

Chapter 5 - Transportation



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Transportation

A. Introduction

The transportation system serves a wide range of functions. These include the delivery of goods and services necessary for commerce and the movement of people for work, recreation, and social activities. The availability of transportation, affects the use of the County's land. To function properly, each community must have adequate access to the transportation system. Each part of the transportation system must function as an interdependent part of the whole, to provide access throughout the immediate region and into more distant areas. Regular maintenance and rehabilitation can prevent the greater cost of complete replacement. When transportation infrastructure elements exceed its useful lifecycle, those elements should be replaced.

The current *Reading Area Transportation Study Long Range Transportation Plan* is itself composed of a number of functional documents including the *Congestion Management Process*, *Transportation Improvement Program*, *Bicycle and Pedestrian Transportation Plan*, *Public Participation Plan*, and others. The *Reading Area Transportation Study Long Range Transportation Plan* and its component documents is an element of this Comprehensive Plan.

B. History

The transportation systems in Berks County have their roots in the early exploration and development of this Country. Native American trails were expanded to accommodate wagons as the European immigrants settled into the region. In the mid 1700's, the settlement of the City of Reading was laid out at a prominent location on the road that connected the area to Philadelphia. As the town grew, it began to develop its own commercial market within Berks County. This created an extension of new roadways that provided a means of commerce to surrounding communities. In 1789, a stagecoach line, the first form of mass transportation, was established between Philadelphia and Reading. These lines were gradually expanded to surrounding communities.

Travel by land was usually restricted by the conditions of the roadways. The early roads were narrow and made of dirt, with steep grades, rocks, mud and ruts. To improve travel over the principal routes, a series of toll roads (turnpikes) were constructed with wider cartways, improved surfaces and better drainage. These turnpikes form the basis of today's highway system.

In 1822, the Schuylkill Canal was completed to link the anthracite region of Schuylkill County to Philadelphia. In 1828, the Union Canal, which generally followed the Tulpehocken Creek, was completed by linking the Schuylkill and Susquehanna Rivers. With both of these canals intersecting at Reading, the area became a prime location for the development of storage, industrial facilities and their associated residential populations.

In 1842, the Philadelphia and Reading Railroad completed a line from Pottsville, through Reading, to Philadelphia. These early rail lines generally paralleled the routes of the canals. Since railroads could transport larger loads over longer distances in a shorter period of time, the canals eventually went out of business.

In 1874, a horse drawn street railway was introduced to the Reading area. Electricity eventually replaced the horse as the power source and the lines were extended to serve towns such as Stony Creek, Womelsdorf, Kutztown and Mohnton. The street railways, also known as streetcars, had the greatest influence to change the pattern of development in the City of Reading and the County. By making the center city more accessible, retailers were no longer dependent on the urban pedestrian alone; but could now draw from the entire region. The street railways served another function – relieving some of the traffic congestion of the City of Reading. The lines also offered those dissatisfied with the condition of the downtown area a means of reliable travel between homes in the suburbs and employment in the city.

The introduction of the internal combustion engine at the turn of the century brought about a number of changes in the County. Farmers were now able to cultivate larger areas in less time to produce higher yields. The automobile and truck allowed for the faster movement of products. However, the unimproved condition of rural roadways hindered the movement. By 1950, the County was served by a broad network of State-owned paved roadways linking it to the National Highway System. A system of secondary roads penetrated the rich agricultural region enabling farmers to bring their products to the urban market area.

Paved public roads enhanced the flexibility of the automobile and truck, and caused a decline in streetcars and railroads. Railroads were forced to concentrate on handling long-distance and high volume traffic. By 1952, the streetcars were completely replaced by buses. Buses and the automobile allowed the individual to reside farther from the city. Industries that were previously tied to the canals or railroads were now free to relocate elsewhere. Another facet of the automobile is the effect that it has had on the location of commercial development. Traffic congestion and parking problems proved to be strong factors acting against urban businesses. To circumvent these problems, suburban shopping centers were formed.

Due to Decentralized housing, employment and commerce forced the transportation system to accommodate a broad range of movements across a wide geographic area. The inability to grow the transportation system at a rate equal to the growth of demand has lead to the roadway congestion problems we are faced with today.

C. Roads

The roadway system is the basic element of the transportation system. It connects all of the modes of transportation. In 2009, there was a total of 3,253.8 miles of public roadways in Berks County. Of this total, 879.8 miles were maintained by the Pennsylvania Department of Transportation (PennDOT) and an additional 4.7 miles by the Pennsylvania Turnpike Commission. The remaining 2,369.3 miles were maintained by municipalities and the County. Of the total road mileage, 51.5 miles are included in the limited access Interstate Highway System. Another 25.9 miles of non-Interstate limited-access highways are located primarily in the urbanized area. Segments of three-lane and four-lane highways exist primarily on U.S. 222, U.S. 422, PA 61, PA 12 and PA 100 near Boyertown. The remainder of the roadways throughout the County have only two lanes.

Historically, Berks County has been served by a radial system of five major arterial highways. U.S. 222 is the principal link through Reading to Allentown and Lancaster, and provides a connection to the Pennsylvania Turnpike.

