

TABLE 52 FUTURE PUBLIC WATER NEEDS						
Municipality	2006 Total Public Water Supply Capacity (MGD)	2006 Existing & Remedial Water Consumption (MGD)	2006 Residual Allocated Capacity to Serve New Growth (MGD)	2006 Residual Treatment Capacity in EDUs @ Local EDU Use (Units)	Projected New Housing Units 2020 (Units)	Surplus of Housing Units To Be Provided Water Service (Units)
Glen Rock Borough	Unlimited	.161	Unlimited	Unlimited	57	Unlimited
Railroad Borough	Unlimited	.018	Unlimited	Unlimited	3	Unlimited
Shrewsbury Borough	.727	.318	.409	2,669	279	+2,390
Shrewsbury Township	Unlimited	.017	Unlimited	Unlimited	682	Unlimited

Source: York Water Company, Shrewsbury Municipal Water Works, Glen Rock Water Authority, and Table 30

From the preceding analysis, it is apparent that the Region has an abundance of water supply to meet its planned future growth. While nonresidential uses were not specifically calculated in the preceding table, their substantially lower demand for public water will not jeopardize the Region's ability to provide public water over the life of this Plan. While adequate water supply seems assured, there remain tasks to ensure the best level of service possible; the following recommendations are offered toward that end:

1. *As part of this comprehensive planning process, the Region should formally adopt future public water service areas that accommodate proposed growth. Such future service areas should coincide with the planned growth areas identified on the Future Land Use Map.* Once these areas have been established, the Region should lobby the York Water Company to rein in its delineated charter area accordingly.
2. *Shrewsbury Township should adjust its zoning requirements for designated growth areas to require public water service in areas where future service is planned.* In this way, developers can assist in the extension of needed water lines throughout the planned growth areas, and the Township can be spared the difficulty in retrofitting utility lines to an area in the future. This may tend to stage development to areas that are located most closely to existing York Water Company water lines. This may also require an increase in permitted density/lot coverage to help offset the cost of utility line extension. All intensive uses should be required to connect to public water supply.
3. *Shrewsbury Borough should seek to protect its local sources of water supply through a variety of measures.* Enforcement of the wellhead protection zones will serve to ensure that nearby uses and activities do not acutely threaten public water supply. This also requires enforcement by Shrewsbury Township as wellhead protection zones for the Borough's water supply have also been established in the Township
4. *Railroad Borough and Shrewsbury Township should adopt well drilling standards for new uses that are proposed outside of the planned water service areas.* Such standards are usually imposed during the subdivision/land development review process so that water availability can be factored into the design of new lots and uses. These municipalities should also educate those residents in the rural areas with regard to regularly testing their well water.

C. OTHER UTILITIES

Aside from the public sewer and water utilities described earlier in this section, several other utility lines, such as electric, telephone, gas, and cable pass through the Southern York County Region. Many of the rights-of-way (ROW) associated with these utilities have distinct implications for future land use. This Plan only maps major utility lines. *Potential land developers and residents should use the PA One Call System at 800-242-1776 to contact representatives of the various utility companies with regard to any proposed projects.* The locations of the ROWs are plotted on the *Other Utilities Map*.

It is also noted that cellular phone towers are located throughout the Region, some of which include co-located antennas for multiple phone carriers. Southern Region municipalities should promote the use of co-located towers so that a lesser number of towers will be required to offer blanket coverage.

- *Potential land developers and residents should use the PA One Call System at 800-242-1776 to contact representatives of the various utility companies with regard to any proposed projects.*
- *Encourage cellular phone companies to co-locate to limit the number of towers needed in the Region to provide complete coverage.*

D. SOLID WASTE MANAGEMENT AND RECYCLING

In recent years, the management and handling of solid waste has become increasingly sophisticated, and the amount of refuse generated within York County has been on the rise. As a result of these conditions, and in accordance with the Pennsylvania Solid Waste Management Act of 1980 (Act 100) and the Pennsylvania Municipal Waste Planning Recycling and Waste Reduction Act of 1988 (Act 101), a comprehensive municipal waste management plan was prepared for the County. The *York County Municipal Waste Management Plan* was adopted by the County Board of Commissioners in January 1991, ratified by the Region's municipalities in the spring of 1991, and approved by the PA DEP in June 1991.

In preparing the Plan, the County's Solid Waste Management Authority was guided by its policy "to do better than the minimum requirements specified by regulatory agencies." Consistent with this philosophy, the Plan uses a 25-year planning period instead of the required 10-year period, and addresses sludge, septage, and medical wastes, which were not previously addressed in the earlier 1985 Plan. The Plan is intended to provide guidelines for the safe and proper storage, collection, transport, processing, and disposal of municipal waste generated within the County through the year 2015.

SOLID WASTE DISPOSAL

All of the Southern York County Region's municipalities provide trash removal service. Currently, all of the Region's combustible waste goes to the County's Resource Recovery Center, a waste-to-energy incinerator, located in Manchester Township. The average household (family of 4) generates approximately two (2) tons of trash per year. In 2006,

roughly 445,000 tons of waste was used by the Resource Recovery Center to make renewable energy. Through a combustion process, enough continuous electricity to power 20,000 to 30,000 homes is produced. This facility is a benefit to York County as it saves more than 13 acres of land annually that would have been consumed if the waste had to be managed in a landfill. Since the opening of the Resource Recovery Center in 1989, the amount of waste managed by the Center has exceeded seven (7) million tons. To address the continued growth occurring in York County, the Solid Waste Authority recently announced plans to expand the Resource Recovery Center to increase capacity for the future.

The private Modern Landfill in Lower Windsor and Windsor Townships, just south of Yorkana Borough, is permitted by PA DEP to receive municipal and non-hazardous residual wastes, most of which comes from other Pennsylvania counties and nearby states, including Delaware, Maryland, New Jersey, New York and Virginia. It is the County's major active landfill, with an average daily volume of 4,667 tons of waste. The Landfill, which was first permitted by PA DEP in 1978, has a total site area of approximately 535 acres. This includes 223 disposal acres, of which 126 acres are active and the balance is closed with a vegetative cover applied.

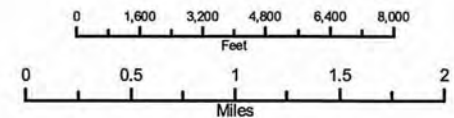
RECYCLING

Although only 14 municipalities in the County are State mandated by Act 101 to provide curbside recycling based on their population and density thresholds, 55 of the County's 72 municipalities currently participate in curbside recycling. This includes the four (4) municipalities in the Southern Region, two (2) of which have adopted a local ordinance that mandates recycling (Glen Rock and Shrewsbury Boroughs). In 2006, recycling of waste was estimated at 26% Countywide; however, if the ash from the incinerator is included, the percentage increases to 57%. One of the York County Solid Waste Management Authority's goals is that all areas of the County with curbside collection of municipal waste will also have curbside collection of recyclables.

The recycling programs in the Region each consist of weekly curbside collection of aluminum cans, clear/colored glass, steel/bi-metal cans, plastics, and newspaper. Glen Rock Borough additionally provides leaf pick-up and mulching. Although these programs are all operating effectively, *enhancements are recommended, such as provision for recycling of florescent bulbs, batteries, electronics and other hazardous household materials. Additionally, it would be beneficial for each municipality to place recycling bins at their park facilities.*



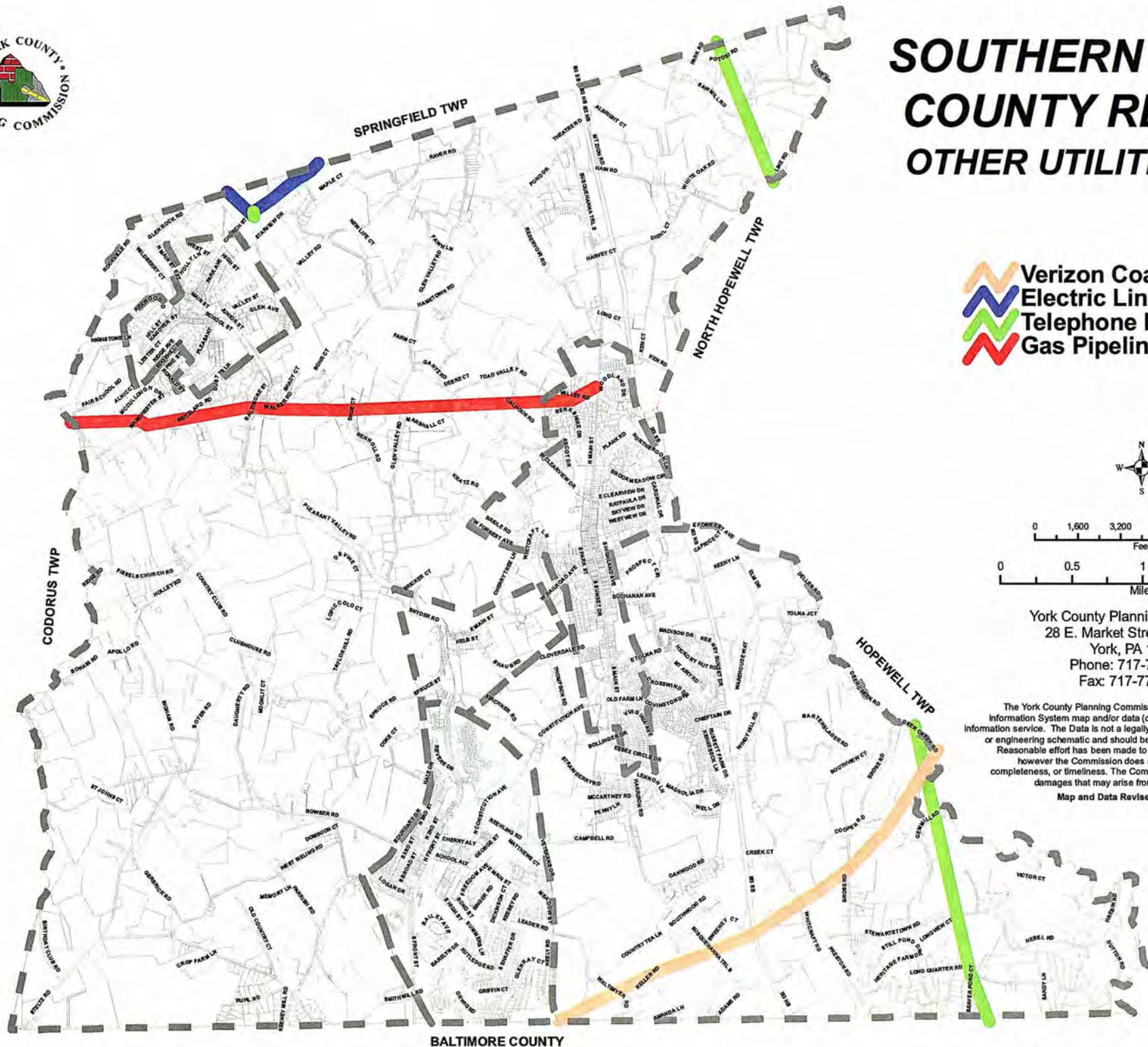
SOUTHERN YORK COUNTY REGION OTHER UTILITIES MAP



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XII. TRANSPORTATION SYSTEM



Mobility has become one of the most sought-after qualities of life of this century. The widespread use and development of automobiles, trucks and their road networks have enabled motorists to travel independently with great flexibility as to origins and destinations. Only recently, with increased congestion, has society begun to realize that the extensive use of the automobile may, in fact, be threatening both mobility and safety. This realization has led to efforts to better understand the relationship between transportation planning and land use planning, and has created renewed interest in alternative modes of transport.

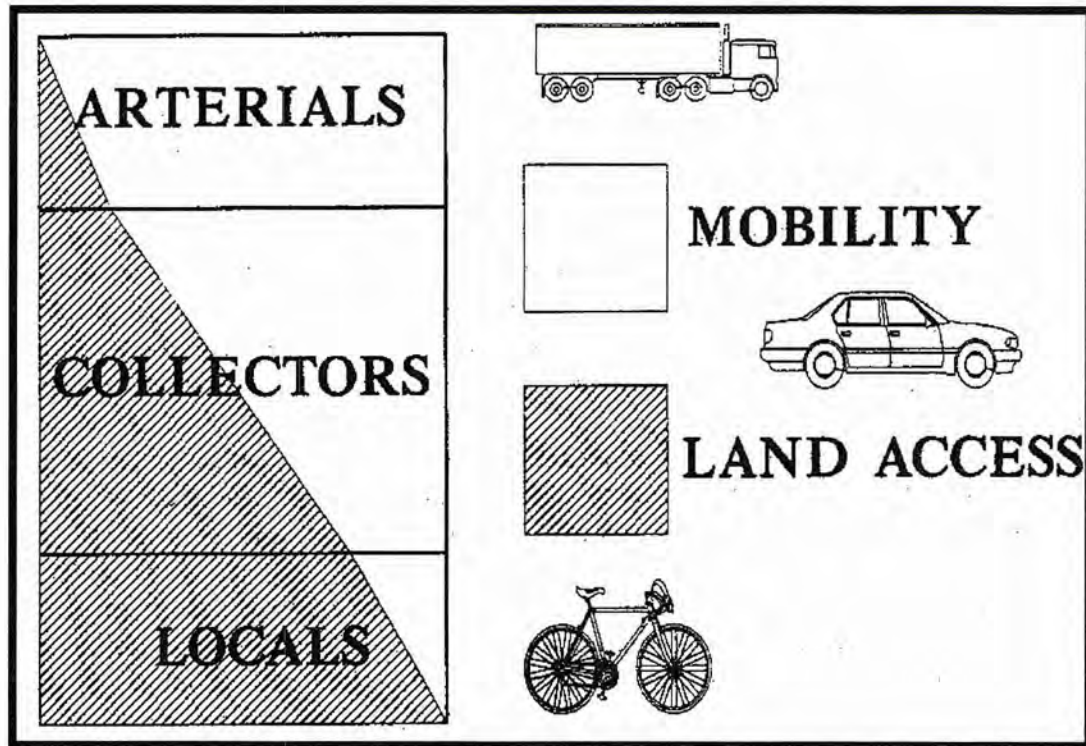
This chapter will inventory the Southern York County Region's transportation system, beginning by categorizing roadway functional classifications, as determined by the York County Planning Commission, describing roadway design standards, and presenting available traffic volume data and accident locations according to PennDOT records. A brief discussion of regional traffic impacts is followed by a description of alternative modes of transport. All of this data is then analyzed and applied to the Region's development objectives and other available plan information to form the basis for the chapter's recommendations on future transportation needs, land use scenarios and implementation strategies. Such information should also be useful in reviewing traffic studies associated with proposed developments; each municipality should adopt comprehensive traffic impact study regulations within their subdivision and land development ordinances.

A. ROADWAY CLASSIFICATIONS AND DESIGN STANDARDS

Functional classification of roadways refers to a system by which roads are described in terms of their utility. Theoretically, roads provide for two separate functions. First, roads provide for mobility—the ability to go from one place to the next. Second, roads provide a measure of access to adjoining properties. Transportation experts use these two roadway characteristics to determine a road's functional classification.

The diagram on the following page depicts the relationship between roadway mobility and roadway land access for each of the three (3) general road types: arterials, collectors and locals. Roads that provide for greater mobility provide for reduced land access, and vice versa. This important relationship should always be considered when allocating future land uses along existing or planned roads. These basic road types can be further subdivided into any number of different categories, depending upon the complexity of the roadway network. However, for the purpose of this Plan, the Region's roadway network is described as consisting of arterials, major collectors, minor collectors, and local roads. The roads within the Region are classified and identified on the *Roadway Characteristics Map*.

FIGURE 21
RELATIONSHIP BETWEEN MOBILITY VS. LAND ACCESS
IN ROADWAY FUNCTIONAL CLASSIFICATION



ARTERIALS

Arterials are intended to provide for a greater degree of mobility than land access. Hence, individual driveway intersections with arterials should occur infrequently. Arterials generally convey between 10,000 and 25,000 average daily trips (ADT) for distances greater than one (1) mile. Arterials often connect urban centers with outlying communities and employment or shopping centers. Consequently, arterials are often primary mass transit routes that connect with “downtown” areas of nearby communities.

The following Table sets forth design standards associated with arterial roads:

TABLE 53						
ARTERIAL ROAD DESIGN STANDARDS						
Design Standards	No. of Lanes and Width	Shoulders and Width	Border Areas and Width	Median Width	Right-of-Way Width	Design Speed* (mph)
Maximum	5 x 12 ft.	2 x 10 ft.	2 x 20 ft.	6 ft.	126 ft.	55
Minimum	2 x 11 ft.	2 x 8 ft.	2 x 2 ft.	—	42 ft.	40

* Design Speed is not the posted speed.

