

## CHAPTER 10                      TRANSPORTATION

### Introduction

The system of public roads in East Pikeland Township is decidedly rural in character. Since the 1984 Comprehensive Plan, the road network has remained much the same, with the addition of local roads serving new developments. Those roads, which were identified in 1984 as carrying the most traffic, are the same in 2000, with the difference being an increase in volume. In order to analyze the condition and capacity of the Township roads, it is necessary to classify them into functional categories. The Pennsylvania Department of Transportation (PennDOT) has created such a classification system, which separates roads into rural and urban types, with six divisions each. These will be described in further detail in following sections. Additional issues which need to be addressed are the effects of transportation on land uses in the Township and the potential for non-motorized transportation.

- Road Categories.
- Rural: Interstate
  - Other Principle Arterials
  - Minor Arterial
  - Major Collector
  - Minor Collector
  - Local
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- Urban: Interstate
  - Other Freeway/Expressway
  - Other Principle Arterial
  - Minor Arterial
  - Collectors
  - Local

This breakdown provides a logical and systematic structure for assembling and analyzing data regarding different road types. The Chester County Planning Commission has developed characteristics for each type of road classification in the Chester County Circulation Handbook. Table 10.1, Functional Classification System, provides a synopsis of the characteristics for different criteria.

Table 10-1

Functional Classification System

Category	Expressways	Principle Arterial	Minor Arterial	Major Collector	Minor Collector
Type of Travel Served	Serves inter-regional and through trips, emphasis on through trips	Serves inter-regional and through trips	Serves inter and intra-regional trips, few through trips	Serves mostly intra-regional trips	Serves both inter- and intra-municipal trips
Mobility Access Orientation	Total mobility orientation	Primary mobility orientation	Priority on mobility some access component	Mix of mobility and access, slight emphasis on access	Mix of mobility and acc., emphasis on access
Travel Distance	Longest distance travel	Long distance travel	Moderate to long distance travel	Moderate to short distance travel	Short distance travel
Travel Speeds	Highest travel speeds	High speeds (35-55 mph)	Moderate to high speeds (30-45)	Moderate speeds (45 mph)	Moderate to low speeds (40 mph)
Access control Level	Limited access	Controlled access	Some control of access	some control of access	Minimal access control
Traffic Volumes	Highest traffic volumes	Very high volumes (10,000-40,000 ADT)	Moderate to high volumes (5000-20,000 ADT)	Moderate volumes (3000-10,000 ADT)	Moderate to low volumes (2000-5000 ADT)

Source: Federation of Northern Chester County Communities, Regional Land Use Plan.

The above table does not include characteristics for local roads, which comprise the majority of road miles in the Township. These characteristics are often set by the municipalities and can vary from one to the other. Local roads have the highest emphasis placed on accessibility and the lowest emphasis on mobility. Travel distances are designed to be short and the travel speeds low. Traffic volumes may vary from between 500 and 2000 trips per day.

Existing Road Network.

Chester County has classified the non-development roads in the Township into the following road categories. See Table 10.2, Road Classifications.

Table 10.2

Road Classifications

Road	Classification	Limits
Route 23	Minor Arterial	
Route 113	Major Collector	Hill Road to W. Pikeland
Route 113	Minor Arterial	Urban areas
Route 724	Minor Arterial	
Hares Hill Road	Collector	
Cold Stream Road	Collector	
Pughtown Road	Minor Collector	
Township Line Road	Collector	
Merlin Road	Collector	

It is evident from the classifications that several roads are being used for non-local trips. Given the geometry and location of East Pikeland Township, this is not unexpected. With Phoenixville located adjacent and to the northeast of the Township, it is expected that a significant volume of traffic would either originate or arrive there. The actual traffic counts vary considerably among the different classifications of roads, as is evident in Table 10.3. The County assembles this data periodically, although not all classified roads are monitored each year.

Table 10.3

Daily Traffic Volume Estimates

Road	Limits	Last Year Reported	Daily Volume
PA 23	Buckwalter/Hares Hill	1995	4977
PA 23	Hares Hill/PA 724	1990	5281
PA 23	PA 724/Rapps Dam	1988	16564
PA 724	Bridge St/Hares Hill	1998	14089
PA 724	Hares Hill/PA 724	1998	14183
PA 113	Pickering/Cold Stream	1999	14104
PA 113	Cold Stream/Pothouse	1997	11074
Cold Stream	Hares Hill/PA 113	1999	3626
Cold Stream	PA 113/Township Line	1998	5126
Pughtown	St. Matthews/Kimberton	1999	3181

Township Line	Pothouse/PA 113	1999	7087
Township Line	PA 113/PA 23	1997	6983
Township Line	PA 23/Mowere	1998	3147

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Source: Chester County Planning Commission, Daily Traffic Volume Estimates for Roads in Chester County, June 2000.

The Pennsylvania State numbered roads carry the vast majority of traffic volume in the Township. Portions of PA 23 west of its intersection with PA 724 are an exception. PA 23 is generally oriented east and west across the northern areas of Chester County, passing through Phoenixville, which is adjacent to the northeast boundary of the Township. PA 113 is oriented north and south, passing through the southern portion, connecting Downingtown to the south and Phoenixville. PA 724 is aligned with the south side of the Schuylkill River, across the northern tier of the Township, and also enters Phoenixville. From the orientation of these three routes (23, 113 and 724), the presence of Phoenixville on the northeastern edge of the Township is significant. The volumes in the chart above indicate that much of the traffic on these roads is pass-through in nature. As would be expected, the named roads are carrying volumes of from one-third to one-half of the numbered roads. These named roads have a much more local significance and are performing the role of collector or minor collector roads. As per the definition of a collector, they distribute traffic from the local developments to the regional road system.