PA 61 is the principal highway connection between the anthracite belt and south central Pennsylvania, linking such cities as Pottsville, Sunbury and the City of Reading. To the east, U.S. 422 provides a direct link to the Philadelphia area. To the west, U.S. 422 connects Reading to Lebanon, Harrisburg and the Capitol region. Berks County has no Interstate link traversing the urban area. However, I-78 to the north and the Pennsylvania Turnpike (I-76) to the south bound the County. PA 183 and PA 61 act as connectors to I-78, while I-176 and U.S. 222 South link the urban area with the Turnpike.

At one time, these highways performed the desired functions. However, continued growth and the location of new traffic generators caused congestion, delays, and hazards along these roads. Improvements have failed to keep pace with changing conditions and the highway system's efficiency has been reduced.

1. Functional Classifications

Classification of a highway's function is based on an analysis of the volume of traffic, the type of trip, the length of trip, and the speed of the trip. There are four basic classifications of highways:

Interstate/Other Expressways - These highways are designed to provide for the movement of the greatest number of vehicles over the longest distance in the fastest allowable time. Access to expressways is restricted to grade-separated interchanges and the flow of traffic is uninterrupted. These highways generally serve either inter-state and inter-regional traffic or cross-town traffic in densely developed areas.

Arterials - Arterials also provide for the movement of large volumes of traffic over longer distances. However, these highways generally operate at lower speeds due to the presence of traffic control devices and access points. They can be sub-classified as Principal Arterials, which serve inter-city traffic, and Minor Arterials, which link smaller developed areas within large areas of the County.

Collectors - Collector highways serve moderate traffic volumes and act to move traffic from local areas to the arterials. Collectors can be subdivided into sub-categories. Major Collectors provide for a higher level of movement between neighborhoods within a larger area. Minor Collectors function to collect traffic within an identifiable area and serve primarily short distance travel.

Local – Local roads provide access to individual properties and serve short distance, low speed trips. There are more local roads than any other roadway type.

Accessibility is the ease of entering a roadway from adjacent properties. Mobility is the ability to move easily from place to place. Local roads are intended to provide maximum accessibility, but are not designed for mobility. Expressways and Principal Arterials provide for maximum mobility but limited access. Minor Arterials and collectors generally experience the highest

levels of conflict between accessibility and mobility, and experience the heaviest concentrations of congestion.

The current Federal Aid Functional Classification of major roads in Berks County is illustrated in Figure 5.1.

Traditional functional classification systems tend to be applied to entire highways based on their overall function, regardless of the local conditions and use. For example, a Principal Arterial passes through a densely developed area such as a borough. In this situation, local access is more important to the local community than the regional mobility. The standard roadway designs to meet each of these needs are vastly different. To better address these situations, Pennsylvania has endorsed smart transportation design principles for highways that attempt to balance these needs based on the predominant characteristics of the community through which they pass. PennDOT's *Smart Transportation Guidebook, March 2008* provides details on appropriate design standards based on both functional classification and community characteristics.

2. Traffic Volumes

The most fundamental description of a highway's function is the volume of traffic using that highway over a given time. Volume is generally expressed as an average over a twenty-four hour period and is referred to as the Average Annual Daily Traffic (AADT) value.

