

Chapter Six

Transportation and Circulation Conditions

INTRODUCTION

The study of transportation and circulation conditions in the Kennett Region is important in several ways to the overall planning process. As municipalities in the Region grow and develop, they experience increases in traffic volumes and shifts in their circulation patterns. This in turn places a strain on the transportation network, causing congestion and hazardous conditions, and potentially leading to the deterioration of the overall quality of life. By studying and understanding the existing conditions and function of road networks, the Region can determine potential future transportation and circulation needs, based upon the identified current trends and adopted goals and objectives of the Region.

The existing operating conditions and roadway characteristics of the Region studied in this chapter are used in the Circulation Plan element to set actions and strategies for road improvement efforts. Planning for transportation and circulation needs of the Region provides direction for a balanced development pattern, as they are closely connected and influenced by the Region's land use pattern. The adjacent land uses influence the modes of transportation, circulation system, and traffic volumes seen on any roadway. Therefore, the study of these factors helps in identifying and alleviating inconsistencies between land use and transportation, and helps in enhancing the quality of life and livability of the Region.

Transportation planning can also work towards attaining greater regional consistency by resolving differences between the individual municipal road functional classifications and design standards, protecting visual and historic resources, obtaining funding for large transportation projects, planning for public transit needs of the Regional population, and helping the Region achieve its economic potential.

This Chapter includes information on transportation and circulation conditions under the following topics:

- Modes of Transportation
- Circulation System
- Functional Classification of Roads
- Estimated Traffic Volumes
- Accident Information
- Roadway and Bridge Conditions
- Scenic Road Preservation
- Regional Transportation Issues

PLANNING IMPLICATIONS

The analysis of transportation and circulation conditions indicates the following planning implications for the Region:

- ❑ **Road Functional Classifications** - There is a need to coordinate the differences between the municipal road functional classifications and design standards and work towards greater regional

consistency to facilitate efficient access and mobility.

- ❑ **Regional Transportation Study** - There is a need to prepare a regional level transportation study, road improvements survey, and implementation plan, to cooperatively improve driving conditions throughout the Region and make all roads safer to travel.
- ❑ **Additions to Twelve-Year Program** - Any additional roadway and bridge projects that need to be improved that are not already included in the PennDOT's Twelve Year Program should be identified and recommended to the county and state for inclusion in their capital improvement projects. This will assist in scheduling and addressing identified problems cooperatively throughout the Region.
- ❑ **Pedestrian Connections and Bike Routes** - There is a need to identify important pedestrian connections and bike routes within the Region. This can help in preparing an interconnected pedestrian trails and bike routes plan, linking destinations within and in the immediate vicinity of the Region.
- ❑ **Scenic Roads** - When establishing functional classes and design and development guidelines, the scenic quality of the roads should also be taken into consideration. This will help enhance the driving experience and promote safe driving conditions.
- ❑ **Historic Bridges** - The Region could identify any historic bridges that they wish to preserve as a historic resource.
- ❑ **North-South and East-West Routes** - The Region should identify a minimum of one north-south and one east-west roadway to be increased in carrying capacity, to accommodate anticipated growth within and out of the Region.
- ❑ **Public Transportation Considerations** - Public transportation opportunities need to be augmented, by considering commuter destinations from the Region. These commuter destinations and patterns need to be considered while arriving at an effective strategic public transportation plan for the Region.
- ❑ **Land Use and Transportation Coordination** - Future land use and transportation planning for the Region should be coordinated, due to their strong influence on each other.
- ❑ **Updating Existing Studies** - The Route 1 Corridor studies should be periodically updated to incorporate current trends, impacts and future projections.

MODES OF TRANSPORTATION

Automobiles are the dominant mode of transportation in the Region. Reliance on the automobile is partly due to the lack of other alternatives and partly due to the development pattern experienced in the Region. The Region is not served directly by any public transportation. Except for Kennett Square, the most common pattern of land development in the Region is residential development on large lots, which limits transit opportunities. The large lot residential developments make walking to stores, bus or train stations, schools, places of work, or other destinations very difficult. The possibilities of providing transit opportunities are diminished due to the prevalent low-density land patterns and potential limited ridership.