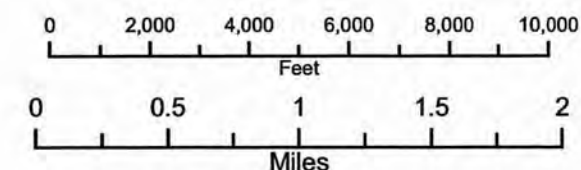
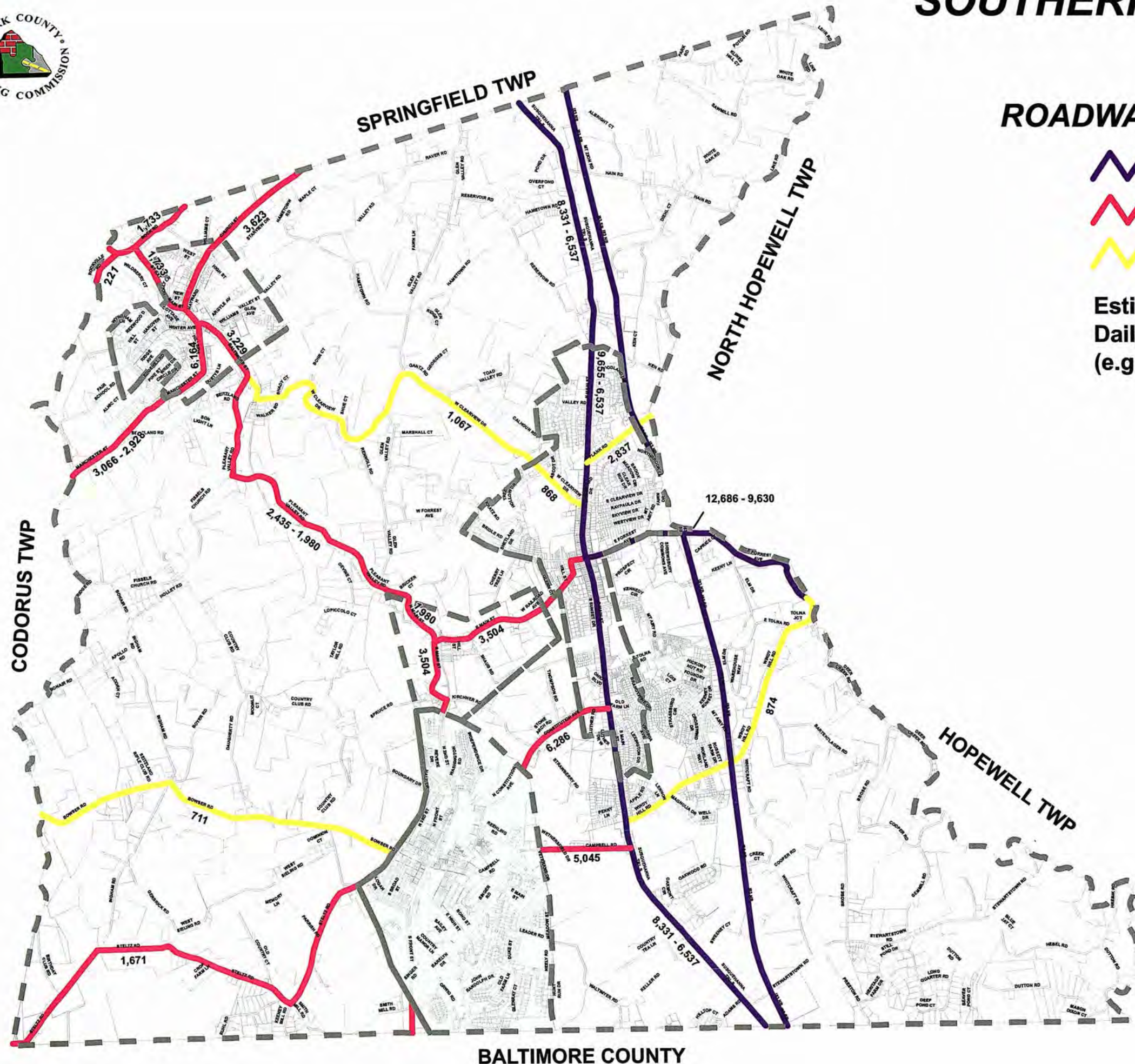


SOUTHERN YORK COUNTY REGION

ROADWAY CHARACTERISTICS MAP

-  Arterial/Interstate
-  Urban/Rural Major Collector
-  Minor Collector

Estimated Annual Average
Daily Traffic Volume (2006)
(e.g. 6,789 - 1,234)



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The following PennDOT data summarizes the existing characteristics of the Region's arterial roadways:

<p>TABLE 54</p> <p>ARTERIAL ROADWAY CHARACTERISTICS</p>							
Road Name	Route No.	Municipality	Est. AADT (2006)	No. Lanes	Cartway Width	Shoulder Widths/Ea.	MPH
I-83	0083	Shrewsbury Twp.	NB – 22,417	2	12'/lane	9.5'/lane	65
			SB – 21,882	2	12'/lane	9.5'/lane	65
Susquehanna Trail	3001	Shrewsbury Twp.	8,331 – 6,537	2	22	3–6	35–45
Main Street	3001	Shrewsbury Boro.	9,655 – 6,537	2	22–38	0 ¹ –6	25–35
Forrest Avenue	0851	Shrewsbury Boro./Twp.	21,807 – 9,630	2	22–24	0–5	25–45

As compared to the 1998 estimated annual average daily traffic (AADT) volumes presented in the 2000 Plan, all arterial roadways have experienced an increase in traffic. I-83 has experienced the most significant increase, approximately 58% northbound and 55% southbound. Increased traffic on the Susquehanna Trail ranged from seven percent (7%) to 17%. In the case of Main Street and Forrest Avenue, the AADT resulted in a traffic increase on the “high” end and a traffic decrease on the “low” end. For Main Street, the high end increased by 15% and the low end decreased by 25%; while Forrest Avenue experienced a high-end increase of 71% and a low end decrease of five percent (5%). A 1995 study by the York County Planning Commission listed Forrest Avenue, between Tolna Road in Shrewsbury Township and Main Street in Shrewsbury Borough, as being among the 16 most congested roads in the County.

MAJOR COLLECTORS

Major collectors provide for medium length travel distances (generally less than one mile) and convey between 1,500 and 10,000 ADT. Major collectors also provide land access to major land uses, such as regional shopping centers, large industrial parks, major subdivisions, and community-wide recreation facilities. Major collectors primarily serve motorists between local streets and community-wide activity centers or arterial roads.

The following sets forth design standards for major collector roads:

<p>TABLE 55</p> <p>MAJOR COLLECTOR ROAD DESIGN STANDARDS</p>					
Design Standards	No. of Lanes and Width	Shoulders and Width	Border Areas and Width	Right-of-Way Width	Design Speed* (mph)
Maximum	2 x 12 ft.	2 x 10 ft.	2 x 20 ft.	84 ft.	50
Minimum	2 x 11 ft.	2 x 8 ft.	2 x 2 ft.	42 ft.	40

* Design Speed is not the posted speed.

The following table summarizes the characteristics of the Region's major collector roadways:

TABLE 56 URBAN/RURAL MAJOR COLLECTOR ROADWAY CHARACTERISTICS							
Road Name	Route No.	Municipality	Est. AADT (2006)	No. Lanes	Cartway Width	Shoulder Widths/Ea.	MPH
Church Street	3008	Shrewsbury Twp.	3,623	2	18	3	35-40
Church Street	3008	Shrewsbury Twp.	3,623	2	18-26	0-3	35
Rockville Road	3012	Shrewsbury Twp.	221	2	20	0-2	35
Glen Rock Road/ Main Street Ext.	0616	Shrewsbury Twp.	1,733	2	22	0-3	50
Main Street/Baltimore Street	0616	Glen Rock Boro.	3,229	2	18	0	25
Manchester Street	0216	Glen Rock Boro.	6,164	2	20-26	0-3	25
		Shrewsbury Twp.	3,066 – 2,928	2	20-22	0-3	45
Pleasant Valley Road	0616	Shrewsbury Twp.	2,435 – 1,980	2	16-21	0-5	25-40
Main Street North	0616	Railroad Boro.	1,980	2	18	0	30
Main Street East & South	0851	Railroad Boro.	3,504	2	20	3	30-35
Steltz Road	0851	Shrewsbury Twp.	1,671	2	20	3	35-45
Railroad Avenue W	0851	Shrewsbury Twp.	3,504	2	20	3	30
Park Avenue	0851	Shrewsbury Boro.	N/A	2	38	0	25
Forrest Avenue	0851	Shrewsbury Boro.	12,686 – 9,630	2	24	0	25
Constitution Avenue	3007	Shrewsbury Twp./Boro.	6,286	2	18	5	35
Campbell Road	3002	Shrewsbury Twp.	5,045	2	20	2	35

From 1998 to 2006, average annual daily traffic volumes on the urban/rural major collector system increased in some cases and decreased in others. While the highest increase was on Rockville Road (89%) in Shrewsbury Township, this road continued to have the least AADT. Main Street East and South in Railroad Borough and Railroad Avenue West in Shrewsbury Township both experienced a traffic volume increase of 13.5%. The most significant decrease in traffic volume was on Glen Rock Road/Main Street Extended in Shrewsbury Township (55%). As recommended in the 2000 Plan, Church Street, Constitution Avenue, and Campbell Road have been changed from Minor Collectors to Urban/Rural Major Collectors due to their traffic volumes.

MINOR COLLECTORS

Minor collectors provide for equal amounts of mobility and land access. These streets can serve as the main circulation roads within large residential neighborhoods. Trip lengths tend to be shorter in “developed” neighborhoods, like that of a borough, due to the presence of nearby destinations or higher order roads.

Table 58 lists the design standards for minor collector roads:

TABLE 57 MINOR COLLECTOR ROAD DESIGN STANDARDS					
Design Standards	No. of Lanes and Width	Shoulders and Width	Border Areas and Width	Right-of-Way Width	Design Speed* (mph)
Maximum	2 x 11 ft.	2 x 10 ft.	2 x 20 ft.	86 ft.	50
Minimum	2 x 10 ft.	2 x 4 ft.	2 x 2 ft.	32 ft.	40

*Design Speed is not the posted speed.

The following table summarizes the characteristics of the Region's minor collector roadways:

TABLE 58 MINOR COLLECTOR ROADWAY CHARACTERISTICS							
Road Name	Route No.	Municipality	Est. AADT (2006)	No. Lanes	Cartway Width	Shoulder Widths/Ea.	MPH
West Clearview Drive	3006	Shrewsbury Boro./Twp.	1,067	2	18-20	0-4	35
Clearview Drive	3006	Shrewsbury Boro.	868	2	20	4-5	35
Plank Road	2074	Shrewsbury Boro.	2,837	2	20	2-7	40
Bowser Road	3004	Shrewsbury Twp.	711	2	14	5	45
Windy Hill Road	2078	Shrewsbury Twp.	874	2	18	0-2	35

The minor collector roadway system also experienced a mix of increases and decreases in average annual daily traffic volumes from 1998 to 2006. The most significant increases were on Campbell Road (29%) in Shrewsbury Township and Plank Road (20%) in Shrewsbury Borough, while the most significant decreases were on Clearview Drive (52%) in Shrewsbury Borough and West Clearview Drive (24%) in Shrewsbury Township.

LOCAL ROADS

Local roads are intended to provide immediate access to adjoining land uses. These roads are generally short and narrow, and comprise the bulk of road area within urban setting developments and rural areas. Local roads are intended to only provide for transportation within a particular neighborhood, or to one of the other road types already described. All of the roads not previously classified as arterials or collectors are considered local roads.

The following describes the design standards for local streets.

TABLE 59 LOCAL ROAD DESIGN STANDARDS					
Design Standards	No. of Lanes and Width	Shoulders and Width	Border Areas and Width	Right-of-Way Width	Design Speed* (mph)
Maximum	2 x 11 ft.	2 x 8 ft.	2 x 8 ft.	54 ft.	40
Minimum	2 x 10 ft.	2 x 4 ft.	2 x 2 ft.	28 ft.	40

*Design Speed is not the posted speed.

B. ALTERNATIVE FORMS OF TRANSPORTATION

When considering the transportation system serving the region, it is important to look at alternative forms of travel. These include bus, air, and rail transportation, as well as carpooling and pedestrian/bicycle travel.

BUS TRANSPORTATION

Rabbitransit, based in York City, is the primary provider of public transportation services in York County. It offers fixed route, shuttle, and paratransit services. In addition, on February 2, 2009, rabbitransit initiated an Express Bus Service three (3) year demonstration project that provides service between York and Northern Maryland along the I-83 corridor. If ridership demands prove to be sufficient, the service will be continued into the future.

Only one (1) fixed bus route (#17) services the Southern Region. The weekday service route currently begins at the Downtown Transfer Center in York City and ends at Shrewsbury Commons. Interim stops on the route include Apple Hill Medical Center, Jacobus Borough, and Loganville Borough. However, through a program entitled "Stop Hopper," residents in Glen Rock and Shrewsbury Boroughs can obtain bus service to Shrewsbury Commons where they can access Fixed Route 17 to York. This service requires an advance reservation and there are no scheduled pick-up times. A transition to scheduled stops and pick-up times is under development, but advanced reservation will still be required. The bus will NOT stop unless a reservation has been made.

Paratransit service provides curb-to-curb van service countywide for the general public. All of the vans are wheelchair equipped. The system operates on a 24 hour advanced reservation basis. Although the service is available to anyone who wishes to use it, the relatively high fares make it cost prohibitive to use on a regular basis. Senior citizens and persons with disabilities may qualify for discounts. The majority of users, however, have some type of sponsorship.

RAIL TRANSPORTATION

Presently, there is no passenger rail service available in York County. The nearest facilities are the AMTRAK terminals in the cities of Harrisburg and Lancaster. A light rail passenger service to Baltimore City and Baltimore Washington International Airport can be accessed at Hunt Valley.

Three (3) rail freight providers operate in York County, but none of the lines are located within the Southern Region. These facilities are primarily located within the Greater York and Hanover areas, as well as along the Susquehanna River.

AIR TRANSPORTATION

The only air facility located in the Region is a small private airstrip in northern Shrewsbury Borough. Shoestring Airport, a small public use airport for ultra light aircraft, is located just outside the Region in neighboring North Hopewell Township. Harrisburg International Airport, to the north, and Baltimore Washington International Airport, to the south, offer the nearest passenger airline service. These facilities are located equal distance from the Region.

CARPOOLING

There is one (1) Park & Ride Lot located in the Southern Region. It is situated on Forrest Avenue (SR 851), just east of the Exit 4 interchange of Interstate 83. Park & Ride lots serve to increase carpooling and ride sharing opportunities among commuters, thereby reducing the number of automobiles on the roads and lessening the amount of air pollution.

In an effort to reduce congestion along the southern corridor of Interstate 83, rabbittransit launched a regional vanpool initiative in 2007. This program is conducted in partnership with VPSI, Inc., the largest commuter vanpool provider in the world, and Commuter Services of South Central Pennsylvania. Although targeted to the southern corridor, vanpools can originate and travel to many destinations; participants determine their daily schedule and commuter route. The vanpool program provides a vehicle, 24-hour roadside assistance, maintenance, insurance and an emergency ride home program for a monthly fee that is shared by the participants. As an incentive, rabbittransit offers subsidies to vanpools. Rabbittransit also encourages employers to become involved in this initiative and offer incentives to employees who take advantage of a vanpool.

PEDESTRIAN/BIKE FACILITIES

As discussed in Chapter X, Parks and Recreation, Heritage Rail Trail County Park traverses the Southern Region and provides a public corridor for non-motorized pedestrian and bicycle travel, as well as horseback riding. This 21-mile corridor connects with Maryland's Northern Central Rail (NCR) Trail that extends 20 miles south to its terminus in Ashland, Maryland. The Heritage Rail Trail is open to the public year round from dawn to dusk.

C. TRAFFIC SAFETY

In addition to reducing congestion, traffic safety is another important consideration in the scheduling of roadway improvements. High accident locations result from factors such as inadequate road design, insufficient sight distance, inappropriate relationship between land use and road classification, improper speed limits, and driver frustration and/or error. This section describes traffic accident statistics within the Region to gain a general understanding of their location and severity so that planning recommendations can acknowledge them.

The Pennsylvania Department of Transportation, Center for Highway Safety, provided accident data for the period between 2002 and 2006. This five-year period provides the most recent reportable accident data available. A reportable accident is one in which an injury or fatality occurs, or at least one of the vehicles involved requires towing from the scene. The locations of the majority of accidents discussed on the following pages have been plotted on the *Traffic Accidents Map*.

Specific accident locations are ranked by frequency for the Region. These specific locations are ranked and reported in two (2) categories. First, accidents that occurred at specific intersections of two (2) or more roads are identified and ranked. Second, accidents that occurred along a road, or mid-block accidents, are enumerated and ranked. Mid-block accidents also include accidents that occurred along public roads at an intersection with a driveway.

INTERSECTION ACCIDENTS

The following table ranks those intersections that recorded an average of at least one (1) traffic accident per year from 2002 through 2006:

TABLE 60			
INTERSECTION ACCIDENTS (2002-2006)			
Rank	Intersection	Municipality	Total No. Accidents
1	Forrest Avenue & Mt. Airy Road	Shrewsbury Township	8
1	Forrest Avenue & Southbound I-83 Ramps	Shrewsbury Township	8
2	Main Street & Constitution Avenue	Shrewsbury Borough	7
3	Pleasant Valley Road & Fissels Church Road	Shrewsbury Township	6
3	Forrest Avenue & Windy Hill Road	Shrewsbury Township	6
3	Susquehanna Trail & Campbell Road	Shrewsbury Township	6

The Forrest Avenue/Mt. Airy Road, Main Street/Constitution Avenue, and Susquehanna Trail/Campbell Road intersections continue to be locations experiencing a significant number of accidents. The other intersections listed above did not yield an average of at least one (1) traffic accident per year during the prior five (5) year study period (1992-1996).

MID-BLOCK ACCIDENTS

The following table ranks the mid-block sites that averaged at least one (1) traffic accident per year from 2002 through 2006:

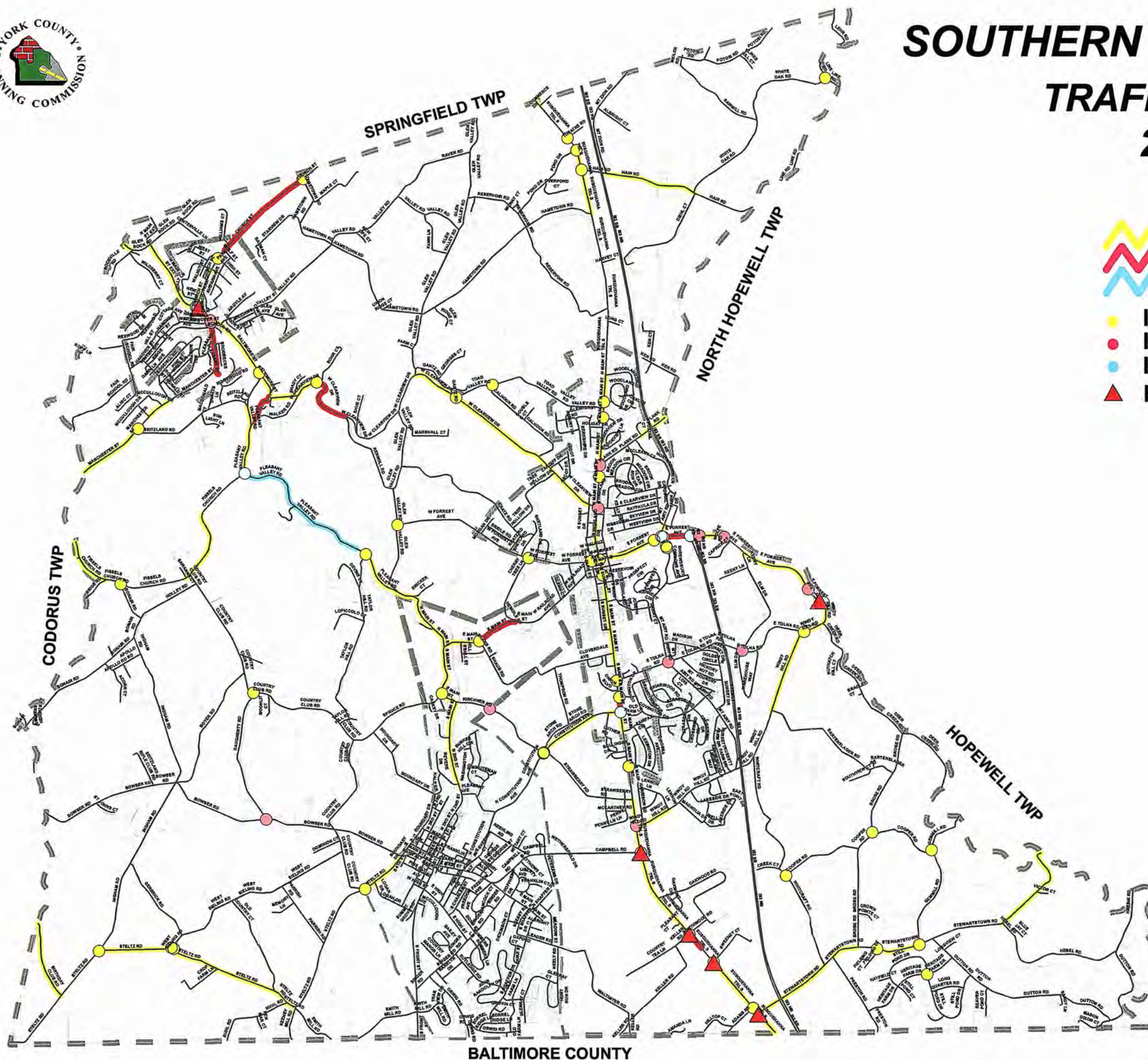
TABLE 61				
MID-BLOCK ACCIDENTS (2002-2006)				
Rank	Route	Between	Total No. Accidents	Municipality
1	Pleasant Valley Road	Taylor Road & Fissels Church Road	22	Shrewsbury Township
2	Pleasant Valley Road	Snyder Road & Glen Valley Road	9	Shrewsbury Township
2	Susquehanna Trail	Southwood Road & Keller Road	9	Shrewsbury Township
3	Forrest Avenue	Mt. Airy Road & I-83 Ramps	7	Shrewsbury Township
4	Manchester Street	High Rock Street & Hanover Street	6	Glen Rock Borough
4	Main Street	Old Farm Road & Shaffer Avenue	6	Shrewsbury Borough
4	Pleasant Valley Road	Seitzland Road & Clearview Drive	6	Shrewsbury Township
4	Church Street	Wolf Street & Hametown Road	6	Shrewsbury Township
5	Main Street	Water Street & Main Street North Ext	5	Glen Rock Borough
5	West Clearview Drive	Bohr Court & Rennoll Road	5	Shrewsbury Township