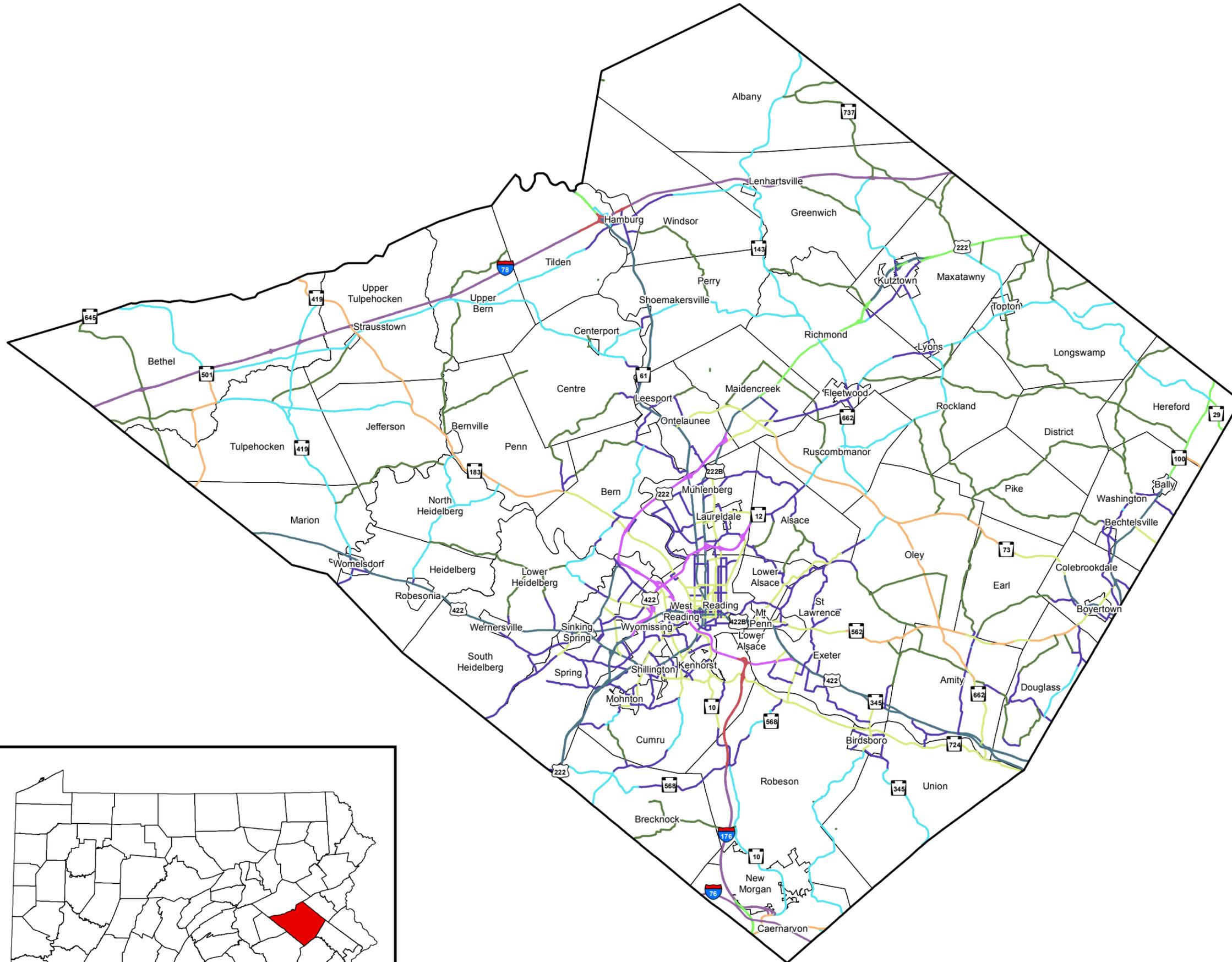
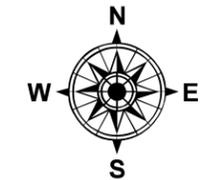
After examining the County-wide 2009 traffic volumes, it is evident that the five radial routes that encompass the City of Reading (U.S. 222 North and South, U.S. 422 East and West, and PA 61) serve as the County's principal arteries carrying an AADT in excess of 20,000 vehicles. The single highest traffic volume, with an AADT up to 81,000 is a portion of the West Shore Bypass (U.S. 422) between Penn St./Penn Ave. and N. Wyomissing Blvd. The most heavily used intersections are found within the urban area at the junction of U.S. 222, U.S. 422, and PA 10 in Reading and the intersection of U.S. 422, PA 724, and Mull Avenue in Sinking Spring which each handle approximately 40,000 vehicles per day.

Traffic orientation in the County is primarily east-west (I-78, U.S. 222, U.S. 422, PA 73, and PA 183) with the highest volumes concentrated in the central metropolitan area. Primarily I-176, PA 10, PA 61, PA 100, PA 501, PA 625, PA 662, and PA 737 provide north-south travel. Traffic volumes in the eastern third of the County generally outweigh those of the western third due to higher development densities.

D. Bridges

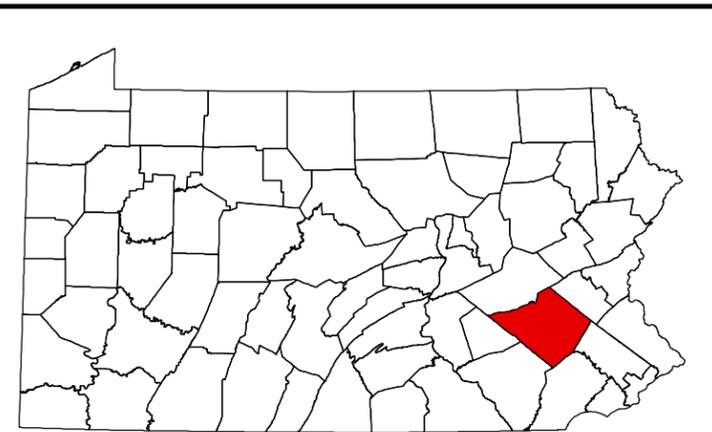
Bridges serve as critical links in the highway system providing a way to cross rivers, streams, railroads, and other highways. In Berks County, PennDOT maintains an inventory of 860 bridges. Of the total bridge inventory, 638 are eight feet or more in length and are located on State-maintained highways. The remaining 222 bridges are on municipal highways and have a length of 20 feet or more. Data collected by the Berks County Planning Commission indicates that as many as 150 additional bridges between 8 and 20 feet in length located on municipal roads may not be included in this inventory because they are not required to participate in the National Bridge Inspection Program. The municipalities in which they are located maintain the

Major Roads by Functional Class Berks County, Pennsylvania



Legend

- Rural Principal Arterial Interstate
- Rural Principal Arterial Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Urban Principal Arterial Interstate
- Urban Principal Arterial Other Freeways
- Urban Other Principal Arterial
- Urban Minor Arterial
- Urban Collector
- Berks County Boundary
- Municipal Boundaries



Source: Berks County Planning Commission, Berks County GIS, Berks County Mapping, Berks County Department of Emergency Services, PennDOT (December 2012)

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majority of these structures. However, the County is directly responsible for 57 bridges. There are also several “orphan” bridges located in Berks County. Orphan bridges are structures for which no municipality or agency has claimed ownership or responsibility. Most of the orphan bridges were built over railroads and have been disclaimed by both the railroads and the municipality.

