well as stormwater drainage facilities, related to and effected by development within any ARU Adaptive Reuse District.
4. All payments due hereunder shall be paid to the Borough of Royersford prior to the issuance of any building permit for the subject development.
5. In the event that a development in the ARU Adaptive Reuse Zoning District is obligated to provide off-site improvements pursuant to the provisions of § 605 hereof, the cost of such off-site improvements to the developer shall be a credit against the charges imposed under the provisions of this section.

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Part 7**FEES, CONDITIONS OF ACCEPTANCE AND PENALTIES****§ 701. Fees and Costs. [Ord. 641, 5/14/1985, § 700-700.2]**

The subdivider, builder or developer shall be required to furnish a bond and to pay the following fees and costs:

1. Preliminary Plan. The Borough filing fee and the Montgomery County Planning Commission Act 247 review fee.
2. Final Plan. No fee will be charged for filing an improvement construction plan or a record plan, unless no preliminary plan has been filed, in which case the fees established for a preliminary plan will be charged. The subdivider, developer, or builder will be required to furnish a bond, in an amount and with such surety as shall be approved by Borough Council, to guarantee the payment of:
 - A. Engineering Services. The services of the Borough Engineer as provided in these rules and regulations, including plan review and inspection. In addition, all costs for other engineering and professional certification as deemed necessary.
 - B. Material and Facilities Tests. The actual cost of all drainage, water and/or material tests.
 - C. Dedication. Legal fees, advertising and other costs involved in the dedication of streets and public improvements to the Borough.

§ 702. Conditions of Acceptance. [Ord. 641, 5/14/1985, §§ 701-701.3]

1. Conditions. The Borough shall have no obligation to take over and make public any street or other improvement unless:
 - A. The required improvements, utility mains and laterals, and monuments shown on an approved plan or plans have been constructed to all requirements.
 - B. It is established to the satisfaction of Borough Council that there is a need for the improvements to be taken over and made public.
2. Acceptance. The Borough shall have no responsibility with respect to any street or other improvement, notwithstanding the use of the same by the public, unless the street or other improvement is accepted by an ordinance adopted by Borough Council.
3. Guarantee. The applicant shall guarantee, for a period of two years from the date of the ordinance accepting dedication, to maintain the stability of all materials and work and to promptly replace all poor or inferior materials and work and to remedy all defects in materials or workmanship, all shrinkage, settlement or other faults of any kind

whatsoever arising therefrom, at his own expense, and to the satisfaction of the Borough Engineer, when notified in writing to do so by the Borough Engineer; and, in order to secure the guarantee as herein required, the Borough shall be assured by means of a proper guarantee in the form of a bond, with surety satisfactory to the Borough or the deposit of funds or securities in escrow in an amount equal to 5% of the completion guarantee posted by the owner with the Borough.

§ 703. Enforcement Remedies. [Ord. 641, 5/14/1985, § 702; as amended by Ord. 703, 9/26/1989, § 9]

Any person, partnership, or corporation who or which has violated the provisions of this chapter shall, upon being found liable therefor in a civil enforcement proceeding commenced by Borough Council, pay a judgment of not more than \$500 plus all court costs, including reasonable attorneys' fees incurred by Royersford Borough as a result thereof. No judgment shall commence or be imposed, levied, or be payable until the date of the determination of a violation by the District Justice. If the defendant neither pays nor timely appeals the judgment, Royersford Borough may enforce the judgment pursuant to the applicable rules of civil procedure. Each day that a violation continues shall constitute a separate violation, unless the District Justice determining that there has been a violation further determines that there was a good-faith basis for the person, partnership, or corporation violating the chapter to have believed that there was no such violation, in which event there shall be deemed to have been only one such violation until the fifth day following the date of the determination of a violation. All fines collected for such violations shall be paid to the Borough.

Part 7A
PROFESSIONAL CONSULTANTS' REVIEW FEES

§ 701A. Review Fees. [Ord. 641, 5/14/1985, § 701A; as added by Ord. 792, 1/25/2005, § 1]

1. In processing any and all plats and plans pursuant to the Borough Subdivision and Land Development Ordinance, the Borough may charge review fees. The review fees may include reasonable and necessary charges by the municipality's professional consultants, who are persons who provide expert or professional advice, including, but not limited to, architects, attorneys, certified public accountants, engineers, geologists, land surveyors, landscape architects or planners. The review fees shall be based upon the schedule which appears hereinafter and which may be amended or revised from time to time in the future by resolution of Borough Council. The review fees shall be reasonable and in accordance with the ordinary and customary charges by the professional consultants for similar service in the community, but in no event shall the fees exceed the rate or cost charged by the professional consultants to the Borough when fees are not reimbursed or otherwise imposed upon the applicant.
2. In the event an applicant disputes the amount of any such review fees, the applicant shall, within 45 days after the date of transmittal of the bill to the applicant, notify the Borough that such fees are disputed, in which case the Borough shall not delay or disapprove a subdivision or land development application due to the applicant's request over disputed fees, in accordance with Section 503(1) of the Municipalities Planning Code, as amended or as hereinafter amended.
3. In the event that the Borough and the applicant cannot agree on the amount of review fees which are reasonable and necessary, then the applicant and the Borough shall follow the procedure for dispute resolution as set forth in Section 510(g) or any other applicable section of the Municipalities Planning Code, as now enacted or as it may be amended hereafter, provided that the professionals resolving such dispute shall be of the same profession or discipline as the consultant whose fees are being disputed.
4. The review fee schedule is established as follows:
 - A. Legal services: \$140 per hour.
 - B. Planning services: \$80 per hour.
 - C. Engineering services: \$ 65 per hour.

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Part 8
ADDITIONAL PROVISIONS

§ 801. Amendment Procedure. [Ord. 641, 5/14/1985, §§ 800-800.3; as amended by Ord. 715, 10/30/1990]

The Royersford Borough Council may, from time to time, amend, supplement, change, modify, or repeal this chapter by proceeding in the following manner. The Borough Council, by resolution adopted at a regular or special meeting, shall fix the time and place of a public hearing on the proposed amendment and cause public notice thereof to be given as follows:

1. By publishing a notice thereof once each week for two successive weeks in a newspaper of general circulation in the Borough. The first notice shall not be more than 30 days nor less than seven days from the date of the hearing.
2. The notice shall state the time and place of the hearing, the general nature of the proposed amendment, and that full opportunity to be heard will be given to any citizen and all parties in interest attending such hearing.
3. Whenever a proposed amendment affects a particular property, then there shall be posted upon said property or premises, at such place or places as the Borough Council may direct, notice of said proposed amendment.

§ 802. Referral to Planning Commission. [Ord. 641, 5/14/1985, § 801]

All proposed amendments, before adoption, shall be referred to the Borough Planning Commission, and the Montgomery County Planning Commission at least 30 days prior to the public hearing, for recommendation and report, which shall not be binding.

§ 803. Remedies. [Ord. 641, 5/14/1985, § 805]

In case any building or structure is erected, constructed, reconstructed, altered, repaired, converted, or maintained, or any building, structure, or land is used in violation of this chapter or any regulations made pursuant thereto, the proper Borough authorities, in addition to other remedies, may institute any appropriate action or proceedings to prevent such unlawful erection, construction, reconstruction, alteration, repair, conversion, maintenance, or use, to restrain, correct, or abate such violation, and to prevent any illegal act, conduct, business or use in or about such premises.

§ 804. Violations. [Ord. 641, 5/14/1985, § 806]

It shall be the duty of the Building Inspector to take cognizance of violations of this chapter. He shall investigate each violation which comes to his attention, whether by observation or communication. He shall order in

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writing the correction of such conditions as are found to be in violation of this chapter. He shall institute proper legal action to enforce the penalties as hereinafter set forth and shall notify the Borough Council of violations. If, in the opinion of the Building Inspector, the violation creates an imminent danger to life and property, the violator shall be ordered to discontinue such violation immediately, provided that violators may, at the discretion of the Building Inspector, be allowed 30 days after notification to correct violations.

Chapter 27

ZONING

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Part 1
GENERAL PROVISIONS

§ 101. Short Title. [Ord. 624, 9/13/1983, § 100]

This chapter shall be known and may be cited as the Royersford Borough Zoning Ordinance of 1983.

§ 102. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 102]

This chapter is enacted for the purpose, inter alia, to lessen congestion on the roads and streets, to secure safety from fire, panic and other damages, to promote health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to facilitate the adequate provision for transportation, water, sewerage, schools, parks and other public services and facilities; and to promote the health, safety, morals and general welfare of the Borough of Royersford, County of Montgomery, Commonwealth of Pennsylvania.

§ 103. Interpretation. [Ord. 624, 9/13/1983, § 103; as amended by Ord. 833, 5/11/2010, § 1]

In interpreting and applying the provisions of this chapter they shall be held to be the minimum requirements for the promotion of the public health, safety, comfort, convenience and general welfare. Where the provisions of this chapter impose greater restrictions than those of any statute, other ordinance or regulation, the provisions of this chapter shall be controlling. Where the provisions of any statute, other ordinance or regulations impose greater restrictions than this chapter, the provisions of such statute, other ordinance or regulations shall be controlling. A use or facilities, including municipal signs, of the Borough of Royersford shall be exempt from the provisions of this Zoning Ordinance.

§ 104. Statement of Community Development Objectives. [Ord. 624, 9/13/1983, § 104]

The Borough of Royersford, which has an adopted Comprehensive Plan prepared in 1964 and adopted February 1, 1965, to guide the orderly growth and development of the Borough, intends this Zoning Chapter to implement the following Statement of Community Development Objectives, in accordance with Act 247, "The Pennsylvania Municipalities Planning Code:"

1. Growth. Royersford is a developed community with an established character that should be preserved; no drastic changes in the present development pattern should occur.
 - A. All future growth, whether by infilling of remaining vacant land or by redevelopment of existing developed parcels, should occur in an

orderly and controlled manner that is consistent with the scale and character of the Borough.

- B. The Borough's population should remain stable in the future at a level of approximately 5,000 persons.
2. Land Use. Royersford should remain a multifaceted community which functions as an urban core serving adjacent less developed areas.
 - A. The integrity of established residential neighborhoods in the Borough should be protected; nonresidential development should be located in a manner which complements, rather than downgrades, residential areas.
 - B. Existing land use conflicts between residential and nonresidential uses should be eliminated, and future land use decisions should avoid the creation of additional land use conflicts.
 - C. Highway business uses should be differentiated from neighborhood commercial uses which primarily serve Borough residents.
 - D. Industrial development should be located along the Schuylkill riverfront and in other selected areas of the Borough committed to and appropriate for such use.
 3. Housing. Adequate housing opportunities should be available in the Borough for people of all ages and incomes.
 - A. A variety of housing types should be provided within the Borough, and efforts to preserve and enhance the quality of the housing stock should be encouraged.
 - B. High density housing should be encouraged in those areas of the Borough which are accessible to business and employment opportunities as well as community facilities and services. Primary locations are those in close proximity to the railroad station and both within the adjacent to the central business district.
 - C. New multifamily development should provide adequate areas for off-street parking, recreation, and open space.
 4. Commerce. Future commercial activity in Royersford should be limited to those types of establishments which will create minimal adverse impact on adjacent residential neighborhoods and on vehicular movement throughout the Borough.
 - A. Traffic-intensive, highway-oriented commercial uses should be restricted to the frontage of Lewis Road and should be properly buffered from adjacent residential areas. The timing of such development should be in accordance with the capacity of Lewis Road to accommodate additional traffic generated by such uses.

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- B. Low intensity business and professional office uses should be permitted in residential areas along the frontage of Main Street and Lewis Road where such development would constitute an appropriate alternative use for converted dwellings and, at the same time, serve to maintain the residential character of these neighborhoods.
 - C. Rehabilitation of the central business district should be encouraged. Mixed-use development, i.e. residential uses plus commercial and/or office uses, should be permitted where appropriate.
 - D. The gradual elimination of nonconforming commercial uses in residential neighborhoods should be encouraged.
5. Industry. The diversification and revitalization of industry should be encouraged as a means of strengthening the Borough's economic base.
- A. New industrial development should be restricted to nonfloodplain areas along the Schuylkill riverfront and the northwestern section of the Borough, i.e., west of Fifth Avenue and north of Chestnut Street. All riverfront development should be elevated and/or floodproofed in accordance with the requirements of the National Flood Insurance Program.
 - B. Nonconforming industrial uses located in residential areas of the Borough should be appropriately controlled and buffered to achieve compatibility with the surrounding neighborhood.
 - C. Industrial development should be properly screened from surrounding neighborhoods. A landscaped buffer area along the Schuylkill River should be established where possible.
 - D. Noise, odors, and other noxious effects of industrial activity should be adequately controlled.
 - E. Structural rehabilitation and improved access should be encouraged as means of enhancing the appearance and functioning of existing industrial development.
6. Transportation. A mutually beneficial relationship between traffic circulation and land use should be established.
- A. Vehicular circulation should be designed to separate regional traffic from local residential traffic wherever possible.
 - B. Adequate off-street parking and loading areas should be required for all new development in the Borough.
 - C. Use of public transportation services by Borough residents should be encouraged through the programming of necessary rail station improvements and by the concentration of high intensity land use in areas accessible to rail services. The Borough's rail station

should become a focal point of the community with compatible, mixed-use development located within one-quarter-mile radius around the station.

7. Community Facilities and Services. Continued improvements of the level and quality of community facilities and services in the Borough should be fostered.
 - A. Existing institutional uses should be identified and protected by appropriate regulatory tools, and the provision of additional off-street parking areas to serve these uses should be encouraged.
 - B. The development of additional areas for active and passive recreation should be encouraged.
 - C. Adequate open space and other amenities should be required in conjunction with all new development in the Borough.
 - D. New development should be consistent with the capabilities of the Borough and the Spring-Ford Area School District to meet the demands for community facilities and services which such development will generate.
8. Environment. Borough regulations should encourage the maintenance of a high standard of air and water quality and the protection of the Borough's natural resources, including woodlands, floodplains, and steep slopes. Historical and cultural resources should be identified and preserved, and the overall aesthetic qualities of the Borough should be improved through sign regulations, landscaping requirements and similar controls.
9. Intergovernmental Cooperation and Implementation. Cooperation with surrounding communities in dealing with social and physical problems which transcend municipal boundaries and the adoption of a strong planning program with active citizen involvement by Borough residents should be encouraged.

§ 105. Conflict. [Ord. 624, 9/13/1983, § 105]

It is not intended for this chapter to repeal, abrogate, annul or interfere with an existing ordinance or enactment, or with any rule, regulation or permit adopted or issued thereunder, except in so far as the same may be inconsistent or in conflict with any of the provisions of this chapter, provided that where this chapter imposes greater restrictions upon the use of buildings or land, or upon the height and bulk of buildings, or prescribe larger open spaces than are required by the provision of such ordinance, enactment, rule, regulation, or permit and then the provisions of this chapter shall control.

Part 2
DEFINITIONS

§ 201. Meaning of Words. [Ord. 624, 9/13/1983, § 200]

In interpreting this chapter, the present tense includes the future; the singular number includes the plural, and the plural the singular; the word "building" includes the word "structure" and shall be construed as if followed by the words "or part thereof"; the word "occupy" includes the words "designed" or "intended to be occupied"; the word "person" includes any natural persons, partnership, firm, association, or corporation.

§ 202. Definition of Terms. [Ord. 624, 9/13/1983, §§ 201-201.79; as amended by Ord. 704, 9/26/1989, §§ 1, 2 & 3; by Ord. 728, 7/28/1992, §§ 1-6; and by Ord. 781, 9/9/2003, § 1]

Unless otherwise expressly stated, the following words shall for the purpose of this chapter have the meanings herein indicated:

ADULT LIVE ENTERTAINMENT FACILITY — A use including live entertainment involving persons (which may include, but not be limited to, waiters, waitresses, dancers, clerks, bartenders, contractors or others) displaying uncovered male or female genitals or nude or almost nude female breasts or engaging in simulated or actual specified sexual activities to three or more persons and which is related to monetary compensation paid to the person or entity operating the use or to persons involved in such activity.**[Added by Ord. 883, 8/9/2016]**

ADULT MOVIE THEATER — A use involving the on-site presentation to five or more persons at one time of moving images distinguished by an emphasis on depiction of specified sexual activities and that is related to monetary compensation paid by the persons viewing such matter.**[Added by Ord. 883, 8/9/2016]**

ADULT STORE — A use that has over 10% of the total floor area occupied by items for sale or rent that are books, films, magazines, videos, paraphernalia, novelties or other periodicals which are distinguished or characterized by a clear emphasis on matter depicting, displaying, describing or relating to uncovered male or female genitals or specified sexual activities. This shall include but not be limited to materials that would be illegal to sell to persons under age 18 under state law.**[Added by Ord. 883, 8/9/2016]**

ADULT USE — Adult store, adult movie theater, adult live entertainment facility/use or massage parlor.**[Added by Ord. 883, 8/9/2016]**

AGRICULTURE — The cultivating of the soil and the raising and harvesting of the products of the soil including, but not by way of limitations, nursery, horticulture and forestry.

ALTERATION — Any changes in existing facilities, structural parts, or mechanical equipment which does not increase the cubic content of the building.

APARTMENT — A dwelling unit in a building containing three or more units having some common services or facilities.

APARTMENT BUILDING — A structure containing three or more dwelling units having some common services or facilities.

APPROVED — Passed upon as satisfactory by the authority designated by law to give approval to the matter in question.

ASSEMBLAGE —

(1) The merging of adjacent properties into a single unit of ownership or use.

(2) The property so merged, considered as a unit.

BASEMENT — A story totally or partially underground. A habitable basement shall have less than half its clear height below grade.

BASIC STRUCTURAL ALTERATION — Any enlargement of a building, whether by extending on any side or by increasing in height, any change in the use or classification of a main building, or the moving of a building from one location to another.

BOROUGH COUNCIL — The duly elected Borough Council of the Borough of Royersford in the County of Montgomery and Commonwealth of Pennsylvania.

BUFFER — An area designed and functioning to separate the elements and uses of land which abut it and to ease the transition between them. Unless otherwise specified, "buffer" may be included as part of the required setbacks and yard areas. Buffers are divided into two types:

(1) SCREEN BUFFER — A buffer comprised of natural and/or man-made material arranged in a certain specified depth, height and density to provide a minimum initial opacity of 60% and to effectively block the view from one side to another during all seasons of the year.

(2) SOFTENING BUFFER — A buffer comprised of natural and/or man-made material arranged in a certain specified depth, height, and density to provide a minimum initial opacity of 35% and to soften and ease the view from one side to another during all seasons of the year.

BUILDING — Any structure having enclosed walls or partly enclosed walls and a roof, that is permanently located on the land.

BUILDING, ACCESSORY — A building subordinate to the principal building on the same lot therewith and used for purposes customarily incidental to those of the principal building.

BUILDING COVERAGE — That percentage of the net area of a lot occupied by buildings, measured by taking the aggregate of the maximum horizontal cross-section areas of all buildings on a lot, taken at their greatest outside dimensions on the ground floor, including all attached structures, except steps and terraces at a lower plane or planes than the majority of the

first floor area of the principal building. (Cornices, eaves, and gutters are excluded, while porches, breezeways and carports are included.)

BUILDING LINE — The line parallel to the street line at a distance therefrom equal to the depth of the front yard required for the district in which the lot is located, provided that, in the case of a lot where the side lines are not parallel, the building line shall be at the point where minimum lot width first coincides with the required lot width but in no case closer to the street line than the required front yard.

BUILDING, PRINCIPAL — A building in which is conducted the principal use of the lot on which it is located.

BUSINESS OFFICE — A place of business at which services are offered to the general public or a limited number thereof and where no goods, equipment, merchandise or materials are displayed, stored or sold. For illustration, a real estate sales office, insurance sales and services office, advertising/marketing services office, or travel agency shall constitute a business office. **[by Ord. 852, 6/12/2012]**

CIRCULATION — Provision made for traffic within or through buildings, outside areas, and communities.

CLUB, FRATERNAL INSTITUTION — A principal building used for the meeting place of an organized group of citizens such as a veterans' organization, fraternal organization, business organization, service organization and the like, in which the activities are limited to members of the organization and their guests and which may also provide living quarters for caretakers and transient quarters for members.

COMMON OPEN SPACE — A parcel or parcels of land or an area of water, or a combination of land and water within a development site designed and intended for the use or enjoyment of the development, not including streets, off-street parking areas, and areas set aside for public facilities. Common open space shall be substantially free of structures but may contain such improvements as are in the development plan as finally approved and as are appropriate for the recreation of residents.

COMMUNITY —

(1) A body of persons having common interests and privileges, living in the same locality.

(2) A political subdivision.

COMPLETION — The act of bringing to a condition of physical completeness and readiness for use and occupancy.

COMPREHENSIVE PLAN — The Royersford Borough Comprehensive Plan of 1964 and amendments thereto, including maps, charts, and/or descriptive matter officially adopted by the Borough Planning Commission and Borough Council, indicating recommendations for the continuing development of the Borough and including all elements required by the Pennsylvania Municipalities Planning Code (Act 247).

CONDITIONAL USE — A form of permitted use, authorized by this chapter, under the jurisdiction of the Borough Council. The Borough Council is empowered to grant permission for conditional uses, consistent with the public interest, in compliance with the standards and procedures established in this chapter.

CONDOMINIUM — Real estate, portions of which are designated for separate ownership and the remainder of which is designated for common ownership solely by the owners of those portions. Real estate is not condominium unless the undivided interests in the common elements are vested in the unit owners.

CONSTRUCTION — The materials and methods of fabricating the various elements of a structure or building.

CONVERSION — The remodeling or alteration of a structure so as to accommodate the provision of more apartment units (or dwelling units) than were originally intended, a change to a nonresidential use of a residential use, or a change of a nonresidential use. Residential conversions include the alteration of a nonresidential structure into a dwelling unit for at least one family, the modification of a single-family structure so as to accommodate two or more dwelling units, and the alteration of a multifamily structure so as to accommodate more units than originally intended.

CUL-DE-SAC — A minor street with entrance and exit at the same end.

DECIBEL (dB) — A unit which describes the sound pressure level or intensity of sound. A sound level meter is calibrated in decibels.

DEED — A written instrument whereby an estate in real property is conveyed by a grantor to a grantee.

DENSITY — The number of units (persons, families, or dwellings) per acre or square mile.

DEVELOPABLE ACRE — That portion of a tract of land excluding the rights-of-way of all existing public roads and all floodplains as defined in Part 15 of this chapter.

DEVELOPER — Any landowner, agent of such landowner, or tenant with the permission of such landowner, who makes or causes to be made a subdivision of land or a land development.

DEVELOPMENT PLAN — The provisions for a land development, including a plat of subdivision, all covenants relating to use, location and bulk of buildings and other structures, intensity of use or density of development, streets, ways and parking facilities, common open space and public facilities. The phrase "provisions for the development plan" shall mean the written and graphic materials mentioned above.

DWELLING or DWELLING UNITS — A house, an apartment, or other group of rooms, or a single room is regarded as a dwelling when it is occupied or intended for occupancy as separate living quarters; that is when the occupants do not live and eat with other persons in the structure and there is either (1) direct access from the outside or through a common hall, or (2)

a kitchen or cooking equipment for the exclusive use of the occupants of the unit.

DWELLING TYPES — When described in the pertinent parts herein, the various dwelling types are intended to have the following meanings:

(1) SINGLE-FAMILY —

(a) SINGLE-FAMILY DETACHED DWELLING (or SINGLE-FAMILY DWELLING) — A building designed for and occupied exclusively as a residence for only one family and having no party wall in common with an adjoining building.

(b) SINGLE-FAMILY ATTACHED DWELLING — A building designed for and occupied exclusively as the residence for one family with no more than two party walls in common with any other dwelling.

(i) TOWNHOUSE — A single-family attached dwelling which is part of a planned townhouse development (as defined in Part 7 of this chapter). Such development shall have open space or recreation facilities for the use of all residents in the development.

(ii) ROW HOUSE — A single-family attached dwelling not part of a planned development (as defined in Part 7 of this chapter). Row houses shall conform to the same standards as townhouses.

(2) TWO-FAMILY —

(a) TWINS (or TWO SINGLE-FAMILY SEMIDETACHED DWELLINGS) — A building designed for and occupied by two families, having one party wall in common with each dwelling unit. **[Amended by Ord. 883, 8/9/2016]**

(b) DUPLEX (or TWO-FAMILY DETACHED DWELLING — A building designed for and occupied by two families one living above the other, having a common partition between them and having no party wall in common with an adjoining building.

(3) MULTIFAMILY DWELLINGS (MULTIPLEX) — A Detached building occupied by three or more families, each living independently of the other.

(a) LOW-RISE APARTMENT — A multifamily dwelling, as defined above, which is three stories or less in height.

(b) MID-RISE APARTMENT — A multifamily dwelling, as defined above, which is four or five stories in height.

EASEMENT — A vested or acquired right to use land other than as a tenant, for a specific purpose, such right being held by someone other than the owner who holds title to the land.

ELECTRIC SUBSTATION — An assemblage of equipment for purposes other than generation or utilization, through which electric energy in bulk is passed for the purposes of switching or modifying its characteristics to meet the needs of the general public, provided that in residential districts an electric substation shall not include rotating equipment, storage of materials, trucks or materials, trucks or repair facilities, housing of repair crew, offices or place of business.

ENGINEER — A professional engineer licensed as such in the Commonwealth of Pennsylvania.

EXPLOSIVE MATERIAL — A material which produces flammable or explosive vapors under ordinary temperature conditions and includes liquids which have a closed cup flash point of less than 105° F.

FAMILY — Any number of individuals living together as a single nonprofit housekeeping unit and doing their cooking on the premises, excluding, however, occupants of a club, fraternity house, lodge, residential club or rooming house.

FRONTAGE — The extent of a building or of land along a public road or a public waterway.

GARAGE —

- (1) **PRIVATE** — An accessory building or a part of a principal building used for the storage of motor vehicles owned and used by the owner or the tenant of the premises. Not more than one commercial vehicle or truck may be stored in a private garage.
- (2) **PUBLIC** — A building, other than a private or storage garage, one or more stories in height, used solely for the commercial storage, service or repair of motor vehicles.
- (3) **STORAGE** — A building, not a private or public garage, one story in height used solely for the storage of motor vehicles (other than trucks), but not for the service or repair thereof nor for the sale of fuel, accessories or supplies.

GASOLINE FILLING STATION — Any area of land, including structures thereon, or any building or part thereof, that is used for the sale of gasoline or other motor vehicle fuel or accessories, and which may or may not include facilities for lubricating, washing, or otherwise servicing motor vehicles, but which shall not include painting or body and fender repairs.

HEIGHT OF BUILDING — A building's vertical measurements from the mean level of ground surrounding the building to a point midway between the highest and lowest points of the roof, provided that chimneys, spires, towers, elevator penthouses, tanks and similar projections shall not be included in calculating the height.

HOME OCCUPATION — Any occupation for gain or support conducted only by members of a family residing on the premises and conducted entirely on the lot, in conjunction with the standards herein. The conducting of a clinic,

hospital, tearoom, tourist home, animal hospital or any other similar use shall not be deemed as a home occupation.

HOTEL — A building used for the purpose of furnishing for compensation more or less temporary lodging to the public, with or without meals, and having lodging accommodations for 10 or more persons.

HOUSING FOR THE ELDERLY — Those housing units designed for and intended for occupancy exclusively by those persons over the age of 62. Such units include those projects developed under applicable federal and/or state housing assistance programs. Such housing units shall contain appropriate safety features pertinent to the needs of their residents and ancillary recreational and other community facilities as an integral part of their development concept. Furthermore, the developer of such housing units in the Borough of Royersford must guarantee that said units will be occupied solely by elderly residents as defined above; this guarantee shall be reviewed and approved by the Borough Solicitor.

IMPERVIOUS COVERAGE — That percentage of the net area of a lot occupied by buildings, structures, paved areas, and all other materials or construction that do not permit the natural absorption and permeation of rain into the soil.

IMPROVEMENT — A structure or public utility, or any other installation or physical change made in a property with a view to increasing its value, utility or appearance.

LANDOWNER — The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition), a lessee having a remaining term of not less than 40 years, or other person having a proprietary interest in land, shall be deemed to a landowner.

LANDSCAPE — A part of the earth's surface or the view of a portion of land and water as seem from any given point.

LANDSCAPE CONSTRUCTION — The alteration of existing ground conditions together with construction and development of ground features, including minor structures.

LOADING, UNLOADING SPACE — A space, accessible from a street or way, in a building or on a lot, for the temporary use of the vehicles, while loading or unloading merchandise or materials.

LOT — A parcel of land which is occupied or is to be occupied by one principal building or other structure or use, together with any accessory buildings or structures or uses customarily incidental to such principal building or other structure or use, and any such open spaces as are arranged or designed to be used in connection with such principal building or other structure or use, such open spaces and the area and dimension of such lot being not less than the minimum required in this chapter.

(1) **LOT AREA** — The total horizontal area of the lot lying within the lot lines, provided that no area of land lying within any street line shall be

deemed a portion of any lot area; the area of any lot abutting a street shall be measured to the street line only.

- (2) LOT LINE — A property boundary line of any lot held in single and separate ownership except that, in the case of any lot abutting a street, the lot line for such portion of the lot as abuts the street shall be deemed to be the same as the street line, and shall not be the center line of the street, or any other line within the street line.
- (3) LOT WIDTH — The width of a lot measured at the building line.
- (4) FRONT OF LOT — The edge of a lot which borders on a highway or street. In the case of a corner lot, the front of a lot shall correspond to the front of any existing primary structure or, if no such structure exists or the front is not clearly identifiable, shall be designated by Borough Council.
- (5) REAR OF LOT — The edge of a lot opposite the front. In the case of a triangle or gore lot, the rear shall be designated by the proper authority in consultation with the landowner.

MESSAGE PARLOR — An establishment that meets all of the following criteria:**[Added by Ord. 883, 8/9/2016]**

- (1) Massages are conducted involving one person using their hands and/or a mechanical device on another person below the waist, in return for monetary compensation, and which does not involve persons who are related to each other.
- (2) The use does not involve a person licensed or certified by the state as a health care professional or a massage therapist. Massage therapy by such a certified professional shall be considered a "personal service" use.
- (3) The massages are not conducted within a licensed hospital or nursing home or an office of a state-licensed health care professional or as an incidental accessory use to a permitted exercise club or school or college athletic program.
- (4) The massages are conducted within private or semiprivate rooms.

MOBILE HOME — A transportable single-family dwelling, other than a travel trailer or motor home, as hereinafter described certified by appropriate state and federal agencies intended for permanent occupancy contained in one or more units designed to be joined into one integral unit capable of again being relocated, which arrives at the site complete and ready for occupancy, except for minor and incidental unpacking and assembly operations, and constructed so that it may be used without a permanent foundation. The term mobile home and manufactured home shall be interchangeable in this chapter, except manufactured homes must be placed on a permanent foundation.

MOBILE HOME PARK — A development of a parcel or contiguous parcels of land which has been planned and improved for the placement of mobile homes for non-transient use, consisting of two or more mobile home lots.

MOTOR COURT OR MOTEL — A building or a group of two or more detached or semidetached buildings containing rooms or, apartments having separate ground floor entrances provided directly or closely in connection with automobile parking or storage space serving such rooms or apartments, which building or group of buildings is designed, intended, or used principally for providing sleeping accommodations for automobile travelers and is suitable for occupancy at all seasons of the year.

MOTOR HOME — A self-propelled recreational vehicle which includes facilities for transient human occupation such as traveling or camping.

NO-IMPACT HOME-BASED BUSINESS — A business or commercial activity administered or conducted as an accessory use which is clearly secondary to the use as a residential dwelling and which involves no customer, client or patient traffic, whether vehicular or pedestrian, pickup, delivery or removal functions to or from the premises, in excess of those normally associated with residential use. The business or commercial activity must satisfy the following requirements:

- (1) The business activity shall be compatible with the residential use of the property and surrounding residential uses.
- (2) The business shall employ no employees other than family members residing in the dwelling.
- (3) There shall be no display or sale of retail goods and no stockpiling or inventory of a substantial nature.
- (4) There shall be no outside appearance of a business use, including, but not limited to, parking, signs, or lights.
- (5) The business activity may not use any equipment or process which creates noise, vibration, glare, fumes, odors or electrical or electronic interference, including interference with radio or television reception, which is detectable in the neighborhood.
- (6) The business activity may not generate any solid waste or sewage discharge in volume or type which is not normally associated with residential use in the neighborhood.
- (7) The business activity shall be conducted only within the dwelling and may not occupy more than 25% of the habitable floor area.
- (8) The business may not involve any illegal activity.

NONCONFORMING LOT OR USE —

- (1) NONCONFORMING LOT — Any lawful lot which does not conform to the applicable area or dimensional regulations of the district in which it is located either on the effective date of this chapter or as a result of

a subsequent amendment thereto. Nonconforming lots are governed by provisions of Part 21.

- (2) NONCONFORMING USE — Any lawful use or structure that does not conform to one or more of the applicable use regulations of the district in which it is located either on the effective date of this chapter or as a result of a subsequent amendment thereto. Nonconforming uses are governed by the provisions of Part 21.

OCTAVE BAND — A means of dividing the range of sound frequencies into octaves in order to classify sound according to pitch.

PARKING LOT — Any area which is used for the storage of motor or other vehicles.

PARKING SPACE — A reasonably level space, available for the parking of one motor vehicle, not less than nine feet wide by 18 feet in length, exclusive of passageways, driveways, and other means of circulation or access.

PARKING SPACE, ALL-WEATHER — A parking space surfaced to whatever extent necessary to permit reasonable use under all conditions of weather.

PARTICULATE MATTER — Material other than water which is suspended in or discharged into the atmosphere in a finely divided form, as a liquid or solid.

PERSONAL SERVICE — An establishment that provides a service oriented to personal needs of the general public and which does not involve primarily retail or wholesale sales or services to businesses. Personal services include barber- and beauty shops, photography studios, travel agency, shoe repair shops, household appliance repair shops, massage therapy by a certified professional, and other similar establishments, but shall not include any adult uses. **[Added by Ord. 883, 8/9/2016]**

PLANNING COMMISSION — The duly appointed Royersford Borough Planning Commission, as provided by ordinance enacted and ordained by the Borough Council.

PROFESSIONAL OFFICE — An office for a physician, lawyer, dentist, architect, professional engineer, planner or other such profession, but not including real estate office or beauty shop, and provided that no goods, equipment, merchandise or material associated with such practice may be displayed, stored or sold on the lot on which the structure is located.

PUBLIC UTILITIES FACILITY — A building or structure and its equipment, used for the transmission and exchange of telephone, radio, gas, power, sewer and water facilities; provided, however, that in a residential district these shall not include business facilities, storage of materials, trucks or repair facilities or the housing of repair crews.

ROOMING HOUSE (BOARDINGHOUSE) — A building used for the purpose of a residence for one family in which the resident rents rooms within the building, or in a building accessory thereto, to not more than six

nontransient persons, with or without the provision of table board for such persons.

SANITARY SEWER FACILITY — A public sanitary sewer system, or a comparable common or package sanitary sewer facility approved by the appropriate governmental health agency.

SIGN — Any name, nameplate, emblem, painting, banner, pennant, placard, billboard, poster, display, illustration, structure, or other device, illuminated or nonilluminated, which is used for visual communication and which is affixed, painted, or represented directly or indirectly upon a building or other outdoor surface or on the interior of the building, visible from the exterior, for the purpose of bringing the subject thereof to the attention of passersby, or advertising a business, commodity, service or product or for identifying a business, structure or use of land.

SINGLE AND SEPARATE OWNERSHIP — The ownership of a lot by one or more persons, partnerships, or corporations, which ownership is separate and distinct from that of any adjoining lot.

SKIRTS — Panels specifically designed for the purpose of screening the underside of a mobile home by forming an extension of the vertical exterior walls of the mobile home and covering the entire distance between the bottom of the exterior walls and the ground elevation below.

SOLID WASTE TRANSFER FACILITY — Land or structures where solid waste is received and temporarily stored, at a location other than the site where it was generated and which facilitates the bulk transfer of accumulated solid waste to a facility for further processing or disposal. Such facility may or may not involve the separation of recyclables from solid waste. Such facility shall not include a junkyard, leaf composting, clean fill, or sludge application. **[Added by Ord. 883, 8/9/2016]**

SPECIAL EXCEPTION — A determination by the Zoning Hearing Board from the terms of this chapter. See Part 19.

SPECIFIED SEXUAL ACTIVITIES — The definition that is provided in Title 68 Pennsylvania Statutes Chapter 55 shall apply.¹ **[Added by Ord. 883, 8/9/2016]**

STORY — That part of a building comprised between any floor and the floor or roof next above.

STREET LINE — The dividing line between a lot and the outside boundary of right-of-way line of a public street, road or highway legally owned or officially plotted, or between a lot and a privately owned street, road or way over which the owners or tenants of two or more lots each held in single and separate ownership have the right-of-way.

STREET or ROAD — A public or privately owned right-of-way, serving as a means of vehicular and pedestrian travel, furnishing access to abutting properties.

1. Editor's Note: See 68 Pa.C.S.A. § 5502, Definitions.

STRUCTURE — Any man-made object having an ascertainable stationary location on or in land or water, whether or not affixed to the land. **[Amended by Ord. 831, 3/30/2010, § 1]**

STUDIO — A room or rooms used by an artist, musician or person of similar calling in which such person practices his calling or teaches the same.

TELEPHONE CENTRAL OFFICE — A building and its equipment erected and used for the purposes of facilitating transmission and exchange of telephone or radio telephone messages between subscribers, and other business of telephone company.

TOURIST HOME — A dwelling in which sleeping accommodations for less than 10 persons are provided or offered primarily for automobile travelers for compensation.

TRAVEL TRAILER — A vehicle without motive power which may be towed on public highways by a passenger automobile without a special hauling permit, which is designed for human occupancy under transient circumstances such as camping, travel, or other recreation.

ULTIMATE RIGHT-OF-WAY LINE — See "street line."

USES —

- (1) COMMERCIAL USE — Use predominantly for trade or commercial service purposes.
- (2) INDUSTRIAL USE — Use for manufacturing purposes, often accompanied by warehouses, freight yard, docks, etc.
- (3) LAND USE — The process of extracting economic or social gain from the land, i.e. the process through which a use value is created.
- (4) RESIDENTIAL USE — Use for purposes related to the residential character of the property.

VARIANCE — A determination by the Zoning Hearing Board from the terms of this chapter. See Part 19.

WALLS —

- (1) BEARING WALL — A wall which supports any vertical load in addition to its own weight.
- (2) COMMON WALL — A wall owned by one party but jointly used by two parties, one or both of whom is entitled to such use under the provisions of a lease.
- (3) DRY WALL — A wall of stone or other durable material laid without mortar.
- (4) FIRE WALL — A wall which subdivides a building to restrict the spread of fire. It starts at the foundation and extends continuously through all stories to and above the roof.

- (5) FOUNDATION WALL — Any bearing wall or pier below the first-floor construction.
- (6) PARAPET WALL — That part of an exterior, party or fire wall extending above the roofline.
- (7) PARTY WALL — A wall used jointly by two parties erected at or upon a line separating two parcels of land that may be held under separate ownership.
- (8) RETAINING WALL —
 - (a) Any wall subjected to lateral pressure other than wind pressure.
 - (b) A wall built to support a bank of earth.

YARD — An open unoccupied space on the same lot with a building, or other structure or use, open and unobstructed from the ground to the sky.

- (1) YARD, FRONT — A yard extending the full width of the lot along the front lot line and extending in depth from the front lot line to the nearest point of any structure on the lot.
- (2) YARD, REAR — A yard extending the full width of the lot along the rear lot line and extending in depth from the rear lot line to the nearest point of the principal structure on the lot.
- (3) YARD, SIDE — A yard extending the full depth of the lot along a side lot line and extending in width from such side lot line to the nearest point of the principal structure on the lot.

ZONING — Division of all of the land of an entire political subdivision into districts having different regulations pertaining to use of land; and height, area, bulk, and use of buildings, and yard requirements; and in some states density of population. Zoning is affected by local ordinance under the police power of the state granted by specific legislation generally termed an "enabling act."

ZONING HEARING BOARD — Formerly the Zoning Hearing Board of Adjustment, as defined in Part 19.

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Part 3
ZONING DISTRICT CLASSIFICATIONS

§ 301. Classes of Districts. [Ord. 624, 9/13/1983, § 300; as amended by Ord. 715, 10/30/1990; by Ord. 852, 6/12/2012; and by Ord. 883, 8/9/2016]

For the purposes of this chapter, Royersford Borough is hereby divided into 10 classes of districts, which shall be designated as follows:

R-1	Residence District
R-2	Residence District
R-3	Residence District
R-4	Residence District
R-5	Special Residence District
O-R	Office-Residence District
CB	Central Business District
HB	Highway Business District
I	Industrial District
GI	General Industrial District
ARU	Adaptive Reuse Overlay District
FP	Floodplain Conservation District

Such districts are hereinafter enumerated, established in the text of this chapter, and confirmed as located on the Zoning Map.

§ 302. Zoning Map. [Ord. 624, 9/13/1983, § 301]

The boundaries of said districts shall be as shown on the map attached to and made a part of this chapter, which map shall be known as the "Zoning Map of Royersford Borough." Said map and all notations, references and data shown thereon are hereby incorporated by reference into this chapter and shall be as much a part of this chapter as if all were described herein.

§ 303. Boundaries of Districts. [Ord. 624, 9/13/1983, §§ 302-302.3]

Where uncertainty exists with respect to the boundaries of the various districts, as shown on the Zoning Map, the following rules shall apply:

1. The boundaries between districts are, unless otherwise indicated, either the center lines of roads and the rights-of-way of railroads and/or public utilities, or such lines extended, or lines parallel thereto. Where figures are shown on the Zoning Map between a road and a district boundary line, they indicate that the district boundary line runs parallel to the road line at a distance, therefrom equivalent to the number of feet so indicated.

2. In undivided property, the district boundary lines on the zoning map shall be determined by use of the scale of the map.
3. When a district boundary line divides a lot held in single and separate ownership at the effective date of this chapter, the regulations as to the use in the less restricted district shall extend over the portion of the lot in the more-restricted district a distance of not more than 50 feet beyond the district boundary line, when authorized as a special exception.

§ 304. Federal and State-Owned Property. [Ord. 624, 9/13/1983, § 303]

Whenever federal or state-owned property or property owned by any federal or state agency or any political subdivision thereof, is included in one or more zoning districts, it shall be subject to the provisions of this chapter only insofar as permitted by the Constitution and laws of the United States of America and of the Commonwealth of Pennsylvania.

Part 4
GENERAL PROVISIONS

§ 401. Introduction. [Ord. 624, 9/13/1983, § 400]

For the purposes of this chapter, the following regulations shall apply in each district.

§ 402. Lots of Record. [Ord. 624, 9/13/1983, § 401]

A lot or group of lots of public record held in single and separate ownership at the time of enactment of this chapter shall be used in accordance with the requirements of the district in which it is located except when:

1. Less than five years have elapsed from the date of preliminary approval of the subdivision plan; or
2. The Zoning Hearing Board grants a special exception after finding that the necessary additional ground is not available because of the settled condition of the neighborhood or because of inability of the owner to acquire additional ground upon fair terms.

§ 403. Reduction of Lot Area. [Ord. 624, 9/13/1983, § 402]

No lot shall be so reduced that the area of the lot or the dimensions of the required open space shall be less than therein prescribed.

§ 404. Modification of Front Yard Requirements. [Ord. 624, 9/13/1983, § 403; as amended by Ord. 728, 7/28/1992, § 7]

Where an unimproved lot of record is situated on the same street frontage between two improved lots or one unimproved and one improved lot, the front yard requirements for that district shall be modified so that the front yard setback is an average of the existing front yards of the abutting improved lots with the same street frontage.

§ 405. Obstruction to Vision at Intersections Prohibited. [Ord. 624, 9/13/1983, § 404]

On any corner lot, no physical improvement of planting area shall be erected, altered or maintained within the required yards which shall cause obstruction to driver vision from the abutting intersection.

§ 406. Access to Public Street. [Ord. 624, 9/13/1983, § 405; as amended by Ord. 728, 7/28/1992, § 8]

No dwelling shall hereafter be erected nor lot created unless there is direct independent access to it through a right-of-way which shall be at least 25 feet wide, which shall extend from the dwelling to a public street or highway, and shall be a fee-simple part of the lot. If access is only gained by

the access strip, the area of the strip shall not be included when computing the minimum lot size.

§ 407. Existing Interior Lots. [Ord. 624, 9/13/1983, § 406]

An existing lot for which access to a public road is less than specified in § 406 may be built upon only when authorized as a special exception by the Zoning Hearing Board. In computing the area of such lots, the area of the strip of ground connecting the lot with the public road shall not be considered. All buildings and other structures to be located on such lots shall not be closer than 15 feet to surrounding lot lines, and the strip of ground connecting the lot with the public road shall be used as an access strip to only the particular lot in question. The Zoning Hearing Board shall consider the suitability of the strip of ground which connects the lot with the public road for use as an access driveway and may impose such other conditions as may be required.

§ 408. Accessory Uses. [Ord. 624, 9/13/1983, § 407; as amended by Ord. 665, 7/8/1986, § 1; by Ord. 716, 11/13/1990, §§ 1, 2; and by Ord. 728, 7/28/1992, § 9]

Accessory uses authorized in this chapter shall include any of the following or similar uses:

1. Uses Accessory to Dwellings:
 - A. A garage, children's playhouse, private parking space, shelter for pets or sheds. **[Amended by Ord. 831, 3/30/2010, § 2]**
 - B. Swimming pool for use of family and guests only.
 - C. Noncommercial greenhouse.
 - D. Living quarters for household employees, caretakers or watchmen. When such living quarters meet the definition of a dwelling or dwelling unit, they must meet the requirements of §§ 418(2), 418(3), 418(5) and 418(6) of this Part.
 - E. The renting of rooms within the dwelling in which the lessor resides to not more than two nontransient persons, with or without the provision of table board for such persons, provided such rented rooms do not meet the definition of a dwelling.
 - F. Garage sales, yards sales, or any other type of private sale held more than six times per year by one household shall be deemed a commercial activity and therefore shall not be allowed in any residential district. A garage sale, yard sale, or other type of private sale advertised and conducted for either two or three consecutive days shall be considered as one sale.

2. Uses Accessory to Public Park or Playground: customary recreation, refreshment, and service uses and buildings in any public park, reservation, playground, or other recreational area.

§ 409. Minimum Setback for Accessory Uses. [Ord. 624, 9/13/1983, § 408]

An accessory building as permitted in § 408(1)(A), (B), or (C), may be erected no closer than five feet to a side or rear property-line except in the case of an accessory building built on a property-line as a party wall, provided the applicant files the written consent of the adjoining property-owner with the Zoning Officer. Any other accessory building must meet the applicable minimum setback requirements. Any combination of accessory uses must meet the greater setback requirements. In no instance shall an accessory building be located closer to the street line than the building line.

§ 410. Projections into Required Yards. [Ord. 624, 9/13/1983, §§ 409-409.5; as amended by Ord. 699, 1/31/1989, § 1]

No structure and no part of a structure shall be erected within or shall project into any minimum required yard in any district, except that:

1. An unenclosed porch, not more than 14 feet in height, may be erected to extend into a required front or rear yard a distance of not more than 10 feet, provided that in no case shall it extend into such front or rear yard more than 1/2 the existing depth of the yard.
2. A terrace or platform not covered by a roof, canopy or trellis, which does not extend above the level of the first floor of the building, may be erected to extend into a required yard a distance of not more than 12 feet, provided that it shall not extend into such yard more 40% of the existing depth or width of the yard.
3. A carport may be erected over a driveway in a required side yard, provided that such structure is:
 - A. Not more than 14 feet in height and 25 feet in length.
 - B. Entirely open on at least two sides, exclusive of the necessary supporting columns and the customary architectural features.
 - C. Does not extend closer to the side lot line than a distance of five feet.
4. A buttress, chimney, cornice, pier, or pilaster of a building may project not more than 18 inches into a required yard.
5. Open, unenclosed fire escapes, steps, bay windows and balconies may project not more than three feet into a required yard.

§ 411. Fences and Walls. [Ord. 624, 9/13/1983, § 410; as amended by Ord. 667, 8/12/1986, § 1; by Ord. 728, 7/28/1992, § 10; and by Ord. 741, 2/28/1995, § 1]

No fence or wall (except a retaining wall or a wall of a building permitted under the terms of this chapter) over six feet in height shall be erected within any of the open spaces required by this chapter. Any fence or wall over four feet in height shall contain openings equal to 25% of the area of the fence or wall; provided, however that a solid fence, not to exceed six feet in height, may be erected between residential and nonresidential uses; provided, however, that a solid fence, not to exceed eight feet in height measured from ground level, or in the case of decks, from floor level, to the top of the fence, including ornamentation, may be erected from the rear wall of attached residential buildings as a continuation of the party wall for a distance of 20 feet or half the distance of the existing depth of the rear yard, whichever is less, if the post or vertical supports of the fence are placed on the owner's side of the fence.

§ 412. Manufactured Homes and Manufactured Home Parks. [Ord. 887, 2/28/2017²]

1. The terms "manufactured home" and "mobile home" shall have the same meaning. The term "manufactured home park" shall have the same meaning as "mobile home park."
2. A manufactured home is a type of single-family detached dwelling. A manufactured home that is newly installed shall meet the following additional requirements:
 - A. Any manufactured home shall be constructed in accordance with 1976 or later Safety and Construction Standards of the United States Department of Housing and Urban Development.
 - B. Each site shall be graded to provide a stable and well-drained area, and shall have the hitch and tires removed.
 - C. Each manufactured home shall include a system that properly anchors the home to the ground to prevent shifting, overturning or uneven settling of the home. The requirements of the Construction Codes shall apply, in addition to the manufacturer's specifications for installation and state requirements for use of a licensed installer.
3. A manufactured home park shall only be allowed as a special exception use in the GI General Industrial District, and shall require a one acre minimum lot size, which shall remain under single ownership. Each dwelling unit may be individually owned. A manufactured home park shall meet the following additional requirements:

2. **Editor's Note: This ordinance also repealed former § 412, Mobile Homes and Mobile Home Parks (Ord. No. 624, 9/13/1983, § 411, as amended).**

- A. The project shall need approval under the Subdivision and Land Development Ordinance.³
- B. The maximum average density of the manufactured home park shall be four dwelling units per acre, which shall be calculated after deleting all land within the one-hundred-year floodplain, all wetlands and all slopes over 15%.
- C. Each manufactured home park shall include a thirty-foot-wide landscaped area, including substantial attractive evergreen and deciduous trees around the perimeter of the site, except where such landscaping would obstruct safe sight distances for traffic. A planting plan for such area shall be approved by Borough Council. The same area of land may count towards both the landscaped area and the building setback requirements.
- D. A dwelling, including any attached accessory building, shall be set back a minimum of 25 feet from another dwelling within the manufactured home park, except that unenclosed porches, awnings and decks may be 15 feet from the walls of another dwelling.
- E. The minimum separation between homes and the edge of a private street cartway or parking court cartway shall be 25 feet.
- F. The minimum principal and accessory building setbacks from exterior/boundary lot lines and rights-of-way of public streets shall be 40 feet.
- G. Each home shall comply with the requirements for manufactured homes stated in the preceding Subsection 2.
- H. A detached accessory structure or garage shall be separated a minimum of 15 feet from any dwelling units to which the accessory structure is not accessory.

§ 413. Exceptions as to Public Utility Corporations. [Ord. 624, 9/13/1983, § 412]

This chapter shall not apply to any existing or proposed building or extension thereof, used or to be used by a public utility corporation, if upon petition of such corporation the Pennsylvania Public Utility Commission shall, after a public hearing, decide that the present or proposed situation of the building in question is reasonably necessary for the convenience or welfare of the public; nor shall this chapter apply to any building of the Borough or extension thereof or to the use of any premises by the Borough if the Borough Council shall, after a public hearing, decide that such building or extension thereof, or such use of any premises, is reasonably necessary for the education, convenience, recreation, or welfare of the public.

3. Editor's Note: See Ch. 22, Subdivision and Land Development.

§ 414. Trailers. [Ord. 624, 9/13/1983, § 413]

No lot or premises may be used for a trailer camp, and no lot or premises shall maintain an inhabited trailer for a period to exceed 30 days.

§ 415. Condominium Ownership Plans. [Ord. 624, 9/13/1983, § 414]

No section of this chapter shall be construed to prohibit condominium ownership as permitted by the Pennsylvania Uniform Condominium Act, P.L. 1980-82, and any amendments thereto.

§ 416. Prohibition of Public Nuisances. [Ord. 624, 9/13/1983, § 415]

The following standards shall be followed throughout the Borough:

1. No building may be erected, altered or used, and no lot or premises may be used, for any trade, industry or business that is noxious or offensive by reason of odor, dust, smoke, gas, vibration, illumination or noise.
2. No lot or premises shall be used for the storage, deposit or disposal or rubbish, junk or any noxious, offensive or otherwise objectionable material.

§ 417. Height Exception. [Ord. 624, 9/13/1983, § 416]

Exceptions to the maximum height specified in each district shall be governed by the following:

1. In all districts: chimneys, spires, towers, skylights, tanks, radio or television aerials, solar collectors, or similar uses or structures shall not be included in calculating the height where such structures are customary vertical projections of a permitted building.
2. In any residential district: the prescribed basic height limit may be exceeded by one foot for each foot by which the width of each side yard and the depth of each rear yard are increased beyond the minimum requirements up to a maximum of five feet.

§ 418. Conversions of Residential Structures. [Ord. 624, 9/13/1983, §§ 417-417.6; as amended by Ord. 728, 7/28/1992, § 12]

The Zoning Hearing Board may allow as a special exception the conversion of a single-family dwelling or other building into a dwelling for one or more families, subject to the following requirements:

1. In no case shall building space be converted to result in one or more new dwelling units being located along the street frontage level abutting Main Street, unless the building is in a residential district. In no case shall an existing dwelling unit be divided to result in additional dwelling units. The conversion shall not be approved if it would involve a new external fire escape placed on a front of a building that faces onto a public street. **[Amended by Ord. 883, 8/9/2016]**

2. Each dwelling unit shall have not less than 600 square feet of floor area, plus an additional 100 square feet of floor area for each additional bedroom in excess of one.
3. The lot area per dwelling unit may not be reduced to an amount less than 33% of that required by this chapter for the district in which the designated lot is located.
4. The Zoning Hearing Board shall specify the maximum number of families permitted to occupy such buildings and may prescribe such further conditions and restrictions as the Zoning Hearing Board may consider appropriate to preserve the character of the surrounding neighborhood.
5. The off-street parking requirements of this chapter shall be met.
6. The building shall be served by public sewer facilities or the Sewerage Enforcement Officer, or other designated official, shall be satisfied that the method of sewage disposal shall be adequate for the proposed units.

**§ 419. Procedures and Standards for Conditional Use Approval.
[Ord. 624, 9/13/1983; as added by Ord. 704, 9/26/1989, § 4]**

An application for any conditional use as specified in the various parts of this chapter shall be considered by the Borough Council according to the following procedures. The Council may grant conditional use approval provided the applicant complies with the following standards and criteria for conditional uses and any other reasonable conditions imposed by the Borough Council. The burden of proof shall rest with the applicant.

1. Application Requirements.
 - A. The application shall be submitted in writing to the Borough Council with payment of the required fee. Borough Council will forward the application to the Borough Planning Commission for review and recommendation.
 - B. The application shall include the request for approval of a conditional use, sufficient information to document compliance with the standards and criteria of this Part, a tentative sketch plan of the proposed development and any study deemed necessary by the Borough Engineer.
 - C. The Borough Planning Commission shall submit one copy of the application to the Montgomery County Planning Commission for its advisory review and other copies to agencies and/or technical consultants whose review may be relevant.
2. Public Hearing.
 - A. The Borough Council shall schedule a public hearing thereon within 60 days from the date of the applicant's request, unless the applicant has agreed in writing to an extension of this time limit.

- B. Public notice of the public hearing, stating the time place, and a description of the particular nature of the use to be considered, shall be published twice in a newspaper of general circulation in the Borough. The first publication shall not be more than 30 days and the second publication shall not be less than seven days from the date of the hearing.
 - C. The Borough Planning Commission shall submit one copy of the application to the Montgomery County Planning Commission for its advisory review and other copies to agencies and/or technical consultants whose review may be relevant.
3. Standards and Criteria. In deciding all application for conditional uses, the Borough Council shall be guided by the following standards and criteria:
 - A. The proposed use shall be one permitted by conditional use and one that will conform to the applicable regulations of the district in which it is located.
 - B. The proposed use shall be suitable for the subject property and shall complement the character of the surrounding neighborhood.
 - C. The proposed use shall not adversely affect or contradict the 1988 Royersford Borough Comprehensive Plan Update.
 4. The Borough Council shall render a written decision on the application within 45 days after the last hearing in which the Council considered the application.
 5. Where the Borough Council fails to render a decision within the period required by this subsection, or fails to hold the required hearing within 60 days from the date of the applicant's request for a hearing, the decision shall be deemed to have been rendered in favor of the applicant unless the applicant has agreed in writing or on the record to an extension of time.
 6. Approval of any conditional use shall expire one year after the date of approval by the Borough Council or the signing of the development plan, whichever is later, if the applicant fails to obtain a building permit or use and occupancy permit.

§ 420. Home Occupations. [Ord. 624, 9/13/1983; as added by Ord. 728, 7/28/1992, § 13; and as amended by Ord. 781, 9/9/2003, § 2]

A home occupation is a no-impact home-based business. In addition to the conditions as set forth in the definition of no-impact home-based business in § 202 hereof, the following conditions shall also apply:

- A. Materials or products shall not be stored outside the principal or accessory building.

- B. There shall be no external alternations which are not customary in residential buildings.
- C. Off street parking shall be provided in sufficient capacity to prevent interference with normal residential parking in the neighborhood:
 - (1) If a residential driveway is used or expanded for such parking, a minimum of two parking spaces must be provided in addition to the number of spaces normally used by the residents of the dwelling unit.
 - (2) No parking spaces for the home occupation use may be located in the front yard unless specifically authorized by the Borough Council.

§ 421. Outdoor Lighting. [Ord. 853, 6/12/2012]

1. Short Title. This section shall be known as and may be cited as the "Outdoor Lighting Ordinance."
2. The following standards shall apply to the design and operation of outdoor lighting for residential, commercial and institutional areas for loading, ingress and egress, parking, private recreational uses and institutional uses:
 - A. Purpose. To establish minimum standards for outdoor lighting to:
 - (1) Provide for and control lighting in outdoor places where public health, safety and welfare are potential concerns.
 - (2) Protect drivers and pedestrians from the glare of nonvehicular light sources that affect driver vision.
 - (3) Protect neighbors and the night sky from nuisance glare and stray light from improperly aimed, placed, applied, maintained or shielded light sources.
 - B. Applicability.
 - (1) Outdoor lighting shall be provided in accordance with the following standards for multifamily residential, commercial, industrial, educational, private recreational and institutional uses.
 - (2) Additionally, the glare-control requirements herein apply to lighting in all of the above-mentioned uses as well as, but not limited to, signs and architectural, landscaping and residential lighting.
 - C. Definitions. As used in this section, the following terms shall have the meanings indicated.

FOOTCANDLE — Unit of light intensity stated in lumens per square foot and measurable with an illuminance meter (i.e., light meter).

FULL CUTOFF — Attribute of a lighting fixture from which no light is emitted at or above a horizontal plane drawn through the bottom of the fixture and no more than 10% of the lamp's intensity is emitted at or above an angle 10° below that horizontal plane, at all lateral angles around the fixture.

GLARE — Excessive brightness in the field of view that causes loss in visual performance or annoyance, to jeopardize health, safety or welfare.

ILLUMINANCE — Quantity of light, measured in footcandles.

LIGHT TRESPASS — Unwanted light emitted by a lighting fixture or installation which is cast beyond the boundaries of the property on which the lighting installation is sited.

LUMEN — The light-output rating of a lamp (light bulb), as used in the context of this section.

SHIELDED — A luminaire from which no direct glare is visible at normal viewing angles by virtue of being properly aimed, oriented, and located and properly fitted with such devices as shields, barn doors, baffles, louvers, skirts or visors.

D. Criteria.

(1) Illumination levels.

- (a) Lighting, where required or permitted by this section, shall have intensities and uniformity ratios in accordance with the current recommended practices of the Illuminating Engineering Society of North America (IESNA) as contained in the IESNA Lighting Handbook, 10th Edition.
- (b) Examples of intensities for typical outdoor applications, as extracted from the 10th Edition of the IESNA Lighting Handbook, are presented below:

Use/Task	Maintained Footcandles (Avg.:Min.)	Uniformity
Streets, local residential	0.4 Avg.	6:1
Streets, local commercial	0.9 Avg.	6:1
Parking, residential, multifamily		
Low vehicular/pedestrian activity	0.2 Min.	4:1
Medium vehicular/pedestrian activity	0.6	4:1
Parking, industrial/commercial/ institutional/municipal		

Use/Task	Maintained Footcandles (Avg.:Min.)	Uniformity (Avg.:Min.)
High activity, e.g., regional shopping centers/fast-food facilities, major civic/cultural events and private recreational activities	0.9 Min.	4:1
Medium activity, e.g., community shopping centers, office parks, hospitals, commuter lots	0.6 Min.	4:1
Low activity, e.g., neighborhood shopping, industrial employee parking, schools, church parking.	0.2 Min.	4:1
Walkways and bikeways	0.5 Avg.	5:1
Building entrances	5.0 Avg.	—

NOTES:

1. Illumination levels are maintained horizontal footcandles on the task, e.g., pavement or area surface.
2. Uniformity ratios dictate that average illuminance values shall not exceed minimum values by more than the product of the minimum value and the specified ratio, e.g., for commercial parking high activity, the average footcandles shall not be in excess of 3.6, i.e., 0.9 x 4.

(2) Lighting fixture design.

- (a) Fixtures shall be of a type and design appropriate to the lighting application and in accordance with IESNA Lighting Handbook, 10th Edition.
- (b) For lighting horizontal tasks such as roadways, pathways and parking areas, fixtures shall meet IESNA full-cutoff criteria.
- (c) For nonhorizontal tasks, the use of floodlighting, spotlighting, wall-mounted fixtures, decorative globes and other fixtures not meeting IESNA full-cutoff criteria shall be permitted only with the approval of Borough Council, based upon acceptable glare control.
- (d) Fixtures shall be equipped with or be capable of being backfitted with light-directing devices such as shields,

visors or hoods when necessary to redirect offending light distribution.

- (3) Control of glare, light pollution and light trespass.
- (a) All outdoor lighting, whether or not required by this section, on private, residential, commercial, industrial, municipal, educational or institutional property, shall be aimed, located, designed, fitted and maintained so as not to create glare, light pollution and light trespass.
 - (b) Floodlights and spotlights, when permitted, shall be so installed or aimed that they do not project their output into the windows of neighboring residences, adjacent uses, directly skyward or onto a roadway.
 - (c) All-night safety or security lighting shall be permitted, but the light-intensity levels shall not exceed 25% of the levels normally permitted for the use by this section.
 - (d) Lighted signs advertising an individual business and combinations of businesses (as in a shopping center) may remain on until 15 minutes after closing of the business or combination of businesses and then shall be extinguished.
 - (e) Entrance signs to residential developments and to business parks or shopping centers may remain on throughout the night for identification purposes for emergency vehicles.
 - (f) Unless Borough Council specifically approves a period of outdoor lighting extending throughout the night for safety or security or unless lighting is provided as above in Subsection 2D(3)(c), (d) and (e), lighting shall be controlled by automatic switching devices, such as time clocks or combination motion detectors and photocells, to permit extinguishing lighting between 11:00 p.m. and dawn.
 - (g) Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, glare control shall be achieved primarily through the use of such means as cutoff fixtures, shields and baffles, and appropriate application of fixture mounting height, wattage, aiming angle and fixture placement.
 - (h) The intensity of illumination projected onto a residential use from another property shall not exceed 0.1 vertical footcandle, measured at 30 inches above the ground at the property line.

- (i) Externally illuminated signs shall be lighted by fixtures mounted at the top of the sign and aimed downward.
 - (j) Except as otherwise permitted in this section, fixtures meeting IESNA full-cutoff criteria shall not be mounted in excess of 20 feet above finished grade. Fixtures not meeting IESNA full-cutoff criteria shall not be mounted in excess of 16 feet above grade except as specifically approved by Borough Council.
 - (k) Fixtures used for architectural lighting, e.g., facade, fountain, feature and landscape lighting, shall be designed, fitted and aimed so as not to project their output beyond the objects intended to be illuminated.
- (4) Installation.
- (a) Electrical feeds for lighting standards shall be run underground, not overhead.
 - (b) Lighting standards to the rear of the parking spaces shall be placed a minimum of five feet outside paved areas, curbs or tire stops or be suitably protected by other means approved by the Borough Council.
- (5) Maintenance. Lighting fixtures and ancillary equipment shall be maintained so as always to meet the requirements of this section.
- E. Residential Development Fixture Placement. Streetlighting fixtures in multifamily residential developments and mobile home parks shall be placed at the following locations:
- (1) At the intersection of public roads with entrance roads to the proposed development.
 - (2) Intersections involving proposed public or nonpublic major roads within the proposed development.
- F. Recreational Uses. The nighttime illumination of outdoor recreational facilities for athletic activities, such as baseball, basketball, soccer, tennis, track and field and football, typically necessitates higher than normally allowed fixture mounting heights and aiming angles, utilizes very high-wattage lamps and potentially produces unacceptable levels of light trespass and glare when located near residential properties. Permission to illuminate such facilities shall be granted only when the Borough is satisfied that the health, safety and welfare rights of nearby property owners and the Borough as a whole have been properly protected. When recreational or athletic uses are specifically permitted by the Borough for operation during hours of darkness, the following requirements shall apply:

- (1) Sporting events shall be timed to end at such time that all lighting in the sports facility, other than lighting for safe exit of spectators or patrons, shall be extinguished by 10:00 p.m., regardless of such occurrences as extra innings or overtime periods.
- (2) Race tracks and recreational venues, such as golf driving ranges and trap-shooting facilities, that necessitate the horizontal or near horizontal projection of illumination shall not be permitted to be artificially illuminated.
- (3) Recreational facilities for basketball, baseball, football, soccer, miniature golf, tennis or track shall not be illuminated if located within a residential district or sited on a nonresidential property located within 1,000 feet of a property containing a residential use.
- (4) Maximum mounting heights for recreational lighting shall be in accordance with the following:

Mounting Height

Use	(feet)
Basketball	20
Football	70
Soccer	70
Little league baseball	
Radius of 200 feet	60
Radius of 300 feet	70
Lacrosse	70
Miniature golf	20
Swimming pool aprons	20
Tennis	20
Track	20

- (5) To assist the Borough in determining whether lighting will be permitted, applications for illuminating recreational or athletic facilities shall be accompanied not only with the information required under Section G below but also by a visual impact plan that contains the following:
 - (a) Plan views containing a layout of the facility and showing pole locations and the location of residences on adjoining properties.
 - (b) Elevations containing pole and fixture mounting heights, horizontal and vertical aiming angles and fixture arrays for each pole location.

- (c) Elevations containing initial vertical illuminance plots at the boundary of the site, taken at a height of five-foot line of sight.
- (d) Elevations containing initial vertical illuminance plots on the windowed facades of all residences facing and adjacent to the facility. Such plots shall demonstrate compliance with the light trespass and glare control requirements of this section.
- (e) Proposed frequency of use of the facility during hours of darkness on a month-by-month basis and proposed time when the sports lighting will be extinguished.
- (f) A narrative describing the measures proposed to achieve minimum off-site disturbance.

G. Plan Submission.

- (1) Lighting plans shall be submitted simultaneously to Borough Council, through the Borough Manager, and to the Borough Planning Commission for review and approval for all proposed outdoor lighting, including but not limited to proposals which are part of a subdivision or land development plan, and shall include:
 - (a) Layout of the proposed fixture locations.
 - (b) For installations of up to four fixtures, an iso-footcandle plot of the individual fixtures.
 - (c) Where more than four fixtures are used, a point-by-point plot using a ten-foot-by-ten-foot illuminance grid. This shall include a statistical summary of typical areas and include minimum, average and maximum values and uniformity ratios that demonstrate compliance with the intensities and uniformities set forth in this section.
 - (d) Description of the equipment, including fixture catalog cuts, photometrics, glare-reduction devices, lamps, control devices, mounting heights and mounting methods proposed.
- (2) When requested by Borough Council or the Planning Commission, the applicant shall submit a visual impact plan that demonstrates appropriate steps have been taken to mitigate on-site and off-site glare.
- (3) Post-approval alterations to lighting plans or intended substitutions for approved lighting equipment shall be submitted to the Borough for review and approval.

H. Post-Installation Inspection.

- (1) The Borough has the right to conduct a post-installation nighttime inspection to verify compliance with the requirements of this section and, if appropriate, to require remedial action.
3. Violations and Penalties. Failure of any property owner to comply with any provision of this section shall, upon conviction before a Magisterial District Judge, be subject to a fine not exceeding \$300 plus all costs of prosecution, and in default of payment of the fine and costs herein shall be subject to imprisonment for a period not to exceed 30 days. Each day that the property owner is not in compliance with this section shall be considered a separate violation and offense.

§ 422. Adult Uses. [Added by Ord. 883, 8/9/2016]

(This is limited to the following uses as defined in § 202: adult store, adult movie theater, massage parlor, or adult live entertainment facility.)

1. Purposes. The regulations on adult uses are intended to serve the following purposes, in addition to the overall objectives of this chapter:
 - A. To recognize the adverse secondary impacts of adult uses that affect health, safety and general welfare concerns of the Borough. These secondary impacts have been documented in research conducted across the nation. These secondary impacts typically include, but are not limited to, increases in criminal activity, increases in activities that increase the risk of transmission of sexually transmitted diseases, increases in activities that increase the risk of transmission of other communicable diseases, increases in blight, decreases in the stability of residential neighborhoods, and decreases in property values for surrounding homes, and decreases in the marketability of nearby commercial business space. The research conducted across the nation concludes that adult uses typically involve insufficient self-regulation to control these secondary effects.
 - B. To limit adult uses to locations where these secondary impacts can be minimized, particularly as they affect residential neighborhoods and commercial revitalization.
 - C. To not attempt to suppress any activities protected by the "free speech" protections of the State and U.S. Constitutions but instead to control secondary effects.
2. An adult use and its parking area shall not be located within any of the following distances, whichever is most restrictive:
 - A. From the lot line of an existing dwelling: 250 lineal feet.
 - B. From the lot line of any lot in a residential zoning district: 250 lineal feet.

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- C. From the lot line of any primary or secondary school, place of worship, library, public park, day-care center or child nursery: 500 lineal feet.
3. No adult use shall be located within 250 lineal feet from any existing or approved adult use.
4. A fifty-foot-minimum-width buffer yard shall be required along the side and rear lot lines. If such buffer area does not include substantial mature trees that will be preserved, it shall include continuous screening by evergreen trees with an initial height of five feet.
5. No pornographic material, displays or signs shall be placed in view of persons who are not inside of the establishment. Entrances shall be staffed at all times to prohibit minors from entering the premises.
6. No adult use shall be used for any purpose that violates any federal, state or municipal law.
7. An adult use shall be prohibited in all districts except where specifically stated as being a conditional use in a particular district. An adult use is a distinct use and shall not be allowed under any other use, such as a retail store or club.
8. A minimum lot area of one acre is required.
9. For public health reasons, private or semiprivate viewing booths of any kind are prohibited. This specifically includes, but is not limited to, booths for viewing adult movies or nude dancers.
10. No use may include live actual or simulated sex acts nor any sexual contact between employees and entertainers nor between employees or entertainers and customers.
11. Only "lawful" massages as defined by State Court decisions shall be performed in a massage parlor.
12. All persons within any adult use shall wear nontransparent garments that cover their genitals and the female areola, except within a permitted lawful "adult live entertainment facility."
13. Any application for such use shall state the name and daytime address of an on-site manager responsible to ensure compliance with this chapter on a daily basis. A telephone number shall be provided where the on-site manager can be reached during Borough business hours. Such information shall be regularly updated in writing to the Zoning Officer.
14. The use shall not operate between the hours of 12:00 midnight and 7:00 a.m. If state law requires that another use of the property must be allowed to be open later, the adult use activities shall still cease by 12:00 midnight.

15. As specific conditions of approval under this chapter, the applicant shall prove compliance, where applicable, with the following state laws, as amended: the Pennsylvania Liquor Code, Act 219 of 1990 (which pertains to sale or consumption of alcohol between 2:00 a.m. and 8:00 a.m.),⁴ Act 207 of 1990 (which pertains to obscenity),⁵ and Act 120 of 1996 (which pertains to adult-oriented establishments and which limits enclosed viewing booths, among other matters).⁶

4. Editor's Note: See 15 Pa.C.S.A. § 7327.

5. Editor's Note: See 18 Pa.C.S.A. § 5903.

6. Editor's Note: See 68 Pa.C.S.A. § 5501 et seq.

Part 5
R-1 RESIDENCE DISTRICT

§ 501. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 500]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 5 with respect to the R-1 Residence District to establish reasonable standards of performance and to promote the benefits of the low-density single-family residential development in appropriate areas of the Borough.

§ 502. Permitted Uses. [Ord. 624, 9/13/1983, §§ 501-501.3; as amended by Ord. 781, 9/9/2003, § 3]

In an R-1 Residence District, a building may be erected, altered or used and a lot may be used or occupied for any of the following uses and no other:

1. Single-family detached dwellings.
2. No-impact home-based business.
3. An institutional use when authorized as a conditional use by the Borough Council, subject to the standards and criteria set forth in § 504 hereof.
4. Accessory uses on the same lot with and customarily incidental to any permitted use.

§ 503. Development Regulations. [Ord. 624, 9/13/1983, §§ 502-502.3]

1. The following regulations shall apply in the R-1 Residence District:
 - A. Lot Area, Lot Width, Yards, and Building Coverage (per dwelling unit).
 - (1) Minimum lot area: 11,250 square feet.
 - (2) Minimum lot width at the building line: 75 feet.
 - (3) Minimum front yard measured from the ultimate right-of-way line: 30 feet.
 - (4) Minimum front yard on the long side of a corner lot: 25 feet.
 - (5) Minimum side yard: 15 feet each.
 - (6) Minimum rear yard: 25 feet.
 - (7) Maximum building coverage (percent of total lot area): 25%.

- B. Height. No building hereinafter erected as a dwelling in the R-1 Residence District shall exceed 35 feet in height. For any building accessory to a dwelling, the maximum height shall be 20 feet.
 - C. Parking and Signs. All parking spaces and all signs erected in the R-1 Residence District shall be in accordance with Part 16, Off-Street Parking and Loading, and Part 17, Signs, of this chapter.
2. Additional Requirements in the R-1, R-2 and R-3 Districts. **[Added by Ord. 887, 2/28/2017]**
- A. Purposes. The purpose of these requirements is to serve the purposes of the traditional neighborhood development provisions of the Pennsylvania Municipalities Planning Code.⁷
 - B. Each dwelling unit shall have a front door and at least one ground-floor window that faces onto a street.
 - C. Any space between the bottom of the home and the ground and/or home pad shall be enclosed using a durable fire-resistant material. If a traditional foundation is not used, then this enclosure shall have the appearance of a foundation of a site-built home, such as material with the appearance of concrete or stucco. Provisions shall be provided for access to any utility connections under the home.
 - D. Each dwelling unit shall have a minimum dwelling unit width of 20 feet along the side of the dwelling that is approximately parallel to an adjacent street. This width shall be revised as follows, whichever is more restrictive:
 - (1) It shall be 18 feet in the R-3 District; and
 - (2) Where townhouses or twin dwellings are allowed, if two or more side-by-side off-street parking spaces are located in the front yard of a dwelling or if garage doors for two or more vehicles face onto the street in the front of the dwelling, then the minimum dwelling width per dwelling along such street shall be a minimum of 24 feet.

§ 504. Conditional Use Standards and Criteria. [Ord. 624, 9/13/1983, §§ 503-503.2; as amended by Ord. 704, 9/26/1989, § 5; and by Ord. 728, 7/28/1992, § 14]

Prior to granting approval of a conditional use in the R-1 Residence District, as provided for in § 502(1) and (2) herein, the Borough Council shall be assured that the proposed use meets the standards of § 419 of this chapter as well as the requirements listed below:

7. Editor's Note: See 53 P.S. § 10701-A et seq.

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1. Home Occupations. Home occupations shall comply with the requirements of § 420 and shall conform to the definition contained in § 202 herein.
2. Institutional Uses. Institutional uses shall comply with the requirements of Part 10, Institutional Use Standards, contained herein.
[Amended by Ord. 883, 8/9/2016]

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Part 6
R-2 RESIDENCE DISTRICT

§ 601. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 600]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 6 with respect to the R-2 Residence District to establish reasonable standards of performance for medium density single-family and two-family residential uses in those areas of the Borough where the character of existing neighborhoods would most readily accommodate such development.

§ 602. Permitted Uses. [Ord. 624, 9/13/1983, §§ 601-601.4; as amended by Ord. 781, 9/9/2003, § 4]

In an R-2 Residence District, a building may be erected, altered or used and a lot may be used or occupied for any of the following uses and no other:

1. Single-family detached dwellings.
2. Two-family dwellings (i.e., twins and duplexes).
3. No-impact home-based business.
4. Institutional uses when authorized as a conditional use by the Borough Council, subject to the standards and criteria set forth in § 604 herein.
5. Accessory uses on the same lot with and customarily incidental to any permitted use.

§ 603. Development Regulations. [Ord. 624, 9/13/1983, §§ 602-602.3]

The following regulations shall apply in the R-2 Residence District:

1. Lot Area, Lot Width, Yards, and Building Coverage.

Development Requirements (Per Dwelling Unit)	Single-Family	Single-Family Semidetached (Twin)	Two-Family Detached (Duplex)
A. Minimum lot area	9,000 square feet	6,000 square feet	6,000 square feet
B. Minimum lot width at the building line	60 feet	40 feet	40 feet

Development Requirements (Per Dwelling Unit)	Single-Family	Single-Family Semidetached (Twin)	Two-Family Detached (Duplex)
C. Minimum front yard measured from the ultimate right-of-way line	25 feet	25 feet	25 feet
D. Minimum front yard on the long side of a corner lot	20 feet	20 feet	20 feet
E. Minimum side yard dimensions	25 feet (aggregate) 10 feet (minimum)	15 feet (one side)	25 feet (aggregate) 10 feet (minimum)
F. Minimum rear yard	25 feet	25 feet	25 feet
G. Maximum building coverage (percent of total lot area)	30%	30%	30%

2. Height. No building hereinafter erected as a dwelling in the R-2 Residence District shall exceed 35 feet in height. For any building accessory to a dwelling, the maximum height shall be 20 feet.