SOUTHERN YORK COUNTY REGION

TRAFFIC ACCIDENTS MAP

2002 THRU 2006



- Midblock with 1 - 4 Accidents
- Midblock with 5 - 9 Accidents
- Midblock with 10 - 20 Accidents
- Intersection with 1 - 4 Accidents
- Intersection with 5 - 9 Accidents
- Intersection with 10 - 60 Accidents
- Fatalities



0 2,000 4,000 6,000 8,000 10,000
Feet

0 0.5 1 1.5 2
Miles

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Only one (1) of the mid-block accident locations listed above (Main Street between Old Farm Road & Shaffer Avenue in Shrewsbury Borough) was included as a significant accident location in the 2000 Plan. The number of accidents during a five (5) year time span, however, has dropped from 12 (1992-1996) to six (6) (2002-2006).

FATALITIES

The following describes those fatal accidents recorded within the Region from 2002 through 2006:

TABLE 62 TRAFFIC FATALITIES (2002-2006)						
Accident No.	Year	Principal Road / Municipality	At Intersection or Between Roads	Persons Killed	Type of Accident	Contributing Factors
1	2003	Main Street / Glen Rock Borough	Church Street	2	Rear-End	Failure to respond to traffic control device
2	2003	Susquehanna Trail / Shrewsbury Township	Campbell Road	1	Angle	Ran stop sign
3	2004	Forrest Avenue / Shrewsbury Township	Deller Road	1	Head-On	Driving wrong side of road
4	2005	Susquehanna Trail / Shrewsbury Township	between Maryland State Line & Stewartstown Road	1	Hit Fixed Object	Slippery road; driver drinking
5	2005	Susquehanna Trail / Shrewsbury Township	between Keller Road & Southwood Road	1	Hit Fixed Object	Unknown
6	2006	Susquehanna Trail / Shrewsbury Township	between Adams Road & Sweeney Court	1	Head-On	Driving wrong side of road
7	2006	Keeney Sunset Drive / Shrewsbury Township	Unknown	1	Non-Collision	Unknown

Only four (4) traffic accidents with fatalities occurred during the five (5) year study period (1992-1996) included in the 2000 Plan as compared to seven (7) between 2002 and 2006. None of the locations listed above were sites of fatal accidents between 1992 and 1996. With the exception of Keeney Sunset Drive, all of the fatal accident locations were sites of other accidents between 2002 and 2006, with the highest being the intersection of Susquehanna Trail/Campbell Road (6) and the mid-block section of Susquehanna Trail between Keller and Southwood Roads (9).

D. RECOMMENDATIONS

By combining the data researched in the previous sections of this Chapter, several important findings and recommendations are made. These are set forth below and depicted on the *Transportation Improvements Map*:

REGIONAL GATEWAYS

First, it generally appears that the bulk of the traffic entering and traversing the Region comes from either the north or south along I-83 and the Susquehanna Trail. *These gateways to the Region should then provide (1) priority locations for major land use activities that*

will generate new traffic, and (2) linkages for new/improved roadways that seek to alleviate existing and future traffic congestion. As the Region grows it is highly probable that these same corridors will convey daily traffic to and from the Region. By strategically locating new uses and roads along these corridors, additional congestion can be minimized and existing congestion can be intercepted before it impacts the towns (particularly Shrewsbury Borough) and neighborhoods.

In contrast to the above, once traffic leaves I-83 and/or the Susquehanna Trail, it is generally moving in an east/west direction. The major intersections where these east/west collector roads connect with the Susquehanna Trail (e.g., Church Street, Plank, West Clearview Drive, Forrest Avenue, Constitution Avenue, and Campbell Road) experience much traffic congestion and many traffic accidents. These conditions will only worsen unless additional connectors and improved intersections are made available. In fact, the present traffic volume along Plank Road greatly exceeds the maximum 1,500 vehicles per day usually associated with “minor” collector roads. ***Plank Road should be reclassified as a “major” collector.***

NEW ROADS AND REALIGNMENTS

To reduce congestion and enhance safety, new roads and realignments of existing roads are often necessary. Below is a listing of specific projects that could improve traffic conditions in the Southern Region.

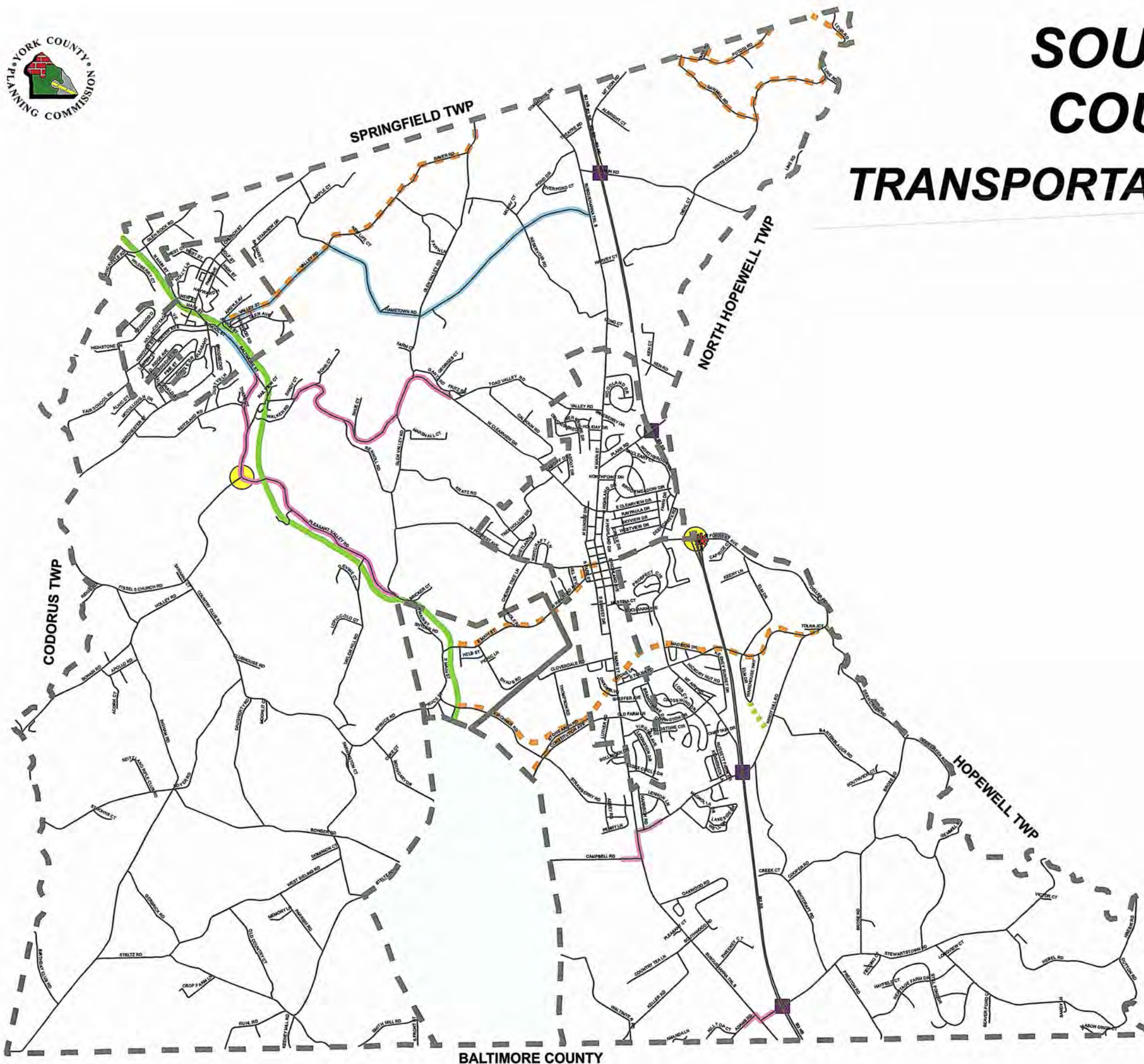
Glen Rock Bypass

Unlike the rest of the Region, traffic to-and-from Glen Rock appears to come from all directions. Annual average daily traffic estimates indicate that the largest single volume of traffic approaches from Codorus Township and Jefferson Borough to the west along Manchester Street (AADT 6,164). This is followed by 3,623 (AADT) vehicles traveling Church Street, to the northeast. Next, 3,229 (AADT) vehicles follow Baltimore Street to the southeast of the Borough and, finally, 1,733 (AADT) vehicles come and go along Main Street Extended to the north. This traffic converges “downtown” creating congestion. All of these roads can be described as rural approaches and presumably carry local traffic, except for Church Street (SR 216) which serves as a collector link with the Region’s two (2) major arteries (Susquehanna Trail and Interstate 83). As additional growth is planned around Glen Rock and in adjoining Codorus Township, it is expected that the Church Street approach will carry more and more traffic.

Traffic fatalities at the terminus of Church Road in Glen Rock have reinforced the need to ***create a “bypass” around the Borough’s center.*** A northern bypass, which would avoid Glen Rock altogether, would likely use Foust and Distillery Roads between Church Road and SR 216, which would be wholly within neighboring Springfield Township. A southern bypass would be in Shrewsbury Township and likely use Hametown Road to Valley Road, entering Glen Rock at Baltimore Street. Bypassing Glen Rock entirely via a southern route would require an expensive new road and would be very difficult because of terrain and the need to traverse Critical Environmental Areas. Should a bypass road ever come to fruition, it is critical to the economic health of the Borough that ***no new commercial development be proposed along this new bypass that would compete with those businesses that are more appropriately provided in “downtown” Glen Rock.***

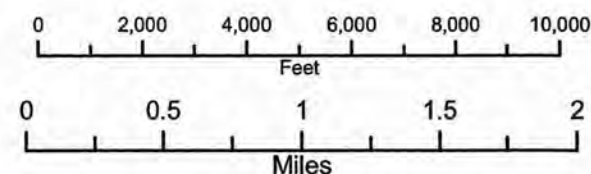


SOUTHERN YORK COUNTY REGION TRANSPORTATION IMPROVEMENTS MAP



Legend

- Bridge Improvements
- Elm Drive Extension
- Heritage Rail Trail County Park
- Future Trail Linkage
- Glen Rock Southern Bypass
- Intersection Improvements
- Park & Ride Lot Improvements
- Road Realignment
- Road



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Map and Data Revised on Jan. 2009

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Road Realignments

As mentioned above, Church Street is expected to carry increasing volumes of traffic as continued growth occurs around Glen Rock Borough. Thus, it is important that this road, which connects Exit 8 of I-83 and Glen Rock Borough, be improved to safely convey the increased traffic. Most particularly, in neighboring Springfield Township, ***Church Street should be moved northward to line-up with Seaks Run Road*** (SR 216). This new four (4)-way intersection should be fitted with exclusive turning lanes to facilitate convenient and safe traffic flow during peak traffic periods, without impacting the existing heavy volumes of through traffic. In time, this intersection will also likely require signalization as volumes increase. The Springfield Township Comprehensive Plan and Official Map Ordinance currently depict this realignment.

Two (2) other approaches to Glen Rock, ***Pleasant Valley Road and West Clearview Drive***, are both winding and have a high frequency of traffic accidents. These roads should be improved through realignment, widening and the installation of shoulders. One particular ***realignment to West Clearview Drive between Glen Valley Road and Bohr Court*** would eliminate most of the tight turns in this corridor and thus be especially beneficial.

The ***intersection of Stewartstown and Adams Roads with the Susquehanna Trail***, as well as the ***intersection of Windy Hill and Campbell Roads with the Susquehanna Trail***, are noted for traffic congestion and unsafe conditions due to their offset alignment. Each of these roads is projected to operate at a peak hour level of service F (extreme delays that warrant improvements) by the year 2021 without any signalization improvements. Thus, it is recommended that these roads be realigned to create two (2) four (4)-way signalized intersections with the Susquehanna Trail.

Elm Drive Extension

In order to alleviate traffic flow between Exit 4 of I-83 and the growth areas south of Shrewsbury and New Freedom Boroughs, Elm Street is proposed as a “future” collector street. This will involve an extension of the roadway southeastward to intersect with Windy Hill Road.

In an effort to acquire additional right-of-way to implement transportation improvement projects, Shrewsbury Township has identified the Stewartstown/Adams Roads and Windy Hill/Campbell Roads realignments, the Glen Rock Bypass and the Elm Drive Extension projects in its Official Map Ordinance.

INTERSECTION IMPROVEMENTS

Intersection improvements are another means to improve safety and reduce congestion. Specific projects for the Region are listed below.

Exit 4 Interstate 83

The intersection of the I-83 ramps with Forrest Avenue (SR 851) has a very high incidence of accidents as noted earlier in this Chapter. An Interchange Feasibility Study for York

County conducted by the Pennsylvania Department of Transportation (PENNDOT) in 2003 included the intersection of I-83 and SR 851. It examined the possibility of reconstructing the existing Exit 4 interchange and suggested five (5) options. Three (3) of the options have been selected for further study. These options are briefly described as follows:

Option B – utilizes a partial cloverleaf design in the southeast quadrant, maintains the existing diamond configuration for the southbound ramps and the northbound entrance ramp and replaces the northbound exit ramp with a partial cloverleaf design.

Option C – reconfigures the interchange as a Single Point Urban Interchange, which involves controlling the intersection with one (1)-three (3) phase signal with minimal design change.

Option E – a short-term option to improve safety that involves lengthening the acceleration and deceleration lanes to meet current design standards and possibly replacement of the I-83 bridge over SR 851.

SR 616 (Pleasant Valley Road) & Fissels Church Road

This “Y” intersection has experienced a high number of accidents. To improve this site, the intersection should be modified to create a “T” intersection with vehicles approaching SR 616 from Fissels Church Road operating under a full-stop condition. Creating a northbound left turn lane could further improve the intersection.

Shrewsbury Township has identified both of these intersection improvement projects in its Official Map Ordinance.

BRIDGE IMPROVEMENTS

The Transportation Plan component of the York County Comprehensive Plan identifies four (4) bridges over I-83, in Shrewsbury Township, as being “low clearance.” As such, they do not meet the Federal height requirement of 16’6” for overpasses. The bridges are located at ***Hain Road/I-83, Plank Road/I-83, Windy Hill Road/I-83, and Stewartstown Road/I-83.*** These bridges should be improved to meet the minimum standard. The Township has identified these bridges in its Official Map Ordinance.

It is also noted that the State Bridge Management System accounts for 12 bridges within the Region. These bridges are routinely inspected and municipalities are made aware of needed repairs or maintenance. However, bridges that measure 20 feet or less in length are not eligible for inspection under the Bridge Management System. In order to assure that all bridges in the Region are well maintained, each municipality should create an inventory of all bridges within their respective jurisdiction, as well as bridges that are jointly owned with a neighboring municipality. Once an inventory has been completed, a method for inspecting and funding improvements to the bridges should be established.

ACCESS CONTROL

As important as road design is land use access. As discussed earlier in this Chapter, an effective conveyor of traffic cannot provide for unlimited land access. Each driveway or roadway intersection introduces conflicting traffic movements that reduce a road’s ability to convey traffic quickly and safely. Therefore, *these new and realigned roads should not be*

burdened with unnecessary driveway and road cuts. Local officials must enforce strict policies that will minimize such connections to ensure efficient traffic flow so that this new route does not become just another of the Region's congested roads. Similarly, *local officials should seek to reduce the number of driveway cuts that plague the Region's existing collector roads.* This process is a long-term strategy that will take many years and should start now! Zoning and subdivision/land development regulations can limit permitted driveway cuts, require wider lots, and provide for incentives and design flexibility that encourages adjoining properties to share vehicular access among other things (e.g., parking, loading, signage, storm water control, etc.). For access on State roads, local officials should persuade PennDOT officials to limit highway access to the minimum required.

One means to accomplish access control is to work with PENNDOT to *develop a Regional Access Management Plan* for the area, especially the growth areas. Some of the primary elements of access management include driveway design standards, limited number of road entrances, traffic impact analysis for new development, left and right turn lanes constructed at road and access drive intersections, installation of medians, adequate parking lot/internal circulation design in developments, shared access to properties, and improved intersection design/spacing.

SHREWSBURY PARK & RIDE LOT

As stated previously, this is the only Park & Ride facility in the Region and it is located on the south side of Forrest Avenue just east of the I-83 Exit 4 Interchange in the Township. As congestion, commute times, and the price of fuel increases, motorists will be looking for ways to save time, money and energy. One option is to participate in a car or van pool. Should more motorists choose this option, an expansion of the Park & Ride lot may be warranted in the future. This would require the acquisition of additional land. Shrewsbury Township has included the Park & Ride Lot in its Official Map Ordinance as a means to acquire land for the expansion should neighboring lands be proposed for development.