Maintaining the bridge network is important because of obvious safety concerns as well as diversions in travel created when bridges are posted or need to be closed. Not only is the movement of people and goods adversely affected, emergency vehicle response times can be increased greatly due to bridge restrictions. As bridges age, they deteriorate physically. Bridges that are found to have deterioration to one or more of their major components are referred to as being structurally deficient. Structurally deficient bridges are considered safe as long as used within any posted limits. Bridges may also become functionally obsolete due to evolving design standards.

Examples of functionally obsolete bridges are those with a narrow width or those with a height limit that is insufficient to accommodate today’s taller vehicles. Based on PennDOT’s records for Berks County from June 2011, 121 (19%) state bridges are structurally deficient and 138 (22%) are functionally obsolete. Of the inventoried local bridges, 80 (36%) are structurally deficient and 88 (40%) are functionally obsolete.

PennDOT District 5-0 has promoted preventative maintenance activities on bridges to extend the useful life of the bridge. These activities include scour protection, minor bridge deck rehabilitation, and spot painting. These activities are intended to extend the life of the bridge and postpone a more costly major rehabilitation or replacement.

E. Mass Transportation

Mass transportation services provided by either the public or private sector serves three essential functions:

- It provides a means of transportation to those who cannot afford to purchase their own private vehicle.
- It provides an alternate means of transportation to those who do have a choice.
- It lowers the total number of vehicles using the highway system which reduces congestion, adverse effects on the environment, and decreases the pressure for highway expansion.

1. BARTA Fixed Route Service

The principal provider of mass transportation services in Berks County is the Berks Area Regional Transportation Authority (BARTA). It was formed as a public agency in 1973 with the purchase of the assets of the former Reading Bus Company through the joint actions of the City of Reading and the County of Berks. In 2010, BARTA was restructured as a County Authority. In addition to the traditional fixed route bus system operating in the urban area, BARTA also operates a Special Services division that provides demand-response services to elderly and handicapped citizens throughout the County.

In 2010, the municipalities in the BARTA service area contained almost 300,000 persons and included all or portions of the following 34 municipalities:

City: Reading

Boroughs: Birdsboro, Fleetwood, Hamburg, Kenhorst, Laureldale, Leesport, Lyons, Mohnton, Mt. Penn, Robeson, St. Lawrence, Shillington, Shoemakersville, Sinking Spring, Wernersville, West Reading, Womelsdorf, and Wyomissing

Townships: Bern, Caernarvon, Cumru, Exeter, Heidelberg, Lower Alsace, Lower Heidelberg, Maidencreek, Maxatawny, Muhlenberg, Ontelaunee, Perry, Richmond, Spring, and Tilden

BARTA operates 22 routes throughout the area and served almost 3.1 million total passengers in 2010. On August 29, 2005 the Authority implemented “The New BARTA” as a result of the *Comprehensive Route and Marketing Study*, also known as the *Transit Development Plan (TDP)*. The service plan provided updated bus routes with increased frequency and span of service while eliminating diversions or service variations. In order to improve BARTA’s public information, route maps were simplified and a new system map and *Ride Guide* were created. The new BARTA launched a campaign to introduce a new system identity and slogan. The program included a new color scheme for all vehicles and planning for a new bus stop sign project. BARTA is currently updating its *Transit Development Plan*.

The BARTA office is located at 11th and Exeter Streets in Reading. This site houses all transit functions including administrative offices, maintenance and repair facilities and bus storage. The facility underwent a comprehensive modernization and expansion in 2005 that should serve BARTA well into the future.

BARTA opened its Transportation Center at 7th and Franklin Streets in Reading in 2002. This facility serves as a central transfer station for all BARTA routes and has the capability of accommodating connections with other forms of transportation. Its location next to the railroad lines also provides the opportunity for the facility to service passenger rail, if implemented.

In 2005, BARTA completed Phase II of its Transportation Complex program with the opening of the BARTA Park-N-Transit facility which is located adjacent to the 7th and Franklin Street Station. The facility contains 356 parking spaces. BARTA also intends to rehabilitate the Franklin Street Station to accommodate growing fixed route services as well as potential regional bus and passenger rail services.