For the Region, the closest bus service is the SEPTA routes on Route U.S. 202, and around West Chester Borough. The Chester County Paratransit System provides another transportation alternative. The Transportation Management Association (TMA) of Chester County and Southern Chester County Organization on Transportation (SCCOOT) was awarded the special Federal Transit Administration Grant, for bus and enhanced paratransit services to southern Chester County. This grant has initiated a fixed route bus from Oxford Borough to West Chester Borough, and has been operational since the end of 1999.

The closest train stations are in Westtown and Wilmington, DE. The Amtrak and SEPTA commuter trains run in the north along U.S. Route 30 with stations in Coatesville, Thorndale, Downingtown, Whitford, Exton, and beyond. The closest airports are in New Garden, West Goshen, New London, Valley Township, and New Castle County, which are all general aviation or reliever airports, with no scheduled carriers. The closest commercial service airport would be the Philadelphia International Airport.

There are two small operator freight railroad lines that run through the Region: the Octorara Branch and the Brandywine Valley Branch of the Wilmington/Northern (Lukens) Railroad. The Octorara Branch carries only freight, and links the Oxford area in the west, through Kennett Square, to the Brandywine Railroad in Pennsbury. The Brandywine Railroad primarily serves industrial uses in the Coatesville area, and links Coatesville to the CSX Railroad in New Castle County, Delaware. This railroad line is used to carry freight and has been used for recreational train excursions through the Brandywine Valley.

Transportation Trends in the Region

The 1990 Census data indicates that approximately 89 percent of the Kennett Region residents rely on the automobile for travel between home and work, with only about 6 percent using public transportation or other forms of transport (such as walking and biking), and about 5 percent working at home. These numbers are similar to resident's travel choices in 1980, when again 89 percent of residents relied on the automobile, 7 percent of residents used transit or other forms of transportation, and another 4 percent worked at home. The key difference between 1980 and 1990 data is that the percentage of residents driving *alone* increased significantly. In 1980, about 69 percent of residents drove alone and approximately 20 percent carpoled. In 1990, over 78 percent of Region's residents drove alone between home and work, while less than 11 percent carpoled. The average number of vehicles per household in the Region in 1990 was 2.04, compared to 1.89 for Chester County. In 1980, the numbers were 1.81 for the Region and 1.80 for the County.

Overall the choice of transportation modes discussed above for the Region reflect the changes in the County over the ten-year period. The only notable difference is in the use of public transit: 11 percent of the County residents use public and other forms of transportation, whereas only 6 percent of the Region residents rely on non-automobile transportation. As indicated by the increase in average number of vehicles per household, it is clear that the Region's residents continue to rely on the automobile as the dominant mode of transportation between home and work, with a large majority driving alone. The commuter destinations from the Region are discussed in Chapter 4 (see Figure 4-23). These commuter destinations and patterns need to be considered while arriving at an effective strategic transportation and circulation plan for the Region.

CIRCULATION SYSTEM

Motorized Circulation System

Figure 6-1 shows the road mileage and density of roadways within each municipality in the Region. Of the 218 total miles of publicly owned roadway in the Region, almost 146 miles are owned and maintained by the local municipalities and close to 72 miles are owned and maintained by the State. PennDOT has been in the process of transferring state owned roadways to local ownership wherever possible, to facilitate management and maintenance. The overall roadway density in the Region is about four linear road miles per square mile of area. The Borough has the highest density of roadways, almost 16 linear road miles per square mile of area, due to its urban nature. This is indicative of all urban areas in the County. The remaining municipalities in the Region are similar to the suburban and marginally rural roadway densities in comparison with other municipalities in the County.