PEDESTRIAN IMPROVEMENTS

One of the themes of this Comprehensive Plan is to distinguish between "growth" areas where a full range of public services and utilities are provided, and "rural" areas where the protection of the natural environment is given priority over, and protected from, development. Consequently, areas depicted for growth and development should include conveniently accessible schools, churches and parks. These "growth" areas will also, by function, include higher relative densities. *To offset increased congestion, municipalities should consider requiring the installation of handicapped accessible sidewalks and curbs in all new developments within the identified growth areas.* This could reduce reliance upon vehicular traffic for short trips and promote neighborly interaction. It may not be necessary to line both sides of every street with sidewalks, but some basic system that enables residents to walk safely throughout the development would be a good gauge.

Consideration should be given to widening highways and connecting roads to allow for a bicycle/pedestrian lane contiguous with the cartway. This would create an inviting environment that would encourage use of alternatives to the automobile.

Trail Connections

Chapter X, Parks and Recreation, listed “*Future Linear Park Opportunities*” as connections to the existing York County Heritage Rail Trail. It is important to reiterate these potential trail projects in this Chapter as they also provide opportunities for pedestrian and bicycle travel. Increased linkages to the Heritage Rail Trail can result in more people using trails to travel to their destination as they provide a safe route.

- a. Use the Stewartstown Railroad Company line, which extends from New Freedom Borough to Stewartstown Borough, to link the Heritage Rail Trail with Shrewsbury Borough, as well as other sites along the corridor.
- b. Another possible linkage is from Railroad Borough through the Township to Shrewsbury Borough along a tributary of the South Branch of Codorus Creek. This linkage could begin at Railroad Park and run parallel to Kirchner and Stone Arch Roads, then link up with the Stewartstown Railroad line.
- c. Main Street in Railroad Borough provides a ready-made linkage for bicyclists who wish to cycle into Shrewsbury Borough. This connection has the advantages of providing access to Shrewsbury Borough's attractive historic center and the Sweeney Memorial Park.
- d. Potential extension of the Springfield Township proposed Potosi Greenway into Shrewsbury Township along the portions of Potosi and Park Roads in the Township. To create a greenway loop in this locale, Shrewsbury Township should consider creating a greenway that would extend from Potosi Road along Sawmill, White Oak School, Brillstrick, and Line Roads, then reconnect with Potosi Road. This greenway/trail concept provides a linkage to Spring Valley County Park and has been included in the Shrewsbury Township Official Map Ordinance.
- e. Potential extension of the Glen Valley Road Greenway to connect with Heritage Rail Trail County Park could continue along Glen Valley Road in Shrewsbury Township to Raver Road, parallel Raver Road to Valley Road, and parallel Valley Road to the Heritage Rail Trail in Glen Rock Borough. This route would also parallel the Glen Rock Valley stream, creating another scenic route for pedestrians and bicyclists

Each of these potential connections would likely require that a feasibility study and/or master plan be prepared to determine what measures would be necessary to implement these concepts. In some cases, signage and possibly a bicycle/pedestrian lane may be all that would be needed to create the linear connection, but in other cases a substantial amount of improvement may be warranted. In any event, the goal would be to create a trail with an adequate level of safety for both bicyclists and pedestrians.

OTHER REMEDIAL IMPROVEMENTS

General improvements to bring public roads and intersections into compliance with the minimum design standards set forth in the local Subdivision and Land Development Ordinances should be given consideration as resources permit. Local officials should

program and accomplish those projects that offer the most benefit (maximize traffic flow and minimize safety hazards). Some remedial projects may be accomplished by developers in conjunction with a subdivision or land development plan. Local officials should be ever mindful of the opportunity to partner with the development community in the provision of needed transportation improvements. Currently, only Shrewsbury Township requires developers to submit a Traffic Impact Study in conjunction with major subdivision and land development plans. ***The Boroughs should also require Traffic Impact Studies as a means to identify potential traffic issues and to work with developers to address them.***

In neighborhoods where cut-through traffic, speeding, or accident frequency/severity has become an issue, traffic calming devices may warrant some consideration. Traffic calming devices are intended to reduce vehicle speed; improve safety for motorists, pedestrians and residents; and enhance the quality of life on neighborhood streets. The general methods of traffic calming are active speed reduction controls (constructing barriers to traffic movements), passive speed reduction controls (installation of signage, pavement markings, on-street parking), street-side design (installation of landscaping that changes the appearance of the area and driver attitudes), regional planning efforts that direct external traffic to other routes that can better handle the traffic, and opportunities for the use of alternative modes of transportation.

In giving traffic calming devices consideration, it is important that the traffic issues be specifically identified and that all the device options be evaluated with regard to benefits, drawbacks and cost. For example, although passive speed reduction controls can be relatively inexpensive, they are often ignored and require local enforcement. It is also recommended that neighborhood residents be involved in any discussion and selection of traffic calming devices to get their buy-in and support for the project.

E. TRANSPORTATION IMPROVEMENTS PROGRAMMING

The narrative presented on the following page, which was developed by the York County Planning Commission, describes the process by which transportation improvement projects are submitted, prioritized and approved through a coordinated effort involving local, County and State agencies.

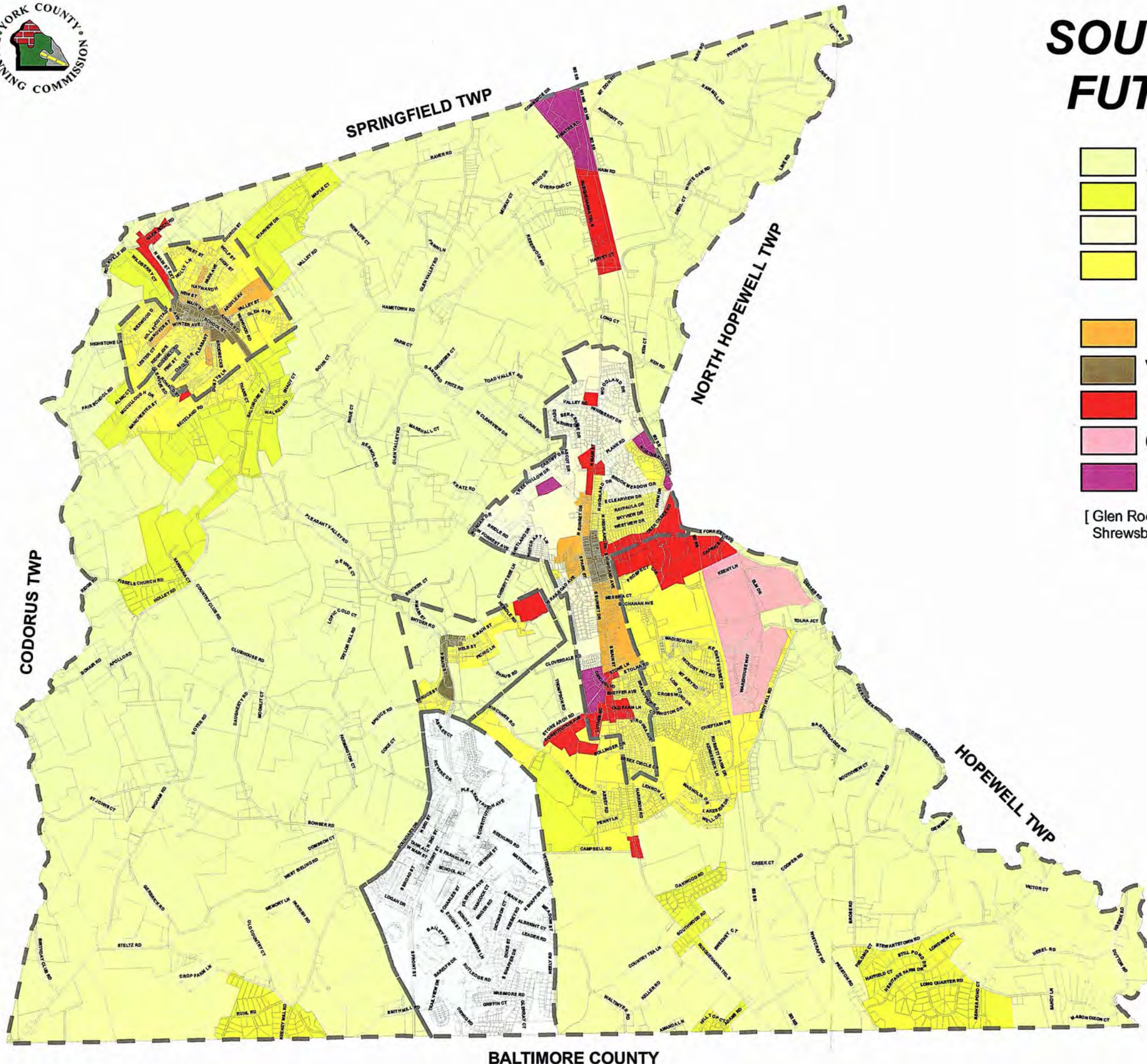
The Region should form its own committee to submit its respective list of priority projects every two (2) years. All municipalities should support the recommendations of the Regional Committee to lend political "muscle" for its selected projects. Regional representatives should also inform their elected State representatives, both of whom are members of the York County Transportation Coalition. This will increase the likelihood that the Region's projects will be given greater consideration.

Transportation Project Prioritization in York County

- a. The York Area Metropolitan Planning Organization (YAMPO) develops three (3) plans that address transportation improvements. The Transportation Improvement Program (TIP) covers the first four (4) years of projects and is detailed in phase, cost and year. The Twelve Year Plan (TYP) identifies projected cost, but arranges projects into three (3) groupings, the first four (4) years (same as TIP), second four (4) years and third four (4) years. The Long Range Transportation Plan (LRTP) addresses the same 12 years as the TYP, but also covers an additional eight (8) to 13 years. The LRTP identifies projects in the first 12 years the same as the TYP, while the final eight (8) to 13 years may show projects or line items by category. All three (3) documents are required to be financially constrained.
- b. Municipalities may submit projects at any time for consideration in the TIP, TYP or LRTP. However, the State Transportation Commission (STC) conducts hearings every two (2) years and it is encouraged that projects be submitted at that time.
- c. YAMPO updates these programs every two (2) years.
- d. YAMPO reviews available financial capacity on all three (3) plans to determine if additional projects can be programmed on all or one of the plans.
- e. YAMPO reviews previously submitted projects based on criteria included in the LRTP.
- f. YAMPO approves a draft TIP, TYP, or LRTP to be submitted to the STC based on projected financial capacity.
- g. The STC finalizes the TIP or TYP.



SOUTHERN REGION FUTURE LANDUSE



- Agricultural (RB,ST)
- Rural Residential (ST)
- Residential-Agricultural (SB)
- Residential Suburban (GRB, RB, ST)/ Residential One-Family (SB)
- Residential Urban (GRB) / Residential (SB)
- Village (GRB, RB, SB)
- Commercial (RB, SB, ST)
- Commercial/Industrial (ST)
- Industrial (SB,ST)

[Glen Rock Borough (GRB), Railroad Borough (RB),
Shrewsbury Borough (SB), Shrewsbury Township (ST)]



0 2,000 4,000 6,000 8,000 10,000
Feet

0 0.5 1 1.5 2
Miles

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Map and Data Revised on Dec. 2009

BALTIMORE COUNTY

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portion; these lands are designated as Residential One-Family. New residential developments with a lower density have occurred in the northern and western parts of the Borough and it is expected that similar development will continue to occur here. These areas are designated as Residential/Agricultural and some of the land is contained within an Agricultural Security Area. Substantial adjoining growth is planned within Shrewsbury Township, as described below.

SHREWSBURY TOWNSHIP - Aside from the Residential Suburban and Commercial growth adjacent to Glen Rock Borough and southwest of Shrewsbury Borough, most of the Township's "suburban style development" is located to the east of Shrewsbury Borough and along the Interstate 83 corridor. West of I-83, Suburban Residential neighborhoods are planned to extend south from behind the Forrest Avenue Commercial area to Windy Hill Road. These neighborhoods will accommodate a variety of dwelling types and provide convenient access to the Shrewsbury Elementary School. The majority of land east of I-83 is designated as Commercial/Industrial and incorporates a large industrial park. In the northern part of the Township, an Industrial area is designated between the Susquehanna Trail and I-83, north of Hain Road, in an area where industrial development had traditionally occurred. Just south of Hain Road, lands are designated as Commercial, again accommodating existing development. Several large-lot residential subdivisions are scattered amid the Township's southern agricultural setting and two (2) areas of older residential development extend into the agricultural areas adjoining Glen Rock Borough; these areas are designated as Rural Residential. The balance of the Township, designated as Agricultural on the Future Land Use Map, is comprised of either severe development constraints, as shown on the Sensitive Areas Map, or prime/productive agricultural soils that are planned for permanent agricultural production. Shrewsbury Township should continue to implement and enforce the existing Agricultural Protection and Critical Environmental Areas zoning provisions to protect these areas.

A. AGRICULTURE

Throughout history, agriculture has played a primary role within the Region; today, this is still true. As the *Prime Agricultural Land Map* contained within Chapter II of this Plan reveals, the Region is dominated by valuable farmlands. These resources are being put to good use by the Region's farmers who have largely embraced the need to preserve their farms. In fact, Shrewsbury Township has a notable distinction as the Township who successfully defended its effective agricultural zoning policies before the Pennsylvania Supreme Court. Many subsequent effective agricultural zoning provisions have been adopted in other municipalities as a result of the Township's successful legal defense. In response to goals expressed at the local level, by the Region and by York County, this Plan continues such commendable efforts by again depicting expansive areas for agriculture within Shrewsbury Township and Railroad Borough. Areas depicted as Agriculture for future use mirror the areas that are currently zoned for agriculture.

In addition to Shrewsbury Township and Railroad Borough, Shrewsbury Borough provides for agricultural uses, including farm buildings, crops, pasture, dairy livestock, poultry, and small animals in its Residential-Agricultural zoning district. This zoning classification is classified as Residential/Agricultural for future use in this Plan. However, this designation is

discussed under the Residential category (see Subsection B.) since it is within a designated growth area.

In planning for agricultural land, it is the policy of the Township and Borough to consider farmland as “developed land;” it is being used to produce a product. Farming is a land-intensive, manufacturing process that converts raw materials into a product, comparable to other industrial operations, with occasional accompanying nuisances of noise, odor and dust. The areas designated as Agriculture are not to be considered as a holding area, but rather as an area having a positive purpose of utilizing quality natural resources for the benefit of the entire community. Shrewsbury Township conducted an exhaustive study of its year 2000 receipts and expenditures that demonstrated the economic benefit of agriculture to every citizen. In essence, agriculture subsidizes services to residential and commercial properties as it costs less than the Township taxes farmers pay to provide services to them. This finding also holds true for Railroad Borough. Lands designated for agricultural use should be protected from interference by incompatible uses that break down the integrity of the area and interfere with normal and customary farming operations.

Under this Plan, areas planned for long-term agricultural use are areas that include concentrations of prime/productive farmlands that have a critical mass to sustain long-term agricultural use and are characterized predominantly by active farming. ***Both Shrewsbury Township and Railroad Borough have placed areas planned for long-term agricultural use in an effective agricultural protection zoning district that severely limits nonagricultural development in favor of continuing agriculture.*** Planned agriculture within these areas also specifically complements adjoining municipalities' similar agricultural planning and zoning designations.

This Plan, as well as Shrewsbury Township and Railroad Borough, recognizes that, in order to promote the economic viability of agricultural operations in areas designated as Agricultural for future use, the division of agricultural parcels and the establishment of non-agricultural uses must be strictly limited. Owners, occupants, and users of any property within the Agricultural areas should be prepared to accept the impacts associated with normal farming practices and become familiar with the “Right to Farm” law.

Out of a concern to avoid conflicts between residential and agricultural uses, Shrewsbury Township restricts residential development in its Agricultural District through use of an area based sliding scale whereby the permissible number of dwelling units increases with the size of the parcel, but not in direct linear proportion. This approach was established by the Township in 1976 and was upheld by the Pennsylvania Commonwealth Court in 1984 (*Boundary Drive Associates vs. Shrewsbury Township*). As depicted below, the sliding scale allows a somewhat higher density on smaller parcels in an effort to conserve the larger parcels. Once the residential development rights allocated to a parcel of land in the Agricultural District have been exhausted, no further residential development is permitted.

SHREWSBURY TOWNSHIP SLIDING SCALE FOR RESIDENTIAL DEVELOPMENT	
Size of Parcel in Agricultural District as it Existed on November 10, 1976	Maximum Number of Dwelling Rights Allocated
Less than 5 acres	1
At least 5 acres, less than 15 acres	2
At least 15 acres, less than 30 acres	3
At least 30 acres, less than 60 acres	4
At least 60 acres, less than 90 acres	5
At least 90 acres, less than 120 acres	6
At least 120 acres, less than 150 acres	7
At least 150 acres	8 plus 1 dwelling for each 30 acres over 150 acres

Other principal non-agricultural uses permitted in the Township's Agricultural District require special exception approval by the Zoning Hearing Board. Specific regulatory criteria have been established for such uses in an effort to assure compatibility, plus additional conditions can be placed on the use by the Zoning Hearing Board, if deemed necessary to protect public health, safety or welfare. The Township also permits an array of compatible accessory uses, many of which are considered agricultural support uses.

Railroad Borough's agricultural protection zoning restricts residential development to one (1) existing or proposed single family dwelling, excluding the prime farmstead, regardless of the parcel size. The dwelling can be located on the farm parcel or on a subdivided lot; the minimum lot size is one (1) acre. No maximum lot size limitations based on soil types are established. *Although the Borough's Zoning Ordinance has been effective in protecting the Rural Agricultural Zone from residential development, the provisions may need to be revised based on a prior court decision.* In 1982, a previous zoning provision in Hopewell Township, which limited residential development in the Agricultural Zone to five (5) new dwellings, regardless of parcel size, was invalidated by the Pennsylvania Supreme Court (*Edward Golla vs. Hopewell Township*). The Court ruled that the Township's Ordinance was flawed because the restriction was so severe that it was not "clearly necessary" to attain the goal of protecting agricultural land and it deprived the property owner without due process.

Another key element of Shrewsbury Township's farmland preservation strategy is a Transfer of Development Rights (TDR) Program. Through this Program, owners of land in the Agricultural District can receive economic benefit from their allocation of development rights while at the same time preserving their own land in agricultural use. Thus, this Program provides a voluntary means to preserve, conserve, and protect prime/productive agricultural land in the Township.

Under the Township's TDR Program, which is a component of its Zoning Ordinance, there are two (2) options for transferring development rights which can generally be described as follows: (1) transfer to a designated Receiving Area where the development rights (DR's) can be used to increase density and/or establish certain principal uses and (2) transfer to the Shrewsbury Township Land Conservancy. To date, however, the TDR

options have only been utilized to a minimal degree. Thus, in an effort to encourage greater use of this important preservation tool, the Township is proposing, through its Zoning Ordinance, to establish Receiving Area Districts that would require the use of transferred DRs, or the payment of an equivalent cash donation to the Shrewsbury Township Land Conservancy, for specific building options.