3. Parking and Signs. All parking spaces and all signs erected in the R-2 Residence District shall be in accordance with Part 16, Off-Street Parking and Loading, and Part 17, Signs, of this chapter.

4. The requirements of § 503, Subsection 2, shall also apply to the R-2 District. **[Added by Ord. 887, 2/28/2017]**

§ 604. Conditional Use Standards and Criteria. [Ord. 624, 9/13/1983, §§ 603-603.2; as amended by Ord. 704, 9/26/1989, § 6; and by Ord. 728, 7/28/1992, § 15]

Prior to granting approval of a conditional use in the R-2 Residence District, as provided for in § 602(3) herein, the Borough Council shall be assured that the proposed use meets the standards of § 419 of this chapter as well as the requirements listed below:

1. Home Occupations. Home occupations shall comply with the requirements of § 420 and shall conform to the definition contained in § 202 herein.

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2. Institutional Uses. Institutional uses shall comply with the requirements of Part 10, Institutional Use Standards, contained herein.
[Amended by Ord. 883, 8/9/2016]

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Part 7
R-3 RESIDENCE DISTRICT

§ 701. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 700]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 7 with respect to the R-3 Residence District to establish reasonable standards of performance for high-density residential development, including single-family and two-family dwellings, townhouses, and apartments, in those areas of the Borough where such uses are consistent with the existing character of development.

§ 702. Permitted Uses. [Ord. 624, 9/13/1983, §§ 701-701.4; as amended by Ord. 781, 9/9/2003, § 5]

In an R-3 Residence District, a building may be erected, altered or used and a lot may be used or occupied for any of the following uses and no other:

1. Single-family detached dwellings.
2. Two-family dwellings (i.e., twins and duplexes).
3. No-impact home-based business.
4. Any of the following when authorized as a conditional use by the Borough Council, subject to the standards and criteria set forth in § 704 herein:
 - A. Single-family attached dwellings (i.e., townhouses).
 - B. Multifamily dwellings.
 - C. Institutional uses, in compliance with the Institutional Use Standards in Part 10. **[Amended by Ord. 883, 8/9/2016]**
5. Accessory uses on the same lot with and customarily incidental to any permitted use.

§ 703. Development Regulations. [Ord. 624, 9/13/1983, §§ 702-702.3; as amended by Ord. 664, 7/8/1986, 51; and by Ord. 715, 10/30/1990]

The following regulations shall apply in the R-3 Residence District:

1. Lot Area, Lot Width, Yards and Building Coverage.

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Development Requirements	Single-Family Detached Dwelling	Two-Family Dwelling	Single-Family Attached Dwelling	Multifamily Dwelling
A. Minimum lot area (per dwelling unit)	6,000 square feet	4,200 square feet	3,000 square feet	3,000 square feet
B. Minimum lot width at the building line	50 feet	35 feet (per unit)	25 feet	125 feet
C. Minimum front yard measured from the ultimate right-of-way line	25 feet	25 feet	25 feet	25 feet
D. Minimum front yard on the long side of a corner lot	20 feet	20 feet	20 feet	20 feet
E. Minimum side yard dimensions	25 feet (aggregate); 10 feet (minimum)	15 feet (twin) 25 feet (aggregate); 10 feet minimum (duplex)	15 feet (end unit)	15 feet
F. Minimum rear yard	20 feet	20 feet	20 feet	30 feet
G. Maximum building coverage (percent of total area)	35%	35%	40%	25%

2. Height. No building hereinafter erected in the R-3 Residence District shall exceed 35 feet in height. For any building accessory to a dwelling, the maximum height shall be 20 feet.

3. Parking and Signs. All parking spaces and all signs erected in the R-3 Residence District shall be in accordance with Part 16, Off-Street Parking and Loading, and Part 17, Signs of this chapter.

4. The requirements of § 503, Subsection 2, shall also apply to the R-3 District. **[Added by Ord. 887, 2/28/2017]**

§ 704. Conditional Use Standards and Criteria. [Ord. 624, 9/13/1983, §§ 703-703.4; as amended by Ord. 704, 9/26/1989, § 7; as amended by Ord. 728, 7/28/1992, § 16]

Prior to granting approval of a conditional use in the R-3 Residence District, as provided for in § 702(3) herein, the Borough Council shall be assured that the proposed use meets the standards of 5418 of this chapter as well as the requirements below:

1. Single-family Attached Dwellings. In addition to the development regulations contained in § 703 herein, a proposal for single-family attached dwellings (i.e., townhouses) shall satisfy the following requirements:
 - A. Building Size. For townhouse units, whether owner- or renter-occupied, there shall be no more than six dwelling units in a continuous row.
 - B. Distance Between Buildings. The horizontal distance between any two buildings within a townhouse development shall be not less than 24 feet.
 - C. Parking. Parking areas shall be placed so as not to interfere with any recreation or service area and shall be located not less than 10 feet from any property line, street ultimate right-of-way line, or townhouse structure.
 - D. Access. Provision shall be made for safe and efficient ingress and egress to and from public streets and highways serving the townhouse development without causing undue congestion or interference.
 - E. Common Areas and Facilities. The developer shall give consideration to the provision of community areas, laundry facilities, playgrounds, tot lots, and other amenities necessary for the comfort and convenience of townhouse residents. Provisions satisfactory to Borough Council must be made for the care and maintenance of common facilities. Use of these facilities may be restricted to residents of the development and may be maintained by the developer, a homeowners' association, or similar instrument. Any common area shall first be offered for dedication to the Borough.
 - F. Lighting Facilities. Lighting facilities shall be provided as needed and arranged in a manner which will protect the highway and neighboring properties from unreasonable direct glare or hazardous interference of any kind. Lighting facilities shall be required where deemed necessary for the safety and convenience

of the townhouse residents as determined by the Borough Engineer and shall be installed by the developer at his expense.

- G. Buffer Area. A multifamily development shall have a permanent landscaped planting area of at least eight feet in depth designed to soften the visual impact of the proposed development on abutting properties. This requirement may be reduced or waived by the Borough Council when the proposed development abuts a publicly owned park or when existing vegetation on abutting properties achieves the same effect. The Planning Commission shall review any request for a reduction or waiver of the buffer requirement and submit its recommendation to the Borough Council.
 - H. Service. Areas for loading and unloading of delivery trucks and other vehicles and for the servicing of refuse collection, fuel and other service shall be provided and shall be adequate in size. Such areas shall be so arranged that they may be used without blockage or interference with the use of accessways or automobile parking areas. Common refuse collection areas shall be shielded from the direct view of any adjacent property by walls which measure a minimum of six feet in height.
2. Multifamily Dwellings. In addition to the development regulations contained in § 703 herein, a proposal for multifamily dwellings (i.e., structures with three or more dwelling units) shall satisfy the following requirements:
- A. Building Setback. The minimum side yard and rear yard of a multifamily development shall be 15 feet and 30 feet, respectively. However, in no instance shall an apartment building be located less than 50 feet from an existing building on an abutting property. Garages, sheds, and other accessory structures are excluded from this requirement. A minimum side yard of 25 feet shall be provided when such side yard provides access to a parking area.
 - B. Parking. Common parking areas shall be placed so as not to interfere with any recreation or service area, and shall not be less than 10 feet from any property line, street ultimate right-of-way line, or multifamily building.
 - C. Access. Provision shall be made for safe and efficient ingress and egress to and from public streets and highways serving the multifamily development without causing undue congestion or interference with the normal traffic flow. The Planning Commission shall review the adequacy of the streets intended to carry the additional traffic generated by the development as well as the planned access points intended to serve the proposed development.
 - D. Common Areas and Facilities. The developer shall give consideration to the provision of community areas, laundry facilities, playgrounds, tot lots, and other amenities necessary for the comfort and convenience of the development residents.

Provisions satisfactory to Borough Council must be made for the care and maintenance of common facilities. Use of these facilities may be restricted to residents of the development and may be maintained by the developer, a homeowners' association, or similar instrument. Any common area shall first be offered for dedication to the Borough.

- E. Lighting Facilities. Lighting facilities shall be provided as needed and arranged in a manner which will protect the highway and neighboring properties from unreasonable direct glare or hazardous interference of any kind. Lighting facilities shall be required where deemed necessary for the safety and convenience of apartment residents as determined by the Borough Engineer and shall be installed by the developer at his expense.
 - F. Buffer Area. A multifamily development shall have a permanent landscaped planting area of at least eight feet in depth designed to soften the visual impact of the proposed development on abutting properties. This requirement may be reduced or waived by the Borough Council when the proposed development abuts a publicly owned park or when existing vegetation on abutting properties achieves the same effect. The Planning Commission shall review any request for a reduction or waiver of the buffer requirement and submit its recommendation to the Borough Council.
 - G. Service. Areas for loading and unloading of delivery trucks and other vehicles and for the servicing of refuse collection, fuel and other service shall be provided and shall be adequate in size. Such areas shall be so arranged that they may be used without blockage or interference with the use of accessways or automobile parking areas. Refuse collection areas shall be shielded from the direct view of any adjacent property by walls which measure a minimum of six feet in height.
- 3. Home Occupations. Home occupations shall comply with the requirements of § 420 and the definition contained in § 202 herein.
 - 4. Institutional Uses. Institutional uses shall comply with the requirement of Part 10, Institutional Use Standards, contained herein. **[Amended by Ord. 883, 8/9/2016]**

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Part 8
R-4 RESIDENCE DISTRICT

§ 801. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 800]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 8 with respect to the R-4 Residence District to establish reasonable controls and standards of performance for low-rise apartment dwellings, and mid-rise apartment dwellings as a conditional use, in those areas of Royersford where the existing community character, highway access, and proximity to commercial facilities and employment centers would most readily accommodate the highest intensity of residential development permitted in the Borough.

Furthermore, it is the intent of this Part 8 to establish reasonable standards of performance and to promote the development of safe and adequate housing for the elderly, as defined in this chapter, when applied for as a conditional use in the R-4 Residence District. The development of housing for the elderly shall be encouraged in those locations which will provide maximum accessibility to park and recreation areas, shopping, and public transportation opportunities. Standards shall be set forth which will ensure that such housing will provide appropriate safety features to meet the needs of prospective residents and will include ancillary, on-site recreational and community facilities as an integral part of the development plan. It shall be guaranteed through appropriate legal and/or administrative means that said housing will be occupied solely by elderly residents as defined in this chapter.

Appropriate density standards and parking space requirements which reflect the needs of the prospective residents of housing for the elderly, while providing necessary controls to ensure that such housing will not exert an adverse impact on surrounding neighborhoods or on the general welfare of the residents of the Borough of Royersford, shall be established.

§ 802. Permitted Uses. [Ord. 624, 9/13/1983, §§ 801-801.4; as amended by Ord. 781, 9/9/2003, § 6]

In an R-4 Residence District, a building may be erected, altered or used, and a lot may be used or occupied for any of the following uses and no other:

1. Low-rise apartments.
2. Parks, playgrounds, tot lots, and open space.
- 2A. No-impact home-based business.

3. Any of the following when authorized as a conditional use by the Borough Council, subject to the standards and criteria set forth in § 805 herein:
 - A. Mid-rise apartments.
 - B. Housing for the elderly.
 - C. Indoor recreation facility, community center or similar use.
 - D. Professional office or studio.
 - E. Institutional uses, in compliance with the Institutional Use Standards in Part 10. **[Amended by Ord. 883, 8/9/2016]**
4. Accessory uses on the same lot with and customarily incidental to any permitted use.

§ 803. Development Regulations. [Ord. 624, 9/13/1983, §§ 802-802.11]

The following regulations shall apply to any development proposal in an R-4 Residence District:

1. **Ownership.** The tract of land to be developed shall be in one ownership, or shall be the subject of an application filed jointly by the owners of the entire tract, and it shall be agreed that the tract will be developed under single direction in accordance with an approved plan. Development of the tract shall commence within three years of approval under this Part 8 or the zoning of said tract shall revert to its former zoning classification. Transfer of ownership to another applicant prior to the commencement of construction shall render the development agreement required in § 803(3) herein void. Said agreement shall then be renegotiable between the new owner(s) and the Borough Council.
2. **Sewer and Water Facilities.** The tract of land shall be served by public sewer facilities and centralized water facilities deemed acceptable by the Borough Council and the Pennsylvania Department of Environmental Resources, upon recommendation of the Borough Engineer.
3. **Development Plan.** The development of a tract carried out in either a single phase or in stages shall be executed in accordance with a development agreement. The owner, developer, and Borough shall enter into said agreement embodying all details regarding compliance with this Part 8 to ensure the binding nature thereof on the overall tract and its development, which agreement shall be recorded with the final development plan.
4. **Parking.** Not less than two off-street parking spaces shall be required for each dwelling unit.

- A. In addition to parking provided for dwelling units, other permitted uses, where included, shall be provided with parking space in accordance with Part 16 herein.
 - B. Common parking areas for six or more cars shall be placed so as not to interfere with any recreation or service area and shall be located not less than 15 feet from property lines or street ultimate right-of-way lines. Parking setbacks may be eliminated when parking facilities abut adjacent commercial developments.
 - C. For parking areas storing 10 or more cars not less than 10% of the area devoted to parking facilities shall consist of interior parking lot landscaping.
5. Access. Provision shall be made for safe and efficient ingress and egress to and from public streets and highways serving a development in an R-4 Residence District without causing undue congestion or interference with the normal traffic flow. The Planning Commission shall review the adequacy of the street intended to carry the additional traffic generated by the development, as well as the planned access points intended to serve the proposed development.
 6. Signs. All signs erected in an R-4 Residence District shall be in accordance with Part 17, Signs, of this chapter.
 7. Utilities. All utility lines (electrical, telephone, etc.) shall be placed underground.
 8. Common Areas and Facilities. The developer shall provide a minimum of 30% of the total site area as open space usable for active or passive recreation by the residents of the development. Any common area shall first be offered for dedication to the Borough. In addition, the developer shall give consideration to the provisions of community areas, laundry facilities, playgrounds, tot lots, and other amenities necessary for the comfort and convenience of apartment residents. Provisions satisfactory to Borough Council must be made for the care and maintenance of common facilities. Use of these facilities may be restricted to residents of the development and may be maintained by the developer, a homeowners' association or similar entity.
 9. Lighting Facilities. Lighting facilities shall be provided as needed and arranged in a manner which will protect the highway and neighboring properties from unreasonable direct glare or hazardous interference of any kind. Lighting facilities shall be required where deemed necessary for the safety and convenience of the residents of the development as determined by the Borough Engineer and shall be installed by the developer at his expense.
 10. Buffer Area. A development located in an R-4 Residence District shall have a permanent landscaped planting area of at least 10 feet in depth designed to soften the visual impact of the proposed development on abutting properties. This requirement may be reduced or waived by the

Borough Council when the proposed development abuts a publicly owned park or when existing vegetation on abutting properties achieves the same effect. Any request for reduction or waiver of the buffer requirements shall be submitted in writing to the Borough Council and shall be accompanied by a site plan indicating the placement of buildings within the proposed development and the location of contiguous public open space and/or existing vegetation on adjacent properties. The Planning Commission shall review any such request and shall submit its recommendations to the Borough Council.

11. Service. Areas for loading and unloading of delivery trucks and other vehicles and for the servicing of refuse collection, fuel and other services shall be provided and shall be adequate in size. Such areas shall be so arranged that they may be used without blockage or interference with the use of accessways or automobile parking areas. Common refuse collection areas shall be shielded from the direct view of any adjacent property by walls which measure a minimum of six feet in height.

§ 804. Development Regulations for Low-Rise Apartment Developments. [Ord. 624, 9/13/1983, §§ 803-803.7]

The following regulations shall apply to all proposals for low-rise apartment developments in an R-4 Residence District:

1. Tract Size. A minimum tract size of 40,000 square feet, excluding the existing rights-of-way of all public roads, shall be required. The minimum lot width at the building line shall be 200 feet. The minimum lot width at the street line shall be 50 feet.
2. Density. The maximum permitted density shall be 15 dwelling units per developable acre.
3. Height. The maximum height of buildings or structures hereinafter erected or enlarged as low-rise apartment dwellings in an R-4 Residence District shall be 35 feet, not to exceed three stories, exclusive of basements. For any building or structure accessory to a dwelling, the maximum height shall be 20 feet.
4. Building Coverage. Not more than 30% of the area of each development may be occupied by buildings.
5. Setback from Streets. There shall be a minimum building setback from the street line on which the development abuts which shall be not less than 25 feet in depth.
6. Setback from Property Lines. There shall be a minimum building setback from any property-line of not less than 25 feet.
7. Distance Between Buildings. The horizontal distance between buildings shall be not less than 25 feet.

§ 805. Conditional Use Standards and Criteria. [Ord. 624, 9/13/1983, §§ 804-804.4; as amended by Ord. 704, 9/26/1989, § 8]

Prior to granting approval of a conditional use in the R-4 Residence District, as provided for in § 802(3) herein, the Borough Council shall be assured that the proposed use meets the standards of § 419 of this chapter as well as the requirements listed below:

1. Mid-rise Apartments. Mid-rise apartments shall comply with the requirements of § 806, Development Regulations for Mid-rise Apartments, herein.
2. Housing for the Elderly. Housing for the Elderly shall comply with the requirements of § 807, Housing for the Elderly, herein.
3. Indoor Recreation Facility. Indoor recreation facilities, community centers and similar uses shall be intended solely for the use of the prospective residents of the development.
4. Professional Office or Studio.
 - A. The total floor area used for professional offices and/or studios shall not exceed 20% of the total first floor area of the proposed apartment development.
 - B. The total number of parking spaces in the apartment development shall equal the total required for the number of dwelling units, plus additional parking spaces for the office and studio uses, as required by Part 16, Off-Street Parking and Loading, herein.

§ 806. Development Regulations for Mid-Rise Apartment Developments. [Ord. 624, 9/13/1983, §§ 805-805.7]

The following regulations shall apply to the proposals for mid-rise apartment developments as a conditional use in the R-4 Residence District:

1. Tract Size. A minimum tract size of 65,000 square feet, excluding the existing rights-of-way of all public roads, shall be required. The minimum lot width at the building line shall be 225 feet. The minimum lot width at the street shall be 50 feet.
2. Density. The maximum permitted density shall be 20 dwelling units per developable acre.
3. Height. The maximum height of buildings or structures hereinafter erected or enlarged as mid-rise apartment dwellings in an R-4 Residence District shall be 55 feet, not to exceed five stories, exclusive of basements. For any building or structure accessory to a dwelling, the maximum height shall be 20 feet.
4. Building Coverage. Not more than 20% of the area of each mid-rise apartment development may be occupied by buildings.

5. Setback from Streets. There shall be a minimum building setback from the street line on which the development abuts which shall be not less than 50 feet in depth.
6. Setback from Property Line. There shall be a minimum building setback of 50 feet from any property line that abuts another residential district line. There shall be a setback of 25 feet from any property line that abuts a commercial or industrial district or other apartment development.
7. Distance Between Buildings. The horizontal distance between buildings shall be not less than 50 feet.

§ 807. Housing for the Elderly. [Ord. 624, 9/13/1983, §§ 806-806.4]

The following requirements shall govern the development of housing for the elderly as a conditional use in the R-4 Residence District. All other applicable regulations contained in § 803, § 804, and § 805 herein which are consistent with these requirements shall also apply.

1. Development Regulations. The following special development regulations shall apply to housing for the elderly in the R-4 Residence District:
 - A. Density. The maximum permitted density of housing for the elderly shall be 30 dwelling units per developable acre in a low-rise apartment development and 40 dwelling units per developable acre in a mid-rise apartment development.
 - B. Parking. Not less than one off-street parking space shall be required for every two dwelling units in an apartment development designed as housing for the elderly.
 - C. Common Areas and Facilities. A minimum of 30% of the total site area shall be devoted to common areas and facilities. No less than 50% of this area shall be maintained as open space usable for recreational and leisure time activities of prospective residents of housing for the elderly. The remaining portion may be used for plazas, arcades, pedestrian ways, and other facilities (excluding roads, access driveways, and parking areas) available for use by residents of the development and the general public. In addition, a developer of housing for the elderly shall be required to provide a community room, indoor recreation area, or similar facility within every principal residential building.
 - D. Minimum Dwelling Unit Requirements. There shall be a maximum of one bedroom per dwelling unit. Each dwelling unit having one bedroom shall contain not less than 600 square feet of floor space and each efficiency dwelling unit (one room containing living and sleeping areas and cooking facilities with separate sanitary facilities) shall contain not less than 450 square feet of floor area.

- E. Safety Features. Housing for the elderly shall include the following safety features:
- (1) Ramps, doors and elevators of sufficient width to accommodate a horizontal stretcher or wheelchair.
 - (2) Nonskid floor surfaces.
 - (3) Electric cooking stoves with controls accessible to a person in a wheelchair.
 - (4) Stall showers in no less than 50% of the proposed dwelling units.
 - (5) Grab bars around tubs, shower stalls, and toilets.
 - (6) Permanent electrical or central heating.
 - (7) Emergency signals which ring in adjoining dwelling units or at a central location.
 - (8) Ionization (products-of-combustion) smoke and fire detectors in each dwelling unit.
 - (9) Electric outlets not less than 24 inches above the floor.
 - (10) Handle-type spigots and doorknobs.
 - (11) No thresholds shall be permitted for interior doors.
 - (12) Proposed developments shall also comply with the most recent edition of Minimum Property Standards, Volume I, for housing for the elderly, issued by the U.S. Department of Housing and Urban Development. Where said requirements are more restrictive or additive than the requirements specified herein, the requirements of said publication shall apply.
2. Plan Submission Requirements. A developer of housing for the elderly shall satisfy all procedural requirements of the Royersford Borough Subdivision and Land Development Regulations and § 807 herein and shall furnish sufficient documentation indicating compliance with the development regulations contained in § 806(1) herein.
3. Procedures. In the R-4 Residence District, a developer may apply to the Borough Council for approval to develop housing for the elderly as a conditional use subject to the standards and requirements set forth herein. In addition to seeking the advice of the Borough Planning Commission, the Borough Council shall, at least 30 days prior to the public hearing on the proposed conditional use application, seek the recommendation of the Montgomery County Planning Commission, the Montgomery County Office of Housing and Community Development, and other technical or professional advisory agencies knowledgeable on the subject in question in order to more effectively evaluate the merits of the proposal.

4. Guaranteed Occupancy. The developer shall file with the Borough Secretary a covenant, endorsed by the Borough Solicitor, in which said owner shall covenant on behalf of himself, his heirs, executors and assigns that the subject property shall be used solely for the purpose of housing for the elderly.

§ 808. Procedural Requirements. [Ord. 624, 9/13/1983, §§ 807-807.8]

An application for development in an R-4 Residence District shall be accompanied by a plan, or plans, showing the detailed use of the entire tract, which plan or plans shall comply with all requirements of other applicable ordinances of the Borough and which shall clearly designate the proposed use(s) of each area of the tract. Development plans required in this district shall include the following:

1. The location and size of the site with evidence supporting the general adequacy of the site to accommodate the magnitude of the proposed development.
2. The proposed residential density and the area planned for any nonresidential uses.
3. The location, size, accessibility and proposed uses of the required open spaces, manner of ownership and maintenance, and a copy of the covenant to be incorporated in the individual deeds, if applicable.
4. The location of proposed utility and drainage systems.
5. Total number and location of all off-street parking spaces.
6. Plans and renderings indicating the design and placement of buildings and landscaping within the proposed development.
7. The text of covenants, easements, and existing restrictions or those to be imposed upon the land or structure, including provisions for public utilities.
8. In the case of plans involving staged development over a period exceeding one year, a schedule showing the time and manner of completion of all phases of construction.

Part 8A
R-5 SPECIAL RESIDENCE DISTRICT

§ 8A01. Declaration of Legislative Intent. [Ord. 852, 6/12/2012]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 8A with respect to the R-5 Special Residence District to establish reasonable standards of performance and to promote the benefits of the low-density single-family residential development in appropriate areas of the Borough, as well as to provide appropriate locations for certain professional offices where the proliferation of unrestricted commercial development would be undesirable. Further, it is the intent of this Part 8A to encourage the formation and maintenance of a quiet, compatible, and uncongested environment for business and professional offices intermingled harmoniously with dwellings; to discourage any encroachment by industrial establishments, large-scale commercial development, or other uses which might adversely affect the residential character of surrounding neighborhoods; to allow for conversion of existing dwellings to certain professional offices in order to encourage the preservation of sound residential structures; to give consideration to vehicular circulation and parking; and to encourage the orderly, well-planned development of offices within the district.

§ 8A02. Permitted Uses. [Ord. 852, 6/12/2012]

In an R-5 Special Residence District, a building may be erected, altered or used and a lot may be used or occupied for any of the following by-right uses and no other:

1. Single-family detached dwellings.
2. Home occupations, as defined in § 202 of this chapter of the Code and subject to the provisions of § 420 of this chapter.
3. Accessory uses on the same lot with and customarily incidental to any permitted use.

§ 8A03. Conditional Uses. [Ord. 852, 6/12/2012]

A lot may be used for one of the following uses, provided a conditional use is received in accordance with the requirements of §§ 419 and 8A05 of this chapter and all standards of the R-5 Special Residence District are met:

1. Professional or business offices, as defined in this chapter, when authorized as a conditional use by the Borough Council, subject to the standards and criteria set forth in §§ 8A04 and 8A05 hereof.
2. Mixed-use structures containing any combination of uses as set forth in §§ 8A02.1 and 8A03.1 herein, provided that at least 5,000 square feet of

lot area is provided for each use in a mixed-use structure and when authorized as a conditional use by the Borough Council, subject to the standards and criteria set forth in §§ 8A04 and 8A05 hereof.

§ 8A04. Development Regulations. [Ord. 852, 6/12/2012]

The following regulations shall apply in the R-5 Special Residence District:

1. Lot Area, Lot Width, Yards, and Building Coverage (per dwelling unit).
 - A. Minimum lot area: 10,000 square feet.
 - B. Minimum lot width at the building line: 50 feet.
 - C. Minimum front yard measured from the ultimate right-of-way line: 30 feet.
 - D. Minimum front yard on the long side of a corner lot: 25 feet.
 - E. Minimum side yard: 10 feet; aggregate of 25 feet.
 - F. Minimum rear yard: 25 feet.
 - G. Maximum building coverage (percent of total lot area): 25%.
 - H. Maximum impervious coverage (percent of total lot area): 50%.
 - I. Maximum building footprint: 2,000 square feet.
2. Height. No building hereinafter erected as a dwelling in the R-5 Special Residence District shall exceed 35 feet in height. For any building accessory to a dwelling, the maximum height shall be 20 feet.
3. Parking and Signs.
 - A. All parking spaces and all signs erected in the R-5 Special Residence District shall be in accordance with Part 16 (Off-Street Parking and Loading) and Part 17 (Signs) of this chapter.
 - B. Parking Setback. A minimum setback of five feet from any adjacent or abutting property line for any parking lot constructed shall be required pursuant to this Part.
 - C. Buffering and Screening. Where a new parking lot is constructed for a proposed use under this Part, a landscape buffer with a minimum five-foot-wide treatment shall be required to surround the perimeter of the lot.

§ 8A05. Conditional Use Standards and Criteria. [Ord. 852, 6/12/2012]

Prior to granting approval of a conditional use in the R-5 Special Residence District, as provided for in § 8A03, the Borough Council shall be assured

that the proposed use meets the standards of § 419 of this chapter, as well as the requirements listed below:

1. Buildings, driveways, parking areas, loading areas, outdoor activity areas, light sources and other potential nuisances shall be located and designed to minimize adverse impacts on abutting and adjacent residential properties. To limit the adverse impact of a proposed conditional use, the Borough Council may require alternative site layouts, including increased setbacks from residential property lines, different locations of buildings, parking areas, and driveways, and increased screening or buffering for light sources and activity areas.
2. For any proposed use under § 8A03.1, the use must preserve, utilize and maintain any existing principal building, provided that this building was originally built for residential purposes.
3. For any proposed uses under §§ 8A03.1 or 8A03.2, the front door and entry of the structure shall front and face Main Street. Access for persons with disabilities shall be provided to the extent required by the Americans with Disabilities Act.
4. All new conditional use buildings or additions must have a residential character, as demonstrated through elevations and other architectural drawings.
5. Parking is not permitted in front yards or between buildings and streets.
6. All signs must meet the requirements of Part 17 (Signs).
7. Lighting shall not shine on abutting residential properties, and lighting poles shall not exceed 12 feet in height. Nonresidential light fixtures shall be set back a minimum of 20 feet from residential property lines, and the light source shall not be visible from abutting residential properties.
8. Provision shall be made for safe and efficient ingress and egress to and from public streets and highways serving the proposed use without causing undue congestion or interference.
9. Areas for loading and unloading of delivery trucks and other vehicles and for the servicing of refuse collection, fuel and other service shall be provided and shall be adequate in size. Such areas shall be so arranged that they may be used without blockage or interference with the use of accessways or automobile parking areas.
10. No outdoor storage is permitted, and trash must be kept inside a principal building until collection.

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Part 9
ARU – ADAPTIVE REUSE OVERLAY DISTRICT

§ 901. Declaration of Legislative Intent. [Ord. 674, 12/30/1986, §§ 800A-800A.4; as amended by Ord. 793, 2/8/2005, § 1; and by Ord. 883, 8/9/2016]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby the intent of this Part 9 with respect to the ARU Adaptive Reuse Overlay District to establish reasonable standards of performance and to encourage adaptive reuse development of appropriate buildings and lands within the Borough as a conditional use. It is the intent of this Part 9 to:

1. Provide regulations specifically tailored to encourage and promote the rehabilitation of older nonused and underutilized industrial and institutional buildings, and to permit the demolition of older nonused and underutilized industrial and institutional buildings, when such demolition is deemed to be reasonable by Borough Council, in accordance with § 903(5) hereof.
2. Provide for a mix of uses within said adaptive reuse developments which promote the economic revitalization of Royersford Borough.
3. Promote the retention of older buildings and lands which enhance the image and preserve the heritage of Royersford Borough, and to permit the demolition of older buildings which do not enhance the image and preserve the heritage of Royersford Borough.
4. Provide reasonable standards for the blending of new construction with existing buildings, so as to allow quality development of older structures within contemporary development and building standards.

§ 902. Applicability and Allowed Uses. [Ord. 674, 12/30/1986, §§ 801A-801A.3; as amended by Ord. 781, 9/9/2003, § 7; and by Ord. 883, 8/9/2016]

1. The ARU Overlay District shall be an "overlay" district that applies across the entire Borough. If an existing industrial or institutional building with an indoor building floor area of greater than 5,000 square feet existed prior to January 1, 1950, is proposed to be rehabilitated for a new allowed use, it shall be eligible for an application to use the ARU Overlay District provisions. Such a project shall be considered to be an "adaptive reuse development." All of the provisions of this chapter and other Borough ordinances shall continue to apply, except for provisions that are specifically made more permissive or more restrictive by this Part 9.
2. The following uses shall be allowed as conditional uses in the ARU Overlay District if they are within an adaptive reuse development:

- A. Apartments or housing for the elderly, provided that any apartments shall be combined with street-level commercial use(s) if the building is in the CB Central Business District.
 - B. Offices or financial institutions.
 - C. Retail sales uses, which shall only be allowed in a residential district if the lot is abutting Main Street.
 - D. Personal service businesses or child day centers.
 - E. Restaurants, which shall only be allowed in a residential district if the lot is abutting Main Street, and without allowing any drive-through facilities.
 - F. Indoor or outdoor commercial recreation uses, exercise clubs, community center or closely similar use.
 - G. A building combining two or more of the uses allowed by this section or in combination with a use that is allowed under the underlying zoning district.
3. Customarily incidental uses that are accessory to approved principal uses shall be permitted by right, including no-impact home businesses.
 4. As a condition of conditional use approval, the Borough Council shall have the authority to place limits on hours of operation as is necessary to provide compatibility with any nearby dwellings.
 5. In no case shall building space be converted to result in one or more new dwelling units along the street frontage level abutting Main Street, unless the building is in a residential district.

§ 903. Development Regulations for an Adaptive Reuse

Development. [Ord. 674, 12/30/1986, §§ 802A-802A.16; as amended by Ord. 728, 7/28/1992, § 17; and by Ord. 793, 2/8/2005, §§ 2 – 6]

The following regulations and standards shall apply to any adaptive reuse development:

1. Ownership and Development Agreement. The tract of land and existing structures to be reused shall be in one ownership and shall be developed under one single direction in accordance with an approved plan. Prior to the issuance of any building permits or commencement of construction, the owner shall enter into a development agreement, consistent with § 903 herein, with the Borough.
 - A. The development agreement shall embody all of the details regarding compliance with this chapter and the Borough of Royersford Subdivision and Land Development Chapter and shall be recorded with the final development plan. Transfer of ownership to another applicant prior to the commencement of construction shall render the development agreement void. A new agreement

shall then be negotiated between the new owner(s) and the Borough Council.

2. Density. A maximum residential density of 20 units per gross acre, excluding street rights-of-way, will be permitted in an adaptive reuse development. However, the Borough Council, upon recommendation from the Planning Commission, may allow a density increase, up to 26 units per gross acre, excluding street rights-of-way. Said increase shall be granted as a bonus for significant off-site improvements for the public good. The off-site improvements can include, but are not limited to, the following:
 - A. Public open or recreation space and facilities, substantially above the required 30%.
 - B. Off-site road improvements.
 - C. Structured parking, either decked or below grade, provided the impervious coverage is not exceeded.
3. Height. The maximum height of the development shall be dictated by the existing building being reused. Accessory buildings or structures shall not exceed 30 feet in height. New construction shall not exceed the height of the underlying district in which it is located or 60 feet, whichever is greater.
4. Setbacks. There shall be minimum setback of 25 feet from any property line for any building or structure developed herein. If existing conditions dictate otherwise and the setbacks cannot be achieved, then a permanent screening buffer shall be provided, as determined by Borough Council. Accessory structures may be set back 10 feet from any property line. Buildings and structures abutting Main Street shall have a minimum setback of five feet. If existing conditions dictate otherwise and the required setback cannot be achieved, as determined by Borough Council, then a permanent screening buffer shall be provided, as determined by Borough Council.
5. Building Floor Area. The existing total building floor area may be approved to be increased by up to 25%, unless a larger building floor area would conform to the regular underlying zoning district use, density, dimensional and other requirements. **[Amended by Ord. 883, 8/9/2016]**
6. Sewer and Water Facilities. The tract of land shall be served by public sewer and water facilities deemed acceptable by the appropriate Borough and state authorities, upon recommendation of the Borough Engineer.
7. Development Plan. The adaptive reuse development and/or conversion may be carried out in either a single phase or in sketch plan regardless of single or multiple phases of development.

8. Parking. As an incentive to promote the adaptive reuse of older industrial buildings, while maintaining reasonable standards for providing adequate parking, the applicant may reduce the required parking spaces to the following:

Residential

One-bedroom unit	1.5 space/unit
Efficiency	1.0 space/unit
Two-bedroom unit	2.0 space/unit

Commercial

Office	*3.5 spaces/1,000 SFGLFA
Retail	*3.5 spaces/1,000 SFGLFA

* SFGLFA — Square feet of gross leasable floor area).

- A. All other uses proposed in an adaptive reuse development not mentioned above must provide parking spaces in accordance with Part 16 herein.
- B. Common parking areas shall be placed so as not to interfere with any recreation or service area, and shall be located not less than five feet from any property line or street ultimate right-of-way line. Setbacks may be waived by Borough Council, upon recommendation from the Planning Commission, when the parking facilities abut an adjacent commercial or industrial use or when preexisting conditions render the setback requirements impossible.
- C. For parking areas storing 10 or more cars, not less than 5% of the area devoted to parking facilities shall consist of interior parking lot landscaping. Said landscaping shall include high and low trees and shrubs which form a buffer around the paved areas. The trees and shrubs shall be designed to provide year round screening or buffering and shall be approved by the Borough Engineer.
9. Signs. All signs erected in an adaptive reuse development shall be in accordance with Part 17, Signs, herein.
10. Utilities. All utility lines (electric, telephone, etc.) shall be placed underground.
11. Common Areas and Facilities. The developer shall provide a minimum of 30% of the total site area as open space usable for active or passive recreation. Any common areas shall first be offered for dedication to the Borough. In addition, the developer shall give consideration to the provision of community areas, laundry facilities, playgrounds, tot lots, and other amenities necessary for the comfort and convenience of the residents. Provisions approved by the Borough Council must be made for the care and maintenance of any common facilities. Use of these facilities may be restricted to residents of the development, if not

Borough owned, and may be maintained by the developer, a homeowner's association, or similar means.

12. Fee in Lieu of Provision for Common Areas. Where the Borough Council determines that it is impractical to set aside the required open space area or provide required recreational facilities in the proposed development, a fee in lieu of such land and recreational facilities shall be required to help the Borough defray the eventual costs of providing open space and recreation to serve the residents of said development. The fee shall be payable to the Borough prior to approval of the final plan by the Borough Council.
 - A. The amount of the fee shall be equal to the value of the land and recreational facilities required for the development by this chapter. The cost of determining the value of the land and recreational facilities shall be borne by the developer and shall result in a reasonable value acceptable to the Borough Council.
 - B. All monies collected in lieu of land or facilities shall be kept in a capital reserve fund, which shall only be used for the acquisition of open space or the capital improvement of existing open and recreational lands and facilities.
13. Lighting Facilities. Lighting facilities shall be provided as needed and arranged in a manner which will protect the highway and neighboring properties from unreasonable direct glare or hazardous interference of any kind. Said lighting shall be required where deemed necessary for the residents of the development as determined by the Borough Engineer and shall be installed by the developer at his/her expense.
14. Buffer Area. A permanent landscape planting area of at least 10 feet in depth designed to soften the visual impact of the proposed development on abutting properties must be provided. This requirement may be reduced or waived by Borough Council, upon recommendation from the Planning Commission, when existing conditions dictate a reduction, or when the development abuts a publicly owned park and existing vegetation achieves the same effect. Any request for reduction shall be submitted in writing to the Borough Council and shall be accompanied by a site plan indicating the purpose for said reduction. The Planning Commission shall review any such requests and shall submit its recommendation to Borough Council.
15. Service. Areas for loading and unloading of delivery trucks and other vehicles and for the servicing of refuse collection, fuel and other services shall be provided, and shall be adequate in size to properly serve the development. Said areas shall be so arranged that they may be used without blockage or interference with the use of access ways or parking. Common refuse collection areas shall be shielded from the direct view of any adjacent property by walls, screening, or fences which measure a minimum of six feet in height.

16. Access. Provisions shall be made for safe and efficient ingress and egress to and from public streets and highways serving an ARU Adaptive Reuse Overlay District without causing undue congestion or interference with the normal traffic flow. The Planning Commission shall review the adequacy of the streets intended to carry the additional traffic generated by the district, as well as the planned access points intended to serve the proposed district. **[Amended by Ord. 883, 8/9/2016]**
17. Floodplain. Developments within the Floodplain Conservation District shall follow the requirements of Part 15 of this chapter. The procedure for modification or changes in the regulations of Part 15 shall be through a conditional use procedure by Borough Council.
18. Stormwater Management. Developments under the ARU provisions shall comply with the requirements of Stormwater Management Ordinance [Chapter 26, Part 1] and regulations of the Borough of Royersford.

§ 904. Procedural Requirements. [Ord. 674, 12/30/1986, §§ 803A-803A.7; as amended by Ord. 883, 8/9/2016]

An application for development in an Adaptive Reuse Overlay District shall be accompanied by a plan, or plans, showing the detailed use of the entire tract, which plan or plans shall comply with all requirements of other applicable ordinances of the Borough including land and subdivision development ordinance and which shall clearly designate the proposed use(s) of each acre of the tract. Development plans required in this district shall include the following:

1. The location and size of the site with evidence supporting the general adequacy of the site for said development.
2. The proposed residential density and the square footage of nonresidential uses.
3. The location of the proposed utility and drainage systems.
4. The total number and location of all off-street parking spaces needed and being provided.
5. A market study signifying the need for the proposed commercial and office uses.
6. A schematic or sketch plan, which will become part of the development agreement, indicating the design and placement of buildings, structures, parking, interior roadways and access points, and landscaping within the proposed development.
7. In the case of plans involving staged development over a period exceeding one year, a schedule showing the time and manner of completion of all phases of construction.

§ 905. Conditional Use Standards and Criteria. [Ord. 674, 12/30/1986, §§ 804A-804A.5; as amended by Ord. 715, 10/30/1990; by Ord. 793, 2/8/2005, § 8; and by Ord. 883, 8/9/2016]

Prior to granting approval of a conditional use in the ARU Adaptive Reuse Overlay District, as provided for in § 902, the Borough Council shall be assured that the proposed use meets the standards of § 419 as well as the requirements listed below:

1. The development shall be for the adaptive reuse of older non-used or underutilized industrial and institutional buildings, structures and land.
2. The development shall consist of only those uses specifically permitted in § 902 herein.
3. The applicant shall provide evidence and offer proposed conditions upon approval sufficient to prove to Borough Council that negative impacts will be minimized, including for any existing dwellings in the vicinity. Borough Council may establish reasonable conditions on the approval, such as, but not limited to, limits on late night hours of operation, limits on truck delivery times, limits on the sizes of trucks that serve the facility, additional landscaping and buffering requirements, fencing requirements and similar matters. If the site includes environmental contamination, the applicant shall submit to the Borough copies of professional studies analyzing the extent of the contamination and shall propose sufficient remediation measures to minimize the hazards to the maximum extent feasible.
4. The development shall not generate hazardous or objectionable traffic condition on any roadway, future or existing.
5. The developer must provide reasonable information documenting the need for such a development.

§ 906. Additional Information. [Ord. 674, 12/30/1986, §§ 805A-805A.2]

The following information must be submitted along with the information required for the land development proposal:

1. The location, size, accessibility and proposed uses of the required open space, manner of ownership and maintenance, and a copy of the covenant to be incorporated in the individual deeds, if applicable.
2. The text of covenants, easements, and existing restrictions of those to be imposed upon the land or structures, including provisions for public utilities.

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Part 10
INSTITUTIONAL USE STANDARDS⁸

§ 1001. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 900]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 10 to encourage the preservation and subsequent logical and timely development of land for institutional purposes; to assure the suitable design of institution in order to protect the environment of adjacent and nearby neighborhoods; and to ensure that institutional development will take place only when served by adequate public facilities and services. The protective standards in this Part 10 are intended to minimize any adverse effect of institutional developments on surrounding neighborhoods.

§ 1002. Use Regulations. [Ord. 624, 9/13/1983, §§ 901-901.2; as amended by Ord. 883, 8/9/2016]

The uses listed in § 1002, Subsections 1 and 2, herein shall be permitted as conditional uses in the R-1, R-2, R-3, and R-4 Residence Districts. Only the institutional uses listed in this § 1002 shall be allowed under this Part 10.

1. On lots with a minimum area of 20,000 square feet and a minimum width at the building line of 75 feet, a building may be erected, altered, or used, or a lot may be used or occupied for any of the following purposes and no other:
 - A. Churches, chapels, and other places of worship.
 - B. Convents and monasteries.
 - C. Day-care centers and other child-care facilities.
 - D. Municipal buildings, offices and uses.
 - E. Fire companies and other rescue services.
 - F. Community centers, open space preservation areas, parks, playgrounds, and other recreational facilities operated on a nonprofit basis.
 - G. Libraries and museums.
 - H. Accessory uses on the same lot as the customarily incidental to any of the above permitted uses, including but not limited to agriculture, staff offices, offices and residences of institutional employees.

8. Editor's Note: Said Title Was Amended By Ord. 883, 8/9/2016

Amended Appendix A-22-b

§ 1002

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§ 1004

2. On lots with a minimum area of 40,000 square feet and a minimum width at the building line of 100 feet, a building may be erected, altered, or used, or a lot may be used or occupied for any of the following uses and no other:
 - A. Any use permitted in § 1002, Subsection 1, above.
 - B. Churches, chapels, and other places of worship with adjunct residential and/or educational facilities.
 - C. Cemeteries.
 - D. Institutional headquarters for educational, fraternal, professional, religious, and other nonprofit organizations of a similar nature.
 - E. Medical and surgical hospitals or clinics, nursing homes, sanitarium, convalescent homes, and other health care facilities of a similar nature.
 - F. Public and private schools and other educational facilities.
 - G. Accessory uses on the same lot as the customarily incidental to any of the above permitted uses, including but not limited to agriculture, staff offices, and residences of institutional employees.

§ 1003. Dimensional Standards. [Ord. 624, 9/13/1983, § 902]

The following dimensional standards shall apply to all authorized institutional uses in the R-1, R-2, R-3 and R-4 Residence Districts:

Minimum Lot Area	20,000 square feet	40,000 square feet
Lot Width at Building Line	75 feet	100 feet
Front Yard	30 feet	50 feet
Side Yard	15 feet (each)	25 feet (each)
Rear Yard	25 feet	50 feet

§ 1004. Additional Development Regulations. [Ord. 624, 9/13/1983, §§ 903-903.5; as amended by Ord. 728, 7/28/1992, § 18]

1. Lot Coverage. No more than 50% of the area of an Institutional District may be occupied by buildings, parking lots, or vehicular accessways. The remaining area shall be used for, and maintained as, landscaped open space, recreation area, woodlands, or similar nonintensive use. Not more than 10% of this remaining area may be covered by blacktop, concrete, or similar impervious material.
2. Height. The maximum height of any building shall be 35 feet except that such height may be increased when approved as a special exception by the Zoning Hearing Board for such structures as water towers, silos, chimneys, steeples, radio and television antennae, elevator towers,

solar collectors, and air conditioning units, provided that for every five feet of height in excess of 35 feet there shall be added to each yard requirement one corresponding foot width or depth.

3. Building Separation. The minimum distance between buildings shall be 30 feet provided, however, the spacing between a principal and accessory building may be reduced to 20 feet.
4. Buffer Area. There shall be a screen buffer at least 10 feet in depth along all property lines which shall be planted in accordance with the plan approved by the Borough Planning Commission. This requirement may be reduced or waived by the Borough Council when the proposed development abuts a publicly owned park or when existing vegetation on abutting properties achieves the same effect. Any request for reduction or waiver of the buffer requirement shall be submitted in writing to the Borough Council and shall be accompanied by a site plan indicating the placement of buildings within the proposed development and the location of contiguous public open space and/or existing vegetation on adjacent properties. The Planning Commission shall review any such request and shall submit its recommendations to the Borough Council.

§ 1005. Nuisance Controls. [Ord. 624, 9/13/1983, §§ 904-904.3]

Institutional uses shall make provisions for control of each of the following:

1. Access. A planned system of efficient ingress, egress, and internal circulation of traffic which shall interfere minimally with nearby traffic flow shall be required. Loading and unloading areas shall be provided where deemed necessary and shall be located to the rear of the proposed use and effectively screened from abutting residential districts. Such areas shall be so arranged that they may be used without blockage or interference with the use of accessways or automobile parking areas.
2. Lighting. Lighting shall be arranged in a manner which will protect adjacent highways and neighboring properties from unreasonable direct glare or hazardous interference of any kind.
3. Solid Waste Disposal. A plan for weekly disposal of solid waste material shall be required. All solid waste material shall be stored in covered containers. No solid waste shall be stored closer than within 15 feet of any property line. Refuse collection areas shall be shielded from the direct view of any adjacent property walls which measure a minimum of six feet in height.

§ 1006. Parking. [Ord. 624, 9/13/1983, §§ 905-905.3]

Off-street parking facilities shall be provided and maintained in an Institutional District in accordance with the following parking requirements:

1. Parking spaces shall be provided according to the requirements set forth in Part 16 herein.
2. Parking areas shall be buffered from all buildings by a minimum of 10 feet of landscaped open space provided, however, that parking may be permitted immediately adjacent to the rear of institutional buildings, when authorized by the Borough Council, in those instances when strict enforcement of this requirement is infeasible or unnecessary.
3. No parking areas shall be permitted in the front yard areas of institutional buildings.

§ 1007. Signs. [Ord. 624, 9/13/1983, § 906]

Signs shall be permitted in an Institutional District subject to the requirements set forth in Part 17 herein.

§ 1008. Conditional Use Criteria. [Ord. 624, 9/13/1983, §§ 907-907.3; as amended by Ord. 661, 5/13/1986, § 1; and by Ord. 704, 9/26/1989, § 9]

The Borough Council shall be assured that the proposed use meets the standards of § 419 of this chapter and shall consider the following factors when evaluating a conditional use application for an institutional use in an R-1, R-2, R-3, or R-4 Residence District:

1. Character of the Surrounding Area. The impact of the proposed institution on surrounding properties shall be considered. The scale of the institution shall relate to and complement the surrounding area.
2. Public Facilities and Services. All institutional uses shall be capable of being served by public sewer and centralized water facilities. No institutional use shall create an unreasonable burden upon other Borough services.
3. Traffic. The existing road system must be able to accommodate in a safe and efficient manner the peak traffic generated by the institution. Existing residential areas shall not be infringed upon by significant volumes of traffic from the proposed facility. In order to fully evaluate this factor, the Borough Council may request a traffic impact statement, as described below.
 - A. A traffic impact study shall present sufficient information to enable the Borough staff to assess the impact of the proposed institution on the roads within the Borough. The study must demonstrate that the proposed use will not adversely affect surrounding areas or traffic circulation generally in the Borough, or else identify any traffic problems that might be cause or aggravated by the proposed use and delineate solutions to those problems. Based upon the findings of the study, the Borough Council may require other improvements, both on-site and off-site, which would alleviate

hazardous or congested situations directly attributable to the proposed development, as a condition of approval.

- B. The traffic impact study shall be prepared for a study area extending a minimum of 1/2 mile on all abutting roads from the boundaries of the proposed institution. This area may be modified at the discretion of the Borough Council.
- C. The traffic impact study shall be prepared by a qualified traffic engineer who possesses the credentials outlined for a Municipal Traffic Engineer defined in Pennsylvania Code Chapter 612, entitled "Municipal Traffic Engineer Certification."

§ 1009. Plan Submission Requirements. [Ord. 624, 9/13/1983, §§ 908-908.2; as amended by Ord. 661, 5/13/1986, § 1]

1. Plans for any proposed institutional use or modification to any existing institutional use shall be reviewed by the Borough Planning Commission prior to the issuances of any zoning permit, and such plans shall include the following. The Planning Commission may recommend to Borough Council that some or all of the requirements, as specified hereinafter, be waived or reduced, provided that the impact of the proposed institutional use on the surrounding properties be considered and the scale of the institutional use shall relate to and complement the surrounding area:
 - A. A plot plan of the lot showing the location of all present and proposed buildings, drives, parking lots, and other constructional features on the lot; and all buildings, streets, alleys highways, streams and other topographical features of the lot and within 200 feet of any lot line.
 - B. Architectural renderings or sketches for any proposed buildings.
 - C. A description of the proposed institutional operations in sufficient detail to indicate the effects of these operations in producing traffic congestion, noise, glare or safety hazard.
 - D. Engineering and architectural plans for the handling of any excess traffic congestion, noise, glare or safety hazard.
 - E. Engineering and architectural plans for the treatment and disposal of sewage.
 - F. Any other pertinent data that the Planning Commission may require.
2. The Planning Commission shall review all plans submitted to it and shall submit these plans with recommendations to the Borough Council for final approval.

Part 11
O-R OFFICE – RESIDENCE DISTRICT

§ 1101. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 1000]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 11 with respect to the O-R Office-Residence District to provide appropriate locations for office and limited commercial usage where the proliferation of unrestricted commercial development would be undesirable. Further, it is the intent of this Part 11 to encourage the formation and maintenance of a quiet, compatible, and uncongested environment for business and professional offices intermingled harmoniously with dwellings and limited commercial uses; to discourage any encroachment by industrial establishments, large-scale commercial development, or other uses which might adversely affect the residential character of surrounding neighborhoods, to allow for conversion of existing dwellings to office or limited commercial use in order to encourage the preservation of sound residential structures; to give consideration to vehicular circulation and parking; and to encourage the orderly, well planned development of offices within the district.

§ 1102. Permitted Uses. [Ord. 624, 9/13/1983, §§ 1001-1001.5; as amended by Ord. 728, 7/28/1992, §§ 19-22]

In an O-R Office-Residence District, a building may be erected, altered, or used, and a lot may be occupied for any of the following uses and no other:

1. Professional offices for doctors, dentists, chiropractors or any other practitioner of the healing arts for humans; lawyers, engineers, architects, urban planners, accountants, economic consultants, business and management consultants, or other professionals similar to those listed herein.
2. Business offices providing credit services, security and commodity brokerage, real estate sales, employment counseling, insurance sales, advertising, mailing, telephone answering services, stenographic services, or other service similar in nature to those listed herein.
3. Single-family, two-family, and multifamily dwellings, in accordance with the requirements of the R-3 Residence District with respect to area regulations and with the requirements of the O-R Office Residence District with respect to all other requirements.
4. Mixed-use structures containing any combination of permitted uses as set forth in § 1102(1) through § 1102(3) herein, provided that at least 4,000 square feet of lot area is provided for each dwelling unit in a mixed-use structure.

5. The following when authorized as a conditional use by the Borough Council:
 - A. Bank or other financial institution.
 - B. Photography studio.
 - C. Florist.
 - D. Funeral home.
 - E. Nursery school or day-care center.
 - F. Dance, art, or music studio.
 - G. Any use of the same general character as those listed in (A) through (F), above.
 - H. Mixed-use structures containing a conditional use in combination with any permitted use or another conditional use, provided that at least 4,000 square feet of lot area is provided for each dwelling unit in a mixed-use structure.
6. Home occupations.
7. Accessory uses on the same lot with and customarily incidental to any permitted use.

§ 1103. Conditional Use Standards and Criteria. [Ord. 624, 9/13/1983, §§ 1002-1002.4; as amended by Ord. 704, 9/26/1989, § 10]

Prior to granting approval of conditional use in the O-R Office-Residence District, as provided for in § 1102(5) herein, the Borough Council shall be assured that the proposed use meets the standards of § 419 of this chapter as well as the requirements listed below.

1. The use shall not generate high intensities of vehicular traffic, noise, noxious odors, air pollution or glare, nor result in pedestrian-vehicular conflict or other safety hazards.
2. Any necessary loading and unloading operations shall be carried on within or contiguous to the facade of any building used for the purposes of any conditional use.
3. There shall be a screen buffer at least 10 feet in depth along all boundaries of a development constructed pursuant to this Part 11 which abut a residential or institutional use or district, which buffer shall be planted in accordance with a plan approved by the Borough Council following a review by the Borough Planning Commission. This requirement may be reduced or waived by the Borough Council when the proposed development abuts a publicly owned park or when existing vegetation on abutting properties achieves the same effect. Any request for reduction or waiver of the buffer requirement shall be submitted in writing to the Borough Council and shall be accompanied

by a site plan indicating the placement of buildings within the proposed development and the location of contiguous public open space and/or existing vegetation on adjacent properties. The Planning Commission shall review any such request and shall submit its recommendations to the Borough Council.

4. In the case of a bank or savings and loan association with drive-in facilities, the circulation plan for the drive-in window shall be integrated safely and efficiently into the overall circulation pattern of the Borough in a manner that minimizes internal traffic congestion, which plan shall be presented to Borough Council prior to consideration of the conditional use application.

§ 1104. Development Requirements. [Ord. 624, 9/13/1983, §§ 1003-1003.7]

The following standards shall apply in the O-R Office-Residence District:

1. Lot Area. A minimum area of 5,000 square feet, excluding the existing rights-of-way of all public roads, shall be provided for each lot devoted to office use. One dwelling unit for the use of the proprietor of said office may be included in the same building with no increase in lot size. A limit of two additional dwelling units may be permitted in a building used for offices, provided that for each said dwelling unit, an additional 3,000 square feet of lot area shall be provided.
2. Lot Width. The minimum lot width at the building line shall be 50 feet.
3. Building Coverage. Not more than 25% of the lot area may be occupied by buildings.
4. Impervious Coverage. Not more than 75% of the total lot area may be occupied by buildings, parking areas, vehicular accessways and all other impervious surfaces.
5. Yards.
 - A. Front Yard.
 - (1) In blocks where 70% or more of the existing buildings have established a uniform, standard front yard, the required front yard shall be no less than that uniform standard.
 - (2) In blocks where less than 70% of the existing buildings have established a uniform, standard front yard, the required front yard shall be not less than the front yard established by the two immediately adjacent existing buildings. Where the two adjacent front yards vary, the required front yard may be not less than the smaller of the two front yards, subject however, to the provisions of subsection 1104(5)(A)(4), below.
 - (3) For corner lots, the required front yard shall be the same as the front yard of the adjacent building.

- (4) The minimum permitted front yard shall be no less than 25 feet, and in no case shall the above requirements be applied to create a front yard less than 25 feet.
- B. Side Yard. Each structure containing only residential uses shall have two side yards, each not less than 15 feet in width. Other structures may be built on the lot line in accordance with § 1105 herein.
- C. Rear Yard. A rear yard of not less than 25 feet in depth shall be provided.
6. Height. The maximum height of buildings or structures hereinafter erected or enlarged in an O-R Office-Residence District shall be 35 feet, not to exceed three stories, exclusive of basements. For any building or structure accessory to a building used for office and/or residential purposes, the maximum height shall be 20 feet.
7. Maximum Building Dimension. The greatest dimension of a structure measured parallel to exterior building walls shall be 125 feet. For circular or partially circular buildings, the diameter or assumed diameter shall not exceed 150 feet.

§ 1105. Lot Line Development Regulations. [Ord. 624, 9/13/1983, §§ 1004-1004.4]

On those lots on which buildings may be constructed on the lot line wherein only one side yard is required pursuant to the minimum side yard provision contained in § 1104(5) herein, the following regulations shall apply; provided, however, that no building built solely for residential purposes may be built on a lot line and further provided that no building may be built on a lot line which abuts a structure used solely for residential purposes whether in the O-R District or another district:

1. No building wall situated on a lot line shall contain windows, doors, or other openings and shall be designed and constructed in a manner which shall minimize fire hazard and the need for maintenance.
2. The roof shall not be drained toward a wall situated on a lot line.
3. No building wall shall be placed on a side lot line unless access is provided onto the abutting property to allow for inspection, maintenance, and repair of the building wall and foundation. Provision for access shall be guaranteed by irrevocable easement or other legal mechanism approved by the Borough Solicitor.
4. Structures on abutting lots may be built along their common lot line creating a party wall between the abutting uses, provided that for purposes of measuring maximum building length as defined in § 1104(7), the two buildings connected by the party wall shall be considered as one structure.

§ 1106. Parking. [Ord. 624, 9/13/1983, § 1005]

Off-street parking facilities shall be provided and maintained in the O-R Office-Residence District in accordance with the provisions of Part 16 herein.

§ 1107. Signs. [Ord. 624, 9/13/1983, § 1106]

Signs shall be permitted in the O-R Office-Residence District subject to the provisions of Part 17 herein.

§ 1108. Plan Submission Requirements. [Ord. 624, 9/13/1983, §§ 1007-1007.5]

An application for development in an O-R Office-Residence District shall be accompanied by a plan, or plans, showing the detailed use of the entire tract, which plan or plans shall comply with all requirements of other applicable ordinances of the Borough and which shall clearly designate the proposed use(s) of each area of the tract. Development plans required in this district shall include the following:

1. The location and size of the site with evidence supporting the general adequacy of the site to accommodate the magnitude of the proposed development.
2. The proposed residential density and the area planned for any nonresidential uses.
3. The location of proposed utility and drainage systems.
4. Total number and location of all off-street parking spaces.
5. Plans and renderings indicating the design and placement of buildings and landscaping within the proposed development.

§ 1109. Conversions. [Ord. 624, 9/13/1983, § 1008]

All conversions must meet all requirements of this Part 11 as if the property being converted were new construction.

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Part 12
CB — CENTRAL BUSINESS DISTRICT

§ 1201. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 1100]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 12 with respect to the CB — Central Business District to encourage the development and redevelopment of retail sales and service establishments, business and professional offices, and adjunct residential uses in the commercial core areas of the Borough of Royersford. Furthermore, it is the intent of this Part 12 to establish reasonable standards of performance to ensure that such uses are appropriate to the needs of the local community, are compatible with surrounding residential development, and will not generate large volumes of vehicular traffic. Finally, it is the intent of this Part 12 to provide incentives to encourage the development of pedestrian-oriented facilities and services in the Central Business District which will serve to increase street-level activity and thereby help to restore and enhance the commercial vitality of this area.

§ 1202. Permitted Uses. [Ord. 624, 9/13/1983, §§ 1101-1101.11; as amended by Ord. 728, 7/28/1992, § 23]

In a CB — Central Business District, a building may be erected, altered, or used, and a lot may be occupied for any of the following uses and no other:

1. Retail sales establishment or service shop.
2. Personal service shop.
3. Hotel, tourist home, or rooming house for transient use only.
4. Restaurant or tavern, excluding drive-in and fast-food restaurants.
5. Business or professional office; studio.
6. Bank or other financial institution, excluding drive-in facilities.
7. Club or lodge.
8. Multifamily dwellings, in compliance with the requirements of Part 7, the R-3 Residence District, for multifamily dwellings.
9. Mixed-use structures containing any combination of permitted uses, providing that residential uses shall be located at or above the second-story level.
10. The following when authorized as a conditional use by the Borough Council:
 - A. Indoor recreational facility.

- B. Parking lot or garage.
 - C. Bank or other financial institution with drive-in facilities.
 - D. Mixed-use structures containing any combination of conditional use or any conditional use(s) in combination with any permitted use(s), provided that residential uses shall be located at or above the second story level.
 - E. Housing for elderly, subject to the requirements set forth in Part 8 herein.
 - F. Any use of the same general character as those listed in § 1202(1) through § 1202(9) above.
11. Accessory uses on the same lot as and customarily incidental to any of the above permitted or conditional uses.
12. Home occupations.

§ 1203. Conditional Use Standards and Criteria. [Ord. 624, 9/13/1983, §§ 1102-1102.4; as amended by Ord. 704, 9/26/1989, § 11]

Prior to granting approval of a conditional use in the CB Central Business District, as provided for in § 1202(10) herein, the Borough Council shall be assured that the proposed use meets the standards of § 419 of this chapter as well as the requirements listed below:

1. The use shall not generate high intensities of vehicular traffic, noise, noxious odors, air pollution or glare, nor result in pedestrian-vehicular conflict or other safety hazards.
2. Any parking lot or garage for off-street parking or for the storage of motor vehicles shall be separated from a street or highway by a raised curb, planting strip, wall or other suitable barrier against unchanneled vehicular entrance or exit, except for necessary accessways or driveways. The number and location of such accessways shall be governed by the regulations contained in Part 16 herein.
3. In the case of a bank or savings and loan association with drive-in facilities, the circulation plan for the drive-in window shall be integrated safely and efficiently into the overall circulation pattern of the Borough in a manner than minimizes internal traffic congestion, which plan shall be presented to Borough Council prior to consideration of the conditional use application.
4. Housing for the elderly in the CB — Central Business District shall be located and designed in such a manner so as to ensure the safety and comfort of prospective residents. Factors which shall be considered in evaluating the development plan and proposed location for housing for the elderly in the CB District shall include, but not be limited to, the following:

- A. The proximity of the proposed development to major traffic intersections and the resultant likelihood of pedestrian-vehicular conflict.
- B. The character of development in the surrounding area and the likelihood of any significant negative impact resulting from noise, glare, odor, or other noxious effects of commercial, industrial, or other high intensity use.

§ 1204. Development Requirements. [Ord. 624, 9/13/1983, §§ 1103; as amended by Ord. 728, 7/28/1992, § 24]

The following standards shall apply in the CB — Central Business District:

1. Minimum lot area: 3,000 square feet.
2. Minimum lot width at the building line: 25 feet.
3. Minimum front yard measured from the curblines; applies to both streets for corner lots: nine feet.
4. Minimum side yard:
 - A. Buildings attached along a party wall: zero feet.
 - B. Freestanding buildings: five feet.
 - C. With access driveway: 12 feet.
5. Minimum distance between buildings on abutting lots, unless buildings are attached: 10 feet.
6. Minimum rear yard:
 - A. From Borough-owned parking lots: five feet.
 - B. From all other rear property lines: 25 feet.
7. Maximum building coverage: 80%. **[Amended by Ord. 883, 8/9/2016]**
8. Maximum impervious coverage: 95%.
9. Maximum height: 50 feet or four stories, whichever is more restrictive. **[Amended by Ord. 883, 8/9/2016]**
10. Lots which directly abut a Borough owned parking lot and which had part of the lot taken for the parking lot may use the portion taken by the Borough for measuring side yard setbacks, building coverage, and impervious coverage.

§ 1205. Additional Development Regulations. [Ord. 624, 9/13/1983, §§ 1104-1104.4]

The following additional development regulations shall apply in the CB — Central Business District:

1. **Maximum Building Dimension.** The greatest dimension of a structure, measured parallel to exterior building walls, shall be 150 feet, except when authorized as a special exception by the Zoning Hearing Board. For circular or partially circular buildings, the diameter or assumed diameter shall not exceed 175 feet, except by special exception.
2. **Landscaped Area.** If a new principal commercial building will be built with a lot line directly contiguous to the lot line of an existing dwelling in a residential district, then a five-foot-minimum-width landscaped area with trees, shrubs and vegetative ground cover shall be provided along that residential lot line. The Zoning Officer may approve an applicant's proposed design for a decorative fence with a six-foot average height in place of the trees in the CB District where the applicant shows that space for the trees is overly limited. If one side of the fence is more finished, that side shall face towards the neighboring property. **[Amended by Ord. 883, 8/9/2016]**
3. **Public Facilities and Services.** All uses in the CB — Central Business District shall be capable of being served by public sewer and centralized water facilities. No use shall create an unreasonable burden upon other Borough services.
4. **Integrated Developments.** In those instances wherein development in the CB District is proposed to consist of multiple buildings, the following regulations shall apply:
 - A. The entire development shall be designed as an architecturally integrated unit.
 - B. The minimum distance between a building or group of buildings shall be 20 feet, except that all structures connected by common roofline or covered walkways shall be considered as one building.
 - C. Parking areas and access drives shall be planned in a manner which provides for safe and efficient internal circulation. The number of parking spaces provided shall be equal to the total number required for each use within the proposed development, as specified in Part 16 of this chapter, except where a lesser number may be permitted when parking is shared, according to the provisions of § 1605 herein.

§ 1206. Nuisance Controls. [Ord. 624, 9/13/1983, §§ 1105-1105.4]

Uses in the CB — Central Business District shall make provisions for control of each of the following:

1. **Access.** A planned system of efficient ingress, egress, and internal circulation of traffic which shall interfere minimally with nearby traffic flow shall be required. Loading and unloading areas shall be provided where deemed necessary and shall be located to the rear of the proposed use. Such areas shall be so arranged that they may be used

without blockage or interference with the use of accessways or automobile parking areas.

2. Lighting. Lighting shall be arranged in a manner which will protect adjacent highways and neighboring properties from unreasonable direct glare or hazardous interference of any kind.
3. Service. Areas for loading and unloading of delivery trucks and other vehicles and for the servicing of refuse collection, fuel, and other services shall be provided and shall be adequate in size. A plan for weekly disposal of solid waste material shall be required. All solid waste material shall be stored in covered containers. No solid waste shall be stored closer than within five feet of any property-line. Refuse collection areas shall be shielded from the direct view of any adjacent property by walls which measure a minimum of six feet in height.
4. Traffic. The existing road system must be able to accommodate in a safe and efficient manner the peak traffic generated by any use proposed in the CB District. In order to determine that existing residential areas will not be infringed upon by significant volumes of traffic from a proposed use, the Borough Council may request a traffic impact statement, as described below:
 - A. A traffic impact study shall present sufficient information to enable the Borough staff to assess the impact of the proposed use on the roads within the Borough. The study must demonstrate that the use will not adversely affect surrounding areas or traffic circulation generally in the Borough, or else identify any traffic problems that might be caused or aggravated by the use and delineate solutions to those problems. Based upon the findings of the study, the Borough Council may require other improvements, both onsite and off-site, which would alleviate hazardous or congested situations directly attributable to the proposed development, as a condition of approval.
 - B. The traffic impact study shall be prepared for a study area extending a minimum of 1/2 mile on all abutting roads from the boundaries of the proposed use. This area may be modified at the discretion of the Borough Council.
 - C. The traffic impact study shall be prepared by a qualified traffic engineer who possesses the credentials outlined for a Municipal Traffic Engineer defined in Pennsylvania Code Chapter 612, entitled "Municipal Traffic Engineering Certification."

§ 1207. Parking. [Ord. 624, 9/13/1983, § 1106]

Off-street parking facilities shall be provided and maintained in the CB — Central Business District in accordance with the requirements of Part 16 herein.

§ 1208. Signs. [Ord. 624, 9/13/1983, § 1107]

Signs shall be permitted in the CB — Central Business District subject to the provisions of Part 17 herein.

§ 1209. Plan Submission Requirements. [Ord. 624, 9/13/1983, §§ 1108-1108.6]

An application for development in the CB — Central Business District shall be accompanied by a plan, or plans, showing the detailed use of the entire tract, which plan or plans shall comply with all requirements of other applicable ordinances of the Borough and which shall clearly designate the proposed use(s) of each area of the tract. Development plans required in this district shall include the following:

1. A plot plan of the lot showing the location of all present and proposed buildings, drives, parking lots, landscaping, and other constructional features on the lot, and all buildings, streets, alleys, highways, streams, and other topographical features of the lot and within 200 feet of any lot line.
2. Architectural renderings or sketches for any proposed buildings and landscaping within the proposed development.
3. A description of the uses proposed in sufficient detail to indicate the effects of these operations in producing traffic congestion, noise, glare or safety hazards.
4. Engineering and architectural plans for the handling of any access traffic congestion, noise, glare, or safety hazards.
5. The location of proposed utility and drainage systems.
6. Any other pertinent data that the Planning Commission may require.

§ 1210. Conversions. [Ord. 624, 9/13/1983, § 1109]

All conversions must meet all requirements of this Part 12 as if the property being converted were new construction.

Part 13
HB — HIGHWAY BUSINESS DISTRICT

§ 1301. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 1200]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 13 with respect to the HB — Highway Business District to establish reasonable standards of performance for the development of highway-oriented commercial use serving both local and regional needs in those locations which satisfy the highway access, off-street parking, and service area requirements normally associated with such uses. In addition, it is the intent of this Part 13 to provide standards which will ensure that such higher intensity, traffic-generating commercial uses will not have a negative impact on abutting residential neighborhoods in the Borough of Royersford.

§ 1302. Permitted Uses. [Ord. 624, 9/13/1983, §§ 1201-1201.13; as amended by Ord. 632, 6/14/1984]

In a HB — Highway Business District, a building may be erected, altered, or used, and a lot may be occupied for any of the following uses and no other:

1. Retail sales establishment or service shop.
2. Personal service shop.
3. Automobile and allied sales or service shop or gasoline filling station.
4. Motel, hotel, tourist home, or rooming house for transient use only.
5. Restaurant or tavern, fast-food restaurant or drive-in.
6. Business or professional office; studio.
7. Bank or other financial institution.
8. Wholesale business establishment.
9. Indoor recreational facilities.
10. Parking lot or garage.
11. Multifamily dwellings in accordance with the provisions of Part 7 (R-3 District) of this chapter.
12. Any use of the same general character as those listed in § 1301(1) through 1301(10) above, when authorized as a special exception by the Zoning Hearing Board.

13. Accessory uses on the same lot as and customarily incidental to any of the above permitted uses, which accessory uses may include a residence for the proprietor of a permitted business use.

§ 1303. Development Regulations. [Ord. 624, 9/13/1983, § 1202]

The following standards shall apply in the HB — Highway Business District:

1. Minimum lot area: 10,000 square feet.
2. Minimum lot width at the building line: 75 feet.
3. Minimum front yard measured from the ultimate right-of-way line; applies to both streets for corner lots; 15 feet.
4. Minimum side yard: 10 feet.
5. Minimum rear yard: 25 feet.
6. Maximum building coverage (percent of total lot area): 50%.
7. Maximum building height: 35 feet.

§ 1304. Additional Development Regulations. [Ord. 624, 9/13/1983, §§ 1203-1203.4]

The following additional regulations shall apply in the HB — Highway Business District:

1. Maximum Building dimension. The greatest dimension of a structure, measured parallel to exterior building walls, shall be 150 feet, except when authorized as a special exception by the Zoning Hearing Board. For circular or partially circular buildings, the diameter or assumed diameter shall not exceed 175 feet, except by special exception.
2. Buffer Area. There shall be a screen buffer at least 10 feet in depth along all boundaries of the development constructed pursuant to this Part 13 which abuts a residential or institutional use or district.
3. Public Facilities and Services. All uses in a HB — Highway Business District shall be capable of being served by public sewer and centralized water facilities. No use shall create an unreasonable burden upon other Borough services.
4. Integrated Developments. In those instances wherein development in the HB District is proposed to consist of multiple buildings, the following regulations shall apply:
 - A. The entire development shall be designed as an architecturally integrated unit.
 - B. The minimum distance between a building or group of buildings shall be 20 feet, except that all structures connected by common rooflines or covered walkways shall be considered as one building.

- C. Parking areas and access drives shall be planned in a manner which provides for safe and efficient internal circulation. The number of parking spaces provided shall be equal to this total number required for each use within the proposed development, as specified in Part 16 of this chapter, except where a lesser number may be permitted when parking is shared, according to the provisions of § 1605 therein.

§ 1305. Nuisance Controls. [Ord. 624, 9/13/1983, §§ 1204-1204.4]

Uses in a HB — Highway Business District shall make provisions for control of each of the following:

1. Access. A planned system of efficient ingress, egress, and internal circulation of traffic which shall interfere minimally with nearby traffic flow shall be required. Loading and unloading areas shall be provided where deemed necessary, and shall be located to the rear of the proposed use. Such areas shall be so arranged that they may be used without blockage or interference with the use of accessways or automobile parking areas.
2. Lighting. Lighting shall be arranged in a manner which will protect adjacent highways and neighboring properties from unreasonable direct glare or hazardous interference of any kind.
3. Service. Areas for loading and unloading of delivery trucks and other vehicles for the servicing of refuse collection, fuel, and other services shall be provided and shall be adequate in size. A plan for weekly disposal of solid waste material shall be required. No solid waste shall be stored closer than within 15 feet of any property line. Refuse collection areas shall be shielded from the direct view of any adjacent property by walls which measure a minimum of six feet in height.
4. Traffic. The existing road system must be able to accommodate in a safe and efficient manner the peak traffic generated by any use proposed in an HB District. In order to determine that existing residential areas will not be infringed upon by significant volumes of traffic from a proposed use, the Borough Council may request a traffic impact statement, as described below:
 - A. A traffic impact study shall present sufficient information to enable the Borough staff to assess the impact of the proposed use on the roads within the Borough. The study must demonstrate that the use will not adversely affect surrounding areas of traffic circulation generally in the Borough, or else identify any traffic problems that might be caused or aggravated by the use and delineate solutions to those problems. Based upon the findings of the study, the Borough Council may require other improvements both on-site and off-site, which would alleviate hazardous or congested situations directly attributable to the proposed development, as a condition of approval.

- B. The traffic impact study shall be prepared for a study area extending a minimum of 1/2 mile on all abutting roads from the boundaries of the proposed use. This area may be modified at the discretion of the Borough Council.
- C. The traffic impact study shall be prepared by a qualified traffic engineer who possesses the credentials outlined for a Municipal Traffic Engineer defined in Pennsylvania Code Chapter 612, entitled "Municipal Traffic Engineering Certification."

§ 1306. Parking. [Ord. 624, 9/13/1983, § 1205]

Off-street parking facilities shall be provided and maintained in an HB — Highway Business District in accordance with the requirements of Part 16 herein.

§ 1307. Signs. [Ord. 624, 9/13/1983, § 1206]

Signs shall be permitted in a HB — Highway Business District subject to the provisions of Part 17 herein.

§ 1308. Plan Submission Requirements. [Ord. 624, 9/13/1983, §§ 1207-1207.6]

An application for development in a HB — Highway Business District shall be accompanied by a plan, or plans, showing the detailed use of the entire tract, which plan or plans shall comply with all requirements of other applicable ordinances of the Borough and which shall clearly designate the proposed use(s) of each area of the tract. Development plans required in this district shall include the following:

1. A plot plan of the lot showing the location of all present and proposed buildings, drives, parking lots, landscaping, and other constructional features on the lot; and all buildings, streets, alleys, highways, streams, and other topographical features of the lot and within 200 feet of any lot line.
2. Architectural renderings or sketches for any proposed buildings and landscaping within the proposed development.
3. A description of the uses proposed in sufficient detail to indicate the effects of these operations in producing congestion, noise, glare, or safety hazard.
4. Engineering and architectural plans for the handling of any access traffic congestion, noise, glare, or safety hazard.
5. The location of proposed utility and drainage systems.
6. Any other pertinent data that the Planning Commission may require.

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§ 1309. Conversions. [Ord. 624, 9/13/1983, § 1208]

All conversions must meet all requirements of this Part 13 as if the property being converted were new construction.

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Part 14
I – INDUSTRIAL DISTRICT

§ 1401. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, § 1300]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 14 with respect to the I – Industrial District to provide for the orderly and planned development and redevelopment of office, research and development, and laboratory uses as well as a variety of nonpolluting, small-scale industries and major industrial operations in Royersford Borough. Furthermore, it is the intent of this Part 14 to provide performance standards, setback regulations, and buffering requirements to ensure that the type and scale of office and industrial development and related support facilities will cause minimal negative impact on surrounding residential neighborhoods.