Figure 6-1: Roadway Distribution

Municipality	Roadway Miles			Density [∅]
	Local*	State**	Total	
East Marlborough Township	42.43	18.37	60.80	3.80
Kennett Square Borough	12.89	4.29	17.18	15.91
Kennett Township	42.01	21.22	63.23	3.33
Pennsbury Township	25.27	14.92	40.19	3.88
Pocopson Township	23.30	13.03	36.33	4.31
Region	145.90	71.83	217.73	3.97

[∅] Linear road miles per square mile of area

Source: * PennDOT and Municipal Comprehensive Plans.

** PennDOT, April 1998.

On a national basis, road ownership distribution is 76 percent local and 24 percent State and Federal¹. In Chester County, the breakdown is 69 percent local and 31 percent State and other. In the Kennett Region, local municipalities own 67 percent of the roadways, and the remaining 33 percent are under PennDOT's ownership. This demonstrates that PennDOT owns and maintains a marginally higher percentage of roads than the County average within the Region. This ratio may change in the future if the State continues transferring more roads to local jurisdictions. This will not only give municipalities greater responsibility for roadways, but will also give more control over their maintenance.

Non-Motorized Circulation System

Pedestrian circulation facilities in the Region consist primarily of the sidewalks in the Borough, and the trail networks and sidewalks within residential subdivisions in the rest of the Region. Areas of dense residential or commercial development, the Borough, and local destinations within the Region and in the immediate vicinity should be considered for providing better pedestrian connections. The individual municipal Open Space, Recreation, and Environmental Resources Plans contain inventories of existing

¹ 1997 National Transportation Statistics, United States Department of Transportation, Bureau of Transportation Statistics.

trails in the municipalities and recommendations for future trails and linkages. These trails primarily serve a recreational function, rather than a transportation function.

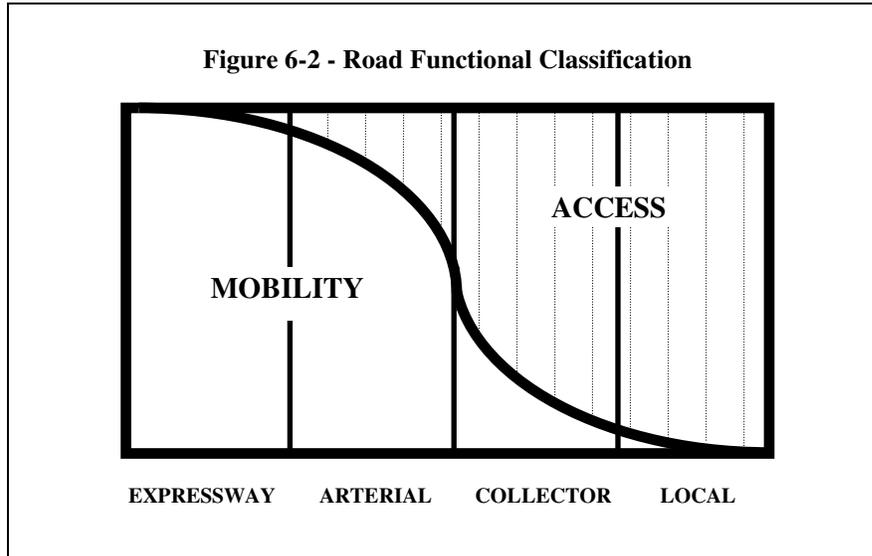
The Region's road system also provides opportunities for bicycle travel. The area in and around Kennett Square Borough and the northern parts of the Region in proximity to the employment center in and around West Chester Borough could make bicycle travel a useful commuting alternative to automotive travel. However, due to the steep grades found on many roadways within the area, bicycle travel may only be a viable means of transportation for a small percentage of the population. Routes 52 and 82 provide opportunities for bike travel into New Castle County and Wilmington, Delaware. The State of Delaware has designated sections of Yorklyn Road and DE Route 82 near Kennett Township as part of "Delaware Bike Route 1." The Route 82 section of DE Bike Route 1 extends east to Brandywine Creek State Parks outside Wilmington. The Yorklyn Road section extends south through all three of Delaware's Counties and into Maryland near Ocean City Maryland. It may be possible to link this major bike route to a future bike route in the Kennett Region. Baltimore Pike provides opportunities to connect to Avondale. Main road improvements to provide for bicycle travel would be resurfacing, widening, and/or edgeline adjustments. The County is currently exploring bike connection possibilities to include in the countywide bike route plan for the County Transportation Plan.