The regional land use pattern is decidedly low density residential, essentially a “bedroom” community for employment centers located elsewhere. The traffic patterns reflect a commuting pattern from and to these residential areas, with minor emphasis on local trips for available services. Since East Pikeland Township doesn’t have significant employment or commercial centers, it can be assumed that the volumes of traffic being experienced in the area are primarily passing through the Township. The daily volume on some of the numbered roads is extreme for two lane segments, causing alternative routes to be sought. In many cases these routes are the local roads which have even less capacity. The resulting congestion is not entirely of the Township’s making, but is, nevertheless, an important local transportation issue.

The network of roads in East Pikeland Township, like all municipalities in Pennsylvania, is made up of roads that are either owned and maintained by the State or the local municipality. In East Pikeland, there are 15.3 miles of State owned roads, compared to 25.9 miles of Township owned roads. These figures are generally consistent with those of nearby townships of similar rural character. Another statistic worth noting is the density of roads in the township. The Chester County Planning Commission has calculated the number of miles of roads per square mile of land area for various townships. In the case of East

Pikeland Township, the density factor is 4.67 road miles per square mile, a figure that is higher than all other townships in the Federation of Northern Chester County Communities, except the Borough of Spring City. By comparison, Chester County on average is 3.84. The high density factor is indicative of the Township's level of residential development and the State roads which traverse its width. This is a local situation, since the average for the Federation of Northern Chester County Communities is 3.47 road miles per square mile. Calculated into the Federation's average is the high density number of 14.2, which represents the Borough of Spring City. Without its inclusion, the difference between the Federation's townships and East Pikeland Township would be greater.

Road Improvement Projects.

Projects to improve the safety and structure of roadways, shoulders, bridges and other structures are continually being identified. Chester County maintains a "Highway Improvements Inventory", a continuing list of all projects that have been submitted for inclusion in a PennDOT future budget. Table 10.4, is an excerpt from that list for all projects in East Pikeland Township.

Table 10.4

Road Improvement Projects

<u>Project Name</u>	<u>Type</u>	<u>Cost</u>	<u>Year*</u>
Hares Hill Rd over French Creek	Bridge Rehab.	\$1M	5-8
Pickering Rd over Pickering Creek	Bridge Replace.	\$870K	1-4
PA 23 at Hares Hill Rd	Safety Improvmt.	\$430K	9-12
PA 724: PA 23 to Bridge St	Reconstr. 4 lanes	\$11.22M	9-12
Rapps Dam Rd:PA113/PA23	Realign/widen	\$1.3M	9-12

\* Year refers to project construction year by intervals in Chester County program.

Source: Chester County Planning Commission: Highway Improvements Inventory, 1999.

The proposed road and bridge construction projects listed above are the result of general deterioration of the road network in the Township due in part to high traffic volumes over the years. They have been recommended to the County by legislators and township officials as having a high priority for funding. The year for construction of each project is preceded by engineering and right-of-way

acquisition periods. The projects that have a construction time frame of being accomplished in from 9 to 12 years from 1999 are probably seen by the township as being necessary before that time. The prioritization of projects is an annual process and Township officials should continue to monitor the condition of local roads and bridges in order to make recommendations for funding.

### Future Road Plans.

One particular road plan that will impact East Pikeland Township has been discussed for a number of years and is now the subject of a planning study by DVRPC. This proposed road is known as the Route 113 Phoenixville Bypass and would connect Routes 23/724 in East Pikeland Township with Route 422 in Upper Providence Township in Montgomery County. The intent of this connection is to relieve existing roads passing through Phoenixville, and to encourage redevelopment of some urban areas. Initial plans include a public participation process to assess community input. There will also be a steering committee established, to be made up of representatives from the affected townships and boroughs. East Pikeland Township should take maximum advantage of every opportunity to participate in the planning studies. The proposed alignment of the spur would traverse the northeastern sector of the Township, crossing land that is predominantly used for agriculture currently. The proposed alignment has been a matter of public knowledge for many years and is, in fact, shown on the base maps of the Comprehensive Plan Update of the Township, adopted in April 1984.

### Public Transportation.

The only form of public transportation readily accessible to residents of East Pikeland Township is the Southeastern Pennsylvania Transportation Authority (SEPTA) bus route #99, which provides daily service between Royersford and Norristown along Route 724. This route is convenient to the northern region of the Township only. The lack of a more intensive bus system or any other form of public transit is indicative of the lack of density in the Township and emphasis on residential development. It is the low density, and resulting limited ridership, that makes public transit financially infeasible.

A future improvement to the regional transit system is currently in the planning phase. A SEPTA project known as the Schuylkill Valley Metro is proposed rail service from downtown Philadelphia, through Montgomery and Chester Counties, to the City of Reading and the Borough of Wyomissing, in Berks County, approximately 62 miles in length. In the vicinity of East Pikeland Township, the route would be coincident with Route 422, on the northeast side

of the Schuylkill River in Montgomery County. Costs and timetables have yet to be developed, although a Draft Environmental Impact Statement has been undertaken. The proximity of a future rail station and regular, efficient service to and from the central business district of Philadelphia could have a major impact on future growth in the Township. The ability to commute on transit to such a large employment center as central Philadelphia will continue to make East Pikeland Township a desirable residential community. As public transit becomes a reality, the Township should consider means for individuals to get to transit stations conveniently and possibly by non-motorized transportation. The use of a trail network for walking or bicycling to and from the stations, with a secure area for bike storage, would relieve congestion on the local roads, particularly at peak use hours.