§ 1402. Permitted Uses. [Ord. 624, 9/13/1983, §§ 1301-1301.9; as amended by Ord. 728, 7/28/1992, § 25]

In an I – Industrial District, a building may be erected, altered, or used, and a lot may be occupied for any of the following uses and no other:

1. Scientific or industrial research, engineering, testing or experimental laboratory or similar establishment for research, training or product development.
2. Office, corporate headquarters, and administrative buildings or centers.
3. Public or governmental utility building or use, including storage yard, repair shop or similar use.
4. Printing, publishing, lithography and similar processes.
5. Manufacturing, fabrication, assembly, processing and packaging of natural and man-made materials, chemicals, synthetics and other organic and inorganic products, except those uses specifically prohibited in § 1401(8) herein.
6. Wholesale, warehouse, storage or distribution center.
7. Materials storage area, either open or enclosed.
8. Any use of the same general character as the above permitted uses, except that in no case shall the following uses or any substantially similar thereto be permitted: Abattoir; bulk storage of explosives; fat rendering operation; wood or wood pulp processing; petroleum refining; leather processing; manufacture of asphalt, explosives, fertilizer, linoleum or rubber; dump, incineration or reduction of

garbage, except a sanitary landfill operated in accordance with the requirements of the Pennsylvania Department of Environmental Resources.

9. Accessory use on the same lot and customarily incidental to any of the above permitted uses, including:
 - A. Storage within a completely enclosed building.
 - B. Repair shop or maintenance facilities normally required for the conduct of industrial operations.
 - C. A cafeteria, recreation facility or other service facility located within a permitted use and operated for the exclusive use of the occupants of the buildings.
 - D. Living quarters for watchmen, caretakers, or similar employees provided such quarters meet the definition of dwelling unit, all Borough requirements for dwelling units and the requirements of §§ 418(2), 418(5), and 418(6) of this chapter.

§ 1403. Performance Standards. [Ord. 624, 9/13/1983, §§ 1302-1302.3; as amended by Ord. 728, 7/28/1992, §§ 26-30]

Notwithstanding the laws and regulations of the U.S. Environmental Protection Agency and the Pennsylvania Department of Environmental Resources and other applicable federal and state regulations, the following performance standards shall be used by the Borough Council, Borough Planning Commission and Borough Engineer in reviewing the suitability and possible hazardous impacts of a proposed use within an I — Institutional District:

1. In determining whether a proposed use is or may become noxious, hazardous, or offensive, the following general standards shall apply. The proposed use shall not:
 - A. Constitute a nuisance or damage to health or property by reason of dissemination of noxious, toxic or corrosive fumes, smoke, odor, or dust;
 - B. Result in noise or vibration clearly exceeding the average intensity of noise or vibration occurring from other causes at the property-line or beyond the district boundary line;
 - C. Endanger surrounding areas by reason of radiation, fire or explosion;
 - D. Produce objectionable heat or glare at the property-line or beyond the district boundary line;
 - E. Result in electrical disturbance in nearby residences or adversely affect the operation of equipment other than the property on which the disturbance is located;

- F. Discharge any untreated sewage or industrial waste into any stream or otherwise contribute to the pollution of surface or underground waters;
 - G. Endanger the underground water level or supply for other properties;
 - H. Generate a nuisance to surrounding property by reason of truck traffic or otherwise create an objectionable traffic condition on the highway or in an adjacent area;
 - I. Create any other condition which will endanger public health and safety or be detrimental to the environmental quality of the surrounding area.
2. In addition to the general standards listed above, the following measures shall be applied to any use in the I — Industrial District:
- A. Control of Air Pollution. All uses shall comply with the standards of the Air Pollution Control Act, 35 P.S. §§ 4001-4015, as amended, and the following standards:
 - (1) Smoke. Visible air contaminants shall not be emitted in such a manner that the emissions have a measured opacity equal to or greater than 10% (10% loss of visibility) for a period or periods aggregating more than three minutes in any one hour; or equal to or greater than 30% at any time, and shall comply with PA Code, Title 25, Chapter 127.A(7), or its most recent update.
 - (2) Particulate, Vaporous and Gaseous Emissions.
 - (a) No emission shall be made which can cause any damage to health, to animals or vegetation or other forms of property, or which can cause any excessive soiling at any point.
 - (b) No emission of particulate matter shall exceed 0.0115 grams per dry standard cubic foot, corrected to 7% oxygen. Provisions must be made to reduce dew point cycling and resulting damage to particulate control devices.
 - (c) For measurement of the amount of particles in gases resulting from combustion, standards correction shall be applied to a stack temperature of 500° F. and 50% excess air.
 - (3) Hazardous Air Emission. All emissions shall comply with National Emissions Standards for Hazardous Air Pollutants promulgated by the United States Environmental Protection Agency under the Federal Clean Air Act (42 U.S.C.S. § 7412) as promulgated in 40 CFR, Part 61, or its most recent update.

- B. Control of Noise. At no point on the boundary of a residential or commercial district shall the sound pressure level of any operation exceed the described levels in the designated octave bands shown below for the districts indicated. Objectionable noises, due to intermittence, beat frequency, or shrillness, shall be muffled so as not to become a nuisance to adjacent uses.

Sound Levels		
Octave Band in Cycles Per Second	Along Residential District Boundaries Maximum Permitted Sound Level in Decibels	At Any Other Point on the Lot Boundary Maximum Permitted Sound Level in Decibels
0 to 75	72	79
75 to 150	67	74
150 to 300	59	66
300 to 600	52	59
600 to 1,200	46	53
1,200 to 2,400	40	47
2,400 to 4,800	34	41
Above 4,800	32	39

- C. Control of Odors. There shall be no emission of odorous gases or other odorous matter in such quantities as to be offensive along a lot boundary line. Any process which may involve the creation of emission of any odors shall be provided with a secondary safeguard system so that control will be maintained if the primary safeguard system shall fail.
- D. Control of Glare or Heat. Any operation producing intense glare or heat shall be performed within an enclosed building or behind a solid fence in such manner as to be completely imperceptible from any point beyond the lot boundary lines.
- E. Control of Vibration. No vibration which is discernible to the human sense of feeling shall be perceptible without instruments at any point beyond the lot boundary lines.
- F. Control of Radioactivity or Electrical Disturbances. There shall be no activities which emit dangerous or harmful radioactivity. There shall be no electrical disturbance (except from domestic household appliances) adversely affecting the operation of any equipment located beyond the property of the creator of such disturbances.
- G. Outdoor Storage and Waste Disposal.

- (1) No flammable or explosive liquids, solids, or gases shall be stored in bulk above ground; provided, however, that tanks or drums of fuel directly connecting with energy devices, heating devices, or appliances located on the same lot as the tanks or drums of fuel are excluded from this provision.
 - (2) All storage facilities for fuel, raw materials and products stored outdoors shall be enclosed by a fence or planting screen adequate to conceal the facilities from abutting properties and adequate to prevent the access of children and other members of the general public.
 - (3) No materials or waste shall be deposited upon a lot in such form or manner that it can be transferred off the lot by natural causes or forces.
 - (4) All materials or wastes which might cause fumes or dust or which constitute a fire hazard or which may be edible or otherwise be attractive to rodents or insects shall be stored outdoors only in closed containers.
- H. Electric, Diesel Gas or Other Power. Every use requiring power shall be so operated that the service lines, substation, etc., shall conform to the most acceptable safety requirements recognized by the Pennsylvania Bureau of Labor and Industry and shall be so constructed and installed so as to be an integral part of the architectural features of the plant or properties, if visible from abutting residential properties shall be concealed by coniferous planting.
- I. Industrial Sewage or Waste. No use shall be conducted in such a way as to discharge any treated or untreated sewage except as shall be approved by the Department of Environmental Resources and/or the County Sewage Enforcement Officer, as appropriate; nor shall industrial wastes be stored, discharged, incinerated, or otherwise disposed of except in conformance with the applicable state and federal regulations regarding solid and hazardous wastes.
- J. Water Supply. Any proposed development in the I — Industrial District shall be served by public water facilities deemed acceptable by the Borough Engineer.
3. The applicant shall demonstrate to the Borough Engineer that:
- A. Adequate provisions will be made to reduce and minimize any objectionable elements to the degree necessary to ensure that the proposed use(s) will not be noxious, hazardous or offensive as defined in Subsection 1403(1) herein.
 - B. The proposed use(s) will comply with the standards contained in Subsection 1403(2) herein.

- C. The Borough Engineer may require, in order to determine that adequate safeguards are provided, that:
- (1) The applicant submit necessary information, impartial expert judgments and written assurances.
 - (2) The applicant obtain the advice of appropriate local, state and federal agencies and of private consultants.
 - (3) The applicant's proposed use(s) comply with such tests or provide such safeguards in addition to those listed in Subsection 1403(2) herein, as deemed necessary by the Borough Council, upon the advice of the Borough Engineer.

§ 1404. General Regulations. [Ord. 624, 9/13/1983, §§ 1303-1303.3]

The following regulations shall apply to any development proposal within the I — Industrial District:

1. Ownership. The tract of land to be developed shall be in one ownership or shall be the subject of an application filed jointly by the owners of the entire tract, and it shall be agreed that the tract will be developed under single direction in accordance with an approved plan. Transfer of ownership to another applicant prior to the commencement of construction shall render the development agreement required in Subsection 1404(3) herein, void. Said agreements shall then be renegotiate between the new owners and the Borough Council.
2. Development Plan. An industrial development proposal shall be accompanied by a plan, or plans, as defined in § 1409 herein, which plan or plans shall comply with all requirements of the Royersford Borough Subdivision and Land Development Chapter.
3. Development Stages and Permits. The development of a tract carried out in either a single phase or in stages shall be executed in accordance with a development agreement. The owner, developer and Borough shall enter into said agreement embodying all details regarding compliance with this Part 14 to assure the binding nature thereof on the overall tract and its development, which agreement shall be recorded with the final development plan.

§ 1405. Development Requirements. [Ord. 624, 9/13/1983, §§ 1304-1304.2]

The following standards shall apply in the I — Industrial District:

1. Lot Area, Lot Width, Yards, Coverage and Height.
 - A. Minimum lot area: 20,000 square feet.
 - B. Minimum lot width at the building line: 80 feet.

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- C. Minimum front yard measured from the ultimate right-of-way line; applies to both streets for corner lots: 20 feet.
 - D. Minimum side yard: 15 feet each.
 - E. Minimum rear yard: 25 feet.
 - F. Maximum building coverage (percent of total lot area): 50%.
 - G. Maximum impervious coverage, including buildings, parking areas, vehicular accessways, and all other impervious surfaces (percent of total lot area): 75%.
 - H. Maximum building height measured from the regulatory flood elevation as defined in the Royersford Borough Building Code: 55 feet.
2. Increases Permitted by Special Exception.
- A. An increase in maximum allowable building coverage, maximum impervious coverage, and/or maximum building height may be permitted by special exception only in those instances when such exceptions are warranted by the character of existing development and when it is determined that the proposed increase in the land use intensity will not adversely affect the natural or built environment in the surrounding area.
 - B. Water towers, chimneys, stacks, and other accessory structures may exceed the maximum building height when authorized as a special exception by the Zoning Hearing Board, provided that for every five feet in excess of 55 feet there shall be added to each yard requirements a corresponding foot of width or depth.

§ 1406. Additional Development Regulations. [Ord. 624, 9/13/1983, §§ 1305-1305.6]

The following additional development regulations shall apply in the I — Industrial District:

- 1. Public Facilities and Services. All uses in an I — Industrial District shall be capable of being served by public sewer and centralized water facilities. No use shall create an unreasonable burden upon other Borough services.
- 2. Access. A planned system of efficient ingress, egress, and internal circulation of traffic which shall interfere minimally with nearby traffic flow shall be required. Loading and unloading areas shall be provided where deemed necessary, and shall be located to the rear of the proposed use. Such areas shall be so arranged that they may be used without blockage or interference with the use of accessways or automobile parking areas.

3. Lighting. Lighting shall be provided as needed and arranged in a manner which will protect adjacent highways and neighboring properties from unreasonable direct glare or hazardous interferences of any kind.
4. Service. Areas for loading and unloading of delivery trucks and other vehicles and for the servicing of refuse collection, fuel, and other services shall be provided and shall be adequate in size. A plan for weekly disposal of solid waste material shall be required. All solid waste material shall be stored in covered containers. No solid waste material shall be stored closer than within 15 feet of any property line. Refuse collection areas shall be shielded from the direct view of any adjacent property by walls which measure a minimum of six feet in height.
5. Buffer Area. There shall be a screen buffer at least 10 feet in depth along all boundaries of a development constructed pursuant to this Part 14 which abut a residential or institutional use or district.
6. Minimum Distance Between Buildings. The minimum distance between buildings shall be 20 feet, except that all structures connected by common rooflines or covered walkways shall be considered as one building.

§ 1407. Parking. [Ord. 624, 9/13/1983, § 1306]

Off-street parking facilities shall be provided and maintained in an I — Industrial District in accordance with the requirements of Part 16 herein.

§ 1408. Signs. [Ord. 624, 9/13/1983, § 1307]

Signs shall be permitted in an I — Industrial District subject to the provisions of Part 17 herein.

§ 1409. Procedural Requirements. [Ord. 624, 9/13/1983, §§ 1308-1308.9]

An application for development in an I — Industrial District shall be accompanied by a plan, or plans showing the detailed use of the entire tract, which plan or plans shall comply with all requirements of other applicable ordinances of the Borough and which shall clearly designate the proposed use(s) of each area of the tract. Development plans required in this district shall include the following:

1. A plot plan of the lot showing the location of all present and proposed buildings, drives, parking lots, landscaping, and other constructional features on the lot; and all buildings, streets, alleys, highways, streams and other topographical features of the lot and within 200 feet of any lot line.
2. Architectural renderings or sketches for any proposed buildings and landscaping within the proposed development.

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3. A description of the industrial operations proposed in sufficient detail to indicate the effects of those operations in producing traffic congestion, noise, glare, air pollution, water pollution, fire hazards, or safety hazards.
4. Engineering and architectural plans for the handling of any excess traffic congestion, noise, glare, air pollution, water pollution, fire hazard, or safety hazard.
5. Engineering and architectural plans for the handling and disposal of sewage and industrial waste.
6. The location of proposed utility and drainage systems.
7. A landscaping plan which shall show the location, species, and size of trees and shrubs and area to be in lawn.
8. The proposed number of shifts to be worked and the maximum number of employees on each shift.
9. Any other pertinent data that the Planning Commission may require.

§ 1410. Conversion. [Ord. 624, 9/13/1983, § 1309]

All conversions must meet all requirements of this Part 14 as if the property being converted were new construction.

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Part 14A
GI - GENERAL INDUSTRIAL DISTRICT

§ 14A01. Provisions; Conditional Uses. [Ord. 883, 8/9/2016]

1. All of the provisions of the GI District shall be identical to the provisions of the I Industrial District, except that the following additional uses shall be conditional uses in the GI District:
 - A. An adult use shall be allowed as a conditional use, provided that there is compliance with the adult use regulations in § 422.
 - B. A solid waste transfer facility shall be allowed as a conditional use if there is compliance with the following additional requirements:
 - (1) All solid waste storage, disposal, incineration or processing shall be at least 100 feet from the following: public street right-of-way, exterior lot line or one-hundred-year floodplain.
 - (2) All solid waste storage, disposal, incineration or processing shall be a minimum of 250 feet from any residential district and a minimum of 250 feet from the lot line of any existing dwelling.
 - (3) The use shall be served by a minimum of two paved access roads, each with a minimum cartway width of 20 feet. One of these roads may be restricted to use by emergency vehicles.
 - (4) The applicant shall prove to the satisfaction of the Borough Council that the street network can handle the additional truck traffic, in a manner that minimizes negative impacts upon residentially zoned neighborhoods.
 - (5) The applicant shall prove to the satisfaction of the Borough Council that the use will include the best available methods to minimize noxious odors off of the tract.
 - (6) A chain-link or other approved fence with a minimum height of eight feet shall surround the use, unless the applicant proves to the satisfaction of the Borough Council that this is unnecessary.
 - (7) Minimum lot area: three acres.
 - (8) The applicant shall provide evidence to the Borough Council that sufficient measures will be put into place to minimize the attraction, harborage or breeding of insects, rodents or vectors.
 - (9) Attendant. An attendant shall be present during all periods of operation or dumping.

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- (10) Gates. Secure gates, fences, earth mounds and/or dense vegetation shall prevent unauthorized access.
- (11) Emergency Access. The operator of the use shall cooperate fully with local emergency services. This should include allowing practice exercises on the site and the provision of all information needed by the emergency services to determine potential hazards. Adequate means of emergency access shall be provided.
- (12) Litter. The operator shall regularly police the area of the facility and surrounding streets to collect litter that may escape from the facility or trucks.
- (13) Dangerous Materials. No radioactive, hazardous, chemotherapeutic or infectious materials may be stored, processed, disposed or incinerated.
- (14) All loading and unloading and processing of solid waste shall only occur within an enclosed building, and over an impervious surface drains to a holding tank that is then adequately treated, or similar methods approved by the Borough Council.

Part 15
FP — FLOODPLAIN CONSERVATION DISTRICT

§ 1501. Declaration of Legislative Intent. [Ord. 624, 9/13/1983, §§ 1400-1400.4]

In expansion of the Declaration of Legislative Intent contained in Part 1, § 102, of this chapter and the Statement of Community Development Objectives contained in Part 1, § 104, of this chapter, it is hereby declared to be the intent of this Part 15 with respect to the FP — Floodplain Conservation District to prevent the loss of property and life, the creation of health and safety hazards, the disruption of commerce and governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief, and the impairment of the tax base by the following means:

1. Regulating uses, activities, and development which, acting alone or in combination with other existing or future uses, activities, and development will cause unacceptable increases in flood heights, velocities and frequencies.
2. Restricting or prohibiting certain uses, activities, and development from locating within areas subject to flooding.
3. Requiring all those uses, activities, and developments that do occur in flood-prone areas to be protected and/or flood-proofed against flooding and flood damage.
4. Protecting individuals from buying lands and structures which are unsuited for intended purposes because of flood hazards.

§ 1502. Floodplain Conservation District Boundary. [Ord. 624, 9/13/1983, § 1401; as amended by Ord. 728, 7/28/1992, § 31; and by Ord. 750, 11/26/1996, §§ 6-8]

The FP — Floodplain Conservation District is established as follows:

1. Definition of District. The district shall include areas subject to inundation by waters of the one-hundred-year flood. The basis for the delineation of the districts shall be the Flood Insurance Study/Flood Insurance Rate Map, as prepared by the Federal Emergency Management Agency for the Borough of Royersford effective December 19, 1996, and subsequent revisions thereto.
 - A. FW (Floodway Area) — the areas identified as "Floodway" in the AE Zone in the Flood Insurance Study prepared by the FEMA. The term shall also include floodway areas which have been identified in other available studies or sources of information for those floodplain areas where no floodway has been identified in the Flood Insurance Study prepared by the FEMA.

- B. FF (Flood-Fringe Area) — the remaining portions of the one-hundred-year floodplain in those areas identified as an AE Zone in the Flood Insurance Study, where a floodway has been delineated. The basis for the outermost boundary of this area shall be the one-hundred-year flood elevations as shown in the flood profiles contained in the Flood Insurance Study.
2. Overlay Concept.
 - A. The Floodplain District as described above shall be an overlay to the existing underlying districts as shown on the Borough Zoning Map, and as such, the provisions of the Floodplain District shall serve as a supplement to the underlying district provisions.
 - B. Where there is a conflict between the provisions or requirements the Floodplain Districts and those of any underlying district, the more-restrictive provisions and/or those pertaining to the Floodplain District shall apply.
 - C. In the event any provision concerning a Floodplain District is declared inapplicable as a result of any legislative or administrative actions or judicial discretion, the basic underlying district provision shall remain applicable.
 - D. Any change in the underlying zoning district shall not affect the floodplain overlay district.
 3. District Boundary Changes. The delineation of the Floodplain District may be revised by the Borough Council where natural or man-made changes have occurred and/or detailed studies conducted or undertaken by the U.S. Army Corps of Engineers, a River Basin Commission, or other qualified agency or individual documents the notification for such change. However, prior to any such change, approval must be obtained from FEMA.
 4. Boundary Disputes and Appeals Procedures.
 - A. In case of any dispute concerning the boundaries of the Floodplain Conservation District, initial determination shall be made by the Borough Zoning Officer.
 - B. Any party aggrieved by the decision of the Zoning Officer as to the boundaries of the Floodplain Conservation District on the grounds that the said map referred to therein is or has become incorrect because of changes due to natural or other causes, or changes indicated by later detailed hydrologic and hydraulic studies, may appeal to the Zoning Hearing Board.
 - C. Boundary changes shall be validated through detailed engineering studies by the U.S. Army Corps of Engineers, Philadelphia District, or another qualified agency or individual.
 - D. The burden of proof shall be on the applicant.

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- E. The Zoning Hearing Board shall request a review and recommendation of the Soil Conservation Service and Borough Engineer at least 30 days prior to the public hearing.
 - F. The Zoning Hearing Board, in addition to other evidence and standards shall consider the recommendations of the Borough Planning Commission, the U.S. Army Corps of Engineers, and/or other qualified agencies or individuals.
 - G. All changes to the boundaries of the Floodplain Conservation District are subject to the review and approval of the FEMA.
 - H. All approved changes in boundaries shall be made on the appropriate map(s).
5. Use of Information. The Zoning Officer shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, as criteria for requiring that all new construction, substantial improvements, or other developments in Zone A shown on the FEMA Flood Insurance Rate Maps adhere to the requirements under the NFIP § 60.3(c)(2), (3), (5) and (6), and § 60.3(d)(3).

§ 1503. General Provisions. [Ord. 624, 9/13/1983, §§ 1402-1402.3]

1. All uses, activities, and development occurring within the Floodplain District shall be undertaken only in strict compliance with the provisions of this Part 15 and with all other applicable codes and ordinances, including the Borough of Royersford Building Code, and the Borough of Royersford Subdivision and Land Development Chapter. In addition, all such uses, activities, and development shall be undertaken only in compliance with federal and state law, including Section 404 of the Federal Water Pollution and Control Act Amendments of 1972, 33 U.S.C. § 1334.
2. Under no circumstances shall any use, activity and/or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch, or any other drainage facility or system.
3. Prior to any proposed alteration or relocation of any system, watercourse, etc. within the municipality, a permit shall be obtained from the Pennsylvania Department of Environmental Resources, Dams and Waterway Management Bureau. Further, notification of the proposal by the Borough or Royersford shall be given to all affected adjacent municipalities. Copies of such notifications shall be forwarded to both Federal Insurance Administration and the Pennsylvania Department of Community Affairs.

§ 1504. Use Regulations. [Ord. 624, 9/13/1983, §§ 1403-1403.2; as amended by Ord. 728, 7/28/1992, § 32]

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1. Floodway (FW). In the Floodway, no development shall be permitted except where any rise in flood heights caused by the proposed development will be fully offset by accompanying improvements which have been approved by all appropriate local, state, and/or federal authorities as required above.
 - A. Permitted Uses. The following uses and activities are permitted within the Floodway provided they are in compliance with the provisions of the underlying district and are not prohibited by any other ordinance and provided that they do not require structures, fill, or storage of materials or equipment:
 - (1) Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticultural, truck farming, forestry, sod farming, and wild crop harvesting.
 - (2) Public and private recreational uses and activities such as parks, day camps, picnic grounds, boat launching areas, hiking, and horseback riding trails, wildlife and nature preserves, game farms, fish hatcheries, trap and skeet game ranges, and hunting and fishing areas.
 - (3) Accessory uses such as yard areas, gardens, play areas, and pervious parking and loading areas, but excluding on-site waste disposal systems.
 - B. Uses Permitted by Special Exception. The following uses and activities may be permitted by special exception provided they are in compliance with the provisions of the underlying district, are undertaken in strict compliance with the floodproofing provisions contained in all other applicable codes and ordinances, and are not prohibited by any other ordinance:
 - (1) Structures accessory to the permitted uses and activities listed in § 1504(1) (A), above, except for manufactured homes, which are excluded from the floodplain.
 - (2) Utilities and public facilities and improvements such as railroads, streets, bridges, transmission lines, pipe lines, water and sewage treatment plants, and other similar or related uses. Water and sewer treatment plants shall be permitted only if they are floodproofed up to the regulatory flood elevation.
 - (3) Water-related uses and activities such as docks, wharves, piers, etc.
 - (4) Extraction of sand, gravel, and other materials.
 - (5) Temporary uses such as circuses, carnivals, and similar activities.
 - (6) Storage of materials and equipment provided they are not buoyant, flammable or explosive, and are not subject to major

damage by flooding, or provided that such material and equipment are firmly anchored to prevent flotation or movement, and/or can be readily removed from the areas with the time available after flood warning.

- (7) Other similar uses and activities provided they cause no increase in flood heights and/or velocities.
2. Flood Fringe (FF). In the Flood Fringe, the development and/or use of land shall be permitted in accordance with the regulations of the underlying district provided that all such uses, activities, and/or development shall be undertaken in strict compliance with the floodproofing and related provisions contained in all other applicable codes and ordinances.

§ 1505. Prohibited Uses. [Ord. 624, 9/13/1983, §§ 1404-1404.6]

The following uses shall not be permitted in the Floodplain Conservation District, unless a variance is obtained:

1. Freestanding structures, buildings and retaining walls, except those uses specifically permitted under the provisions of § 1504 herein.
2. The filling of or removal of topsoil from floodplain lands as defined in § 1502 herein.
3. The relocation of any watercourse without approval by the Pennsylvania Department of Environmental Resources, and the Borough Council after receipt of the recommendations of the Borough Planning Commission and the Soil Conservation Service, U.S. Department of Agriculture.
4. Sanitary landfills, dumps, junkyards, outdoor storage of vehicles and materials.
5. On-site sewage disposal system.
6. Private water supply wells.

§ 1506. Application, Procedure for Special Exception or Variance. [Ord. 624, 9/13/1983, §§ 1405-1405.2; as amended by Ord. 728, 7/28/1992, § 33]

For any use of land in the Floodplain Conservation District, except uses existing as of the date of the enactment of this chapter, an application for a zoning permit shall be filed with the Zoning Officer, who shall make an initial determination on the application.

1. For any use listed under § 1504(1)(B) of this chapter, an application seeking approval by special exception shall be forwarded to the Zoning Hearing Board along with required studies or information and the findings of the Zoning Officer.

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2. Any application involving the use of fill, the construction of structures, or storage of materials, shall be accompanied by the following:
 - A. A plan certified by a registered professional engineer which accurately locates the proposed use with respect to the Floodplain District limits, channel or stream, existing development in the floodplain within 200 feet of the proposed development site, together with all pertinent information such as the nature of the proposal; and floodproofing measures including those required by the Borough Building Code, as amended, and the provisions of this Part 15.
 - B. The following additional information as deemed necessary by either the Zoning Officer of the Zoning Hearing Board for the evaluation of effects of the proposal upon flood flows and flood water storage and to render a decision on the proposed use.
 - (1) A typical valley cross-section showing the channel of the river or stream, the floodplain adjoining each side of the channel, cross-sectional area to be occupied by the proposed development and high water information.
 - (2) Plan surface view showing elevation or contours of the ground; pertinent structure, fill or storage elevations; size, location and spatial arrangement of all proposed and existing structures on the site; location and elevations of streets, water supply, sanitary facilities and soil types and other pertinent information.
 - (3) Profile showing the slope of the bottom of the channel or flow line of the stream.
 - (4) Specifications for building construction materials, including "flood-proofing" measures, filling, dredging, grading, channel improvement, storage of materials, water supply, and sanitary facilities.
 - (5) A plan or document certified by a registered professional engineer that the flood-proofing measures are consistent with requirements for flood protection as set forth in Flood Proofing Regulations, Office of the Chief of Engineers, U.S. Army Corps of Engineers, Washington, D.C., June 1972, and includes:
 - (a) Anchorage to resist flotation and lateral movements.
 - (b) Installation of watertight doors, bulkheads and shutters.
 - (c) Reinforcement of walls to resist water pressure.
 - (d) Use of paints, membranes or mortar to reduce seepage of water through walls.

- (e) Additions of mass or weight to structures to resist flotation.
- (f) Installation of pumps to lower water levels in structures.
- (g) Construction of water supply and waste treatment systems so as to prevent the entrance of flood waters.
- (h) Pumping facilities for subsurface external foundation wall and basement water pressure.
- (i) Construction to resist rupture or collapse caused by water pressure or floating debris.
- (j) Cutoff valves on sewer lines, or the elimination of gravity flow basement drains.
- (k) Elevation of structures to reduce the likelihood of flood damage.
- (l) Provision in all fully enclosed areas below the lowest floor of a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- (m) Design and or location of electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities so as to prevent water from entering or accumulating within the components during conditions of flooding.

§ 1507. Procedures for Consideration Special Exception or Variance. [Ord. 624, 9/13/1983, §§ 1406-1406.4]

All applications for approval by special exception shall be considered using the standards set forth in § 1508 herein.

1. The Zoning Hearing Board shall request the review and recommendations of the Soil Conservation Service, U.S. Department of Agriculture and the U.S. Army Corps of Engineers, at least 30 days prior to the public hearing.
2. The Zoning Hearing Board shall request at least 30 days prior to the public hearing, the review and recommendations of the Royersford Borough Planning Commission.
3. The Zoning Hearing Board shall render a decision within 45 days after the public hearing, except that one continuance of 30 days may be permitted with the written agreement of the applicant.

4. In rendering a decision, the Zoning Hearing Board may impose special measures or conditions as deemed reasonably necessary and appropriate for the proposed use(s) to conform with the intent of this Part 15.

§ 1508. Standards for Approval of Uses by Special Exception. [Ord. 624, 9/13/1983; §§ 1407-1407.4]

The Zoning Hearing Board shall exercise discretion in allowing only those uses which are substantially in accord with the stated objectives in § 1501 herein. In considering a use as a special exception, the Zoning Hearing Board shall consider the following:

1. The effect of the use shall not substantially alter the cross-sectional profile of the river, streams or other floodplains at the location of the proposed use.
2. Lands abutting the waterway, both upriver and downriver, shall not be unreasonably affected by the proposed use.
3. The general welfare or public interest of Royersford Borough or of other municipalities in the same watershed shall not be adversely affected.
4. Any structure permitted by special exception shall include those floodproofing measures set forth in § 1506(2)(B)(5) of this Part 15 without limitation because of specific enumeration.

§ 1509. Standards for Considering Uses by Variance. [Ord. 624, 9/13/1983, §§ 1408-1408.4]

A property-owner of a lot of record, as of the date of the enactment of this chapter, who is able to prove that the strict enforcement of this Part 15 would create undue hardship by denying a reasonable use of an existing lot which is situated either wholly or partially in the Floodplain Conservation District, may seek relief by applying for a variance from the Zoning Hearing Board. The Zoning Hearing Board shall consider all applications for a variance using the procedures set forth in § 1507 herein.

1. The Zoning Hearing Board, after deciding upon the merits of the application, may permit the applicant to make some reasonable use of the property in question, while ensuring that such use will not violate the basic objectives of this Part 15, as specified in § 1501 herein.
2. Any uses permitted by variance shall be constructed and placed on the lot so as to offer the minimum effect upon the flow and height of floodwater. The first floor elevation of all structures shall be at or above the regulatory flood elevation, as defined in § 1510 herein.
3. An application for a variance shall be accompanied by the appropriate data as set forth in § 1506 herein.

4. Any structure permitted by variance shall be in accordance with standards set forth in § 1508 herein.

§ 1510. Definitions. [Ord. 624, 9/13/1983, §§ 1409-1409.6; as amended by Ord. 728, 7/28/1992, § 34]

The following definitions shall apply with respect to the provisions of this Part 15:

DEVELOPMENT — Any man-made change to improved or unimproved real estate including but not limited to buildings or other structures, the placement of mobile homes, streets, and other paving, utilities, filling, grading, excavation, mining, dredging, or drilling operations and the subdivision of land.

FEMA and FIA — The Federal Emergency Management Agency and the Federal Insurance Administration who have jurisdiction over the National Flood Insurance Program and its related studies and regulations. FEMA is the parent agency of the FIA.

FLOOD — A temporary inundation of normally dry land areas.

FLOODPLAIN —

- A. A relatively flat or low land area adjoining a river, stream, or watercourse which is subject to partial or complete inundation;
- B. An area subject to the unusual and rapid accumulation or runoff of surface water from any source.

FLOODPLAIN DISTRICT — Those areas, as defined in § 1502(1) herein, subject to inundation by the one-hundred-year flood. Included would be areas identified as the Floodway (FW) and Flood Fringe (FF).

LOWEST FLOOR — The floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this Part.

MANUFACTURED HOME — The term "manufactured home" is the same as the term "mobile home," which is defined in Part 2 of this chapter.

ONE-HUNDRED-YEAR FLOOD — A flood that, on the average, is likely to occur once every 100 years (i.e., that has a one-percent chance of occurring each year, although the flood may occur in any year).

REGULATORY FLOOD ELEVATION — The one-hundred-year flood elevation plus a freeboard safety factor of 1 1/2 feet.

START OF CONSTRUCTION — Includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the

pouring of the slab or footings, the installation of piers, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as grades or sheds not part of the main structure. Time extension shall be granted only if a written request is submitted by the applicant, which sets forth sufficient and reasonable cause for the Building Inspector to approve such a request.

SUBSTANTIAL IMPROVEMENT —

- A. Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure either:
- (1) Before the improvement or repair is started; or
 - (2) If the structure has been damaged, and is being restored, before the damage occurred.
- B. For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either:
- (1) Any project for improvement of a structure to comply with existing State or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or
 - (2) Any alteration of a structure listed on a National Register of Historic Places or a State Inventory of Historic Places.

§ 1511. Uses or Structures Rendered Nonconforming by the Adoption of the District. [Ord. 624, 9/13/1983, § 1410]

Following the adoption of this Part 15, any use or structure which is situated within the boundaries of the (FP) Floodplain Conservation District which does not conform to the use regulations specified in § 1504 herein shall become a nonconforming use or structure, regardless of its conformance to the district in which it is located without consideration of this Part 15. The expansion of said nonconforming use or structure shall be governed by the requirements of Part 20 of this chapter. However, the Zoning Hearing Board shall also ensure that the standards contained in § 1508 of this Part 15 are applied to the expansion of said nonconforming use or structure.

§ 1512. Certificate of Occupancy. [Ord. 624, 9/13/1983, § 1411]

No vacant land shall be occupied or used and no building hereafter erected, altered, or moved within the Floodplain Conservation District until a certificate of occupancy shall have been issued by the Zoning Officer. The Zoning Officer shall request the applicant to submit a certification by a registered professional engineer or land surveyor that the finished fill and building floor elevations, floodproofing measures, or other flood protection factors were accomplished in compliance with the provisions of this chapter. The Zoning Officer, shall within 10 days after receipt of such certification from the applicant, issue a certificate of occupancy only if the building or premises and the proposed use thereof conform with all the requirements of this chapter.

§ 1513. Municipal Liability. [Ord. 624, 9/13/1983, § 1412]

The granting of a zoning permit or approval of a subdivision or land development plan in or near the Floodplain Conservation District shall not constitute a representation, guarantee or warranty of any kind by the Borough, or by an official or employee thereof, of the practicability or safety of the proposed use and shall create no liability upon the Borough, its officials, or employees. The degree of flood protection intended to be provided by this chapter is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. This chapter does not imply that areas outside Floodplain Conservation District boundaries or land uses permitted within such districts will always be totally free from flooding or flood damage.

§ 1514. Special Provisions for Development Which May Endanger Human Life Within the Floodplain District. [Ord. 624, 9/13/1983, §§ 1413-1413.6]

1. The provisions of this section shall be applicable, in addition to any other applicable provisions of this chapter, or any other ordinance, code, or regulation.
2. In accordance with Pennsylvania Floodplain Management Act, and the regulations adopted by the Department of Community Affairs as required by the Act, any new or substantially improved structure which will be used for the production or storage of any of the following dangerous materials or substances; or, will be used for any activity requiring the maintenance of a supply of more than 550 gallons, or other comparable volume, of any of the following dangerous materials or substances on the premises; or, will involve the production, storage, or use of any amount of radioactive substances, shall be subject to the provisions of this section, in addition to all other applicable provisions. The following list of materials and substances are considered dangerous to human life:
 - A. Acetone.

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- B. Ammonia.
 - C. Benzene.
 - D. Calcium carbide.
 - E. Carbon Disulfide.
 - F. Celluloid.
 - G. Chlorine.
 - H. Hydrochloric acid.
 - I. Hydrocyanic acid.
 - J. Magnesium.
 - K. Nitric acid and oxides of nitrogen.
 - L. Petroleum products (gasoline, fuel, oil, etc.).
 - M. Phosphorus.
 - N. Potassium.
 - O. Sodium.
 - P. Sulphur and sulphur products.
 - Q. Pesticides (including insecticides, fungicides, and rodenticides).
 - R. Radioactive substances, insofar as such substances are not otherwise regulated.
3. Within any Floodway District (FW), any structure of the kind described in § 1514(2) above shall be prohibited.
 4. Where permitted within any Flood Fringe District (FF), any structure of the kind described in § 1514(2) above shall be:
 - A. Elevated or designed and constructed to remain completely dry up to at least 1 1/2 feet above the one-hundred-year flood; and
 - B. Designed to prevent pollution from the structure or activity during the course of a one-hundred-year flood.
 5. Any such structure, or part thereof, that will be built below the regulatory flood elevation shall be designed and constructed in accordance with the standards for completely dry floodproofing contained in the publication, "Flood-Proofing Regulations" (U.S. Army Corps of Engineers, June 1972), or with some other equivalent watertight standard.
 6. Except for possible modification of the freeboard requirements involved, no variance shall be granted for any of the requirements

pertaining specifically to development which may endanger human life under this Part 15.

§ 1515. Activities Requiring Special Permits. [Ord. 624, 9/13/1983; §§ 1414-1414.6; as amended by Ord. 728, 7/28/1992, §§ 35 & 36]

1. The provisions of this section shall be applicable, in addition to any other applicable provisions of this chapter, or any other ordinance, code, or regulation.
2. Identification of Activities Requiring a Special Permit. In accordance with the Pennsylvania Floodplain Management Act (Act 1978-166) and regulations adopted by the Department of Community Affairs as required by the Act, the following obstructions are permitted only by special permit, if located partially or entirely within any floodplain district:
 - A. The commencement of any of the following activities; or the construction, enlargement, or expansion of any structure used, or intended to be used, for any of the following activities:
 - (1) Hospitals.
 - (2) Nursing homes.
 - (3) Jails or prisons.
 - B. The commencement of, or any construction of, a new manufactured home park or manufactured home subdivision, or substantial improvement to an existing manufactured home subdivision.
3. Application Requirements. Applicants for special permits shall provide five copies of the following items:
 - A. A written request including a completed building permit application form.
 - B. A small-scale map showing the vicinity in which the proposed site is located.
 - C. A plan of the entire site, clearly and legibly drawn at a scale of one inch being equal to 100 feet or less, showing the following:
 - (1) North arrow, scale and date;
 - (2) Topography based upon the National Geodetic Vertical Datum of 1929, showing existing and proposed contours at intervals of two feet;
 - (3) All property and lot lines including dimensions, and the size of the site expressed in acres or square feet;

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- (4) The location of all existing streets, drives, other accessways, and parking areas, with information concerning widths, pavement types and construction, and elevations;
 - (5) The location of any existing bodies of water or watercourses, buildings, structures and other public or private facilities, including railroad tracks and facilities, and any other natural and man-made features affecting, or affected by, the proposed activity or development;
 - (6) The location of the floodplain boundary line, information and spot elevations concerning the one-hundred-year flood elevations, and information concerning the flow of water including direction and velocities;
 - (7) The location of all proposed buildings, structures, utilities, and any other improvements; and
 - (8) Any other information which the municipality considers necessary for adequate review of the application.
- D. Plans of all proposed buildings, structures and other improvements, clearly and legibly drawn at suitable scale showing the following:
- (1) Sufficiently detailed architectural or engineering drawings including floor plans, sections, and exterior building elevations, as appropriate;
 - (2) For any proposed building, the elevation of the lowest floor (including basement) and, as required, the elevation of any other floor;
 - (3) Complete information concerning flood depths, pressures, velocities, impact and uplift forces, and other factors associated with the one-hundred-year flood;
 - (4) Detailed information concerning any proposed floodproofing measures;
 - (5) Cross-section drawings for all proposed streets, drives, other accessways, and parking areas, showing all rights-of-way and pavement widths;
 - (6) Profile drawings for all proposed streets, drives, and vehicular accessways including existing and proposed grades; and
 - (7) Plans and profiles of all proposed sanitary and storm sewer systems, water supply systems, and any other utilities and facilities.
- E. The following data and documentation:

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- (1) Certification from the applicant that the site upon which the activity or development is proposed is an existing separate and single parcel, owned by the applicant or the client he represents;
 - (2) Certification from a registered professional engineer, architect, or landscape architect that the proposed construction has been adequately designed to protect against damage from the one-hundred-year flood;
 - (3) A statement, certified by a registered professional engineer, architect, or landscape architect, or other qualified person which contains a complete and accurate description of the nature and extent of pollution that might possibly occur from the development during the course of a one-hundred-year flood, including a statement concerning the effect such pollution may have on human life;
 - (4) A statement certified by a registered professional engineer, architect, or landscape architect, which contains a complete and accurate description of the effects the proposed development will have on one-hundred-year flood elevations and flows;
 - (5) A statement certified by a registered professional engineer, architect, or landscape architect, which contains a complete and accurate description of the kinds and amounts of any loose buoyant materials or debris that may possibly exist or be located on the site below the one-hundred-year flood elevation and the effects such materials and debris may have on one-hundred-year flood elevations and flows;
 - (6) The appropriate component of the Department of Environmental Resources' "Planning Module for Land Development";
 - (7) Where any excavation or grading is proposed, a plan meeting the requirements of the Department of Environmental Resources to implement and maintain erosion and sedimentation control;
 - (8) Any other applicable permits such as, but not limited to, a permit for any activity regulated by the Department of Environmental Resources under Section 302 of Act 1978-166; and
 - (9) An evacuation plan which fully explains the manner in which the site will be safely evacuated before or during the course of a one-hundred-year flood.
4. Application Review Procedures. Upon receipt of an application for a special permit by the Borough of Royersford, the following procedures

shall apply in addition to all other applicable permit procedures which are already established:

- A. Within three working days following receipt of the application, a complete copy of the application and all accompanying documentation shall be forwarded to the County Planning Commission by registered or certified mail for its review and recommendations. Copies of the application shall also be forwarded to the Borough of Royersford Planning Commission and the Borough Engineer for review and comment.
 - B. If an application is received that is incomplete, the Borough shall notify the applicant in writing, stating in what respects the application is deficient.
 - C. If the Borough decides to disapprove an application, it shall notify the applicant, in writing, of the reasons for the disapproval.
 - D. If the Borough approves an application, it shall file written notification, together with the application and all pertinent information, with the Department of Community Affairs, by registered or certified mail, within five working days after the date of approval.
 - E. Before issuing the special permit, the Borough shall allow the Department of Community Affairs 30 days, after receipt of the notification by the Department, to review the application and decision made by the Borough.
 - F. If the Borough does not receive any communication from the Department of Community Affairs during the thirty-day review period, it may issue a special permit to the applicant.
 - G. If the Department Community Affairs should decide to disapprove an application, it shall notify the Borough, and the applicant, in writing, of the reasons for disapproval, and the Borough shall not issue the special permit.
5. Technical Requirements for Development Requiring a Special Permit. In addition any other applicable requirements, the following provisions shall also apply to the activities requiring a special permit. If there is any conflict between any of the following requirements and any otherwise applicable provision, the more-restrictive provision shall apply.
- A. No application for a special permit shall be approved unless it can be determined that the structure or activity will be located, constructed and maintained in a manner which will:
 - (1) Fully protect the health and safety of the general public and any occupants of the structure. At a minimum, all new structures shall be designed, located and constructed so that:

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- (a) The structure will survive inundation by waters of the one-hundred-year flood without any lateral movement or damage to either the structure itself, or to any of its equipment or contents below the one-hundred-year flood elevation.
 - (b) The lowest floor elevation (including basement) will be at least 1 1/2 feet above the one-hundred-year flood.
 - (c) The occupants of the structure can remain inside for a indefinite period of time and be safely evacuated at any time during the one-hundred-year flood.
 - (2) Prevent any significant possibility of pollution, increased flood levels or flows, or debris endangering life and property.
 - (3) All manufactured homes to be placed or substantially improved within FEMA's Zones A1-30, AH, and AE shall be elevated on a permanent foundation so that the lowest floor of the manufactured home is at or above the base flood elevation and shall be securely anchored to an adequately anchored foundation system in accordance with the provisions of § 412 of Part 4 of this chapter.
 - B. All hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc. shall be submitted in sufficient detail to allow a thorough technical review by the Borough and the Department of Community Affairs.
6. Except for possible modifications of the freeboard requirements involved, no variance shall be granted for any of the other requirements pertaining specifically to developments regulated by special permit under § 1517 hereof.

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Part 16
OFF-STREET PARKING AND LOADING

§ 1601. Required Off-Street Parking Facilities. [Ord. 624, 9/13/1983, §§ 1500-1500.15; as amended by Ord. 632, 6/14/1984, § 1; and by Ord. 728, 7/28/1992, § 37]

Any building or other structure erected, altered, or used, and any lot used or occupied for any of the following purposes shall be provided with the minimum number of off-street parking spaces set forth below, together with adequate driveways, parking aisles, and street access. The required parking spaces shall measure at least nine feet wide by 18 feet long and shall be surfaced so as to be usable for parking at all time.

- | | |
|---|--|
| 1. Dwelling | 2 spaces per dwelling unit except as noted in the ARU district |
| 2. Housing for the Elderly or Personal Care Facilities | 1/2 space per dwelling unit |
| 3. Retail Store, Retail Shops, and Personal Service Shops | 1 space per 250 square feet of gross floor area |
| 4. Restaurant | 1 space per 80 square feet of gross floor area |
| 5. Office | 1 space per 275 square feet of gross floor area |
| 6. Bank or Other Financial Institution | 1 space per 275 square feet of gross floor area |
| 7. Medical/Dental Office or Office or Similar Practitioner | 5 spaces per first treatment room plus 3 spaces for each additional treatment room |
| 8. Hotel, Motel, Rooming House or Tourist Home | 1 spaces per rental unit plus 1 space per employee on the largest shift |
| 9. Theater, Auditorium, Indoor Recreational Facility, or Other Place of Public Assemblage | 1 space per four seats (or stacked chairs) plus 1 space per employee on largest shift |
| 10. Community Center, Library, Museum | 1 space per 800 square feet of floor area devoted to public use |
| 11. Institutional Home, Nursing Home | 1 space per 10 occupants plus 1 space per employee on largest shift |
| 12. Club | 1 space per 15 square feet of floor area devoted to public use plus 1 space per employee on largest shift |
| 13. Day Care Facility | 1 space per employee |
| 14. Industry or Warehouse | 1 space per 1,000 square feet of gross floor area or 1 space per employee on largest shift, whichever is greater |

15. Other Commercial Uses not Listed Above 1 space per 250 square feet of gross floor area

§ 1602. Limits on Reduction of Parking; Central Business District Parking. [Ord. 624, 9/13/1983, § 1501; as amended by Ord. 883, 8/9/2016]

Off-street parking facilities existing at the effective date of this chapter or off-street parking facilities provided to comply with the provisions of this chapter shall not subsequently be reduced below the requirements of this chapter, except in accordance with the requirements of § 1605 herein.

1. CB District. If a pedestrian entrance to the use(s) being served is located within a 400 feet radius of an existing public parking lot or structure of more than 30 parking spaces, then the following reductions in required off-street parking spaces shall be allowed within buildings that existed as of the date of enactment of this section: **[Added by Ord. 883, 8/9/2016]**
 - A. Off-street parking shall not be required for commercial uses within such an existing building.
 - B. Off-street parking shall not be required for a maximum of one or two upper-story dwelling units above the street frontage within such an existing building.

§ 1603. Location of Facilities. [Ord. 624, 9/13/1983, § 1502; as amended by Ord. 728, 7/28/1992, § 38]

In the R-1, R-2 and R-4 Residence District, in the O-R Office Residence District, and in the CB Central Business District, no off-street parking facilities shall be permitted in front yard areas. In the R-3 Residence District, off-street parking facilities shall be permitted in front yard areas only after the applicant has demonstrated that it is not physically feasible to locate these facilities elsewhere on the lot. Driveways shall be permitted in front yards provided they are not used for off-street parking.

§ 1604. Mixed or Multiple Uses. [Ord. 624, 9/13/1983, § 1503]

In the case of mixed or multiple uses within a single structure or building or on the same lot, including permitted accessory uses, the amount of off-street parking required shall be determined by the sum of the requirements of the various uses computed separately in accordance with § 1601 herein, except where the applicant(s) qualifies under the provisions of § 1605, below.

§ 1605. Common Parking Facilities. [Ord. 624, 9/13/1983, §§ 1504-1504.5; as amended by Ord. 728, 7/28/1992, § 39]

The owners of two or more adjacent lots may elect to share common parking facilities according to the following requirements:

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1. An application to do so shall be filed jointly by all affected lot owners with the Borough Zoning Officer and shall be accompanied by a plan showing the location of all proposed parking, parking reserve areas, and accessways as well as all buildings which shall use the common parking area.
2. The aggregate number of parking areas required for all uses which share the common parking area may be reduced up to a maximum of 30% if the applicants can demonstrate that a greater efficiency is achieved by joint use of such a facility or that other circumstances, such as complimentary hours of operation, warrant such reduction.
3. For purposes of determining the number and location of accessways pursuant to § 1609 herein, the entire area devoted to common parking shall be considered as one parking lot.
4. Some portion of the common parking area shall be within 200 feet of an entrance, regularly used by patrons, into each use served by the common parking area.
5. An application to permit shared common parking shall be contingent upon each lot owner obtaining any necessary access easements and right-of-way.

§ 1606. Parking Reserve Area. [Ord. 624, 9/13/1983, §§ 1505-1505.5; as amended by Ord. 728, 7/28/1992, § 40]

Parking areas for nonresidential uses, including common parking facilities shared by two or more adjacent uses pursuant to § 1605 herein, may include a designated "parking reserve area" according to the following requirements:

1. The application shall be filed by the affected lot owner(s) with the Borough Zoning Officer and shall be accompanied by a plan showing the location of all proposed paving, parking reserve areas, accessways, and buildings.
2. A maximum of 35% of the aggregate number of spaces required according to the provisions of § 1601 herein, may be incorporated in a parking reserve area if the applicant(s) can demonstrate that the demand for parking generated by the proposed development will be less than that required.
3. Regardless of the number of spaces actually developed, a parking area to accommodate the aggregate number of parking spaces normally required shall be fully designed, including stormwater control facilities, and the area which is proposed to be eliminated shall be shown as "parking reserve area." Such area shall be required to be developed as designed if and when the Borough Council determines.

4. The parking area shall be so designed that the maximum impervious coverage would not be exceeded in the event the entire parking area, including reserve areas, is subsequently developed.
5. The parking reserve area so created shall be utilized as green area set aside for the growing of vegetation, including trees, bushes, grass, flowers, plants. Green area may include walkways for nonvehicular traffic only. The green area so created shall not constitute a portion of the green areas otherwise required by this chapter or any other ordinance or regulation of the Borough.

§ 1607. Design Requirements for Nonresidential Parking Lots. [Ord. 624, 9/13/1983, §§ 1506-1506.7; as amended by Ord. 728, 7/28/1992, § 41]

All nonresidential parking lots shall be operated and maintained in accordance with the following provisions:

1. They shall not be used for the sale, repair or dismantling of any vehicles, equipment, materials, or supplies; except where such uses are incidental to a permitted nonresidential use as specified in this chapter.
2. They shall be properly graded for drainage, surfaced with concrete, asphaltic concrete, asphalt, or any dust-free surfacing approved by the Borough Engineer and maintained in good condition, free from weeds, dust, trash, or debris.
3. They shall be provided with entrances and exits so located to minimize traffic congestion and the effect of headlight glare.
4. They shall be provided with wheel or bumper guards so located and arranged that no part of any parked vehicles will extend beyond the boundaries of the parking lot.
5. Lighting facilities shall be so arranged that they neither unreasonably nor unnecessarily disturb occupants of adjacent residential properties nor interfere with traffic by either location or glare.
6. A planting strip at least five feet in width shall be provided along each property line which is opposite or adjacent to a residential district or structure, on which shall be planted hedge, evergreens, or other suitable shrubbery, so arranged as to minimize noise, glare and dust from all parking facilities.
7. There shall be no more than one attendant shelter building containing not more than 50 square feet of gross floor area and set back a distance of not less than 20 feet from any boundary of the parking lot which abuts a residential district.

§ 1608. Required Off-Street Loading and Unloading Space. [Ord. 624, 9/13/1983, §§ 1507-1507.3]

In any district adequate off-street space for the loading and unloading of goods and materials shall be provided, taking into consideration the size and proposed use of the building or premises. The adequacy of such loading and unloading spaces shall be determined by the governing body on the basis of the following factors:

1. Ingress and egress to adjacent street, alley, lane or driveway.
2. Location in relation to vehicular circulation in adjacent areas.
3. The nature of the establishment and its required schedule of loading and unloading. Two or more establishments may be permitted to use a common loading and unloading facility provided the Borough Council deems it necessary or advisable.

§ 1609. Access Regulations. [Ord. 624, 9/13/1983, §§ 1508-1508.5]

The following access regulations shall apply to all lots developed for multifamily residential or nonresidential purposes:

1. Driveways leading onto a public street shall be paved and shall measure no less than 12 feet in width for one-directional access or 24 feet in width for two-directional access.
2. For lots other than corner lots which have less than 100 feet of frontage, a maximum of one accessway to a public street shall be permitted.
3. For any lot or group of two or more lots which share parking facilities pursuant to the requirements of § 1605 herein, no more than two points of access may be permitted onto each street on which the lot(s) abut.
4. Corner lots, or groups of lots with shared parking that front onto two streets, shall not have two points of access onto one street and none on the other, unless the placement of an access point onto the other street would create a traffic hazard or unduly impact existing residential development. Two points of access onto one street shall be permitted if one or two points of access are provided onto the other street. In addition, where the lot or group of lots front onto two streets of differing classification, as defined in the Borough Subdivision and Land Development Regulations, the developer may elect to place two points of access on the street of lesser classification, with none on the other fronting street, if the lot or group of lots has more than 100 feet of frontage on the road of lesser classification and so doing would not create a hazardous traffic situation or unduly impact existing residential development.
5. Driveways shall be spaced a minimum of 50 feet on center on any lot or group of two or more lots which share parking facilities pursuant to the

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requirements of § 1605 herein. In addition, driveways shall be spaced a minimum of 50 feet on center from existing driveways on adjacent properties whenever feasible. When this is not possible, common drives and/or the use of common parking facilities shall be encouraged.

**Part 17
SIGNS**

§ 1701. Purpose. [Ord. 624, 9/13/1983, §§ 1600-1600.4]

It is hereby declared to be the intent of this Part 17 to provide for the regulation of signs in the Borough of Royersford as a proper exercise of the police powers granted to the municipality by state law to protect the public health, safety, and welfare in accordance with the following objectives:

1. To control the size, location, and illumination of signs in the Borough in order to reduce hazards to pedestrian and vehicular traffic.
2. To encourage signs which are well designed and pleasing in appearance and to provide incentive and latitude for variety, in order to enhance the economic value as well as the visual character of the residential and business community.
3. To establish criteria designed to encourage signs which are compatible with their surroundings, appropriate to the type of activity to which they pertain, expressive of the identity of individual proprietors, and legible in circumstances in which they are seen.
4. To provide for the removal of signs which constitute a hazardous or blighting influence.

§ 1702. Additional Definitions. [Ord. 624, 9/13/1983, §§ 1601-1601.3]

The following definitions shall control with respect to any sign-related question. In the event of a conflict between these definitions and any definitions contained in Part 2 of this chapter, those in Part 2 shall control with the exception of sign-related questions.

1. Building Frontage. For the purposes of calculating the allowable total sign area, building frontage is defined as follows:
 - A. The linear footage of building face which serves as a principal approach to a building and which building face fronts upon a public street, a shopping center driveway, parking area or pedestrian mall or walkway.
 - B. For corner lots, such footage may be calculated separately for the principal approach and one adjacent face, if such face also fronts on a public street, a shopping center driveway, public parking area, pedestrian mall or public walkway. A sign area calculated for each frontage shall be erected on that frontage only and shall not be increased by the sign area calculated for another frontage.
2. Lot, Corner. A lot which abuts on at least two intersecting public streets. In the case of a shopping center, driveways, public parking areas, pedestrian malls and public walkways shall be considered public

streets for the purpose of this section. Frontage upon a service driveway to an unloading area shall not be considered in determining corner lot status.

3. Sign Area. The area of the largest single face of the sign within a perimeter which forms the outside shape, including any frame, and forms an integral part of the display, but excluding the necessary supports or uprights on which the sign may be placed, subject to the following:
 - A. For double-faced signs or V-type signs, the interior angle of which does not exceed 45°, only one face shall be applicable in computing sign area; and
 - B. For V-type signs, the interior angle of which exceeds 45°, both faces shall be applicable in computing sign area; and
 - C. The area of an irregularly shaped sign, including signs consisting of separate modules, figures or letters, shall be deemed to be the total square footage of the smallest single square or rectangle into which all of the separate modules, figures, or letters which comprise the irregularly shaped and/or modular sign would fit.

§ 1703. General Regulations. [Ord. 624, 9/13/1983, §§ 1602-1602.5]

The following regulations shall apply to signs in all districts:

1. Placement of Signs. All signs shall be placed with regard to public safety and shall be governed by the following regulations:
 - A. No sign shall be erected or maintained so as to prevent free ingress and egress to or from any door, window or fire escape.
 - B. Only instructional signs shall be attached to a standpipe or fire escape.
 - C. No sign shall be placed in such a position as to endanger pedestrians or traffic on a street by obscuring a clear view or by confusion with official street signs or signals by virtue of position or color.
2. Sign Height. No sign which is affixed, painted or otherwise represented upon a building shall extend above the building height as defined in § 202 of this chapter, or above the 35 feet, whichever is less. No freestanding or ground sign shall extend above a height of 25 feet.
3. Projection of Signs. No sign affixed parallel to a building facade shall project more than 18 inches beyond the building line, and the lower edge of any projecting sign shall be not less than 10 feet above the finished grade. For the purpose of administering this section, where a building has a canopy or marquee construction as an integral part of said building, the front line of said canopy or marquee shall be interpreted as being the face of the building.

4. Sign Movement and Illumination. Where permitted, the illumination of signs shall be subject to the National Electrical Code and to the following regulations:
 - A. No sign shall have flashing, intermittent, animated or revolving illumination.
 - B. External floodlighting of any property must be so shielded that the source of light shall not be visible from any point off the lot on which the sign, building, structure or area being illuminated is situated, and so that only the sign, building, structure or area is illuminated thereby.
5. Sign Maintenance. Every sign shall be constructed of durable materials, using noncorrosive fastenings, shall be structurally safe and erected or installed in strict accordance with the Borough Building Code and shall be maintained in a safe condition and good repair at all times.

§ 1704. Incidental Signs. [Ord. 624, 9/13/1983, §§ 1603-1603.3]

Signs erected off the public right-of-way for the convenience or safety of the public while on the subject's private property, containing no advertising, shall be permitted in all zoning districts, subject to the following:

1. In all residential districts, such signs shall be permitted not to exceed one square foot in area subject to the approval of the Zoning Officer.
2. In all other zoning districts, such signs shall be permitted not to exceed four square feet in area subject to the approval of the Zoning Officer.
3. All such signs shall be spaced no less than 50 feet apart unless special conditions warrant less separation, subject to the approval of the Zoning Officer.

§ 1705. Temporary Signs. [Ord. 624, 9/13/1983, §§ 1604-1604.4]

The following regulations shall apply to temporary signs in all districts or as indicated:

1. Real Estate Signs. Signs advertising the sale, rental, or other conveyance of the entire premises or a portion of the premises on which they are erected shall be permitted in all zoning districts while a property is actually for sale or rent. All such signs shall be unlighted and shall be removed promptly when the property is no longer available for sale, or rent, or in the case of new construction of multiple dwelling or occupancy units, when 95% of the proposed units or floor space is no longer available for sale or rent. Such signs shall be limited to one per street frontage and shall be limited in size as follows:
 - A. In the R-1, R-2, R-3, and R-4 Residence Districts, the O-R Office Residence District and the IN — Institutional District:

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- (1) For properties less than two acres, six square feet.
 - (2) For properties of two to five acres, 16 square feet.
 - (3) For properties of five or more acres, 24 square feet.
 - B. In all other districts:
 - (1) For properties less than five acres, 16 square feet.
 - (2) For properties of five to 15 acres, 32 square feet.
 - (3) For properties of 15 or more acres 48 square feet.
2. Contractors' Signs. Temporary signs which identify only the name, address, phone number and specialty of contractors, mechanics, painters, and artisans, placed on the premises where the work is performed shall be permitted in all districts. All such signs shall be unlighted, and shall be promptly removed when the contractor has completed or otherwise discontinued work on the premises, and shall be limited in size as follows:
- A. In the R-1, R-2, R-3, R-4 Residence Districts, the O-R Office Residence District, and the IN — Institutional District:
 - (1) For new construction, additions, renovations, etc., of individual residential properties, one sign per contractor, limited to six square feet.
 - (2) For two or more contractors, signs shall be mounted on a common surface, each sign not to exceed six square feet, total sign area not to exceed 32 square feet.
 - B. In all other districts:
 - (1) For new construction, additions, renovations, etc., of individual nonresidential properties, one sign per contractor, limited to 12 square feet.
 - (2) For two or more contractors, signs shall be mounted on a common surface, each sign not to exceed 12 square feet, total sign area not to exceed 64 square feet.
3. Directional Signs. Off-site temporary directional signs providing traffic direction to the location of special events will be permitted only when approved by the Zoning Officer who will determine number, size, posted duration and escrow fee guaranteeing removal of such directional signs after the special event has ended. Signs indicating the location and direction of a premises available for or in the process of development, but not erected upon such premises, and having inscribed thereon the name of the owner, developer, builder, or agent, may be erected or maintained, provided that:
- A. The size of any such sign is not in excess of six square feet;

- B. Not more than one such sign is erected on each street frontage.
- 4. Other Temporary Signs. Other temporary signs, in addition to those discussed in § 1705(1) through 1705(4) herein shall be permitted according to the following provisions:
 - A. Such signs may include the following:
 - (1) Signs which advertise public or community events, political events or campaigns, charitable fund-raising events, conventions or any similar notice of general public interest.
 - (2) Signs which advertise public auctions for the disposal of real estate, property or merchandise.
 - (3) Business or commercial signs for advertising, on the premises, such events that are considered to be necessary for the conduct of business beyond the normal day-to-day operations such as grand openings, "going out of business," bankruptcy, or fire sales (not including signs advertising periodic specials or other ordinary incentives to purchase or participate).
 - B. All such signs shall be removed within 10 days after the advertised event has occurred.

§ 1706. Signs Permitted in Residential Districts. [Ord. 624, 9/13/1983, §§ 1605-1605.5; as amended by Ord. 883, 8/9/2016]

The following types of signs shall be permitted in the R-1, R-2, R-3, R-4 and R-5 Residence Districts, the IN — Institutional District, and the O-R Office Residence District:

1. Official street and traffic signs and any other sign required by law.
2. One professional, home occupation or name sign per residence, indicating the name, profession or activity of the occupant of the residence, which sign shall not exceed one square foot.
3. One identification sign or bulletin board per street frontage of a school, college, church, hospital, sanitarium, municipal building, farm, estate, club or any permitted use other than a dwelling, not exceeding 24 square feet in area.
4. Trespassing signs indicating private ownership of a driveway or property not to exceed one square foot in size, which signs shall be spaced at intervals of not less than 100 feet apart on street frontage and not less than 50 feet apart on other boundaries.
5. For multifamily developments:
 - A. Each property may have one sign on each street frontage, containing only the name and/or address of the property, each sign not to exceed 24 square feet.

- B. With more than one building on a property, each building may have one name and/or number sign not to exceed six square feet.
6. A principal office use in the R-5 District may also include A) a maximum of one freestanding sign of 10 square feet on each of two sides and a maximum total height of six feet above the ground level, and B) one-sided signs may be attached to the exterior building walls that have a maximum combined total sign area of 20 square feet and a maximum total height of 15 feet. Electronically changing signs shall not be allowed in the R-5 District.

**§ 1707. Signs Permitted in Commercial and Industrial Districts.
[Ord. 624, 9/13/1983, §§ 1606-1606.5; as amended by Ord. 741, 2/
28/1995, §§ 2, 3; and by Ord. 821, 1/13/2009]**

The following types of signs shall be permitted in the HB Highway Business, CB — Central Business, and I — Industrial Districts:

1. Individual Business Signs. Individual business signs are permitted as follows:
 - A. One or more signs affixed or otherwise represented upon a building, having a maximum total area of two square feet for every linear foot of building frontage, subject to a maximum sign area of 32 square feet.
 - B. Corner lots: one more additional sign affixed or otherwise represented upon the additional street frontage of a building, having a maximum total area of one square foot for every linear foot of building frontage on the additional side, subject to a maximum sign area of 32 square feet.
 - C. One ground or free-standing sign per street frontage in addition to the building signs permitted in subsections (A) and (B), subject to the provisions of the § 1707(2); provided, however, that in a shopping center in a HB — Highway Business District, CB — Central Business District, or I — Industrial District, consisting of two or more retail sales or service establishments constructed, erected or operated under a common development plan, only one ground or free-standing sign for each street frontage shall be allowed identifying the shopping center and the individual tenants, without further advertising. Such ground or free-standing sign shall not exceed 20 feet in height and shall not exceed 100 square feet in total area for the primary street frontage entrance and 50 square feet for any secondary entrance, and such signs shall be set back a minimum of 15 feet from the street line and a minimum of 25 feet from the nearest street access driveway intersection.
2. Ground Signs. Individual ground or freestanding signs shall be subject to the following restrictions:
 - A. The area of such signs may not exceed 32 square feet.

- B. Such signs may not exceed eight feet in height, except that up to 25 feet in height may be permitted if the sign is set back a minimum of five feet from the street line to a maximum sign area of 32 square feet.
3. Multiple Directory Signs. A sign listing the names of various business or professional establishments within a defined contiguous area to be erected primarily as a service to the motoring or the pedestrian public shall be permitted, subject to the following regulations:
 - A. Such sign shall be located on a property serviced by the sign.
 - B. Such signs shall be ground signs only.
 - C. Such signs shall be limited in number to one per vehicular entrance or a total of not more than three per development.
 - D. Multiple directory signs may list only a name, address and primary product or service of each firm or business, and may contain a graphic directory (street map) to assist in locating destinations.
 - E. The respective permitted areas of information on multiple directory signs shall be limited to no more than three square feet per firm listed, no more than 10 square feet per graphic directory and not more than three square feet for a general sign title, provided that the total sign area does not exceed 36 square feet.
 - F. Multiple directory signs shall be located a minimum of 10 feet from the street curb.
 - G. Multiple directory signs shall be located a minimum of 25 feet from the nearest paved edge of any street access driveway intersection.
 - H. Multiple directory signs shall not extend above a height of eight feet.
 4. Overhanging Signs. A sign attached to and approximately perpendicular to a wall of a building or other structure shall be permitted in the CB — Central Business, HB — Highway Business, OR — Office Residence, and I — Industrial Districts, subject to the following provisions:
 - A. No building or structure shall have more than one overhanging sign per street frontage.
 - B. The maximum area of an overhanging sign shall be 16 square feet per side. The total area of both sides of the overhanging sign shall be included in the calculation of total sign area permitted under the provisions of this chapter.
 - C. The lowest part of any overhanging sign or of any support thereof which extends over any street, sidewalk, alley or other public way in the Borough shall be at least 10 feet above the level of the walk

or public way over which it extends; and the highest part of any such overhanging sign or support thereof which extends over any street, sidewalk, alley or other public way in the Borough, shall not exceed a maximum height of 20 feet from ground level to the top of the sign; provided, however, that in no event shall the top of the sign exceed the level of the roof line of the building to which it is attached.

- D. No overhanging sign or its attachments shall extend beyond the building for a distance greater than six feet measured perpendicularly from the face of the building; provided, however, that in no event shall a sign or its attachments extend beyond 75% of the sidewalk width.
- E. Any overhanging sign extending over any public sidewalk, street, alley or other public place must be securely fastened and constructed so that there will be no danger of the same being dislodged by wind or falling from any other cause. Any overhanging sign shall be anchored so as to withstand gusts of wind of 100 miles per hour or sustained winds of 70 miles per hour, as certified by the Borough Engineer. No sign shall be erected or maintained extending over any public sidewalk, street, alley or other public place in such location or position so as to obstruct the view of any traffic light or any other traffic sign or signal or so as to block any reasonable sight lines for streets, sidewalks or driveways or so as to cause any confusion with any traffic control device by reason of its color, location, shape or other characteristic. No overhanging sign shall be erected so as to obstruct any door, window, or fire escape of any building or interfere with the use of the side-walk.
- F. Any person, firm or corporation maintaining an overhanging sign over any street, sidewalk, alley or other public way in the Borough, pursuant to the terms of this chapter, shall indemnify the Borough of Royersford for any loss or damage or liability that may result from the construction or maintenance of such sign and shall maintain adequate liability insurance to insure such persons, firm or corporation and the Borough or Royersford from any loss, damage or liability that may result from the construction and maintenance of an overhanging sign.

§ 1708. Permits and Inspection. [Ord. 624, 9/13/1983, §§ 1607-1607.4]

A sign permit shall be required for all signs unless otherwise provided. The issuance of such permit shall be subject to the following regulations:

1. Applications for sign permits shall be filed on forms furnished by the Zoning Officer and shall be accompanied by detailed plans and specifications any other information deemed necessary by the Zoning Officer to determine the location and details of construction of such sign.

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2. No permit to erect a sign shall be issued until the required fee has been paid to the Zoning Officer, which fee shall be established from time to time by resolution of the Borough Council.
3. It shall be the duty of the Zoning Officer to inspect any sign proposed to be erected or otherwise affixed in the Borough in order to determine that such sign shall be in compliance with the terms and provisions of this chapter. Upon compliance with the terms and provisions of this chapter and payment of the permit fee, the Zoning Officer shall issue a permit to the applicant to erect the proposed sign which shall be in accordance with the plans submitted to the Zoning Officer. After installation, the Zoning Officer shall inspect the sign to assure that the installation has been in accordance with the plans and in accordance with proper construction practices. If any such sign is found to obstruct the view of any motorist or pedestrian of any traffic light or other traffic sign or signal or otherwise fails to satisfy the requirements of this chapter, the owner of the sign shall be notified by the Zoning Officer and shall make such changes as are necessary to comply with the terms and provisions of this chapter. If the condition of the sign is not corrected to comply with the terms and provisions of this chapter within 10 days after such notice, the sign may be removed by the Zoning Officer.
4. Upon a change of use on any property, a sign must be removed or painted over within 60 days after the change in occupancy.

§ 1709. Nonconforming Signs. [Ord. 624, 9/13/1983, § 1608]

Any lawful sign existing prior to the effective date of this chapter, but which fails to comply with the provisions of this Part 17, shall be deemed nonconforming and shall be subject to the provisions of Part 20 herein.

§ 1710. Exemptions. [Ord. 624, 9/13/1983, § 1609]

The provisions of this chapter shall not apply to the official, federal, state or municipal signs erected within Royersford Borough. In addition, the trade names, emblems or directions on service facilities or product dispensers, including but not limited to gasoline pumps, telephone booths and vending machines, shall not be considered as a sign when such trade name, emblem or single group of words or symbols are not more than three square feet in area.

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Part 18
PARABOLIC OR DISH-TYPE ANTENNAE

§ 1801. Purpose. [Ord. 659, 1/14/1986, §§ 1600A-1600A.3]

In view of the size and weight of parabolic or dish-type antennae, it is hereby declared to be the intent of this Part 18 to provide for the regulation of parabolic or dish-type antennae in the Borough of Royersford as a proper exercise of the police powers granted to the municipality by state laws to protect the public health, safety and welfare in accordance with the following objectives:

1. To control the size, location and number of antennae in the Borough, for safety and other reasons.
2. To encourage antennae which are well designed and pleasing in appearance in order to enhance the economic value as well as the visual character of the residential and business community.
3. To establish criteria designed to encourage antennae which are compatible with their surroundings.

§ 1802. Additional Definitions. [Ord. 659, 1/14/1986, §§ 1601A-1601A.1]

The following definition shall control with respect to any antenna-related question.

PARABOLIC OR DISH-TYPE ANTENNA — Any concave, circular or dish-shaped device designed for receiving communications or television signals from a satellite.

§ 1803. General Regulations. [Ord. 659, 1/14/1986, §§ 1602A-1602A.3; as amended by Ord. 753, 7/8/1997, § 1]

1. Placement of Parabolic or Dish-Type Antennae. All parabolic or dish-type antennae shall be placed in accordance with the following regulations:
 - A. No parabolic or dish-type antenna shall be installed or constructed in a front or side yard.
 - B. Every parabolic or dish-type antenna shall be set back from all property lines of the lot on which it is installed or constructed a minimum of 10 feet.
 - C. Parabolic or dish-type antennae shall not be mounted on the exterior front wall of a building.
 - D. Parabolic or dish-type antennae may be roof-mounted, or mounted on the exterior side or rear walls of a building, only in accordance with the requirements of this chapter.

2. Size Requirements.
 - A. No parabolic or dish-type antenna shall be installed or erected which has a height in excess of 13 feet.
 - B. No parabolic or dish-type antenna shall be installed or erected which has a diameter in excess of 10 feet.
 - C. Except in the case of roof mounting, or mounting on an exterior side or rear wall of a building, all parabolic or dish-type antennae shall be mounted so that the center of the antenna is no higher above ground level than 1/2 the diameter of the circle of the antenna.
 - D. In the case of roof mounting, all parabolic or dish-type antennae shall be no larger than 27 inches in diameter, shall be mounted along the rear edge of the building, and shall be set back from the edge of the roof a minimum of 10 feet.
 - E. In the case of mounting on an exterior side or rear wall of a building, all parabolic or dish-type antennae shall be no larger than 27 inches in diameter.
3. Screening Requirements. Except in the case of roof mounting, or mounting on an exterior side or rear wall of a building, each parabolic or dish-type antenna shall be screened from view by a six-foot high wood or masonry fence or by natural plants or trees of equal minimum height, so planted as to provide maximum screening; provided, however, that any fence shall comply with the applicable ordinances of the Borough including, but not limited to, § 409 of this chapter.

§ 1804. Permits and Inspection. [Ord. 659, 1/14/1986, §§ 1603A-1603A.3; as amended by Ord. 715, 10/30/1990]

A permit shall be required for all parabolic or dish-type antennae. The issuance of such permit shall be subject to the following regulations:

1. Applications for parabolic or dish-type antenna permits shall be filed on forms furnished by the Zoning Officer and shall be accompanied by detailed plans and specifications and any other information deemed necessary by the Zoning Officer to determine the location and details of installation of such antenna.
2. No permit to install a parabolic or dish-type antenna shall be issued until the required fee has been paid to the Zoning Officer, which fee shall be established from time to time by the Borough Council, and which may be amended from time to time by resolution by the Borough Council.
3. It shall be the duty of the Zoning Officer to inspect any parabolic or dish-type antenna proposed to be erected in the Borough in order to determine that such antenna shall be in compliance with the terms and

provisions of this chapter. Upon compliance with the terms and provisions of this chapter and payment of the permit fee, the Zoning Officer shall issue a permit to the applicant to erect the proposed antenna which shall be in accordance with the plans submitted to the Zoning Officer. After installation, the Zoning Officer shall inspect the antenna to assure that the installation has been in accordance with the plans. If any such antenna fails to satisfy the requirements of this chapter, the owner of the antenna shall be notified by the Zoning Officer and shall make such changes as are necessary to comply with the terms and provisions of this chapter. If the condition of the antenna is not corrected to comply with the terms and provisions of this chapter within 10 days after such notice, the antenna may be removed by the Zoning Officer.

§ 1805. Nonconforming Antennae. [Ord. 659, 1/14/1986, § 1604A]

Any lawful parabolic or dish-type antenna existing prior to the effective date of this chapter, but which fails to comply with the provisions of this Part 18, shall be deemed nonconforming and shall be subject to the provisions of Part 21 herein.

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Part 19
ADMINISTRATION

§ 1901. Zoning Officer. [Ord. 624, 9/13/1983, § 1700]

The provisions of this chapter shall be enforced by an agent, to be appointed by the Borough Council, who shall be known as the Zoning Officer. He shall be appointed by the Borough Council and shall receive such fees or compensation as the Borough Council may, by resolution, provide. He shall not hold any elective office in the municipality.

§ 1902. Duties and Powers. [Ord. 624, 9/13/1983, §§ 1701-1701.8]

It shall be the duty of the Zoning Officer and he shall have authority to:

1. Keep a record of all plans and applications for permits, and all permits issued with notations as to special conditions attached thereto. All records shall be open for public inspection.
2. Review applications for permits for erections or alterations of structures or changes of use, determine whether such construction or use is in accordance with the general requirements of this chapter, all other applicable ordinances, and with the laws and regulations of the Commonwealth. The Zoning Officer shall issue no permit unless it conforms with the applicable ordinances, statutes, and regulations.
3. Conduct inspections and surveys to determine compliance or noncompliance with the terms of this chapter. In carrying out such surveys, the Zoning Officer or his representative may enter upon any land or building within the Borough.
4. Make written orders requiring compliance with the provisions of this chapter to be served personally or by registered mail.
5. Institute proceedings in courts of proper jurisdiction for the enforcement of provisions of this chapter.
6. Maintain a map available for public inspection showing the current zoning classification of all land within the Borough.
7. Maintain a register available for public inspection showing the identity, location and type of nonconforming uses within the Borough.
8. Participate in all proceedings before the Zoning Hearing Board; present facts and information to assist the Board in reaching decisions which shall be compatible with this chapter; and have decisions of the Board reviewed in a court of proper jurisdiction when, in the judgment of the Zoning Officer, such a review is desirable or indicated.

§ 1903. Permits. [Ord. 624, 9/13/1983, § 1702; as amended by Ord. 831, 3/30/2010, § 3]

No structure shall be constructed or enlarged in the Borough, or use of any structure changed, until a permit has been secured from the Zoning Officer. Upon completion of the work authorized by any permit, the applicant for the permit shall notify the Zoning Officer of such completion. No permit shall be considered as complete or as permanently effective until the Zoning Officer has noted on the permit that the work has been inspected and approved as being in conformity with the provisions of this chapter.