The Region should identify important pedestrian connections and bike routes that are most conducive to biking in terms of grades, road widths, and traffic volumes. This can help in preparing an interconnected pedestrian trails and bike routes plan, linking destinations within and in the immediate vicinity of the Region.

FUNCTIONAL CLASSIFICATION SYSTEM

Roads function in different ways, serving varying traffic volumes, trip lengths and purposes, and accommodating varying traffic speeds. When a road functions in a manner that is not consistent with its design, that road can fail from a safety and/or capacity standpoint. To avoid this problem, it is useful to establish a classification system for roads and a set of design standards related to each. The Functional Classification System organizes various roads and road segments in a hierarchy based on the function each serves. This system designates road segments based on average traffic volumes, roadway design, and the relationship of the segment to other nearby roads. It also considers the perceived average trip length, and whether the roadway generally serves an access function or a mobility function. The relationship between access and mobility is a key aspect of roadway classification. Accessibility refers to the ease of entering or exiting a roadway from adjacent properties; mobility refers to the ability of the road to move heavy volumes of traffic quickly. These roles have an inverse relationship in that the more efficiently a particular road can move traffic, the less able it will be to effectively provide access to adjacent properties and vice versa.

Figure 6-2 illustrates this concept relative to different functional classifications.



On one end of the scale, expressways provide maximum mobility, but strictly limited accessibility. Conversely, local roads are intended to provide maximum access to properties but minimum mobility. The conflict between access and mobility is the fundamental cause of most congestion and safety problems. These conflicts are minimal with expressways and local roads, which each serve one purpose almost exclusively, but are significant with arterials and collectors, which attempt to balance these two functions more closely.

Map 6-1 shows the functional classification of the major roads in the Region. The map was created from compiling functional class information from the individual municipal comprehensive plans in the Region. Each municipal comprehensive plan classifies roads somewhat differently. Figure 6-3 lists the individual municipal road functional classes.

The general functional classification categories are expressways, arterials, collectors, and local roads.

- **Expressways** are designed to move the maximum number of vehicles at relatively high speeds by restricting the number and types of access points. These roads generally serve interstate and inter-regional traffic. The only expressway in the Region is a portion of U.S. Route 1 Bypass.
- **Arterials** are intended to carry relatively high traffic volumes at relatively high speeds and give priority to mobility over access, but also have an access function. Access to arterials is less restricted than with expressways, but is still fairly restricted. Arterials in the Region include U.S. Route 1, Baltimore Pike, PA Route 41, PA Route 82, and parts of PA Route 52 below Route 1.
- **Collectors** support the arterial network by carrying reasonably large traffic volumes at moderate speeds with minimum access controls. Collectors begin to stress access over mobility and often connect residential areas with employment and shopping areas. The most important collector in the Region is PA Route 926 and PA 52 north of Route 1.
- **Local roads** provide access to and egress from adjacent properties, carrying low volumes of traffic at low speeds. These roads provide short distance travel, generally between specific properties and to

collectors and arterials on the larger network. The majority of the roads in the Region fall under this category.

Figure 6-3 lists the individual municipal road functional classes. There are some minor differences in the designation of roads within each municipality, but the definition of classes can be considered consistent with each other.