While the TDR Program is a viable tool to protect prime/productive agricultural land, its value in the Township could be significantly improved by requiring that a “Declaration of Restricted Development” or conservation easement be filed simultaneously with the Deed of Transfer. This would prevent the parcel from being assigned additional development rights through a zoning change and thus preserve the parcel for agricultural purposes in perpetuity. Both the Declaration of Restricted Development and Conservation Easement are preservation tools that run with the land and do not prevent the landowner from selling the property. The concept of conservation easements is further discussed below.

Although the Township and Borough both believe that their Zoning Ordinance can preserve prime farmlands in agricultural use long term, they recognize the ultimate insurance of preservation is the donation or purchase of conservation easements by conservation agencies, such as the York County Agricultural Land Preserve Board and the Farm & Natural Lands Trust of York County. It is recognized that funds for the purchase of conservation easements are limited and that the ultimate protection by this method will be a lengthy process. While funds are not necessary for the donation of conservation easements, there is less landowner interest in these programs. Nevertheless, the existing agricultural protection zoning provisions create a degree of assurance that agricultural activity will continue to remain and demonstrates the importance of keeping the zoning provisions in place until easements can, in fact, be purchased or donated through the available programs. It is further noted that Shrewsbury Township has created a land preservation conservancy to promote the stewardship of its prime agricultural lands and conservation areas. A Conservation Fund was established by the Board of Supervisors in 2002 to preserve prime farmland and valuable open spaces. To date, no monies have been deposited into the Fund; however, an array of options to secure monies for the Fund are under consideration by the Township.

Both the Township and Borough have been very successful in recruiting farmers into their Agricultural Security Area (ASA). Many of the largest and most fertile farms have been so designated; however, the Township's ASA includes many noncontiguous farms that are scattered about the Township. Much of this fragmentation is a result of the undulating topography that separates the best farmland with narrow and steep valleys and ridges. ***Nonetheless, there are some remaining concentrations of important farmland that are not participating in the ASA program. Most notably, several large farms along the Maryland border seem important candidates. In addition, the farms located in the extreme northeast corner of the Township to the east of I-83 should also be solicited to join the ASA so that urban land uses can be kept away from this productive area that is also a high quality watershed.***

The Township believes that prime agricultural lands are a non-renewable resource that should be preserved, even though that preservation may preclude the municipality from absorbing a proportionate share of the County or State's anticipated future growth. The Township believes that prime agricultural lands do not represent "logical" areas for growth and development, but rather, that such growth and development should be directed into areas where it will not mandate the loss of prime farmland. This is in keeping with the provisions of the Pennsylvania Municipalities Planning Code (PA MPC) which requires municipalities to plan for the protection of prime agricultural land and further requires that municipal zoning ordinances protect prime agricultural land. This Plan, however, does involve the Township and the Region absorbing what is perceived to be their proportionate share of the County's anticipated growth and development through the year 2020 within the designated growth area land use categories that are planned for that purpose.

Recent years have seen the advent of concentrated animal feeding operations (CAFOs) and other agribusiness undertakings. These involve the concentration of large numbers of animals on a single tract of land with the feed being brought in from the outside. Because the food these animals eat is not grown on the tract of land where they are housed, very high animal concentrations can be achieved. However, these operations can be as easily sited on low quality farmland as on highly productive farmland. In fact, the housing, if on prime agricultural land, removes that land from agricultural production. These highly concentrated operations often create acute odor impacts on neighboring residents, if not managed properly. These odors can arise from the animals themselves, but more often from their waste products, both at the site where produced and along the roads where such waste is hauled for spreading on land not owned by the owner of the animal operation. Because this waste is generally stored in liquid, as opposed to dry form, the odors are intensified. *Planning is needed to insure that these operations, should they come into the area, will not adversely affect their immediate neighbors, nor the environment, or the community at large.* Regulatory options are severely limited because of the "Right-to-Farm," "Nutrient Management Act," and "Agriculture, Communities and Rural Environment (ACRE) Act," which severely limit options available to local government in efforts to regulate these operations. However, to the extent possible, the Township and Borough must maintain regulations that, on the one hand, encourage the latest agricultural methods and, on the other hand, protect all citizens from adverse effects on their quality of life.

B. RESIDENTIAL

As described in Chapters V and VII of this Plan, the Region has a relatively uniform stock of housing. While there are several different forms of housing, the forms remain similar from one municipality to the next. For example, a suburban neighborhood in Shrewsbury Borough closely resembles its counterpart in Shrewsbury Township. An older "in-town" neighborhood is similar in both Glen Rock and Shrewsbury Boroughs. As a result, this Plan only depicts four (4) separate residential categories (Residential Rural, Residential/Agricultural, Residential Suburban/Residential One-Family, and Residential Urban/Residential) to acknowledge and project residential uses. Before specific recommendations are provided for each of these categories, some general analyses regarding residential land use are offered.

First, the groundwater testing within Central Pennsylvania has revealed widespread groundwater contamination, as well as scattered malfunctioning on-lot disposal systems. In turn, the PA DEP has been requiring an increased reliance on the use of public utilities for planned growth areas, and imposing greater restriction on the use of on-lot disposal systems.

These policies dovetail with local goals and provide a sound basis against widespread rural growth. Consequently, higher density residential growth areas have been targeted for planned utility service areas. ***These planned areas should be largely developed before considering any rezoning of lands located in the Future Growth Area.***

Next, many are becoming aware that farming and residential developments are not particularly compatible. The impacts associated with normal farming operations often produce dust, odors and pests that are bothersome to nearby homeowners unaccustomed to an agrarian lifestyle. On the other hand, impacts generated by residents (litter, illegal dumping, crop damage, traffic, etc.) can make farming more difficult. Thus, residential growth areas and farmlands should be separated by significant natural or man-made boundaries (power lines, roads, slopes, streams, woodlands) to improve compatibility.

Third, it is the responsibility of the Region to provide for a variety of housing types. It is important that the proper amount and location of these various housing types remain compatible with existing development and/or adjoining planned uses. Several different residential categories have been allocated to provide a balanced opportunity for housing of all types and costs throughout the Region. They have been located around existing neighborhoods with similar prevailing densities. An important consideration for the planning within the Boroughs relates to the preservation of their traditional small-town charm. Accordingly, traditional “in-town” neighborhoods have been designated apart from the existing and planned suburban style neighborhoods.

An issue that is commonly problematic within densely developed neighborhoods relates to accessory uses. Accessory uses are structures or activities that are incidental to the primary use of a property. For example, a residential accessory structure could include a detached garage, swimming pool, or satellite dish antenna. Similarly, a residential accessory activity could be a yard sale, the storage of a boat or trailer, or a home occupation. The impacts of accessory uses are more easily absorbed in rural or suburban areas where lot-to-lot separation is greater. Within boroughs, however, such separation is often impossible and neighbors are more easily affected by another's activities and actions. ***Municipalities should strengthen applicable residential accessory land use regulations as necessary based on density requirements. As a rule of thumb, more restrictive accessory use standards should be implied as density increases.***

Needed acreage to accommodate residential growth is directly tied to the population and housing projections presented in Chapters IV and V. The calculation of projected housing units, housing units built between 2000 and 2007, and the needed housing units until 2020 is presented as follows:

TABLE 63 PROJECTED HOUSING NEEDS			
Municipality	Projected New Units 2000-2020	Units Built 2000-2007	Need Units 2008-2020
Glen Rock Borough	131	74	57
Railroad Borough	3	0	3
Shrewsbury Borough	462	183	279
Shrewsbury Township	1,117	435	682
<i>Regional Totals</i>	<i>1,713</i>	<i>692</i>	<i>1,021</i>

With the preceding information, an assessment of whether the amount of land planned for future residential growth will accommodate the projected growth can be made. The following table presents this assessment:

TABLE 64 PLANNED RESIDENTIAL LAND USE CATEGORIES										
	Rural Residential (1 DU/ac)		Residential / Agricultural (2 DU/ac)		Residential Suburban / Residential One- Family (4 DU/ac)		Residential Urban / Residential (6 DU/ac)		Total 2008–2020 Dwelling Units	
Municipality	Acres ¹	Units ²	Acres ¹	Units ²	Acres ¹	Units ²	Acres ¹	Units ²	Needed	Potential
Glen Rock Borough	N/A	N/A	N/A	N/A	62	160	5	18	57	178
Railroad Borough	67	43	N/A	N/A	172	447	N/A	N/A	3	490
Shrewsbury Borough	N/A	N/A	169 ³	252 ³	0	0	3	11	279	263
Shrewsbury Township	192	124	N/A	N/A	265	689	N/A	N/A	682	813
<i>Regional Totals</i>	<i>259</i>	<i>167</i>	<i>169</i>	<i>252</i>	<i>499</i>	<i>1,296</i>	<i>8</i>	<i>29</i>	<i>1,021</i>	<i>1,744</i>

Source: York County Tax Assessment 2008 Parcel Data and Municipal Input

¹This refers to the number of acres available for development.

²The number of dwelling units listed in this table has been reduced by 35% to account for the nonbuildable features of a development site (e.g., roads, floodplains, slopes, parklands, utility easements, etc.) and the right-to-travel doctrine. This doctrine is applied to residential zoning policies and is based upon our national emphasis of personal freedoms. The "right-to-travel" doctrine requires that local officials provide for a wide range of housing types at various locations. It also has the effect of ensuring adequate potential, even though some landowners who have land zoned for development are not willing to sell it for those purposes.

³Includes 45 acres and 91 single-family detached dwelling lots in approved subdivisions.

Based upon the preceding table, each municipality exceeds its projected housing demands, except for Shrewsbury Borough where a slight shortfall could exist. This table, however, is based on the suggested average density and an assumption that 35% of the vacant land will be non-buildable. A greater number of dwelling units could result, in some cases, if higher density development occurs. Similarly, the result could be a lesser number of dwelling units if a greater percentage of the vacant land is non-buildable or if public water and sewer are not available to accommodate higher density development in the Growth Areas. In addition, it is important to point out that residential development is also permitted in the Village Areas, which have been designated in each of the Boroughs.

This could boost the number of potential residential units. Furthermore, a limited amount of residential development is permitted to occur within the Agricultural Areas designated in Railroad Borough and Shrewsbury Township, which could provide for an increased potential number of dwelling units in these municipalities, as well as the Region as a whole.

While a quick examination of the planned units within the Region suggests that less area within the Region could have been planned for future residential growth; another important legal doctrine confounds such action. In delineating the residential land use categories depicted on the Future Land Use Map and described below, properties that have access to the same utilities, are comprised of the same land form, are served by the same public facilities, and front along the same roads was taken into consideration. Equal protection land use policies dictate that these areas be treated similarly as their existing development counterparts. This, in some instances, results in an over-allocation of residential development that is unavoidable, but enables the Region to eliminate development potential from other areas (e.g., the agricultural areas). As a result of this over-allocation, local officials can resist requests to rezone land from an agricultural classification to a residential classification that are based upon allegations that insufficient lands have been designated for residential growth.

In addition, it is pointed out that the Region's planned Residential Areas as a whole are projected to accommodate 1.7 times the Region's projected housing need. This is considered reasonable from a planning standpoint. As noted previously, actual development density and percentage of non-buildable land can alter the ability to accommodate the projected housing need.

The preparation of this Plan pursuant to an adopted Intergovernmental Cooperative Planning Agreement by each of the participating municipalities has the benefit of permitting land uses to be considered over the area of the Region rather than on a municipal basis. Thus, increased opportunities for residential development in some municipalities serve to benefit those municipalities with lesser opportunities for residential development. In conjunction with meeting the housing unit need, the Region must accommodate a full array of dwelling types for all income levels.

The four (4) proposed Residential future land use categories and their ability to accommodate projected housing needs are described below:

RURAL RESIDENTIAL (Shrewsbury Township and Railroad Borough) Within the Township, four (4) small, existing subdivisions, located in the southern tier and consisting of single-family detached dwellings, are depicted within this category. In addition, two (2) areas adjacent to Glen Rock Borough are designated as Rural Residential. The first area is situated to the south of Glen Rock along Pleasant Valley Road and extending to the southwest along Fissels Church Road. This area, which encompasses the village of Seitzland and the Southern School District campus, predominantly consists of single-family detached dwellings with a variety of lot sizes. In the second area, which is located north of the Borough and west of Main Street, the primary use is also single-family detached dwellings. In addition to Shrewsbury Township, areas within Railroad Borough are designated as Rural Residential (*this includes lands that are currently zoned Conservation*).

Unfortunately, the location of these rural developments could present an impediment to agricultural operations in their midst. Local officials will have to determine how to balance the farmer's right to engage in livestock and crop production with the rural residents' rights to an un-impacted neighborhood. Nevertheless, single-family detached dwellings, and, to a lesser extent, two-family dwellings, are envisioned as the primary land use activity due to environmental constraints and lack of public water and sewer. With any type of development, measures should be taken to protect sensitive environmental areas. In addition, since these areas are outside the growth area, the extension of public water and/or sewer service is discouraged unless necessary to address a health and safety issue. Any future development should be required to test for and reserve an alternate on-lot sewage disposal system, in case the initial system fails.

Although public sewer is being extended to Seitzland, it will only serve existing properties with failing on-lot systems that are an existing public health and safety issue; it will not present opportunities to service new development. Any future extension of public sewer should be discouraged, unless necessary to address a health and safety issue. Therefore, in an effort to prevent the need for future extensions, any new development within the Rural Residential areas should be required to test for and reserve an alternate on-lot sewage disposal system, in case the initial system fails.

In addition, the Rural Residential Area south of Glen Rock, as well as the area designated in Railroad Borough, is subject to environmental constraints. Shrewsbury Township's existing Critical Environmental Areas Overlay Zone affords protection to sensitive environmental areas and could result in a much lesser density of development. It is advised that Railroad Borough adopt similar provisions. Implementation of a Critical Environmental Areas Overlay has the potential to result in lots larger than one (1) acre being necessary to accommodate residential development. That, however, is acceptable as the additional acreage is serving a justifiable purpose in the protection of sensitive environmental features.

The Rural Residential designation is only meant to reflect the existing development areas and the limited infill opportunities that they may still possess as shown on the Future Land Use Map. The goals of this Plan are contrary to the extension of a rural residential development pattern into the areas designated as Agricultural; therefore, in no way should the presence of these existing development sites be used as an argument for extension of the Rural Residential category onto adjoining undeveloped land or agricultural land. Instead, local officials should adopt zoning requirements that merely reflect the existing rural residential character. ***Given the current and foreseeable lack of public utilities in these areas, a minimum lot size of one (1) acre should be applied.***

Shrewsbury Township currently requires a minimum lot size of 50,000 square feet in its Rural Residential zoning district, which is generally consistent with this recommendation. Railroad Borough, on the other hand, requires a minimum lot size of three (3) acres under its current Conservation zoning classification of these lands. It is recommended that the minimum lot size be reduced to one (1) acre and that existing environmental and alternate septic system requirements be used to determine the need for a larger lot size.

Table 65 estimated that there are 259 acres of developable land within the Rural

Residential Areas of Shrewsbury Township and Railroad Borough. Based on a density of one (1) dwelling unit per acre and taking into consideration environmental constraints and the right-to-travel doctrine, Table 65 further estimated that the Rural Residential Areas could accommodate 167 new dwelling units. This represents seven percent (7%) of the residential growth planned within the Region.

RESIDENTIAL/AGRICULTURAL (Shrewsbury Borough) – A large portion of the northern half of Shrewsbury Borough, as well as lands to the west of Sunset Drive in the southern portion, is designated as Residential/Agricultural. Single-family detached dwellings with densities of two (2) dwelling units per acre are the predominant land use planned for these areas. The Borough's Zoning Ordinance does, however, permit Planned Residential Development (PRD) as a special exception use within the Residential/Agricultural area (current Residential-Agricultural zoning classification) with a potential density increase to six (6) dwelling units per acre provided the site can be served by public water and sewer. Under the PRD option, a minimum site size of 50 acres with a minimum of 25% of the site to remain as open space, as well as a mix of dwelling types, is required.

Within Shrewsbury Borough, almost all of the residential growth potential has been reserved in the Residential/Agricultural area. Approximately 169 acres of developable land, which includes approved lots in three (3) approved residential subdivisions, presently exists in this area. At a density of two (2) dwelling units per acre, the Residential/Agricultural area can accommodate 252 dwelling units. This represents about 90% of Borough's, or about 11% of the Region's, planned growth through the year 2020. Although the PRD option could result in the provision of a greater number of dwellings, none of the remaining vacant parcels appear to meet the 50-acre minimum site size requirement.

RESIDENTIAL SUBURBAN (Glen Rock and Railroad Boroughs and Shrewsbury Township) / **RESIDENTIAL ONE-FAMILY** (Shrewsbury Borough) - Each of the Region's municipalities is slated for some suburban-style residential development. With the exception of Shrewsbury Borough, these areas will provide for a mix of dwelling types, including single-family, two-family and multi-family. In Shrewsbury Borough, these areas are designated as Residential One-Family for future use and are reflective of the Borough's Residential One-Family Zoning District, which only permits single-family detached dwellings and has been fully developed in that manner. The Borough desires to maintain the established single-family detached residential character of these areas. Where single-family detached residential developments exist within designated Suburban Residential areas in the other municipalities, there is an expressed desire to maintain the established character of those neighborhoods as well.

Within Residential Suburban and Residential One-Family areas, a full complement of public utilities and public facilities should be provided. Developments should include sidewalks, streetlights and parklands. Furthermore, these areas should be designed to facilitate the use of public utilities and permitted densities should average four (4) dwelling units per acre when public water and sewer are utilized. As such, single-family detached development could be permitted as a lesser density, while two-family and multi-family development could be at a higher density. Some 499 acres of developable land have

been reserved in this category that should accommodate 1,296 new dwelling units, based on a density of four (4) units per acre. This represents 74% of the potential residential growth within the Region through the year 2020, based on the analysis presented in Table 64.

In addition, within this future land use classification, it is recommended that where public water and/or public sewer are readily available (or nearby), their use be a prerequisite for development. However, to address situations where only one or neither of these public utilities is available, Glen Rock Borough, Railroad Borough, and Shrewsbury Township should continue to require graduated minimum lot sizes based on public water/sewer availability. This could result in opportunities to subdivide the larger lots when such utilities become available.

Municipalities in the Region recognize the importance of providing adequate housing for all citizens regardless of income. The Region needs new higher density housing to support economic stability and prosperity. It also needs housing to accommodate new workers and their families, as well as to economize on infrastructure costs, while preserving open space and reducing the distance between homes and jobs.