§ 1904. Application for Permits. [Ord. 624, 9/13/1983, § 1703]

All applications for permits shall be made in writing by the owner or tenants or authorized agent and shall be filed with the Zoning Officer. The application (1) shall include a statement as to the proposed use of the building; (2) when required by the Zoning Officer, shall be accompanied by a plot plan based upon a plan prepared by a registered engineer or land surveyor, showing the location of the building in relation to all abutting properties and street lines; and (3) shall contain all information necessary to enable the Zoning Officer to ascertain whether the proposed building complies with the provisions of this chapter.

§ 1905. Expiration of Permits. [Ord. 624, 9/13/1983, § 1704]

A permit issued under the authority of this chapter shall expire six months after date of issuance unless the permittee shall have commenced substantial construction or utilization of the property which is the subject of the permit in accordance with the intent thereof within such period.

§ 1906. Appeals. [Ord. 624, 9/13/1983, § 1705]

An appeal from the decision of the Zoning Officer shall be taken within 30 days, according to the procedures described herein.

§ 1907. Appeal and Application Procedure. [Ord. 624, 9/13/1983, §§ 1706-1706.6]

An appeal from a decision of the Zoning Officer or an application for special exception or variance from the terms of this chapter may be filed with the Secretary of the Zoning Hearing Board and shall state:

1. The name and address of the applicant.
2. The name and address of the owner of the property to be affected by the proposed exception or variance.
3. A brief description and location of the property to be affected by such proposed change.
4. A statement of the present zoning classification of the property in question, the improvements thereon, and the present use thereof.

Amended Appendix A-22-b

§ 1907

ZONING

§ 1908

5. A statement of the section of this chapter under which the variance or exception requested may be allowed, and the reasons why it should be granted.
6. A description of the present improvements and additions intended to be made under the application, which description shall include a plot plan of the property to be affected, indicating the location and size of the of lot and size of improvements now erected and those proposed to be erected thereon.

§ 1908. Fees. [Ord. 624, 9/13/1983, § 1707; as amended by Ord. 661, 5/13/1986, § 1]

Fees for permits shall be paid in accordance with a fee schedule to be adopted by resolution or ordinance by the Borough Council. Such fees shall be designed to cover the costs of administering the Zoning Chapter. Each applicant for an appeal, conditional use, special exception or variance, shall at the time of making application, pay a fee in accordance with the aforementioned fee schedule, for the cost of advertising and mailing notices, and such other costs as are required by this chapter and the rules of the Zoning Hearing Board.

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Part 20
ZONING HEARING BOARD

§ 2001. Appointments. [Ord. 624, 9/13/1983, § 1800; as amended by Ord. 704, 9/26/1989, § 12]

The Borough Council shall appoint, by resolution, a Zoning Hearing Board consisting of three members. In addition to the three member appointments, the Borough Council shall appoint two alternate members by resolution.

The Council shall appoint one member to serve until the first day of January following the effective date of this chapter, one member and one alternate to serve until the first day of the second January thereafter, and one member and one alternate to serve until the first day of the third January thereafter; once the initial terms expire, members and alternates may succeed themselves. When a vacancy occurs, the Zoning Hearing Board shall notify the Council, who shall appoint a resident of the Borough to serve for the unexpired portion of the term. The members and alternates of the Zoning Hearing Board shall be removable for cause by the Borough Council upon written charges and after a public hearing. Members of the Board and alternates shall not hold any other office in the Borough, including membership on the Planning Commission. The word "Board" when used in this Part shall mean the Zoning Hearing Board.

§ 2002. Powers and Duties. [Ord. 624, 9/13/1983, §§ 1801-1801.3; as amended by Ord. 704, 9/26/1989, § 13]

The Board shall have the following powers:

1. To hear and decide appeals where it is alleged there is an error in any order, requirement, decision or determination made by an administrative official in the enforcement of this chapter.
2. To hear and decide special exceptions from the terms of this chapter, in such cases are herein expressly provided for, in harmony with the general purpose and intent of this chapter and with power to impose appropriate conditions and safeguards. In granting special exceptions as authorized in this chapter, the Board shall consider the standards included in § 2008 herein.
3. To authorize, upon appeal, in special cases, such variances from the terms of this chapter the Board shall feel will not be contrary to the public interest or the spirit of this chapter where, owing to special conditions a literal enforcement of the provisions of this chapter will result in unnecessary hardship or injustice.
4. To hear and decide substantive challenges to the validity of any land use ordinance, except those brought before the Borough Council as curative amendments.

5. To hear and decide challenges to the validity of a land use ordinance raising procedural questions or alleged defects in the progress of enactment or adoption which challenges shall be raised by an appeal taken within 30 days after the effective date of said ordinance.

§ 2003. Appeals to Board. [Ord. 624, 9/13/1983, § 1802]

In exercising the above-mentioned powers, the Board may reverse or affirm, wholly or in part, may modify the order, requirements, decision or determination appealed from, and may make such order, requirement, decision or determination as ought to be made and, to that end, shall have all the powers of the officer from whom the appeal is taken. Notice of the Board's decision shall forthwith be mailed to the applicant, the property owner and other interested parties.

§ 2004. Rules of Procedure. [Ord. 624, 9/13/1983, § 1803]

The Board shall adopt Rules of Procedure in accordance with provisions of this chapter and the requirements of Act 247, the Pennsylvania Municipalities Planning Code, Part 10, as to the manner of filing appeals, applications for special exceptions or for variances from the terms of this chapter, and as to the conduct of the business of the Board.

§ 2005. Meetings. [Ord. 624, 9/13/1983, § 1804; as amended by Ord. 704, 9/26/1989, § 14]

Meetings of the Board shall be held at the call of the Chairman and at such other times as the Board may determine. The Chairman, or in his absence, the acting Chairman, may administer oaths and compel the attendance of witnesses. All meetings of the Board shall be open to the public. The Board shall keep minutes of its proceedings, showing the vote of each member upon each question, or if absent or failing to vote, indicating such fact, and shall keep records of its examinations and other official actions, all of which shall be immediately filed in the office of the Board and shall be public record. When by reason of absence or disqualification, one or more members is unavailable for a hearing, the Chairman, or in his absence, the acting Chairman, shall designate one or both alternate members of the Board to sit on the Board as may be needed. Any alternate member of the Board shall continue to serve on the Board in all proceedings involving the matter or case for which the alternate was initially appointed until the Board has made a final determination of the matter or case. Designation of an alternate pursuant to this section shall be made on a case-by-case basis in rotation according to declining seniority among all alternatives.

§ 2006. Notice of Hearings. [Ord. 624, 9/13/1983, § 1805; as amended by Ord. 704, 9/26/1989, §§ 15 & 16]

Upon the filing with the Board of an application for a special exception, variance, appeal from any decision or action made by an administrative official enforcing this chapter, or substantive or procedural challenges to

the validity of this chapter, the Board shall fix a reasonable time and place for a public hearing thereon within 60 days of the date of application and shall give notice thereof as follows:

1. By publishing a notice thereof once a week for two successive weeks before the date fixed for the hearing in a newspaper of general circulation in the Borough; the first publication shall not be more than 30 days and the second publication shall not be less than seven days from the date of the hearing.
2. By mailing or serving notice thereof to the parties in interest.
3. By mailing or serving notice thereof to the Borough Council and the Borough Planning Commission.
4. By mailing or serving notice thereof to the Montgomery County Planning Commission.
5. By mailing a notice thereof to every resident or association of residents of the Borough or other interested party who shall have formally registered their names and addresses for this purpose with the Board subsequent to the adoption of this chapter.
6. By mailing or serving notice thereof to the owner or owners, if their residence is known, or to the occupant or occupants of every lot on the same street within 500 feet of the lot or building in question and of every lot not on the same street within 200 feet of the said lot or building; provided that failure to give notice as required by this paragraph shall not invalidate any action by the Board.
7. The notices herein required shall state the location of the building or lot and the general nature of the question involved.
8. By conspicuously posting written notice of the hearing on the affected tract of land at least one week prior to the hearing.

§ 2007. Decision of Zoning Hearing Board. [Ord. 624, 9/13/1983, § 1806-1806.2]

The Zoning Hearing Board shall render a written decision or, when no decision is called for, make written findings on the application within 45 days of the date of public hearing or any continuance thereof. Each decision shall be accompanied by findings of fact and conclusions based thereon together with the reasons therefor.

1. A copy of the final decision, or where no decision is called for, of the findings shall be delivered to the applicant personally or mailed to him not later than the day following its date.
2. To all other persons who have filed their name and address with the Board not later than the last day before the hearing, the Board shall provide by mail or otherwise, brief notice of the decision or findings and

a statement of the place at which the full decision or findings may be examined.

§ 2008. Standards for Zoning Hearing Board Review. [Ord. 624, 9/13/1983, §§ 1807-1807.9]

In any instance where the Zoning Hearing Board is required to consider a variance or special exception from the terms of this chapter in accordance with the provisions of this Part 20, the Board shall, among other things:

1. Consider the suitability of the property for the use desired, assuring itself that the proposed change is consistent with the spirit, purpose and intent of this chapter and the adopted Royersford Borough Comprehensive Plan.
2. Determine that the proposed change will not substantially injure or detract from the use of neighboring properties or from the character of the neighborhood and that the use of the property adjacent to the area included in the proposed change or plan is adequately safeguarded.
3. Determine that the proposed change will serve the best interests of the Borough, the convenience of the community (where applicable), and the general welfare.
4. Consider the effect of the proposed change upon the logical, efficient and economical extension of public services and facilities such as public water, sewers, police and fire protection, and public schools.
5. Consider the suitability of the proposed location of an industrial or commercial use with respect to probable effects upon highway traffic, and assure adequate access arrangements in order to protect local roads from undue congestion and hazard.
6. Be guided in its study, review, and recommendation by sound standards of subdivision and land development practice, where applicable.
7. Impose such conditions, in addition to those required, as are necessary to assure that the intent of this chapter is complied with, which conditions may include, but are not limited to, harmonious design of buildings; planting and its maintenance as a sight or sound screen; the minimizing of noxious, offensive or hazardous elements; and adequate standards of off-street parking and loading and sanitation.
8. With respect to a variance, determine that there are special circumstances or conditions, fully described in the findings, applying to the land or buildings for which the variance is sought, which circumstances or conditions are such that the application of the provisions of this chapter would deprive the applicant of the reasonable use of such land or building.
9. Determine that the unique circumstances for which the variance is sought were neither created by the owner of the property, nor were due

to or the result of general conditions in the district in which the property is located.

§ 2009. Advisory Review by Planning Commission. [Ord. 624, 9/13/1983, § 1808]

At least 30 days before the date of hearing required by law for an application for special exception or variance before the Zoning Hearing Board, the Secretary of such Board shall transmit to the Planning Commission a copy of the notice of hearing and other information as may have been furnished by the applicant or the Zoning Officer. Following the public hearing, the Zoning Hearing Board may transmit to the Planning Commission a transcript of the public hearing and any other briefs presented in evidence.

§ 2010. Technical Assistance. [Ord. 624, 9/13/1983, § 1809]

The Zoning Hearing Board in considering any matter within its jurisdiction may consult with the Royersford Borough Planning Commission, the Montgomery County Planning Commission, and any other consultants or groups having expert knowledge of the matter under consideration.

§ 2011. Expiration of Special Exceptions and Variances. [Ord. 624, 9/13/1983, § 1810]

Unless otherwise specified by the Board, a special exception or variance shall expire if the applicant fails to obtain a building permit within six months of the date of authorization thereof.

§ 2012. Appeal to Court. [Ord. 624, 9/13/1983, § 1811]

Any person aggrieved by the decision of the Board may within 30 days thereafter appeal to the Court of Common Pleas of Montgomery County by petition duly verified setting forth the grounds upon which said appeal is taken.

§ 2013. Fees. [Ord. 624, 9/13/1983, § 1812]

Application before the Zoning Hearing Board as provided for in Part 19 herein, shall be accompanied by payment to the Borough in accordance with a fee schedule adopted by resolution of the Zoning Hearing Board and approved by the Borough Council following the enactment of this chapter, or as such schedule may be amended by resolution of the Zoning Hearing Board and approved by the Borough Council.

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Part 21**NONCONFORMING BUILDINGS, STRUCTURES, USES AND LOTS****§ 2101. Nonconforming Buildings, Structures and Uses. [Ord. 624, 9/13/1983, § 1900-1900.7]**

1. Continuation. Any lawful building or other structure, any lawful use of a building or other structure or land, existing on the effective date of this chapter, which does not conform with the provisions of this chapter, shall be considered a lawful nonconforming building, structure or use, and may be continued except as otherwise here provided.
2. Extension. Any lawful nonconforming use of a portion of a building may be extended throughout the building, and any lawful nonconforming building or any building of which a lawful nonconforming use is made may be extended upon the lot occupied by such building and held in single and separate ownership on the effective date of this chapter, provided that the area of such building shall not be increased by more than a total of 25% of the area of such building existing on the date it first became a lawful nonconforming building or a building of which a lawful nonconforming use is made, and provided further that any structural alteration, extension or addition shall conform with all height, area, width, yard and coverage requirements for the district in which is it located, except in the case of a single-family dwelling or other building converted into a dwelling for two or more families when permitted by special exception issued by the Zoning Hearing Board, subject to Part 4, § 418, herein.
3. Change. Any lawful nonconforming use of a building or land may be changed to another nonconforming use of the same classification, which shall thereafter not be subject to any further change except to a conforming use, and for such purpose a building may be extended in accordance with § 2101(2), above. Whenever a nonconforming use of a building or land has been changed to a conforming use, such conforming use shall not thereafter be changed to a nonconforming use.
4. Restoration. Any lawful nonconforming building or other structure which has been involuntarily damaged or destroyed by fire, explosion, flooding, windstorm, or other similar active cause, to an extent of not more than 75% of its fair market value, may be reconstructed in the same location, provided that the reconstructed building or structure shall not exceed the height, area, or volume of the damaged or destroyed building or structure, except as provided in § 2101(2) above, and reconstruction shall begin within one year from the date of damage or destruction and shall be carried on without interruption.
5. Cost Determination. In determining the restoration cost of any structure devoted to a nonconforming use or of a nonconforming structure, the cost of land or any factors other than the cost of the structure itself shall not be included.

6. Abandonment. If a lawful nonconforming use of a building or other structure is abandoned or discontinued for a continuous period of one-year or more, or if a lawful nonconforming use of land is abandoned or discontinued for a continuous period of six months or more, subsequent use of such building or structure or land shall be in conformity with the provisions of this chapter.
7. Building Condemned. A nonconforming building which has been legally condemned shall not be rebuilt or used except in accordance with the provisions of this chapter.

§ 2102. Nonconforming Signs. [Ord. 624, 9/13/1983, 1901]

Any lawful nonconforming sign, as defined in Part 17, § 1709, herein, may be maintained in its present form, i.e., as it exists on the effective date of this chapter, so long as such sign continues to be in safe condition and in good repair; however, such sign may neither be replaced nor repaired at a cost exceeding 50% of the sign's original value. In addition, any sign maintained in connection with and upon the same lot as a sign similar in size and character so long as such lawful nonconforming use continues, but may not be enlarged or otherwise substantially altered except in accordance with the regulations contained in Part 17 herein.

§ 2103. Nonconforming Lots. [Ord. 624, 9/13/1983, § 1902]

The development of any lot held in single and separate ownership on the effective date of this chapter which is not of the required minimum area or width, or is of such unusual dimensions that the owner would have difficulty in providing the required setback areas for the district in which the lot is situated, shall be permitted in accordance with the requirements of Part 4, § 402, herein. In the case of an existing conforming use on a nonconforming lot, expansion of such use shall be permitted, and shall not require a special exception or variance, so long as all applicable requirements, other than lot area and width, are satisfied.

§ 2104. Mapping and Recording of Nonconforming Uses. [Ord. 624, 9/13/1983, § 1903]

The Zoning Officer shall perform a survey of the Borough and record and map all uses nonconforming to the district requirements set forth in this chapter. Such record and map shall be available for inspection at the Borough municipal building.

Part 22
VIOLATIONS, FINES, REMEDIES AND CHARGES

§ 2201. Violations. [Ord. 624, 9/13/1983, § 2000]

Failure to secure a building permit when required prior to the erection, construction, extension or addition to a building, or failure to secure a use registration permit or sign permit shall be a violation of this chapter.

§ 2202. Notice of Violation. [Ord. 624, 9/13/1983, § 2001; as amended by Ord. 704, 9/26/1989, § 19]

If the Zoning Officer finds that any of the provisions of this chapter is being violated, he or she shall notify in writing the owner of record of the parcel on which the violation has occurred, any person who has filed a written request to receive enforcement notices regarding that parcel, and any other person requested in writing by the owner of record. An enforcement notice shall state at least the following:

1. The name of the owner or record and any other persons against whom the Borough intends to take action.
2. The location of the property in violation.
3. The specific violation with a description of the requirements which have not been met, citing in each instance the applicable provisions of the ordinance.
4. The date before which the steps for compliance must be commenced and the date before which the steps must be completed.
5. That the recipient of the notice has the right to appeal to the Zoning Hearing Board within a prescribed period of time in accordance to the procedures set forth in this chapter.
6. That failure to comply with the notice within time specified, unless extended by appeal to the Zoning Hearing Board, constitutes a violation, with possible sanctions clearly described.

§ 2203. Violations and Penalties. [Ord. 624, 9/13/1983, § 2002; as amended by Ord. 704, 9/26/1989, § 18]

Any persons, partnership, or corporation who or which has violated or permitted the violation of the provisions of this chapter shall, upon being found liable therefor in a civil enforcement proceeding commenced by the Borough, pay a judgment of not more than \$500 plus all court costs, including reasonable attorney fees incurred by the Borough as a result thereof. No judgment shall commence or be imposed, levied, or be payable until the date of the determination of a violation by the district justice. If the defendant neither, pays nor timely appeals the judgment, the Borough may enforce the judgment pursuant to the applicable rules of civil procedure. Each day that a violation continues shall constitute a separate offense,

unless the district justice determining that there has been a violation further determines that there was a good-faith basis for the person, partnership, or corporation violating this chapter to have believed that there was no such violation until the fifth day following the date of the determination of a violation by the district justice and thereafter each day that a violation continues shall constitute a separate violation. All judgments, costs, and reasonable attorney fees collected for the violation of this chapter shall be paid to the Borough.

§ 2204. Remedies. [Ord. 624, 9/13/1983, § 2003]

In the event any building or structure is erected, constructed, reconstructed, altered, repaired, converted, or maintained, or any building, structure or land is used, or any hedge, tree, shrub or other growth is maintained in violation of this chapter or of any regulation made pursuant thereto, in addition to other remedies provided by law, any appropriate action or proceedings, whether by legal process or otherwise, may be instituted or taken to prevent such unlawful erection, construction, reconstruction, alteration, repair, conversion, maintenance, or use, to restrain, correct or abate such violation, to prevent the occupancy of said building, structure or land, or to prevent any illegal act, conduct, business or use in or about such premises.

§ 2205. Charges. [Ord. 624, 9/13/1983, § 2004]

The charges for permits, application for special exception, application for variance, Zoning Hearing Board certificates, etc., shall be such as are determined by Borough Council from time to time.

Part 23
AMENDMENTS

§ 2301. Power of Amendment. [Ord. 624, 9/13/1983, § 2100]

The Borough Council of the Borough of Royersford from time to time may amend, supplement, change, modify or repeal this chapter, including the Zoning Map, by the procedures noted herein.

§ 2302. Amendment by Borough Council. [Ord. 624, 9/13/1983, § 2101]

The Borough Council by resolution adopted at a regular or special meeting shall fix the time and place of a public hearing on the proposed amendment and cause public notice thereof to be given as follows:

1. By publishing a notice thereof once a week for two consecutive weeks in one newspaper of general circulation in the Borough not more than 30 days or less than 14 days prior to the hearing.
2. The notice shall state the general nature of the proposed amendment and that full opportunity to be heard will be given to any citizen and all parties in an interest attending such hearing.
3. Whenever a proposed amendment affects a particular property, there shall be posted upon said property or premises at such place or places as the Zoning Officer may direct, notice of said proposed amendment.

§ 2303. Application for Amendment by Citizens. [Ord. 624, 9/13/1983, §§ 2102-2102.6]

Every application for amendment of Zoning Chapter shall first be presented to the Zoning Officer and shall contain the following:

1. The applicant's name and address and his representative and the interest of every person represented in the application.
2. A plan showing the extent of the area to be rezoned, streets bounding and intersecting the area, the land use and zoning classification of abutting districts, and photographs of the area to be rezoned and abutting area.
3. A statement of the circumstances in the proposed district and the abutting districts and any other factors on which the applicant relies as reasons for supporting the proposed rezoning.
4. The approximate time schedule for the beginning and completion of development in the area.
5. A site plan to scale, indicating the location of structures, uses, areas for off-street parking and loading.

6. Information about the market area to be served by the proposed development if a commercial use, including population to be served, effective demand for proposed business facilities, and any other information necessary for the Borough Planning Commission and Borough Council to make a determination on the application.

§ 2304. Petitions for Amendment. [Ord. 624, 9/13/1983, §§ 2103-2103.2]

Whenever the owners of 50% or more of the property within any district, or property fronting on the same street or streets or abutting the property sought to be changed and situate within 500 feet, shall present to the Borough Council a petition, duly signed and acknowledged, requesting an amendment, supplement, change, modification or repeal of the regulations prescribed for, or of the Zoning Map, including such district, it shall be the duty of the Borough Council to hold a public hearing thereon and cause notice thereof to be given in the manner prescribed in § 2302 herein; provided, however, that the Borough Council shall not be required to consider a petition requesting an amendment, supplement, change, modification or repeal of any provision of the Zoning Chapter or the Zoning Map, or to hold a public hearing thereon, when the requested change is the same or substantially the same as requested and upon which a public hearing has been held within the same previous year. Such petition shall set forth the following facts:

1. Signature and address of each petitioner, together with the amount of front footage in any district or part thereof.
2. The petition, if pertaining to the Zoning Map, shall have attached thereto a plot plan of the tract to be affected.

§ 2305. Opportunity to be Heard. [Ord. 624, 9/13/1983, § 2104]

At the public hearing, full opportunity to be heard shall be given to any citizen and all parties in interest.

§ 2306. Referral to Borough Planning Commission. [Ord. 624, 9/13/1983, § 2105]

The Borough Council shall refer each request for change or amendment to the Borough Planning Commission for review and recommendation 30 days prior to taking final action on such request. The Planning Commission shall consider whether or not the proposed change or amendment would be, in view of the commission, consistent with the adopted Royersford Borough Comprehensive Plan and in furtherance of the Statement of Community Development Objectives, § 104 herein.

Amended Appendix A-22-b

§ 2307

ZONING

§ 2309

§ 2307. Referral to County Planning Commission. [Ord. 624, 9/13/1983, § 2106]

All proposed changes or amendments to this chapter shall be referred by the Borough to the Montgomery County Planning Commission for review and comment in accordance with the Pennsylvania Municipalities Planning Code, at least 30 days prior to taking final action on such changes or amendments.

§ 2308. Citizen Protest Against Amendments. [Ord. 624, 9/13/1983, § 2107]

In case of a protest against such change, signed by the owners of 20% or more, either of the area of the lots included in such proposed change, or of those immediately adjacent in the rear or in the front or to either side thereof extending 100 feet therefrom, such amendments shall not become effective except by the favorable vote of all the members of the Borough Council.

§ 2309. Fees. [Ord. 624, 9/13/1983, § 2108]

For the purpose of defraying expenses of advertising, etc., applications for amendments shall be accompanied by payments to the Borough as shall be determined by Borough Council from time to time.

Part 24
ZONING MAP AMENDMENTS

§ 2401. Table of Zoning Map Amendments

Ord./Res.	Date	Subject
710	5/8/1990	Rezoning a parcel of land located at 300 North Third Avenue, situate at the intersection of Third Avenue and Oak Street, and containing approximately 25,700 square feet of land, from I Industrial to R-3 Residential
764	6/29/1999	Rezoning a tract of land within the Borough, generally located on Walnut Street, between Route 422 and Tenth Avenue, comprising approximately 4.04 acres, from its present R-2 Residential zoning classification to the HB Highway Business zoning classification
852	6/12/2012	Rezoning properties at 832, 840, 850, 855, 861, 865, 900, 901, 905, 907, 908, 912, 921, 923, 924, 927, 930, 933, 934 and 935 Main Street from R-1 Residence District to R-5 Special Residence District
883	8/9/2016	Comprehensive revision

**Act 537 Plan
Limerick Township, Montgomery
County**

Q2-7u

**LIMERICK TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA**

**ACT 537 SEWAGE FACILITIES
PLAN REVISION**

JULY 2000

Prepared By:

**GILMORE & ASSOCIATES, INC.
Engineers • Land Surveyors • Planners • GIS Consultants
350 Butler Avenue
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(215) 345-4330**

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1.0 PLAN REVISION SUMMARY

The Limerick Township Municipal Authority (LTMA) has been in existence since 1986, and owns and operates the existing municipal sanitary sewerage system in Limerick Township. All planned sewerage facilities will be the responsibility of the LTMA to implement including design, funding, construction and operation. Generally the central and southeastern portions of the Township have public sewer facilities which include an Authority owned and operated 1.6 MGD sewage treatment plant located along the Schuylkill River in the southeastern corner of the Township.

In May 1992, the Limerick Township Board of Supervisors adopted an Act 537 Sewage Facilities Management Plan Update (Plan) prepared by PSC, Inc. Subsequent revisions were made to this Plan in 1993 and again in 1997. This Plan revision is concerned primarily with the future size of the existing treatment plant, the existing Act 537 Plan area is not being revised. Concern is focused on those areas of the Study Area which are currently undeveloped.

Limerick Township is currently experiencing tremendous growth. This is evidenced by the increase in equivalent dwelling units (EDUs) and hydraulic flows as documented in the Chapter 94 Wasteload Management Reports over the past few years. Since January of 1998, the Limerick Township Municipal Authority has documented an average increase in sanitary sewer connections of approximately 500 new EDUs per year. As of December of 1999, approximately 4,500 EDUs were connected to the sanitary sewer system.

Under the current LTMA policy, an applicant may purchase EDUs upon receipt of preliminary plan approval from Limerick Township. With an allocated flow capacity of 250 gallons per day per EDU as established in the Authority's regulations and the Township's approved Act 537 Plan, the existing treatment plant is capable of handling a total of 6,400 EDUs. At this time, essentially all of the capacity of the wastewater treatment plant is allotted to various projects. At present additional development can not occur. Furthermore, should additional capacity be required due to failing on-lot systems, the connection of these systems could potentially overload the treatment plant.

The Township will never realize a population denser than that allowed by maximum buildout. The total number of *new* EDUs which could be connected to the sanitary sewer system, given the development projects known to date and the current density restrictions imposed by the Limerick Township Zoning Ordinance would be approximately 2,486. Based on the current growth rates documented in the Township, this maximum buildout could be reached in under ten (10) years. Prudent planning dictates that the ten year growth projection be used for sizing of future treatment facilities.

Based on the growth predictions, an additional 522,000 gallons per day of sewage flow would be generated from *new* developments. An additional 502,000 gallons per day of sewage flow would be generated from developments which have already received approvals and purchased EDUs. In December 1999 the average daily flow was 624,000 gallons per day. Calculations detailed in subsequent sections of this report reveal a total of approximately 1.86 million gallons per day of

sewage flow to the LTMA Treatment Plant, including the flow from the Upper Brooke Evans Drainage Area. The sewage flow per day to the LTMA Treatment Plant would be 1.7 million gallons with the diversion of the Upper Brooke Evans Drainage Area to the planned Possum Hollow sewerage system.

As part of this Plan revision, the pump station capacities and anticipated future flows were calculated. These projections indicate that should total buildout occur, five (5) pump stations may require upgrading or expansion. However, at this time it is recommended that no action be taken towards the upgrade or expansion of any of the pump stations, since the some of the LTMA's proposed projects make the need for these expansions unlikely.

Another portion of this Plan revision evaluated the existing sewage conveyance system and the effects new construction will impose on this system. The construction of a regional pump station for the Upper Study Area and the Upper Brooke Evans Drainage Area diversion, have already been adopted by Limerick Township via the 1997 Act 537 Plan Revision and the 2000 Special Study for the Possum Hollow Drainage Area, respectively. Both projects remain key components of the Township's long range sewage management plan and no changes are proposed herein. Finally, the upgrade of the Landis Creek Interceptor, a remnant from the 1992 Act 537 Plan Revision, remains necessary since the hydraulic load on this pipeline will not be reduced by any other proposed activities.

In order to provide required treatment capacity, a number of wastewater treatment plant process options, including a no action option, were developed and reviewed in following sections of this report. Option 2 has been chosen which involves modification of the existing wastewater treatment facilities to provide for a sequencing batch reactor (SBR) process. The SBR process is accomplished within a single tank and does not require separate clarifiers or a sludge recycle pump station. The existing treatment tanks would be converted to four (4) parallel SBR units. New facilities would include headworks, effluent equalization, aerobic sludge digestion, sludge dewatering, utility water system and an outfall directly to the Schuylkill River. Related site work would involve yard piping, yard pump station, electrical, paving, fencing and landscaping.

Option 2 is economically favorable with respect to operation and maintenance costs and overall present worth. The SBR process offers excellent performance reliability relative to achieving compliance with current effluent limitations and possible future requirements for nutrient removal. Finally, this option would allow for an expanded capacity beyond 1.7 mgd with relatively low additional cost should the EDU contribution reach 250 gallons per day or the number of EDUs exceed projections.

The project cost for Option 2 is \$7,000,000 while the annual operation and maintenance cost is \$790,000. The project cost for upgrade and expansion of the King Road Wastewater Treatment Plant will come from the Delaware Valley Regional Finance Authority via the sale of tax free revenue bonds.

The implementation schedule includes projected dates of January 2001 for PaDEP Act 537 Plan approval, January 2002 for completion of design and securing of PaDEP permits and September 2003 for project completion and start-up.

A connection management plan, with various milestones associated, has been developed to allow for connection of up to 1200 additional EDUs until implementation of the Possum Hollow Sewerage System and the King Road Wastewater Treatment Plant expansion and upgrade project.

2.0 INTRODUCTION

Limerick Township is a municipality of approximately 10,500 people located near the western corner of Montgomery County. The Township is approximately twenty-two (22) square miles in area. Generally the central and southeastern portions of the Township have public sewer facilities, with service provided by the Limerick Township Municipal Authority (LTMA). The Authority owns and operates a 1.6 MGD sewage treatment plant located along the Schuylkill River in the southeastern corner of the Township.

On behalf of the Township, and along with a representative from the LTMA, Gilmore & Associates, Inc. met with representatives of PADEP during April 1998. This meeting was held to discuss the development trend within the Township and to assess what the requirements would be to amend the current Plan such that provisions for the expansion of the treatment plant could be made. The options discussed included formatting two study areas so as to include a re-evaluation of sewerage needs for the eastern portion of the Township and a re-evaluation of the sewerage needs for the western portion of the Township. Figure 1 shows the Township and overall boundary of the currently approved Plan Sewer Service Area including the areas encompassed by each study area. It is important to note that the overall Act 537 Plan area is not being changed from the boundary approved via the 1997 Revision. The study area highlighted in gray shall be addressed by a separate special study titled "Possum Hollow Special Study".

This Revision contains seven (7) sections including this Introduction. It is consistent with the Guide for Preparing Act 537 Update Revisions as published by the PADEP in February 1998. The subsequent sections of this Revision include the following:

Section 3: Previous Wastewater Planning

This section provides information identifying and analyzing all existing wastewater planning previously undertaken by the Township under the Sewage Facilities Act (Act 537). Additionally, information is provided regarding Township and county planning documents utilized in the generation of this Act 537 Plan Revision for Limerick Township.

Section 4: Description of Study Area

This section provides information regarding the physical setting, zoning and current land use within the Study Area. This section defines development projects exerting growth pressures within the Study Area and existing and future population projections including EDU projections. Sewage planning needs for the future are described relating to both five and ten year planning periods. Illustrative figures that depict the current Act 537 boundary and future development projects are also presented.

Section 5: Existing Sewerage Facilities in the Planning Area

This section details the existing sewerage systems in the planning area. This section also discusses problems with the existing facilities and describes any current upgrades or expansions. A brief description of the Township's current Sewage Management Plan (SMP) for on-lot systems is also included.

Section 6: Identification/Evaluation of Alternatives

This section identifies the alternatives available for providing new or improved wastewater disposal facilities to meet the Township's growth needs. The alternatives identified include the extension of new sanitary sewer lines, the diversion of a portion of the existing flow to a new wastewater treatment facility and the expansion of the existing treatment plant. This section also contains a detailed analysis of alternatives evaluated for the Study Area. The evaluation of each alternative is based on technical feasibility, cost, environmental soundness and ease of implementation.

Section 7: Institutional Evaluation

This section includes a discussion of the organization responsible for implementation of the selected alternative.

Section 8: Justification of Selected Alternative

This section concludes the Revision, and provides a discussion of the selected alternative which best meets the sewage management needs of the Study Area. This selection is based on the evaluation of the alternatives in Sections 6 and 7.

Appendix 'A' includes the current Limerick Township Zoning Map. Appendix 'B' includes the Projections of Future Sewage Flows prepared by Gilmore & Associates, Inc. Appendix 'C' includes documentation with regard to Opinions of Probable Cost for each of the sewage management alternatives. Appendix 'D' includes the map outlining the long term selected alternative detailed in the 1997 Act 537 Revision. Appendix 'E' includes the map outlining the Benner Road Interceptor alternative detailed in the 1992 Comprehensive Sewage Facilities Planning Study prepared by PSC Engineers and Consultants. Appendix 'F' includes the 1999 Chapter 94 Wasteload Management Report. Appendix 'G' includes correspondence with regard to Township and Montgomery County Planning Commission, and Montgomery County Health Department reviews. Appendix 'H' contains proof of publication of Public Notice of the proposed 537 Plan Revision adoption and the establishment of a thirty (30) day public comment period. Appendix 'I' includes copies of all written public comments received and the municipal responses thereto. Appendix 'J' includes the signed and sealed resolution of adoption by the Limerick Township Board of Supervisors. Appendix 'K' includes the Department of Environmental Protection Instructions for Completing Act 537 Plan Content and Environmental Assessment Checklist.

3.0 PREVIOUS WASTEWATER PLANNING

The Limerick Township Board of Supervisors adopted an Act 537 Sewage Facilities Management Plan Update (Plan) prepared by PSC, Inc., in May, 1992. Subsequent to that action, the Pennsylvania Department of Environmental Resources (PADER) raised several questions regarding the Plan.

During 1993, Gilmore and Associates, Inc., prepared and submitted an addendum to the Plan addressing PADER's comments. In September 1993, the Plan was approved by PADER. This Plan was not intended to provide the entire Township with public sewers. Specifically, one of the goals of the Township was to restrict public sewer service to designated growth areas. The Plan provided for sewers throughout the most densely populated areas of the Township which included the central most portion extending furthest south, east and west to the Township line. The northern portion of the Township was not included in the Plan Sewer Service Area in efforts to maintain the open space areas and the rural atmosphere.

This Plan provided for:

1. The re-rating of the Limerick Township Municipal Authority (LTMA) sewage treatment plant from 1.0 mgd to 1.6 mgd
2. Revisions to the five (5) year projected sewer service area
3. A program for additional related studies
4. The implementation of an on-lot management program for both proposed and existing on-lot sewage disposal systems

In 1997, Gilmore & Associates, Inc. prepared and submitted a Revision to the Act 537 Plan. This Plan Revision proposed public sewer service to the northeastern portion of the Township. These portions of the Township, referred to as the Upper and Lower Study Areas, are located on each side of the Ridge Pike corridor and contain approximately 2,400 acres. The major issue addressed through the revision was meeting intense demand for public sewers from new developments.

Specifically, the 1997 Plan Revision provided for:

1. The construction of a regional pump station in the Upper Study Area.
2. Construction of gravity sewers throughout the Upper Study Area and in a portion of the Lower Study Area, including the Mingo Creek Interceptor.
3. Expansion of the Southeast Pump Station.

On March 7, 2000, the Limerick Township Board of Supervisors adopted the Act 537 Special Study – Possum Hollow Area, Limerick Township, Montgomery County, Pennsylvania dated March 2000 by Resolution #2000-11. This resolution specifies the alternative selected based on the results of the Study, to provide sewer service to the Possum Hollow Study Area.

Per the resolution, this option provides initially for the construction of a 450,000 (minimum) gallon per day wastewater treatment plant along Longview Road near the confluence of Possum Hollow Run and the Schuylkill River and two (2) pump stations serving a portion of the study area. Ultimately, this option provides for extension of sewer service to the remainder of the Study Area and the construction of three (3) additional pump stations. The Possum Hollow Area Study option also provides collection and conveyance of sewage for the existing development and proposed new development within the Upper Brooke Evans Drainage Area.

In 1999 the Limerick Township Board of Supervisors hired Urban Research and Development Corporation (URDC) to project how many new homes and businesses will be built in the Township over the next decade and where this new growth would be focused. The Impact Fee Land Use Assumptions final draft, dated October 1999 was reviewed to determine if the calculations for projected sewage need included in this report were consistent with URDC's findings. The comparison of these documents shall be discussed in Section 4.5, Sewage Planning, Five and Ten Year Planning Period.

Additionally, the zoning of the planning area is a key factor in sewage facilities planning. The intensity of the land use dictates the types of disposal methods available. Limerick Township has adopted a land use plan which specifies the location, intensity and general characteristics of land use throughout the Township. The Township also adopted a revised Zoning Ordinance in September of 1992. This Ordinance has been amended in numerous locations in the years following it's adoption, most recently in June 1999. The "Limerick Township Zoning Map" included in Appendix A shows the current zoning districts.

4.0 DESCRIPTION OF STUDY AREA

4.1 Introduction

Limerick Township is a municipality of approximately 10,500 people located near the western corner of Montgomery County. The Township is approximately twenty-two (22) square miles in area. Figure 2, entitled "537 Plan Revision Drainage Area Boundaries", divides the Study Area into six (6) sub-areas and includes approximately 6,600 acres of land which drain primarily towards the Schuylkill River. These sub-areas are broken down as follows:

Landis Creek	1,030 acres
Pump Station #5	1,138 acres
Southeast Pump Station	1,465 acres
Upper Brooke Evans Creek	330 acres
Upper Study Area	1,340 acres
Lower Study Area	1,096 acres

6400

As this Plan revision is concerned primarily with the future size of the existing treatment plant, concern is focused on those areas of the Study Area which are currently undeveloped. Presently the undeveloped/open areas of the Study Area are broken down as follows:

R-1, Residential-Agricultural District	1,086 acres
R-2, Low Density District	404 acres
R-3, Medium Density District	256 acres
R-4, Medium-High Density District	95 acres
R-5, Village Residential District	18 acres
RB, Retail Business District	55 acres
O/LI, Office/Limited Industrial District	141 acres
LLI, Limited Light Industrial	20 acres

2075

Limerick Township is currently experiencing tremendous growth. This is evidenced by the increase in equivalent dwelling units (EDUs) and hydraulic flows as documented in the Chapter 94 Wasteload Management Reports over the past few years. Since January of 1998, the Limerick Township Municipal Authority has documented an average increase in sanitary sewer connections of approximately 500 new EDUs per year. As of December of 1999, approximately 4,500 EDUs were connected to the sanitary sewer system.

Under the current LTMA policy, an applicant may purchase EDUs upon receipt of preliminary plan approval from Limerick Township. With an allocated flow capacity per EDU as established in the Authority's regulations and the Township's approved Act 537 Plan of 250 gallons per day, the existing treatment plant is capable of handling a total of 6,400 EDUs. In December of 1999, the last of the existing 6,400 EDUs was purchased.

Therefore, all of the "paper" capacity of the wastewater treatment plant is allotted to various projects.

Land developers are continuously submitting development proposals for projects in the Township. These developers have expressed a desire for public sewer service as the majority of the soils in Limerick Township are not suitable for on-lot disposal. At present additional development can not occur. Furthermore, should additional capacity be required due to failing on-lot systems, the connection of these systems could potentially overload the treatment plant either hydraulically or organically.

4.2 Identified Future Growth and Development

At the time of the data analysis associated with this revision (December 1999) there were at least nine (9) development projects proposed within the Study Area which would require capacity beyond the 6,400 available at the existing treatment plant utilizing the current 250 gallons per day per EDU allotment. It is important to note that while all of the treatment plant's capacity is allocated, not all of the existing 6,400 EDUs are "live" connections. Some of the connections are assigned to projects currently under construction, in which case the lateral connection may be installed and inspection completed, but at present there is no flow from the lateral. Other EDUs are allocated to projects which have received at least preliminary plan approval and are therefore expected to be built and connected within the next three (3) years.

There are currently nine (9) projects of which the Township is aware for which developers have begun the approval process and are desirous of public sanitary service. These projects range from apartment complexes to restaurants to commercial and business centers. These development projects are consistent with the Township's Zoning Ordinance and are outlined on Figure 3 titled "Newly Proposed Land Development Plans". These projects are described as follows:

Fox Ridge Apartments

Buck
This project is located on the west side of Kugler Road, just north of the intersection of Kugler Road and Ridge Pike. It is in the Landis Creek Drainage Area within the R-5, Village Residential District. This project will contribute an additional sixty-four (64) EDUs to the system.

Lakeview Commercial Center

Buck
This project is located to the southeast of the intersection of Buckwalter and Royersford Roads. It is located in the Interchange Office District in the Southeast Pump Station Drainage Area. This proposed commercial center will contribute an additional forty (40) EDUs to the system.

B.1.1

McDonald's Restaurant

This project is located on Lewis Road near the intersection of Royersford Road. At present, ten (10) EDUs are associated with this project.

Not B.1.1

Burger King Restaurant

This project is located on Lewis Road near the junction of Route 422. At present, five (5) EDUs are associated with this project.

B.1.1

Pinecrest Estates (Single Family Homes)

This proposed project is located to the northwest of the intersection of Benner and Major Roads within the R-4, Medium-High Residential Zoning District. Five (5) EDUs are proposed from this project.

Not B.1.1

Limerick Center Road (Single Family Homes)

Upon construction of the Limerick Center Road Sanitary Sewer Extension a number of existing homes along Limerick Center Road will obtain public sewer service. At present approximately ten (10) homes along this area will have public sewer available upon completion of this project.

B.1.1

Elliot Town Center (Single Family Homes)

Est @ Candis Br
Keridge St

This project, located in the Upper Study Area Drainage Area falls in both the R-1, Residential-Agricultural District and the R-2, Low Density District. An additional fifty-three (53) connections to the sanitary sewer system are proposed.

Approved

Brunk Subdivision (Single Family Homes)

The Brunk subdivision is bisected by Royersford Road slightly north of Linfield Road in the Lower Study Area Drainage Area. At present, sixty-nine (69) residential connections are proposed within this subdivision.

Under Review

YMCA

The proposed YMCA is located to the southwest of the intersection of Linfield Road and Township Line Road within the Lower Study Drainage Area. The YMCA project includes forty-eight (48) EDUs.

30

4.3 Future Growth Projections

Deducting the known development projects discussed above, golf courses and agricultural tracts which have sold their development rights (see Figure 3) there are approximately 2,075 acres of developable ground remaining in the Study Area. Reducing this total by 20% to allow for roads, wetlands, open space requirements, etc., leaves 1,660 acres. Using this information and a comparison of dimensional standards per zoning district for all of the buildable areas, the number of additional EDUs that could be contributed from the Study Area would be 2,486 assuming full buildout, as shown in Table 1, exclusive of any existing homes or development.

The total number of EDUs contributed from residential development, being zoning districts R-1, R-2, R-3, R-4 and R-5, would be 1,506. The remaining 980 EDU connections would come from business, office, or industrial users (RB, O/LI and LLI) based on an EDU equivalency of 500 gallons per day per acre for business, commercial or industrial areas as outlined in the approved Act 537 Plan.

Table 1
New EDU Projections at Full Buildout

<u>Drainage Area</u>	<u>Projected New EDUs</u>
Landis Creek	412
Pump Station #5	704
Southeast	570
Upper Brooke Evans Creek	86
Upper Study Area	374
Lower Study Area	340
Total:	2,486 ✓

The Projections of Future Sewage Flows, included in Appendix B, presents the calculations and other pertinent information utilized to determine the projected number of EDUs and sewage flow associated with the Study Area.

4.4 Sewage Planning - Five and Ten Year Planning Periods

Under the current LTMA policy, the allocated flow capacity per EDU is 250 gallons per day. However, the actual flow per EDU is hard to determine. In order to obtain the most accurate flow projections for future planning, however, the flow contribution per EDU was re-evaluated.

As of December of 1999, 4,478 EDUs were connected to the sanitary sewer system. However, a large number of these EDUs are "dry", in the process of being connected, and were not contributing flow to the LTMA treatment plant. Due to the time delay from when a lateral connection permit is issued to the time flow is contributed a six month "shift" was done to get a better idea of the total number of EDUs contributing flow to the treatment plant. This "shift" was accomplished by taking the known number of total lateral connections to the treatment plant at the end of a given month and moving this total six months forward. Table 2 illustrates the EDU shift and the corresponding flows and connections per month for 1999.

Table 2
Gallons/EDU Calculations
(EDUs Shifted Six Months Forward)

<u>Month (1999)</u>	<u>Raw Sewage Flow (gpd)</u>	<u>Connected EDUs</u>	<u>Gallons/EDU per Day</u>
JANUARY	621,800	3,534	176
FEBRUARY	577,000	3,577	161
MARCH	602,000	3,590	168
APRIL	581,000	3,602	161
MAY	547,000	3,616	151
JUNE	522,000	3,656	143
JULY	501,000	3,710	135
AUGUST	522,000	3,751	139
SEPTEMBER	636,000	3,775	168
OCTOBER	630,000	3,872	163
NOVEMBER	598,000	3,924	152
DECEMBER	624,000	4,007	156

Notes:

1. Sewage flow figures from 1999 Monthly Monitoring Reports
 2. Connected EDUs from Manager's monthly reports.
- Figures represent totals as of beginning of month.

Maximum three months
BOLD Maximum month value

Based on this shift there were 4,007 "live" EDU connections to the LTMA treatment plant in December 1999.

Other factors which required consideration were that the LTMA treatment plant experiences a significant increase in flow during the weekend, typical of a bedroom community, and shows some increase in flow during light to moderate storm events. A thirteen (13) percent safety factor for increased weekend flow and a five (5) percent safety factor for moderate rain events were added to the total EDU contribution calculated above to compensate for these increases in flow. Using the maximum gallons per EDU

per day experienced for the 1999 year (January) and adding the aforementioned safety factors results in a total per EDU contribution of 210 gallons per day.

Looked at from a different perspective, the flow contribution from a typical EDU could be higher, at least on a maximum month basis, than 210 gallons per day. Last year (1999) was, with the exception of Hurricane Floyd, a dry year with a ratio of the maximum month flow to the annual average of only 110 percent; therefore, a review of water consumption records, rather than sewage generation, for selected single family, twin and apartment dwellings was performed which indicated a typical range for all uses of 150 to 200 gallons per day. Using the higher end of the range for projection purposes, and applying a factor of 25% to reflect the maximum month/annual average ratio for sewage flow typical of the last five (5) years, results in a maximum month flow contribution per EDU of approximately 250 gallons per day. Although the lower (210) figure will be used for design purposes, the potential for higher flows should be accounted for in the design of any treatment facilities.

In the preceding section it was established that, assuming total buildout, 2,486 additional EDUs could be added from the Study Area. As previously stated, in December of 1999 approximately 4,007 EDUs were connected to the LTMA treatment plant. However, as of that date, an additional 2,393 EDUs had been purchased for future projects.

The Projections of Future Sewage Flows (Appendix B) shows calculations for 50% and 100% buildout. At 50% buildout 1,553 new EDUs will be introduced to the sanitary sewer system. This number is consistent with a five (5) year growth prediction in which a higher initial annual growth pace, similar to historical figures, is gradually replaced with a slower pace as available ground is consumed.

The Township will never see a population denser than that allowed by maximum buildout (100%). The total number of *new* EDUs which could be connected to the sanitary sewer system, given the development projects known to date and the current density restrictions imposed by the Limerick Township Zoning Ordinance would be approximately 2,486. Based on the current growth rates documented in the Township, this maximum buildout could be reached in under ten (10) years. Prudent planning dictates that the ten year growth projection be used for sizing of future treatment facilities.

The 1999 Chapter 94 Wasteload Management Report (Chapter 94 Report), included in Appendix F, details all known and projected development within Limerick Township's Act 537 Plan Area through the year 2004. These projections were compared to those outlined in the Impact Fee Land Use Assumptions final draft (Impact Fee) generated by URDC. The Impact Fee report predicts that a total of 1,129 dwelling units will be approved in Limerick Township from 2000 to 2009 for an annual average of 122 new residential units per year. The Chapter 94 Report indicates a total of 1,148 new EDUs from 2000 to 2004. Subtracting all the known non-residential connections yields 613 new residential connections in this five (5) year period for an annual average of 123 new residential connections per year.

Unfortunately it was not possible to make a comparison of non-residential connections as the Impact Fee report calculated non-residential growth in square feet of industrial and commercial space. The Chapter 94 Report calculates new EDU connections based on property acreage.

Based on the growth predictions of the above referenced reports, an additional 522,000 gallons per day of sewage flow (at 210 gallons per day per EDU) would be generated from *new* developments. An additional 502,000 gallons per day of sewage flow, again at 210 gallons per day per EDU, would be generated from developments which have already received approvals and purchased EDUs. In December 1999 the average daily flow was 624,000 gallons per day. Adding the known flow to the projected flows and including an additional 13% safety factor for maximum month flow rates in a more typical year, would result in a total of approximately 1.86 million gallons per day of sewage flow to the LTMA Treatment Plant, including the flow from the Upper Brooke Evans Drainage Area. The sewage flow per day to the LTMA Treatment Plant would be 1.7 million gallons with the diversion of the Upper Brooke Evans Drainage Area.

5.0 EXISTING SEWAGE FACILITIES IN THE PLANNING AREA

5.1 Description of Existing Public Sewage Conveyance Systems

5.1.1 General

The sewer system consists of multiple collectors and interceptors ranging in size from eight (8) to thirty-six (36) inches and eleven (11) sewage pump stations whose locations can be seen in Figure 3.

5.1.2 Interceptors

There are four (4) major interceptors within Limerick Township; the Landis Creek Interceptor, Mingo Creek Interceptor, Lewis Road Interceptor and the Pump Station #5 Interceptor. A description of each interceptor is included below.

Landis Creek Interceptor

The Landis Creek Interceptor ranges from eight (8) to twelve (12) inches in size and conveys sewage from the Pump Station #9 tributary area and developments in the far northwest corner of the Study Area. This interceptor starts near Limerick Center Road, just south of the intersection with Laurel Drive and heads in an easterly direction through the Limerick Golf Course and discharges to Pump Station #3.

Mingo Creek Interceptor

The Mingo Creek Interceptor ranges from twelve (12) to fifteen (15) inches in size. The interceptor starts in Township Line Road, south of the intersection of Graterford Road. This interceptor collects sewage from the Bradford Woods Development and nearby properties, and proceeds south along Township Line Road to Ridge Pike. The interceptor runs west along Ridge Pike for a short distance where it turns south through the Lower Study Area Drainage Area. The interceptor runs generally parallel to Royersford Road and discharges to the Lewis Road Interceptor just upgradient of Pump Station #6A (Southeast Pump Station). The interceptor was designed to accept flows from a portion of the Upper Study Area Drainage Area, the homes and businesses along Township Line Road and Ridge Pike and the majority of the potentially developable land in the Lower Study Area. The Mingo Creek Interceptor was put into full service in January 2000 and is the only interceptor that is not part of the original sewer construction.

Lewis Road Interceptor

The Lewis Road interceptor collects sewage pumped from Pump Stations #4 and #5 and runs east along Lewis Road to the Royersford Post Office, where it turns northeastward to join with the Mingo Creek Interceptor before discharging to Pump Station #6A. This interceptor ranges in size from eighteen (18) to thirty-six (36) inches.

Pump Station #5 Interceptor

The Pump Station #5 interceptor ranges from fifteen (15) to eighteen (18) inches in size. The interceptor begins on East Cherry Lane at the end of the Pump Station #3 force main, and conveys sewage pumped from Pump Stations #2, #9, #10 and #11 into the Pump Station #3 drainage area as well as the Pump Station #3 tributary area sewage. This interceptor collects additional flow as it continues south on Lewis Road, including flow from Pump Stations #1 and #8 and two (2) privately owned pump stations. The interceptor heads generally westerly at Linfield Road and eventually discharges to Pump Station #5.

5.1.3 Pump Stations

As of January 2000, the LTMA operated ten (10) pump stations and monitors the Wayside Pump Station (#11) prior to its dedication. Three (3) additional pump stations are under construction in the Bradford Woods subdivision in the Upper Study Area Drainage Area. Ultimately, these pump stations will be dedicated to the LTMA.

All sewage from the Study Area is pumped directly to the wastewater treatment plant, mostly from Pump Station 6A, with a small portion directly from Pump Station No. 7. Figure 4 illustrates the flow configuration within the Study Area.

A description of each pump station is included below.

Pump Station #1

This pump station is located near Jones Boulevard in the Limerick Airport Business Center and is equipped with two (2) submersible pumps, each with a rated capacity of 142 gpm. Wastewater is discharged through a six (6) inch force main which ties into the sewer at Manhole A109.

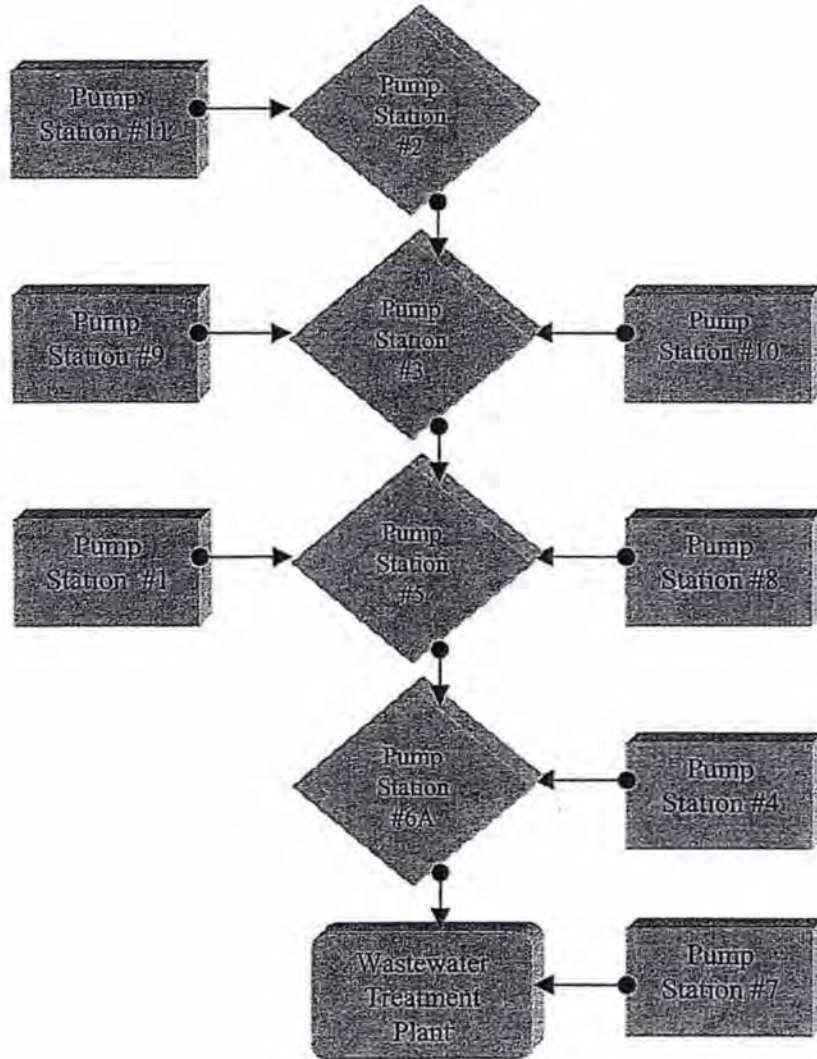
Pump Station #2

This pump station is located on North Limerick Road and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 100 gpm. Wastewater is discharged through a four (4) inch force main which ties into the sewer at Manhole 229. At the time of this revision this pump station was undergoing expansion and will have a capacity of approximately 130 gpm upon completion.

Pump Station #3

This pump station is located on South Limerick Road and is equipped with two (2) submersible pumps, each with a rated capacity of 1,150 gpm. Wastewater is discharged through a twelve (12) inch force main which ties into the sewer at Manhole A107.

Figure 4
Pump Station Flow Diagram



Pump Station #4

This pump station is located on Major Hollow Road and is equipped with two (2) submersible pumps, each with a rated capacity of 80 gpm. Wastewater is discharged through a four (4) inch force main which is manifolded into an eighteen (18) inch force main from Pump Station #5.

Pump Station #5

This pump station is located near Trinley Road and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 1,900 gpm. Wastewater is discharged through an eighteen (18) inch force main which ties into the sewer system at Manhole A16.

Pump Station #6A

This pump station, which was upgraded in 1999, is located northeast of Route 422 and Royersford Road. The station is equipped with two (2) dry pit non-clog sewage pumps, each with a rated capacity of 2,225 gpm. Wastewater is discharged through a sixteen (16) inch force main to the LTMA wastewater treatment plant.

Pump Station #7

This pump station is located on King Road and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 260 gpm. Wastewater is discharged through a four (4) inch force main which is manifolded into the sixteen (16) inch force main to the LTMA wastewater treatment plant.

Pump Station #8

This pump station is located near the intersection of Reed Road and West Cherry Lane. This pump station was upgraded during 1998. The station is currently equipped with two (2) suction lift pumps, each with a rated capacity of 205 gpm. Wastewater is discharged to a four (4) inch force main that conveys the sewage to Manhole A113 in West Cherry Lane.

Pump Station #9

This pump station is located on Neiffer Road and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 200 gpm. Wastewater is discharged through a four (4) inch force main which ties into the gravity sewer system servicing the Fox Ridge Development.

Pump Station #10

This pump station is located on Ridge Pike and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 180 gpm. This pump station became operational in October 1998. Wastewater is discharged to a six (6) inch force main which connects to an eight (8) inch gravity sewer at Manhole A206, approximately ¼ mile east of the intersection of Limerick Road and Ridge Pike.

Pump Station #11

This pump station is located in the Wayside Development and is equipped with two (2) submersible pumps, each with a rated capacity of 90 gpm. This pump station became operational in December 1998. Wastewater is discharged through a four (4) inch force main which ties into The Fields subdivision.

5.2 Description of LTMA Treatment Plant

The LTMA's treatment plant is located at the most southeastern corner of the Township off of King Road, immediately north of the Royersford Borough line. The treatment plant consists of four (4) identical pre-engineered treatment units positioned above ground, which are independently operated in parallel service. Each unit is theoretically capable of hydraulically handling 0.40 mgd. Currently, two (2) or three (3) of the above units operate at any given time. Sludge generated at the treatment plant is removed as liquid and primarily disposed of at the East Norriton - Plymouth Joint Sewer Authority via incineration. Effluent from the treatment plant is discharged to a small unnamed tributary of the Schuylkill River.

The Limerick Township Municipal Authority wastewater treatment plant currently has a hydraulic capacity of 1.6 mgd (6,400 EDUs at 250 gallons per day per EDU) and an organic capacity of 2,720 lbs. BOD₅ per day. The wastewater treatment plant operates under NPDES Permit No. PA 0051934. A schematic diagram of the treatment plant is shown as Figure 5.

The treatment process involves an activated sludge process for biological treatment of the wastewater. Specifically, the sewage receives preliminary treatment by comminution, followed by a flow distribution box which splits the flow to the various treatment units in service. Wastewater enters the flow equalization compartment, which is aerated for purposes of hydraulic and organic equalization, from which it is pumped at a regulated rate to the aeration tank which incorporates a fine bubble diffused aeration system. Following clarification, the effluent is disinfected utilizing chlorine. The effluent from the treatment tanks is combined prior to flow metering and discharge. Waste activated sludge from the biological treatment process is discharged to the aerobic digester/sludge holding tanks where it is aerated and concentrated to approximately 2.5% prior to off-site disposal by a contract hauler.

5.3 Performance of LTMA Treatment Plant

The LTMA's NPDES Permit sets standards for conventional pollutants only. The permit also sets monitoring requirements for total residual chlorine and dissolved oxygen. As outlined in the Chapter 94 report for 1999, the treatment plant operated satisfactorily and within all permit effluent limits, with the exception of one (1) fecal coliform violation in April, one (1) ammonia violation in May and one (1) suspended solids violation in October. The annual NPDES compliance inspection completed by PADEP revealed that the treatment plant was operating satisfactorily.

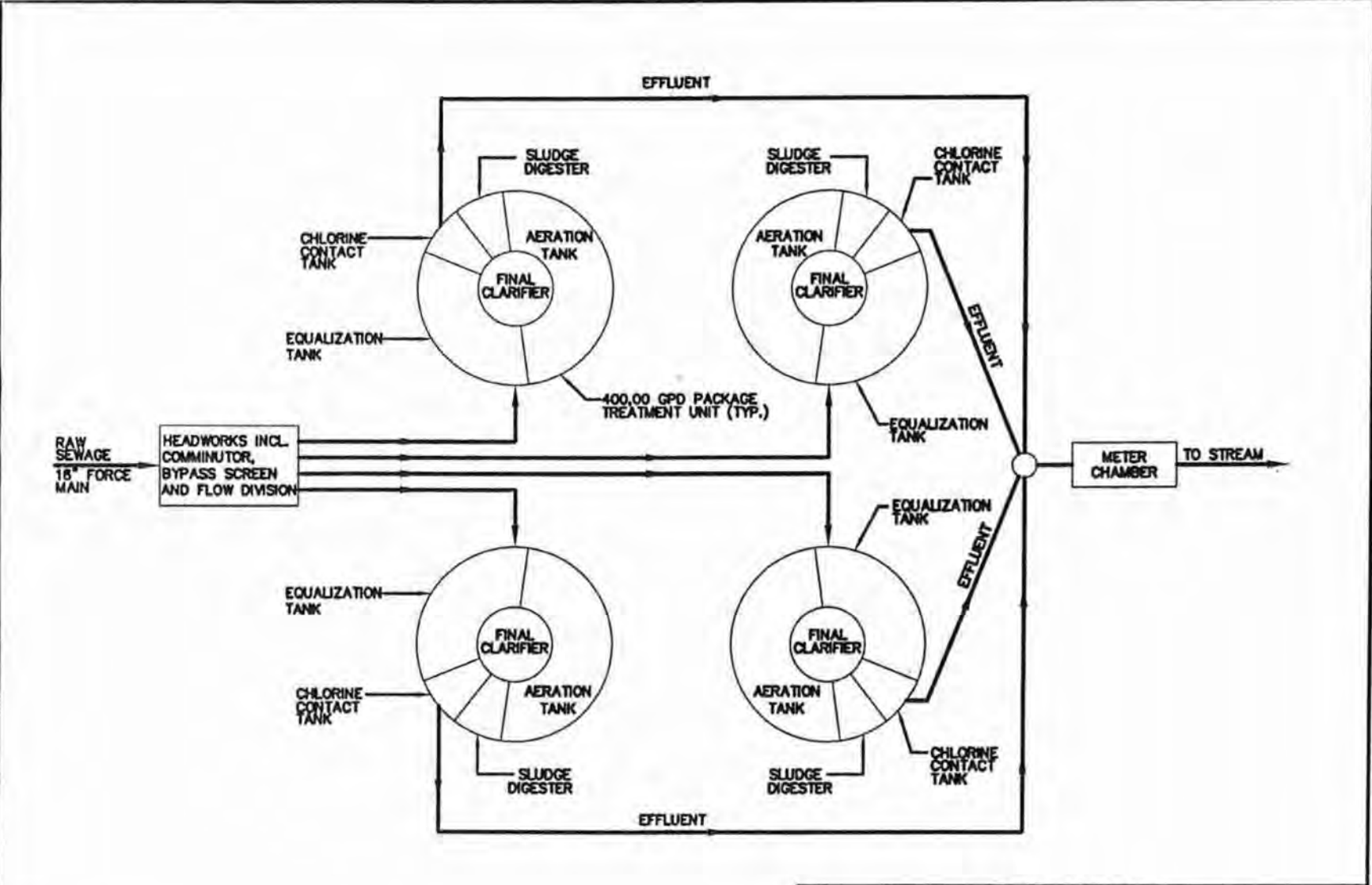


FIGURE 5
LIMERICK TOWNSHIP ACT 537 PLAN REVISION
SCHEMATIC FLOW DIAGRAM
LIMERICK TOWNSHIP MUNICIPAL AUTHORITY
WASTEWATER TREATMENT PLANT

The 1999 Chapter 94 Report includes projections for sewage flows through the year 2004. It is projected that by December 2004 the treatment plant will experience a hydraulic loading of approximately 1.4 million gallons per day and an organic loading of 1783 lbs/day. As discussed in Section 6.4.2 the existing wastewater treatment facility will be limited by its organic capacity rather than its hydraulic capacity.

5.4 Recent Treatment Plant Upgrades

In October 1999, the LTMA awarded a contract for the replacement of the air diffusion equipment in Treatment Tanks #1 and #2. Within each treatment tank there are several compartments which are aerated; specifically, the equalization compartment, the aeration compartment and the aerobic digestion/sludge holding compartment. The existing air headers and membrane tube diffusers were replaced with a new system of air headers and membrane tube diffuser assemblies. This work was completed in May 2000.

The Authority also plans to replace the air diffusion equipment in Treatment Tanks #3 and #4 in 2001, assuming that they remain in service as part of any wastewater treatment plant improvements.

5.5 On-Lot Disposal Systems

The Montgomery County Health Department (MCHD) currently administers an on-lot sewage disposal program throughout Limerick Township. This program became effective in 1991 and includes permitting, inspection, complaint response and enforcement.

The Township provides the general public and/or owners of on-lot disposal systems with guidelines as to how to maintain their systems and what preventive measures can be taken to minimize the chance of a system malfunction or failure.

Additionally, no types of industrial waste, automotive oil, other non-domestic waste, toxic or hazardous substances or surface water or groundwater is permitted to be discharged into an on-lot system.

The Township intends to continue educational programs for residents with on-lot disposal systems. Problem areas will be addressed by the extension of sanitary sewers where economically feasible within the sewer growth area.

5.6 Description of Existing Private Sewage Treatment Systems

5.6.1 Western Center for Technical Studies

An educational facility identified as the Western Center for Technical Studies (VoTech School) is located on the northwest side of the intersection of Sunset and Graterford Roads within the Upper Study Area Drainage Area. The school owns

and operates a private wastewater treatment plant. According to information supplied by the VoTech School's Building school administrator, the treatment plant has been operational with minor upgrades since 1966 and is designed to handle flows up to 11,700 gpd. The average daily flow for 1996 was approximately 4,900 gpd. This treatment plant discharges to Lodal Creek under NPDES Permit No. PA 0040126. Due to performance problems and costly operations and maintenance, primarily due to the age of the facilities and the fact that significantly lower average daily flows are experienced during the summer months, the Maintenance Manager has expressed interest in being able to discontinue operation of the treatment plant and tie into a public system. It is expected that the VoTech School will connect to the LTMA system, pending availability of capacity, in 2001.

5.6.2 Ridge View Trailer Park

The Ridge View Trailer Park is located in the Ridge Pike Corridor near Country Club Road. Sewage treatment for the trailer park is provided by a private on-site sewage treatment plant. The plant is designed to handle 16,000 gpd and discharges to Landis Creek under NPDES Permit No. PA 0050962. The average daily flow for 1999 was approximately 10,000 gallons per day.

An Administrative Order imposed by PADEP during April 1997 orders that the plant be phased out with connection to the public sewer system. It is anticipated that connection of the trailer park sewer system to the LTMA sewer system will occur in 2000. The Ridge Pike sewage system has been designed to accommodate the additional flow which would be generated by this connection.

5.6.3 Limerick Airport Industrial Park

There is a thirty-six (36) acre industrial park located on Windsor Road and Airport Road in the Upper Brooke Evans Creek Drainage Area. Sewage treatment for the industrial park is provided by a private on-site treatment and spray irrigation system. No further information is available on this system.

6.0 IDENTIFICATION AND EVALUATION OF ALTERNATIVES

6.1 Introduction

The previous sections of this report established the background and framework necessary for the identification and evaluation of alternative sewage management approaches. As discussed in previous sections, development pressure, on-lot system failures and the lack of suitable soils for on-lot disposal have contributed to the need for expanded public sewer service and capacity within the Study Area.

6.2 Basis of Alternative Analysis

The intent of the alternative analysis is to evaluate options to provide sewer service for all areas of existing and/or proposed development within the Study Area; which is also the previously defined sewer service area. In the evaluation of the alternatives several factors were considered as follows:

- ◆ Flow Projections
- ◆ Collection System Sizing
- ◆ Implementability
- ◆ Environmental/Growth Impacts
- ◆ Administrative Issues
- ◆ Projected Costs

Flow Projections - In order to adequately size sewage conveyance systems and the wastewater treatment facility to accommodate sewage handling needs, existing and projected EDUs were calculated and used to determine potential sewage flows within the Study Area based upon an expected contribution of 210 gallons per EDU per day and a potential contribution of 250 gallons per EDU per day (see Appendix B).

Collection System Sizing - Based upon flow projections, sewers and pump stations must be sized for the maximum reasonable capacity for each drainage area or development contributing to the sanitary sewer system.

Implementability - An important part of any sewage management alternative is its ability to be implemented. Each alternative's level of construction, administration and operating complexity must be assessed. The ease of operation/implementability of an alternative will play a major role in the selection of a final alternative.

Environmental/ Growth Impacts - The ability to eliminate existing adverse environmental impacts, prevent future adverse conditions and strategically locate sewage collection/conveyance facilities so that identified or planned development projects are served by public sewers while growth impacts are controlled are all factors that must be assessed.

Administrative Issues - Each alternative must consider administrative issues such as land acquisition, permitting, ownership of facilities, etc. required for implementation.

Projected Costs - Upon determining the sewage management alternatives, various cost elements will be developed. Opinions of probable costs are based upon unit prices contained in actual bid data received for similar projects and various other data sources. Construction costs have been divided into the following major elements:

- ◆ Interceptors
- ◆ Upgrades to Pump Stations/New Pump Stations
- ◆ Expansion/Upgrade of the Existing LTMA Wastewater Treatment Facility

Other capital cost elements include easement acquisition, engineering and survey, construction observation, legal and contingencies. The detailed opinions of probable costs for construction for each alternative are included in Appendix C.

An additional item of concern is the ongoing annual operation and maintenance (O & M) costs associated with each treatment option. These costs include elements such as labor, power, chemicals, insurance, equipment, etc. For the purposes of this analysis, all O & M costs are calculated for operation at full capacity.

6.3 Conveyance and Pumping Alternatives

6.3.1 No Action

It is assumed in this analysis that the current pump station configuration constitutes the starting point for alternative evaluation and that the Upper Brooke Evans Drainage Area will be diverted as per the Act 537 Special Study – Possum Hollow Area recently adopted by the Limerick Township Board of Supervisors.

Based upon flow calculations for anticipated flow to each pump station, as presented in Table 3, it appears that the expansion of existing pump stations and associated conveyance systems will not be necessary in the near future.

It is important to note, however, that the LTMA is not abandoning the long range plan for a regional pump station in the Upper Study Area, as outlined in the 1997 Act 537 Revision, included as Appendix D. However, as there are currently no development projects large enough to warrant the construction of a new pump station or the abandonment of the interim pump stations (#10 and #11), the existing collection and conveyance system was analyzed in it's current configuration.

The following sections explain the basis for recommending a No Action approach to the pump stations at this time.

Flow Projections

In calculating the anticipated flow to each of the existing pump stations, future development was assumed to connect to the public sewer system at the most feasible, cost effective point based on local topography and the locations of existing sanitary sewer mains and pump stations as outlined in Figure 3.

The anticipated contributions to each pump station were calculated based on average daily flow data from the LTMA Superintendent's 1999 Pump Station Monthly Reports and the additional flow anticipated at full development. These results were analyzed to determine the potential for overload at each pump station. These calculations are included in Table 3.

Sizing Issues

Based on the data in Table 3 it appears that Pump Stations #1, #2, #5, #6A, and #11 will become overloaded should total buildout occur. However, it is important to note that these numbers do not indicate imminent overloads and/or problems with the pump stations. These pump stations were originally designed to older DEP criteria and overloads are now being calculated due to the change in peaking factors required for pump stations as per the PADEP Draft Sewage Pumping Station Guidance (revision dated March 24, 1999). Furthermore, Pump Station #11 is an interim pump station only, and as such was designed to handle only a specific area. This was in keeping with the LTMA's long range plan, for a regional pump station in the Upper Study Area, as outlined in the 1997 Act 537 Revision.

The projected overloads from Pump Stations #5 and #6A are not significant (<12%) based upon the accuracy of the projections which may not be realized.

Additionally, and perhaps most importantly, these calculations assume the inclusion of sewage flow from the Upper Brooke Evans Drainage Area. Presently the sewage generated in this area is conveyed either to Pump Station #1 or to Pump Station #8. When the diversion of the Upper Brooke Evans Drainage Area occurs, Pump Stations #1 and #8 will be abandoned. Approximately 165,000 gallons of sewage (average daily flow), will ultimately be removed from the conveyance and pump station system and would probably eliminate the need to upgrade Pump Station #5 or #6A.

When Pump Station #11 is abandoned, upon completion of the regional pump station in the Upper Study Area, the flow to Pump Station #2 will be significantly reduced.

Table 3
Pump Station Capacities and Anticipated Future Flows

Pump Station #	Current Average Daily Flow (gpd)	Anticipated Additional Future Flow (gpd)	New Flows from Upstream Pump Stations (gpd)	Projected Average Daily Total Flow (gpd)	Peaking Factor	Total Pump Station Capacity Required (gpd)	Current Pump Station Capacity (gpm/gpd)	
1	71,000	10,500	0	81,500	3.85	313,775	142	204,480
2	24,000	2,100	44,490	70,590	3.875	273,536	130	187,200
3	189,000	148,420	46,590	384,010	3.44	1,320,994	1,150	1,656,000
4	17,000	8,730	0	25,730	4	102,920	80	115,200
5	425,000	268,100	216,850	909,950	3.07	2,793,547	1,900	2,736,000
6A	521,000	233,180	493,680	1,247,860	2.87	3,581,358	2,225	3,204,000
7	30,000	210	0	30,210	4	120,840	260	374,400
8	45,000	11,340	0	56,340	3.9	219,726	205	295,200
9	10,000	24,450	0	34,450	3.95	136,078	200	288,000
10	3,000	34,990	0	37,990	3.95	150,061	180	259,200
11	N/A	44,490	0	44,490	3.9	173,511	90	129,600

1. Current Average Daily Flow represents the average of flows reported for each month in 1999 as per the Pump Station Monthly Reports.
2. Anticipated Additional Future Flow was estimated using the data projected in Appendix B for total buildout of the Study Area.
3. Peaking Factors were calculated per the PADEP Draft Sewage Pumping Station Guidance (revision dated March 24, 1999).
4. Numbers in **bold** indicate the potential for future buildout to exceed the current rated pump station capacity.
5. All calculations assume the inclusion of the Upper Brooke Evans Drainage Area so as to generate a "worst-case" situation.

Implementation

At present no further action is recommended with regard to the upgrade of the existing pump stations. All of the pump stations within the Township have been operating as anticipated with no signs of overload, and projections indicate that this should continue, provided other 537 Plan construction activities proceed as planned.

At present, all of the pump stations should continue to be monitored for any substantial change in activity, particularly when new land developments are connected to the sanitary sewer system.

6.3.2 Abandonment of Interim Pump Stations and Construction of Upper Study Area Regional Pump Station and Sewers

General

Pump Station #8 on West Cherry Lane, Pump Station #10 along the Ridge Pike Corridor and Pump Station #11 located in the Wayside subdivision were designed to be interim pump stations for limited service areas. In accordance with the 1997 Act 537 Revision, Pump Stations #10 and #11 are scheduled to be phased out as the Upper Study Area continues to develop. Pump Station #8 will be phased out upon diversion of the Upper Brooke Evans Drainage Area.

Implementation

This alternative has not been modified from the selected plan presented in the 1997 Act 537 Revision. All flow originating in the Upper Study Area Drainage Area will be conveyed to a pump station located near Lodal Creek and Township Line Road. Flow from this station will be pumped via a force main to the existing twelve (12) inch gravity main along Township Line Road to the Ridge Pike Corridor and subsequently through the Mingo Creek Interceptor to Pump Station #6A (see Appendix D).

Costs

The costs associated with this alternative are outlined in Appendix C, Opinion of Probable Cost Table #1 and include the construction of collection and pumping facilities for the Upper Study Area and existing system abandonment. The opinion of probable project cost for this alternative is approximately \$2,390,000.

6.3.3 Benner Road Interceptor

General

As previously stated, should total buildout occur, Pump Station #6A may require upgrading. In the Comprehensive Sewage Facilities Planning Study (revision dated May 1992), prepared by PSC Engineers and Consultants, this eventuality was considered in Alternative No. 1. This alternative details the construction of a thirty-six (36) inch interceptor along Benner Road. The plan for this alternative is included as Appendix E and is the currently adopted sewage management plan for this part of the Township.

Description of Current Plan

This interceptor would collect flows from Pump Stations #4 and #5. Presently flows from Pump Stations #4 and #5 are pumped to Pump Station #6A. With this flow removed the potential upgrade of Pump Station #6A would be averted.

In accordance with the study prepared by PSC Engineers and Consultants, a ten (10) inch gravity line would replace Pump Station #4. This gravity sewer would connect along with a sixteen (16) inch force main from Pump Station #5 at the terminal manhole of the thirty-six (36) inch interceptor. The sewage from these areas would be conveyed through a thirty-six (36) inch interceptor generally following Benner Road to the wastewater treatment plant.