Figure 6-3: Municipal Functional Classification of Roads in the Kennett Region

ROAD CLASSES	EAST MARLBOROUGH	KENNETT	KENNETT SQUARE	PENNSBURY	POCOPSON
Expressway	✓	✓			
Principal Arterial	✓			✓	
Major Arterial		✓			
Minor Arterial	✓	✓		✓	✓
Collector		✓			
Major Collector	✓		✓	✓	✓
Minor Collector	✓		✓	✓	✓
Local Roads	✓	✓	✓	✓	✓

Source: Municipal Comprehensive Plans

From municipal definitions of individual road classes, it is clear that *Principal Arterial* corresponds with *Major Arterial*. (Note: In Map 6-1, Major Arterial includes Principal Arterial.) All municipalities except Kennett Township divide *Collector* into *Major Collector* and *Minor Collector*.

The functional class designations of the Borough roads differ in definition from the Township roads due to its urban landscape. Due to the larger density of roads in the Borough, traffic gets dispersed once it enters into the local road grid. Also, the traffic speeds are lower as one enters the Borough. This explains the reason for the same road being designated a lower functional class when it passes through the Borough, such as in the case of Baltimore Pike and PA 82.

As seen in Map 6-1, there are some inconsistencies between road designations between municipalities:

1. PA Route 926 is designated as a Major Collector by East Marlborough and Pennsbury; but Pocopson classifies it as a Minor Arterial.
2. PA Route 52 is designated as a Major Arterial by Kennett Township; but Pennsbury designates it as Minor Arterial.
3. The section of PA Route 52 that divides East Marlborough and Pennsbury is designated as Minor Arterial by the former and Major Collector by the latter.
4. U.S. Route 1 is classified in two different ways in four of the municipalities it runs through. East Marlborough, Kennett, and Pennsbury designate it as a Principal or Major Arterial; and Kennett Square designates it as Major Collector.

The Circulation Plan (in Chapter 11) will recommend a consistent functional classification system for the Region. This will help the Region achieve greater regional consistency in road design standards, and facilitate efficient access and mobility.

ESTIMATED TRAFFIC VOLUMES

Map 6-1 shows the traffic volume estimates for the major roads in the Kennett Region. These estimates are taken from the Daily Traffic Volume Estimates for Roads in Chester County, a list assembled by Chester County Planning Commission in March 1998. The list contains estimated traffic volumes on arterial and collector roads throughout Chester County. The data contained in the tables were assembled from various sources including PennDOT, Delaware Valley Regional Planning Commission, Chester County Planning Commission, and individual traffic consultants.

As seen on Map 6-1, U.S. Route 1 and Baltimore Pike are the most heavily traveled roads in the Region. PA 52 is the second most traveled, followed by PA 926 and PA 82 in that order. Traffic volumes traveling to the north of the Region are significantly less than that traveling south from the Region. This supports the discussion in Chapter 4, "... fifty percent of the Region's residents commute to jobs outside of Chester County, with the greatest concentration going to Delaware." These commuting patterns must be considered in a regional transportation planning aspect.

Traffic volumes on particular road segments can change dramatically from year to year, month to month, and even day to day. Factors such as weather, road construction, detours, traffic accidents, and land development can dramatically alter travel patterns. For these reasons, and due to the different estimating techniques, it is recommended that the values from this map be used for general comparison purposes. For uses other than general comparison, current estimates need to be obtained by conducting area specific studies. Pennsbury is currently conducting a Route 1 Corridor Study. The Region needs to monitor this effort to ensure consistency with the regional plan, both in terms of land use and transportation issues.

ACCIDENT INFORMATION

Pennsylvania Department of Transportation (PennDOT) provided a summary of data on all reported accidents in the Region for the six-year period from 1992 through 1997. Accidents are reported only when they involve injuries, fatalities, or excessive property damage. The total number of accidents that occurred is higher. There were 1,602 reported accidents in the Region during the six-year period. These accidents include both intersection and mid-block accidents. Fifty accidents involved "major" injuries, with 86 people sustaining major injuries. Another 622 accidents involved "minor" injuries, with 901 people sustaining minor injuries. Over the six-year period, 14 reported accidents resulted in fatalities. The vast majority of accidents involved no injuries or "moderate" injuries. Less than 8 percent (124 accidents) involved drivers under the influence of alcohol, and another 2.5 percent (38 accidents) involved deer in the roadway.