Cluster development is a land use design option that can assist in meeting these needs within the Residential Suburban areas. It enables units to be located closer together on a site so that some common open space is protected. Generally, permitted densities are maintained over the development site (sometimes slightly increased), but less land is actually devoted to the built development as the result of smaller lot sizes. In this manner, developers and municipalities can become partners in the provision of needed parklands, the protection of important/sensitive natural or cultural features, and/or the provision of work force (affordable) housing. Also, common open spaces are sometimes used to buffer existing neighborhoods from proposed ones. Cluster development can take many forms, including, but not limited to, the Planned Residential Development (PRD) and Traditional Neighborhood Development (TND) options provided for in the PA MPC and the Conservation By Design option promoted by the PA Department of Conservation and Natural Resources, as well as the Open Space Residential and Village Residential development options used by some municipalities in the County.

Railroad Borough and Shrewsbury Township should consider “fitting” their respective current zoning classifications that correlate to the Residential Suburban land use category (Residential in RB and Suburban Residential in ST) with a clustering option. These municipalities have the most opportunity for new development, based on available land. Permitting this option by right, subject to specific criteria set forth in the Zoning Ordinance, would likely most encourage its use. Some municipalities may, however, feel more comfortable permitting the clustering option as either a special exception use (Zoning Hearing Board approval) or a conditional use (Governing Body approval), which requires a public hearing review process and the opportunity to place additional reasonable conditions and safeguards on the development to assure its compatibility from a health, safety and welfare standpoint. In either case, specific criteria would need to be set forth in the Zoning Ordinance to provide for the form of development/open space desired by each locale.

RESIDENTIAL URBAN (Glen Rock Borough) / **RESIDENTIAL** (Shrewsbury Borough) - The Region's (particularly the Boroughs) past has relied heavily upon an “in-

town” style of residential development. Goals expressed as part of this Plan call for this reliance to continue; this is also consistent with the latest trends in community planning technology that call for a return to a “neotraditional” design of neighborhoods. Much of the land in the Residential Urban / Residential areas has already been developed; it is estimated that only 8 acres remain for future development. Based on a density of six (6) dwelling units per acre, the Residential Urban / Residential areas could accommodate 29 new dwelling units. This accounts for about two percent (2%) of the potential residential growth within the Region through the year 2020, based on the analysis presented in Table 64.

These areas are planned to accommodate a full array of dwelling types serviced by public water and sewer that should precede actual development. An average density of at least six (6) dwelling units per acre is suggested. Both Glen Rock and Shrewsbury Borough Officials have expressed a desire to keep minimum lot sizes at 9,000 square feet for single-family detached dwellings (4.8 units/acre). However, permitting two-family and multi-family dwellings to occur at a higher density could achieve the suggested average density. Within the Residential Urban / Residential areas, implementation of the existing zoning regulations should help to retain the existing character and charm of these areas.

C. VILLAGE (Mixed Use) - (Glen Rock, Railroad, and Shrewsbury Boroughs) -

Each of the Boroughs has an existing mixed use core that has evolved throughout history. These areas contain a variety of residential dwelling types and neighborhood oriented commercial uses in a compact development pattern. Often an array of public and semi-public uses, such as churches, community buildings, fire stations, and post offices, are intermingled. Over time, Village areas have served as the focal point of their municipality and have proven to be an important community resource. Although these “downtown” mixed use areas played a greater role in meeting the residents' daily commercial needs in the past, their character continues to provide historic continuity and promotes community life. The historic buildings and streetscapes are of considerable value if the small-town charm valued by so many is to be retained. This land use category responds to the need to preserve and revitalize these areas. While each Borough has specific, individualized needs for these areas, there are some general rules that apply to all.

Zoning requirements for these areas should incorporate several important features. First, a full mix of dwelling types should continue to be permitted. This will aid in preserving the traditional village character that presently exists. An average density of six (6) dwelling units per acre is suggested. This provides an opportunity for single-family dwellings to be permitted at a lesser density than two-family and multi-family dwellings. Shrewsbury Borough, however, has expressed a desire to retain its current density of 4.8 dwelling units per acre for single-family detached dwellings and five (5) dwelling units per acre for multi-family dwellings.

Also, the zone should promote live/work units and commercial uses that are oriented toward pedestrian customers. This does not suggest that customers will suddenly stop visiting the area via automobile, but that “potential” uses should be ones that can serve pedestrians equally well. Such uses would have the added benefit of not requiring the frequent delivery of merchandise via large tractor trailers, in an area lacking adequate off-street loading space. Examples of suitable uses include card, book, magazine, newspaper, music, and video shops; specialty food stores; bakeries; delicatessens; wine shops; clothing

boutiques; barber and beauty salons, sporting goods and musical instrument shops; drug, tobacco, hardware, and convenience stores; restaurants, taverns, ice cream parlors, and outdoor cafes; bed and breakfasts; photographic, art and dance studios; offices; banks; photocopy and office supplies; computer and software sales; arcades and movie theaters; tailors; flower shops; jewelry, watch and small appliance sales and repair; and corner grocery stores. In addition, various civic uses like churches, libraries, and post offices are also appropriate.

Area and dimensional regulations should be designed to be compatible with existing conditions. This is important to maintain continuity between existing and new land uses and to preserve the historic development pattern. It will also encourage infill development and provide for adaptive reuse that maintains the community character. One means to do this is through “flexible” zoning provisions that provide parameters for development as opposed to specific standards.

It is important to note that there are no other areas in Glen Rock Borough designated for commercial uses, nor have areas been designated for industrial uses. Lands designated for commercial and industrial uses in the other participating municipalities are intended to service the Region as a whole. Nevertheless, should Glen Rock Borough wish to provide an opportunity for some types of more intensive commercial or light industrial uses within the Village area, such uses should not be invited through lenient regulations. To the contrary, they should only be permitted by special exception with *strict special exception criteria applied to keep uses compatible with neighboring uses and consistent with the intent of the Village area. Such criteria should rely heavily upon rigorous design and performance standards to replicate the Zone's characteristics and/or provide for adequate buffering, screening, and landscaping. Within Railroad and Shrewsbury Boroughs, intensive commercial and light industrial uses are discouraged in the Village area because other more suitable locations are designated for such uses.*

Overall retail size per store should be limited so as not to exceed its local orientation, nor provide an incentive for the demolition of existing historic buildings in favor of more modern commercial building styles. The development of multi-shop arcades should be encouraged, but only through the adaptive reuse of existing buildings. Demolition of historic buildings should be prohibited and all structural alterations should be scrutinized through the establishment, either locally or regionally, of a Historic Architectural Review Board (HARB) or Historic District Committee. Consideration should also be given to devising suitable guidelines for other streetscape amenities, such as signs, canopies, benches, light poles, and so forth.

All commercial signs should be limited to reflect their pedestrian orientation. Within Village areas, the Boroughs should substantially relax off-street parking requirements for suitable uses due to their pedestrian orientation and the proximity of public parking. Second-story apartments in conjunction with a commercial use and live/work units should be permitted to offer a greater variety of housing options and make efficient use of floor space that is often unusable for commercial purposes.

Zoning requirements should prohibit the placement of off-street parking and/or loading within the front yard in favor of sidewalk “build-to” lines with outdoor cafes and limited

outdoor display bins. Other outdoor storage areas should be prohibited to enhance site-to-site compatibility.

The following list of development objectives will guide Borough Officials in creating effective zoning and regulations for the Village areas:

- 1. To make efficient use of the existing historic buildings and retain the “historic” charm of the area;*
- 2. To develop properties with uses that contribute to the economic vitality of the Borough;*
- 3. To propose uses that are sized and designed to serve local residents and businesses;*
- 4. To minimize the detrimental effect on existing sensitive natural features and adjoining uses;*
- 5. To prevent or abate light pollution;*
- 6. To ensure adequate vehicular circulation and parking are part of the proposed use; and*
- 7. To, wherever practical, make use of shared amenities with other nearby uses for parking, loading, vehicular access, signage, storm water management, etc.*

The Glen Rock Village area has a more diverse existing development pattern, which includes residential, commercial, and industrial uses with varying lot sizes, setbacks, coverages, and parking. Given this diversity, it is important that zoning regulations applied here be flexible to account for the varying conditions. With regard to the existing “downtown” commercial and industrial areas, the focus, as previously stated, is intended to be on the redevelopment and restoration of the many “un-” or under-utilized historic warehouses and storefronts. Permitted uses should be ones that would be tied to a local market. With regard to the older industries that tend to lack contemporary site design, screening, buffering and landscaping, local officials should strive to retrofit some of these amenities as these uses expand, change or improve. Most particularly, industries abutting existing or planned residential areas should be fitted with sight-tight fences and/or landscape screens to enhance compatibility.

Railroad Borough is planned as a small crossroads development. Given the small number of residents, it is unlikely that businesses will be geared solely toward meeting the needs of residents. Instead, this setting will need to not only cater to its sleepy-little-town-atmosphere but also draw upon visitors, such as users of the Heritage Rail Trail County Park, to generate revenue. The Borough’s Zoning Ordinance should promote those uses expected in the area and ensure that any uses will not disrupt the community’s century-old character. An active effort should be undertaken to preserve the existing historic resources within the Borough.

While most of the expected commercial development will occur as conversion of existing historic buildings, some additional undeveloped land is also included. In this area, local officials must seek to build upon the pedestrian-friendly attributes of the surroundings and link them to the existing settlement and Heritage Rail Trail County Park.

Shrewsbury Borough has a comparatively smaller Village area, given the size of the community. Borough officials view the Village designation as a means to preserve the

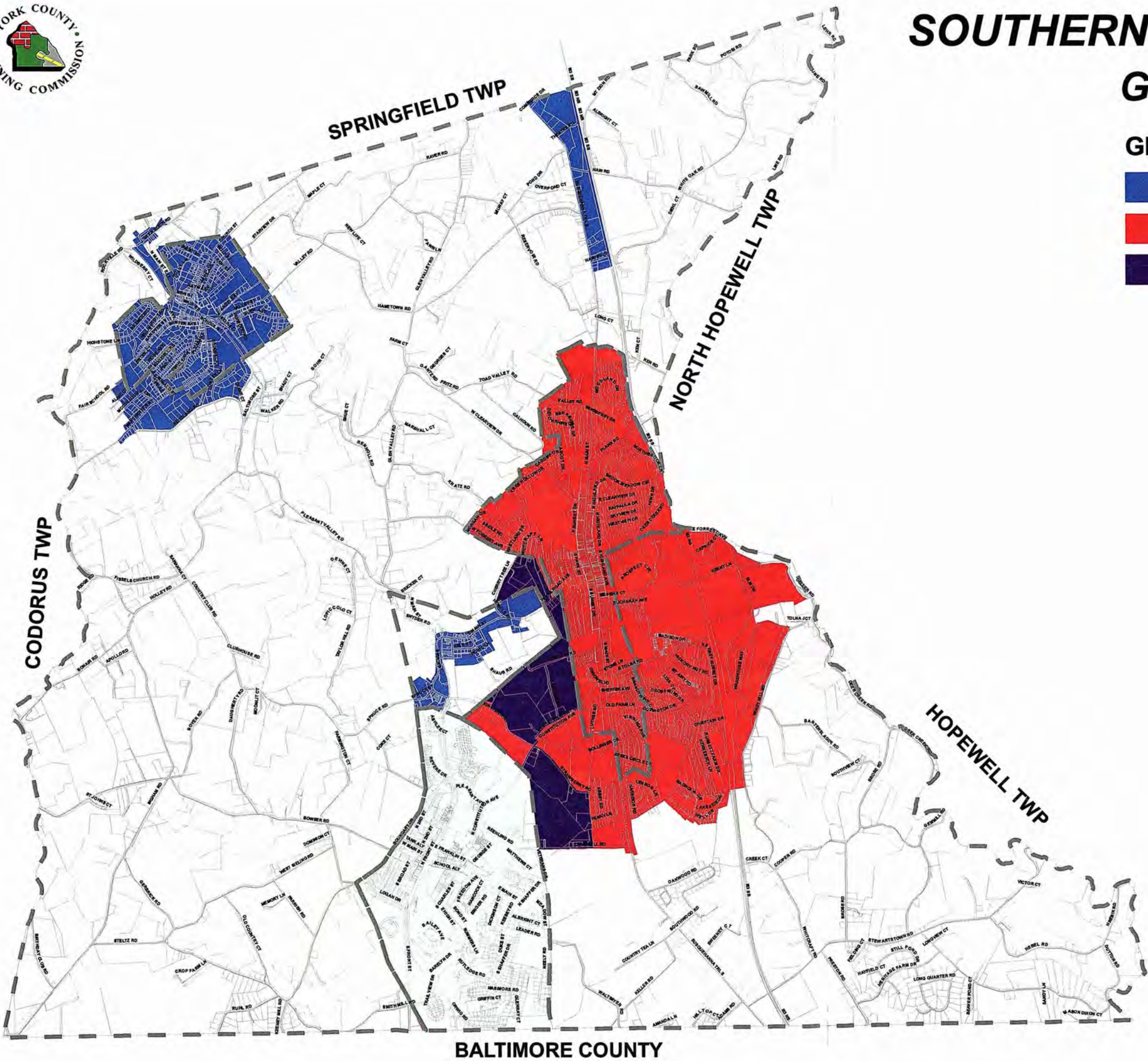


SOUTHERN YORK COUNTY REGION

GROWTH AREAS

GROWTH AREAS

- Secondary Growth Areas
- Primary Growth Areas
- Future Growth Areas



0 2,000 4,000 6,000 8,000 10,000
Feet

0 0.5 1 1.5 2
Miles

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The York County Planning Commission provides this Geographic Information System map and/or data (collectively the "Data") as a public information service. The Data is not a legally recorded plan, survey, official tax map, or engineering schematic and should be used for only general information. Reasonable effort has been made to ensure that the Data is correct; however the Commission does not guarantee its accuracy, completeness, or timeliness. The Commission shall not be liable for any damages that may arise from the use of the Data."

Map and Data Revised on Dec. 2009

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character of the original settlement of Shrewsbury, including its architectural, historical, and cultural elements.. *The delineated area already reflects a cohesive restored mixed use character that is gaining momentum. Local officials should nurture this process and protect this setting from undue intrusion of incompatible uses and designs.* Hence, the Borough should limit commercial uses in this area to neighborhood oriented uses that specifically complement the desired character. Borough Officials should also apply strict area and dimensional requirements to preserve the existing character, as well as to enhance the function and appearance of this locale. The Commercial land use categories designated in the Borough and the Township are intended to accommodate a full array and greater intensity of commercial activities to serve the Region.

Although the Village areas vary from Borough to Borough, Glen Rock and Railroad Boroughs could potentially benefit from a “Village Revitalization Plan.” Such a plan would provide guidance on how to retain existing businesses and attract new business that would be compatible with the existing businesses and residences. It would also include recommendations to improve the business environment and quality of life, as well as to celebrate the heritage of the area. This could relate to traffic, parking, pedestrian travel, landscaping, signage, etc.

D. COMMERCIAL (Railroad and Shrewsbury Boroughs and Shrewsbury Township)

The economic goals articulated for this Plan emphasize the need for commerce and industry as an important component of future land use and the sustainability of the Region. As previously discussed, commercial uses are provided for, to a limited degree, within the Village land use category that is applicable to each of the Boroughs. The primary goal of Village areas is to foster investment and reinvestment in the “downtown” central cores where a mix of land uses presently exist. Glen Rock and Railroad Boroughs also want to target commerce along the Heritage Rail Trail County Park.

The Commercial category, on the other hand, is intended to accommodate more intensive and larger scale commercial uses as compared to the Village category. Highway-oriented development that services not only the Southern Region, but also areas outside the Region, is appropriate in these areas. Entertainment for young people, as well as lodging and dining establishments, are noted as being desirable uses to attract to the Region. From a design standpoint, municipalities are against the creation of new “strip” commercial development.

A Commercial land use category has only been designated within Railroad and Shrewsbury Boroughs and Shrewsbury Township. These areas are intended to serve the Region as a whole; no Commercial areas are designated within Glen Rock Borough. Also, it is noted that no Industrial areas are proposed in Railroad Borough, therefore, the Borough could consider allowing for some light industrial uses within the Commercial area. However, any such uses should only be permitted by special exception with specific criteria applied to assure their compatibility.

The Commercial areas shown on the Future Land Use Map are primarily focused on the Susquehanna Trail/Main Street, Forest Avenue, Mount Airy Road, and Constitution Avenue in Shrewsbury Borough and Township. Additionally, the Commercial category includes two areas in Shrewsbury Township that are adjacent to Glen Rock Borough; one to the north

along State Routes 216 and 616 and one to the southwest along State Route 216. In Railroad Borough, the Commercial area is located in the northwest corner of the Borough along State Route 851. These areas, with the exception of Railroad Borough, all include an assemblage of individual businesses and some integrated shopping centers. Opportunities for new development and redevelopment, as well as infill development, exist within the Commercial areas. In addition, many of the older shopping centers, such as Constitution Plaza, Market Square Shopping Center, Shrewsbury Plaza and the former Kmart Shopping Center, have vacancies. Thus, there appears to be ample opportunities to attract new businesses to the area to meet the retail and service needs of the residents through the year 2020.

Most recently, large scale, regional commercial land uses (Shrewsbury Square Shopping Center and Shrewsbury Commons) have developed in the Commercial area proximate to the Exit 4 Interchange of Interstate 83 with little impact to the surrounding communities. This location has direct access to thousands of commuters who pass by these sites daily. The recent extension of Mt. Airy Road between East Forrest Avenue and East Tolna Road has helped to relieve traffic congestion within the immediate area. *However, consideration should be given to improving pedestrian access from the adjacent residential areas to these shopping areas. If safe and well-lighted walkways were provided, it could further alleviate congestion on the local roads. This should be a requirement imposed on new and/or improved commercial uses.*

One of the most popular commercial design schemes in past years was strip commercial development. However, more recently, communities have come to realize the many disadvantages of this land use configuration. Hence, all municipalities within the Region have expressed the desire to discourage this type of design.

Due to the present commercial development pattern, zoning regulations must provide for freestanding businesses and shopping centers. In fact, zoning regulations should promote shared use of access drives, parking lots, loading areas, dumpsters, signs, stormwater management facilities, and other amenities.

Local officials should adopt commercial use design standards and guidelines that achieve the level of site attractiveness and function they desire. Landscaping provisions are a key to site attractiveness and outdoor lighting controls can prevent or abate light pollution. Also, buffering provisions are important as a means to afford protection to adjacent residential areas. Although such provisions may create some nonconformity, it will begin the slow process of redevelopment and provide a gauge for requested site expansions and improvements.

Finally, green buildings should be encouraged. According to the U.S. Green Building Council, some of the community benefits of green buildings include improved air and water quality, reduced solid waste, conservation of natural resources, protection of the ecosystem, and biodiversity.