Implementation

The original alternative described by PSC Engineers indicates the abandonment of Pump Station #7. However, sewage cannot flow by gravity from the Pump Station #7 location to the treatment plant. In order to implement this alternative the construction of a new pump station in this general area would be necessary, to accommodate the new flows from the areas served by Pump Stations #4 and #5. Additionally, the use of a thirty-six (36) inch interceptor may be excessive given the current and predicted flows for this area. Prior to implementation of this alternative it would be necessary to resize the proposed interceptor.

As a further suggested revision to the plan outlined by PSC Engineers this alternative could be modified so that a new pump station would not be required. Instead of connecting Pump Stations #4 and #5, a force main from Pump Station #5 only could be constructed in the same location as proposed by PSC Engineers for the Benner Road Interceptor and run directly to the LTMA treatment plant, thereby by-passing Pump Station #6A.

Costs

The opinion of probable project cost associated with the Benner Road Interceptor alternative, including a new pump station in the King Road vicinity, is estimated at \$2,790,000. The costs associated with this alternative are outlined in Appendix C, Opinion of Probable Cost Table #2.

6.3.4 Diversion of Upper Brooke Evans Drainage Area to Possum Hollow

General

This sewage management alternative will provide collection and conveyance of sewage for the existing development and proposed new development within the Upper Brooke Evans Drainage Area via the proposed Possum Hollow Run Sewerage System. The plan was recommended in the Act 537 Special Study for the Possum Hollow Study Area, by Gilmore & Associates, Inc., dated March 2000, which was adopted by the Limerick Township Board of Supervisors on March 17, 2000.

This alternative includes the construction of a new pump station to connect the Upper Brooke Evans Drainage Area to the Possum Hollow Run Interceptor. The Act 537 Special Study for the Possum Hollow Study Area report discusses this alternative and related items in greater detail (Figure 6).

Flow Projections and Collection System Sizing

The projected flow to be transferred from the Upper Brooke Evans Creek Drainage Area to the Possum Hollow Sewerage System is 165,000 gpd.

Environmental / Growth Impacts

Diversion of the Upper Brooke Evans Drainage Area would be beneficial for many reasons. As previously mentioned, sewage generated in this area is conveyed either to Pump Station #1 or to Pump Station #8, and subsequently to Pump Stations #5 and #6A. As shown in Table 3, at total buildout Pump Stations #1 and #6A could possibly require upgrading. Diversion of the sewage flow now entering Pump Stations #1 and #8 to the Possum Hollow Run Sewerage System would allow for the phase out of Pump Station #1 and probably eliminate the need to upgrade Pump Station #6A.

Diversion will also encourage immediate commercial development in the unsewered western portion of the Lower Brooke Evans Drainage Area above Sanatoga Road, where the new pump station would be built. This would be consistent with the Township's expressed desire to encourage commercial development in the western portion of the Township.

Costs

The opinion of probable project cost associated with the diversion of the Upper Brooke Evans Drainage Area sewage is \$1,530,000, exclusive of the cost of treatment capacity. The costs associated with this alternative are outlined in Appendix C, Opinion of Probable Cost Table #3. Regardless of where the Upper Brooke Evans flow is treated, new capacity must be constructed as the existing LTMA treatment plant is at capacity and must be expanded to meet projected growth demands. It is expected that the cost for providing incremental capacity at the existing treatment plant would be similar to the cost for constructing treatment capacity at the proposed Possum Hollow Run Wastewater Treatment Plant. Additionally, incremental operation and maintenance costs should be roughly equivalent regardless of where the flow is treated.

6.3.5 Landis Creek Interceptor

General

A portion of the Landis Creek Interceptor is an eight (8) inch asbestos cement sewer main beginning at Manhole #201 just off of Limerick Center Road and running in an easterly direction to Manhole #254 near Lewis Road.

In 1988 and 1993 video inspection of this portion of the interceptor showed several sags and offset joints in the pipe and many of the manholes appeared to have leaks. The pipe was grouted in 1988 and interim repairs were made to many of the manholes. However, this area has been a constant source of concern for the LTMA.

The 1992 Comprehensive Sewage Facilities Planning Study prepared by PSC Engineers addressed this issue. At that time the area tributary to the Landis Creek Interceptor was relatively undeveloped and based on potential development in that area PSC Engineers predicted that a twenty-four (24) inch interceptor would be required to replace the existing eight (8) inch main. As this area has experienced almost total buildout, it is now possible to more accurately determine the sizing requirements of this interceptor.

In November 1997 a review of the capacity of this interceptor was undertaken by Gilmore & Associates, Inc. At that time it was noted that approximately 1,320 linear feet of this interceptor is at a slope of less than 0.5% with approximately 400 linear feet at a marginally acceptable slope of 0.52%. In February of 1998 actual flow data was collected over a six (6) day period. The data collected indicates an actual peak flow rate of approximately 108 gallons per minute. Using the Manning Flow Tables for Circular Pipes, the total capacity of this pipe was calculated to be approximately 340 gallons per minute.

Flow Projections and Collection System Sizing

It should be noted that the aforementioned measurements were taken during a period when groundwater was low and very little rainfall was received, as indicated by the flow data. Therefore, the peak flow did not show any significant changes due to the effects of inflow and infiltration. In order to conservatively account for flow rate increases due to inflow and infiltration, given the age, sewer main material (asbestos cement) and known condition of this portion of the interceptor, it would be reasonable to assume a 100% increase during a significant storm event. Additionally, this data was collected prior to the connection of a large portion of the Deer Run Development, the Betty/Roberta Lane neighborhood, the Lakeside Development, and the William Penn Villas.

Based on the information collected the potential flow through this interceptor was calculated as follows:

Measured Flow Data			= 108 gpm (peak)
Flow Due to I & I			= 108 gpm (peak)
Betty/Roberta Lanes	= 32 EDUs	= 6 gpm (average)	= 13 gpm (peak)
Deer Run*	= 45 EDUs	= 7 gpm (average)	= 18 gpm (peak)
William Penn Villas	= 87 EDUs	= 13 gpm (average)	= 33 gpm (peak)
Lakeside	= 64 EDUs	= 10 gpm (average)	= <u>25 gpm (peak)</u>
	Total Gallons per Day (peak)		305 gpm

* At the time the data was gathered approximately 50% of the sewer connections at Deer Run were operational, therefore only 50% of the total connections were added in these calculations.

Based on this information the existing eight (8) inch diameter asbestos cement pipe is theoretically at approximately 90% capacity. Please note that this is **theoretical** capacity as the interceptor capacity calculations were based on a designation of 210 gallons per day per EDU and assumptions of inflow and infiltration contributions.

The capacity of this main may be exceeded with the future development of this area. Portions of this interceptor may require expansion to prevent conveyance

problems in this area. Replacement of the existing main with ten (10) inch PVC will almost double the theoretical capacity and adequately handle future demands.

Costs

The construction costs associated with upgrading portions of the Landis Creek Interceptor to ten (10) inch PVC are estimated at \$165,000. The costs associated with this alternative are outlined in Appendix C, Opinion of Probable Cost Table #8.

6.4 Evaluation of Conveyance and Pumping Options

In Section 6.3.1, Table 3, the pump station capacities and anticipated future flows were calculated. These projections indicate that should total buildout occur, five (5) pump stations may require upgrading or expansion. However, at this time it is recommended that no action be taken towards the upgrade or expansion of any of the pump stations, since the following proposed projects will probably make the need for these expansions unlikely.

Specifically, the remaining conveyance/pumping options under consideration are summarized in Table 4. Two of these projects, the construction of the regional pump station for the Upper Study Area and the Upper Brooke Evans Drainage Area diversion, have already been adopted by Limerick Township via the 1997 Act 537 Plan Revision and the 2000 Special Study for the Possum Hollow Drainage Area, respectively. Both projects remain key components of the Township's long range sewage management plan and no changes are proposed herein.

The Benner Road Interceptor was originally proposed in 1992 principally as a means of reducing the hydraulic load on Pump Station #6A and eliminating the need for major expansion of that facility. Since then Pump Station #6A has been expanded in accordance with the 1997 Act 537 Plan Revision. The planned diversion of the Upper Brooke Evans Creek watershed to the Possum Hollow Treatment Plant will reduce the projected hydraulic load to Pump Station #6A to a level probably manageable by the current facility. The benefits to be gained by building the Benner Road Interceptor now appear negligible compared to the \$2,640,000 cost. Its continued inclusion in the Act 537 Plan is not recommended.

Finally, the Landis Creek Interceptor is also a remnant from the 1992 Act 537 Plan Revision. This project remains necessary however, since the hydraulic load on this pipeline will not be reduced by any other proposed activities. Replacement of this line is also relatively inexpensive at \$165,000 and easily implemented since all construction will be through golf course open space.

Table 4
Summary of Opinions of Probable Cost
For Conveyance/Pumping Options

<u>Option</u>	<u>Project Cost</u>
1. Abandon Interim Pump Stations/ Construct Regional Pump Station	\$2,390,000
2. Benner Road Interceptor	\$2,790,000
3. Upper Brooke Evans Diversion	\$1,530,000
4. Landis Creek Interceptor	\$165,000

6.5 Wastewater Treatment Alternatives

6.5.1 General

The existing wastewater treatment plant is located on a site of about seven (7) acres between King Road and the Norfolk Southern Railroad which parallels the Schuylkill River. The site includes an open area of about two (2) acres which was acquired by the Authority in 1997 for future expansion purposes.

It should be noted that developed residential areas are located to the east and north of the wastewater treatment plant.

6.5.2 Current Wastewater Treatment Plant Capacity

The existing wastewater treatment plant presently has a rated hydraulic capacity of 1.6 mgd and a rated organic capacity of 2720 pound BOD₅/day. The organic capacity is equal to a BOD₅ concentration of 204 mg/l at the rated hydraulic capacity of 1.6 mgd. Actual raw waste BOD₅ concentration averaged 255 mg/l during calendar years 1998-1999 because of the Township's required usage of water conservation plumbing fixtures for new construction. This BOD₅ concentration results in the organic capacity of the wastewater treatment plant being reached at a flow of 1.3 mgd. Therefore, existing wastewater treatment is limited by the rated organic capacity rather than the rated hydraulic capacity.

The organic loading evaluation presented in the 1999 Chapter 94 Report (Section 5.3) was developed differently (i.e. based on an EDU allowance). The BOD₅ concentration based upon the five (5) year projection for organic loading (1783 pounds/day) and hydraulic loading (1.4 mgd) calculates to 153 mg/l. This apparently low concentration is primarily the result of using an allowance of 210 gpd/EDU which include adjustments for weekend flows and storm events. Based

upon the 1998-99 sampling information for BOD₅ concentration, it is felt that the Chapter 94 projection may not be representative of what the organic loading could be; therefore, a more conservative approach with regard to BOD₅ concentration is warranted for facilities design.

Further, there are operational concerns associated with processing a hydraulic loading which is 60% greater than the original permitted capacity of 1.0 mgd. It should be noted that the wastewater treatment facilities as originally designed involved the use of a true extended aeration process (24 hour detention time). With the re-rating of the wastewater treatment plant to 1.6 mgd in 1994, the aeration time was reduced to 15 hours. This reduced detention time coupled with the strength of the wastewater results in a decreased ability to biologically stabilize the organic loading and minimize waste activated sludge production by endogenous respiration. This results in production of a greater amount of waste activated sludge which decreases the solids residence time in the aerobic digestion process. This in turn reduces the volatile suspended solids reduction of the sludge and the available time to decant supernatant and thicken the waste sludge for disposal. Consequently, there is a greater amount of sludge for off-site disposal along with greater odor problems during the decanting process (i.e. no aeration) as a result of higher volatile suspended solids concentration in the sludge.

In addition, since the service area is essentially residential with significant employment outside of Limerick Township, the weekend sewage flows are higher than workday sewage flows which is currently stressing the operation of the equalization tanks preceding the treatment process.

Finally, there is growing concern as to the ability of the wastewater treatment plant to consistently meet the effluent limits of the NPDES permit at the rated hydraulic capacity of 1.6 mgd, based on stress tests performed on individual treatment units.

Improvements are required at the existing treatment plant, regardless of the final sizing, in order to allow for a true capacity of 1.6 mgd in light of the aforementioned operational issues and associated expenses, and to better insure compliance with NPDES permit requirements.

6.5.3 Flow Projections and Treatment Plant Sizing

The design flow projection for the wastewater treatment plant is estimated to be 1.7 mgd assuming the Upper Brooke Evans Drainage Area is diverted to the Possum Hollow sewerage system in accordance with the Act 537 Special Study for the Possum Hollow Area, as adopted by the Limerick Township Board of Supervisors. Inclusion of the Upper Brooke Evans Drainage Area would result in a design flow projection of 1.85 mgd. The basis for these flow projections are presented in Appendix B.

Upon review of the aforementioned calculations, it is important to note that although the required treatment plant expansion is only 0.1-0.25 mgd on paper, the actual expansion would be 0.4-0.55 mgd in light of the current organic capacity constraint.

Finally, it is also important to note that the 1.7 mgd design sizing is based upon 210 gallons per EDU per day, as discussed in Section 4.4. Since it is recognized that maximum month flows from individual connections could reach 250 gallons per EDU, a potential for approximately 2.0 mgd of flow exists during those times of the year.

6.5.4 Wastewater Treatment Plant Process Options

In order to provide required treatment capacity, a number of wastewater treatment plant process options, including a no action option, have been developed.

The process options are based upon the following considerations:

1. Maximizing the use of existing tankage and equipment since the facilities are fairly new, having been constructed in the late 1980s. The existing steel tankage and piping, if properly maintained and coated, will provide adequate service for decades to come; mechanical equipment (i.e. pumps, blowers, motors, etc.) will need to be periodically replaced.
2. Avoiding the need to acquire additional property, if possible.
3. Continuing use of a long term activated sludge process to minimize waste sludge production.
4. Providing new headworks facilities to allow for removal of screenings and grit from the wastewater flow.
5. Providing effluent disinfection by ultraviolet light to minimize the use of chlorine and its related issues of chlorine toxicity, formation of chlorinated compounds and safety/reporting matters.
6. Providing sludge dewatering facilities to allow for disposal/utilization options and reduce the cost for off-site disposal/utilization. Sludge dewatering capacity shall also be provided for the anticipated waste sludge from the Possum Hollow Wastewater Treatment Plant.

7. Providing an outfall to allow for direct discharge to the Schuylkill River in light of current and potential future effluent limits in the NPDES permit.

The specific process options, along with the no action option, are as follows:

No Action

No action, or the continuation of operation of the wastewater treatment system at its current capacity, is not a viable option for the Study Area. As noted in Section 6.5.3, the flow projection for the wastewater treatment plant is estimated to be 1.7 mgd assuming diversion of the Upper Brooke Evans Drainage Area and 1.86 mgd without the diversion.

Furthermore, should any additional on-lot disposal systems in the Study Area experience problems or failures, these locations could be required to connect to the public sewer system. The addition of numerous connections, without expansion of the treatment facility, would eventually result in the organic and/or hydraulic overload of the LTMA wastewater treatment plant and/or performance problems with violations of the NPDES permit requirements.

Option 1:

This option involves the modification of the existing wastewater treatment facilities to provide for a "true" extended aeration process which will involve conversion of the existing treatment tanks to aeration basins along with new clarifiers and a new recycle sludge pump station.

Other new facilities would include headworks, raw waste equalization, ultraviolet light disinfection, aerobic sludge digestion, sludge dewatering, utility water system and outfall directly to the Schuylkill River. Related site work would involve yard piping, yard pump station, electrical, paving fencing and landscaping.

The preliminary layout of Option 1 is presented in Figure 7.

Option 2:

This option involves modification of the existing wastewater treatment facilities to provide for a sequencing batch reactor (SBR) process. The SBR process is accomplished within a single tank and does not require separate clarifiers or a sludge recycle pump station. The existing treatment tanks would be converted to four (4) parallel SBR units. New facilities would include headworks, effluent equalization, aerobic sludge digestion, sludge dewatering, utility water system and

an outfall directly to the Schuylkill River. Related site work would involve yard piping, yard pump station, electrical, paving, fencing and landscaping.

The preliminary layout of Option 2 is presented in Figure 8.

Option 3:

This option also involves use of an SBR process but within new treatment tankage. The existing treatment tanks would be converted to raw waste equalization/storage, aerobic digesters, and possibly a septage pretreatment system. New facilities would also include headworks, effluent equalization, ultraviolet light disinfection, sludge dewatering, utility water system and an outfall directly to the Schuylkill River. Related site work would involve yard piping, yard pump station, electrical, paving, fencing and landscaping.

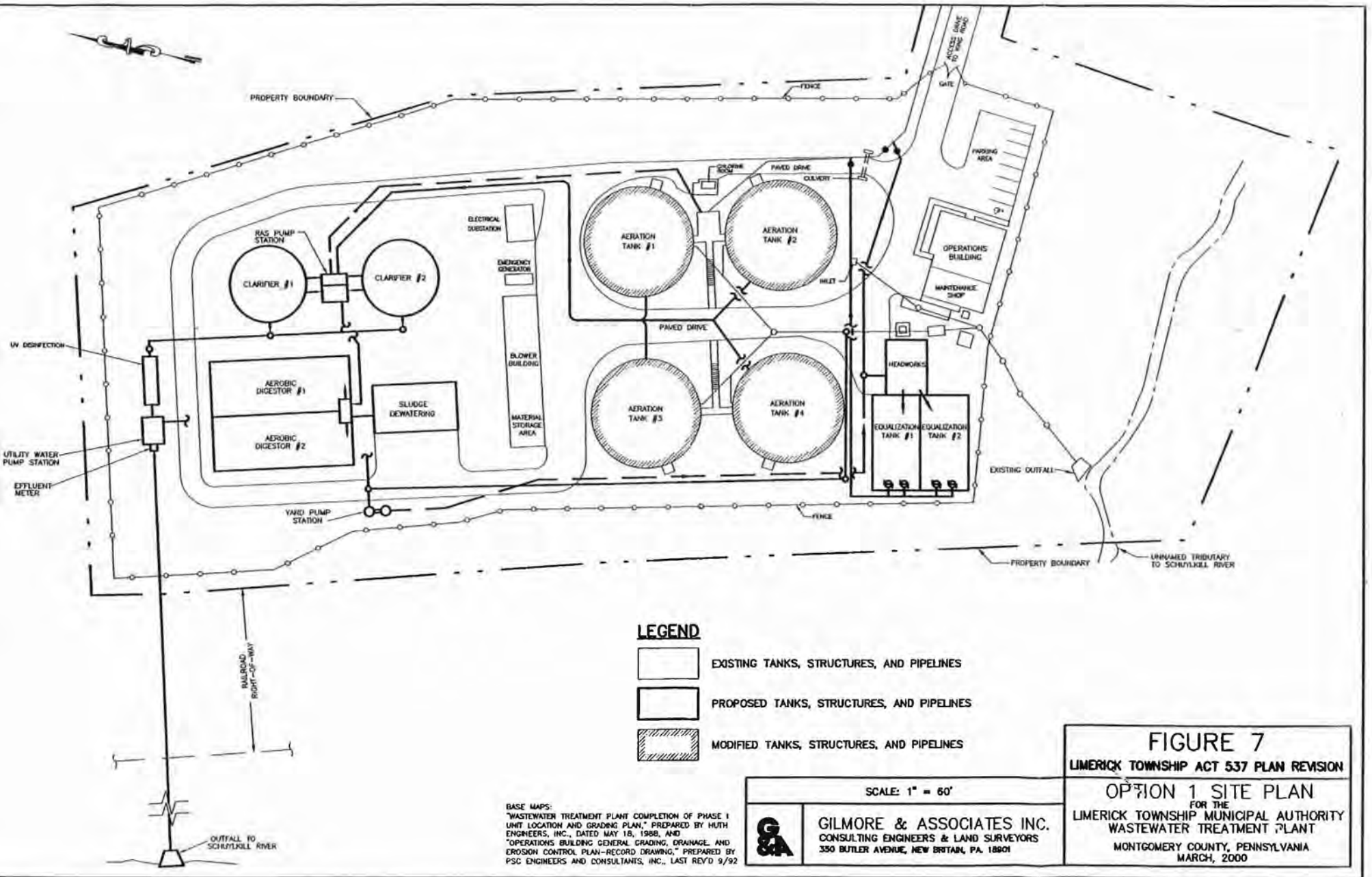
The preliminary layout of Option 3 is presented in Figure 9.

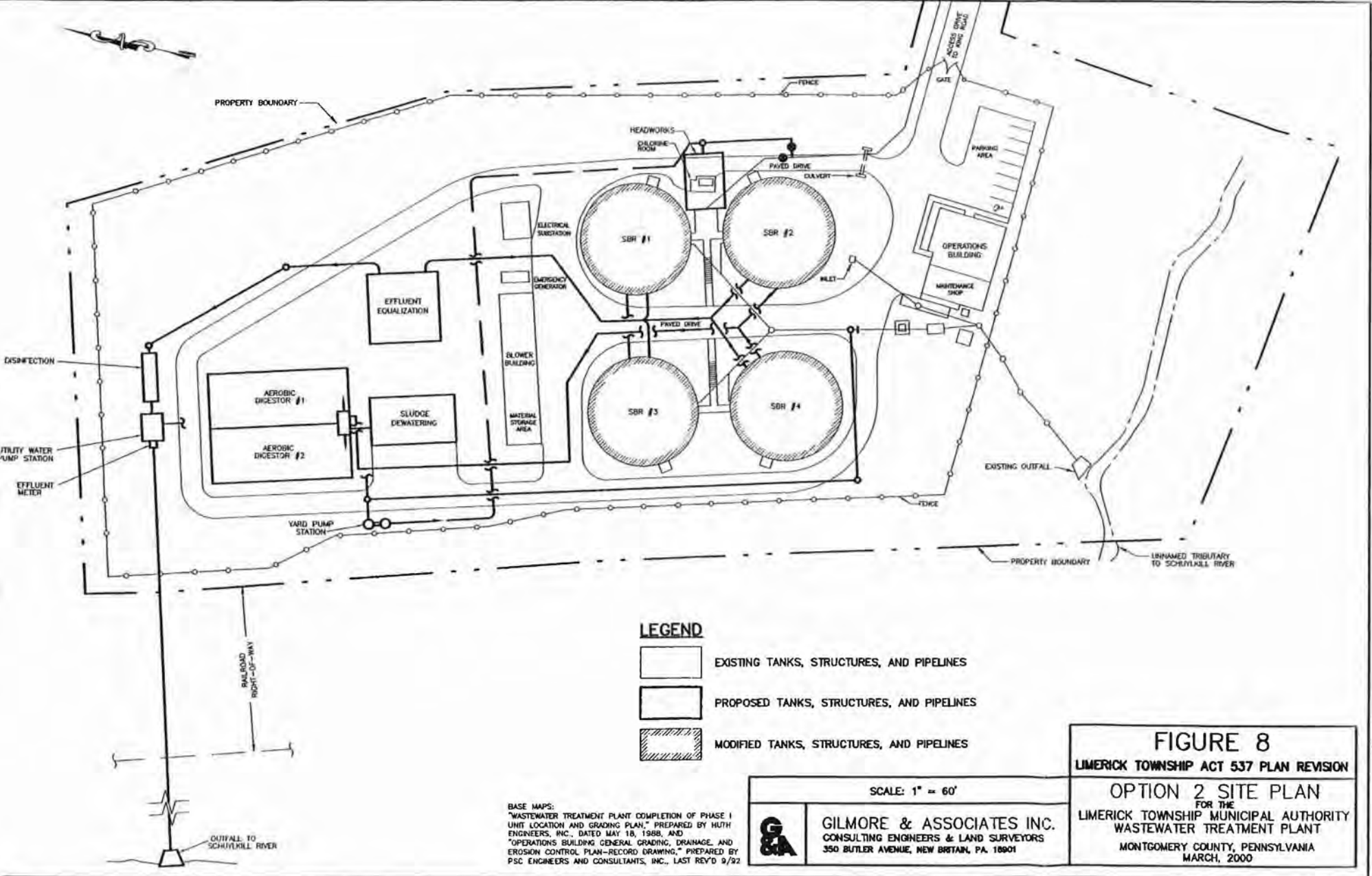
Option 4:

This option also involves modification of existing wastewater treatment facilities to provide for a “true” extended aeration process. Unlike Option 1, however, the existing treatment tanks would be modified to convert the digester compartments to additional aeration capacity.

New facilities would include one or more new treatment tanks, ultraviolet light disinfection, aerobic sludge digestion, sludge dewatering, utility water system and an outfall directly to the Schuylkill River. Related site work would involve yard piping, yard pump station, electrical, paving, fencing and landscaping.

The preliminary layout of Option 4 is presented in Figure 10.





LEGEND

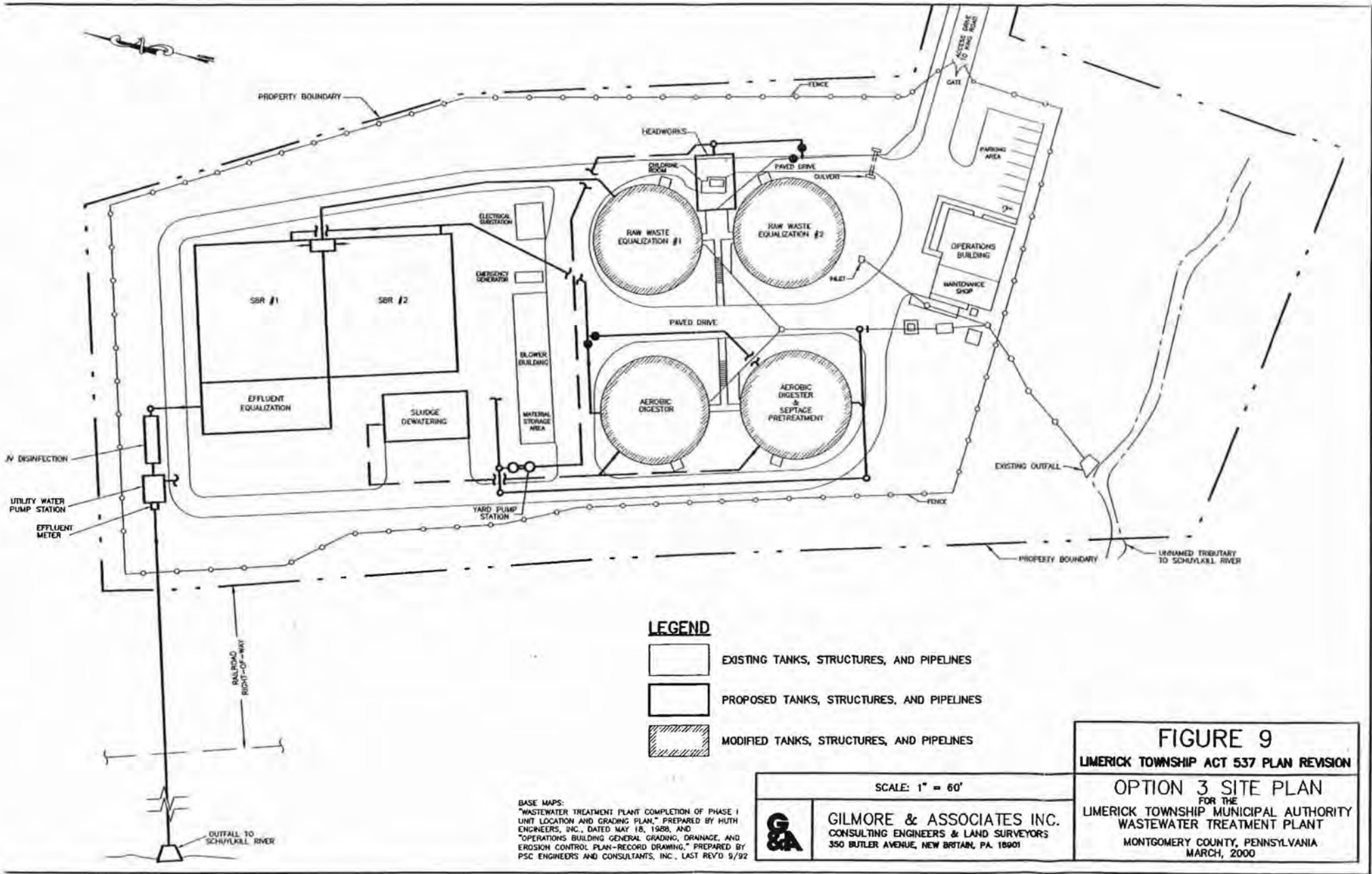
- EXISTING TANKS, STRUCTURES, AND PIPELINES
- PROPOSED TANKS, STRUCTURES, AND PIPELINES
- MODIFIED TANKS, STRUCTURES, AND PIPELINES

BASE MAPS:
 "WASTEWATER TREATMENT PLANT COMPLETION OF PHASE I
 UNIT LOCATION AND GRADING PLAN," PREPARED BY HUTH
 ENGINEERS, INC., DATED MAY 18, 1988, AND
 "OPERATIONS BUILDING GENERAL GRADING, DRAINAGE, AND
 EROSION CONTROL PLAN-RECORD DRAWING," PREPARED BY
 PSC ENGINEERS AND CONSULTANTS, INC., LAST REV'D 9/92

SCALE: 1" = 60'

GILMORE & ASSOCIATES INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 350 BUTLER AVENUE, NEW BRITAIN, PA. 18901

FIGURE 8
 LIMERICK TOWNSHIP ACT 537 PLAN REVISION
OPTION 2 SITE PLAN
 FOR THE
 LIMERICK TOWNSHIP MUNICIPAL AUTHORITY
 WASTEWATER TREATMENT PLANT
 MONTGOMERY COUNTY, PENNSYLVANIA
 MARCH, 2000



LEGEND

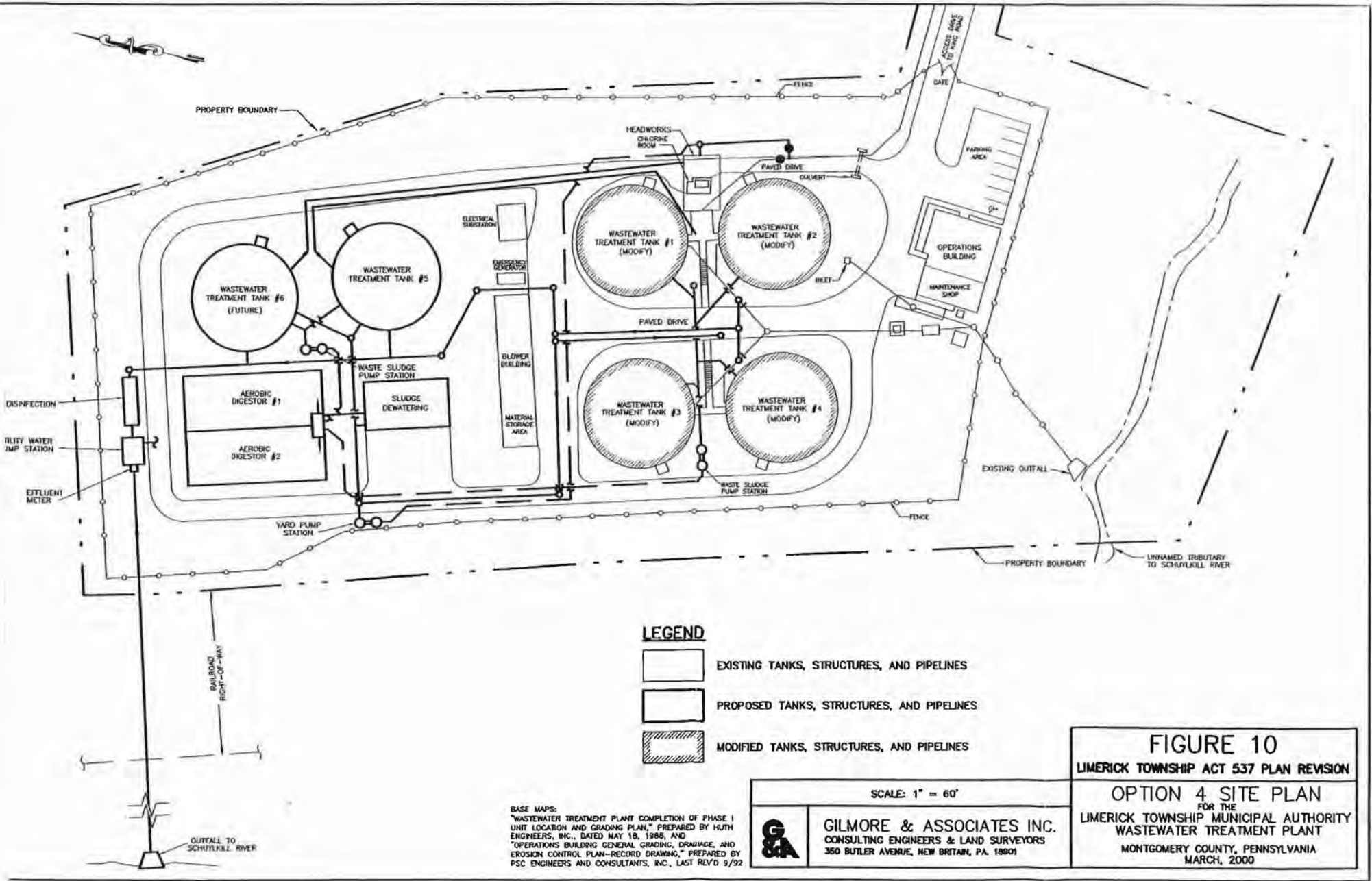
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SCALE: 1" = 60'

GILMORE & ASSOCIATES INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 350 BUTLER AVENUE, NEW BRITAIN, PA. 18901

FIGURE 9
LIMERICK TOWNSHIP ACT 537 PLAN REVISION
OPTION 3 SITE PLAN
 FOR THE
LIMERICK TOWNSHIP MUNICIPAL AUTHORITY
WASTEWATER TREATMENT PLANT
 MONTGOMERY COUNTY, PENNSYLVANIA
 MARCH, 2000



LEGEND

- EXISTING TANKS, STRUCTURES, AND PIPELINES
- PROPOSED TANKS, STRUCTURES, AND PIPELINES
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 PSC ENGINEERS AND CONSULTANTS, INC., LAST REV'D 9/92

G & A	GILMORE & ASSOCIATES INC. CONSULTING ENGINEERS & LAND SURVEYORS 350 BUTLER AVENUE, NEW BRITAIN, PA. 18901
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FIGURE 10 LIMERICK TOWNSHIP ACT 537 PLAN REVISION OPTION 4 SITE PLAN FOR THE LIMERICK TOWNSHIP MUNICIPAL AUTHORITY WASTEWATER TREATMENT PLANT MONTGOMERY COUNTY, PENNSYLVANIA MARCH, 2000

SCALE: 1" = 60'

6.6 Evaluation of Wastewater Treatment Process Options

In the evaluation of the options, several factors were considered as follows:

- ◆ Process Reliability and Performance
- ◆ Site and Treatment Tank Usage
- ◆ Constructability Aspects
- ◆ Ease of Operation
- ◆ Residuals
- ◆ Costs
- ◆ Other Factors

Process Reliability and Performance – This factor refers to the ability to consistently achieve compliance with the current effluent limitations with consideration for possible future effluent limitations.

Site and Treatment Tank Usage – This factor deals with the need to acquire additional land along with site restraints for planned and possible future capacity, process layout arrangement, continued usage of treatment tanks and ability to handle flows beyond 1.7 mgd should the EDU contribution reach 250 gallons per day or the number of EDUs exceed projections.

Constructability Aspects – This factor involves a preliminary evaluation relative to the ease or difficulty of maintaining performance during the construction period while modifying existing facilities.

Ease of Operation – This factor involves operator familiarity with the treatment process, extent of operator involvement with the proposed facilities, process selection, number of units and loss of capacity with the key unit out of operation.

Residuals – This factor concerns the issue of waste activated sludge, grit and screenings which require processing and off-site disposal.

Cost – This factor involves evaluation of construction and project costs along with operation and maintenance cost.

Other Factors – This factor involves other aspects of importance not covered in the above factors.

6.6.1 Process Reliability and Performance

The extended aeration process of Options 1 and 4 is a widely used, well established treatment process which will achieve significant nitrification (i.e. removal of ammonia-nitrogen). This process is presently utilized at the LTMA

wastewater treatment plant and is quite familiar to the operators. Continued use of the extended aeration process will not necessarily preclude conversion to a SBR process in the future.

The SBR process of Options 2 and 3 has been in use at a growing number of wastewater treatment facilities during the past fifteen (15) years or so. The process has excellent flexibility relative to biological nutrient (phosphorous, nitrogen) removal in addition to nitrification, which would be important should effluent requirements limit the discharge of such nutrients in future years. For example, the process can provide for nitrogen removal by denitrification which allows for recovery of oxygen along with significant reduction of nitrate-nitrogen in the effluent. Nitrate-nitrogen is an important parameter relative to drinking water, which is a significant water use downstream on the Schuylkill River.

Either of the processes will provide a reliable effluent quality which meets current NPDES requirements for a discharge to the Schuylkill River.

6.6.2 Site and Treatment Tank Usage

All of the options can be constructed within the site currently owned by LTMA although easements will be required for the outfall to the Schuylkill River.

Option 1 will result in a congested area in the vicinity of the existing operations building which will require that parking for operators be relocated. All options will essentially utilize most, if not all of the available land.

Options 1 and 2 would allow for a capacity of approximately 2.0 mgd with minimal additional construction, although certain units/piping would need to be sized for 2.0 mgd as part of the planned expansion/upgrade. Option 3 would require an enlargement of the new SBR to accommodate a flow of 2.0 mgd. Option 4 would require the addition of a sixth treatment tank in order to handle 2.0 mgd.

Options 1, 2 and 4 will utilize all four (4) of the existing treatment tanks while Option 3 will utilize two (2) of the treatment tanks.

6.6.3 Constructability Aspects

It is anticipated that three (3) of the treatment tanks can remain in service at any time during the construction period regardless of the option selected. Option 2 is the most problematic in this regard. Option 4 involves the least renovation work associated with the existing treatment tanks. A detailed sequence of construction will be required such that the existing treatment facilities remain in service to the maximum practicable extent during the construction period.

6.6.4 Ease of Operation

All of the options are capable of being operated without difficulty or an excessive amount of operator attention. The current operations staff is familiar with the extended aeration process of Options 1 and 4. Operator familiarity with the SBR process of Options 2 and 3 is low; consequently operator training will be required. Option 1 involves locating the headworks and flow equalization tanks adjacent to the operations building which is not desirable because of congestion and site constraints. Option 4 involves the independent operation of at least five (5) treatment tanks which is more operator intensive than the other options.

Options 2 and 4 offer an advantage relative to having a relatively small loss of overall treatment capacity should one of the treatment tanks need to be removed from service for maintenance purposes.

6.6.5 Residuals

All of the options involve use of a long term aeration process which should result in a similar quantity of waste activated sludge to process. The sludge stabilization (aerobic digestion) and dewatering operation is similar for all options which will allow for removal as either liquid aerobically digested sludge or an aerobically digested sludge cake for off site disposal by a contract hauler.

Sludge from the Possum Hollow Wastewater Treatment Plant can be trucked to the sludge processing facilities for dewatering.

All of the options will also include new headwork facilities which will provide grit and screenings for off site disposal.

6.6.6 Costs

The detailed cost estimates associated with the four (4) options are presented in Appendix C, Opinion of Probable Cost Tables #4 through #7. Costs include an Opinion of Probable Construction Cost (based on year 2000), an Opinion of Probable Project Cost (based on year 2000) and Opinion of Probable Operations and Maintenance cost (based on design capacity). The operation and maintenance costs are only those costs associated with wastewater treatment and do not include those costs associated with the sewage collection and pumping facilities, general LTMA administration or debt service.

A summary of the costs is presented in Table 5 including the 20 year present worth for a plant capacity of 1.7 mgd, which assumes diversion of the Upper Brooke Evans Drainage Area to the Possum Hollow Sewerage System.

Table 5
Summary of Opinions of Probable Cost
Wastewater Treatment Plant Capacity of 1.7 MGD

Option	Construction Cost	Project Cost	Operations and Maintenance Cost	Present Worth (20 year, 6%)
1	\$6,100,000	\$8,080,000	\$830,000	\$17,600,000
2	\$5,200,000	\$7,000,000	\$790,000	\$16,100,000
3	\$5,500,000	\$7,300,000	\$830,000	\$16,800,000
4	\$4,500,000	\$6,000,000	\$860,000	\$15,900,000

6.6.7 Other Factors

Option 3 can allow for conversion of one of the treatment tanks to a septage pretreatment facility which is a feature not included in the other options.

Table 6 presents a comparative analysis of the four (4) wastewater treatment plant options.

TABLE 6
COMPARATIVE ANALYSIS OF WASTEWATER TREATMENT PLANT OPTIONS

<u>Evaluation Factor</u>	<u>Option 1</u>	<u>Option 2</u>	<u>Option 3</u>	<u>Option 4</u>
	Extended Aeration with Conversion of Existing Tankage to Aeration Tanks	SBR with Conversion of Existing Tankage to SBR Units	SBR with New Tankage, Conversion of Existing Tankage to Various Uses	Extended Aeration with Additional Tankage
1.0 Treatment Process				
1.1 Type (see Note 1)	Extended aeration with pre-equalization	Sequencing batch reactor with post-equalization	Sequencing batch reactor with post-equalization	Extended aeration with pre-equalization
1.2 Ammonia removal (i.e. nitrification) capability (see Note 3)	Excellent	Good to Excellent	Good to Excellent	Excellent
1.3 Nutrient (nitrogen, phosphorous) removal capability (see Note 2)	Very limited; phosphorous removal by chemical addition possible	Excellent nutrient removal possible biologically; would require addition of mixers	Excellent nutrient removal possible biologically	Very limited; phosphorous removal by chemical addition possible
1.4 Performance reliability	Excellent	Excellent	Excellent	Excellent
2.0 Site/Treatment Tank Usage				
2.1 Layout arrangement (see Note 5)	Potential congestion in area of	Satisfactory	Satisfactory	Satisfactory
2.2 Potential for expansion beyond 1.7 mgd at current effluent requirements	Good as aeration capacity is available for 2 mgd (see Note 4); medium cost implementation	Good as SBR capacity is available for 2 mgd; low cost implementation	Fair at best (see Note 4); medium cost implementation	Excellent; additional (6th) treatment tank allows for 2 mgd capacity; high cost implementation
2.3 Continued usage of treatment tanks	Yes, all four	Yes, all four	Yes, but only two	Yes, all four
3.0 Constructability				
3.1 Impacts during construction	Medium	Significant	Medium	Minor
4.0 Ease of Operations				
4.1 Operator familiarity	High	Low	Low	High
4.2 Operator involvement	Medium	Medium	Medium	High
4.3 Loss of capacity with key unit out of service	50%	25%	50%	20%
5.0 Other Factors				
5.1 Miscellaneous Factor #1			Septage pretreatment possible	
6.0 Costs				
6.1 Project Cost	\$8.1 million	\$7.0 million	\$7.3 million	\$6.0 million
6.2 Operation and Maintenance Cost	\$0.83 million	\$0.79 million	\$0.83 million	\$0.86 million
6.3 Present Worth (20 Year, 6%)	\$17.6 million	\$16.1 million	\$16.8 million	\$15.9 million

Table 6
Comparative Analysis of Wastewater Treatment Plant

Notes:

1. All options will have new headworks facilities (screening and grit removal), ultraviolet light disinfection, sludge dewatering facilities and outfall to the Schuylkill River.
2. No nutrient removal requirements currently exist in the NPDES Permit nor are foreseen for a direct discharge to the Schuylkill River.
3. Current ammonia-nitrogen limit is 20 mg/l for a direct discharge to the Schuylkill River. While no stringent ammonia-nitrogen limit is foreseen in the near future, a gradual lowering of the effluent limitation is a reasonable expectation in future years.
4. Future capacity beyond 1.7 mgd would require larger facilities to be initially constructed (i.e. Option 1 – larger clarifiers, Option 3 – larger SBRs) which are not included in the project cost.
5. It would be prudent for any of the options to acquire additional property towards King Road for possible future use and to serve as a buffer against residential encroachment.

7.0 INSTITUTIONAL EVALUATION

7.1 General

The LTMA has been in existence since 1986, and owns and operates the existing municipal sanitary sewerage system in Limerick Township. All planned sewerage facilities will be the responsibility of the LTMA to implement including design, funding, construction and operation. No further evaluation of institutional approaches is necessary.

8.0 SELECTED ALTERNATIVE AND IMPLEMENTATION PLAN

8.1 General

This section discusses the alternative selected for implementation within the Study Area. Figure 8 illustrates the proposed collection, conveyance and treatment facilities associated with the chosen alternative. This selection was based on the information provided in Section 6. Also discussed is the funding approach being pursued and the proposed implementation program/management plan for release of new connection permits (EDUs).

As noted throughout the Act 537 Plan Revision, the major problem to be addressed by the selected alternative is the provision of sewage treatment capacity for connection of existing and future development within the Study Area.

8.2 Existing Wastewater Disposal Needs

The existing wastewater disposal needs in Limerick Township were addressed in Section 4 of this report. The existing need for wastewater treatment capacity was a key factor in the selection of an alternative as discussed in Section 6.

8.3 Future Wastewater Disposal Needs

The future wastewater disposal needs for Limerick Township were addressed in Section 4 of this report. The anticipated future demand for wastewater collection, conveyance and treatment systems was a key factor in the evaluation and final selection of an alternative as discussed in Section 6.

8.4 Selected Plan

With respect to expansion/upgrade of the King Road wastewater treatment plant the selected plan is Option 2, which involves an SBR process utilizing the four (4) existing treatment tanks.

This option is economically favorable with respect to operation and maintenance costs and overall present worth. The SBR process offers excellent performance reliability relative to achieving compliance with current effluent limitations and possible future requirements for nutrient removal. Finally, Option 2 would allow for an expanded capacity beyond 1.7 mgd with relatively low additional cost.

8.5 Funding of Selected Alternative

Several funding methods for the construction of the selected alternative are available. These methods include developer financing, tapping fees, and public financing through the LTMA. It is anticipated that a combination of these alternatives will be employed.

8.5.1 Developer Financing

The opinions of probable cost included in Appendix C do not include funding contributions which may be made by prospective project developers. All of the new developer financed projects are expected to include the construction of conveyance and pump stations as necessary to connect to existing LTMA facilities. Developer financing is not anticipated with regard to the upgrade and expansion of the treatment plant.

8.5.2 Tapping Fees

Anyone connecting to the LTMA sewage conveyance and treatment system is required to pay for the portion of the facilities they will be using via a tapping fee. Advance sales of EDUs lowers the amount of additional financing the LTMA is required to provide to fund selected projects. Accumulated tapping fees will be applied to the cost of new facilities, specifically pump stations and interceptors, to the extent recommended by the LTMA's financial advisors.

8.5.3 Revenue Bonds

Municipal bonds are often used to finance construction of public works projects. Municipal bonds include General Obligation and Revenue Bonds. Revenue Bonds are paid off from monies collected from the use of the sewer system. The advantages of these bonds are that the interest rates are low and they are tax exempt.

8.5.4 Selected Funding Method

The proposed funding for construction of the selected alternative will combine the available funding methods. The primary sources of funding for sewage collection and conveyance facilities will be through developer financing and the collection of tapping fees for the connection of residences and businesses to the LTMA system. Funding for the upgrade and expansion of the treatment facilities will come from the Delaware Valley Regional Finance Authority via the sale of tax free revenue bonds.

8.6 Implementation

Table 7 outlines the proposed implementation schedule.

**Table 7
Implementation Schedule**

<u>Activity</u>	<u>Projected Date</u>
Issue Draft Act 537 Plan	July 2000
Township Act 537 Plan Adoption	September 2000
PADEP Act 537 Plan Approval	January 2001
Submit Part 1 NPDES Application	January 2001
PADEP Part 1 Approval	May 2001
Submit Part 2 Water Quality Management Application	October 2001
PADEP Part 2 Approval	January 2002
Issue Bid Documents	February 2002
Award Construction Contracts	April 2002
Completion / Start Up	September 2003

8.7 Connection Management Plan

As of June 2000 all of the available EDU connections relative to King Road Wastewater Treatment Plant capacity had been purchased. The additional capacity associated with the expansion and upgrade of the King Road Wastewater Treatment Plant and the new Possum Hollow Sewerage System will not be available until September 2003 and December 2002, respectively.

A connection management plan has been developed to allow for limited growth, which is tied to achieving compliance with certain milestones. Since the availability of capacity at the King Road Wastewater Treatment Plant is also related to the construction of the Possum Hollow Sewerage System, milestones have been selected from both project schedules. The implementation schedule for the Possum Hollow sewerage system can be found in the Act 537 Special Study – Possum Hollow Study Area.

Table 8
Connection Management Plan Schedule
for the King Road Service Area

	<u>Milestone</u>	<u>Anticipated Date</u>	<u>Additional EDUs Available</u>
<i>Inv 1.</i>	PaDEP Approval of Act 537 Plan Revision	January 2001	300
<i>Inv 2.</i>	King Road Part 1 – NPDES Approval	May 2001	200
<i>Inv 3.</i>	Award Construction Contracts – Possum Hollow	October 2001	200
4.	Award Construction Contracts – King Road	April 2002	200
5.	Complete Construction – Possum Hollow	December 2002	300
6.	Complete Construction – King Road	September 2003	End Management Plan



FIGURE 1
LIMERICK TOWNSHIP
537 PLAN REVISION
STUDY AREA

MONTGOMERY COUNTY, PENNSYLVANIA
G&A No. 99-721
DATE: MARCH 2000

(BASED ON COMPREHENSIVE PLAN
LAST REVISED JANUARY 20, 1999)

LEGEND

- EXISTING AND APPROVED BOUNDARIES
- 537 PLAN REVISION AREA BOUNDARY
- PODSUM HOLLOW SPECIAL STUDY AREA
- 537 PLAN REVISION STUDY AREA



GILMORE & ASSOCIATES INC.
CONSULTING ENGINEERS & LAND SURVEYORS
330 BUTLER AVENUE, NEW BRITAIN, PA. 18801

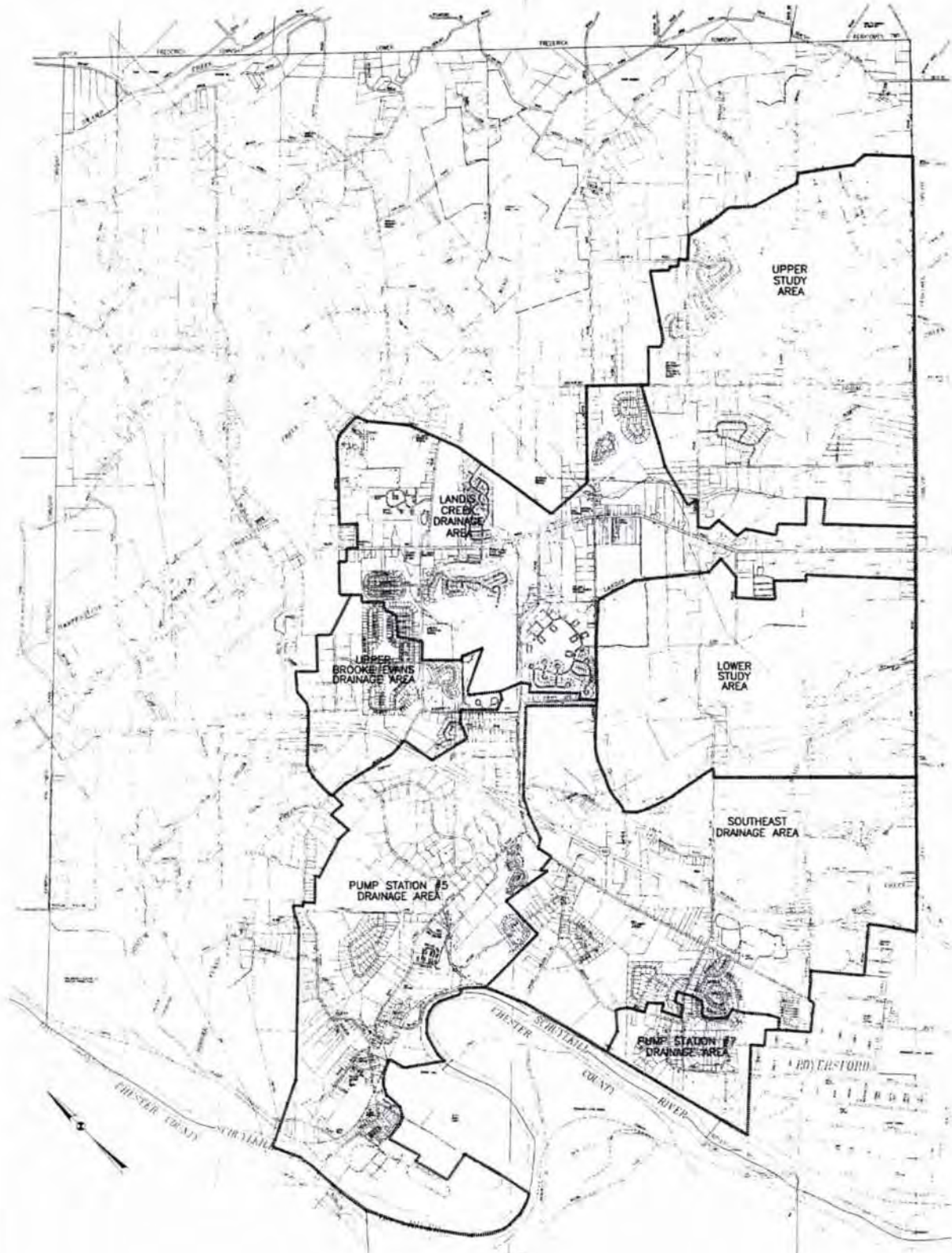


FIGURE 2
LIMERICK TOWNSHIP
537 PLAN REVISION DRAINAGE AREA BOUNDARIES

MONTEGOMERY COUNTY, PENNSYLVANIA
 C&A No. 99-721
 DATE: MARCH 2000
 1200' 0 1200 2400
 1" = 1200'
 SCALE: 1" = 1200'

LEGEND

- EXISTING AND APPROVED SEWERS
- DRAINAGE AREA BOUNDARY

(BASED ON COMPREHENSIVE PLAN LAST REVISED JANUARY 20, 1999)

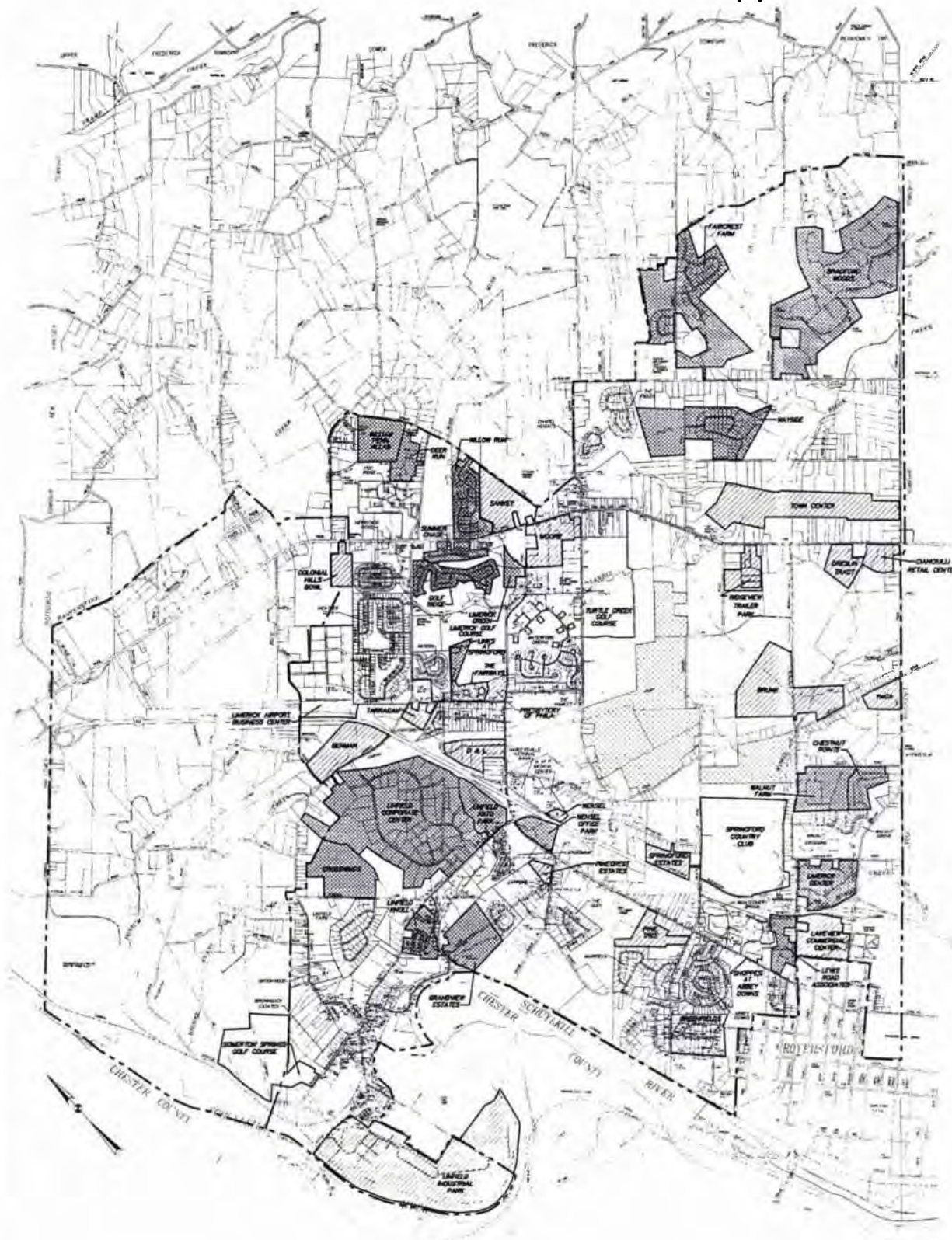
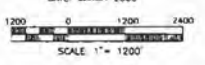


FIGURE 3
LIMERICK TOWNSHIP
537 PLAN REVISION
LAND DEVELOPMENT PLAN
 MONTGOMERY COUNTY, PENNSYLVANIA
 O&A No. 99-721
 DATE: MARCH 2000



LEGEND

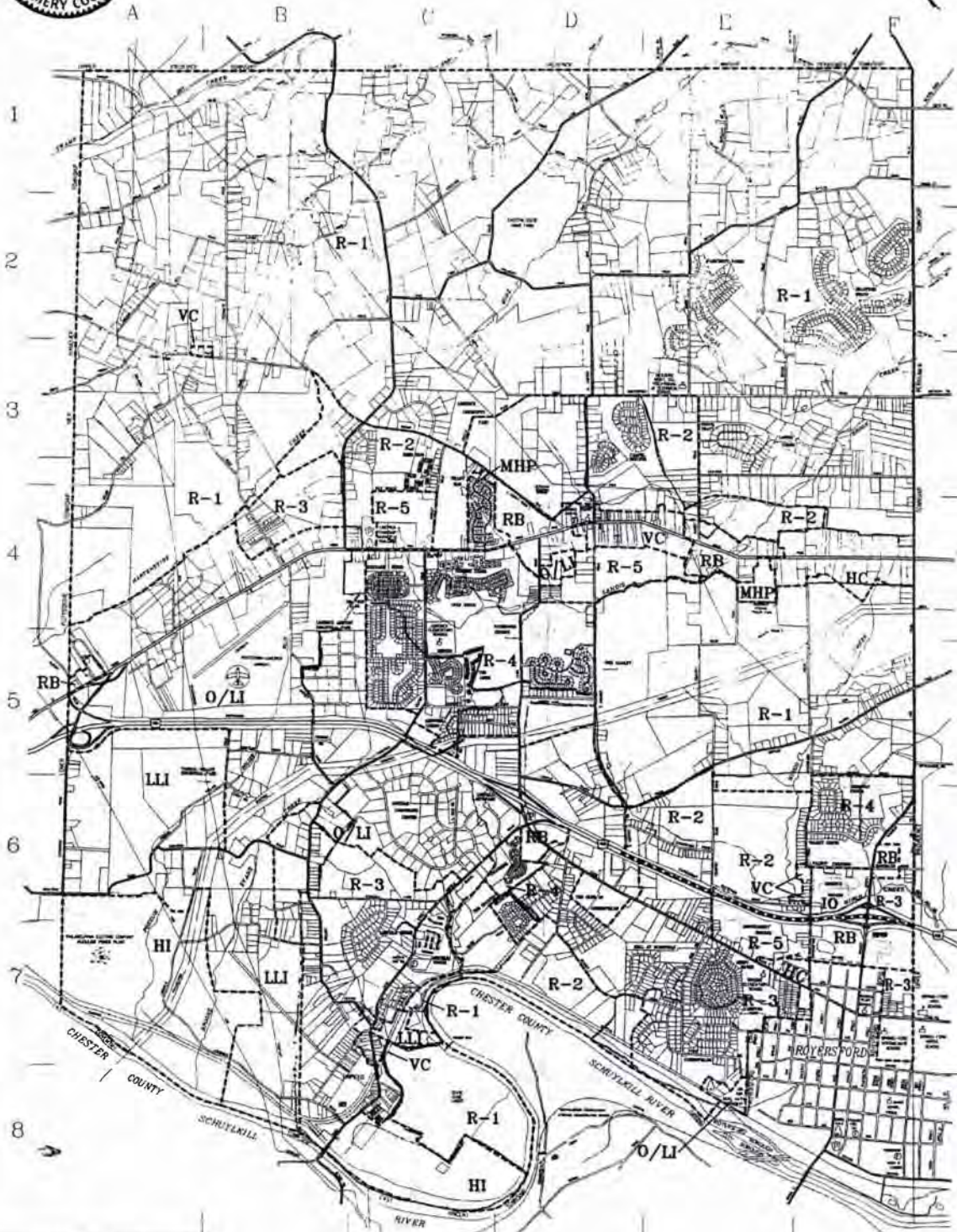
	EXISTING AND APPROXIMATE BOUNDARY
	537 PLAN ZONING DISTRICT AREA BOUNDARY
	PROJECTED LAND DEVELOPMENTS
	OPEN SPACE (GOLF COURSES)
	AGRICULTURAL PRESERVATION AREAS
	DEVELOPMENTS UNDER CONSTRUCTION (LESS THAN 80% COMPLETE) AS OF MARCH, 2000

(BASED ON COMPREHENSIVE PLAN LAST REVISED JANUARY 20, 1999)

APPENDIX A
LIMERICK TOWNSHIP
ZONING MAP



LIMERICK TOWNSHIP ZONING MAP



ROAD INDEX

101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
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ZONING DISTRICTS

- R-1 RESIDENTIAL-AGRICULTURAL
- R-2 LOW DENSITY DISTRICT
- R-3 MEDIUM DENSITY
- R-4 MEDIUM-HIGH DENSITY
- R-5 VILLAGE RESIDENTIAL
- RB MOBILE HOME PARK
- MHP VILLAGE COMMERCIAL
- VC HIGHWAY COMMERCIAL
- HC INTERCHANGE OFFICE
- IO OFFICE/LIMITED INDUSTRIAL
- O/LI LIMITED LIGHT INDUSTRIAL
- LLI HEAVY INDUSTRIAL
- HI
- RB RETAIL BUSINESS



THIS MAP IS BASED ON THE 1998 AERIAL PHOTOGRAPHIC SURVEY CONDUCTED BY THE TOWNSHIP OF LIMERICK. THE TOWNSHIP ENGINEER HAS CONDUCTED A VISUAL VERIFICATION OF THE AERIAL PHOTOGRAPHIC SURVEY AND HAS FOUND IT TO BE ACCURATE. THE TOWNSHIP ENGINEER HAS ALSO CONDUCTED A VISUAL VERIFICATION OF THE ZONING MAP AND HAS FOUND IT TO BE ACCURATE. THE TOWNSHIP ENGINEER HAS ALSO CONDUCTED A VISUAL VERIFICATION OF THE ZONING MAP AND HAS FOUND IT TO BE ACCURATE.

GROUP/SPECTER, INC.
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 Website: www.group-specter.com

APPENDIX B

PROJECTIONS OF FUTURE SEWAGE FLOWS

**LIMERICK TOWNSHIP ACT 537 PLAN REVISION
PROJECTIONS OF FUTURE SEWAGE FLOWS
(REFER TO ATTACHED FIGURE)**

A. LANDIS CREEK DRAINAGE AREA

1. Total Acreage of Drainage Area within 537 Plan Area = 1,030
2. Undeveloped Land Per Zoning District

<u>Zoning District</u>	<u>Acreage</u>	<u>Available Undeveloped Buildable Land *</u>
R-2	123	98.4
R-5	18	14.4
RB (Retail Business)	55	44
O/LI (Office/Light Industrial)	12	9.6
	<u>208</u>	<u>166.4</u>

* Zoning Area less 20% to account for wetlands, easements, etc.

3. **Density per Zoning Area**
(Allowable dwelling units per net buildable acre as per the Limerick Township Zoning Ordinance, June 1999)

<u>Zoning District</u>	<u>Dwelling Units (EDUs)</u>
R-2	0.7
R-5	8.0
RB	N/A
O/LI	N/A

4. **Projected Average Daily Flow From Undeveloped Buildable Land**
(Projected flow calculated based on 210 gallons per day per EDU for residential usage. 500 gallons per day per acre for business, commercial or industrial areas as outlined in the approved Act 537 Plan)

<u>Zoning District</u>	<u>EDUs</u>	<u>Flow at 100% Buildout (GPD)</u>	<u>Flow at 50% Buildout (GPD)</u>
R-2	68	14,280	7,140
R-5	115	24,150	12,075
RB	N/A	22,000	11,000
O/LI	N/A	4,800	2,400
Subtotal		65,230	32,615

5. Projected Average Daily Flow from Identified Proposed Development

<u>Development Project</u>	<u>EDUs</u>	<u>Flow (GPD)</u>
Fox Ridge Apartments	64	13,440
Subtotal	64	13,440

6. Projected New EDUs and Flow

(Totals from Sections 4 and 5)

Grainline residential (16=)

	<u>100% Buildout</u>	<u>50% Buildout</u>	
Projected Average Daily Flow	78,670	46,055	GPD
+ 10% Contingency	7,867	4,606	GPD
Total Projected Flow	86,537	50,661	GPD

B. PUMP STATION #5 DRAINAGE AREA

1. Total Acreage of Drainage Area within 537 Plan Area = 1,138

2. Undeveloped Land Per Zoning District

<u>Zoning District</u>	<u>Acreage</u>	<u>Available Undeveloped Buildable Land *</u>
R-3	236	188.8
LLI (Limited Light Industrial)	20	16
	<i>256</i>	<i>204.8</i>

* Zoning Area less 20% to account for wetlands, easements, etc.

3. Density per Zoning Area

(Allowable dwelling units per net buildable acre as per the Limerick Township Zoning Ordinance, June 1999)

<u>Zoning District</u>	<u>Dwelling Units (EDUs)</u>
R-3	2.0
LLI	N/A

4. **Projected Average Daily Flow From Undeveloped Buildable Land**
 (Projected flow calculated based on 210 gallons per day per EDU for residential usage. 500 gallons per day per acre for business, commercial or industrial areas as outlined in the approved Act 537 Plan)

<u>Zoning District</u>	<u>EDUs</u>	<u>Flow at 100% Buildout (GPD)</u>	<u>Flow at 50% Buildout (GPD)</u>
R-3	377	79,170	39,585
LLI	N/A	8,000	4,000
Subtotal		87,170	43,585

5. **Projected Average Daily Flow from Identified Proposed Development**

*D&L (Rison) - 10%
 Wawa - 5%*

<u>Development Project</u>	<u>EDUs</u>	<u>Flow (GPD)</u>
Linfield Industrial Park	225	47,250
Subtotal	225	47,250

6. **Projected New EDUs and Flow**
 (Totals from Sections 4 and 5)

	<u>100% Buildout</u>	<u>50% Buildout</u>	
Projected Average Daily Flow	134,420	90,835	GPD
+ 10% Contingency	13,442	9,084	GPD
Total Projected Flow	147,862	99,919	GPD

C. **SOUTHEAST PUMP STATION DRAINAGE AREA**

1. **Total Acreage of Drainage Area within 537 Plan Area = 1465**
2. **Undeveloped Land Per Zoning District**

<u>Zoning District</u>	<u>Acreage</u>	<u>Available Undeveloped Buildable Land *</u>
R-2	218	174.4
R-3	20	16
R-4	95	76

* Zoning Area less 20% to account for wetlands, easements, etc.

3. **Density per Zoning Area**

(Allowable dwelling units per net buildable acre as per the Limerick Township Zoning Ordinance, June 1999)

<u>Zoning District</u>	<u>Dwelling Units (EDUs)</u>
R-2	0.7
R-3	2.0
R-4	4.0

4. **Projected Average Daily Flow From Undeveloped Buildable Land**

(Projected flow calculated based on 210 gallons per day per EDU for residential usage. 500 gallons per day per acre for business, commercial or industrial areas as outlined in the approved Act 537 Plan)

<u>Zoning District</u>	<u>EDUs</u>	<u>Flow at 100% Buildout (GPD)</u>	<u>Flow at 50% Buildout (GPD)</u>
R-2	122	25,620	12,810
R-3	32	6,720	3,360
R-4	304	63,840	31,920
Subtotal		96,180	48,090

5. **Projected Average Daily Flow from Identified Proposed Development**

*Poles -
Cutter*

<u>Development Project</u>	<u>EDUs</u>	<u>Flow (GPD)</u>
Lakeview Commercial Center	40	8,400
McDonald's	5	1,050
Wensel (Burger King)	10	2,100
Pinecrest Estates	5	1,050
Subtotal	60	12,600

6. **Projected New EDUs and Flow**

(Totals from Sections 4, 5 and 6)

	<u>100% Buildout</u>	<u>50% Buildout</u>	
Projected Average Daily Flow	108,780	60,690	GPD
+ 10% Contingency	10,878	6,069	GPD
Total Projected Flow	119,658	66,759	GPD

D. UPPER BROOKE EVANS CREEK DRAINAGE AREA

1. **Total Acreage of Drainage Area within 537 Plan Area = 330**

2. **Undeveloped Land Per Zoning District**

<u>Zoning District</u>	<u>Acreage</u>	<u>Available Undeveloped Buildable Land *</u>
O/LI	36	28.8

* Zoning Area less 20% to account for wetlands, easements, etc.

3. **Density per Zoning Area**

(Allowable dwelling units per net buildable acre as per the Limerick Township Zoning Ordinance, June 1999)

<u>Zoning District</u>	<u>Dwelling Units (EDUs)</u>
O/LI	N/A

4. **Projected Average Daily Flow From Undeveloped Buildable Land**

(Projected flow calculated based on 210 gallons per day per EDU for residential usage. 500 gallons per day per acre for business, commercial or industrial areas as outlined in the approved Act 537 Plan)

<u>Zoning District</u>	<u>EDUs</u>	<u>Flow at 100% Buildout (GPD)</u>	<u>Flow at 50% Buildout (GPD)</u>
O/LI	N/A	14,400	7,200
Subtotal		14,400	7,200

5. **Projected Average Daily Flow from Identified Proposed Development**

Roester Apts

<u>Development Project</u>	<u>EDUs</u>	<u>Flow (GPD)</u>
Limerick Center Road	10	2,100
Subtotal	10	2,100

6. **Projected New EDUs and Flow**

(Totals from Sections 4 and 5)

	<u>100% Buildout</u>	<u>50% Buildout</u>	
Projected Average Daily Flow	16,500	8,250	GPD
+ 10% Contingency	1,650	4,125	GPD
Total Projected Flow	18,150	12,375	GPD

E. "UPPER STUDY AREA" DRAINAGE AREA (1997 537 Plan Revision)

1. Total Acreage of Drainage Area within 537 Plan Area = 1,340

2. Undeveloped Land Per Zoning District

<u>Zoning District</u>	<u>Acreage</u>	<u>Available Undeveloped Buildable Land *</u>
R-1	624	499.2
R-2	63	50.4

* Zoning Area less 20% to account for wetlands, easements, etc.

3. Density per Zoning Area

(Allowable dwelling units per net buildable acre as per the Limerick Township Zoning Ordinance, June 1999)

<u>Zoning District</u>	<u>Dwelling Units (EDUs)</u>
R-1	0.45
R-2	0.7

4. Projected Average Daily Flow From Undeveloped Buildable Land

(Projected flow calculated based on 210 gallons per day per EDU for residential usage. 500 gallons per day per acre for business, commercial or industrial areas as outlined in the approved Act 537 Plan)

<u>Zoning District</u>	<u>EDUs</u>	<u>Flow at 100% Buildout (GPD)</u>	<u>Flow at 50% Buildout (GPD)</u>
R-1	224	47,040	23,520
R-2	35	7,350	3,675
Subtotal	259	54,390	27,195

5. Projected Average Daily Flow from Identified Proposed Development

<u>Development Project</u>	<u>EDUs</u>	<u>Flow (GPD)</u>
Town Center	53	11,130
Subtotal	53	11,130

Toll Bros
Colonia-4

6. Projected New EDUs and Flow
(Totals from Sections 4 and 5)

	<u>100% Buildout</u>	<u>50% Buildout</u>	
Projected Average Daily Flow	65,520	38,325	GPD
+ 20% Contingency	13,104	7,665	GPD
Total Projected Flow	78,624	45,990	GPD

* A contingency of twenty (20) percent was added to flows from the Upper Study and Lower Study Areas as both these areas are relatively undeveloped. Each area not only has potential for future development but also contain existing developments which may connect into the sewer system at a future date.

F. "LOWER STUDY AREA" DRAINAGE AREA (1997 537 Plan Revision)

- 1. Total Acreage of Drainage Area within 537 Plan Area = 1,096**
- 2. Undeveloped Land Per Zoning District**

<u>Zoning District</u>	<u>Acreage</u>	<u>Available Undeveloped Buildable Land *</u>
R-1	462	369.6

* Zoning Area less 20% to account for wetlands, easements, etc.

- 3. Density per Zoning Area**
(Allowable dwelling units per net buildable acre as per the Limerick Township Zoning Ordinance, June 1999)

<u>Zoning District</u>	<u>Dwelling Units (EDUs)</u>
R-1	0.45

- 4. Projected Average Daily Flow From Undeveloped Buildable Land**
(Projected flow calculated based on 210 gallons per day per EDU for residential usage, 500 gallons per day per acre for business, commercial or industrial areas as outlined in the approved Act 537 Plan)

<u>Zoning District</u>	<u>EDUs</u>	<u>Flow at 100% Buildout (GPD)</u>	<u>Flow at 50% Buildout (GPD)</u>
R-1	166	34,860	17,430
Subtotal	166	34,860	17,430

5. Projected Average Daily Flow from Identified Proposed Development

De Simone - 12²

<u>Development Project</u>	<u>EDUs</u>	<u>Flow (GPD)</u>
Brunk Subdivision	69	14,490
YMCA	48	10,080
Subtotal	117	24,570

6. Projected New EDUs and Flow
(Totals from Sections 4 and 5)

	<u>100% Buildout</u>	<u>50% Buildout</u>	
Projected Average Daily Flow	59,430	42,000	GPD
+ 20% Contingency	11,886	8,400	GPD
Total Projected Flow	71,316	50,400	GPD

* A contingency of twenty (20) percent was added to flows from the Upper Study and Lower Study Areas as both these areas are relatively undeveloped. Each area not only has potential for future development but also contain existing developments which may connect into the sewer system at a future date.

G. SUMMARY - ASSUMING TOTAL (100%) BUILDOUT

<u>Drainage Area</u>	<u>Projected New EDUs</u>	<u>Projected New Flow</u>
Landis Creek	412	86,537
Pump Station #5	704	147,862
Southeast	570	119,658
Upper Brooke Evans Creek	86	18,150
Upper Study Area	374	78,624
Lower Study Area	340	71,316
Subtotal:	2,486	522,147
Unconnected EDUs:	2,393	502,530
TOTAL:	4,879	1,024,667

H. SUMMARY - ASSUMING 50% BUILDOUT

<u>Drainage Area</u>	<u>Projected New EDUs</u>	<u>Projected New Flow</u>
Landis Creek	241	50,661
Pump Station #5	476	99,919
Southeast	318	66,759
Upper Brooke Evans Creek	59	12,375
Upper Study Area	219	45,990
Lower Study Area	240	50,400
Subtotal:	1,553	326,104
Unconnected EDUs:	2,393	502,530
TOTAL:	3,951 <i>3,946</i>	828,634

APPENDIX C
OPINIONS OF PROBABLE COST

OPINION OF PROBABLE COST #1

GILMORE & ASSOCIATES, INC.
 350 BUTLER AVENUE
 NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority
Project Name: Act 537 Plan Revision
Project Number: 99-721

Abandonment of Interim Pump Stations

Item	Description	Units	Quantity	Unit Price	Total Amount
1	8" PVC Gravity Sewer (Open Land)	LF	5,800	\$35.00	\$203,000.00
2	8" PVC Gravity Sewer (Road)	LF	12,800	\$85.00	\$1,088,000.00
3	8" DIP	LF	1,860	\$10.00	\$18,600.00
4	10" PVC Gravity Sewer (Open Land)	LF	1,600	\$40.00	\$64,000.00
5	10" DIP	LF	160	\$25.00	\$4,000.00
6	4' Precast Manhole (@250')	UN	81	\$2,100.00	\$170,100.00
7	440 GPM Pump Station	LS	1	\$350,000.00	\$350,000.00
8	6" DIP Force Main	LF	250	\$81.00	\$20,250.00
9	Abandonment of Interim Pump Stations	UN	2	\$10,000.00	\$20,000.00
Construction Cost Total:					\$1,937,950.00
	Easements	LF	7,650	\$10.00	\$76,500.00
	Land	AC	0.25	\$25,000.00	\$6,250.00
	Contingency (10%)				\$193,795.00
	Survey				\$75,000.00
	Engineering (10%)				\$193,795.00
	Observation (10%)				\$193,795.00
	Legal/Administrative				\$50,000.00
Total Project Cost:					\$2,727,085.00

Notes:

1. Prices based on recent bid results.
2. Prices do not include rock excavation.
3. Prices do not include bypass pumping allowance.
4. No allowance was included for salvage value of pump station equipment.