Map 6-2: Road Safety Information Map shows the general location and number of accidents in the Region for the six-year period. The U.S. Route 1 corridor is the highest accident location in the Region. Route 1 is the most traveled road in the Region by a significant margin, has higher speed limits, and many access points, accounting for the higher number of accidents. Accidents along Route 1 were heaviest at and in the vicinity of its intersections with PA 52. There were several other accidents reported at Route 1 intersection with Brintons Bridge Road and Fairville Road, at the intersection of Baltimore Pike and McFarlan Road, and several others within the Borough along State and Cypress Roads. There were significant numbers of mid-block accidents between Greenwood Road and Route 1 bypass. The other heavy accident location in the Region was along PA 82. There were several accidents reported at its intersections with PA 162 and PA 842. PA 926 and PA 52 reported many accidents at intersections and mid-block all along the routes.

In Chapter 11, this data will be used in preparing a regional level road improvements survey and implementation plan to cooperatively improve driving conditions throughout the Region and make all roads safer to travel.

ROADWAY AND BRIDGE CONDITIONS

This section discusses the existing roadway and bridge conditions, and any state capital improvement projects that are under consideration to enhance the safety, access, and mobility throughout the region.

Roadways

Based on municipal comprehensive plans, most of the roads in the Kennett Region are in reasonably good condition and do not have significant safety problems. Due to the rural nature of many of the roads, however, there are a number of intersections with limited sight distances and a few roads with very narrow cartways. These limitations are not a problem on local farm roads, but would be a safety hazard on collectors or other roads that carry significant traffic. Roadway surfaces are generally in good condition. Conditions potentially affecting traffic safety include access management problems, intersection alignment, limited sight distance, roadway surface condition, and sharp curves. Other features, such as steep grades, structures close to roads, and steep adjacent terrain can have an adverse effect on traffic safety, yet add to the scenic character and aesthetic value of those roads. Within most of the suburban residential subdivisions in the Region, roads have been engineered to standards that ensure reasonable traffic safety, yet do not continue the character of the rural roads from which they are accessed.

A comprehensive inventory of roadway conditions is beyond the scope of this Plan. The Region should consider conducting a regional level inventory of roadway conditions and needed improvements to assist in scheduling and addressing identified problems cooperatively throughout the Region. In this process, the Region should weigh the conflicting issues of safety versus scenic qualities of roadways.

Bridges

PennDOT maintains a Bridge Management System (BMS) Inventory, which is an inventory of all bridges owned by the State, municipalities, and the County. The BMS inventory consists of detailed information of all listed bridges, in terms of their location, statistics, engineering specifications, and other related items. The inventory lists bridges by ownership (state, county or local municipality), whether posted or not posted, and closed bridges. There are several old bridges with historic value within the Region listed in the BMS. The earliest operational bridge in the Region was constructed in 1860 and is located in Pennsbury on Chadds Ford Road over the Brandywine Creek.

According to the 1997 BMS inventory, there are seven County bridges, 12 Municipal bridges, and 48 State bridges in the Kennett Region. These include bridges over waterways, roads, and railroads. Some bridges are “posted” with weight limitations to use the bridge for safety purposes. There are five posted bridges in the Region, as listed below. There are no closed bridges listed for the Region.

Figure 6-4: Posted Bridges in Kennett Region

Municipality	Road Name	Creek	Post	Ownership
Pennsbury*	PA 926	Pocopson Creek	35 Tons	State
Pennsbury/Pocopson /Birmingham	PA 926	Brandywine Creek	35 Tons	State
East Marlborough	Mill Road	West Branch Red Clay Creek	3 Tons	County
Kennett*	Chandler Mill Road	West Branch Red Clay Creek	8 Tons	County
Kennett*	Hillendale Road	West Branch Red Clay Creek	12 Tons	County
East Marlborough	East Locust Lane	East Branch Red Clay Creek	8 Tons	Municipal

* See Figure 6-6 for status on PennDOT program.