E. COMMERCIAL-INDUSTRIAL (Shrewsbury Township)

The Commercial-Industrial area is intended to provide, under explicit conditions and standards, for personal and business service uses and industrial and manufacturing uses to

meet the needs of the Region. Only one Commercial-Industrial area is designated on the Future Land Use Map. It is located in Shrewsbury Township, southeast of the Exit 4 Interchange of Interstate 83, and will be implemented through two (2) related zoning districts: the Commercial-Industrial Zoning District and the Interchange Zoning District.

This land use category recognizes the existing uses and the appropriateness of the area for further development of such uses. The array of uses to be permitted should be compatible with existing uses and the Township's overall character and pattern of land use. This area, which is largely undeveloped, will more than likely provide for regional economic growth opportunities beyond the year 2020.

Zoning and subdivision/land development regulations should provide the flexibility to respond to the long-term evolution of development trends. Nevertheless, specific provisions such as landscaping, stormwater best management practices, and other techniques to protect the environment should be implemented. *Green buildings should also be encouraged* and consideration should be given to offering incentives to stimulate their development. *Landscaping, buffering, screening, and outdoor lighting requirements are considered vital to protect the Residential Suburban area to the south and east.*

In addition, regulations should promote shared use of access drives, parking lots, loading areas, dumpsters, signs, stormwater management facilities, and other amenities. This can result in a more cohesive development pattern.

F. INDUSTRIAL (Shrewsbury Borough and Shrewsbury Township)

For the most part, Industrial areas have been identified where industrial uses presently exist. In Shrewsbury Borough, these areas are reflective of the municipality's past emphasis on industrial development, while the Industrial area in the Township consists of more recent development. Most of the land in these areas is already developed, thus only minor infilling or adaptive reuse will be possible.

As previously discussed, industrial uses will also be accommodated in the Commercial-Industrial area designated in Shrewsbury Township. Furthermore, light industrial uses may be permitted to a very limited degree in the Glen Rock Borough Village area. It is also important to reiterate that the Future Land Use Plan, under the Agricultural area discussion, acknowledges agriculture as one of the Region's primary industries and protects its continuation.

New uses proposed amid the existing industrial enclaves should be held to a higher standard of site design and suitable zoning regulations should be adopted. This will undoubtedly make some features of the existing industries nonconforming; however, the nonconforming use provisions of zoning ordinances are intended to effect desired change over time. Furthermore, if new uses are proposed, they should be encouraged to cooperate with their neighboring uses (where practical) in the sharing of vehicular access, parking and loading, signage and storm water management. Local officials should seize every opportunity to upgrade the older industrial sites when confronted with some prospective change.

The Industrial designation is suitable for a wide range of industrial activities that contribute to the wellbeing of the Region by diversifying its economy and providing valuable employment opportunities. *Zoning regulations for industrial uses in these designated areas should allow for small, start-up business and light industry as permitted uses. Other heavier and potentially more objectionable industries should require the obtainment of a special exception or conditional use approval.*

The benefits of the special exception or conditional use process will:

- (1) require the developer to fully explain the nature of the proposed uses;
- (2) give local citizens the opportunity express support or concern over the use;
- (3) provide the Region time to engage professional review assistance of the use and its expected impacts; and,
- (4) allow Zoning Hearing Board (special exception use) or the Governing Body (conditional use) to attach reasonable conditions of approval to mitigate any negative effects of the use.

Regulations implementing the Industrial designation should also limit the number of driveway cuts and freestanding signs, and manage outdoor storage, off-street loading and parking. *Design standards should encourage functional, yet attractive, sites when viewed from adjoining properties and roads. Landscaping provisions are a key to site attractiveness and outdoor lighting controls can prevent or abate light pollution. Buffering and screening provisions are also important when there are neighboring residential areas. Additionally, municipalities could encourage developers to construct "green" buildings.*

G. PUBLIC/CIVIC

The Public/Civic category includes land uses that serve some public or civic function, including, but not limited to, municipal lands, buildings and parks; school sites; libraries; fire and police stations; churches; and cemeteries. This category of land use is not shown on the Future Land Use Map as such uses are generally to be accommodated in the Residential, Village, and Commercial categories where they would serve and be accessible to the largest numbers of people.

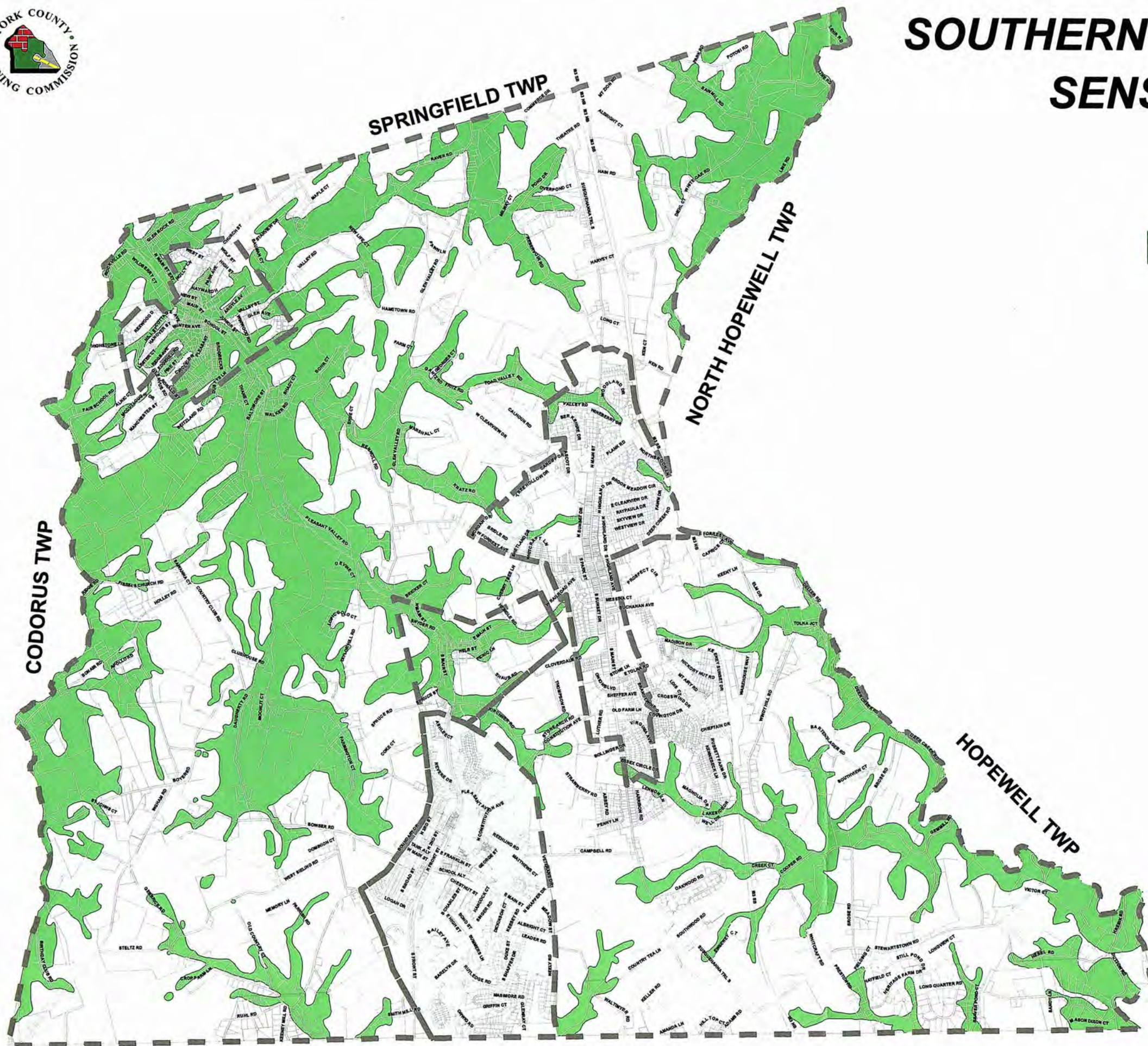
Most often, municipalities permit these uses by right in a variety of zones. However, some limitations on these uses can be helpful in protecting neighborhoods from nonresidential impacts. *Local officials may wish to only permit public/civic uses that have the potential to be more intensive by special exception so as to prevent negative impacts on nearby homeowners.*

H. CONSERVATION

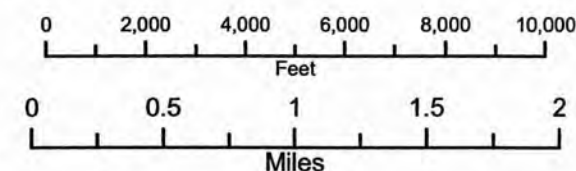
Regional goals commit to the conservation of unique, sensitive or valuable natural resources that are critical to the protection of the environment and public welfare. Areas that should be



SOUTHERN YORK COUNTY REGION SENSITIVE AREAS MAP



 Sensitive Areas



York County Planning Commission
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York, PA 17401
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The York County Planning Commission provides this Geographic Information System map and/or data (collectively the "Data") as a public information service. The Data is not a legally recorded plan, survey, official tax map, or engineering schematic and should be used for only general information. Reasonable effort has been made to ensure that the Data is correct; however the Commission does not guarantee its accuracy, completeness, or timeliness. The Commission shall not be liable for any damages that may arise from the use of the Data."

Map and Data Revised on Jan. 2009

BALTIMORE COUNTY

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“conserved” are depicted on the *Sensitive Areas Map*. ***Steep slopes ($\geq 25\%$), wetlands and floodplains comprise these areas and should not be developed. Strict enforcement of municipal floodplain ordinance regulations should protect floodplains. State and Federal wetlands laws should also help to protect these areas.*** With regard to steep slopes, only Shrewsbury Township has enacted provisions to protect these sensitive areas. In fact, the Shrewsbury Township Zoning Ordinance contains “*Critical Environmental Areas*” provisions that not only protect steep slopes, but also afford protection to streams, springs, seeps, floodplains, wetlands, and woodlands.

Borough officials should consider amending their respective Zoning Ordinance to create an overlay zone that replicates the areas designated on the Sensitive Areas Map and to prescribe specific guidelines to protect these natural resources. As noted above, Shrewsbury Township has already taken measures by adopting and implementing Critical Environmental Areas provisions in its Zoning Ordinance. At a minimum, the Boroughs, if applicable, could enact provisions within their respective Zoning Ordinance to protect steep slopes.

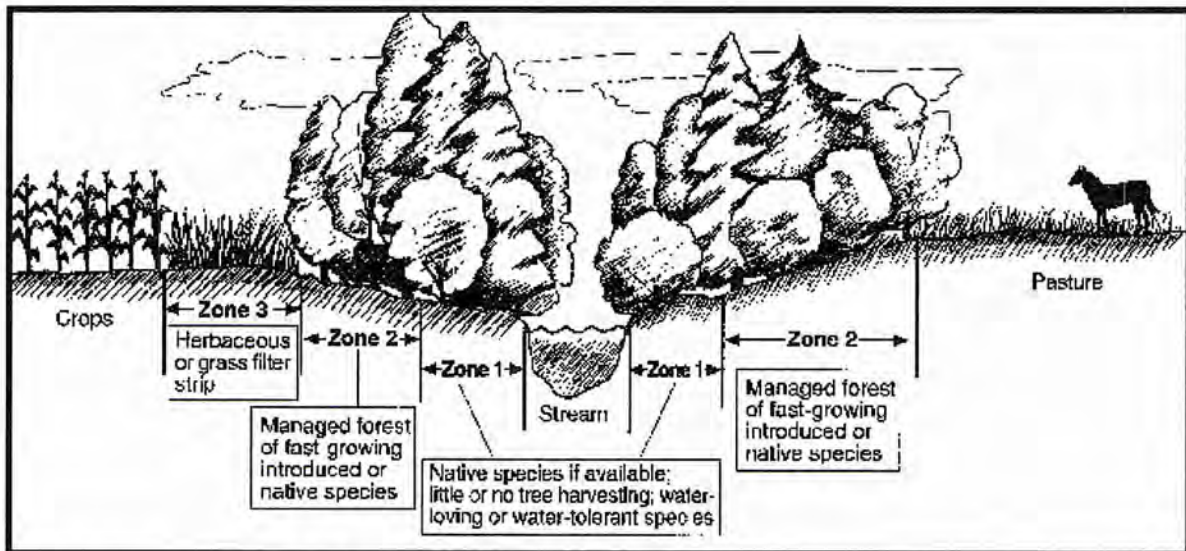
The locations of conservation features should be viewed as general and subject to detailed on-site verification during the development process. The sources of data for these features are not furnished at sufficient detail to become the basis for zoning restriction. Therefore, the plotting of conservation features has been accomplished to aid in the development of this Plan, but should not become the specific basis for a new conservation overlay zone. ***Instead, it is recommended that the identified areas be used as a triggering mechanism for detailed investigations through local development impact regulations.*** The proper administration of these regulations will result in the protection of sensitive environmental features. Furthermore, the use of cluster and density bonus zoning provisions could encourage the protection of additional valuable features that are contiguous to sensitive conditions, but could otherwise be developed.



It is important that local officials visualize the general locations of important natural features; however, this view should not be misinterpreted as an absolute refined mapping for zoning boundary delineation. Conservation features are plotted as an “overlay” to take priority over any existing and/or planned land use category; this enables local officials to visualize site specific development constraints, and their overall extent, shape and interconnectedness within the community.

One of the features plotted within this category are streams and their associated floodplains and wetlands. While protection of floodplains and wetlands are widely accepted land use management techniques, recent awareness of diminishing surface water quality suggests the need for more protection. Studies conducted by the U.S. Forest Service demonstrate that 60-to-95-foot wide riparian buffers offer real advantages in the removal of harmful nutrients

and sediment from stormwater before it enters the stream. These same riparian buffers can increase the food supply and create interconnected natural systems of movement for local wildlife. Riparian buffers are areas adjoining streams where naturally successive vegetation is provided and protected.



Shrewsbury Township's "Critical Environmental Areas" zoning provisions require buffer areas to protect watercourses, springs and seeps. In Boroughs where applicable, the use of riparian buffers could be promoted. Ways to implement such buffers in various land use settings is discussed below.

Within Conservation settings, natural conditions have combined to prevent the land's use for agricultural and/or development purposes. Steep slopes are most often the limiting features that prevent their use and often lead to mature woodlands. Here, little attention is necessary. The wooded setting's inherent ability to yield good surface water quality has been widely proven and accepted. However, should development or disturbance threaten these natural settings, some regulatory oversight should be imposed.

While some cutting of timber may occur in this area, it is important that such cutting be performed with due consideration to protection of the riparian buffer and retention of carbon-dioxide absorption. Furthermore, it is equally important that any harvesting practices employed not overwhelm the buffer's ability to filter out erosive sediments. No dragging of trees across streams and no unimproved vehicular crossing should be permitted.

Potential developments within Conservation settings should be regulated through the overlay zone concept to keep overall intensity to a minimum. Furthermore, some flexibility should be offered regarding structural placement and vehicular access, so that the riparian buffers can be accomplished without depriving the landowner "reasonable use" of the property. Finally, woodland preservation requirements can go a long way toward preserving important, mature tree cover, thereby improving adjoining surface water quality. Again, Shrewsbury Township has taken steps to protect woodlands. Within the Township's Zoning Ordinance, the Critical Environmental Area provisions address forestry activities, plus the Township's Subdivision and Land Development Ordinance

(SALDO) sets forth specific criteria to restrict development on lots that are partially or completely wooded and/or contain isolated groupings or clusters of native, overstory trees. In addition, Shrewsbury Borough's SALDO contains tree preservation provisions. Glen Rock and Railroad Boroughs should also take the necessary steps to prevent clear cutting of trees.

Agricultural activities are a contributor to poor surface water quality. Establishing riparian buffers can reduce runoff into watercourses; thus, incorporating such provisions into municipal ordinances can prove to be beneficial. Zoning and SALDO provisions, however, are only applicable to new development or revisions to existing development. Therefore, it will likely be necessary to educate farmers and their neighbors as to the benefits of riparian buffers and strongly encourage their use. Giving consideration to employing other administrative tools may also be necessary.

For example, before any farmer should be eligible to receive payment for farmland preservation, or before a farmer can transfer any development rights (TDR), he/she should be required to establish riparian buffers on affected properties. Required NRCS Conservation Plans should also be fitted to include riparian buffers. Tax assessment officials should be required to reduce assessed values of lands within riparian buffers. Farmers should also be educated about the Federal income tax deductions that are made available to property owners who place conservation easements upon their properties for riparian buffers. Local, County, State, Federal, and private funding sources should be specifically established and existing programs should be tapped to acquire riparian buffer easements. Local watershed groups should target important farms that can offer the best improvement to surface water quality. These sites should become local priorities for fund-raising and actual riparian buffer construction.

Finally, intensive livestock operations should only gain zoning approval if riparian buffers are employed on the site. Historically, barns and feedlots were placed adjacent to a spring or tributary so that the farmer did not have to transport needed water from a great distance. This practice today leads to massive erosion due to livestock trampling and machinery movements; such erosion often directly feeds adjoining streams and tributaries. It is impractical to suggest that these barns and feedlots be eliminated or moved. *Rather, it will be necessary to construct catchment basins at stream outfall locations, where these sediment-laden waters can be collected, settled and gradually released into a stream segment with riparian buffers. Additionally, streamside fencing in pastures and the use of improved livestock crossings will help to improve surface water quality.* Without question, the agricultural setting offers the greatest challenge to successful implementation of this program, but, it also promises the most dramatic results.

Society generally universally accepts water quality as a priority. Residents enjoy access to a nearby lapping stream where children can explore the wonders of nature and wildlife. *In developed settings, current planning and zoning techniques offer practical implementation of riparian buffers. In addition, floodplain, wetland, and steep slope protection; woodland preservation; land dedication; stormwater management; and conservation design provisions can all combine to encourage and enforce the protection of important natural amenities.*

I. PRIVATE RECREATION

The Bon Air Country Club, located on the east side of Country Club Road in Shrewsbury Township, is one property contained within this category. This large use offers private recreational amenities including an 18 hole golf course, practice greens, driving range, and an outdoor swimming pool for its members. The second is the Summit Grove Camp, located on the west side of Front Street South in New Freedom Borough. This 43-acre site extends into Shrewsbury Township. Summit Grove Camp is a non-profit Christian camp and retreat center that offers a variety of recreational facilities ranging from an outdoor swimming pool, athletic fields, and basketball/volleyball courts to a climbing wall, archery range, and Frisbee golf course.