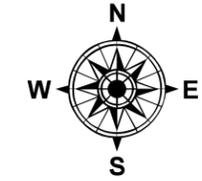
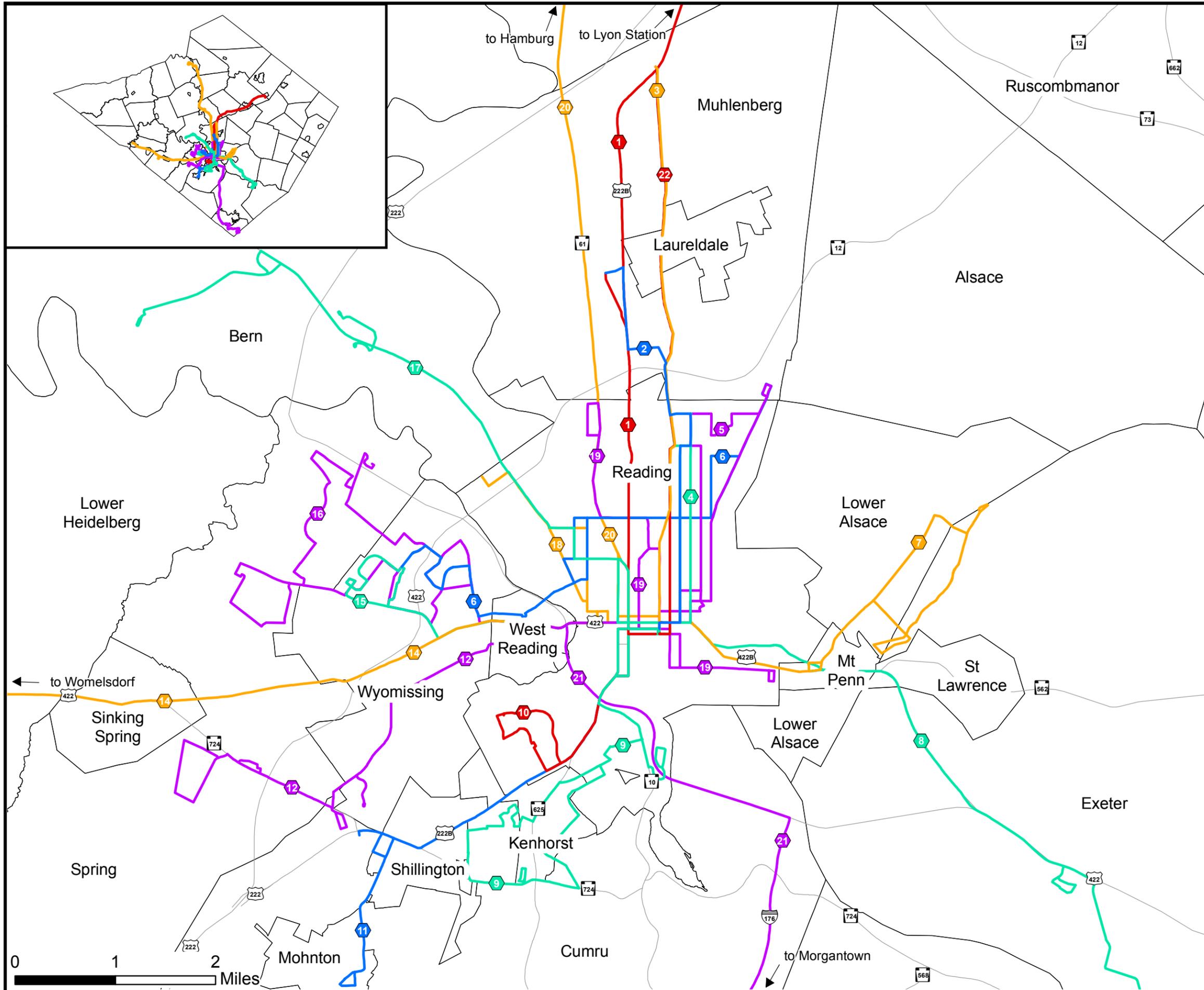
Funding for BARTA operations comes from passenger revenues, sale of advertising space on the vehicles and grants from the Federal, State, and County governments.

2. BARTA Special Services Division

The Special Services Division of BARTA was initiated in 1978 in response to Section 504 of the Rehabilitation Act of 1973. The Act mandated that the provision of transportation services could not be denied to a person on the basis of a handicap. As a result, BARTA acquired a number of small, wheelchair-accessible vehicles that provided door-to-door service within the fixed-route service area. This service was later expanded to the elderly using funds provided through the State Lottery Program and has expanded its service area to cover the entire County.

Berks County Comprehensive Plan Update
Adopted: September 2013

BARTA Route Service Berks County, Pennsylvania



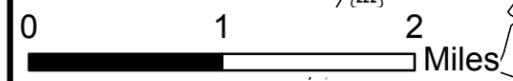
Legend

-  Bus Route Number
-  Municipal Boundaries
-  Major Roads

Source: Berks County Planning Commission, Berks County GIS, Berks County Mapping, Berks County Department of Emergency Services, BARTA

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Special Services has been steadily increasing over time, transporting over 254,000 passengers in 2010. Transportation services are extensively coordinated with social service agencies throughout the County to maximize their efficient use. As the County's population continues to age, Special Services should continue to increase.

3. Private Carriers

In addition to the publicly supported services provided by BARTA, the County is served by a fixed-route intercity bus service. Capitol Trailways provides daily and weekend services between Reading, Lebanon and Harrisburg using U.S. 422(W) with scheduled stops in West Lawn, Sinking Spring, Wernersville, Robesonia, Womelsdorf and Stouchsburg in Berks County. Capitol Trailways also provides daily service to Philadelphia via I-176 and the Pennsylvania Turnpike with a stop at Morgantown. Daily and weekend service is provided to Pottstown, King of Prussia and Philadelphia using U.S. 422(E) with stops in Monocacy and Douglassville. Capitol Trailways also provides service to Pottsville and Allentown. Carl R. Bieber, Inc. with its headquarters in Kutztown, provides daily express service between Reading and New York City. It also provides trips to Allentown, Bethlehem, and Philadelphia.