Source: Bridge Management System (BMS) Inventory, PennDOT, 1997.

Capital Improvement Projects

Capital improvements are scheduled by the state for highway, bridge, and transit networks. This schedule of improvements takes the form of the PennDOT Twelve Year Program. Each even-numbered year, PennDOT submits recommended projects for the next twelve fiscal years to the State Transportation Commission. After a public review process, the Commission adopts a list of projects, which includes a description of each project, estimated cost of the project, and time frame of project in the next twelve years. Project priorities in the Program are defined by the state, and in part on input from legislators, counties, transit operators, and municipalities.

The Chester County Highway Improvements Inventory is a capital improvements program, which includes County highway and bridge projects that have been recommended to the County by legislators, municipalities, and regional planning commissions. This inventory serves as the County's input to PennDOT in the development of their Twelve Year program as described above.

Figures 6-5 and 6-6 list those highway and bridge projects included in the adopted PennDOT 1997 Twelve Year program. The tables also indicate the timing of the projects in the PennDOT program, and Chester County Planning Commission's recommendation for their phasing.

Figure 6-5: Proposed Highway Improvements in the 1999 PennDOT Twelve Year Program

Municipality	Project	Type of Improvement	Timing	
			CCPC*	PennDOT**
East Marlborough	U.S. 1 from Bayard to Bypass	Add lane in each direction	1 to 4 year	1 to 4 year
Kennett	PA 52: U.S. 1 to PA 926	Two lane relocation	1 to 4 year	1 to 8 year
Kennett	PA 52: U.S. 1 toward Hillendale Road	Two lane relocation	5 to 8 year	Not in the program
Pennsbury	PA 926/Parkersville Road	Realignment	1 to 4 year	1 to 4 year
Pennsbury	PA 926 curve near Denton Hollow Road	Realignment	1 to 4 year	1 to 4 year

* Suggested timing for Engineering, Right-of-way and Construction phases as recommended by the Chester County Planning Commission in October 1999 to PennDOT.

** Proposed phasing for the project according to the adopted 1999 Twelve Year Program.

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

PennDOT has identified state, county and municipal bridges for improvement in the Twelve Year Program. Figure 6-6 lists the bridges slated for improvement in the Region. Three of the five posted bridges (see Figure 6-4) in the Region are in the highway improvements inventory, and two of them in the adopted twelve year program for complete bridge replacements.

Figure 6-6: Proposed Bridge Improvements in the 1999 PennDOT Twelve Year Program

Municipality	Location	Type of Improvement	Timing		Ownership
			CCPC*	PennDOT**	
Birmingham	PA 926 over Brandywine Creek	Replacement	5 to 8 year	9 to 12 year	State
Pennsbury	PA 926 over Pocopson Run	Construction	9 to 12 year	1 to 4 year	State
Kennett	Chandler Mill Road over West Branch Red Clay Creek	Replacement	1 to 8 year	Not in the program	County
Kennett	Hillendale Road over West Branch Red Clay Creek	Replacement	1 to 4 year	Not in the program	County
Kennett	Hillendale Road under Octorara Branch	Replacement	5 to 8 year	Not in the program	Orphan
Kennett	Pemberton Road over West Branch Red Clay Creek	Replacement	9 to 12 year	Not in the program	Orphan

* Suggested timing for Engineering, Right-of-way and Construction phases as recommended by the Chester County Planning Commission in October 1999 to PennDOT.

** Proposed phasing for the project according to the adopted 1999 Twelve Year Program.

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

While making recommendations for improvements, the impacts of bridge and roadway improvements to the Region should be considered. With improvements made to the existing bridges posted with weight limitations, truck and heavy vehicle traffic are projected to increase. The roadway improvements will promote economic development and provide safety and access, whereas increased heavy vehicle traffic may effect the quality of life.