OPINION OF PROBABLE COST #2

GILMORE & ASSOCIATES, INC.
 350 BUTLER AVENUE
 NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority
Project Name: Act 537 Plan Revision
Project Number: 99-721

Benner Road Interceptor

Item	Description	Units	Quantity	Unit Price	Total Amount
1	10" PVC Gravity Sewer (Open Land)	LF	1,000	\$40.00	\$40,000.00
2	36" PVC Gravity Sewer (Road)	LF	2,600	\$120.00	\$312,000.00
3	36" DIP	LF	260	\$146.00	\$37,960.00
4	4' Precast Manhole (@250')	UN	4	\$2,100.00	\$8,400.00
5	6' Precast Manhole (@250')	UN	10	\$3,200.00	\$32,000.00
6	Upgrade Pump Station #7 to 2,000 gpd	LS	1	\$1,300,000.00	\$1,300,000.00
7	16" DIP Force Main (Open Land)	LF	3,100	\$87.00	\$269,700.00
8	16" DIP Force Main (Road)	LF	2	\$102.00	\$204.00
9	Abandonment of Pump Station #4	UN	1	\$10,000.00	\$10,000.00
Construction Cost Total:					\$2,010,264.00
	Easements	LF	4,100	\$10.00	\$41,000.00
	Land	AC	0.25	\$25,000.00	\$6,250.00
	Contingency (10%)				\$201,026.40
	Survey				\$75,000.00
	Engineering (10%)				\$201,026.40
	Observation (10%)				\$201,026.40
	Legal/Administrative				\$50,000.00
Total Project Cost:					\$2,785,593.20

Notes:

1. Prices based on recent bid results.
2. Prices do not include rock excavation.
3. Prices do not include bypass pumping allowance.
4. No allowance was included for salvage value of pump station equipment.

OPINION OF PROBABLE COST #3

GILMORE & ASSOCIATES, INC.
 350 BUTLER AVENUE
 NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority
Project Name: Act 537 Plan Revision
Project Number: 99-721

Diversion of Upper Brooke Evans Drainage Area to Possum Hollow

Item	Description	Units	Quantity	Unit Price	Total Amount
1	8" PVC Gravity Sewer (Open Land)	LF	2,900	\$35.00	\$101,500.00
2	8" DIP	LF	290	\$10.00	\$2,900.00
3	10" PVC Gravity Sewer (Open Land)	LF	5,206	\$40.00	\$208,240.00
4	10" DIP	LF	521	\$25.00	\$13,025.00
5	4' Precast Manhole (@250')	UN	22	\$2,100.00	\$46,200.00
6	Brooke Evans Creek Pump Station	LS	1	\$400,000.00	\$400,000.00
7	6" DIP Force Main	LF	3,100	\$81.00	\$251,100.00
8	Abandonment of Pump Stations #1 and #8	UN	2	\$10,000.00	\$20,000.00
Construction Cost Total:					\$1,042,965.00
	Easements	LF	7,256	\$10.00	\$72,560.00
	Land	AC	0.25	\$25,000.00	\$6,250.00
	Contingency (10%)				\$104,296.50
	Survey				\$50,000.00
	Engineering (10%)				\$104,296.50
	Observation (10%)				\$104,296.50
	Legal/Administrative				\$50,000.00
Total Project Cost:					\$1,534,664.50

Notes:

1. Prices based on recent bid results.
2. Prices do not include rock excavation.
3. Assumes land and easement costs will be reduced due to granting of ground by PECO Energy and Providence Properties.
4. No allowance was included for salvage value of pump station equipment.

Amended Appendix A-22-b

OPINION OF PROBABLE COST #4

GILMORE & ASSOCIATES, INC.
 350 BUTLER AVENUE
 NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority
Project Name: Act 537 Plan Revision
Project Number: 99-721

Extended Aeration Process with Conversion of Existing Treatment Tanks to Aeration Basins (Option 1)

Item	Description	Total Amount
1	Wastewater Treatment Plant	
	A. Headworks	\$455,000.00
	B. Equalization Tanks	\$844,000.00
	C. Aeration Tanks*	\$420,000.00
	D. Clarifiers	\$870,000.00
	E. Sludge Return Pump Station	\$132,000.00
	F. Aerobic Sludge Digesters	\$824,000.00
	G. Sludge Dewatering Building	\$765,000.00
	H. UV Disinfection	\$226,000.00
	I. Utility Water Pump Station	\$70,000.00
	J. Effluent Metering	\$78,000.00
	K. Yard Pump Station	\$163,000.00
2	Outfall	\$125,000.00
3	Sitework	\$170,000.00
4	Yard Piping	\$364,000.00
5	Electrical	\$291,000.00
6	HVAC	\$39,000.00
7	Plumbing	\$24,000.00
8	Instrumentation	\$48,000.00
9	Mobilization/Demobilization/Supervision	\$150,000.00
Construction Cost Total:		\$6,058,000.00
	Easements	\$10,000.00
	Survey	\$25,000.00
	Engineering Design	\$666,000.00
	Observation	\$666,000.00
	Contingency (10%)	\$605,800.00
	Legal/Administrative	\$50,000.00
Total Project Cost:		\$8,080,800.00

* Convert From Existing WWT Tanks

Notes:

1. Prices do not include rock excavation

Amended Appendix A-22-b

OPINION OF PROBABLE COST #4A

GILMORE & ASSOCIATES, INC.

350 BUTLER AVENUE

NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority

Project Name: Act 537 Plan Revision

Project Number: 99-721

Extended Aeration Process with Conversion of Existing Treatment Tanks to Aeration Basins (Option 1) - O & M

Item	Description	Total Amount
1	Personnel Costs	
	A. Operators	\$134,000.00
	B. Manager	\$30,000.00
	C. Office Staff	\$46,000.00
	D. Overtime/On-Call	\$9,000.00
2	Fringe Benefits	\$76,000.00
3	General and Administration Costs	\$121,000.00
4	Citizens Readings	\$5,000.00
5	Bank Fees	\$2,000.00
6	Electric Expenses	
	A. Office Staff	\$6,000.00
	B. STP	\$139,000.00
7	Processing Expenses	
	A. Water	\$2,000.00
	B. Sludge, Grit and Screening Disposal	\$156,000.00
	C. Refuse/Trash	\$700.00
	D. Tank Cleaning	\$9,000.00
	E. Chlorine	\$200.00
	F. Polymer/Sludge	\$7,700.00
	G. Odor Control/Sludge Building	\$9,000.00
8	Laboratory Expenses	
	A. Lab Supplies	\$1,400.00
	B. Outside Laboratory Analysis	\$6,000.00
9	System Maintenance Expenses	
	A. Plant Maintenance	\$18,000.00
	B. Equipment Maintenance	\$500.00
	C. Materials and Small Tools	\$5,500.00
	D. Equipment Rental	\$1,000.00
	E. Major Maintenance	\$4,500.00
	F. Outside Contractor Services	\$2,500.00
	G. Private Meter Repair	\$4,500.00

Amended Appendix A-22-b

	H. UV Lamps	\$3,000.00
10	Other Plant Overhead	
	A. Insurance	\$23,000.00
	B. Dues	\$200.00
	C. Training	\$2,000.00
	D. Uniform Rental	\$3,000.00
	E. Lawn Maintenance	\$2,000.00
	F. Immunizations	\$300.00
	Operations and Maintenance Cost:	<u>\$830,000.00</u>

Amended Appendix A-22-b

OPINION OF PROBABLE COST #5

GILMORE & ASSOCIATES, INC.
 350 BUTLER AVENUE
 NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority
Project Name: Act 537 Plan Revision
Project Number: 99-721

SBR Process Using Existing Treatment Tanks (Option 2)

Item	Description	Total Amount
1	Wastewater Treatment Plant	
	A. Headworks	\$455,000.00
	B. SBR Treatment Tanks *	\$1,253,000.00
	C. Effluent Equalization Tank	\$234,000.00
	D. Aerobic Sludge Digesters	\$824,000.00
	E. Sludge Dewatering Building	\$765,000.00
	F. UV Disinfection	\$168,000.00
	G. Utility Water Pump Station	\$70,000.00
	H. Effluent Metering	\$78,000.00
	I. Yard Pump Station	\$163,000.00
2	Outfall	\$125,000.00
3	Sitework	\$180,000.00
4	Yard Piping	\$401,000.00
5	Electrical	\$261,000.00
6	HVAC	\$32,000.00
7	Plumbing	\$20,000.00
8	Instrumentation	\$52,000.00
9	Mobilization/Demobilization/Supervision	\$150,000.00
Construction Cost Total:		\$5,231,000.00
	Easements	\$10,000.00
	Survey	\$25,000.00
	Engineering Design	\$575,000.00
	Observation	\$575,000.00
	Contingency (10%)	\$523,100.00
	Legal/Administrative	\$50,000.00
Total Project Cost:		\$6,989,100.00

* Convert From Existing WWT Tanks

Notes:

1. Prices do not include rock excavation

Amended Appendix A-22-b

OPINION OF PROBABLE COST #5A

GILMORE & ASSOCIATES, INC.
 350 BUTLER AVENUE
 NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority
Project Name: Act 537 Plan Revision
Project Number: 99-721

SBR Process Using Existing Treatment Tanks (Option 2) - O & M

Item	Description	Total Amount
1	Personnel Costs	
	A. Operators	\$134,000.00
	B. Manager	\$30,000.00
	C. Office Staff	\$46,000.00
	D. Overtime/On-Call	\$9,000.00
2	Fringe Benefits	\$76,000.00
3	General and Administration Costs	\$121,000.00
4	Citizens Readings	\$5,000.00
5	Bank Fees	\$2,000.00
6	Electric Expenses	
	A. Office Staff	\$6,000.00
	B. STP	\$98,000.00
7	Processing Expenses	
	A. Water	\$2,000.00
	B. Sludge, Grit and Screening Disposal	\$156,000.00
	C. Refuse/Trash	\$700.00
	D. Tank Cleaning	\$9,000.00
	E. Chlorine	\$0.00
	F. Polymer/Sludge	\$7,700.00
	G. Odor Control/Sludge Building	\$9,000.00
8	Laboratory Expenses	
	A. Lab Supplies	\$1,400.00
	B. Outside Laboratory Analysis	\$6,000.00
9	System Maintenance Expenses	
	A. Plant Maintenance	\$18,000.00
	B. Equipment Maintenance	\$500.00
	C. Materials and Small Tools	\$5,500.00
	D. Equipment Rental	\$1,000.00
	E. Major Maintenance	\$4,500.00
	F. Outside Contractor Services	\$2,500.00
	G. Private Meter Repair	\$4,500.00

Amended Appendix A-22-b

	H. UV Lamps	\$2,000.00
10	Other Plant Overhead	
	A. Insurance	\$23,000.00
	B. Dues	\$200.00
	C. Training	\$2,000.00
	D. Uniform Rental	\$3,000.00
	E. Lawn Maintenance	\$2,000.00
	F. Immunizations	\$300.00
	Operations and Maintenance Cost:	<u>\$787,800.00</u>

Amended Appendix A-22-b

OPINION OF PROBABLE COST #6

GILMORE & ASSOCIATES, INC.
 350 BUTLER AVENUE
 NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority
Project Name: Act 537 Plan Revision
Project Number: 99-721

SBR Process Using New Treatment Tanks (Option 3)

Item	Description	Total Amount
1	Wastewater Treatment Plant	
	A. Headworks	\$455,000.00
	B. Equalization Tanks *	\$200,000.00
	C. Aerobic Digester Tank *	\$133,000.00
	D. Septage Pretreatment Tank *	\$198,000.00
	E. SBR Treatment & Effluent Equalization Tanks	\$2,330,000.00
	F. Sludge Dewatering Building	\$765,000.00
	G. UV Disinfection	\$168,000.00
	H. Utility Water Pump Station	\$70,000.00
	I. Effluent Metering	\$78,000.00
	J. Yard Pump Station	\$163,000.00
2	Outfall	\$125,000.00
3	Sitework	\$182,000.00
4	Yard Piping	\$456,000.00
5	Electrical	\$319,000.00
6	HVAC	\$37,000.00
7	Plumbing	\$23,000.00
8	Instrumentation	\$91,000.00
9	Mobilization/Demobilization/Supervision	\$150,000.00
Construction Cost Total:		\$5,943,000.00
	Easements	\$10,000.00
	Survey	\$25,000.00
	Engineering Design	\$654,000.00
	Observation	\$654,000.00
	Contingency (10%)	\$594,300.00
	Legal/Administrative	\$50,000.00
Total Project Cost:		\$7,930,300.00

* Convert From Existing WWT Tanks

Notes:

1. Prices do not include rock excavation
2. Construction costs include a septage pretreatment tank with an estimated value of \$246,000

Amended Appendix A-22-b

OPINION OF PROBABLE COST #6A

GILMORE & ASSOCIATES, INC.
 350 BUTLER AVENUE
 NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority
Project Name: Act 537 Plan Revision
Project Number: 99-721

SBR Process Using New Treatment Tanks (Option 3) - O & M

Item	Description	Total Amount
1	Personnel Costs	
	A. Operators	\$134,000.00
	B. Manager	\$30,000.00
	C. Office Staff	\$46,000.00
	D. Overtime/On-Call	\$9,000.00
2	Fringe Benefits	\$76,000.00
3	General and Administration Costs	\$121,000.00
4	Citizens Readings	\$5,000.00
5	Bank Fees	\$2,000.00
6	Electric Expenses	
	A. Office Staff	\$6,000.00
	B. STP	\$172,000.00
7	Processing Expenses	
	A. Water	\$2,000.00
	B. Sludge, Grit and Screening Disposal	\$156,000.00
	C. Refuse/Trash	\$700.00
	D. Tank Cleaning	\$9,000.00
	E. Chlorine	\$0.00
	F. Polymer/Sludge	\$7,700.00
	G. Odor Control/Sludge Building	\$9,000.00
8	Laboratory Expenses	
	A. Lab Supplies	\$1,400.00
	B. Outside Laboratory Analysis	\$6,000.00
9	System Maintenance Expenses	
	A. Plant Maintenance	\$18,000.00
	B. Equipment Maintenance	\$500.00
	C. Materials and Small Tools	\$5,500.00
	D. Equipment Rental	\$1,000.00
	E. Major Maintenance	\$4,500.00
	F. Outside Contractor Services	\$2,500.00
	G. Private Meter Repair	\$4,500.00

Amended Appendix A-22-b

	H. UV Lamps	\$2,000.00
10	Other Plant Overhead	
	A. Insurance	\$23,000.00
	B. Dues	\$200.00
	C. Training	\$2,000.00
	D. Uniform Rental	\$3,000.00
	E. Lawn Maintenance	\$2,000.00
	F. Immunizations	\$300.00
	Operations and Maintenance Cost:	<u>\$861,800.00</u>

Amended Appendix A-22-b

OPINION OF PROBABLE COST #7

GILMORE & ASSOCIATES, INC.
 350 BUTLER AVENUE
 NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority
Project Name: Act 537 Plan Revision
Project Number: 99-721

Existing Aeration Process with Additional Tankage (Option 4)

Item	Description	Total Amount
1	Wastewater Treatment Plant	
	A. Headworks	\$455,000.00
	B. Package Wastewater Treatment Plants	\$761,000.00
	C. Modify Aeration, Existing WWT Tanks	\$111,000.00
	D. Aerobic Sludge Digesters	\$824,000.00
	E. Sludge Dewatering Building	\$765,000.00
	F. UV Disinfection	\$226,000.00
	G. Utility Water Pump Station	\$70,000.00
	H. Effluent Metering	\$78,000.00
	I. Yard Pump Station	\$163,000.00
2	Outfall	\$125,000.00
3	Sitework	\$173,000.00
4	Yard Piping	\$276,000.00
5	Electrical	\$207,000.00
6	HVAC	\$28,000.00
7	Plumbing	\$17,000.00
8	Instrumentation	\$34,000.00
9	Mobilization/Demobilization/Supervision	\$150,000.00
Construction Cost Total:		\$4,463,000.00
	Easements	\$10,000.00
	Survey	\$25,000.00
	Engineering Design	\$491,000.00
	Observation	\$491,000.00
	Contingency (10%)	\$446,300.00
	Legal/Administrative	\$50,000.00
Total Project Cost:		\$5,976,300.00

* Convert From Existing WWT Tanks

Notes:

1. Prices do not include rock excavation

Amended Appendix A-22-b

OPINION OF PROBABLE COST #7A

GILMORE & ASSOCIATES, INC.

350 BUTLER AVENUE
NEW BRITAIN, PA 18901

Client: Limerick Township Municipal Authority

Project Name: Act 537 Plan Revision

Project Number: 99-721

Existing Aeration Process with Additional Tankage (Option 4) - O & M

Item	Description	Total Amount
1	Personnel Costs	
	A. Operators	\$134,000.00
	B. Manager	\$30,000.00
	C. Office Staff	\$46,000.00
	D. Overtime/On-Call	\$9,000.00
2	Fringe Benefits	\$76,000.00
3	General and Administration Costs	\$121,000.00
4	Citizens Readings	\$5,000.00
5	Bank Fees	\$2,000.00
6	Electric Expenses	
	A. Office Staff	\$6,000.00
	B. STP	\$127,000.00
7	Processing Expenses	
	A. Water	\$2,000.00
	B. Sludge, Grit and Screening Disposal	\$156,000.00
	C. Refuse/Trash	\$700.00
	D. Tank Cleaning	\$9,000.00
	E. Chlorine	\$200.00
	F. Polymer/Sludge	\$7,700.00
	G. Odor Control/Sludge Building	\$9,000.00
8	Laboratory Expenses	
	A. Lab Supplies	\$1,400.00
	B. Outside Laboratory Analysis	\$6,000.00
9	System Maintenance Expenses	
	A. Plant Maintenance	\$18,000.00
	B. Equipment Maintenance	\$500.00
	C. Materials and Small Tools	\$5,500.00
	D. Equipment Rental	\$1,000.00
	E. Major Maintenance	\$4,500.00
	F. Outside Contractor Services	\$2,500.00
	G. Private Meter Repair	\$4,500.00

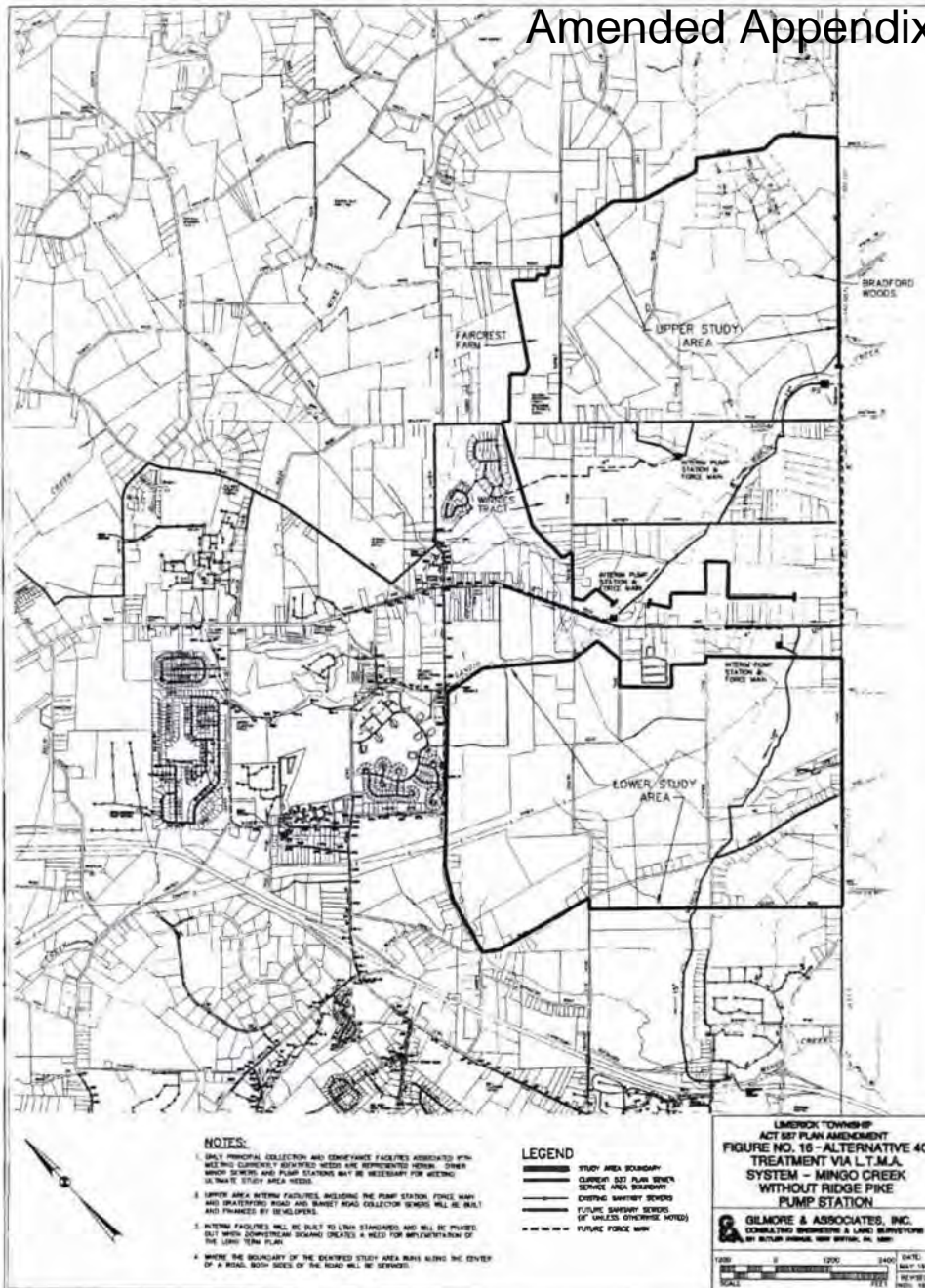
Amended Appendix A-22-b

	H. UV Lamps	\$3,000.00
10	Other Plant Overhead	
	A. Insurance	\$23,000.00
	B. Dues	\$200.00
	C. Training	\$2,000.00
	D. Uniform Rental	\$3,000.00
	E. Lawn Maintenance	\$2,000.00
	F. Immunizations	\$300.00

Operations and Maintenance Cost: \$818,000.00

APPENDIX D

**LONG TERM SELECTED ALTERNATIVE MAP
1997 ACT 537 REVISION**



NOTES:

1. ONLY PRINCIPAL COLLECTION AND CONVEYANCE FACILITIES ASSOCIATED WITH MEETING CURRENTLY IDENTIFIED NEEDS ARE REPRESENTED HEREIN. OTHER WINDY SEWERS AND PUMP STATIONS MAY BE NECESSARY FOR MEETING ULTIMATE STUDY AREA NEEDS.
2. UPPER AREA INTERNAL FACILITIES INCLUDING THE PUMP STATION, FORCE MAIN AND DRAINAGE ROAD AND BARNET ROAD COLLECTION SEWER WILL BE BUILT AND FINANCED BY DEVELOPERS.
3. INTERNAL FACILITIES WILL BE BUILT TO LUNA STANDARDS AND WILL BE PHASED OUT WITH CONVENTIONAL SEWERS DUE TO A NEED FOR RECONSTRUCTION OF THE LONG TERM PLAN.
4. WHERE THE BOUNDARY OF THE IDENTIFIED STUDY AREA FALLS WITHIN THE CENTER OF A ROAD, BOTH SIDES OF THE ROAD WILL BE SERVED.

LEGEND

- STUDY AREA BOUNDARY
- EXISTING SANITARY SEWERS
- FUTURE SANITARY SEWERS (UNLESS OTHERWISE NOTED)
- FUTURE FORCE MAIN

LIMERICK TOWNSHIP
 ACT 527 PLAN AMENDMENT
 FIGURE NO. 16 - ALTERNATIVE 4C
 TREATMENT VIA L.T.M.A.
 SYSTEM - MINGO CREEK
 WITHOUT RIDGE PIKE
 PUMP STATION

GILMORE & ASSOCIATES, INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 BY NOTAR PUBLIC, WISE BEHAVIOR, PA. 08054

DATE: MAY 1997
 REVISION: 111
 SHEET: 111

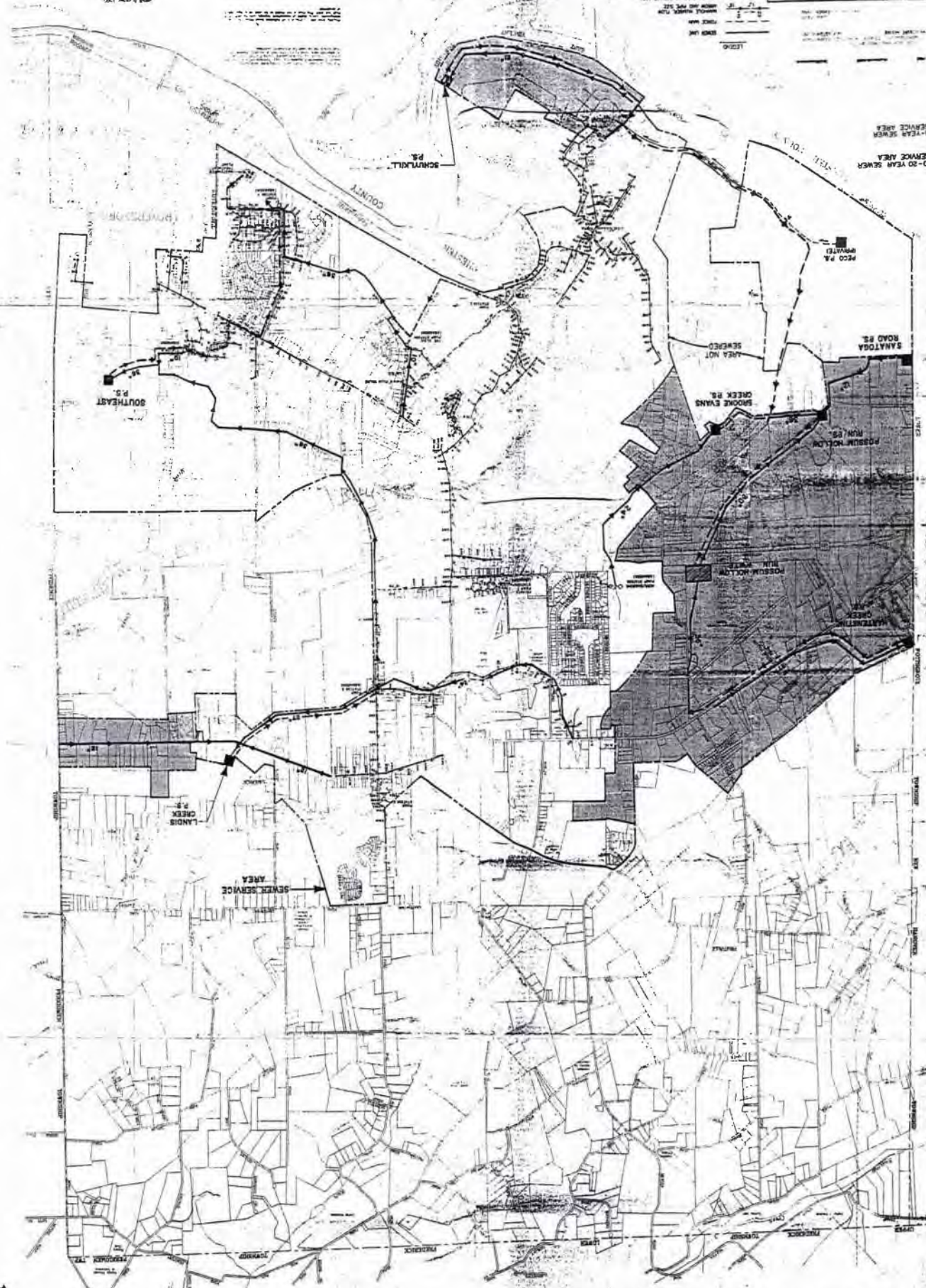
APPENDIX E

**BENNER ROAD INTERCEPTOR ALTERNATIVE MAP
1992 COMPREHENSIVE SEWAGE
FACILITIES PLANNING STUDY**



PSC ENGINEERS & ARCHITECTS
1000 MARKET STREET, SUITE 1000
PHILADELPHIA, PA 19102
TEL: 215-592-1234
FAX: 215-592-1234

20/0/92



0-20 YEAR SEWER SERVICE AREA
2-YEAR SEWER SERVICE AREA

LIMERICK TOWNSHIP and ROVERSFORD BOROUGH
MONTGOMERY COUNTY, PENNSYLVANIA

APPENDIX F

**1999 WASTELOAD MANAGEMENT REPORT
(CHAPTER 94)**

**Limerick Township Municipal Authority
Montgomery County, Pennsylvania**

**1999 Wasteload Management Report
(Chapter 94)**

February 2000

Prepared By:

**Gilmore & Associates, Inc.
350 Butler Avenue
New Britain, PA 18901
(215) 345-4330**

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2.0 HYDRAULIC LOADING

During 1999, the total flow through the wastewater treatment plant was 211.76 million gallons. This figure represents an increase in the flows from those reported for 1998 of approximately 19.68 million gallons. On average, approximately 580,000 gallons per day of sewage was generated and treated. On occasion, daily peaks were noted which were higher. A peak monthly average flow of 636,000 gallons per day occurred during September. The three (3) month maximum flow occurred during the period of September - November and averaged about 621,000 gallons per day. As the capacity of the wastewater treatment plant is 1.6 mgd, the reported hydraulic loading does not represent an overload to the plant. Specifically, the reported average annual daily flow accounts for 38.8 percent of the treatment plant's permitted hydraulic capacity. Table 1, Hydraulic Loadings, details 1999 flow information.

**TABLE 1
HYDRAULIC LOADINGS**

Month	Average Daily Flow	Maximum Daily Flow
JANUARY	0.622	0.834
FEBRUARY	0.577	0.782
MARCH	0.602	0.878
APRIL	0.581	0.721
MAY	0.547	0.639
JUNE	0.522	0.580
JULY	0.501	0.579
AUGUST	0.522	0.695
SEPTEMBER	0.636	0.945
OCTOBER	0.630	0.822
NOVEMBER	0.598	0.745
DECEMBER	0.624	0.891
Average Annual Daily Flow:	0.580	
Max Month - Average Daily Flow:	0.636	(September)
Max Month - Maximum Daily Flow:	0.945	(September)
3 Month Maximum Average Daily Flow:	0.621	(September - November)

Note: All flows in millions gallons per day

Source: 1999 Monthly Operator's Reports

The primary source of wastewater contributions is residences, although there are several industrial/commercial operations located throughout the township which are served by public sewer.

An additional 768 EDUs were connected to the sanitary sewer system during the year for a total connected year-end EDU count of 4478. However, a large number of these EDUs are "dry", in the process of being connected, and were not contributing flow to the LTMA treatment plant.

Due to the time delay from when a lateral connection permit is issued to the time flow is contributed a six month "shift" was done to get a better idea of the total number of EDUs contributing flow to the treatment plant. This "shift" was accomplished by taking the known number of total lateral connections to the treatment plant at the end of a given month and moving this total six months forward. Table 3 illustrates the EDU shift and the corresponding flows and connections per month for 1999. The year end count of EDUs contributing flow is 4,007 by this method.

The LTMA treatment plant experiences a significant increase in flow during the weekend and shows some increase in flow during storm events. A thirteen (13) percent and five (5) percent safety factor was added to the total EDU contribution calculated above to compensate for these increases in flow. This results in a total per EDU contribution of 210 gallons per day for use in future flow projections.

The projected hydraulic loading on the wastewater treatment plant over the next five (5) years, and the proposed development to be serviced by public sewer, is presented in Table 3, Approved and Projected Development, EDU Totals. Figure 1, Historical & Projected Hydraulic Loadings, is a graphical representation of hydraulic loadings to the treatment plant over the past five (5) years on a monthly basis and as projected over the next five (5) years annually.

In accordance with the projections, the rated hydraulic capacity of the treatment plant (1.6 mgd) will be only marginally sufficient to handle the projected flows through the year 2004. By December 2004, the average daily flow at the treatment plant is expected to reach approximately 1.4 mgd, which will account for approximately eighty-seven (87) percent of the rated hydraulic capacity. It is important to note, however, that the three month maximum projected for 2004 is approximately 1.5 mgd, which accounts for ninety-four (94) percent of the rated hydraulic capacity. Furthermore, plant performance is expected to deteriorate as the hydraulic loading approaches 1.6 mgd. Based on this projection, the LTMA is currently working on a revision to the Act 537 Plan which addresses the expansion of treatment facilities.

TABLE 2
GALLON/EDU CALCULATIONS
(EDUs SHIFTED SIX MONTHS FORWARD)

<u>Month (1999)</u>	<u>Raw Sewage Flow (gpd)</u>	<u>Connected EDUs</u>	<u>Gallons/EDU per Day</u>
JANUARY	621,800	3,534	176
FEBRUARY	577,000	3,577	161
MARCH	602,000	3,590	168
APRIL	581,000	3,602	161
MAY	547,000	3,616	151
JUNE	522,000	3,656	143
JULY	501,000	3,710	135
AUGUST	522,000	3,751	139
SEPTEMBER	636,000	3,775	168
OCTOBER	630,000	3,872	163
NOVEMBER	598,000	3,924	152
DECEMBER	624,000	4,007	156

Notes:

1. Sewage flow figures from 1999 Monthly Monitoring Reports
2. Connected EDUs from Manager's monthly reports.

Figures represent totals as of beginning of month.


 Maximum three months
BOLD Maximum month value

TABLE 3								
LIMERICK TOWNSHIP MUNICIPAL AUTHORITY								
1999 WASTELOAD MANAGEMENT REPORT								
(CHAPTER 94)								
APPROVED AND PROJECTED DEVELOPMENT (as of 12/31/99)								
Name	Remaining No. of EDUs	Sewage Flow (GPD)	Projected Bulldozer Schedule					
			2000	2001	2002	2003	2004	
A. Approved Developments								
Betty & Roberta Lane	4	840	4					
Bradford Woods (Inc. Twp. Line Road)	220	46200	85	75	60			
X Burger King	5	1050	5					
Chestnut Pointe	122	25620	80	42				
Crosswinds	36	7560	20	16				
Deer Run	4	840	4					
Faircrest Estates (inc. Sunset & Graterford Rds.)	97	20370	50	47				
Fairways	7	1470	7					
Fox Ridge	31	6510	15	16				
Galie	1	210	1					
Golf Ridge	77	16170	20	20	20		17	
Gro	1	210	1					
Harleysville Bank	1	210	1					
Harold Herr	3	630		3				
Jubb Tract	34	7140	14	20				
Kugler Road	1	210	1					
Lewis Associates	80	16800		40	40			
Limerick Airport Business Center (Gambone)	50	10500	20	20	10			
Limerick Center (offices only)	60	12600		30	30			
Limerick Township	1	210	1					
Limerick Village (Manuf. Housing)	120	25200	20	20	20		20	20
Linfield Corp. Center (incl. 422 Auto Park)	177	37170	20	20	20		20	20
Linfield Woods	63	13230	20	20	23			
Links at Springford	36	7560	36					
North Limerick Road	10	2100	10					
Oehlert Brothers	3	630		3				
Pine Tree	27	5670	7	20				
Presbytery of Phila.	2	420		2				
Reifsnnyder Road	10	2100	10					
Ridge Pike	72	15120	25	25	22			
Ridge View Trailer Park	109	22890	109					

TABLE 2
LIMERICK TOWNSHIP MUNICIPAL AUTHORITY
1999 WASTELOAD MANAGEMENT REPORT
(CHAPTER 94)

APPROVED AND PROJECTED DEVELOPMENT (as of 12/31/99)

Name	Remaining No. of EDUs	Sewage Flow (GPD)	Projected Buildout Schedule					
			2000	2001	2002	2003	2004	
Shoppes at Abbey Downs	8	1680	4	4				
Summer Chase	8	1680	8					
Tarragam	6	1260		3	3			
Vo-Tech School	20	4200		20				
Waltz Golf Farm	3	630	3					
West Cherry & Reed Road	3	630	3					
Wayside	1	210	1					
William Penn Villas	88	18480	20	34	34			
Subtotal	1601	336210	625	500	282	57	40	
3. Projected Developments								
Albert S. Herr and Sons	2	420		2				
Airport Industrial Park (PECO)	12	2520				12		
Anthony Cianciulli	10	2100		5	5			
Berman	25	5250			15	10		
✓ Brunk Sbddivision	69	14490				30	30	
Colonial Hills Bowl	14	2940		14				
Edward Moore	19	3990		10	9			
✓ Elliot Town Center	53	11130			25	28		
Graterford Road	11	2310				11		
James Bros.	6	1260		6				
Joseph Bean	4	840		4				
✓ Lakeview Commercial Center	40	8400	20	20				
Limerick Car Wash	3	630	3					
Limerick Center Road	83	17430				43	40	
Limerick Elementary School (new)	20	4200			20			
Limerick Golf Clubhouse	3	630	3					
✓ Linfield Industrial Park	25	5250			10	15		
Mazzamuto	10	2100		10				
Neil Dreslin (Ridge Pike)	36	7560		18	18			
✓ PECO Generating Station	88	18480				88		

TABLE 2
LIMERICK TOWNSHIP MUNICIPAL AUTHORITY
1999 WASTELOAD MANAGEMENT REPORT
(CHAPTER 94)

APPROVED AND PROJECTED DEVELOPMENT (as of 12/31/99)

Name	Remaining No. of EDUs	Sewage Flow (GPD)	Projected Buildout Schedule				
			2000	2001	2002	2003	2004
<input checked="" type="checkbox"/> Pinecrest Estates	5	1050				5	
<input checked="" type="checkbox"/> 1537 Plan Future Growth (unofficial)	1063	223230				250	250
Sankey	50	10500			20	30	
Springford Estates	10	2100			5	5	
Wensel (various sites)	11	2310		11			
<input checked="" type="checkbox"/> YMCA	48	10080			48		
Subtotal	1720	361200	26	100	175	527	320
EDU Totals	3321		651	600	457	584	360
Flow Totals		697410	136710	126000	95970	122640	75600
Cumulative EDU Totals* (1999 = 4,007 EDUs)			5129	5729	6186	6770	7130
Cumulative Flow Totals** (1999 = 841,470 gpd)			978180	1104180	1200150	1322790	1398390

* A high number of lateral connection permits were issued in the last few months of 1999. While these connections count towards the total number of connections to the LIMA treatment plant, these connections would be "dry" connections (i.e. no flow contribution). Although permits were issued for 4,478 lateral connections in 1999 due to this lag in flow contribution versus connections, the number of EDUs connected was shifted six months forward and gallons/EDU per day was calculated. This six-month shift resulted in a total of 4,007 "live" EDUs in December of 1999.

**Safety factors of 13% and 5% were utilized based on the increase of flows seen at the treatment plant during the weekend and during storm events, respectively. Therefore, the Cumulative Flow Total for 1999 was based on 210 gallons per day per EDU.

4478	3321
- 4007	+ 471
<u>471</u>	<u>3792</u>
	- 1308 (x projects)

2484
 - 88 (pads)

 2396 unconnected
 vs
 2393 p. B9

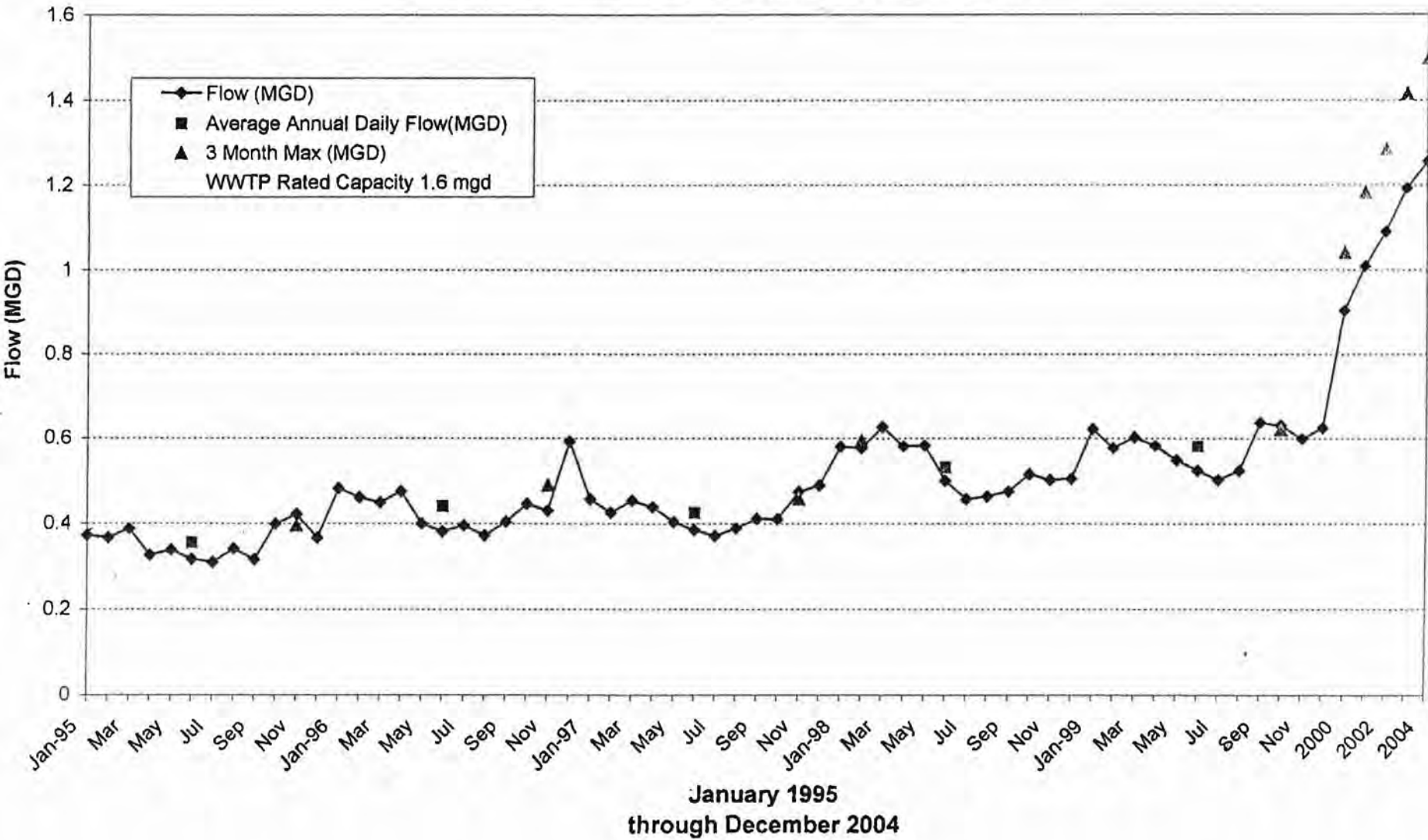


Figure 1: Data
Historical and Projected Hydraulic Loadings
1999 Wasteload Management Report (Chapter 94)

Hydraulic Loadings (MG)										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	0.371	0.481	0.456	0.579	0.622	1.049	1.184	1.287	1.418	1.499
February	0.365	0.46	0.424	0.576	0.577	0.973	1.098	1.194	1.316	1.392
March	0.387	0.448	0.452	0.626	0.602	1.015	1.145	1.244	1.371	1.451
April	0.325	0.474	0.437	0.58	0.581	0.980	1.105	1.201	1.324	1.400
May	0.337	0.399	0.403	0.582	0.547	0.922	1.040	1.131	1.246	1.317
June	0.316	0.38	0.384	0.499	0.522	0.880	0.993	1.079	1.189	1.257
July	0.308	0.394	0.37	0.456	0.501	0.845	0.953	1.036	1.141	1.206
August	0.34	0.371	0.388	0.463	0.522	0.880	0.993	1.079	1.189	1.257
September	0.315	0.403	0.41	0.474	0.636	1.072	1.210	1.315	1.449	1.531
October	0.398	0.445	0.409	0.514	0.63	1.062	1.198	1.302	1.435	1.517
November	0.421	0.429	0.473	0.501	0.598	1.008	1.137	1.236	1.362	1.440
December	0.365	0.592	0.488	0.504	0.624	1.052	1.187	1.290	1.422	1.503
Average Annual Daily Flow (lbs)	0.354	0.440	0.425	0.530	0.580	0.978	1.104	1.200	1.322	1.398

**FIGURE 1: LIMERICK TOWNSHIP MUNICIPAL AUTHORITY
1999 WASTELOAD MANAGEMENT REPORT
(CHAPTER 94)**

HISTORICAL AND PROJECTED HYDRAULIC LOADINGS



3.0 ORGANIC LOADING

Table 4, Organic Loadings, outlines, on a monthly basis, the average daily organic loadings to the treatment plant. The rated organic loading capacity of the treatment plant is 2720 lbs/day although this number may be somewhat high in light of the plant's hydraulic re-rating.

The average organic loading to the treatment plant during 1999 was 1130 lbs/day. It is important to note that this number may be an anomaly as it falls below the three (3) year trend which indicates a 300 lbs/day/year increase.

**TABLE 4
ORGANIC LOADINGS**

<u>Month</u>	<u>Average Daily Loading</u>
JANUARY	1141
FEBRUARY	1239
MARCH	1077
APRIL	857
MAY	1130
JUNE	1412
JULY	1141
AUGUST	941
SEPTEMBER	1338
OCTOBER	877
NOVEMBER	1166
DECEMBER	1239
Average Daily Organic Loading:	1130

Note: All loadings in lbs/day

Source: 1999 Monthly Operator's Reports

Based on the number of active EDUs as of December 1999, and the average organic loading to the treatment plant, the ratio of organic loading per EDU is approximately 0.25 lbs/day/EDU. Therefore, we have projected future organic loadings to the wastewater treatment plant (Table 5, Five Year Organic Loading Projections) on an annual basis for the next five (5) years using 0.25 lbs/day/EDU and the projected number of EDUs for that corresponding year as outlined in Section II, "Hydraulic Loading". It is projected that by December 2004, the average daily organic loading to the treatment plant will be 1783 lbs/day. This figure represents about sixty-six (66) percent of the pre-hydraulic re-rate organic loading capacity. Figure 2, Historical and Projected Organic Loadings, illustrates the average daily organic loadings to the treatment plant on a monthly basis from January 1995 through December 1999, and annually beginning 2000 through 2004.

TABLE 5
FIVE YEAR ORGANIC LOADING PROJECTIONS

<u>YEAR</u>	<u>TOTAL NEW EDUs</u>	<u>TOTAL EDUs</u>	<u>AVERAGE DAILY LOAD FROM NEW EDUs</u>	<u>TOTAL AVERAGE DAILY ORGANIC LOADING</u>
1999	---	4478	---	1130
2000	651	5129	163	1282
2001	600	5729	150	1432
2002	457	6186	114	1547
2003	584	6770	146	1693
2004	360	7130	90	1783

Note: Based on end-of-year projections.
 All loadings in lbs/day.

Source: 1999 Monthly Operator's Reports

**FIGURE 2: LIMERICK TOWNSHIP MUNICIPAL AUTHORITY
1999 WASTELOAD MANAGEMENT REPORT
(CHAPTER 94)**

HISTORICAL AND PROJECTED ORGANIC LOADINGS

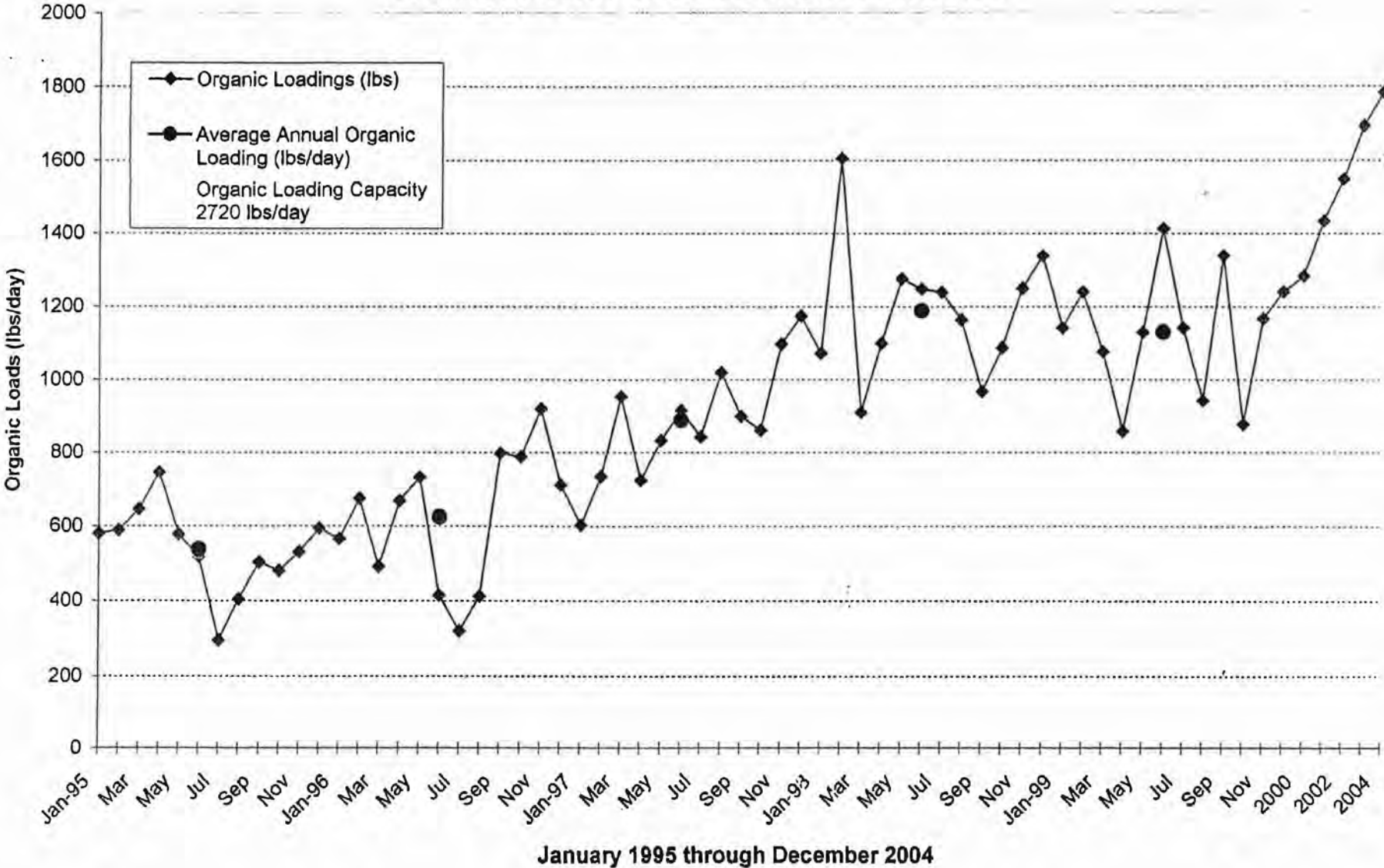


Figure 2: Data
Historical and Projected Organic Loadings
1999 Wasteload Management Report (Chapter 94)

	Organic Loadings (lbs)									
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	580	566	603	1073	1141	1294	1446	1562	1709	1800
February	588	673	734	1604	1239	1406	1570	1696	1856	1954
March	644	491	952	909	1077	1222	1365	1474	1613	1699
April	744	667	723	1099	857	972	1086	1173	1284	1352
May	578	732	833	1275	1130	1282	1432	1547	1693	1783
June	516	414	914	1247	1412	1602	1789	1934	2117	2230
July	295	320	842.5	1238	1141	1294	1446	1563	1711	1802
August	403	412	1019	1163	941	1068	1192	1288	1409	1484
September	502	797	898	966	1338	1518	1696	1831	2004	2111
October	480	787	861	1088	877	995	1111	1200	1314	1383
November	530	919	1097	1249	1166	1323	1478	1596	1746	1839
December	594	710	1174	1337	1239	1406	1570	1696	1856	1954
Average Annual Organic Loading (lbs)	538	624	888	1187	1130	1282	1432	1547	1693	1783

4.0 INDUSTRIAL WASTEWATER CONTRIBUTIONS

As mentioned previously, the primary source of wastewater contributions is residences. However, there are a few industrial/commercial operations located within Limerick Township that are serviced by public sewer. Although under current regulations the LTMA is not required to implement a Municipal Industrial Pretreatment Program (MIPP), the LTMA must maintain compliance with effluent discharge limitations outlined in its NPDES Permit. To facilitate maintaining this goal, in 1986, the Authority adopted a resolution to regulate the industrial wastewater contributions to the sanitary sewer system. This resolution was amended in 1994, as discussed in previous reports, and enables the LTMA to require all industrial facilities to be permitted, to complete on-site inspections of industrial facilities and to enforce compliance with the standards set in the resolution. A copy of the resolution as amended was submitted as Appendix "C" of the 1994 Wasteload Management Report.

There are four (4) industrial operations within the Township that have been identified by the Authority as having the potential to discharge process wastewater to the treatment plant. These four industrial operations are each classified under the federal pretreatment regulations as Categorical Users. A brief description of each industrial operation is presented below, including an estimate of the wastewater contributed to the sanitary sewer system.

- A. Sermatech International, Inc.
The nature of the operations include the application of inorganic finishes to metal components to provide oxidation and corrosion resistance to increase the useful life of the components. This facility discharges an average of approximately 250 gallons per day of pretreated process wastewater to the sewer system.
- B. Teleflex, Inc.
This operation is housed in the same building with Sermatech International and includes paint and plasma coatings and heat treating. The estimated process flow from this operation is included in the flow estimation above for Sermatech International.
- C. Micro Coax
Micro Coax manufactures semi-rigid coaxial cables and cable assemblies. The estimated process wastewater flow (batch peak) from this operation is approximately 500 gallons per day.

D. Dirty Dawg Brewery

Dirty Dawg Brewery is a microbrewery company which operates twenty-four (24) days a month to produce seven (7) barrels of beer per month. The maximum daily discharge from the operation is 240 gallons per day.

There are no specific problems in the Authority's sewer system or at the treatment plant that are known or suspected to be caused by the industrial operations.

5.0 WASTEWATER TREATMENT PLANT PERFORMANCE

The LTMA's treatment plant consists of four (4) identical pre-engineered treatment units positioned above ground. Each unit is capable of hydraulically handling 0.40 mgd. Currently, three (3) of the above units are in operation. Sludge generated at the treatment plant is removed as liquid and disposed of primarily at the East Norriton - Plymouth Joint Sewer Authority via incineration with the remainder being landfilled at the Berks County Landfill. Sludge disposal for 1999 totaled 1,230,400 gallons, with 924,000 gallons being disposed of through incineration.

The LTMA's NPDES Permit No. PA 0051934 sets standards for conventional pollutants only. The permit also sets monitoring requirements for total residual chlorine and dissolved oxygen. During 1999, the treatment plant operated satisfactorily and within all permit effluent limits, with the exception of one (1) fecal coliform violation in April, one (1) ammonia violation in May and one (1) high suspended solids in October. The annual NPDES compliance inspection completed by PADEP revealed that the treatment plant was operating satisfactorily.

6.0 WASTEWATER COLLECTION SYSTEM

A comprehensive sewer plan which indicates the sewer extensions constructed and put into operation during 1999 is included in Appendix A. Sewer extensions and connections completed during 1999 are summarized below. It should be noted that there are projects currently under construction which will be completed in phases. The sewer extensions and connections described below are relative to the extensions made in 1999 only. Phases of projects that were constructed in previous years are discussed in the Chapter 94 reports for that year and are not included in this summary.

Bradford Woods – Phases 1A and 1B

This project is located off of Township Line Road, north of the Graterford Road intersection. Phases 1A and 1B consisted of seventy-five (75) new homes. Sewage facilities included 7,156 linear feet of eight (8) inch gravity sewer and thirty-nine (39) manholes. The project will be serviced by three (3) pump stations, the first of which was operational in January 2000. These pump stations will discharge to a force main in Township Line Road which eventually connects to the Mingo Creek Interceptor.

Chestnut Pointe

This project is located below Souder Road, between Township Line and Royersford Roads. The project consisted of one hundred and ninety-four (194) apartments. Sewage facilities included 3,385 linear feet of eight (8) inch gravity sewer and twenty-three (23) manholes. The project discharges to Pump Station 6A.

Faircrest Farm - Phases I and II

This project is located on Sunset Road between Graterford and Limerick Roads. Phases I and II consisted of fifty-eight (58) new homes. Sewage facilities included 6,086 linear feet of eight (8) inch PVC gravity sewer, 216 linear feet of DI gravity sewer and twenty-eight (28) manholes. This project discharges to Pump Station #11 (Wayside).

Golf Ridge – Phase III

This project is located off of Limerick Center Road to the east of the intersection of Ridge Pike. Phase III consisted of thirty-nine (39) new homes. Sewage facilities for this project included 1,295 linear feet of eight (8) inch gravity sewer and ten (10) manholes. The gravity sewer from this project connects to the Landis Creek Interceptor at Manhole A147 which discharges to Pump Station #3.

Harleysville Bank

This project is located on Linfield Road, just east of the intersection of Lewis Road. This is the site of one of the privately owned pump stations within the LTMA's service area. This project consisted of the installation of a thirty-one (31) gallon per minute grinder pump station and approximately 390 linear feet of one and one half (1 ½) inch PVC force main. This force main connects to the existing sanitary sewer system at Manhole #291 in Lewis Road.

Limerick Village – Phase IV

The project site is located off of Ridge Pike near Limerick Center Road. Sewage facilities constructed for this phase of the project included 1,570 linear feet of eight (8) inch sanitary sewer and fourteen (14) manholes. This project connects to the existing sewer system via an eight (8) inch gravity main along Ridge Pike.

Linfield Knoll – Phases II and III

This project is located just south of the intersection of Ferndale Lane and Main Street along the west side of Main Street. Phases II and III consisted of the construction of seventy-five (75) new town homes. Sewage facilities for this project consisted of 1,984 linear feet of eight (8) inch gravity sewer and thirteen (13) manholes. The project connects to the Pump Station #5 Interceptor at Manhole 303.

Links at Springford – Phase II

This project is located on the north side of West Cherry Lane. This phase of the project consisted of thirty-three (33) new homes. Sewage facilities for this project included 864 linear feet of eight (8) inch gravity main and four (4) manholes. This project ultimately discharges to Pump Station #8.

Mingo Creek Interceptor

The Mingo Creek Interceptor generally follows Mingo Creek. The interceptor begins at Ridge Pike where it collects sewage from the Township Line Road gravity main and a portion of Ridge Pike, then continues south where it crosses Linfield Trappe Road. At this point the interceptor runs parallel to Royersford Road to its end point at Pump Station #6A. Sewage facilities included 455 linear feet of eight (8) inch collector lines, 4,951 linear feet of twelve (12) inch gravity sewer, 3,412 linear feet of fifteen (15) inch gravity sewer, 767 linear feet of sixteen (16) inch ductile iron gravity main and fifty-three (53) manholes.

North Limerick Road

This project is located along North Limerick Road and included provisions for the connection of nine (9) existing homes to public sanitary sewer service. Sewage facilities for this project included 1,443 linear feet of eight (8) inch gravity sewer and five (5) manholes. The project connected to Manhole 234C and flows to Pump Station #2.

Summer Chase

This project is located along Ridge Pike just east of the Limerick Center Road intersection. This project consisted of the construction of 198 apartments. Sewage facilities for this project included 3,500 linear feet of eight (8) inch gravity sewer and fourteen (14) manholes. This project joins a section of main from the Golf Ridge Subdivision which connects to the existing system at Manhole A147.

Township Line Road

This project is located along Township Line Road, north of Ridge Pike. This project was designed to accept flows from the Bradford Woods Subdivision and to connect existing homes along the Limerick Township side of Township Line Road. Sewage facilities for this project included approximately 4,135 linear feet of twelve (12) inch gravity sewer main and thirteen (13) manholes. This project connects with the Mingo Creek Interceptor just south of the intersection of Ridge Pike and Township Line Road.

University of Pennsylvania Medical Center

This project is located on Linfield Road, just east of the intersection of Lewis Road. This is the site of one of the privately owned pump stations within the LTMA's service area. This project consisted of the installation of an approximately thirty (30) gallon per day grinder pump station and approximately 935 linear feet of two (2) inch PVC force main. This force main connects to the existing sanitary sewer system at Manhole #291 in Lewis Road.

Walnut Farms

This project site is located along Royersford Road above Buckwalter Road. The project consisted of forty-two (42) new homes. Sewage facilities included fourteen (14) linear feet of twelve (12) inch gravity sewer, 5,027 linear feet of eight (8) inch gravity sewer and nineteen (19) manholes. The project discharges to Pump Station 6A.

7.0 WASTEWATER PUMPING STATIONS

There are ten (10) Authority owned pump stations throughout the Township and one (1) Developer owned pump station; Pump Station #11 (Wayside). This station will ultimately be offered to the Authority for dedication. This process is currently underway.

During 1999 an upgrade was performed on Pump Station #6A. This upgrade resulted in an increased capacity of 2,225 gallons per minute. At Pump Station #2 (which has a rated capacity of 100 gpm), construction is currently underway to expand the facility. Based on an evaluation of this pump station by Gilmore & Associates, Inc., it was determined that this station should be upgraded to achieve a capacity of approximately 130 to 140 gpm.

Presently an Act 537 Plan Revision is underway for the area tributary to the treatment plant. The preliminary pump station calculations included in this revision indicate that some of the pump stations may face an overload situation due to the projected flows from proposed development over the next five (5) years. However, these overload situations are dependent upon the alternatives selected in the Act 537 Plan Revision.

Data relative to the current flows at each pump station for 1999, including the developer owned station, based on drawdown rates and clock run times associated with the respective pump capacities are presented in Table 6, Pumping Station Data. The use of this data is confined to estimating future capacity limitations and is not considered the sole basis for purposes of design. A description of each pump station is included below.

Pump Station #1

This pump station is located near Jones Boulevard in the Limerick Airport Business Center and is equipped with two (2) submersible pumps, each with a rated capacity of 142 gpm. Wastewater is discharged through a six (6) inch force main which ties into the existing sewer at Manhole A109.

Pump Station #2

This pump station is located on North Limerick Road and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 100 gpm. Wastewater is discharged through a four (4) inch force main which ties into the existing sewer at Manhole 229. Construction is currently underway to upgrade this pump station to 130 gpm.

Pump Station #3

This pump station is located on South Limerick Road and is equipped with two (2) submersible pumps, each with a rated capacity of 1,150 gpm. Wastewater is discharged through a twelve (12) inch force main which ties into the existing sewer at Manhole A107.

Pump Station #4

This pump station is located on Major Hollow Road and is equipped with two (2) submersible pumps, each with a rated capacity of 80 gpm. Wastewater is discharged through a four (4) inch force main which is manifolded into an eighteen (18) inch force main from Pump Station #5.

Pump Station #5

This pump station is located near Trinley Road and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 1,900 gpm. Wastewater is discharged through an eighteen (18) inch force main which ties into the existing sewer system at Manhole A16.

Pump Station #6A

This pump station is located northeast of Route 422 and Royersford Road. The station is equipped with two (2) dry pit non-clog sewage pumps, each with a rated capacity of 2,225 gpm. Wastewater is discharged through a sixteen (16) inch force main to the LTMA wastewater treatment plant.

Pump Station #7

This pump station is located on King Road and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 260 gpm. Wastewater is discharged through a four (4) inch force main which is manifolded into the sixteen (16) inch force main to the LTMA wastewater treatment plant.

Pump Station #8

This pump station is located near the intersection of Reed Road and West Cherry Lane. This pump station was upgraded during 1998. The station is currently equipped with two (2) suction lift pumps, each with a rated capacity of 205 gpm. Wastewater is discharged to a four (4) inch force main that conveys the sewage to existing Manhole A113 in West Cherry Lane.

Pump Station #9

This pump station is located on Neiffer Road and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 200 gpm. Wastewater is discharged through a four (4) inch force main which ties into the gravity sewer system servicing the Fox Ridge Development.

Pump Station #10

This pump station is located on Ridge Pike and is equipped with two (2) submersible pumps. Each pump has a rated capacity of 180 gpm. This pump station became operational in October 1998. Wastewater is discharged to a six (6) inch force main which connects to an eight (8) inch gravity sewer at Manhole A206, approximately ¼ mile east of the intersection of Limerick Road and Ridge Pike, which conveys sewage to the existing Pump Station #3.

Pump Station #11 (Wayside)

This pump station is located in the Wayside Development and is equipped with two (2) submersible pumps, each with a rated capacity of 90 gpm. This pump station became operational on December 23, 1998. Wastewater is discharged through a four (4) inch force main which ties into The Fields subdivision. Dedication activities for this pump station are currently underway.

Each pump station (except Pump Station 11) is inspected weekly and necessary maintenance is performed by the Authority personnel or service contractors. To date, each station is operating within its capacity. The Authority's routine preventive maintenance program continues to prevent extensive repair and should continue to do so in the future.

APPENDIX G

**REVIEW AGENCY COMMENTS
AND MUNICIPAL RESPONSES**

99-721



Pennsylvania Department of Environmental Protection

Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428

APR 05 2001

Southeast Regional Office

610-832-6130
Fax: 610-832-6133

Edward J. Fink, Manager
Limerick Township
646 W Ridge Pike
Limerick, PA 19468

Re: Act 537 Plan Update
APS Id. 341847, AUTH Id. 349826
Limerick Township
Montgomery County

Dear Mr. Fink:

We have completed our review of your municipality's updated official sewage facilities plan entitled Act 537 Sewage Facilities Plan Revision as prepared by Gilmore & Associates, Inc., dated July, 2000, revised February 28, 2001 and March 9, 2001. The review was conducted in accordance with the provisions of the Pennsylvania Sewage Facilities Act.

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

1. The expansion of the Township's King Road sewage treatment plant from its current capacity of 1.6 MGD to a capacity of 1.7 MGD. This expansion will provide for the sewage disposal needs of the plant's service area, as depicted on Figure 1A, for a 10-year planning period.
2. The conversion of the King Road sewage treatment plant from an extended aeration process to a sequencing batch reactor process, as described on page 33 and Figure 8 of the plan.
3. The relocation of the King Road sewage treatment plant's outfall to the Schuylkill River, as shown on Figure 8 of the plan.

This planning approval does not relieve the project sponsor of the responsibility to secure a Department permit for the construction and operation of the proposed facility.

This approval is specifically made contingent upon the applicant acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance, and replacement of all sewerage structures associated with the approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

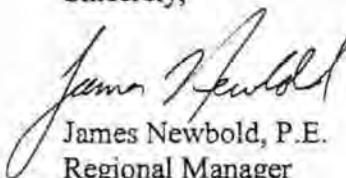
Edward J. Fink, Manager

-2-

APR 05 2001

If you have any questions, please contact Elizabeth Mahoney of this office at 610-832-6079.

Sincerely,


James Newbold, P.E.
Regional Manager
Water Management

cc: Montgomery County Planning Commission
Montgomery County Health Department
Ms. Frankel
Mr. Rosenthal
Ms. Mahoney
Ms. Moore
Ms. Grant
Planning Section
Re 30

Amended Appendix A-22-b



MONTGOMERY COUNTY PLANNING COMMISSION

Box 311 • Norristown • Pennsylvania • 19404-0311 • (610) 278-3722
Office Location: Suite 201 • One Montgomery Plaza • Swede & Airy Streets • Norristown PA
Fax (610) 278-3941 • Website www.montcopa.org/plancom

SEWAGE FACILITIES PLANNING MODULE COMPONENT 4b - COUNTY PLANNING AGENCY REVIEW

DEP project number: N/A
MCPC 537 project number: 00-1484
Limerick Township Act 537 Plan Update
Date revision received by the
County Planning Commission: 7/21/00

September 5, 2000

Mr. Edward J. Fink
Limerick Township Manager
646 W. Ridge Pike
Limerick, Pennsylvania 19468

Dear Mr. Fink:

We have reviewed this application for an update to the Township's Sewage Facilities Plan in accordance with regulations issued under Act 537, "The Pennsylvania Sewage Facilities Act," as requested. We are forwarding this letter as a report of our review and recommendations.

BACKGROUND

The central and southeastern sections of Limerick Township have a public sewer system that includes a sewage treatment plant located along the Schuylkill River. This treatment plant is currently rated at 1.6 MGD. This 537 Plan Revision involves the expansion of the existing treatment plant to a proposed rating of 1.7 MGD.

Growth pressure in Limerick Township is strong. Since 1998, an average of 500 new EDUs per year have been connected to the system. Limerick Township Municipal Authority uses a flow figure of 250 gpd/EDU. The current plant rating of 1.6 MGD would therefore allow for a maximum of 6400 EDUs to be hooked into and treated at the plant. Although not all yet connected, these available EDUs have all been allotted to various projects. The need to provide additional capacity for potential failing on-lot systems and any future development has prompted the application for the expansion.

COMMENTS/ISSUES

EDU Contribution Rate: As part of this study for the plant expansion, the EDU figure (250 gpd/EDU) was re-evaluated. This plan revision proposes that 210 gpd/EDU may be a more accurate flow contribution number. Although the adjusted flow capacity per EDU of 210 gpd/EDU may be justifiable, we feel this number should be re-evaluated once the expansion is on-line. The average household size for Limerick Township, based on both 1990 Census data and 1997 DVRPC Estimates, is 2.7 people. Assuming an average daily usage of 80 gallons/day/person results in a flow rate somewhat higher than that proposed (216 gpd/EDU). Additionally, data from a wetter year (possibly the year 2000) may result in the need to increase this flow rate.

Several options to expand the plant, including a no action alternative, were reviewed. The chosen alternative, Option 2, involves modifications to the existing facility to provide for a sequencing batch reactor process. In addition to being economically favorable this option would allow for a low-cost expansion beyond the 1.7 MGD should the EDU contribution reach 250 gallons per day/EDU or the requests for EDUs exceed projections.

Relocated Discharge: We support the recommendation by the consulting engineer to relocate the treatment plant discharge pipe from an unnamed tributary to the Schuylkill River directly to the river itself. The assimilative capacity of the Schuylkill River far exceeds that of the tributary; this relocation should therefore provide water quality benefits while enabling the LTMA to meet the more stringent NPDES permit requirements.

Property Acquisition: Adequate buffering between sewage treatment plants and residential areas and sufficient space for expansion are key issues troubling many municipal authorities. We therefore encourage the LTMA to pursue the acquisition of adjacent land, as recommended by the consulting engineer, as a preventative measure.

RECOMMENDATION

Beyond the EDU contribution rate, we have not identified any land use issues or sewer planning concerns of significance and therefore have no objections to this plan revision provided it is in accordance with all applicable DEP rules and regulations

Sincerely,



Monica S. Tarantino
Environmental Planner

Montgomery County Planning Commission
Courthouse
Norristown, PA 19404

(610) 278-3750

cc: Glenn Stinson, DEP
Stuart L. Rosenthal, PE, Gilmore & Associates, Inc.

Amended Appendix A-22-b



Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093

December 6, 2000

Beth Abramovitz
Gilmore & Associates, Inc.
350 Butler Avenue
New Britain, PA 18901

TO ENVIRONMENTAL REVIEW USE
BHP REFERENCE NUMBER

Re: File No. ER 2001-0375-091-A
DEP ACT 537 Program: ACT 537
Plan Revision, ACT 537 Plan
Revision, Limerick Twp.,
Montgomery Co.

Dear Ms. Abramovitz:

The Bureau for Historic Preservation has reviewed the above named project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

MORE INFORMATION IS NEEDED

We are unable to proceed with our review until the additional information on the attached sheet is provided.

If you need further information regarding archaeological survey please contact Mark Shaffer at (717) 783-9900. If you need further information concerning historic structures please consult Ann Safley at (717) 787-9121. If you need a **status only** of the reviewed project please call Tina Webber at (717) 705-4036.

Sincerely,

A handwritten signature in black ink, appearing to read "Kurt W. Carr".

Kurt W. Carr, Chief
Division of Archaeology &
Protection

Attachment

CC: DEP, Southeast Region
KWC/lmm

ER # 01-0375-091-A

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
BUREAU FOR HISTORIC PRESERVATION: INFORMATION REQUEST FORM

Please submit the items checked:

- () A. FUNDING/PERMITTING/LICENSING/APPROVAL PROGRAM
 1. Name of federal/state/local agency (please identify all agencies involved)
 2. Type of involvement (funding/permit/license/approval)
 3. Name of Program (CDEG, HUD, Sewer Module, etc.)
 4. Name/address of office at which application has been/will be filed.

B. PROJECT DESCRIPTION: Narrative description of assisted and related work including:

- () Size of project (number of buildings, units, stories, acres)
- () Use or purpose
- () Extant and nature of ground disturbing activities (i.e. trenching, grading, foundation excavation, etc.)
- (X) Annotated Site map/plan showing proposed ground disturbance
- () Architectural plans/specifications
- () Development plans showing existing conditions and proposed new construction
- (X) Please explain how buildings of 50 years or older will be affected by project

PHOTOGRAPHS (3" X 5") showing:

- () Exterior of buildings in project area
- () Interior of buildings in project area
- () Buildings over 50 years old in project area keyed to a site plan or U.S.G.S. quadrangle map
- () Buildings over 50 years old surrounding the project area keyed to a site plan or U.S.G.S. quadrangle map
- () Streetscapes near project area

C. PROJECT LOCATION

- () U.S.G.S. 7.5 min. series (topographic) quadrangle with the PROJECT LOCATION(S) AND LIMITS CLEARLY MARKED using colored pen. Please include name of quadrangle.
- () Street map (for projects in populated areas)
- () Street map showing project location and historic district boundaries
- () acreage of project area
- () miles/feet of project and right-of-way width
- () street address of property

D. PROJECT SITE

- () Supply brief history/use of buildings/property, including historic names/dates for the property.
- () Describe all buildings on the site using the BHP Historic Resource Form
- () Floor plans of building
- () Other: _____

() PLEASE EXPLAIN HOW THESE BUILDINGS WILL BE AFFECTED BY THE PROJECT. IF THE BUILDINGS ARE TO BE RETAINED, PLEASE SUBMIT A COPY OF THE DEVELOPMENT PLAN

The map you provided shows the entire township - we're not sure where the proposed ground distur will take place. Please identify the location of the 0.9 acres to be disturbed preferably on a U.S.G.S. quadrangle map.
Thank you

Amended Appendix A-22-b



Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093

January 8, 2001

Beth Abramovitz
Gilmore & Associates, Inc.
350 Butler Avenue
New Britain, PA 18901

TO SIGNATURE REVIEW USE
AND REFERENCE NUMBER

Re: File No. ER 2001-0375-091-B
DEP ACT 537 Program: Act 537
Revision-Response to Comments,
Limerick Township Municipal
Authority, Limerick Twp.,
Montgomery Co.

Dear Ms. Abramovitz:

The Bureau for Historic Preservation has reviewed the above named project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 *et seq.* (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

Thank you for submitting the additional information for the above referenced project. Based on this supplemental information it is our opinion that no cultural resource surveys are necessary for this project. Your cooperation in dealing with this matter is appreciated.

If you need further information in this matter please consult Mark Shaffer at (717) 772-0924. If you need a **status only** of the reviewed project please call Tina Webber at (717) 705-4036.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kurt W. Carr".

Kurt W. Carr, Chief
Division of Archaeology &
Protection

KWC/lmm



Amended Appendix A-22-b
COUNTY OF MONTGOMERY
COMMISSIONERS
MICHAEL D. MARINO, ESQ.
CHAIRMAN
JAMES R. MATTHEWS RUTH S. DAMSKEF

DIRECTOR
ROBERT GAGE
TEL: (610)-278-5117
FAX: (610)-278-5167
TDD: (610)-631-1211

DEPARTMENT OF HEALTH
MONTGOMERY COUNTY HUMAN SERVICES CENTER
1430 DeKALB STREET
P.O. BOX 311
NORRISTOWN, PENNSYLVANIA 19404-0311

October 18, 2000

Stuart L. Rosenthal
Gilmore & Associates
350 Butler Ave
New Britain, PA 18901

RE: Limerick Act 537 Revision, July 2000
Limerick Township, Montgomery County

Dear Mr. Rosenthal:

The Montgomery County Health Department (MCHD), has reviewed the Act 537 Plan Revision including the Upper Brooke Evans and Possum Hollow areas in Limerick Township, Montgomery County.

MCHD has no objections to the proposed revision of the Limerick Township Act 537 plan..

Please contact me at 610-970-5040 if you have any questions.

Sincerely,

Eugene M. Evanna
Environmental Health Specialist
Division of Water Quality Management
Eevanna@mail.montcopa.org

cc: Department of Environmental Protection
Limerick Township
Linda Salvati, Field Supervisor
File

NORRISTOWN HEALTH CENTER
1430 DEKALB STREET, NORRISTOWN, PA 19404-0311
PHONE (610) 278 - 5145 FAX (610) 278 - 5166

POTTSTOWN HEALTH CENTER
584 KING STREET, POTTSTOWN, PA 19464
PHONE: (610) 970 - 5040 FAX: (610) 970 - 5048

EASTERN COURT HOUSE ANNEX
102 YORK RD., SUITE 401, WILLOW GROVE, PA 19090
PHONE: (215) 784 - 5415 FAX: (215) 784 - 5524

APPENDIX H
PROOF OF PUBLICATION
OF PUBLIC NOTICE

The Mercury

A PULITZER PRIZE WINNING NEWSPAPER

24 N. HANOVER ST. POTTSTOWN, PA 19464
PHONE: (610) 523-3000

LEGAL ADVERTISING

INVOICE NO. 00044161
ACCT # 6000014

CLASSIFICATION
610-495-6432 20

LIMERICK TOWNSHIP
BOARD OF SUPERVISORS
646 WEST RIDGE PIKE
LIMERICK, PA 19468

LTMA

PAYMENT DUE UPON RECEIPT OF INVOICE

INVOICE DATE 8/14/00

8/10/00	8/10/00	LEGAL NOTICE Notice is hereby given that the	95	1	95	TLEG	99.75
MER		FIRST NOTICE					
P.O. NO.		cc: Proof ✓ ACT 537 FILE			PROOF CHARGES		7.00
		SEWAGE FACILITY PLAN			PREPAID AMOUNT		

2000 proof file

THE MERCURY

Publishers of The Mercury, The Penny Pincher and Real Estate Today

PROOF OF PUBLICATION OF NOTICE

Under Act No. 587, Approved May 6, 1929

STATE OF PENNSYLVANIA
COUNTY OF MONTGOMERY SS:

Mary Ann Edleman, of The Mercury, of the County and State aforesaid, being duly sworn, deposes and says that THE MERCURY, a newspaper of general circulation published at 24 N. Hanover Street, Borough of Pottstown, County and State aforesaid, was established September 29, 1931 since which time, The Mercury has been regularly issued in said County, and that the printed notice of publication attached hereto is exactly the same as printed and published in the regular editions and issues of the said THE MERCURY on the following dates; viz.