Like the Public/Civic land use category, Private Recreation Areas are not depicted on the Future Land Use Map as they are not intended to be implemented through a separate zoning classification. Instead, such uses (e.g. golf courses, campgrounds, shooting ranges, race tracks) should be permitted by special exception or conditional use in commercial or low intensity zoning classifications. Local officials should fashion suitable criteria to assure that private recreation uses will be compatible with adjacent land uses.

J. GROWTH AREAS

Recognizing the potential for the cost associated with, and the impact of growth in the form of development on the Region, the municipalities represented by the Southern York County Regional Planning Commission designated Growth Boundaries and Reserved Growth Boundaries in the 2000 Plan. The Growth Boundaries separated land proposed for development from natural resource and rural lands which should be protected and, thus, permit no additional development rights in the Rural Residential and Agricultural zoning districts, beyond what is currently permitted, in order to permanently protect the agricultural industry, public water supply watersheds and other critical natural features. They also recognized where development has occurred and served as a guide for where the municipalities would like to see growth take place in the future.

This Plan has replaced the Growth Boundary and Reserved Growth Boundary designation with the growth and rural area classifications (Primary Growth Area, Secondary Growth Area, Future Growth Area, and Rural Area) set forth in the County Comprehensive Plan in an effort to achieve consistency. The growth areas that have been established in this Plan are based on existing and proposed land uses, prior development, existing and proposed public utilities, current zoning, the existing transportation network, population projections, future housing needs, development constraints, and prime agricultural land.

Shrewsbury Borough and the adjoining lands to the south, east, and southwest in Shrewsbury Township are designated as a **Primary Growth Area**. These areas are intended to accommodate a full array of land uses, at varying densities, as they have existing or planned public infrastructure and services that are necessary attributes for more intensive development.

Glen Rock Borough and adjacent lands to the southwest in Shrewsbury Township are designated as a **Secondary Growth Area**. This area is intended to provide for a mix of land uses that will serve a more localized market and development will be less intensive as compared to the Primary Growth Area.

The former Growth Boundary in Railroad Borough was scaled back resulting in a **Secondary Growth Area** that is focused on the Main Street corridor. The Borough does not anticipate, nor does it desire, the type of intensive development envisioned in a Primary Growth Area. In addition, the former Reserved Growth Boundary was not replaced with a Future Growth Area based on the justification that those lands will not be needed to accommodate development through the year 2020. As such, all lands outside the Borough's Secondary Growth Area are proposed to remain "Rural."

In addition, the lands situated between the Susquehanna Trail and Interstate 83 in the northern part of Shrewsbury Township are designated as a **Secondary Growth Area**. This area contains a mix of commercial and industrial land uses and it is proposed that this type of development be continued. Public utilities are also available to service this area. It would also serve as an extension of the Secondary Growth Area to the north in Springfield Township.

The areas within the Primary and Secondary Growth Areas are sized to provide for a minimum ten (10) years of projected growth. A **Future Growth Area** has been established to indicate where development is most appropriate beyond a ten (10)-year time frame, or if development should occur at a much greater pace than anticipated. This area was chosen due to its proximity to the Boroughs and the amenities provided therein, its location adjacent to current public utilities, the availability of connecting transportation routes, and the recognition that if additional land was needed for development this would be the most likely and recommended area for it to occur. The area contained within the Future Growth Area currently does not have public utilities, consists mainly of agricultural uses, and is proposed for development only after those lands within the Primary and Secondary Growth Areas have been fully developed.

The balance of the Region, outside the Primary, Secondary, and Future Growth Areas, is designated as a **Rural Area**. Within this area, the focus is on the protection of the Region's natural resources, including prime agricultural soils, and development is to be restricted. Also, *public water and public sewer should not be extended into Rural Areas unless necessary to address a health or safety problem.*

The Primary, Secondary and Future Growth Areas and the Rural Area established by this Plan are generally consistent with the County's growth management goals as discussed in Chapter VIII. Thus, it is recommended that the York County Planning Commission amend the Growth Management Plan component of the County Comprehensive Plan to properly identify the Primary, Secondary and Future Growth Areas shown on the Growth Area Map.

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XIV. IMPLEMENTATION

This Comprehensive Plan outlines a future direction and growth management strategy for the Region over the next 10 years. This future direction is premised upon the comprehensive set of recommendations presented in this Plan, and, especially in the Future Land Use chapter. In order to implement the many objectives stated at the beginning of this Plan, and to operationalize the recommendations aimed at achieving those objectives, an implementation strategy must be put into action. This strategy will incorporate the various municipal planning tools available to the municipalities, including Zoning Ordinances, Subdivision and Land Development Ordinances, Official Maps, and other planning policy documents, such as Sewage Facilities (Act 537) Plans, recreation and open space plans and capital improvements plans, etc.

A. IMPLEMENTATION TASKS

In order to illustrate this implementation strategy, the following table has been developed. This table identifies (1) the various tasks that need to be implemented, (2) the municipalities responsible for the task's implementation, and (3) the time frame in which the task should be initiated. Those that are earmarked for ongoing (**O**) implementation are tasks that municipalities should continue to carry out or tasks that should be undertaken as soon as possible following adoption of the Plan, and when opportunities arise for their use. Those tasks that are recommended for short term (**S**) action are those that should be undertaken within years one (1) through (4) following adoption of the Plan. Finally, those tasks slated for long-term (**L**) implementation (years 5+) require significant analysis, development of partnerships and/or additional resources in order for implementation to begin. However, if opportunities arise for implementation in the short term, the municipality should begin work on such tasks. In addition, for tasks involving more than one (1) municipality, consideration should be given to carrying them out "jointly" or as a "region." Multi-municipal projects are often more cost effective and frequently receive priority consideration for funding.

Along with the task to be performed, a page number reference appears in parentheses so that municipal officials and other users of this document can readily locate the specific recommendation within the Plan text.

Implementation Task and (page reference) for further description.	GRB	RB	SB	ST
1. Local officials should read, understand and keep-handly this Plan for reference in the review and decision making process. (p. 3)	O	O	O	O
2. Discourage non-agricultural development within Agricultural areas in order to preserve and protect farmland, particularly prime agricultural soils, but also including, by association, lesser quality soils. (p. 25)		O		O
3. Restrict development in areas with severe soil constraints. (p. 26)	S	S	S	S
4. Develop a public/private partnership to protect stream water quality using a combination of educational, assistance and regulatory measures. (p. 31)	S	S	S	S

Implementation Task and (page reference) for further description.	GRB	RB	SB	ST
5. Adopt Critical Environmental Areas provisions, such as stream buffers and steep slope restrictions, to protect watercourses and other natural features. (pp. 31, 223)	S	S		
6. Adopt various measures to protect wetlands and natural habitats through modified road standards, environmental impact studies, development limitations and landowner education. (pp. 32, 222-227)	S	S		S
7. Apply Floodplain Ordinance to proposed development. (p. 33, 222)	O	O		O
8. Consider using alluvial soils in determining regulatory floodplain. (p. 33)	S	S		S
9. Strengthen storm water management regulations with pre- and post-development standards. (p. 35)	S	S	S	O
10. Incorporate Best Management Practices within stormwater management regulations. (p. 35)	S	S	S	O
11. Enact measures to protect the Region's natural areas. (p. 37, 40)				S
12. Adopt and enforce regulations limiting the removal of woodlands and preserving wooded habitats. (p.39, 224)		S		O
13. Consider creating a Historic Sites/District Committee/Commission or Historic Architectural Review Board to protect historic sites and historic districts. (p. 43, 217)	S	S		S
14. Amend Zoning and/or Subdivision and Land Development Ordinances to protect historic sites and areas of suspected archaeological significance, and consider providing incentives for adaptive reuse of vacant historic structures. (pp.)	S	S		S
15. Provide incentives for improvement of residential properties through existing funding programs and innovative planning and zoning. (p. 70)	O	O		O
16. Ensure that a variety of housing types and densities are permitted in municipal zoning ordinances. (pp. 67, 77, 80)	O	O	O	O
17. Continue to support the Region's agricultural economy and promote the profitability of farming. (pp. 83-85, 94)		O		O
18. Promote infill development in established village, commercial and industrial areas and actively encourage adaptive reuse and rehabilitation of former industrial buildings. (pp. 91, 94)	O	O		O
19. Promote the Region's historic districts and sites as a means to encourage heritage tourism; including reconstruction of the log cabin in Railroad Borough. (pp. 89, 92, 94)	S	S	S	S
20. Promote the restoration and reuse of the NCR railway for commerce and tourism. (p. 92)		L		
21. Consult with the York County Industrial Development Corp., York County Economic Development Corp. and/or the PA DCED Community Action Team for planning, technical, and financial assistance for economic development projects. (pp. 93-94)	O	O	O	O
22. Encourage the Southern York County Regional Planning Commission (SYCRPC) to work with economic development entities in an effort to enhance the commercial and industrial presence in the area. (p. 93)	O	O	O	O
23. Participate in the School District's periodic strategic planning process. (p. 122)	O	O		O
24. Encourage the School District to locate future school sites within designated growth areas to best serve area students. (p. 122)	O	O		O

Implementation Task and (page reference) for further description.	GRB	RB	SB	ST
25. Revise application procedures for residential subdivisions/land developments to notify School District of proposed developments. (p. 122)	S	S	S	S
26. Invite the School District and all municipalities in the School District to participate in ongoing discussions to discuss residential development and the schools needed to support development. (p. 122)	S	S	S	S
27. Assist local fire and ambulance companies in the recruitment of manpower and fundraising. (pp. 127)	O	O	O	O
28. Provide ongoing financial support for the fire companies in the Region. (p. 127)	O	O	O	O
29. Create a committee or entity to address emergency communications in the Region (p. 135)	L	L	L	L
30. Encourage the SYCRPC to provide information for existing and prospective residents and businesses on its website. (p. 135)	O	O	O	O
31. Create a regional recreation forum to discuss and plan for parklands. (pp. 135, 162)	L	L	L	L
32. Maintain existing parks and make improvements as necessary to meet community needs. (pp. 150, 152, 154, 162)	O	O	O	O
33. Use revenues exacted from new developments to make improvements to existing community parks that will serve the new development. (pp. 150, 152, 159)	O	O	O	O
34. Encourage linkages to the Heritage Rail Trail County Park. (pp. 156, 162, 198)	L	L		L
35. Adjust land use regulations for new development to promote and/or require safe pedestrian linkages to adjacent parks, schools and other activity centers. (p. 157)	S	S		O
36. Require land to be reserved for an alternate system on new lots served by an on-lot sewage disposal system and adopt an on-lot sewage system management ordinance. (p. 169)		S		
37. In order to accommodate projected growth, Shrewsbury Township officials should continue to seek ways to expand/enhance infrastructure, including the provision of public sewer, within designated growth areas. (p. 168)				O
38. Protect public water sources and enforce wellhead protection zones. (p. 175)			O	O
39. Adopt well drilling standards for new uses outside planned water service areas. (p. 175)		L		O
40. Enhance existing recycling programs by providing for recycling of florescent bulbs, batteries, electronics and other non-benign household materials. (p. 177)		L	L	
41. Continue to plan for a multi-modal transportation system to improve efficiency. (pp. 186-187)	O	O	O	O
42. Create an on-going committee to participate in local, regional and State discussions concerning public transportation in the Region. (p. 199)	L	L	L	L
43. Reclassify Plank Road as a major collector roadway. (p. 192)			S	S
44. Create a bypass around Glen Rock Borough. (p. 192)	L			L
45. Local officials should seek to have Church Street realigned to line up with Seaks Run Road in adjoining Springfield Township. (p. 195)	L			L
46. Local officials should seek to have the curves on Pleasant Valley Road and West Clearview Drive eliminated through realignment, widening and installation of shoulders. (p. 195)				L

Implementation Task and (page reference) for further description.	GRB	RB	SB	ST
47. Realign the intersection of Stewartstown and Adams Roads with the Susquehanna Trail to create a four (4)-way signalized intersection. (p. 195)				L
48. Local officials should seek to have the intersection of Campbell and Windy Hill Roads realigned with the Susquehanna Trail to form a four (4)-way signalized intersection and protect width for future expansion. (p. 195)				L
49. Extend Elm Street to intersect with Windy Hill Road. (p. 195)				L
50. Local officials should seek to have the Exit 4 interchange of I-83 improved after an improvement option resulting from the Interchange Feasibility Study has been determined. (pp. 195-196)				L
51. Modify the “Y” intersection of Fissels Church Road with SR 616 to create a “T” intersection with a full-stop required. (p. 196)				L
52. Reduce the number of driveway cuts along existing and future arterial and collector roads; however, it is noted that driveways on State roads will be subject to PennDOT approval. (p. 196)	O	O	O	O
53. Work with PENNDOT to develop a Regional Access Management Plan. (p. 197)	S	S	S	S
54. Expand the Shrewsbury Park & Ride lot if demand warrants. (p. 197)				L
55. Require the installation of curbs and sidewalks in areas planned for growth. (p. 197)	S	S		O
56. Adopt comprehensive traffic impact study requirements within Subdivision and Land Development Ordinances. (p. 199)	O	O	L	
57. The SYCRPC, with the approval of member municipalities, should develop and bi-annually submit a list of needed transportation improvements to the York County Planning Commission. (p. 199)	S	S	S	S
58. Amend the Zoning Ordinance and Subdivision/Land Development Ordinance as necessary to implement this Comprehensive Plan. (pp. 2, 201)	O	O	O	O
59. Review and update this Plan prior to the year 2020 (pp. 2, 201)	L	L	L	L
60. Continue to implement and enforce effective agricultural protection zoning; however Railroad Borough should modify its dwelling standards. (pp. 205-207)		O/S		O
61. Amend TDR provisions to require that a “Declaration of Restricted Development” or conservation easement be filed simultaneously with the Deed of Transfer; also, consider providing other alternatives for the use of TDR’s or adding incentives to encourage increased use of this important tool. (p. 208)				S
62. Expand participation in the Railroad Borough and Shrewsbury Township Agricultural Security Areas. (p. 208)		S		O
63. Continue to implement Critical Environmental Areas provisions. (pp. 205, 223)				O
64. Consider the adoption of provisions to protect critical environmental areas. (pp. 201-202, 223)	S	S	L	
65. Strengthen residential accessory use regulations. (p. 210)	S	S		O
66. Establish a minimum lot size of one (1) acre in the Rural Residential Areas and require an alternate septic location. (p. 213)		S		O
67. Limit development in Rural Residential Areas and do not encourage the expansion of these areas. (p. 213)				O

Implementation Task and (page reference) for further description.	GRB	RB	SB	ST
68. In Residential Suburban areas, continue to use graduated lot design standards based on the use of public utilities. Where utilities are not yet available, protect infill development potential. (p. 215)	O	O		O
69. Consider providing for a cluster development option in Residential Suburban areas that promotes the provision of open space while permitting development on smaller lots, yet maintaining the density of the district in which located. (p. 215)		S		S
70. Refine and enforce zoning requirements for the Village Area to ensure compatibility of the mix of uses permitted. (pp. 216-218)	S	S		
71. Consider adopting a flexible-subjective development review process to consider a wide range of conditions and adaptive reuses of existing buildings in the Village Areas. (pp. 217-218)	S	S		
72. Regulate intensive commercial and industrial uses by special exception or conditional use within the Village Areas. (p. 217)	O	O		
73. Consider developing a revitalization plan for the Village Areas. (p. 219)	S	S		
74. Refine Commercial Zone regulations to promote the use of shared development features. (p. 219)				O
75. Begin the process of gradual improvement to existing strip commercial developments. (p. 220)	S,O		S,O	S,O
76. Encourage green buildings in commercial and industrial areas. (pp. 220, 222)			S,O	S,O
77. Adopt and/or strengthen industrial zoning regulations to improve appearance and function with emphasis on shared development features between adjoining land uses. (pp. 221-222)				O
78. Adopt and enforce lighting standards. (pp. 218, 220-221)	S	S	O	O
79. Adopt and enforce landscaping provisions to protect the environment, improve the compatibility of adjacent land uses, promote attractive development, to protect unique local vegetation, and/or to provide for visual buffering of stormwater facilities, parking lots, loading areas, trash receptacle areas, etc. (pp. 218, 220-222)	S	S	O	S
80. Use the Sensitive Areas Map as a triggering mechanism to require detailed on-site investigations for sensitive natural features. (p. 223)	O	O	O	O
81. Promote the use of riparian buffers as a means of protecting and improving surface water quality. (pp. 31, 224, 227)	S	S		O
82. Discourage the extension of public and water and sewer to areas outside the designated growth areas unless necessary to address a health and safety issue. (p. 229)		O		O
83. Consider adopting a Capital Improvements Program – a proposed schedule of future projects listed in order of construction priority together with construction cost estimates and the anticipated means of financing each project to assist with implementation of this Plan.	O	O	O	O
84. Consider adopting an Intergovernmental Cooperative Implementation Agreement to as a means to achieve general consistency with the Plan, to continue working cooperatively to implement the goals of this Plan, to address developments of regional significance, and to assure all land uses continue to be provided for on a regional basis.	S	S		S

The preceding table plots an ambitious list of recommended activities. These tasks are vital if the Region is to optimally manage its growth and development and to plan and implement its "vision" for the future. The completion of many of these tasks should result in an improved quality of life within the Region. Municipal officials are responsible to monitor and evaluate the implementation strategy aimed at achieving the locally expressed objectives and resultant recommendations set forth in this Plan.

Cooperation among all administrative bodies and levels of government is an essential component to a streamlined and successful implementation strategy. The continued use of public participation is also a very important duty of municipal officials. If, for some reason, the recommendations of this Plan do not appear to address the, then, current conditions, municipal officials should not hesitate to amend portions of this Plan or any other policy to rectify those deficiencies.

This Plan holds a wealth of information that is easily obtainable and understood. Its implementation can be equally understood so that all residents, businesses and visitors know the Plan is vital, and that the future of the Region is deliberate and the result of considerable analysis and public scrutiny.

B. INTERRELATIONSHIP OF PLAN COMPONENTS

The individual chapters contained within the Southern York County Region Comprehensive Plan do not work independently to guide the future growth and development of the Region and the protection of its natural and cultural resources. Instead, the chapters are interrelated and when used together they create a cohesive blueprint for guiding growth and protecting resources.

The community goals and objectives set forth in Chapter II created a sound basis for shaping the chapters that followed. Additionally, the Future Land Use Plan took into consideration the location of sensitive natural features, location of prime agricultural land, the availability of public water and sewer, housing needs, economic development needs, community facility needs, and the location of major thoroughfares. These factors all influenced the shaping of the development patterns proposed in this Plan.

Similarly, natural features, demographic changes, and land use patterns influence the location of park and recreational facilities, as well as the type of facilities that are needed. Demographic changes and land use patterns were also important factors in determining the provision of other community facilities and services, as well as transportation facilities and utilities.

Throughout each chapter of the Plan, linkages to other chapters are evident. This provides an assurance that all components of the Plan are in balance and consistent with the established goals and objectives.