SCENIC ROAD PRESERVATION

The municipal open space plans contain scenic resources maps that identify significant scenic landscapes. All roads bordering or located within these significant landscapes are considered as “scenic roads”. There are many roads or portions of roads in the Region, which meet the criteria of being considered “scenic roads”. In Chapter 5, scenic and open space resources are discussed, but individual municipal open space plans should be referred to for a comprehensive list of scenic roads in each municipality.

As noted in Chapter 5, the very features that give a road its scenic character also often detract from its safety as a transportation corridor. This is not a conflict under current conditions for many of the Region’s lightly traveled rural roads, but it is already an issue for collector roads such as Routes 52 and 926. A challenge for the Region is balancing these competing values as development pressures continue, and volumes increase on roads that are predominantly lightly traveled and rural in character. When establishing functional classes and design and development guidelines, the scenic quality of the roads

should also be taken into consideration. This will help enhance the driving experience and promote safe driving conditions.

REGIONAL TRANSPORTATION ISSUES

There are many transportation issues common to the Kennett Region, and these issues can best be dealt with cooperatively on a regional scale. The following discussion considers external and internal influences on the Region's transportation system.

Exton By-Pass: Following the opening of the Exton By-Pass, there was a noticeable increase in travel demand from the Region to travel north. Traffic volumes indicated more trips to Downingtown and other northern parts of the County, for various reasons such as shopping, employment and recreation. As there are no major connectors to Route 100 and Route 202 going north, there is a noticeable increase in the use of secondary roads like Red Lion Road and Northbrook Road to get to Route 322. These secondary roads are not designed for the traffic volumes they are experiencing in recent times. This leads to congestion and safety issues. The Region should identify a minimum of one north-south roadway to be increased in carrying capacity to address the travel demand from the Region.

U.S. 202 Corridor: Route 202 has developed into a major employment corridor, generating heavy traffic leading to increasing congestion. The U.S. 202 corridor is currently being improved to accommodate this traffic. PA 926 is the major collector road traversing the entire Region, and connecting the Region with the U.S. 202 corridor. Due to increasing volumes, travel on this road is becoming more restrictive and congested. PennDOT has some improvement plans for the intersection of U.S. 202 and PA 926, but this is not slated to happen within the next ten years. Any major improvements to this area will impact the Region and can be anticipated to bring more development pressures. The Region should review the functional classification of PA 926 and recommend improvements to facilitate safety, access, and mobility.

U.S. Route 1: The Route 1 corridor poses many of the same issues as PA 926, but on a larger scale. Drivers use Route 1 to get to employment centers north, south, and east of the Region. Route 1 is also becoming a commercial core with regional shopping center proposals within the Region, generating even more traffic. The Borough is developing into an economic center with the addition of corporate businesses. This has tremendous economic development prospects, but will also increase the demand for infrastructure and effective transportation facilities and improvements. State and Cypress Streets and Union Streets will experience more volumes, and measures should be taken to handle this in the future. The Region should recommend roadway improvements to facilitate safety, access, and mobility along the Route 1 corridor.

DE Route 7 / PA Route 41: Improvements made by the State of Delaware to DE Route 7 will be partially contingent upon improvements made to PA Route 41. Currently, DE 7 is a five-lane controlled access highway south of the Region, and Delaware would prefer to improve it all the way up to the state line. However, these improvements would be of limited benefit if connected to the two-lane Route 41 at the Delaware-Pennsylvania border. As the five-lane highway drops in capacity to a two-lane road, it has effectively inhibited growth in the Region, but the pressure for growth is increasing. It can be anticipated that this corridor will be opened in the future and will bring in increased growth and development. There are many issues and disparities to be resolved in this corridor, and a consensus needs to be reached between the two extremes.

CONCLUSION

With increasing development pressures both within and outside the Region, the road system of the Region is being taxed. Improvements should be identified and recommended to the county and state for inclusion in future capital improvement projects, as discussed above. This will help accommodate the increase in traffic volumes. However, the Region should also consider that transportation and circulation improvements in turn encourage more development. Therefore, the Region will have to weigh the advantages and disadvantages of economic development and increase in land development against safety, access, and mobility.