In August 2007, Carl R. Bieber, Inc. acquired Capitol Trailways. The company is run as a wholly owned subsidiary of Carl R. Bieber, Inc. and will continue to operate under its existing name and out of Capitol's Harrisburg headquarters. In Reading, Carl R. Bieber, Inc. uses the Intercity Bus Terminal located at 3rd and Penn Streets. BARTA is currently negotiating with Carl R. Bieber, Inc. to move their operational facilities from the Intercity Bus Terminal to BARTA's Transportation Complex to improve coordination between the two carriers.

4. Commuter Services

Commuter Services of Pennsylvania, a program of the nonprofit Susquehanna Regional Transportation Partnership, currently provides services in Berks County and eight additional counties in south-central Pennsylvania. The program, sponsored by regional transportation planning agencies, transit authorities and chambers of commerce, offers transportation demand management strategies and assistance to employers and individuals for finding options other than driving alone to work. These can include public transportation, car or van pools, telecommuting, biking, or walking. The program goal is to reduce the number of vehicle miles traveled and to increase the efficiency of the highway system by reducing congestion and improving air quality. Participation in the program is free and is funded by the Federal Highway Administration through PennDOT and regional planning agencies.

5. Non Motorized Transportation

Many Berks County residents use their cars to make local trips that are within walking or biking distance from their homes. Short local trips add to congestion on our roadways. It is important that local trips be made possible without the need for a motor vehicle. This can be done by providing safe and convenient walking/biking facilities.

In 2010, the Reading Area Transportation Study (RATS) updated and adopted the *Bicycle and Pedestrian Transportation Plan*. The *Plan* strives to promote the creation of bicycle and pedestrian friendly areas that create interaction among the community and all of its attractions

within the County as well as the surrounding areas. More importantly, it works to integrate bicycle and pedestrian facilities into the overall planning and development processes.

Of special note are pockets of Amish and Mennonite communities in Berks. Members of the Amish do not use cars, relying instead on horse and buggy, bicycle and walking for all of their transportation, while Mennonites use cars sparingly but still depend heavily on bicycles and walking. Designers of roadway improvements in these areas must take into account the special needs of these non motorized users of the transportation system.

F. Aviation

Aviation services throughout the County are provided at three facilities as described below.

Reading Regional Airport - Located along PA 183 in Bern Township, this airfield was originally constructed by the City of Reading and consisted of a three-runway system on 150 acres of land. In the early 1940's, the United States Army took over the airfield, significantly expanding and upgrading it. After World War II, it was subsequently conveyed by the Federal government back to the City of Reading. The airport was operated by the City until 1960 when it was conveyed to the Reading Municipal Airport Authority for ownership and operation. In 1989, the name of the airport was changed from Reading Municipal Airport to Reading Regional Airport to reflect the facility's growing presence in the area. In 1990, the Authority made a similar change in name and expanded its board from five to seven members. Five of these members were appointed by the Berks County Commissioners and two were appointed by the City of Reading. In 2010, the Authority was reorganized again as a County Authority with all members being appointed by the Board of County Commissioners.

The airport provides a variety of aviation services to the residents of Berks County and adjacent areas. The dominant activity at the Reading Regional Airport is general aviation. During 2010, the airport handled approximately 93,000 operations of all classes of aircraft. General aviation accounted for 83 percent of this traffic, while commercial traffic accounted for 9 percent. There are two fixed base operators providing fuel, maintenance, tour and charter services.

The longest runway (13/31) at the airport is currently 6,350 feet. The second runway (18/36) has a length of 5,151 feet. Runways 13 and 36 are equipped with instrument landing systems that allow qualified pilots to land during periods of poor visibility. A third runway was removed from service in 1987. The airport is also equipped with a control tower, a passenger terminal building, hangars, maintenance facilities, crash-fire-rescue facilities, and other modern navigational aids.

The Reading Regional Airport Authority is currently updating its 2004 *Airport Master Plan – Reading Regional Airport – Reading, Pennsylvania*. This document will serve as a blueprint for meeting the community's air travel needs over the next 20 years. It will provide an Airport facilities plan to guide the Authority through a long-term improvement program.

Grimes Airport - This privately operated airport is located in Bethel Township, just north of I-78. The airport provides general daylight aviation activities on a 2,860-foot turf runway. Services include radio, fuel, minor maintenance, and hangar facilities. Navigational aids are not available.

Morgantown Airport - This privately operated airport is located in Caernarvon Township adjacent to PA Route 23 and the Pennsylvania Turnpike (I-76). The airport provides general aviation activities on a 2,190-foot turf runway. Services include radio, fuel, and tie-downs with irregular hours of attended operation. Navigational aids are not available.

In late 2008, the former Kutztown Airport closed to all aviation business and was sold for development. The privately operated airport was located on West Main Street, immediately southwest of Kutztown Borough in Maxatawny Township. The airport provided general aviation and served as a local center for sailplane activities. The airport consisted of two runways including a 1,938-foot paved runway and a 2,068-foot turf runway.