August 10, 2000

Affiant further deposes that he/she is duly authorized by Dennis Pfeiffer, Publisher of said MERCURY, a newspaper of general circulation, to verify the foregoing statement under oath, and affiant is not interested in the subject matter of the aforesaid notice of advertisement, and that all allegations in the foregoing statements as to time, place and character of publication are true.

LEGAL NOTICE
Notice is hereby given that the Limerick Township Board of Supervisors will consider for adoption a revision to the Limerick Township Act 537 Sewage Facilities Plan at their regular meeting on September 19, 2000 commencing at 7:00 p.m. at the Limerick Township Administration Building, Montgomery County, Pennsylvania. The Act 537 Plan Revision includes generally the eastern, southern and central portions of the Township and contains all or part of the Landis Creek, Upper Study Area, Lower Study Area, Southwest, Upper Brooks Evans, Pump Station #5 and Pump Station #7 drainage areas. The Sewage Facilities Plan for this area was originally adopted by the Limerick Township Board of Supervisors in May 1982 and approved by the PA Department of Environmental Resources in September 1983. This revision proposes the expansion of the existing wastewater treatment plant from 1.6 mgd to 1.7 mgd to incorporate the sewage disposal needs of the existing Act 537 Plan area. A public comment period will extend for thirty

Mary Ann Edleman
Mary Ann Edleman, Classified Manager

Sworn to and subscribed before me this 10th
day of August, 2000
Cindy R. Eisenhauer
Notary Public

Notary Seal
Cindy R. Eisenhauer, Notary Public
Pottstown Boro. Montgomery County
My Commission Expires Feb. 1, 2001
Member Pennsylvania Association of Notaries

LEGAL NOTICE

Notice is hereby given that the Limerick Township Board of Supervisors will consider for adoption a revision to the Limerick Township Act 537 Sewage Facilities Plan at their regular meeting on September 22, 2000 commencing at 7:00 p.m. at the Limerick Township Administration Building, Montgomery County, Pennsylvania. The Act 537 Plan Revision includes generally the eastern, southern and central portions of the Township and contains all or part of the Landis Creek, Upper Study Area, Lower Study Area, Southeast, Upper Brooke Evans, Pump Station #5 and Pump Station #7 drainage areas.

The Sewage Facilities Plan for this area was originally adopted by the Limerick Township Board of Supervisors in May 1992 and approved by the PA Department of Environmental Resources in September 1993. This revision proposes the expansion of the existing wastewater treatment plant from 1.6 mgd to 1.7 mgd to incorporate the sewage disposal needs of the existing Act 537 Plan area.

A public comment period will extend for thirty (30) days from the date of publication of this notice. The proposed Act 537 Plan Revision can be viewed at the Limerick Township Administration Building at 646 West Ridge Pike, Limerick Pennsylvania during regular business hours. Written comments may be directed to: The Limerick Township Board of Supervisors, 646 West Ridge Pike, Limerick, PA 19468.

Limerick Township Board of Supervisors

APPENDIX I

**WRITTEN PUBLIC COMMENTS
AND MUNICIPAL RESPONSES**

C. 9/18/00 Bos Agenda



ARCHDIOCESE OF PHILADELPHIA

SECRETARIAT FOR TEMPORAL SERVICES

222 North Seventeenth Street • Philadelphia, Pennsylvania 19103-1299 • (215) 587-4540 • Fax (215) 587-0512

REAL ESTATE OFFICE

August 18, 2000

Board of Supervisors
Limerick Township
646 West Ridge Pike
Limerick, PA 19468

Attention: Karen Willman

RE: Swamp Pike & Neiffer Road, Limerick Township

Dear Ms. Willman:

I am the Director of Real Estate for the Archdiocese of Philadelphia. The Archdiocese of Philadelphia has signed an agreement of sale to purchase a 24 acre parcel of ground at the Northeast corner of Swamp Pike and Neiffer Road in Limerick Township. We expect to settle on this property within the next sixty (60) days. This site will be used for the relocation of St. Clare's Parish, currently located in Linfield, PA. We will require 15 EDU's to serve the Church, School and Rectory which will be eventually located on this site. We would appreciate it very much, if you would incorporate our needs in your 537 application.

If you need any additional information, please do not hesitate to contact me.

Thank you for your assistance in this matter.

Sincerely,

Eugene F. Brazil
Eugene F. Brazil, Esquire
Director

et

S. G. Souder Builders, Inc.

August 14, 2000

LIMERICK TOWNSHIP
646 W. Ridge Pike
Limerick, PA 19468

RE: Neiffer Woods--52+- Acres of Land Located in the R-3 Residential Zoned District. The w/s of Neiffer Rd. bet. Ridge & Swamp Pikes Limerick Township, Montgomery County
Owner of Record: Patel, Ragesh R. & Amita R.
Equitable Owner: S. G. Souder Builder's Inc.

To Whom It May Concern:

S.G. Souder Builders, Inc. is the equitable owner of the above captioned property presently owned by Ragesh and Amita Patel. On May 23, 2000 a sketch plan was presented to your planning commission for review and comment. In attendance at this meeting was our counsel Robert Brant, Esquire, Mr. Patel and John Backenstose from Bursich Associates. Prior to our planning commission meeting we had attended a staff meeting. On August 8, 2000 we attended our second staff meeting regarding this property.

At the present time , Limerick Township is in a 537 review period for Limerick Municipal Authority's King Road plant expansion and the new Possum Hollow facility. The Patel tract is not within Limerick Township's present 537 boundary.

It has come to our attention that adverse , on site sewer problems exist in areas along Fruitville and Faust Roads just to the west. Our understanding is that if not corrected, these conditions will produce not only adverse health conditions but the potential for unsaleable properties.

We are requesting the supervisors of Limerick Township to consider the inclusion/amendment of the Patel/Ross tract and adjoining malfunctioning lots along Faust & Fruitville Roads into the same growth area/537 district at your September board meeting. We realize that are request comes at a time when additional development and growth are of the upmost concern of residents and township officials. However, in light of the 537 review period this would be an appropriate time to consider and evaluate the amendment of this parcel into your 537 district.

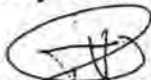
The 537 district bounds the Patel/Ross tract on three sides. It is not significantly outside the existing 537 boundary. The inclusion of this parcel and sewerage of this area would provide a health, environmental and sale-value benefit to nearby properties. As the developer of the Patel/Ross tract we would be willing to reasonably assist in the accommodation of public sewer into this area.

Limerick Township
August 14, 2000
Page 2

As previously noted our professionals (engineer- Bursich & Associates and counsel Robert L. Brant Jr. Esq.) will be available to assist in this process.

If you have any questions please feel free to call me at 610-935-8280 ext. 361.

Respectfully submitted,

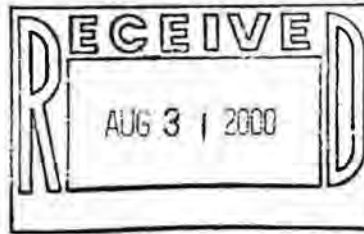


Joseph V. DePaul, CFO
S. G. Souder Builders, Inc.
Country Estate Developers, Inc.

cc: Ragesh Patel
Edward Fink, Township Manager Limerick Township
Robert L. Brant, Esquire
Brad Macy, Bursich Associates
Barbara Frankel, Limerick Municipal Authority

JVD/clm

Amended Appendix A-22-b



Ragesh and Amita Patel
32 Rosedale Drive
Pottstown PA 19464
(610) 326-8798
August 29, 2000

LIMERICK TOWNSHIP
646 West Ridge Pike
Limerick, PA 19468

RE: 537 Amendments for the
Limerick Township

To Whom It May Concern:

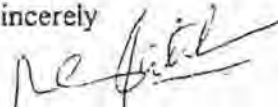
I have learned by attending the township meeting that Limerick Municipal Authority is revising the 537 applications and it is under the Township's review and for the submission to the Department Of Environmental Protection. The plans include expansion of King Road facility and for the conceptual Possum Hollow facility. My property on Neiffer road in Limerick Township is not included in the current or draft revised 537 plans, which is under review by the Limerick Township.

Three sides of my property (Tax parcel # 37-0003267008, 52+ acres) has been bordered by 537 plans and by including the Neiffer Road property, it will help to expedite and correct the septic system problems on Fruitville Pike. Those houses which has been the concerned of the Montgomery County Health Department and also the Department Of Environmental Protection can be connected to a gravity line or a forced main and hook them in to Neiffer Road pumping station which is in front of my property and connected to King Road facility.

At present, I have an agreement of sale with S.G.Souder Builders Inc. for the development of the property as per current R-3 residential zoning. We are requesting the inclusion of the property in 537 amendments and looking forward to work with the Limerick Township. The Developer and myself would entertain any reasonable request Township may have.

Feel free to contact me at my above address and phone number.

Sincerely



Ragesh Patel

CC: Edward Fink, Township Manager Limerick Township
Barbara Frankel, Limerick Municipal Authority
S.G.Souder Builders Inc.

RECEIVED NOV - 2 2000



LIMERICK TOWNSHIP

646 WEST RIDGE PIKE
LIMERICK, PENNSYLVANIA 19468

ADMINISTRATION
(610) 495-6132
FAX (610) 495-0952
FINANCE (610) 495-5151
CODE ENFORCEMENT/ZONING/PERMITS
(610) 495-0951
PUBLIC WORKS DEPARTMENT
(610) 495-7522
POLICE DEPARTMENT
(610) 495-7909

30 October 2000

Eugene F. Brazil, Esquire
Archdiocese of Philadelphia
222 North Seventeenth Street
Philadelphia, PA 19103-1299

RE: Limerick Township Act 537 Plan Revision

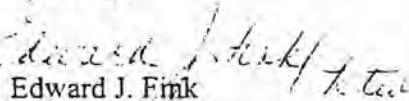
Dear Mr. Brazil:

We have reviewed your comments regarding the Limerick Township Act 537 Plan Revision and inclusion of the twenty-four (24) acre parcel on the northeast corner of Swamp Pike and Neiffer Road in the 537 Plan Area.

As you are aware, this parcel is not currently included in the 537 Plan Area and the township does not plan on expanding the existing boundaries at this time. However, please be advised that when a land development plan is submitted to the township for review, the appropriate planning modules may be submitted for review as well. A determination will be made based on the land development plan and related information provided during the review period as to whether public sewer service for this project will be available.

If you have questions or require any further information, please contact me.

Sincerely,


Edward J. Fink
Township Manager

/ktw

cc: Board of Supervisors
B. Frankel, LTMA
S. Rosenthal, Gilmore & Assoc.

Correspondence
LTMA General
LTMA (King Rd. Exp.)

RECEIVED NOV - 2 2000



LIMERICK TOWNSHIP

646 WEST RIDGE PIKE
LIMERICK, PENNSYLVANIA 19468

ADMINISTRATION
(610) 495-6432
FAX (610) 495-0952
FINANCE
(610) 495-5151
CODE ENFORCEMENT/ZONING/PERMITS
(610) 495-0951
PUBLIC WORKS DEPARTMENT
(610) 495-7522
POLICE DEPARTMENT
(610) 495-7909

30 October 2000

Ragesh and Amita Patel
32 Rosedale Drive
Pottstown PA 19464

RE: Limerick Township Act 537 Plan Revision

Dear Mr. and Mrs. Patel:

We have reviewed your comments and the comments of S.G. Souder Builders, regarding the Limerick Township Act 537 Plan Revision and inclusion of Tax Parcel #37-0003267008 in the 537 Plan Area.

As you are aware, this parcel is not currently included in the 537 Plan Area and the township does not plan on expanding the existing boundaries at this time. However, please be advised that when a land development plan is submitted to the township for review, the appropriate planning modules may be submitted for review as well. A determination will be made based on the land development plan and related information provided during the review period as to whether public sewer service for this project will be available.

If you have questions or require any further information, please contact me.

Sincerely,

Edward J. Fink
Township Manager

/ktw

cc: Board of Supervisors
B. Frankel, LTMA
S. Rosenthal, Gilmore & Assoc.

Joseph V. DePaul, Souder
LTMA General
LTMA (King Rd. Exp.)

APPENDIX J
RESOLUTION OF ADOPTION

LIMERICK TOWNSHIP
RESOLUTION NO. 2000-33

RESOLUTION OF THE SUPERVISORS OF LIMERICK TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA (hereinafter "the municipality").

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

WHEREAS, Gilmore & Associates, Inc. has prepared a Revision to the Limerick Township Act 537 Sewage Facilities Plan which provides for the expansion of the King Road Wastewater Treatment Plant from a 1.6 mgd treatment plant to a 1.7 mgd treatment plant, and

The alternative of choice to be implemented is identified in the Act 537 Sewage Facilities Plan Revision, Limerick Township, Montgomery County, Pennsylvania dated July, 2000 as Option No. 2. This option involves the modification of the existing wastewater treatment facilities to provide for a sequencing batch reactor (SBR) process. The plant will receive flow from the eastern portion of the Township only, with all areas being within the Act 537 Plan boundary set in 1997. The modifications to the existing treatment plant would also include a new headworks facility to allow for removal of screenings and grit from the wastewater flow; effluent disinfection via ultraviolet light radiation to eliminate the use of chlorine; sludge dewatering facilities to allow for disposal/utilization options and reduce the cost of off-site disposal/utilization; and an outfall for direct discharge to the Schuylkill River. Ultimately, this option provides for the addition of 1,700 new EDUs to provide sewer service to the remainder of the Study Area and a higher level of effluent treatment. The key implementation activities/dates include:

- | | |
|---|----------------|
| 1. Township 537 Study Adoption | September 2000 |
| 2. PADEP 537 Study Approval | January 2001 |
| 3. Part 1 NPDES Application Submission | January 2001 |
| 4. PADEP Part 1 NPDES Approval | May 2001 |
| 5. Part 2 Water Quality Management Application Submission | October 2001 |
| 6. PADEP Part 2 Water Quality Management Approval | January 2002 |
| 7. Bid Document Issuance | February 2002 |
| 8. Construction Contracts Award | April 2002 |
| 9. Construction Completion / Start-up | September 2003 |

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

NOW, THEREFORE, BE IT RESOLVED that the Supervisors of the Township of Limerick hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the municipality, the above referenced Facility Plan. The municipality hereby assures the Department of the complete and timely implementation of the said plan as required by law (Section 5, Pennsylvania Sewage Facilities Act as amended).

Adopted this 17th day of October, 2000.

LIMERICK TOWNSHIP
BOARD OF SUPERVISORS

ATTEST:

Karen T. Skillman

Frederick L. Fidler

Ed R. White

Janet C. Ricci

Thomas W. Chapoff

I, Karen T. Skillman Secretary, Limerick Township Board of Supervisors, hereby certify that the foregoing is a true copy of the Township's Resolution No. 2000-33, adopted 17 October, 2000.

AUTHORIZED SIGNATURE

TOWNSHIP SEAL

Karen T. Skillman
Corp. Secretary

APPENDIX K

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
INSTRUCTIONS FOR COMPLETING ACT 537 PLAN CONTENT
AND ENVIRONMENTAL ASSESSMENT CHECKLIST**

Commonwealth of Pennsylvania
 Department of Environmental Protection
 Bureau of Water Quality Protection

**ACT 537 PLAN CONTENT
 AND ENVIRONMENTAL ASSESSMENT CHECKLIST**

For specific details covering Act 537 planning requirements, refer to Chapters 71 and 73 of the Department's Regulations.

Municipality: Limerick Township County: Montgomery
 Local Municipal Contact Official: Barbara P. Frankel
 Telephone Number of Official: (610) 948-1033
 Consultant: Gilmore & Associates, Inc.
 Consultant's Telephone Number: (215) 345-4330
 Consultant's Contact Person: Stuart L. Rosenthal, P. E.
 Title of Submission: Vice President
 Date Submitted: November 6, 2000

About this checklist

- * DEP publication 3640-BK-DER1480 11/92, "A Guide For Preparing Act 537 Update Revisions – November 1992", is obsolete. Do not use checklist pages from that publication.
- * You must complete and attach this checklist when you submit the Plan to the Department for review and approval.
- * This checklist is composed of two parts, one for Administrative Completeness and one for General Plan Content. A Plan must be "administratively complete" in order to be formally reviewed and approved by the Department. The General Plan Content checklist identifies each of the issues which must be addressed in your Act 537 Plan Update based on a pre-planning meeting between you and/or your consultant and the Department. The Administrative Completeness checklist is found on Pages I-16. The General Content checklist is found on Pages I-17 through I-27. PENNVEST funded or applicant plans must address planning requirements on Page I-28.
- * You must use the right-hand column blanks in the checklist to identify the page in the Plan on which each planning issue is found or reference a previously approved update or special study (title and page number.)
- * If you determine a planning issue is not applicable even though it was previously thought to be needed, please explain your decision within the text of the Plan (or as a footnote) and indicate the page number where this documentation is found.
- * After Municipal Adoption by Resolution, submit three (3) copies of the Plan, any attachments or addenda, and this checklist to the Department.

GENERAL PLAN CONTENT CHECKLIST

DEP Use Only	Indicate Page #(s) in Plan	Item Required
		I. Previous Wastewater Planning
		A. Identify and briefly analyze all existing wastewater planning that:
_____	<u>Sec. 3.0</u>	1. Has been previously undertaken under the Sewage Facilities Act (Act 537). (Reference-Act 537, Section 5 §d.1)
_____	<u>Sec. 3.0; 6.3.3; 6.3.4; 6.3.5</u>	2. Has not been carried out according to an approved implementation schedule contained in the plans. (Reference-Title 25, §71.21.a.5.i.A-D) Section V.F of the Planning Guide
_____	<u>Sec. 6.3.2; 6.3.4; 6.3.5</u>	3. Is anticipated or planned by applicable sewer authorities. (Reference-Title 25, §71.21.a.5.i.A) Section V.D. of the Planning Guide.
_____	<u>N/A *</u>	4. Has been done through planning modules for new land development, planning "exemptions" and addenda. (Reference-Title 25, §71.21.a.5.i.A).
		B. Identify and briefly summarizes all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247) including:
_____	<u>Sec. 4.1 Appendix A,B Figure 3</u>	1. All land use plans and zoning maps which identify residential, commercial, industrial, agricultural, recreational, and open space areas. (Reference-Title 25, §71.21.a.3.iv).
_____	<u>Appendix A,B</u>	2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference-Title 25 §71.21.a.3.iv).
_____	<u>N/A *</u>	3. All limitations and plans related to floodplain and stormwater management and special protection (Ch. 93) areas. (Reference-Title 25 §71.21.a.3.iv) Appendix B, Section II.F of the Planning Guide.
		II. Physical and Demographic Analysis utilizing written description and mapping (All items listed below require MAPS, and all maps should show all current lots and structures and be of appropriate scale to clearly show significant information).
_____	<u>Figure 1-3</u>	A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference-Title 25, §71.21.a.1.i).
_____	<u>Figure 1</u>	B. Identification of physical characteristics (streams, lakes, impoundments, natural conveyance, channels, drainage basins in the planning area). (Reference-Title 25, §71.21.a.1.ii).
_____	<u>N/A*</u>	C. Soils - Analysis with description by soil type and soils mapping. Show areas suitable for in-ground on-lot systems, elevated sand mounds, individual residential spray irrigation systems, and areas unsuitable for soil dependent systems. (Reference-Title 25, §71.21.a.1.iii). Show Prime Agricultural Soils and any locally protected agricultural soils. (Reference-Title 25, §71.21.a.1.iii).
		*Not applicable/not required as per meeting at DEP, April 7, 1998/ covered by previously approved Act 537 Plan.

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N/A * B. Using DEP's manual titled "Sewage Disposal Needs Identification Guidance," identify, map and describe areas that utilize individual and community on-lot sewage disposal and, unpermitted collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) and retaining tank systems in the planning area including:

1. The types of systems in use. (Reference-Title 25, §71.21.a.2.ii.A).
2. A sanitary survey complete with a description of documented and potential public health pollution, and operational problems (including malfunctioning systems) with the systems, including violations of local ordinances, the Sewage Facilities Act, the Clean Stream Law or regulations promulgated thereunder. (Reference-Title 25, §71.21.a.2.ii.B).
3. A comparison of the types of on-lot sewage systems installed in an area with the types of systems which are appropriate for the area according to soil, geologic conditions, topographic limitations sewage flows, and Title 25 Chapter 73 (relating to standards for sewage disposal facilities). (Reference-Title 25, §71.21.a.2.ii.C).
4. An individual water supply survey to identify possible contamination by malfunctioning on-lot sewage disposal systems consistent with the DEP Sewage Disposal Needs Identification Guidance manual. (Reference-Title 25 §71.21.a.2.ii.B)

N/A * C. Identify wastewater sludge and septage generation, transport, and disposal methods. Include this information in the sewage facilities alternative analysis including:

1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference-Title 25 §71.71)
2. Quantities of the types of sludges or septage generated. (Reference-Title 25 §71.71).
3. Present disposal methods, locations, capacities, and transportation methods. (Reference-Title 25 §71.71).

IV. Future Growth and Land Development

A. Delineate and describe the following through map, text and analysis:

Sec. 4.2
Figure 3

1. Areas with existing development or plotted subdivisions. Include the name, location, description, total number of EDU's in development, total number of EDU's currently developed, and total number of EDUs remaining to be developed (include time schedule for EDU's remaining to be developed). (Reference-Title 25, §71.21.a.3.i).

Appendix A

2. Land use designations established under the Pennsylvania Municipalities Planning Code (35 P.S. 10101-11202), including residential, commercial and industrial areas. (Reference-Title 25, §71.21.a.3.ii). Include a comparison of proposed land use as allowed by zoning and existing sewage facility planning (Reference-Title 25, §71.21.a.3.iv).

Sec. 4.2, 4.3

3. Future growth areas with population and EDU projections for these areas using historical, current and future population figures and projections of the municipality. Discuss and evaluate discrepancies between local, county, state and federal projections as they relate to sewage facilities. (Reference-Title 25, §71.21.a.1.iv). (Reference-Title 25, §71.21.a.3.iii).

*Not applicable/not required as per meeting at DEP, April 7, 1998/
covered by previously approved Act 537 Plan.

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_____	_____	N/A * B. The use of individual sewage disposal systems including individual residential spray irrigation systems based on:
_____	_____	1. Soil and slope suitability. (Reference-Title 25, 71.21.a.2.ii.C)
_____	_____	2. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.21.a.2.ii.C)
_____	_____	3. The establishment of a sewage management program. (Reference-Title 25, §71.21.a.4.iv). See also Part "F" below.
_____	_____	4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for on-lot disposal considering: (Reference-Title 25, §71.21.a.4).
_____	_____	a. Existing technology and sizing requirements of Title 25 Chapter 73. (Reference-Title 25, §73.31-73.72).
_____	_____	b. Use of expanded absorption areas or alternating absorption areas. (Reference-Title 25, §73.16).
_____	_____	c. Use of water conservation devices. (Reference-Title 25, §71.73.b.2.iii).
_____	_____	N/A * C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes based on: (Reference-Title 25, §71.64.d).
_____	_____	1. Treatment and discharge requirements. (Reference-Title 25, §71.64.d).
_____	_____	2. Soil suitability. (Reference-Title 25, §71.64.c.1).
_____	_____	3. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.64.c.2).
_____	_____	4. Agency or other controls over operation and maintenance requirements. (Reference-Title 25, §71.64.d). See Part "F" below.
_____	_____	N/A * D. The use of community land disposal alternatives including:
_____	_____	1. Soil and site suitability. (Reference-Title 25, 71.21.a.2.ii.C)
_____	_____	2. Preliminary hydrogeologic evaluation. (Reference-Title 25, 71.21.a.2.ii.C)
_____	_____	3. Controls over operation and maintenance requirements through a Sewage Management Program (Reference-Title 25, 71.21.a.2.ii.C). See Part "F" below.
_____	_____	4. The rehabilitation or replacement of existing malfunctioning community land disposal systems. (See Part V, B, 4, a, b, c above). See also Part "F" below.

*Not applicable/not required as per meeting at DEP, April 7, 1998/
covered by previously approved Act 537 Plan.

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N/A * G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs including: (Reference-Title 25, §71.21.a.4)

1. Modification of existing comprehensive plans involving:
 - a. Land use designations. (Reference-Title 25, §71.21.a.4)
 - b. Densities. (Reference-Title 25, §71.21.a.4)
 - c. Municipal ordinances and regulations. (Reference-Title 25, §71.21.a.4)
 - d. Improved enforcement. (Reference-Title 25, §71.21.a.4)
 - e. Protection of drinking water sources. (Reference-Title 25, §71.21.a.4)
2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development. (Reference-Title 25, §71.21.a.4)
3. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal which consider lot sizes and protection of replacement areas. (Reference-Title 25, §71.21.a.4)
4. Evaluation of existing local agency programs and the need for technical or administrative training. (Reference-Title 25, §71.21.a.4)

H. A no-action alternative which includes discussion of both short-term and long-term impacts on: (Reference-Title 25, §71.21.a.4).

- | | |
|-------------------|---|
| <u>Sec. 6.3.1</u> | 1. Water Quality/Public Health. (Reference-Title 25, §71.21.a.4). |
| <u>Sec. 6.3.1</u> | 2. Growth potential (residential, commercial, industrial). (Reference-Title 25, 71.21.a.4). |
| <u>Sec. 6.3.1</u> | 3. Community economic conditions. (Reference-Title 25, 71.21.a.4) |
| <u>Sec. 6.3.1</u> | 4. Recreational opportunities. (Reference-Title 25, §71.21.a.4) |
| <u>Sec. 6.3.1</u> | 5. Drinking water sources. (Reference-Title 25, §71.21.a.4) |
| <u>Sec. 6.3.1</u> | 6. Other environmental concerns. (Reference-Title 25, 71.21.a.4) |

VI. Evaluation of Alternatives

A. Technically feasible alternatives identified in Section V of this check-list must be evaluated for consistency with respect to the following: (Reference-Title 25, §71.21.a.5.i.A)

- | | |
|--------------|---|
| <u>N/A *</u> | 1. Applicable plans developed and approved under Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act (33 U.S.C.A. 1288). (Reference-Title 25, §71.21.a.5.i.A) Appendix B, Section II.A of the Planning Guide. |
|--------------|---|

*Not applicable/not required as per meeting at DEP, April 7, 1998/ covered by previously approved Act 537 Plan.

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_____	<u>Request</u> Pending	11. Historical and archaeological resource protection under P.C.S. Title 37, Section 507 relating to cooperation by public officials with the Pennsylvania Historical and Museum Commission. (Reference-Title 25, §71.21.a.5.i.K) Provide the Department with a completed copy of a Cultural Resource Notice request to the Bureau of Historic Preservation (BHP) to provide a listing of known historical sites and potential impacts on known archaeological and historical sites. <u>Also provide a copy of the response letter from the BHP.</u> Appendix B, Section II.K of the Planning Guide.
_____	<u>Appendix G</u>	B. Provide for the resolution of any inconsistencies in any of the points identified in Section VI.A. of this checklist by submitting a letter from the appropriate agency stating that the agency has received, reviewed, and concurred with the resolution of identified inconsistencies. (Reference-Title 25, §71.21.a.5.ii) Appendix B of the Planning Guide.
_____	_____	C. Evaluate alternatives identified in Section V of this checklist with respect to applicable water quality standards, effluent limitations or other technical, legislative or legal requirements. (Reference-Title 25, §71.21.a.5.iii).
_____	<u>Appendix C</u>	D. Provide cost estimates using present worth analysis for construction, financing, on going administration, operation and maintenance and user fees for alternatives identified in Section V of this checklist. Estimates shall be limited to areas identified in the plan as needing improved sewage facilities within five (5) years from the date of plan submission. (Reference-Title 25, §71.21.a.5.iv).
_____	<u>Sec. 7.0, 8.5</u>	E. Provide an analysis of the funding methods available to finance the proposed alternatives evaluated in Section V of this checklist. Also provide documentation to demonstrate which alternative and financing scheme combination is the most cost-effective; and a contingency financial plan to be used if the preferred method of financing cannot be implemented. The funding analysis shall be limited to areas identified in the plan as needing improved sewage facilities within five years from the date of the plan submission. (Reference-Title 25, §71.21.a.5.v).
_____	_____	F. Analyze the need for immediate or phased implementation of each alternative proposed in Section V of this checklist including: (Reference-Title 25, §71.21.a.5.vi).
_____	<u>N/A *</u>	1. A description of any activities necessary to abate critical public health hazards pending completion of sewage facilities or implementation of sewage management programs. (Reference-Title 25, §71.21.a.5.vi.A)
_____	<u>N/A *</u>	2. A description of the advantages, if any, in phasing construction of the facilities or implementation of a sewage management program justifying time schedules for each phase. (Reference-Title 25, §71.21.a.5.vi.B)
_____	<u>Sec. 7.0</u>	G. Evaluate administrative organizations and legal authority necessary for Plan implementation. (Reference - Title 25, §71.21.a.5.vi.D.)

*Not applicable/not required as per meeting at DEP, April 7, 1998/
covered by previously approved Act 537 Plan.

DEP Use Only	Plan Page No.	Item Required
_____	<u>Sec. 7.0</u>	D. Identify the chosen institutional alternative for implementing the chosen technical wastewater disposal alternative. Provide justification for choosing the specific institutional alternative considering administrative issues, organizational needs and enabling legal authority. (Reference-Title 25, §71.61.d.2)
VIII. Justification for Selected Technical & Institutional Alternatives		
_____	<u>Sec. 8.1</u>	A. Identify the technical wastewater disposal alternative which best meets the wastewater treatment needs of each study area of the municipality. Justify the choice by providing documentation which shows that it is the best alternative based on:
_____	<u>Sec. 8.3</u>	1. Existing wastewater disposal needs. (Reference-Title 25, §71.21.a.6)
_____	<u>Sec. 8.4</u>	2. Future wastewater disposal needs. (5 and 10 years growth areas). (Reference-Title 25, §71.21.a.6)
_____	<u>Sec. 6.6.6</u>	3. Operation and maintenance considerations. (Reference-Title 25, §71.21.a.6)
_____	<u>Sec. 6.6.4</u>	4. Cost-effectiveness. (Reference-Title 25, §71.21.a.6)
_____	<u>Sec. 8.5</u>	5. Available management and administrative systems. (Reference-Title 25, §71.21.a.6)
_____	<u>Sec. 8.5</u>	6. Available financing methods. (Reference-Title 25, §71.21.a.6)
_____	<u>Sec. 8.5</u>	7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference-Title 25, §71.21.a.6)
_____	<u>Sec. 8.5</u>	B. Designate and describe the capital financing plan chosen to implement the selected alternative(s). Designate and describe the chosen back-up financing plan.

ACT 537 PLAN
UPPER PROVIDENCE TOWNSHIP, MONTGOMERY
COUNTY

Amended Appendix A-22-b



Pennsylvania Department of Environmental Protection

Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428
February 26, 2004

Southeast Regional Office

610-832-6130
Fax: 610-832-6133

Collegeville Borough
491 E. Main Street
Collegeville, PA 19426-2645

Perkiomen Township
1 Trappe Road
Collegeville, PA 19426

Skipack Township
1246 Bridge Road
Box 164
Skipack, PA 19474

Trappe Borough
525 West Main Street
Trappe, PA 19426

Upper Providence Township
1286 Black Rock Road
PO Box 406
Oaks, PA 19456

Lower Providence Township
100 Parklane Drive
Eagleville, PA 19403

Re: Act 537 Plan Update
APS Id. 468747, AUTH Id. 484953
Lower Perkiomen Valley Regional
Sewer Authority Act 537 Plan
Montgomery County

Dear Ladies and Gentlemen:

We have completed our review of your municipality's updated official sewage facilities plan entitled *Act 537 Plan for Lower Perkiomen Valley Regional Sewer Authority* as prepared by R.F. Preston Engineering, Inc., dated May 12, 2003. The review was conducted in accordance with the provisions of the Pennsylvania Sewage Facilities Act.

Approval of the Plan is hereby granted.

The Plan provides for the transfer ownership of all of the existing sewerage facilities currently owned by the Montgomery County Sewer Authority to the Lower Perkiomen Valley Regional Sewer Authority.

The plan provides for the expansion of the Lower Perkiomen Valley Regional Sewer Authority (LPV RSA) Oaks Wastewater Treatment Facility to an annual average capacity of 14.25 million gallons per day to provide for existing and future needs in Collegeville Borough, Perkiomen Township, Skippack Township, Trappe Borough, Upper Providence Township and Lower Providence Township, until 2020.

The Plan provides for the construction of a parallel interceptor to the Perkiomen Creek interceptor.

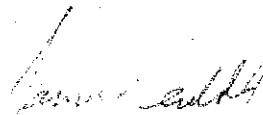
This approval is conditioned as follows:

1. The Lower Perkiomen Valley Regional Sewer Authority must obtain permits from the Department for the expansion and transfer, discharge, operation, and maintenance of the proposed wastewater treatment facility and conveyance system.
2. The Lower Perkiomen Valley Regional Sewer Authority must conduct a preliminary screening of the location of the proposed parallel interceptor and the expansion of the Oaks Wastewater Treatment Facility for the possible existence of rare, endangered or threatened species protected by Pennsylvania and Federal law using the Pennsylvania Natural Diversity Inventory. Documentation that any conflicts have been resolved must be included with the Permit application.

3. A cultural resource notice must be completed for the location of the proposed parallel interceptor and the expansion of the Oaks Wastewater Treatment Facility for possible historical or archeological resources. Documentation that the conflicts have been resolved must be included with the Permit application.

If you have any questions, please contact Clinton Cleaver of this office.

Sincerely,



James Newbold, P.E.
Regional Manager
Water Management

cc: Montgomery County Planning Commission
Montgomery County Health Department
Lower Perkiomen Valley Regional Sewer Authority
R.F. Preston Engineering, Inc.
Ms. Theroff
Ms. Moore
Ms. Grant
RCSOB, 11th Floor, Sewage Facilities, Attn.: John McHale
Planning Section
Re 30

UPPER PROVIDENCE TOWNSHIP

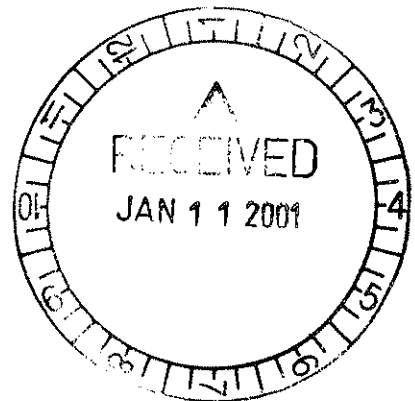
ACT 537 PLAN

REGIONAL PLAN COMPONENT

UPPER PROVIDENCE TOWNSHIP

MONTGOMERY COUNTY, PA

DECEMBER 2000



CONSULTANTS, INC.

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UPPER PROVIDENCE TOWNSHIP

ACT 537 PLAN

REGIONAL PLAN COMPONENT

UPPER PROVIDENCE TOWNSHIP

MONTGOMERY COUNTY, PA

DECEMBER 2000

EDM CONSULTANTS, INC.
1101 South Broad Street, Suite 200
P.O. Box 1545
Lansdale, PA 19446

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Upper Providence Township
Act 537 Plan
Regional Plan Component
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Upper Providence Township
Act 537 Plan
Regional Plan Component
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SECTION 1 - INTRODUCTION

1.01 Purpose and Objective

The information in this report will be incorporated in the Lower Perkiomen Valley Regional Sewer Authority's Act 537 Office Plan Update.

1.02 Background

Upper Providence Township's current Act 537 Plan was approved on February 18, 1992, June 28, 1993, March 12, 1996, and August 21, 2000 by Amendments #3, #4, #5 and #6, respectively. Copies of the approval letters from the Pennsylvania Department of Environmental Resources are provided in Appendix A. The plans provided for a revision of the planned sewer service area and an increase in the Township allocated capacity at the Oaks Treatment Plant. Since 1988 Upper Providence Township has been allocated 1.504 mgd (5,470 EDUs) of capacity at the Oaks Treatment plant. This capacity, together with the Base Allocation Capacity of 0.936 mgd (3,404 EDUs) allocated prior to 1988, provides an allocation of 2.44 mgd (8,874 EDUs) of the total Oaks Treatment plant capacity.

1.03 Municipal Planning

Figure 1-1 shows existing sewer locations. There were 3,404 EDU connected to the sewer system prior to 1987. Since 1987, approximately 3,200 EDU have been purchased by developers or residents for proposed and existing residential land developments throughout the Township. An average of 216 residential EDU per year have connected to the sewer system in Upper Providence Township between 1990 and January 2000. In addition, approximately 2,200

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non-residential EDU have been purchased by businesses in the community. During the ten year period from 1990 to 2000 on the average a total of 440 residential and non-residential EDU per year have been connected to the sanitary sewer system.

Zoning Map

The current Upper Providence Zoning Map shown as Figure 1-2 indicates the location of the various zoning districts throughout the Township.

Zoning Districts

R-1: Provides for agricultural, single family, greenhouse, non-commercial, farm stand and home occupations. Cluster alternative with an average lot size of 30,000 SF requires public sewer and centralized water. To estimate sewage needs, a 0.75 EDU/acre yield rate has been developed based on an average lot size of 43,560 SF with 20% of the gross land area reserved for non-lot uses such as right-of-way and open space.

R-2: Provides for all R-1 uses and for cluster development as a conditional use. To estimate sewage needs, a 2.3 EDU/acre rate is based on 15,000 SF lot, 10% open space reserve and 10% non-housing use.

R-3: Provides for single family, two family, townhouses, mixed dwellings, home occupations, and cluster development as a conditional use. To estimate sewage needs, a 4.8 EDU/acre rate is based on a mixed use average lot size of 4,500 SF, a 20% open space reserve and a 30% non-housing use.

R-4: Provides for multi-family, single family attached to multiple family units, parks and play grounds. To estimate swage needs, a 7.0 EDU/acre rate is based on a maximum 12 units per developable acre, that provides for 20% open space reserve and 40% non-housing use.

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OSR (Open Space Residential): Conditional use in R-1 district provides for single family and common open space with sewer and water subject to conditions and approval by the Township. Does not allow for additional lots over R-1 zoning.

VP (Village Preservation): Provides for single and two family units in the Mont Clare area. Requires public sewer and centralized water.

CL (Cluster): As a variation to R-2 and R-3 district uses. Provides for smaller lots if public sewer and centralized water are utilized but no increase in the total number of lots.

MH (Mobile Home): As a conditional use in R-3 district. Public sewer and centralized water required.

IN (Institutional): An overlay district. Providing for churches, colleges, schools, convents, medical clinics, municipal buildings, libraries and residential care facilities. Public or private sewer and water permitted. To estimate sewage needs, a 5.0 EDU/acre rate is utilized.

NC (Neighborhood Convenience): Provides for retail sale of dry goods, barber shops, hairdressers, personal services, restaurant, fast food, professional office, bank, public utility and post office. Public sewer and water required. Two EDU/acre is used for wastewater flow projections.

CRSC (Community Regional Shopping Center): Provides for retail stores, garden shop, financial institutions, professional office, medical/dentist office, restaurant, bakery, church, library, post office, movie theater, nursery, day care, passenger station and structural parking. Public sewer and water required. Two EDU/acre is used for wastewater flow projections.

PBO (Professional Business Office): Provides for doctors, dentists, accountants and business offices. Public sewer and water required. Three EDU/acre is used for wastewater flow projections.

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M-1 (Office and Limited Industrial): Provides for scientific, research, engineering, testing, laboratory, corporate headquarters, printing, publishing, heliports, hospitals, kennels, vehicle repair, public garages, wholesale building material, laundry, dry cleaning, creameries and milk bottling within the CRSC district. Public sewer and water required. One and one-half EDU/acre is used for wastewater flow projections.

I-O (Interchange Office): Provides for Route 422 interchange area for office, corporate headquarters, and laboratory. Public sewer and water required. Two and one-half EDU/acre is used for wastewater flow projections.

IO-2: Provides for support services for I-O district. Public sewer and water required. Two and one-half EDU/acre is used for wastewater flow projections.

M-2 (Manufacturing): Provides for heavy manufacturing in the Oaks area. Includes all M-1 district uses. Public sewer and water required. To estimate sewage needs, a 3.0 EDU/acre rate is utilized.

SS (Steep Slope): Provides an overlay on any district for wildlife sanctuaries, arboretums, game farms, forestry, pasture, parks, trails, camps, orchards, and crop cultivation

Floodplain Conservation District: Provides an overlay on any other district for steep slope uses and storm water control systems. Prohibited uses include sanitary landfills, dumps, junkyards, on-site sewage, private wells, mobile homes, hospitals, nursing homes, jails, prisons and storage of toxic chemicals. Chapter 89 of the Upper Providence Township Code also provides for flood damage protection. Floodplain regulations are also included in the Subdivision and Land Development Ordinance under Section 154-30 (Special Drainage Problems) and 154-32 (Erosion and Sedimentation Control).

Lot Size Criteria

The Upper Providence Township zoning ordinance and zoning map have been utilized in this report to identify future land uses. The zoning classifications and sewer and water needs are summarized as follows:

Zoning Classification	EDU/Gross Acre	Required	
		Public Sewer	Public Water
R-1	0.75	N	N
R-2	2.3	Y	Y
R-3	4.8	Y	Y
R-4	7.0	Y	Y
OSR	0.9	Y	Y
VP	7.2	Y	Y
CL	R-2:2.3	Y	Y
	R-3:4.8	Y	Y
MH	4.8	Y	Y
IN	5.0	Y	Y
NC	2.0	Y	Y
CRSC	2.0	Y	Y
PBO	3.0	Y	Y
M-1	1.5	Y	Y
I-O	2.5	Y	Y
IO-2	2.5	Y	Y
M-2	3.0	Y	Y

1.04 Floodplain and Special Protection Areas

Map 3 from the Upper Providence Township Comprehensive Plan adopted August 1, 1994 shows the 100 year floodplain, alluvial soils and wetlands and is included in this report as Figure 1-3.

Analysis of Floodplain

The most significant floodplain areas in Upper Providence Township are those along the Schuylkill River and the Perkiomen Creek. Smaller floodplains parallel the minor tributaries to these streams. Upper Providence Township participates in the National Flood Insurance Program, and has enacted a floodplain ordinance to regulate the type and extent of development in flood-prone areas. While some development that occurred prior to these ordinances exist in the floodplain, there is an awareness of the dangers in this area, and new development is controlled in flood-prone lands.

Environmental Sensitive Area

Upper Providence Township's environmentally sensitive areas are shown on Figure 1-3.

Historic sites in Upper Providence Township are as follows:

Providence Friends Meeting Black Rock Road	Port Providence Port Providence Road
Richardson House Longford Road	Walker House Black Rock Road
McDade Farm House Black Rock Road	Sower's House Black Rock Road
Wall Property Black Rock Road	Neebor Lee Black Rock Road
Keysers Mill Lower Indian Head Road	Residence Lower Indian Head Road Oaks
St. Pauls Episcopal Church Black Rock Road Oaks	Rose Lawn Black Rock Road Oaks
Canal Master's House Brower Avenue Oaks	Residence (Nordix Plant) Brower Avenue Oaks

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Sudofsky Residence
River Road

House
Greenwood Avenue

Stone Bridge
Greenwood Avenue

Water Supply

Groundwater is the principal supply of drinking water in Upper Providence Township. There are moderate to excellent aquifers underlying the area. Recharge areas have not been determined. The Montgomery County Planning Commission estimates that future water supplies for Upper Providence Township and the surrounding area will increasingly rely upon surface water sources.

SECTION 2 - PHYSICAL AND DEMOGRAPHIC CONDITIONS

2.01 Regional Location

Upper Providence was established as a township in 1787. Located in Montgomery County, and situated at the confluence of Perkiomen Creek and the Schuylkill River, it comprises 17.8 square miles. Adjacent communities include: Lower Providence to the east; Collegeville, Trappe, and Perkiomen to the north; Royersford and Limerick to the west, and Phoenixville, East Pikeland, and Schuylkill to the south, as shown in Map 1 of the Comprehensive Plan included as Figure 1-4.

Township Historical Perspective

Since 1950, the Township has seen its' population more than double, from 4486 to 9682 residents in 1990. The greatest increase occurred between the years 1970 and 1980, which saw the arrival of 3349 new residents. This overall growth trend can also be seen in the rise in the number of dwelling units. During this same period from 1970 to 1980, the number of housing units increased from 1736 to 3158 units. There were 3579 dwelling units in Upper Providence in 1990; approximately 40% of these were built during the decade of the 1970's. A key impetus of this, and subsequent growth, was the completion of the Township sewer system in 1967. However, the slowdown in growth during the 1980's was partly due to a sewer moratorium caused by an overload of the Oaks treatment plant. More recent growth has been driven by Route 422, which was fully opened in 1985. This began an influx of large corporate employment centers in the Township.

2.02 Demographic Conditions

The most detailed characteristics of population and housing have been produced by the Bureau of the Census. These figures reflect the results of the decennial census, last compiled in 1990. (Note: This detailed data is based on a sample, and thus subject to the same types of error resulting from any sample used to represent the characteristics of an entire population.) This information was abstracted from the 1994 Upper Providence Township Comprehensive Plan prepared by The Waetzman Planning Group.

According to the 1990 Census, there are 9,682 residents in Upper Providence. This represents a growth of 1.4% over the 1980 figure of 9,551 persons an increase which is significantly lower than the 6.8% growth forecasted by the Delaware Valley Regional Planning Commission. The Township's population increased at a considerably lower rate than that of Montgomery County, which increased 5.36% between 1980 and 1990.

The majority of the citizens of Upper Providence reside in family households, a phenomenon that is consistent with both regional and national trends. Household members constitute 93.2% of the residents of Upper Providence. Of the 3,318 households in the Township, 74.6% (2,474) are families and 25.4% are non-family households. The average household size is 2.72, a drop of 0.19 from the 1980 figure of 2.91 persons per household, but 5.8% above the Pennsylvania average of 2.57. This is consistent with the County-wide drop of 0.21, and follows the nation-wide trend toward smaller households.

Two group quarters facilities house 6.8% of the Township's population (660 persons) Ken Crest Center, and the Montgomery County Geriatric Center, the latter housing three quarters of all Township group quarter residents.

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According to the 1990 census, there are 3,498 housing units in Upper Providence Township. This constitutes a growth of 10.8% over the 1980 figure of 3,158 units. Of these total current units, 1,848, or 52.8%, are single family detached dwellings. Single-family attached dwellings total 1,160 units (33.2%), and 444 units (12.7%) are located in multiple-unit structures. The remaining 46 (1.3%) units are mobile homes, trailers, or some other type of housing unit.

Projections

The Delaware Valley Regional Planning Commission (DVRPC) prepared projections on population, housing, and workforce information on a township-by-township basis. The figures have been revised according to a study conducted by the Montgomery County Planning Commission. The preliminary DVRPC figures for Upper Providence show a population rise to 12,580 by the year 2000, to 15,580 by 2010, and 17,580 by 2020. A total of 2,165 residential building permits were granted within the Township between Jan. 1990 and Dec. 1999. This comes to an average of just over 216 new units per year. Utilizing an average household size of 2.72 persons, the Township population is estimated to have increased to 15,500 persons in 2000.

If the average annual number of permits from the past five years (281) is used as a straight-line projection of future residential building permits, the Township can expect 2,810 new housing units over the next ten years. The future pace of construction will likely not match that of the period 1995 to 2000 for some years to come however, because of its cyclical nature. Thus, in projecting the growth of housing units in the Township for the coming decade, it may be useful to review the Township zoning and available developable land.

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Most of the office and industrial area in the Township is located between Egypt Road and the Schuylkill River and the Rt 29/Rt 422 interchange. Several pharmaceutical firms, which are concentrated around the interchange of Route 29 and 422 include Wyeth, and SmithKline-Beecham (2 facilities). The Wyeth facility, on a 240 acre site anticipates 1200 to 1800 workers, SmithKline projects 675 persons will be employed at its 30 acre facility, and 1200 persons at its 161 acre facility.

In addition to the pharmaceutical corporations described above, other projected commercial and industrial development currently under construction or having approval, include between 2 and 3 million square feet of space. One of these proposed projects is the Providence Corporate Center, located between the expressway and Wyeth, on 150 acres. This is a project in the Interchange Office Support District of the zoning ordinance, a district added for this type of development in 1990. This project alone will add approximately 1.0 million square feet of office and commercial space, along with a hotel, restaurant, and day-care center, by the time build-out is achieved in approximately 15 years. Preliminary estimates concerning the workforce at the time of buildout reach up to 3,000 persons. This is considered quite high by the developer; it is based on the Township parking requirement of one parking space per 185 square feet. Short-term estimates anticipate approximately 2,000 workers within ten years. This is based on comparisons with similar projects, and may be a more realistic expectation. A second development is the Oaks Mills Project, a mixed use industrial and commercial development. At completion, it is expected to total 1.57 million square feet, and up to a maximum of 2,650 workers, according to the developer's impact study. A third development nearing completion is the Oaks Corporate Center. Five of the six lots are occupied; by a motel, office building, the Turf Club and a State Farm Insurance regional office and claims adjustment

facility. The remaining lot has the potential for approximately 100,000 square feet of office space. Estimates from the developer show that, at an employee standard (referenced by the Urban Land Institute) of 2.88 workers per 1,000 square feet, up to 1,036 persons may be employed at Oaks Corporate Center at its buildout. A fourth development, the SEI Corporation headquarters on Cider Mill Road is currently undergoing an expansion and employs approximately 1000 persons.

Additional sites currently under development are the 82-acre Upper Providence Industrial Park, at Hollow Road and Schell Lane, the Volpe Trucking facility, Peerless Paper facility, Shopping Center on Township Line Road, the Oaks Shopping Center and institutional uses.

2.03 Existing Land Use

The residential use representing the largest number of dwelling units in the Township consists of single-family detached dwellings. Concentrations of these are found throughout the Township, with the largest area shown east of Lewis Road and north the 422 Expressway, is known as "Village of Mingo"; another large area of development of single-family homes, along the Collegeville border, west of Route 29 is that area attributable to "Prancing Horse Farm", "Faraway Farms", "Doneybrook", "Hills of Green Valley", "Providence Ridge", "Providence Reserve", and "Weatherlea". Another concentration of single-family homes is in Old Mill Village; that is east of Township Line Road, north of the expressway, adjacent to Limerick Township. Also, the Green Tree, Laurel Woods, Laurel Estates, Winding Ridge and Laurel Meadows development adjacent to Egypt Road near Greentree Road contain a cluster of new residential units.

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Multi-family areas located in the Township include various phases of Perkiomen Woods, immediately adjacent to Collegetown, east of Route 29, Providence View along Longford Road and several developments adjacent to one another, outside of Royersford. All of the aforementioned developments are various forms of townhouse development. The "Meadows" is a garden-apartment style, condominium development outside of Mont Clare. Another garden apartment development is associated with the Village of Mingo, along the expressway. "Mixed Use/Village" areas consist of a variety of dwelling types interspersed with small areas of non-residential development. Primarily, these are the older, originally developed villages of Oaks, Mont Clare, the periphery of Royersford, and some mixed use areas surrounding Ridge Pike.

Most of the office and industrial area in the Township is located between Egypt Road and the Schuylkill River. Most of this is the older industrial development, along with some more recent distribution facilities. The only area shown as "Professional Office" is located in Mont Clare and is the converted Mont Clare Elementary School. The most significant institutional areas include the Montgomery County Geriatric Center (Route 113, south of Yeager Road), the Springford School District properties, and the state-owned impoundment basins on the Schuylkill River. Other institutional land includes the site of the existing Upper Providence Township Hall and the new Upper Providence Township Offices (both on Black Rock Road), the Township former transfer station (on Lovers Lane), and several churches. The Montgomery County sewage treatment facility at Oaks is also included in the institutional category. The largest park areas are associated with Montgomery County's two parks, the Lower Perkiomen Valley and Upper Schuylkill Valley Parks. Other parkland includes MacFarland Park, the Township's Canal Park, the Anderson Farm Park, and the Hess Tree Park. The Township's

Black Rock Road Park is considered institutional land since it also includes the site of the Upper Providence Township Offices.

2.04 Geologic Features

The underlying bedrock is composed of three geologic features as shown on Figure 2-1. The Stockton formation consists of light gray coarse grained sandstone, red and brown fine grained siliceous sandstone and red shale. The rock is typically soft and highly weathered near the surface. The beds of coarse sandstone form low ridges while the softer beds of fine sandstone and shale form intervening valleys. The soils formed on these rocks are thickest and the most permeable on the coarse sandstone. The Stockton formation is a productive aquifer with good groundwater storage capacity.

The Lockatong formation overlies the Stockton formation and runs in a thin band from the Mont Clare area in Upper Providence through Egelville in Lower Providence. The bedrock consists of dark grey or black thickbedded argillite (siltstone) with occasional thin layers of shale. The rocks of this formation are hard and resistant to weathering.

In this region variations in elevation are more pronounced with changes in relief due mostly to cuts made by surface waterflow. Most of the Lockatong formation weathers to thin soil composed of yellowish-brown clay loam. Both the groundwater storage capacity and permeability of the rock is low. Water yielded from this rock is hard.

The Brunswick formation is the youngest of the three formations and covers the largest part of the planning area, including all of Skippack and Perkiomen Townships, the Boroughs of Trappe and Collegeville, and the northern portions of Upper and Lower Providence. The Brunswick formation typically consists of soft fine-grained sandstone, shale and argillite. Most

of this rock is soft and highly weathered, resulting in the low rolling hills that are characteristic of the planning area. The formation exhibits a moderate permeability and good water capacity. Water hardness is moderate to very hard.

2.05 Potable Water Resources

Both surface water and ground water resources are used for water supply in the Lower Perkiomen Valley. Groundwater use predominates, supplying most of the area's water needs. Much of the more rural parts of the planning area are currently served by on-site wells. The Montgomery County Planning Commission indicates that ground water cannot be considered a reliable source of water for the future in the planning area. In the County's Water Service Plan, problems have been identified in the withdrawal and distribution of water from ground water sources. Increased development has had the effect of reducing ground water levels and causing some well failures. The principal surface water supply in the Lower Perkiomen Valley is the Schuylkill River. The Citizens Utilities Home Water Company supplies water to parts of Upper Providence Township. As yet, the Perkiomen and Skippack Creeks are not used as major sources of water for the area. Citizens Utilities Annual water supply report for 1995 indicates that there are 1610 domestic users, 18 commercial users, 8 industrial users and 17 other types of users served by the utility in Upper Providence Township. Sources of water include surface water and 3 wells. Surface water average daily withdrawal was 934,195 GPD with a maximum production capacity of 2,000,000 GPD. Average daily withdrawal from the 3 wells totaled 708,511 GPD with a safe yield of 2,448,000 GPD. Citizens Utilities also has interconnection to the Boroughs of Royersford and Phoenixville. Total usable storage capacity is 7,400,000 gallons which is dispersed in 4 reservoirs. Specifically in Upper Providence

Township, the Black Rock Road Storage Tanks have 3,000,000 gallons of capacity and the Village of Mingo Tank has 400,000 gallons of capacity. There are 3 booster pump stations located within Upper Providence Township. They are the Second Ave. Station, Mennonite Road Station, and the Sowers Ave. Station as shown on Figure 2-2.

2.06 Soils

The major soil associations within the planning area are the Reaville-Penn-Klinesville and Lansdale-Penn-Readington. These two associations make up approximately 85 percent of the soils, the remaining 15 percent of soil being comprised of the Abbottstown-Readington-Croton and Roland-Birdsboro-Raritan Associations. These soils are located in small irregularly shaped areas within the planning area on upland areas or in floodplains. As a result, they have some severe limitations for development due to either slow permeability or flooding.

The specific soil areas within the major soil associations are the Abbottstown, Bowmansville, Croton, Klinesville, Lansdale, Penn, Reaville, and Readington soils. The soil characteristics and properties of each are listed in Table 2-1: Soil Characteristics Summary. Descriptions of the soil associations are provided below.

Lansdale-Penn-Readington Association

This association is composed of deep and moderately deep, well drained and moderately well drained soils underlain by shale and sandstone. The association is primarily located in the southern portion of the planning area. About 60 percent of the association is made up of well drained Lansdale and Penn soils forming gently sloping to moderately steep slopes. Lansdale soils are brown or yellowish-brown with a sandy subsoil. The soil is moderately to rapidly permeable with good moisture retention. The Penn soils are reddish-

brown with a shaly subsoil. Soil permeability is also moderately rapid with moderate moisture capacity. Readington soils occupy about 20 percent of the association. These soils are colored reddish-brown with gray streaks and contain fragments of shale throughout. Readington soils are moderately well drained and are nearly level or gently sloping and have a moderate permeability and high moisture capacity. The remaining 20 percent of the soils are composed of poorly drainage Klinsville, Croton, Abbottstown and Rowland soils located in drainage ways, depressions and narrow floodplains. In general, the soils of this association have few limitations for agricultural use and moderate limitations for residential developments.

Reaville-Penn-Klinsville Association

This association occupies a large majority of the planning area. The soils are characterized by shallow to moderately deep, well drained to somewhat poorly drained soils underlain by shale. The major soils in this association are reddish-brown in color with a fragmented shale intermix. The Reaville soils, which occupy 40 to 55 percent of the association, have a low permeability and moisture capacity. The Penn soils, characterized previously, make up about 25 percent of the association. The Klinsville soils, which make up 15 to 20 percent of the association, exhibit a moderately rapid permeability and very low moisture capacity. The remaining minor soils in this association are composed of Croton, Abbottstown, Rowland, and Bowmansville soils located on flats and in depressions or floodways. In general, the soils in the Reaville-Penn-Klinsville Association have many limitations for use in either agricultural or residential development. These limitations include poor drainage, steep slopes, shallow depth to bedrock and low permeability.

Soil Suitability for On-Site Sewage Disposal

The suitability of the planning area soils for subsurface, on-site sewage disposal systems varies with location, soil type and soil characteristics. Soil geologic characteristics can change abruptly, sometimes varying within a foot. Site soil permeability and depth to the limiting zone must be determined by site investigation to determine final soil suitability because of the shale and sandstone geology of the region.

Sewage disposal criteria as specified in Chapter 73 of the Pennsylvania Code Title 25 states that "No system may be installed where less than 20 inches of suitable, undisturbed mineral soil exists", and "Where the depth to the top of the limiting zone is less than 60 inches, an elevated sand mound system is required".

The estimated degree of limitation for on-site sewage system disposal systems was based on Table 8 of the Condensed Soil Survey of Montgomery County dated June 1986. The criteria from these sources was combined into a summary (Table 2-2) which lists each soil type and slope with an appropriate type of on-site system based on Chapter 73 criteria. Conventional systems include tile field, seepage bed, seepage pit, shallow placement and sand lined trenches. The soils which may permit conventional system use are Birdsboro (BnB2), Lansdale (LaB3 & LdB2). Soils which exclude all types of on-site systems are Bowansville (Bp & BrB) and Stoney Land, steep (StE). The remaining soil types formed in the Township generally require sand mound systems. The sand mound bed/trench systems may be used on slopes up to 8% and on slopes up to 12% sand mound trench systems are permitted.

Figure 2-3 shows the existing sewerage area, the primary and secondary growth areas and the remaining open areas. The open areas have been delineated based on the soil type and slope and the appropriate on-site system. The delineation is based on the general overall

criteria outlined in this section. The actual approved type of on-site system must be evaluated on a site by site basis prior to development of a site. This site evaluation may permit a different type of system than shown on Figure 2-3.

SECTION 3 - EXISTING SEWAGE FACILITIES

3.01 On Lot Disposal Systems (OLDS)

A comparison of existing recorded OLDS was conducted and is summarized in Table 2-2. The existing systems, as documented by the Montgomery County Health Department (MCHD), have been distributed by soil type and separated into 8 categories of system types. The quantity of OLDS were also classified based on the rock depth, which was used to establish the need for sand mound systems. To determine the possible quantity of existing inappropriate systems, each system which was inappropriate based on soil type was also evaluated for depth to a limiting layer of rock. The inappropriate systems which had a limiting depth greater than or equal to 60 inches were considered to be appropriate, since previous site specific testing reported system acceptability and approval by the local responsible agency at the time of installation. The balance of OLDS which were known to be inappropriate and less than 60 inches to rock were considered possibly inappropriate. The total net quantity of OLDS considered possible inappropriate is 20, which represents approximately 6% of the total quantity of systems on record with the MCHD. Site by site inspection was not conducted on existing OLDS. Information used in these findings was based solely on recorded information.

A review of the reports retained by MCHD also included repairs to existing systems. Table 2-3 summarizes the annual quantity of systems repaired and the cumulative total of existing systems. The highest percentage of repairs (3.4%) occurred in 1978 and 1984, with the lowest (0.2%) occurring during the years 1992 thru 1996.

The quantity of complaints submitted to the MCHD as of October 6, 1996 was 8, with 5 considered completed and 3 pending. (See Appendix B for summary). Of the 5 completed complaints, one property was connected to public sewer, 2 had work performed on the system,

1 system was pumped out and cleaned and 1 system had no problems upon inspection. Of the 3 pending complaints 1 system is being tested, 1 is being monitored and 1 is being pumped with the possibility for connection to public sewers. Currently there are no community OLDS located within Upper Providence Township.

3.02 Septage Generation and Disposal

Telephone inquiries were conducted with 12 local septage collection and disposal companies which are located in the Upper Providence Township service area. There are 3 companies which regularly serve properties in the Township on a weekly basis. Two companies stated that they work in the Township a couple of times per year. Accurate records of septage generation in the Township were not available from septage haulers. An average quantity of septage collected from the 3 companies ranges from 25,000 to 30,000 gallons per month. All 3 companies indicated that they dispose of septage primarily at the Valley Forge Wastewater Treatment Plant and occasionally at the Phoenixville Borough Treatment Plant.

3.03 Water Well Testing

Analyses of water samples obtained from private properties that were conducted by the Montgomery County Health Department (MCHD) from 1994 thru October 1996 were reviewed. During that period, 16 samples were analyzed and reports were sent to the property owners in Upper Providence Township. There were 5 samples which indicated total coliform counts greater than 0 per 100 ml. Nitrate and Nitrite analysis were not conducted on any of the 16

samples. Two of the 5 properties are connected to the public sewer system with 1 property utilizing public water. Of the 3 properties with on-lot systems, all had their septic tanks cleaned within the past 3 years and none had any visible signs of surface breakthrough or slow draining systems as reported by current residents. One of the properties has conducted subsequent testing with no contamination by total coliform indicated. A second resident indicated that testing completed 2 months prior showed no contamination. The third property is in the sewer growth area.

3.04 OLDS Management

The low quantity of possibly inappropriate OLDS (6%), the very low quantity of system repairs recorded by the MCHD over the past several years and the resolution of 5 of 8 complaints indicates that there are no major problem areas where on-lot disposal systems are possibly creating detrimental health effects to the public. The current system of reporting suspected problems to the MCHD has resulted in prompt resolution of the few minor problems with malfunctioning systems.

Although there are no major problem areas in Upper Providence Township and, while the MCHD is currently responsible for permitting of new systems and resolution of complaints and problems, the Township does recognize its legal responsibilities to prevent possible detrimental health impacts to the public by improper operation and maintenance of OLDS. To this extent, the Township will consider adopting an ordinance which will delineate the Township's role in OLDS management. (See Appendix C for sample OLDS ordinance). This ordinance would require all OLDS to be cleaned once every three years. A receipt would be

provided to the Township for recording along with a fee to defray the costs to administer the program.

3.05 Gravity Collection and Interceptors

The existing sanitary sewers in Upper Providence Township consists of the Schuylkill Interceptor constructed of 30 inch, 24 inch and 18 inch diameter pipe which generally parallels the Schuylkill River from Rt 113 to the Oaks Treatment Plant as shown on Figure 1-2. The Hollow Road Interceptor (8" PVC), Yeager Road Interceptor (10" PVC), and the Mingo Run Interceptor (18" Cast Iron Pipe) discharge to the Schuylkill Interceptor.

The Second Avenue Pump Station located adjacent to the Schuylkill River near the Borough of Royersford collects sewage from the Township near the Borough up to the Limerick Township border. The station, constructed in 1968, currently serves approximately 200 EDUs utilizing two, vertical mounted, centrifugal dry well pumps, each rated at 200 gpm. The station discharges into a 12 inch gravity pipe which conveys sewage to the Mingo Run Pump Station.

The Mingo Run Pump Station, located at Second Avenue at Mingo Run was constructed in 1968 and upgraded in 1994. The station consists of 2, vertically mounted, centrifugal dry well pumps each rated at 1600 GPM which provides a 20 year design capacity for approximately 2000 EDUs, of which 1,000 currently exist. The station discharges through a 16 inch force main into the 18 inch Schuylkill Interceptor near Old State Road.

The Oaks Interceptor (12" Iron Pipe), Doe Run Interceptor (18" Ductile Iron Pipe), and the Norma Run Interceptor (15" PVC) discharge into the Montgomery County Interceptor which conveys sewage to the Oaks Treatment Plant. The Schoolhouse Run interceptor (10" PVC)

located in the northern portion of the Township near the Perkiomen Township border conveys sewage to the Perkiomen Municipal Authority sewer system which ultimately discharges to the Montgomery County Interceptor. Expansion of the collection system is occurring in areas of development, with new facility construction by private developers and landowners.

3.06 Schuylkill Interceptor Flow Monitoring

A sewage flow monitoring study was conducted along the Schuylkill Interceptor which begins at the discharge from the Mingo Run Pump Station located near Second Avenue and Old State Road and terminating at the Montgomery County Sewage Disposal Plant located at the confluence of the Schuylkill River and the Perkiomen Creek as shown on Figure 3-1. Eight Marsh McBirney Flotote Model 260 meters were installed. Two meters were installed along the interceptor on Manholes S-75 and S-4. Six meters were installed in major trunk sewers which discharge into the Schuylkill Interceptor. A summary of the meter locations follows:

<u>Monitoring Site</u>	<u>Manhole Location</u>	<u>Pipe Diameter</u>
Springertown Road	S-179	12"
Schuylkill Valley Park	S-75	24"
Amelia Street	S-264	8"
Hollow Road	S-362	8"
Longford Road	S-392	8"
Center Avenue	S-43	12"
Brower Avenue	S-425B	12"
Schuylkill Interceptor	S-4	30"

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A summary of the connected EDUs for each drainage area was developed through a review of the Township billing records. Utilizing a flow rate of 275 gpd/EDU an average daily flow rate was calculated for each meter location as shown on Table 3-1.

Each meter location was evaluated by comparing the estimated average daily flow for the drainage area to the measured flows recorded by the meter. The average daily flow was determined by multiplying the number of EDUs connected upstream of the meter location by an average flow rate of 275 gallons per day per EDU (gpd/EDU) as shown in Table 3-1. The measured flows were subdivided into dry and wet days depending on the amount of rainfall. A wet day was any day of rainfall exceeding 0.1 inches and the next two days following the last day of significant rainfall. Dry days were all days with no rainfall or days with rainfall less than or equal to 0.1 inches. The flow monitoring was initiated on October 3, 1996 and continued until each meter recorded at least 4 weeks of data. Due to equipment malfunctions, some meters were maintained up to December 3, 1996. The wet days are October 8 thru October 11, October 19 thru October 23, November 1 thru November 4, November 9 thru November 12, November 26 and 27, and December 1 thru December 3, 1996. The flow monitoring data for each meter is tabulated in Appendix D.

The Springertown Road drainage area consists of 72 EDUs which generate an average daily sewage flow of approximately 19,800 gallons. The average dry and wet day flows recorded were 25,500 gpd and 35,500 gpd, respectively. The ratio of the average dry day to average daily flow is 1.29 and the ratio of average wet day to average daily flow is 1.79.

The Schuylkill Valley Park meter was located on the Schuylkill Interceptor. This drainage area includes sewage flows from the Second Avenue and Mingo Run Pump Stations, the Yeager Road Interceptor from the northwest side of Route 113 and Black Rock Road, and

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flows metered from the Springertown Road drainage area. The area consists of 1,819 EDUs which generate an average flow of 500,200 gpd. The average dry and wet day flows recorded were 812,900 gpd and 1,243,500 gpd, respectively. The ratio of the average dry day to average daily flow is 1.63 and the ratio of the average wet day to average daily flow is 2.49.

The Amelia Street meter was located at the intersection of Amelia and Landis Streets in Mont Clare. The drainage area includes 615 EDUs which generate approximately 169,100 gpd. The average dry day flow recorded was 123,200 gpd with a similar wet day flow average. The meter was located in a section of sewer with a slope which created high velocities, and shallow depth of flow. The levels were not sufficient for the sewage to contact the meter's sensors continuously, therefore, the number of complete 24 hour periods of reliable recordings was limited. A significant increase in the level of sewage in the manhole was recorded on October 19, 1996. The levels exceeded the pipe diameter indicating a surcharge condition, presumably caused by high levels in the Schuylkill Interceptor.

The Hollow Road meter was located north of the intersection of Hollow Road and Port Providence Road. This drainage area consists of 42 EDU's which generate approximately 11,600 gpd. The average dry day and wet day flows recorded were 31,500 gpd and 151,700 gpd, respectively. The meter was located in a section of sewer with a slope which created high velocities and shallow depth of flow. The levels were not sufficient for the sewage to contact the sensors continuously, therefore, the number of complete 24 hour periods of reliable recordings was limited. The ratio of the average dry day to average daily flow is 2.72 and the ratio of the average wet day to average daily flow is 13.08.

The Longford Road meter was installed in a manhole located between Longford Road and the Conrail Railroad tracks. This drainage area consists of 219 EDUs which generate

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approximately 60,200 gpd. The average dry day and wet day flows recorded were 236,500 gpd and 337,000 gpd, respectively. The ratio of the average dry day to average daily flow is 3.93 and the ratio of the average wet day to average daily flow is 5.60.

The Center Avenue meter was located at the end of Center Avenue adjacent to Crossman's Run. This drainage area consists of 143 EDUs which generate approximately 39,300 gpd. The average dry day and wet day flows recorded were 47,700 gpd and 76,700 gpd, respectively. There were several days during which zero velocities were recorded, reducing the number of complete 24 hour periods of continuously reliable data. These readings may have been caused by debris lodged on the sensor causing the sewage to flow around the meter rather than across the top of meter where the contacts are located. The ratio of average dry day and average daily flow is 1.21 and the average wet day to average daily flow is 1.95.

The Brower Avenue meter was located near the bottom of the hill adjacent to Schuylkill Interceptor. This drainage area consists of 94 EDUs which generate approximately 25,900 gpd. The meter was located in a section of sewer with a slope which created high velocities and shallow depth of flow. The levels were not sufficient for the sewage to contact the sensors continuously, therefore, there were no complete 24 hour periods of recordings which could be summed to determine an average daily flow. A comparison of the levels recorded during dry and wet periods indicated that there were minor increases in the depth of flow for several hours during and after rainfall periods. These increases in depth permitted the sensor to record velocities during these short periods of time, however, the levels receded within several hours prohibiting the measurement and calculation of a flow rate over 24 hours.

The Schuylkill Interceptor meter was installed in manhole S-4 which is located adjacent to Brower Avenue and upstream from the Montgomery County Wastewater Treatment Plant.

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This location metered all drainage areas which were monitored by the sewer meters previously discussed. This area consists of 3,163 EDUs which generate approximately 869,800 gpd. The average dry day and wet day flows recorded were 1,201,200 gpd and 1,625,000 gpd, respectively. The ratio of the average dry day to the average daily flow is 1.38 and the ratio of the average wet day to the average daily flow is 1.87. A rainfall period which began on October 19, 1996 caused the manhole to surcharge which submerged the meter. This caused several days where the meter malfunctioned, presumably due to moisture contamination.

The areas which indicated the highest impact of infiltration and inflow were Hollow Road and Longford Road which had average wet day to average daily flow ratio of 13.08 and 5.60, respectively. Further investigation of the collection system serving these two areas would offer the Township the most efficient use of funds to reduce infiltration into the system, thereby lowering the cost to treat the sewage at the Montgomery County Plant.

Further flow monitoring of the collection system at the Brower Avenue, Amelia Street and Hollow Road locations is not recommended due to the steep slopes of sewer lines. Additional flow monitoring of the Hollow Road should be accomplished due to the high wet day flow ratio. A meter location upstream from the location previously used where the slope is less may produce more continuously reliable results.

The four weeks of monitoring conducted for this study provided an initial perspective to identify the areas where additional investigations can be focused.

SECTION 4 - FUTURE GROWTH AND DEVELOPMENT

4.01 Growth Area

The existing sewerage areas and the existing and proposed sewer growth areas are indicated on Figure 4-1 (Act 537 Plan: Official Map). The plan shows the location of the Montgomery County Sewer Authority wastewater treatment plant which serves the entire Township except the area to be served by the Rivercrest Wastewater Treatment Facility. The PaDEP is currently reviewing the Township approved planning module for the 320 EDU Rivercrest Wastewater Treatment Facility.

In order to determine the sewer capacity needs for the sewer growth area, the following three categories of EDU were identified and tabulated:

- 1) Existing and Committed (Purchased) EDU
- 2) Planned EDU
- 3) Unplanned Vacant Sewer Growth Area EDU

The sewer capacity for the existing and proposed development was identified by adding to the 3,404 EDU in the Township prior to 1987 the 5,445 EDU purchased since 1987 for a total of 8,849 EDU as shown on Table 4-1.

The planned EDU, tabulated as 3,273 EDU, include current development plans being reviewed by the Township, projects being discussed in the Township and the future build out of existing significant non-residential properties in the Township. These 3,273 planning EDU combined with the existing and purchased EDU bring the total EDU count in the Township to 12,122 EDU as shown on Table 4-1.

Amended Appendix A-22-b

The potential EDU needs for the vacant 1,500 acre sewer growth area where projects have not been proposed, was determined by reviewing the land zoning classification and land area. The growth area acres for each zoning district was multiplied by an average EDU/acre rate for the zoning district to tabulate the number of potential EDUs needed to serve the growth area. Table 4-2 shows that for the 1,500 acre growth area, there is a potential EDU need of 2,198 EDU over the next 20 years.

The total EDU allocations for the Township as shown on Table 4-3 is 14,320 EDU for the next 20 years. The existing capacity is 8,874 EDU therefore, there is a need for an additional 5,446 EDU. The planned Rivercrest Wastewater Facility would serve 320 EDU and the remaining 14,000 EDU would be served by the Montgomery County Sewer Authority Wastewater Treatment Facility in Oaks, PA. Based on 275 gpd/EDU, the total average annual flow need for the Township is 3.938 mgd. Table 4-3 also indicated the approximate time frame in five year increments, for the sewer capacity needs. It is estimated approximately 1,500 EDU are needed by 2005, another 2,400 EDU by 2010, with the remaining 1,800 EDU needed by 2020.