In addition to these airports located in the County, there are several facilities that provide general aviation services just outside the County limits. These include the Pottstown Municipal Airport, New Hanover Airport, Butter Valley Golf Port located in Montgomery County, Lebanon Valley Airport located in Lebanon County, and the Lehigh Valley International Airport located in Allentown.

1. Aviation Passenger Service

The principal location for passenger service in the County is the Reading Regional Airport. Currently, several operators use the airport for charter services. Scheduled commuter passenger service was provided by U.S. Airways but was discontinued in 2004.

The existing passenger terminal was constructed in 1961 and reconstructed in 2001. The terminal building presently contains check-in counters for commuter operations, a passenger waiting area, baggage handling facilities, car rental agencies, a travel agency, restaurant, and the Airport Authority offices. It is fully capable of supporting the re-establishment of scheduled passenger service should market conditions change. Until then, the nearest regularly schedule passenger services are available at Lehigh Valley International Airport (43 miles away), Harrisburg International Airport (60 miles away), and Philadelphia International Airport (65 miles away).

2. Aviation Freight Service

There are no scheduled air cargo carriers currently operating at the Reading Regional Airport. The cargo is handled through charter air taxi and freight operators. The Authority does not maintain records of the volume of cargo shipped. The airport can increase its attractiveness to air cargo over the next several years with the continued development of industrial parks and the utilization of a Foreign Trade Zone adjacent to the airport. The Foreign Trade Zone allows products to be imported into the Country to a designated location for storage, processing, or manufacturing purposes and then exported without being subjected to customs, duties, or government excise taxes. These fees are only applied to products that leave the zone for domestic consumption.

G. Rail

There are approximately 125 linear miles of operational railroad lines in the County. The vast majority (approximately 101 miles or 81%) of the rail line mileage in the County is owned and

operated by Norfolk Southern. The Canadian Pacific Railroad operates a portion of the rail line mileage owned by Norfolk Southern.

The principal activity center for rail in the County is the Reading switching yards, located in the City of Reading at the junction of the Lebanon Valley Branch Line and the Reading Division Main Line. The line from Harrisburg through Reading to Philadelphia is capable of moving double-stack cars through the region to the Port of Philadelphia.

There are also several short line railroads that provide service to shippers along certain lines. The Reading Blue Mountain and Northern Railroad (RBM&N) currently provides service on the line previously owned by Conrail along the west side of the Schuylkill River north of Reading into northeastern Pennsylvania. The RBM&N also controls the Schuylkill Secondary Line that runs between Temple and Hamburg on the east side of the Schuylkill River. Service on this line is currently suspended. The East Penn Railroad owns and operates the Lancaster Line that runs from Sinking Spring to Ephrata, Lancaster County, and the Perkiomen Branch that runs from Allentown through Hereford Township to Pennsburg. East Penn also provides service on the Kutztown Transportation Authority-owned Kutztown Branch Line that runs between Topton and Kutztown. The Eastern Berks Gateway Railroad provides service on the Berks County owned Colebrookdale Branch Line that runs from the Norfolk Southern Line in Pottstown to Boyertown. A small tourist railroad, the Wanamaker, Kempton & Southern operates from Kempton, Albany Township into Lehigh County.