\\act537_regplncomp

TABLES



TABLE 2-1

UPPER PROVIDENCE TOWNSHIP
Act 537 Sewage Facilities Plan Update
Soil Characteristics Summary

Soils Series	Soil Name	Percent Slope	Depth to Bedrock	Depth to Mottling	Depth to Water Table	Permeability	Surface % Shale	Subsoil % Shale	Draining	Occur in Floodplains	Limitations to Conventional On-site Disposal
AbA	Abbotstown	0-3 %	4'-5'	12"-20"	seasonally high	very slow	free	few fragments	somewhat poor	No	Severe; slow permeability, high water table
AbB2	Abbotstown	3-8 %	3' on slopes	12"	less than 12" in spring	slow	few fragments	90%	medium to rapid	No	Severe; slow permeability, high water table
BnB2	Birdsboro	3-8 %	4-5'	none present	greater than 4'	moderate	30%	few fragments	well drained	No	Slight
Bp	Bowmansville	Level	2-3'	near surface	near surface	moderate	free	free	slow or ponded	Yes	Severe; flooding, high water table
BrA	Bowmansville	0-3 %	2-3'	near surface	near surface	moderate	free	free	slow or ponded	No	Severe; high water table, ponding
BrB	Bowmansville	3-8 %	2-3'	near surface	near surface	moderate	free	free	medium	No	Severe; high water table
C/A	Chalfont	0-3 %	6'	greater than 10"	at/near surface: fall, winter, spring	slow	few fragments	few fragments	poor	No	Severe; slow permeability, high water table
CrA	Croton	0-3 %	3-5'	12-14"	at surface: fall, winter, spring	slow	few fragments	few fragments	poor	No	Severe; slow permeability, high water table
CrB2	Croton	3-8 %	3'	greater than 10"	6', ponded in winter & spring	slow	few fragments	few fragments	slow to medium	No	Severe; slow permeability, high water table
KsE3	Klinesville	15-35 %	6-14"	none present	none present	rapid	many fragments	50-90 %	well	No	Severe; slope
LaB3	Lansdale	3-8 %	3-12'	none present	none present	moderate	10-75 %	95%	well	No	Moderate; variable depth to bedrock
LaC3	Lansdale	8-15 %	2-12'	none present	none present	moderately rapid	15-75 %	95%	well	No	Severe; shallow depth to bedrock
LaE3	Lansdale	15-35 %	2-8'	none present	none present	moderately rapid	15-75 %	95%	well	No	Severe; shallow depth to bedrock
LdB2	Lansdale, silt	3-8 %	5-10'	greater than 36"	greater than 36"	moderate	few fragments	few fragments	medium	No	Slight
LdC	Lansdale, silt	8-15 %	3-10'	greater than 36"	none present	moderately rapid	10-75 %	few fragments	medium	No	Moderate; slope
LeA	Lawrenceville	0-3 %	4-12'	greater than 20"	seasonally high: fall, winter, spring	moderately slow	few fragments	few fragments	moderately well	No	Severe; slow permeability, seasonal high water table
LhB2	Lehigh	3-8 %	2-4'	near surface	12-24"	slow	30-50 %	30-50 %	poor	No	Severe; slow permeability, high water table
LhE3	Lehigh	15-35 %	2-4'	near surface	12" in winter & spring	slow	30-50 %	30-50 %	poor	No	Severe; slow permeability, high water table
PaB2	Penn	3-8 %	2-3'	none present	none present	moderately rapid	10-25%	few fragments	well	No	Severe; shallow depth to bedrock
PaC3	Penn	8-15 %	6"	none present	none present	moderately rapid	20-50 %	30-60 %	well	No	Severe; shallow depth to bedrock
PeA2	Penn, silt	0-3 %	1-5'	none present	none present	moderate	few fragments	few fragments	medium	No	moderate; variable depth to bedrock
PeB2	Penn, silt	3-8 %	1-5'	none present	none present	moderately rapid	few fragments	few fragments	medium	No	Severe; shallow depth to bedrock
PeB3	Penn, silt	3-8 %	1-5'	none present	none present	moderately rapid	many fragments	many fragments	well	No	Severe; shallow depth to bedrock
PeC2/C3	Penn, silt	8-15 %	18-36"	no description	no description	moderately rapid	10-20 %	no description	well	No	Severe; shallow depth to bedrock
PID	Penn, stony	8-25 %	outcrops	no description	no description	moderately rapid	many fragments	many fragments	well	No	Severe; shallow depth to bedrock, stones
PKD3	Penn-Klinesville	15-25 %	outcrops	no description	no description	moderately rapid	many fragments	many fragments	well	No	Severe; shallow depth to bedrock, stones
PIB2/IB3	Penn-Lansdale	3-8 %	1.5-3'	no description	no description	moderately rapid	many fragments	many fragments	well	No	Severe; shallow depth to bedrock
PIC3	Penn-Lansdale	8-15 %	1-3'	no description	no description	moderately rapid	many fragments	many fragments	well	No	Severe; shallow depth to bedrock
PID3	Penn-Lansdale	15-25 %	1-3'	no description	no description	moderately rapid	many fragments	many fragments	well	No	Severe; shallow depth to bedrock
RaA	Raritan	0-3 %	5'	greater than 18"	12-24" winter, spring	moderately slow	few fragments	5-10 %	moderately well	No	Severe; slow permeability, high water table
RaB2	Raritan	3-8 %	4-12'	18-30"	18-30" winter, spring	moderately slow	few fragments	5-10 %	moderately well	No	Severe; slow permeability, high water table

TABLE 2-1
 UPPER PROVIDENCE TOWNSHIP
 Act 537 Sewage Facilities Plan Update
 Soil Characteristics Summary

Soils Series	Soil Name	Percent Slope	Depth to Bedrock	Depth to Mottling	Depth to Water Table	Permeability	Surface % Shale	Subsoil % Shale	Draining	Occur in Floodplains	Limitations to Conventional On-site Disposal
ReA	Readington	0-3 %	3-5'	greater than 22"	w/in 18":fall,winter,spring	moderately slow	5-10 %	5-15 %	moderately well	No	Severe;slow permeability,high water table
ReB2	Readington	3-8 %	3-5'	greater than 18"		moderately slow	more than 10 %	many fragments	medium	No	Severe;slow permeability,high water table
ReC2	Readington	8-15 %	3-4'	greater than 18"	24-30":winter,spring	moderately slow	few fragments	many fragments	medium	No	Severe;slow permeability,high water table
RsA2	Reaville	0-3 %	3-5'	12-18"	a/near surface:fall, winter,spring	slow	few fragments	few fragments	moderately well	No	Severe;slow permeability,high water table,bedrock
RsB2	Reaville	3-8 %	3-5'	12-18"	a/near surface in winter,spring	slow	few fragments	few fragments	moderately well	No	Severe;slow permeability,high water table,bedrock
RsC3	Reaville	8-15 %	3-5'	12-18"	a/near surface in winter,spring	slow	many fragments	many fragments	moderately well	No	Severe;slow permeability,high water table,bedrock
Rt	Rowland	Level	3-12'	greater than 36"	a/near surface in winter,spring	moderate	free	free	poor	Yes	Severe;flooding,high water table
RwA	Rowland_silt	0-3 %	3-12'	greater than 36"	a/near surface in winter,spring	moderate	free	free	poor	Yes	Severe;flooding,high water table
StE	Stony Land_steep	25-80 %	0-10'	none present	none present	medium to rapid	very stony	very stony	rapid	No	Severe;slope,stone

TABLE 2-2

UPPER PROVIDENCE TOWNSHIP
Act 537 Sewage Facilities Plan Update
Existing OLDS Comparison

Soils Series	Soil Name	Percent Slope	Appropriate type On-site System	Existing On-site Systems	Tile Field	Breakdown of System Types				Rock Depth >= 60"	Rock Depth < 60"	Unknown Rock Depth	Possible quantity of inappropriate systems existing	Percentage of possible inappropriate systems existing			
						Seepage Bed	Serial Discharge	Seepage Pit	Subsurface Sand						Elevated Sand	Shallow Placement	Sand lined Trenches
AbA	Abbotstown	0-3 %	Sand mound bed/trench	9				9				3	5	1	0		
AbB2	Abbotstown	3-8 %	Sand mound bed/trench	5				4				2	0	3	0		
BnB2	Birdsboro	3-8 %	Conventional	10	2							2	0	8	0		
Bp	Bowmansville	Level	Excludes all systems	0													
BfB	Bowmansville	3-8 %	Excludes all systems	2				2				0	0	2	2	100%	
CfA	Chalfont	0-3 %	Sand mound bed/trench	2				2				0	1	1	0		
CrA	Croton	0-3 %	Sand mound bed/trench	1				1				1			0		
LaB3	Lansdale	3-8 %	Conventional	10			1	6	1	1		2	0	8	0		
LdB2	Lansdale silt	3-8 %	Conventional	7	1			1				4	0	3	0		
LdC	Lansdale silt	8-15 %	Sand mound trench	2	1							1	0	1	0		
LeA	Lawrenceville	0-3 %	Sand mound bed/trench	0													
LhB2	Lehigh	3-8 %	Sand mound bed/trench	0													
LhE3	Lehigh	15-35 %	Sand mound trench	1				1				0	1	0	0		
PaB2	Penn	3-8 %	Sand mound bed/trench	1				1				0	0	1	0		
PeA2	Penn.silt	0-3 %	Sand mound bed/trench	4				1				3	0	1	0		
PeB3	Penn.silt	3-8 %	Sand mound bed/trench	50	6			3	21	1		34	5	11	2	4%	
PeC2/C3	Penn.silt	8-15 %	Sand mound trench	45	2			2	15			37	5	2	2	5%	
PKD3	Penn-Klinesville	15-25 %	Sand mound trench	4				1				32	6	7	0		
PIB2/B3	Penn-Lansdale	3-8 %	Sand mound bed/trench	16				1				1	1	2	2	50%	
PIC3	Penn-Lansdale	8-15 %	Sand mound trench	9	1			7				7	4	5	0		
RaA	Raritan	0-3 %	Sand mound bed/trench	6				1				2	3	4	0		
RaB2	Raritan	3-8 %	Sand mound bed/trench	7	1			1				5	1	0	0		
ReA	Readington	0-3 %	Sand mound bed/trench	22				15				2	1	4	1	14%	
ReB2	Readington	3-8 %	Sand mound bed/trench	62	9			19	26	2		16	2	4	1	5%	
ReC2	Readington	8-15 %	Sand mound trench	9	1			6	1			38	16	8	6	10%	
RsA2	Reaville	0-3 %	Sand mound bed/trench	3				1				4	3	2	3	33%	
RsB2	Reaville	3-8 %	Sand mound bed/trench	6				1				3			0		
RsC3	Reaville	8-15 %	Sand mound trench	2				2				2	2	2	0		
SfE	Stony Land, steep	25-80 %	Excludes all systems	1	1							1			1	100%	
TOTALS				340	37	139	1	3	21	133	1	5	202	57	81	20	6%

Amended Appendix A-22-b

TABLE 2-3

UPPER PROVIDENCE TOWNSHIP
Act 537 Sewage Facilities Plan Update
Annual OLDS Repairs

YEAR	REGISTERED SYSTEMS (1)	SYSTEMS REPAIRED	% REPAIRED
1978	87	3	3.4%
1980	150	1	0.7%
1981	153	4	2.6%
1983	182	3	1.6%
1984	205	7	3.4%
1985	224	4	1.8%
1986	247	3	1.2%
1987	280	7	2.5%
1988	340	1	0.3%
1989	355	4	1.1%
1990	380	3	0.8%
1991	388	6	1.5%
1992	396	2	0.5%
1993	401	1	0.2%
1994	401	1	0.2%
1995	404	1	0.2%
* 1996	405	1	0.2%

NOTE:

1. OLDS registered with the Montgomery County Health Department.
- * Cumulative total of existing systems as of July 5, 1996.

TABLE 3-1

UPPER PROVIDENCE TOWNSHIP

Schuykill Interceptor Flow Monitoring Summary

Monitoring Site	Manhole Location	EDU's	Average Daily Flow (1)	Average of Measured Dry Day's Flow (2)	Average of Measured Wet Day's Flow (3)	Ratio of Avg. Dry Day to Avg. Daily flow	Ratio of Avg. Wet Day to Avg. Daily flow
Springertown Road	S-179	190	52,300	25,500 (11)	35,500	0.49	0.68 (4)
Schuykill Valley Park	S-75	1,661	456,800	812,900	1,243,500	1.78	2.72 (4)
Amelia Street	S-264	656	180,400	123,200	123,200	0.68	0.68 (5)
Hollow Road	S-362	53	14,600	31,500	151,700	2.16	10.39 (6)
Longford Road	S-392	231	63,500	236,500	337,000	3.72	5.31 (7)
Center Avenue	S-43	210	57,800	47,700	76,700	0.83	1.33 (8)
Brower Avenue	S-425B	183	50,300	(12)	(12)	(12)	(12) (9)
Schuykill Interceptor	S-4	3,404	936,100	1,201,700	1,625,000	1.28	1.74 (10)

NOTES:

1. Average Daily Flow based on number of EDU's X 275 gpd/EDU.
2. Average of recorded days with no precipitation.
3. Average of recorded days with precipitation and two days following the last day of precipitation. (Precipitation day = rainfall greater than 0.1")
4. Based on 22 "dry" days and 9 "wet" days. (Maximum flow day was 10/19/96)
5. Based on 3 "dry" days (10/4 - 10/6/96). There were no complete "wet" days recorded. (Manhole surcharged on 10/19/96 for 3 hours).
6. Based on 2 "dry" days (10/7 & 10/8/96) and 3 "wet" days (10/9/96 - 10/11/96).
7. Based on 11 "dry" days (10/12-10/18 & 10/24-10/27/96) and 12 "wet" days (10/9 - 10/10 & 10/18 - 10/23 & 11/26-11/28 & 12/1-12/2/96).
8. Based on 5 "dry" days (10/12 - 10/15 & 10/28/96) and 4 "wet " days (10/19 - 10/22/96).
9. Velocities were not consistently recorded due to varying depth of sewage flow below sensor contacts.
10. Based on 13 "dry" days (10/4 - 10/7, 10/12 - 10/17, 10/25, 11/2 - 11/3/96) and 4 "wet" days (10/8 - 10/11/96).
11. Primarily older single family homes and townhouse units. It appears that the flow per EDU for this area is less than the township average of 275 gpd/EDU.
12. Level of sewage flow in pipe was insufficient to permit velocity measurement, therefore, no flow rate was determined.

All flows expressed as gallons per day.

lupedurds

Amended Appendix A-22-b TABLE 4-1

UPPER PROVIDENCE TOWNSHIP

EXISTING & PROPOSED DEVELOPMENT Dec. 2000

DEVELOPMENT /PROJECT	MANHOLE CONNECTION POINT	EDU'S	SUBTOTAL EDU'S	FLOW (gpd) (1)	CONN. EDUS 10/15/00	
					SUBTOTAL EDU'S	FLOW (gpd) (1)
RESIDENTIAL:						
UPPER PROVIDENCE TWP. (MISCELLANEOUS)	P-136A	85				
CROSKEYS ESTATES	P-136A	63			73	
STENDER TRACT	P-136A	4			0	
PENNYPACKER ROAD SUBDIVISION	P-136A	58			4	
CROSSWAYS (GAMBONE TRACT)	P-136A	27			19	
PROVIDENCE KNOLL	P-136A	59			27	
					59	
PERKIOMEN WOODS	P-80	SUBTOTAL 329	296	81,000	182	50,000
MUSSER SUBDIVISION	P-77	SUBTOTAL 5	329	90,000	329	90,000
ANDERSON FARM ESTATES	P-77	78			0	
ANDERSON FARM MEADOWS	P-77	97			78	
ANDERSON FARM WOODS	P-77	82			97	
FARAWAY FARMS	P-77	80			82	
HOPWOOD KNOLL	P-77	17			19	
DONNY BROOK ESTATES	P-77	10			17	
PROVIDENCE RIDGE	P-77	42			0	
WEATHERLEA	P-77	107			42	
					105	
COLONY @ VALLEY FORGE	P-39	SUBTOTAL 63	518	142,000	440	121,000
HUNT CLUB	P-39	166			63	
					80	
TOWNSHIP (PRIOR TO 1987, Not Purchased)	P-22	SUBTOTAL 151	229	63,000	143	39,000
TOWNSHIP (1987 TO 1993, Purchased)	P-22	9			151	
GREENTREE	P-22	70			6	
LAURAL ESTATES	P-22	12			70	
LAURAL MEADOWS	P-22	15			12	
LAURAL WOODS	P-22	34			15	
WINDING RIDGE HOMES	P-22	12			34	
					12	
TOWNSHIP (PRIOR TO 1987, Not Purchased)	P-7	151	303	83,000	300	83,000
		SUBTOTAL	151	42,000	151	42,000
TOTAL PERKIOMEN RESIDENTIAL			1,826	501,000	1,545	425,000

Amended Appendix A-22-b

TABLE 4-1

UPPER PROVIDENCE TOWNSHIP EXISTING & PROPOSED DEVELOPMENT Dec. 2000

DEVELOPMENT /PROJECT	MANHOLE CONNECTION POINT	EDU'S	SUBTOTAL		CONN. EDUS 10/15/00	
			EDU'S	FLOW (gpd) (1)	SUBTOTAL EDU'S	FLOW (gpd) (1)
COUNTRY RIDGE (MOURAR TRACT)	S-Mingo PS	69			51	
GEORGETOWN CROSSING	S-Mingo PS	44			44	
HIGHLANDS (RENNINGER TRACT)	S-Mingo PS	119			119	
INDIAN CREEK (GEISSINGER TRACT)	S-Mingo PS	138			123	
OAK CREST	S-Mingo PS	40			40	
OLD MILL ESTATES II	S-Mingo PS	39			39	
TOWNSHIP (PRIOR TO 1987, Not Purchased)	S-Mingo PS	1324			1324	
TOWNSHIP (1987 TO 1993, Purchased)	S-Mingo PS	8			6	
TAYLOR	S-Mingo PS	3			0	
PROVIDENCE POND	S-Mingo PS	43			43	
		SUBTOTAL	1827	502,000	1789	492,000
RIVERS BEND (COUNTRY HARBOR)	S-78B	63			63	
		SUBTOTAL	63	17,000	63	17,000
TOWNSHIP (PRIOR 1987) MC GERIATRIC	S-78A	199			199	
UPPER PROVIDENCE TWP. (MISCELLANEOUS)	S-78A	12			12	
NORTHFIELD ESTATES	S-78A	39			26	
WILLOWBROOKE	S-78A	20			20	
ANDERSON FARM POND	S-78A	133			103	
STARKEY	S-78A	17			14	
KOLB TRACT (QUAKER FOX RUN)	S-78A	73			0	
		SUBTOTAL	493	136,000	374	103,000
RAMSGATE (PROVIDENCE HUNT)	S-74	87			83	
		SUBTOTAL	87	24,000	83	23,000
TOWNSHIP (PRIOR TO 1987, Not Purchased)	S-48	870			870	
ZAPPONE	S-48	2			0	
TOWNSHIP (1987 TO 1993, Purchased)	S-48	9			6	
SCARLETT OAKS	S-48	41			41	
		SUBTOTAL	922	254,000	917	252,000
TOWNSHIP (PRIOR TO 1987, Not Purchased)	S-30	163			163	
TOWNSHIP (1987 TO 1993, Purchased)	S-30	9			6	
		SUBTOTAL	172	47,000	169	46,000
THORNHILL (HERITAGE HILLS/ PROV. VIEW)	S-22	341			261	
TOWNSHIP (PRIOR TO 1987, Not Purchased)	S-22	161			161	
GREAT OAKS (PENNYPACKER SQUARE)	S-22	22			22	
TOWNSHIP (1987 TO 1993, Purchased)	S-22	9			6	
PROVIDENCE HOLLOW	S-22	11			11	
PROVIDENCE WOODS	S-22	11			11	
		SUBTOTAL	555	153,000	472	130,000
TOWNSHIP (PRIOR TO 1987, Not Purchased)	S-12	168			168	
TOWNSHIP (1987 TO 1993, Purchased)	S-12	8			6	
PIN OAKS II	S-12	18			17	
GREENTREE	S-12	15			15	
PIN OAKS III	S-12	81			81	
		SUBTOTAL	290	80,000	287	79,000
TOWNSHIP (PRIOR TO 1987, Not Purchased)	S-10	217			217	
TOWNSHIP (1987 TO 1993, Purchased)	S-10	11			6	
		SUBTOTAL	228	63,000	223	61,000
TOTAL SCHUYLKILL RESIDENTIAL			4,637	1,276,000	4,377	1,203,000

Amended Appendix A-22-b TABLE 4-1

**UPPER PROVIDENCE TOWNSHIP
EXISTING & PROPOSED DEVELOPMENT
Dec. 2000**

DEVELOPMENT /PROJECT	MANHOLE CONNECTION POINT	EDU'S	SUBTOTAL EDU'S	FLOW (gpd) (1)	CONN. EDUS 10/15/00	
					SUBTOTAL EDU'S	FLOW (gpd) (1)
NON-RESIDENTIAL:						
WAWA TRILOGY (PROVIDENCE COMMONS)	P-136A	50			0	
		SUBTOTAL	50	14,000	0	0
RPR RORER	P-60	472			218	
		SUBTOTAL	472	130,000	218	60,000
MAINLINE HEALTH CARE (PROV.CORP CENTER)	P-50	16			6	
PIERCE LEAHY	P-50	23			14	
LITTLE PEOPLE DAY SCHOOL	P-50	5			5	
PROVIDENCE CORPORATE CENTER	P-50	102			0	
SMITH,KLINE,BEECHAM OFFICE	P-50	50			36	
SMITH/KLINE BEECHAM RESEARCH	P-50	1,200			774	
		SUBTOTAL	1,396	384,000	835	230,000
SEI	P-31	69			56	
		SUBTOTAL	69	19,000	56	15,000
ACORN DEVELOPMENT (OAKS)	P-22	116.3			104.3	
		SUBTOTAL	116.3	32,000	104.3	29,000
REGALS CINEMAS (OAKS MILL SHOPPING)	P-7	46			22	
		SUBTOTAL	46	13,000	22	6,000
TOTAL PERKIOMEN NON-RESIDENTIAL			2,149	592,000	1,235	340,000
ST PEDRO	S-MINGO PS	3			1	
		SUBTOTAL	3	1,000	1	300
GERIATRIC CENTER LAUNDRY	S-78A	40			279	
VALLEY FORGE BAPTIST CHURCH	S-78A	9			3	
		SUBTOTAL	49	13,000	282	78,000
KELLY INDUSTRIAL PARK	S-30	21			4	
UPPER PROV. INDUSTRIAL PARK & VOLPE (179)	S-30	45			0	
		SUBTOTAL	66	18,000	4	1,000
UPPER PROV. INDUSTRIAL PARK	S-22	45			0	
CONTAINER CORP.OF AMERICA	S-22	1			0	
BNB/PEERLESS	S-22	14.1			2	
YELLOW FREIGHT	S-22	2			0	
		SUBTOTAL	62.1	17,000	2	1,000
SHEMIN NURSERY	S-12	5			5	
OAKS ELEMENTARY ADDITION	S-12	4			0	
FLEMMING FOODS	S-12	5			1	
ROSEMONT FLEX OFFICE	S-12	5			3	
OAKS FLEX	S-12	10			0	
		SUBTOTAL	29	8,000	9	2,000
GLOBAL PACKING ADDITION	S-10	0			0	
ICE HOCKEY CENTER	S-10	8			6	
PENCO PRODUCTS	S-3	20			20	
		SUBTOTAL	28	8,000	26	7,000
TOTAL SCHUYLKILL NON-RESIDENTIAL			237	65,000	324	89,000
SubTotal Existing & Purchased			8,849	2,434,000	7,481	2,057,000

NOTE:
1. 275 gpd/EDU

Amended Appendix A-22-b TABLE 4-1

UPPER PROVIDENCE TOWNSHIP EXISTING & PROPOSED DEVELOPMENT Dec. 2000

DEVELOPMENT /PROJECT	MANHOLE CONNECTION POINT	EDU'S	SUBTOTAL		CONN. EDUS 10/15/00	
			EDU'S	FLOW (gpd) (1)	SUBTOTAL EDU'S	FLOW (gpd) (1)
SKETCH/PRELIMINARY/FINAL						
BUDCO	P-136A	40				
RIDGEWOOD COMMUNITIES	P-136A	308				
		SUBTOTAL	348	96,000	0	0
CRYSTAL	P-77	600				
ADULT COMMUNITY (No Plan)	P-77	250				
MAJKA	P-77	28				
SFSD ANDERSON FARM (No Plan)	P-77	2				
		SUBTOTAL	880	242,000	0	0
WYETH (RT 29& ARCOLA)	P-50	0				
		SUBTOTAL	0	0	0	0
OAKS SHOPPING CENTER (WALKER)	P-22	50				
		SUBTOTAL	50	14,000	0	0
OAKS MILL TARGET/LOWES	P-7	34				
		SUBTOTAL	34	9,000	0	0
TOTAL PERKIOMEN SKETCH/PRELIMINARY/FINAL			1,312	361,000	0	0
RITTENHOUSE ESTATES (1,2,3 & 4)	S-MINGO PS	27				
RITTENHOUSE ESTATES (5)	S-MINGO PS	72				
SRINGFORD CORPORATE CENTER	S-MINGO PS	8				
ROYERSFORD BAPTIST CHURCH ADDITION	S-MINGO PS	2				
PROVIDENCE MANOR 2 (QUARTERS)	S-MINGO PS	52				
SFSD BECHTEL	S-MINGO PS	220				
		SUBTOTAL	381	105,000	0	0
RIVER CREST GOLF COURSE & RESIDENCES	S-48	320	0	0	0	0
		SUBTOTAL	320	88,000	0	0
CHESTERBROOK ACADEMY	S-22	10				
CORRADO CONSTRUCTION	S-22	10				
		SUBTOTAL	20	6,000	0	0
TOTAL SCHUYLKILL SKETCH/ PRELIMINARY/FINAL			721	199,000	0	0
BUILD OUT OF EXISTING NON-RESIDENTIAL						
WYETH PROPERTY	P-60	520				
		SUBTOTAL	520	143,000	0	0
SMITH KLINE BEECHAM	P-50	300				
PROVIDENCE CORP CENTER	P-50	20				
		SUBTOTAL	320	88,000	0	0
RT. 422 BUSINESS CENTER	P-7	100				
		SUBTOTAL	100	28,000	0	0
TOTAL PERKIOMEN NON-RES. BUILD-OUT			940	259,000	0	0
MONT. COUNTY GERIATRIC CENTER	S-78A	300				
		SUBTOTAL	300	83,000	0	0
TOTAL SCHUYLKILL NON-RES. BUILD-OUT			300	83,000	0	0
SubTotal Future			3,273	902,000	0	0
TOWNSHIP TOTAL			12,122	3,336,000	7,481	2,057,000

NOTE:

1. 275 gpd/EDU

Amended Appendix A-22-b TABLE 4-2

UPPER PROVIDENCE TOWNSHIP

Vacant Sewer Growth Areas EDU Dec. 2000

Interceptor Manhole	Acres of land by Zoning District										GPD TOTAL	TOTAL EDU									
	R-1	R-2	R-3	R-4	M-1	M-2	CRSC	NC	PBO	GPD (1)											
P-136A	191.5										39,000										
P-136A	2.1										0										
P-136A	41.0										8,000										
P-136A	40.8										8,000										
P-136A	4.9										1,000										
P-136A	4.0										1,000										
P-136A		24.3									15,000										
P-136A		22.8									14,000										
P-136A		17.7									11,000										
P-136A	21.5										4,000										
P-136A							70.7				39,000										
P-136A							10.0				6,000										
P-136A									1.3		1,000										
* P-136A		12.1									8,000										
* P-136A		7.9									5,000										
* P-136A	13.5										3,000	163,000									
P-77	11.3										2,000										
P-77	17.6										4,000										
P-77	11.6										2,000										
P-77	13.9										3,000										
P-77	4.7										1,000										
P-77	83.3										17,000										
P-77		35.2									22,000										
P-77							9.8				5,000										
P-77									3.7		2,000										
P-77									5.4		4,000										
* P-77	5.1										1,000	63,000									
P-50	7.5										2,000										
P-50	6.2										1,000										
P-50	62.2										13,000	16,000									
P-22	39.1										8,000										
P-22	44.4										9,000										
P-22	10.0										2,000										
P-22		5.8									4,000										
P-22		7.7									5,000										
P-22			17.8								23,000	51,000									
P-8						4.4					4,000	4,000									
Total Perkiomen											297,000	1,090									
S-Mingo PS	27.8										6,000										
S-Mingo PS	8.9										2,000	8,000									
S-74	7.1										1,000	1,000									
S-48	15.8										3,000										
S-48		23.9									15,000										
S-48	9.2										2,000										
S-48	18.1										4,000	24,000									
S-30					59.7						25,000										
S-30					5.2						2,000										
S-30					0.0						0										
S-30					17.0						7,000										
S-30					9.5						4,000										
S-30		14.5									9,000										
S-30		11.6									7,000										
S-30		4.1									3,000										
S-30	27.2										6,000	63,000									
S-22		15.7									10,000										
S-22	82.0										17,000										
S-22				47.6							92,000										
S-22					3.7						2,000										
S-22	12.0										2,000										
S-22					112.3						48,000	169,000									
S-12		45.3									29,000										
S-12					6.3						3,000	32,000									
S-10		2.6									2,000										
S-10						9.3					8,000	10,000									
Total Schuylkill											307,000	1,109									
Township Total											844.3	251.2	17.8	47.6	213.7	13.7	90.5	5.0	5.4	604,000	2,198
EDU/Acre											0.75	2.3	4.8	7.0	1.5	3.0	2.0	2.0	3.0		
EDU											633	577	85	333	321	41	181	10	16		2,198

Note:
1. GPD = Acres x EDU/Acre x 275 gpd/EDU
* Additional Proposed Sewer Growth Areas.

Amended Appendix A-22-b

Table 4-3

Upper Providence Township

EDU Allocations and Flow Projections DEC 2000

DEVELOPMENT /PROJECT	ALLOCATED EDU'S	CONNECTED EDU'S					
		10/15/00	12/05	12/10	12/15	12/20	
TOWNSHIP EDU'S (PRIOR 1987)							
RESIDENTIAL EDU 1988-2000	3,404	3,404					
ANDERSON FARM ESTATES	78	78					
ANDERSON FARM MEADOWS	97	97					
ANDERSON FARM WOODS	82	82					
ANDERSON FARM POND	133	103	30				
GEISSINGER TRACT (Indian Creek)	138	123	15				
GEORGETOWN CROSSING	44	44					
HOPWOOD KNOLL	17	17	0				
OLD MILL ESTATES	39	39					
PERKIOMEN WOODS	329	329					
PIN OAKS II	18	17	1				
PIN OAKS III	81	81					
PROVIDENCE POND	43	43					
PROVIDENCE RIDGE	42	42					
RAMSGATE TOLL BROS.	87	83	4				
RENNINGER TRACT (HIGHLANDS)	119	119					
COUNTRY HARBOR (Riversbend)	63	63					
SCARLETT OAKS	41	41					
STENDER TRACT	4	4					
THORNHILL (HERITAGE HILLS)	341	261	80				
WEATHERLEA	107	105	2				
WILLOWBROOKE	20	20					
CROSSWAYS	27	27					
OAK CREST	40	40					
PENNYPACKER SQUARE (Great Oaks)	22	22					
GREENTREE	85	85					
LAURAL MEADOWS	15	15					
LAURAL ESTATES	12	12					
LAURAL WOODS	34	34					
PROVIDENCE WOODS	11	11					
MUSSER	5	0	5				
FARAWAY FARMS	80	19	61				
DONNEYBROOK	10	0	10				
HUNT CLUB	166	80	86				
MISC. RESIDENTIAL	160	127	33				
COLONY @ VALLEY FORGE	63	63					
PROVIDENCE HOLLOW & EGYPT	11	11					
CROSSKEY ESTATES	63	0	63				
MEYER'S II (NORTHFIELD)	39	26	13				
MOURAR TRACT (COUNTY RIDGE)	69	51	18				
PROVIDENCE KNOLL	59	59					
STARKEY	17	14	3				
PENNYPACKER ROAD	58	19	39				
KOLB QUAKER	73	0	73				
TAYLOR	3	0	3				
ZAPPONE	2	0	2				
WINDING RIDGE	12	12					
		0					
SUBTOTAL	3,059	2,518	541	0	0	0	0

Amended Appendix A-22-b
Table 4-3

Upper Providence Township

EDU Allocations and Flow Projections DEC 2000

DEVELOPMENT /PROJECT	ALLOCATED EDU'S	CONNECTED EDU'S				
		10/15/00	12/05	12/10	12/15	12/20
NON-RESIDENTIAL:						
ACORN DEVELOPMENT (OAKS)	116.36	104.36	12			
BNB/PEERLESS	14.18	2.00	12			
CONTAINER CORP.OF AMERICA	1	0	1			
GERIATRIC CENTER	40	279				
LITTLE PEOPLE DAY SCHOOL	5	5				
KELLY INDUSTRIAL PARK (UPT IND)	21	4	10	7		
PENCO PRODUCTS	20	20				
PROVIDENCE CORPORATE CENTER	102	0	52	50		
WYETH (RPR)	472	218	254			
SEI	69	56	13			
SHEMIN NURSERY	5	5				
SMITH,KLINE,BEECHAM OFFICE	50	36	14			
SMITH/KLINE BEECHAM RESEARCH	1200	774	100	226	100	
UPPER PROV. INDUSTRIAL PARK	90	0	45	45		
VALLEY FORGE BAPTIST CHURCH	9	3	3	3		
YELLOW FREIGHT	2	0	2			
PROV. COMMONS	50	0	10	40		
ROSEMONT FLEX OFFICE	5	3	2			
ST PEDRO	3	1	2			
ICE HOCKEY	8	6	2			
OAKS FLEX	10	0	10			
REGAL CINEAMA	46	22	24			
FLEMING FOODS	5	0	5			
OAKS ELEMENETARY SCHOOL	4	0	4			
PIERCE LEAHY	23	14	9			
MAINLINE HEALTH CENTER	16	6	10			
SUBTOTAL	2,387	1,558	596	371	100	0
TOTAL COMMITTED EDU'S	8,849	7,480	1,137	371	100	0

Amended Appendix A-22-b
Table 4-3

Upper Providence Township

EDU Allocations and Flow Projections DEC 2000

DEVELOPMENT /PROJECT	ALLOCATED EDU'S	CONNECTED EDU'S				
		10/15/00	12/05	12/10	12/15	12/20
PLANNED EDU						
MAJKA	28		28			
WYETH	520			420	100	
RIDGEWOOD	308		208	100		
ADULT COMM	250		150	100		
OAKS SHOPPING (WALKER)	50		30	20		
CHESTERBROOK ACAD.	10		10			
SKB	300			150	100	50
PROVIDENCE CORP. CENTER	20			20		
CRSTAL	600		300	300		
TARGET LOWES	34		34			
PROV. MANOR	52		52			
RT. 422 BUS. CENTER	100		30	40	30	
BUDCO	40		30	10		
RITTENHOUSE 1-4	27		27			
RITTENHOUSE 5	72		52	20		
SFSD BECHTEL TRACT	220		220			
SPRINGFORD CORP CENTER	8			8		
ROYERSFORD CHURCH ADD	2		2			
SFSD AFP	2			2		
RIVERCREST GOLF	320		200	120		
MONT CO GERIATRIC	300			150	150	
CORRADO CONSTRUCTION OFFICE	10		5	5		
TOTAL PLANNING EDUS	3,273		1,378	1,465	380	50
TWP. POPULATION GROWTH EDUS						
YEAR 2005	229		229			
YEAR 2010	400			400		
YEAR 2015	500				500	
YEAR 2020	500					500
NON-RESIDENTIAL	569		119	150	150	150
TOTAL TWP. POP. GROWTH EDUS	2,198		348	550	650	650
TOTAL EDUS	14,320	7,480	10,343	12,729	13,859	14,559
PROJ. AVAILABLE CAPACITY (1)		7,365	14,320	14,320	14,320	14,320
PERCENT UTILIZED (EDU)		101.56%	72.23%	88.89%	96.78%	101.67%
PROJ. FLOW UTILIZATION (MGD)(2)		2.0570	2.8443	3.5005	3.8112	4.0037
PROJ. CAPACITY FLOW (MGD)		2.4400	3.9380	3.9380	3.9380	3.9380
PERCENT UTILIZED (MGD)		84.30%	72.23%	88.89%	96.78%	101.67%

NOTES:

1. Current available capacity and desired future capacity.
2. Connected EDU's at 275 gpd each plus each projected EDU at 275 gpd.

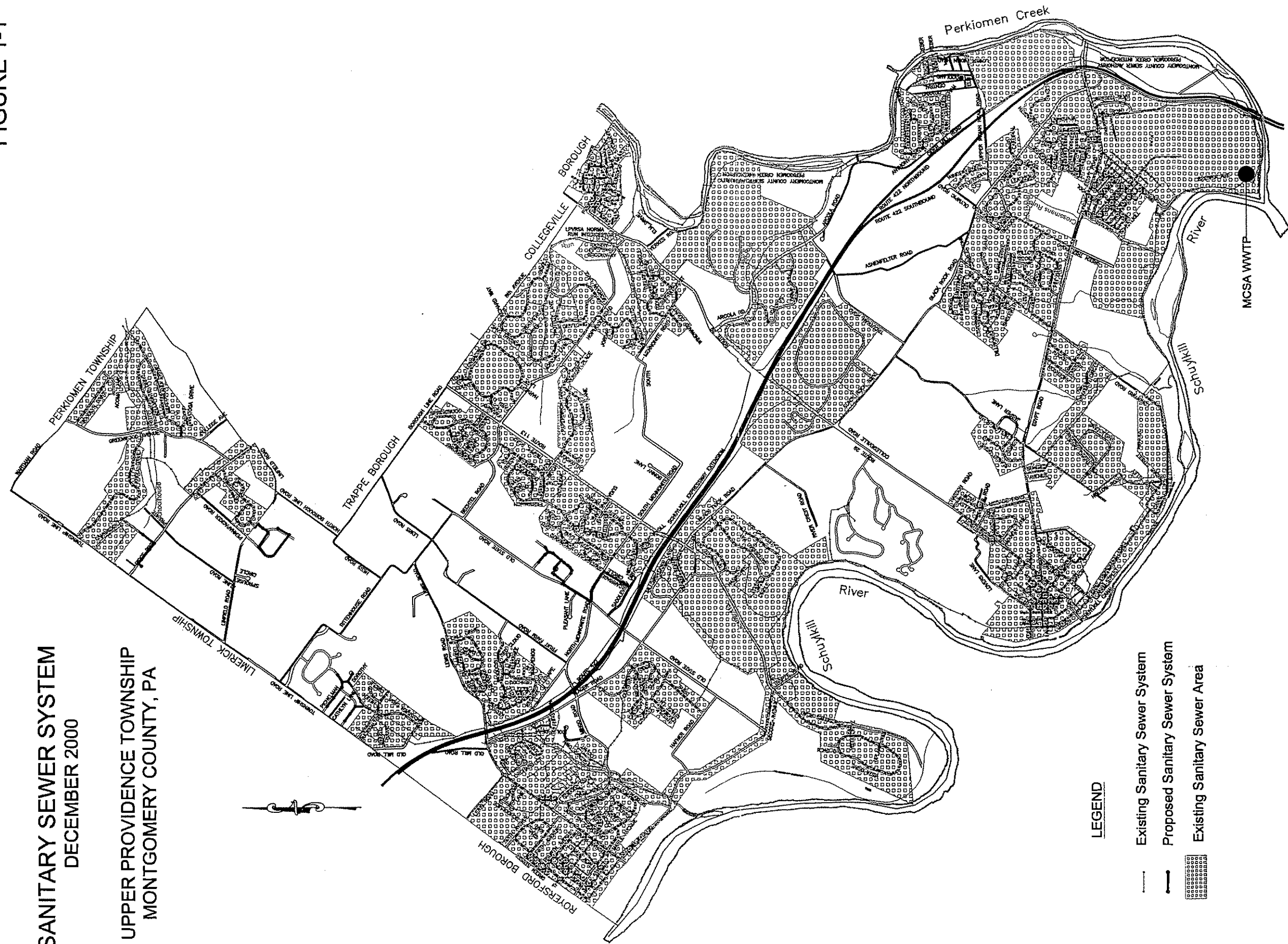
UP537DEC2000EDU

FIGURES



FIGURE 1-1

SANITARY SEWER SYSTEM
DECEMBER 2000
UPPER PROVIDENCE TOWNSHIP
MONTGOMERY COUNTY, PA



LEGEND

- Existing Sanitary Sewer System
- - - Proposed Sanitary Sewer System
- Existing Sanitary Sewer Area

W:\124\UP\57\Map\Acad57\Map.dwg

Zoning Districts

R-1	RESIDENTIAL-AGRICULTURAL
R-2	RESIDENTIAL
R-3	RESIDENTIAL
R-4	RESIDENTIAL
VP	VILLAGE PRESERVATION
NC	NEIGHBORHOOD CONVENIENCE COMMERCIAL
CRSC	COMMUNITY AND REGIONAL SHOPPING CENTER
M-1	OFFICE AND LIMITED INDUSTRIAL
M-2	MANUFACTURING INDUSTRIAL
PBO	PROFESSIONAL BUSINESS OFFICE
IO	INTERCHANGE OFFICE
IO-2	INTERCHANGE OFFICE SUPPORT


NOTES:

1. Zoning depicted is current up to and including map amendments made by Ordinance #382 adopted July 3, 2000.
2. Additional Overlay Districts are in effect in the Township (Floodplain Conservation, Steep Slope Conservation and Institutional Districts). Consult the Zoning Ordinance text and/ or the Township Planning and Zoning Administrator to determine applicability to specific properties.
3. Certain uses and development options permitted in the Zoning Ordinance may be applied to specific properties. Consult the Zoning Ordinance text and/ or the Township Planning and Zoning Administrator to determine if any have been applied to a particular property.



Revisions
9/16/96
12/20/96
3/3/97
2/5/98
1/5/99
4/15/99
5/21/99
12/1/99
6/1/00
7/6/00

**UPPER PROVIDENCE
TOWNSHIP**
MONTGOMERY COUNTY, PENNSYLVANIA



ZONING MAP

Approximate Scale: 1"=1600' Date Prepared: August 1996
THE WAETZMAN PLANNING GROUP
 1230 County Line Road, Bryn Mawr, PA 19010-1594
 Telephone: (610) 527-0600, Fax: (610) 527-0445

FIGURE 1-3

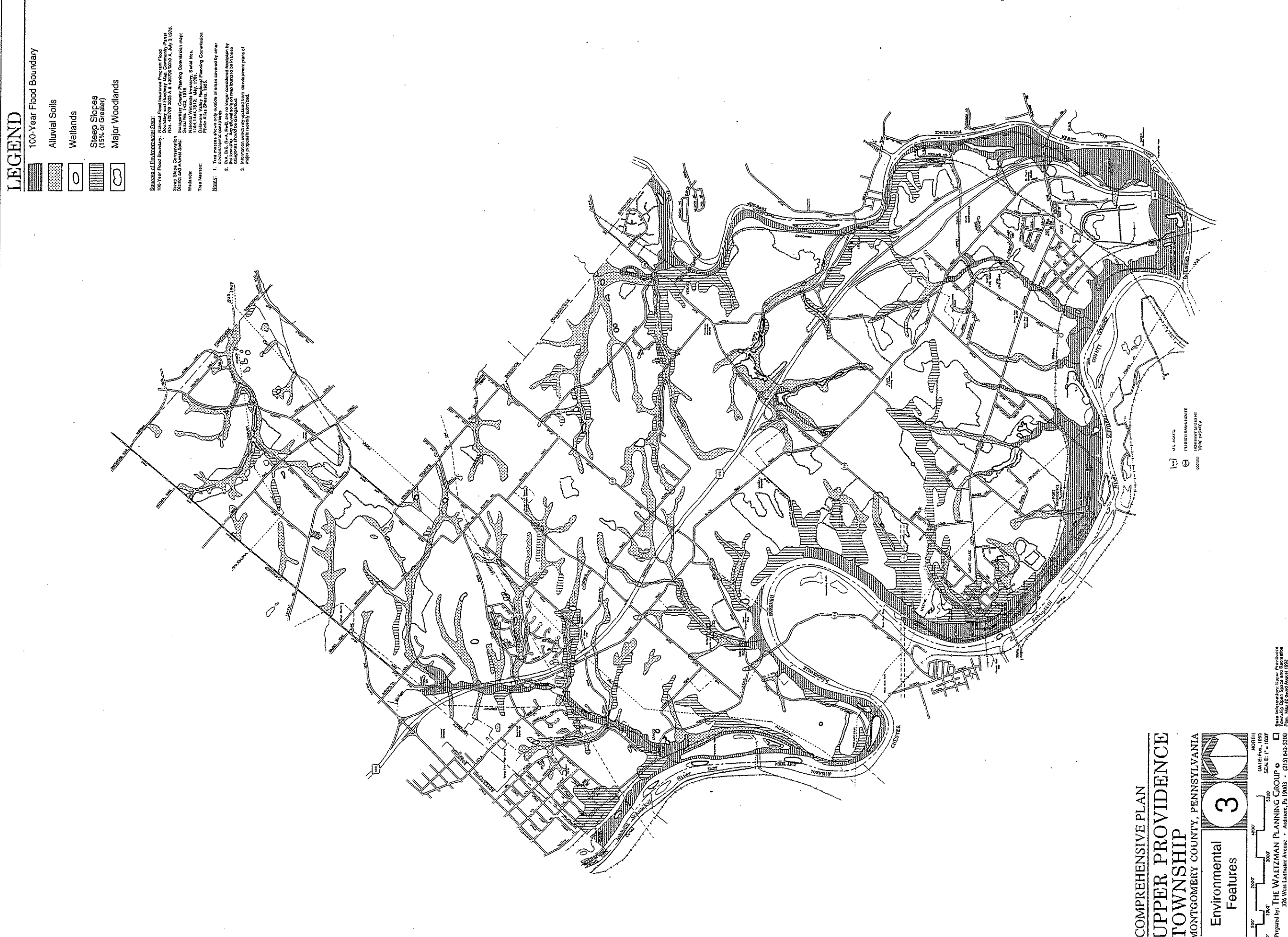
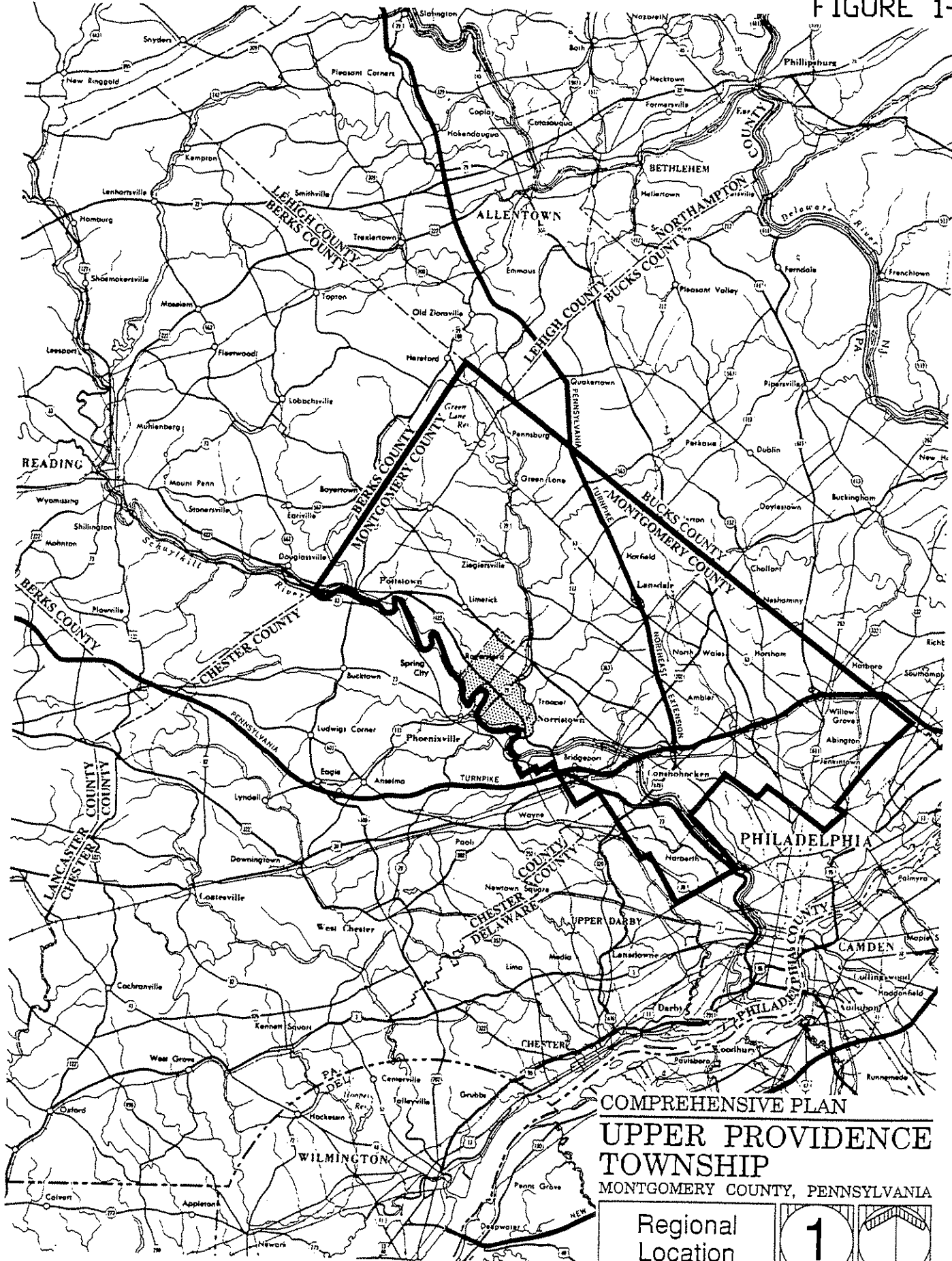


FIGURE 1-4

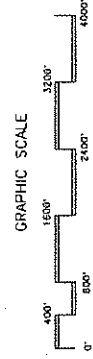
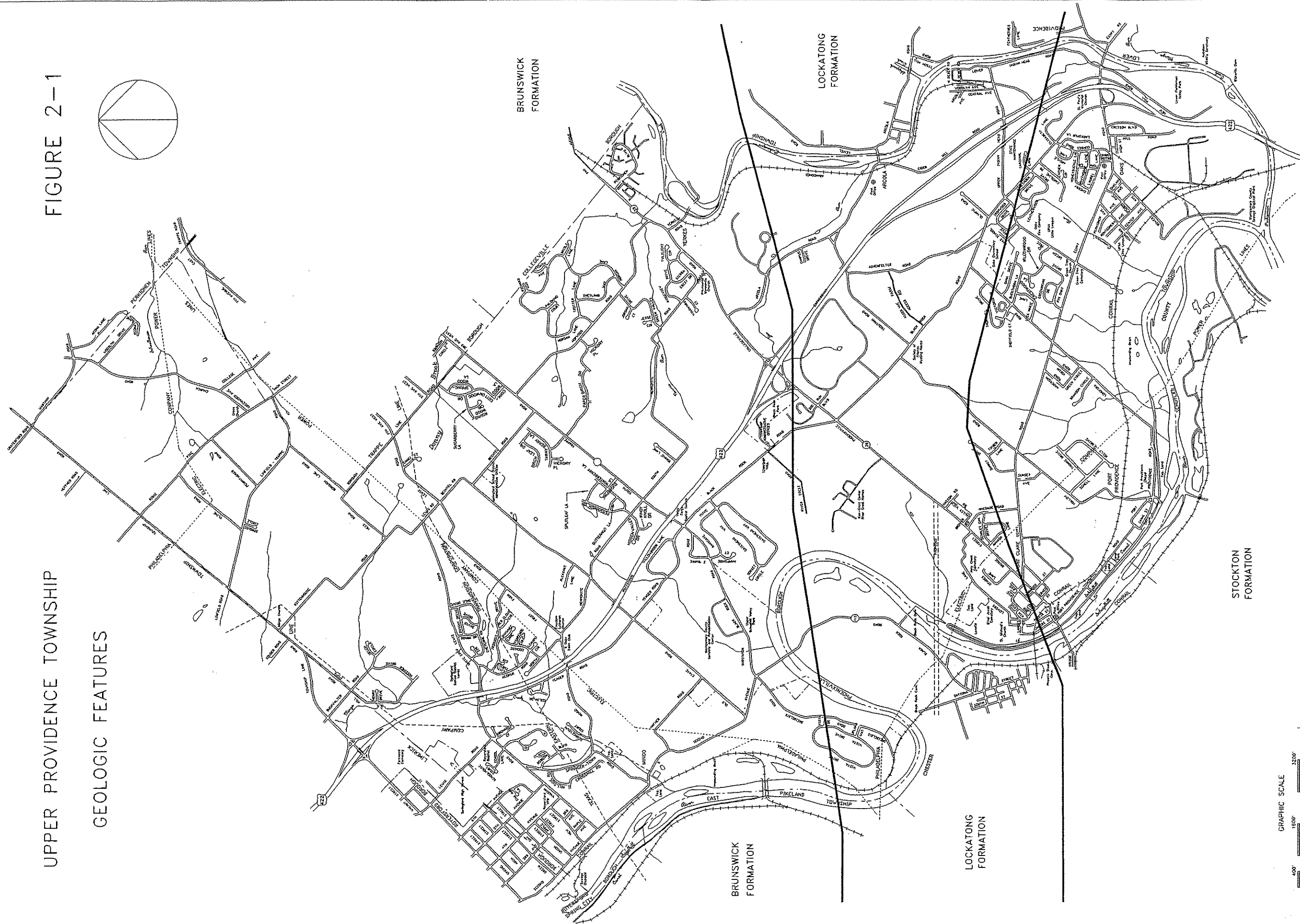
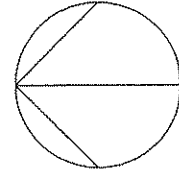


Base Source: Montgomery County Planning Commission, Norristown, PA
Updated: Waetzman Planning Group

Prepared by: THE WAEZTMAN PLANNING GROUP®
326 West Lancaster Avenue • Ardmore, Pa 19003 • (215) 642-5200

FIGURE 2-1

UPPER PROVIDENCE TOWNSHIP
GEOLOGIC FEATURES

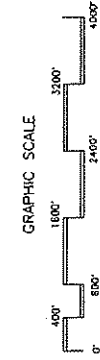
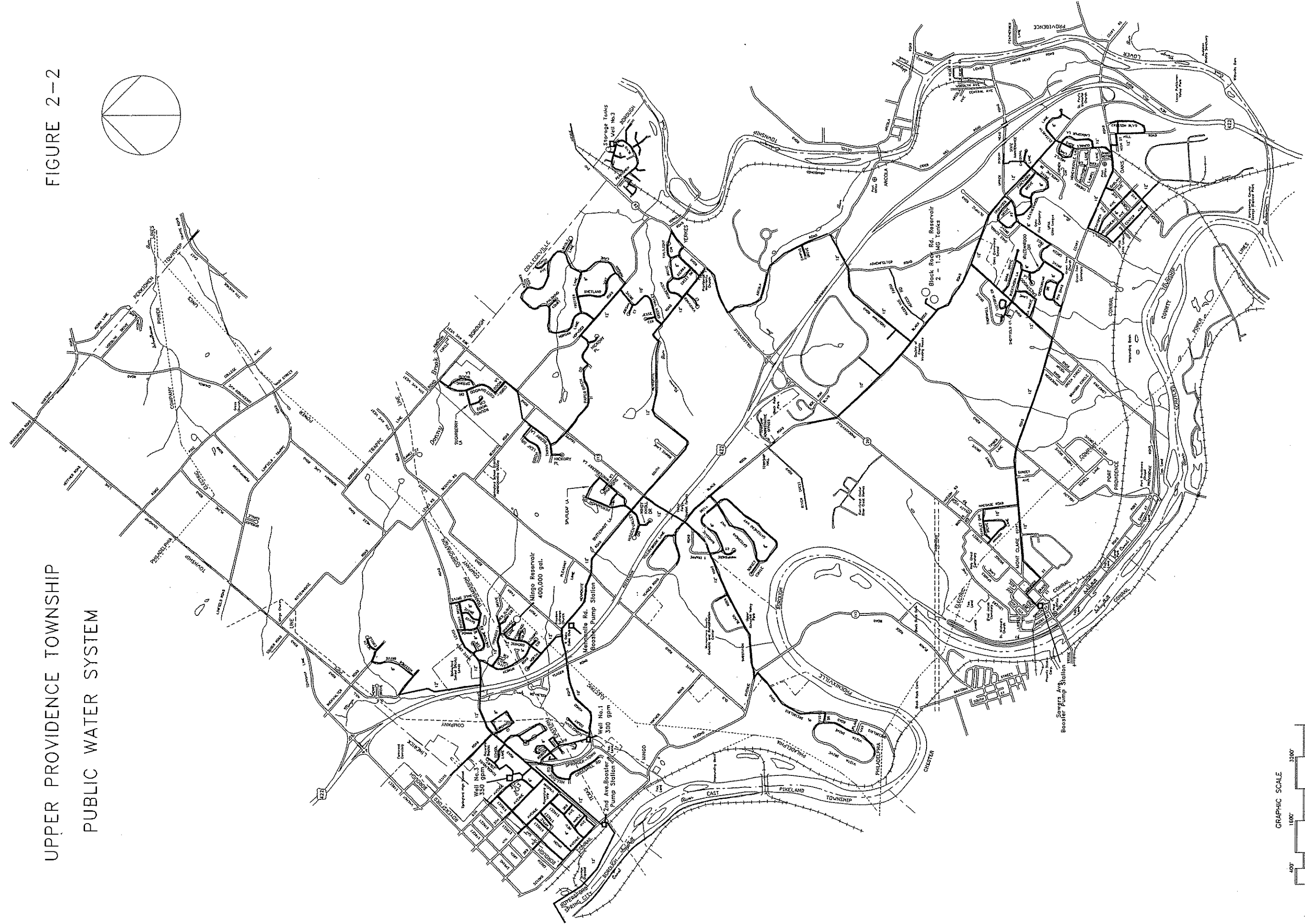
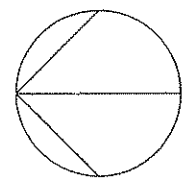


EDM CONSULTANTS, INC.
101 South Broad Street, Suite 200, P.O. Box 1545
Lansdale, PA 19446 TEL: 215-392-0670 Fax: (215) 392-4652

UPDATED - Westman Planning
Group, through August, 1996.
BASE SOURCE - Montgomery
County Planning Commission,
Norristown, PA. Last revised
June, 1987

UPPER PROVIDENCE TOWNSHIP
PUBLIC WATER SYSTEM

FIGURE 2-2



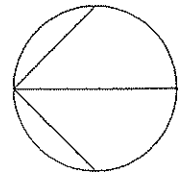
EDM CONSULTANTS, INC.
101 South Broad Street, Suite 200, P.O. Box 1545
Lansdale, PA 19446 (610) 393-6676 Fax (610) 393-6652

UPDATED: Keetman Planning Group, through August 1996
BASE SOURCE: Montgomery County Planning Commission, Harrisburg, PA, Last revised June, 1989

Information provided by Citizens Utilities Home Water Company
Plan No. 2310-13 last revised 1/10/86

UPPER PROVIDENCE TOWNSHIP
ON-LOT DISPOSAL
SYSTEM FEASIBILITY

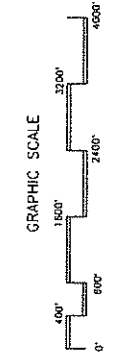
FIGURE 2-3



Possible On-Lot Systems:
 EXC -- Excludes all on-lot systems
 SMT -- Sand Mound Trench system
 SMB -- Sand Mound Bed system
 CON -- Conventional system



- Primary Sewer Growth Area
- Secondary Sewer Growth Area
- Existing Sanitary Sewer Area
- Existing Sanitary Sewer



EDM CONSULTANTS, INC.
 1101 South Broad Street, Suite 200, P.O. Box 1245
 Lansdale, PA 19446 (215) 393-6570 Fax (215) 393-6552

UPDATED: Vietzgen Planning Group through August, 1996
 BASE SOURCE: Montgomery County Planning Commission, Norristown, PA, Last revised Jan. 1997

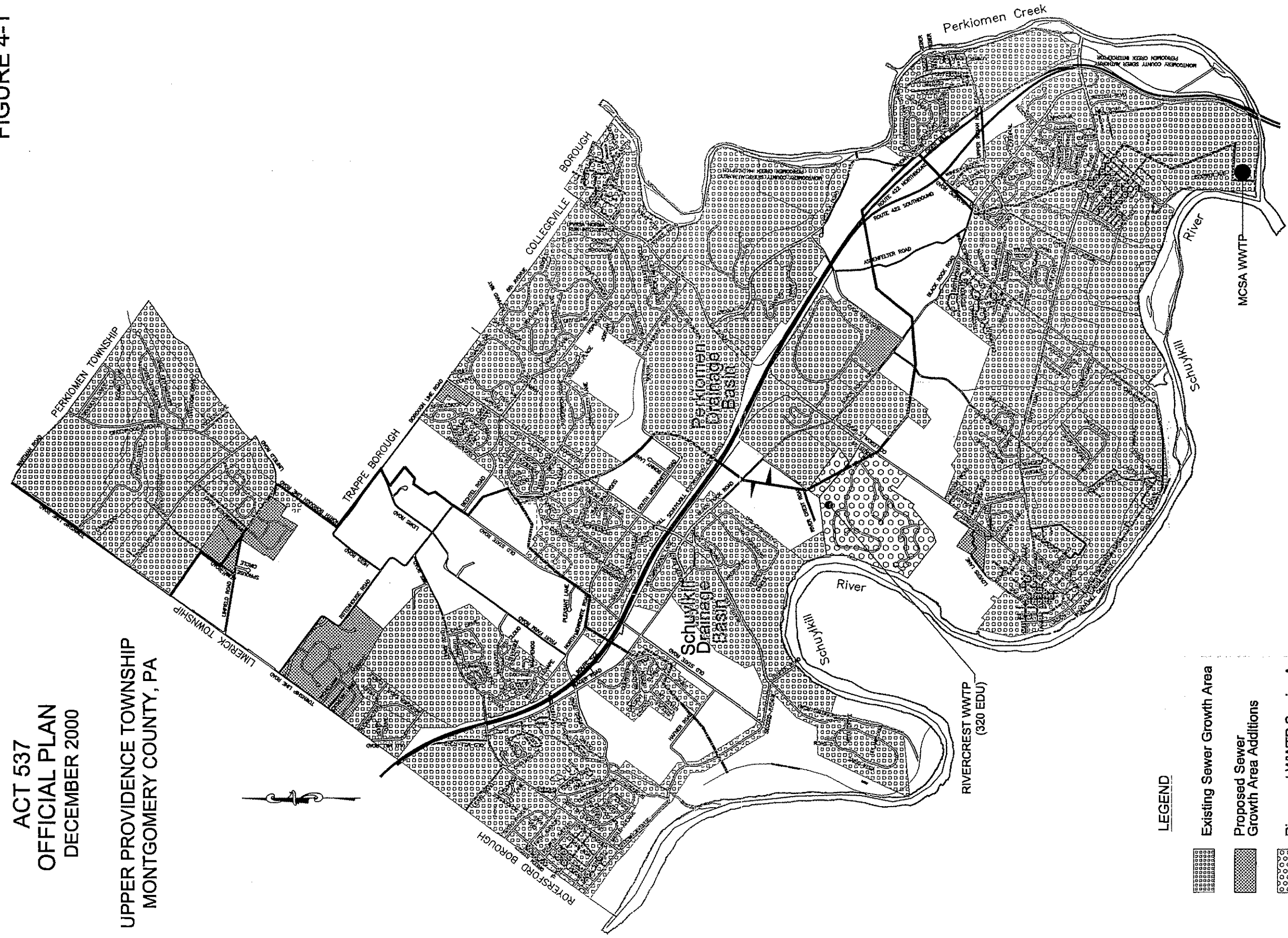
FIGURE 3-1

UPPER PROVIDENCE TOWNSHIP
SANITARY SEWER SYSTEM
FLOW MONITORING LOCATIONS



FIGURE 4-1

ACT 537
OFFICIAL PLAN
DECEMBER 2000
UPPER PROVIDENCE TOWNSHIP
MONTGOMERY COUNTY, PA



SCALE 1" = 3400'

W:\24\UP\537\Map\A-22-b.dwg

APPENDICES





Amended Appendix A-22-b

Pennsylvania Department of Environmental Protection

Lee Park, Suite 6010

555 North Lane

Conshohocken, PA 19428

Southeast Regional Office

AUG 21 2000

610-832-6130

Fax: 610-832-6133

RECEIVED

AUG 25 2000

EDM CONSULTANTS

George W. Waterman, III, Manager
Upper Providence Township
1286 Black Rock Road
P. O. Box 406
Oaks, PA 19456

Re: Act 537 Plan Update
APS Id. 45874, AUTH Id. 48293
Upper Providence Township
Montgomery County

Dear Mr. Waterman:

We have completed our review of your municipality's updated official sewage facilities plan entitled Upper Providence Township Act 537 Plan, Amendment No. 6, as prepared by EDM Consultants, Inc., dated June 7, 1999. The review was conducted in accordance with the provisions of the Pennsylvania Sewage Facilities Act.

Approval of the Plan is hereby granted, subject to the following limitations on capacity at the Montgomery County Sewer Authority's Oaks Wastewater Treatment Facility.

The Plan provides for a re-rating of the Oaks Wastewater Treatment Facility from 9.17 million gallons per day to 9.5 million gallons per day, and provides additional allocations for Upper Providence Township of 70,950 gallons per day, or 258 equivalent dwelling units.

This approval is consistent with a written commitment from the Montgomery County Sewer Authority, which provides the additional capacity subject to the conditions outlined in the commitment letter dated July 11, 2000.



AUG 21 2000

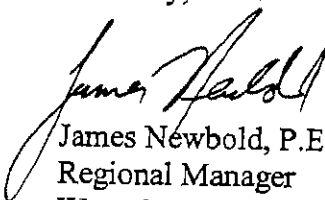
George W. Waterman, III

-2-

Please be advised that this approval does not satisfy the total sewage capacity needs documented in the submitted plan. Additional sewage facilities planning must be submitted to the Department to provide for these needs. Consistent with the sewer authority's second condition in their July 11, 2000 letter, Upper Providence Township should continue to work with the authority for the release of additional capacity to meet these needs.

If you have any questions, please contact Glenn Stinson of this office.

Sincerely,


James Newbold, P.E.
Regional Manager
Water Management

cc: Montgomery County Planning Commission
Montgomery County Health Department
EDM Consultants, Inc.
Montgomery County Sewer Authority
Lower Providence Township
Mr. Cleaver
Ms. Moore
Ms. Grant
Planning Section
Re 30



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

RECEIVED
MAR 15 1996
EDM CONSULTANTS

- Please note our new name -
DEPARTMENT OF ENVIRONMENTAL PROTECTION
D E P
Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428
March 12, 1996

Southeast Regional Office

610-832-6130
Fax 610-832-6259

George W. Waterman, III
Upper Providence Township
Box G
Oaks, PA 19456

Re: Act 537 Plan Update
Upper Providence Township
Montgomery County

Dear Mr. Waterman:

We have completed our review of your municipality's updated official sewage facilities plan entitled Upper Providence Township Act 537 Plan Amendment No. 5 as prepared by EDM Consultants, Inc., dated April, 1995, and revised January, 1996. The review was conducted in accordance with the provisions of the Pennsylvania Sewage Facilities Act.

Approval of the Plan is hereby granted.

The Plan provides for the:

1. Rerating of the Oaks Sewage Treatment Plant from 8.7132 million gallons per day to 9.057 million gallons per day. This increase in flows of 0.34375 million gallons per day will increase Upper Providence Township's allocation to 2.36915 million gallons per day and provide capacity for the Township's projected growth for the next five years.
2. Commitment to cooperate with the Lower Perkiomen Valley Regional Authority in revising the Regional Act 537 Plan to provide sewage facilities for the long term needs of the entire sewer service area served by the Oaks Treatment Plant.



Amended Appendix A-22-b

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

FIELD OPERATIONS - WATER QUALITY MANAGEMENT
Suite 6010, Lee Park
555 North Lane
Conshohocken, PA 19428
215 832-6130

RECEIVED

FEB 19 1992

EDM CONSULTANTS

FEB 18 1992

George W. Waterman III, Township Manager
Upper Providence Township
Box G
Oaks, PA 19456

Re: Upper Providence Township 537
Base Plan
Upper Providence Township
Montgomery County

Dear Mr. Waterman:

We have completed our review of your municipality's updated official sewage facilities plan entitled, "Upper Providence Township, Act 537 Plan, Amendment No. 3" as prepared by EDM Consultants, Inc., dated July 19, 1991, and revised October 1991. The review was conducted in accordance with the provisions of the Pennsylvania Sewage Facilities Act.

Approval of the Plan is hereby granted.

The plan provides for the re-rating of the Montgomery County Sewer Authority "Oaks" sewage treatment plant by 0.2132 MGD to a Total Annual Average Capacity of 8.7132 MGD.

If you have any questions regarding this matter, please feel free to contact me at the above number.

Very truly yours,

JOSEPH A. FEOLA
Regional Water Quality Manager

cc: Montgomery County Health Department
Montgomery County Planning Commission
Montgomery County Sewer Authority
EDM Consultants, Inc.
Planning Section
Division of Municipal Facilities and Grants
Re 30 (4)14.20



Amended Appendix A-22-b
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

FIELD OPERATIONS - WATER MANAGEMENT PROGRAM

Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428
215 832-6130

JUN 28 1993

Mr. George W. Waterman, III
Upper Providence Township
1286 Black Rock Road, Box 406
Oaks, PA 19456

RECEIVED
JUL 02 1993
EDM CONSULTANTS

Re: Act 537 Plan Update
Upper Providence Township
Montgomery County

Dear Mr. Waterman:

We have completed our review of your municipality's updated Official Sewage Facilities Plan entitled Mingo Creek Pump Station No. 1, Second Avenue Pump Station No. 2, Planning Document Act 537 Plan Addendum No. 4 as prepared by EDM Consultants, Inc., dated March 1993. The review was conducted in accordance with the provisions of the Pennsylvania Sewage Facilities Act.

Approval of the plan update is hereby granted.

The plan provides for upgrade and expansion of the Mingo Creek Pump Station No. 1 from the current pumping rate of 900 gpm to 1600 gpm and the upgrade of the Second Avenue Pump station No. 2 with no change in the current pumping rate.

If you have any questions regarding this matter, please feel free to contact me at the above number.

Very truly yours,

JOSEPH A. FEOLA
Water Management Program Manager

cc: Montgomery County Health Department
Montgomery County Planning Commission
Mr. Dingman
Planning Section
Division of Municipal Facilities and Grants
Re 30 (SMC)160.1

Complaints in Upper Providence Township

Pending Complaints:

1021 Egypt Road

Septic System malfunctioning. System being monitored.

202 Walnut Street

Septic System discharging into the canal. System being pumped and trying to have homeowners connect to public sewers.

484 Fruit Farm Road

Severe malfunction from Septic System. Waiting for applications for testing to be sent back to office.

Completed Complaints:

101 Yerkes Road

Discharging overflow pipe from the cesspool. Pipe capped.

1889 East Ridge Pike

Toilets in restroom backing up. System pumped and lines cleaned out.

992 South Lewis Road

Possible malfunction. Case closed after several investigations revealed no malfunction at those times.

1635 West Main Street

Septic system malfunctioning. Repairs made to the system. Company served by septic system is no longer in business.

521 South 4th Street

Cesspool overflowing. Property now served by public sewer.

MODEL ORDINANCE

AN ORDINANCE GOVERNING MAINTENANCE OF
SEPTIC TANKS SERVING ON-LOT SEWAGE SYSTEMS

The [Council, Board of Supervisors] of the [Borough, Township] of _____, in the County of _____ and the Commonwealth of Pennsylvania, hereby ordains:

Section I. Definitions

Absorption area - A component of an individual or community sewage system where liquid from a septic tank seeps into the soil; it consists of an aggregate-filled area containing piping for the distribution of liquid and the soil or sand/soil combination located beneath the aggregate.

Individual or community on-lot sewage system - A system of piping, tanks or other facilities serving either a single lot or two or more lots and collecting, treating and disposing of domestic sewage into an absorption area.

Person - An individual, association, public or private corporation for profit or not-for-profit, partnership, firm, trust, estate, department, board, bureau or agency of the United States, Commonwealth, political subdivision, municipality, district, authority or other legal entity which is recognized by the law as the subject of rights and duties. The term includes members of an association, partnership or firm and the officers of a local agency or municipal, public or private corporation for profit or not-for-profit.

Septic Tank - A treatment tank that provides for anaerobic decomposition of sewage to take place prior to discharge to an absorption area.

Section II. Responsibilities of persons who own properties served by individual or community on-lot sewage systems.

Every person who owns a property on which a septic tank is located within _____ [Borough, Township] shall comply with the following:

A. Have the septic tank on their property cleaned by a pumper/hauler approved by this [township/borough] every three years or whenever an inspection of a septic tank reveals that the septic tank is filled with solids or scum in excess of 1/3 the liquid depth of the tank.

B. Provide the [Township of, Borough of] _____

with a receipt documenting the date on which the tank was cleaned by a pumper/hauler or inspected by a person authorized by this [township, borough] documenting that the solids and scum in the tank have not reached a depth that requires cleaning in accordance with the criteria of Section II(A). Such receipt must be submitted to the [township, borough] within 30 days of the cleaning or inspection.

Section III. Notice to Comply/Notice of Non-Compliance.

The [Council, Board of Supervisors] of the [Borough, Township] of _____, or any officer of the Township designated thereby for this purpose, is hereby authorized to give notice, by personal service or by United States mail, to the person who owns a property on which a septic tank is located, directing and requiring such owner to clean the septic tank and provide the [Borough, Township] with a receipt documenting the date on which the septic tank was cleaned or inspected.

Section IV. Violations and Penalties.

Any person who shall violate any provision of this Ordinance shall, upon conviction thereof for each violation, be subject to a fine of up to _____ dollars, plus costs of prosecution.

Section V. Effective Date.

This Ordinance shall become effective _____ days after the final enactment or adoption and shall remain in full force and effect until amended or revoked.

Duly Enacted and Ordained this _____ day of _____, 19__ by the [Borough Council/Board of Supervisors] of the [Borough, Township] of _____ County, Pennsylvania, in lawful sessions duly assembled.

ATTEST:

[Borough, Township] of _____
County, Pennsylvania

Secretary

BY:

Chairman of the [Borough Council,
Board of Supervisors]

APPENDIX D

FLOW MONITORING DATA

APPENDIX D
UPPER PROVIDENCE TOWNSHIP

Flow Monitoring

Daily Flow Totals (MGD)

Date	Amelia St.	Brower Ave.	Center Ave.	Hollow Rd.	Longford Rd.	Schuylkill Valley Park	Springertown Road	Schuylkill Interceptor
10/4/96	0.139	(1)	(2)	(1)	(1)	0.714	0.022	1.150
10/5/96	0.126	(1)	(2)	(1)	(1)	0.773	0.023	1.100
10/6/96	0.105	(1)	(2)	(1)	(1)	0.759	0.025	1.060
10/7/96	(1)	(1)	(2)	0.033	(1)	0.755	0.023	1.060
10/8/96	(1)	(1)	(2)	0.030	(1)	0.930	0.029	1.230
10/9/96	(1)	(1)	(2)	0.077	0.206	1.070	0.028	1.780
10/10/96	(1)	(1)	(2)	0.172	0.233	1.250	0.030	1.950
10/11/96	(1)	(1)	(2)	0.206	0.323	1.241	0.026	1.540
10/12/96	(1)	(1)	0.053	No Data	0.263	1.050	0.028	1.310
10/13/96	(1)	(1)	0.049	No Data	0.187	1.080	0.029	1.240
10/14/96	(1)	(1)	0.044	No Data	0.145	0.936	0.025	1.260
10/15/96	(1)	(1)	0.031	No Data	0.165	0.786	0.025	1.200
10/16/96	(1)	(1)	(1)	No Data	0.098	0.693	0.023	1.100
10/17/96	(1)	(1)	(1)	No Data	0.121	0.705	0.021	1.080
10/18/96	(1)	(1)	(1)	No Data	0.082	0.643	0.021	(4)
10/19/96	(1)	(1)	0.104	No Data	0.481	2.090	0.076	(4)
10/20/96	(1)	(1)	0.073	No Data	0.406	1.480	0.053	(4)
10/21/96	(1)	(1)	0.077	No Data	0.491	1.140	0.042	(4)
10/22/96	(1)	(1)	0.053	No Data	0.457	1.078	0.036	(4)
10/23/96	(1)	(1)	(1)	No Data	0.325	0.912	0.029	(4)
10/24/96	(1)	(1)	(1)	(1)	0.398	1.060	0.031	(4)
10/25/96	(1)	(1)	(3)	(1)	0.485	1.080	0.030	1.740
10/26/96	(1)	(1)	(3)	(1)	0.404	1.080	0.033	(4)
10/27/96	(1)	(1)	(3)	(1)	0.252	0.995	0.026	(4)
10/28/96	(1)	(1)	0.061	(1)	(1)	0.787	0.022	(4)
10/29/96	(1)	(1)	0.225	(1)	No Data	0.841	0.016	(4)
10/30/96	(1)	(1)	0.070	(1)	No Data	0.661	0.020	(4)
10/31/96	(1)	(1)	0.159	(1)	No Data	0.676	0.022	(4)
11/1/96	(1)	(1)	0.236	(1)	No Data	0.616	0.023	(4)
11/2/96	(1)	(1)	0.217	(1)	No Data	0.618	0.027	1.320
11/3/96	(1)	(1)	(3)	(1)	No Data	0.574	0.031	1.540
11/4/96				(1)	No Data			
11/5/96				(1)	No Data			
11/6/96				(1)	No Data			
11/7/96				(1)	No Data			

APPENDIX D
UPPER PROVIDENCE TOWNSHIP

Flow Monitoring
Daily Flow Totals (MGD)

Date	Longford Rd.
11/8/96	No Data
11/9/96	No Data
11/10/96	No Data
11/11/96	No Data
11/12/96	No Data
11/13/96	No Data
11/14/96	No Data
11/15/96	No Data
11/16/96	No Data
11/17/96	No Data
11/18/96	(1)
11/19/96	(1)
11/20/96	(1)
11/21/96	(1)
11/22/96	(1)
11/23/96	(1)
11/24/96	(1)
11/25/96	(1)
11/26/96	0.187
11/27/96	0.196
11/28/96	0.068
11/29/96	(1)
11/30/96	(1)
12/1/96	0.074
12/2/96	0.351

NOTES:

1. Level of sewage in pipe was insufficient to permit velocity measurement, therefore, no flow rate was determined.
 2. Meter malfunction resulted in inaccurate level measurements, therefore, no flows were determined.
 3. Flows were not used due to high levels apparently caused by a blockage downstream from the meter.
 4. Meter malfunction resulted in inaccurate velocity measurements, therefore, no flows were determined.
- No Data indicates that a meter malfunction occurred during which no level or velocity measurements were recorded.

TABLE 3-1
UPPER PROVIDENCE TOWNSHIP
Schuylkill Interceptor Flow Monitoring Summary

Monitoring Site	Manhole Location	EDU's	Average Daily Flow (1)	Average of Measured Dry Day's Flow (2)	Average of Measured Wet Day's Flow (3)	Ratio of Avg. Dry Day to Avg. Daily flow	Ratio of Avg. Wet Day to Avg. Daily flow
Springertown Road	S-179	190	52,300	25,500 (11)	35,500	0.49	0.68 (4)
Schuylkill Valley Park	S-75	1,661	456,800	812,900	1,243,500	1.78	2.72 (4)
Amelia Street	S-264	656	180,400	123,200	123,200	0.68	0.68 (5)
Hollow Road	S-362	53	14,600	31,500	151,700	2.16	10.39 (6)
Longford Road	S-392	231	63,500	236,500	337,000	3.72	5.31 (7)
Center Avenue	S-43	210	57,800	47,700	76,700	0.83	1.33 (8)
Brower Avenue	S-425B	183	50,300	(12)	(12)	(12)	(12) (9)
Schuylkill Interceptor	S-4	3,404	936,100	1,201,700	1,625,000	1.28	1.74 (10)

NOTES:

1. Average Daily Flow based on number of EDU's X 275 gpd/EDU.
2. Average of recorded days with no precipitation.
3. Average of recorded days with precipitation and two days following the last day of precipitation. (Precipitation day = rainfall greater than 0.1")
4. Based on 22 "dry" days and 9 "wet" days. (Maximum flow day was 10/19/96)
5. Based on 3 "dry" days (10/4 - 10/6/96). There were no complete "wet" days recorded. (Manhole surcharged on 10/19/96 for 3 hours).
6. Based on 2 "dry" days (10/7 & 10/8/96) and 3 "wet" days (10/9/96 - 10/11/96).
7. Based on 11 "dry" days (10/12-10/18 & 10/24-10/27/96) and 12 "wet" days (10/9 - 10/10 & 10/18 - 10/23 & 11/26-11/28 & 12/1-12/2/96).
8. Based on 5 "dry" days (10/12 - 10/15 & 10/28/96) and 4 "wet" days (10/19 - 10/22/96).
9. Velocities were not consistently recorded due to varying depth of sewage flow below sensor contacts.
10. Based on 13 "dry" days (10/4 - 10/7, 10/12 - 10/17, 10/25, 11/2 - 11/3/96) and 4 "wet" days (10/8 - 10/11/96).
11. Primarily older single family homes and townhouse units. It appears that the flow per EDU for this area is less than the township average of 275 gpd/EDU.
12. Level of sewage flow in pipe was insufficient to permit velocity measurement, therefore, no flow rate was determined.

All flows expressed as gallons per day.

lupedurds