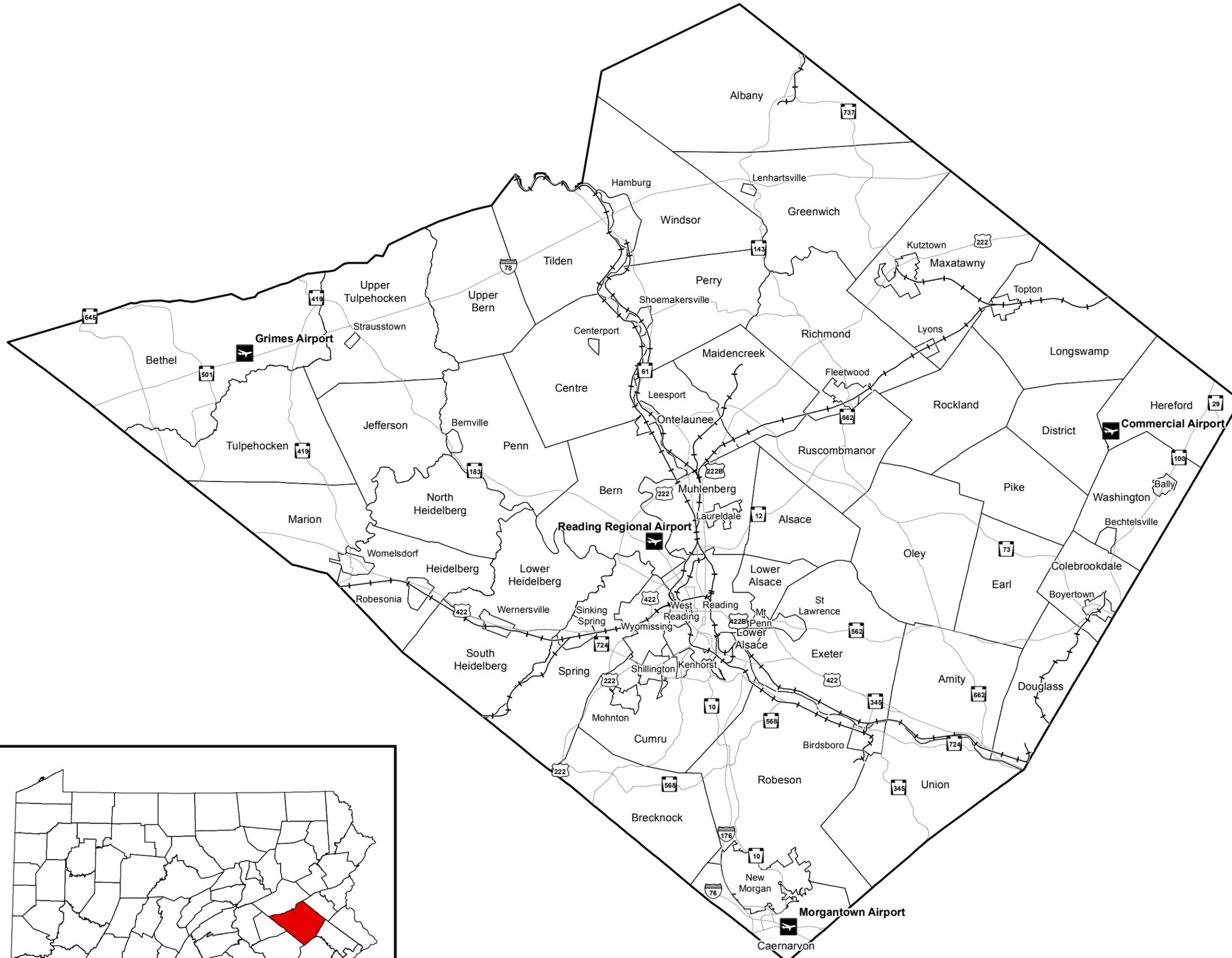
1. Rail Passenger Service

There is currently no passenger rail service in Berks County. Passenger rail service last operated between Philadelphia and Reading in 1981. BARTA, in conjunction with Southeast Pennsylvania Transportation Authority (SEPTA), completed a major investment study of the feasibility of renewing a passenger rail service line from Reading to Philadelphia. Referred to as the Schuylkill Valley Metro, the project was unable to secure New Starts funding from the Federal Transit Administration. With assistance from PennDOT, the project was reevaluated and still found to be ineligible for federal funding.

In 2008, the Montgomery County Planning Commission (MCPC), Delaware Valley Regional Planning Commission (DVRPC), with Berks and Chester Counties, initiated the *R6 Norristown Line Service Extension Study*. The main goal of the study was to determine the feasibility of restoring passenger rail service between communities along the U.S. Route 422 corridor in Montgomery, Chester, and Berks Counties and center city Philadelphia. As the region continues to grow at a steady pace, the traffic using the U.S. 422 corridor is also increasing. Commuter rail could provide another transportation option for residents commuting to Philadelphia and could also provide a catalyst for development and redevelopment in towns located along the U.S. 422 corridor. The *R6 Norristown Service Extension Study* determined that rail service was still viable in the U.S. 422 corridor.

A second DVRPC study investigated the needs of the entire U.S. 422 expressway corridor. It recommended tolls on the expressway portion of the highway between Douglassville, Berks County and the intersection of U.S. 422 and U.S. 202 in King of Prussia. The proceeds from the tolling were recommended to be used for capital costs associated with major highway

Railroads and Airports Berks County, Pennsylvania



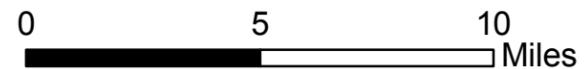
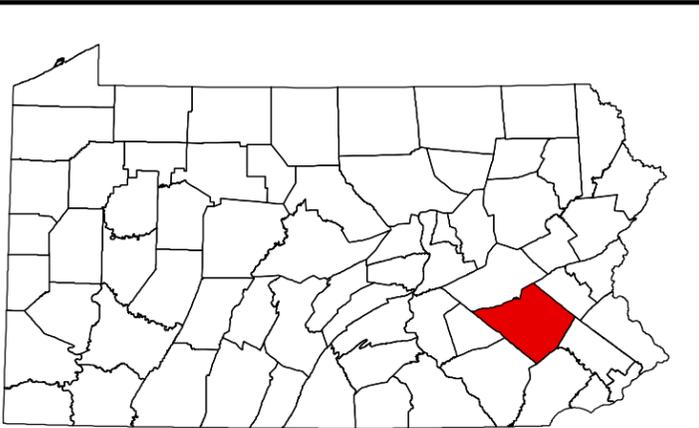
Legend

-  Airports
-  Railroads
-  Berks County Boundary
-  Municipal Boundaries
-  Major Roads

Source: Berks County Planning Commission, Berks County GIS,
Berks County Mapping, Berks County Department of Emergency Services

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reconstruction on U.S. 422, and funding the capital portion of the passenger rail service on a shared track with Norfolk Southern Railroad between Wyomissing, Berks County and Norristown, Montgomery County. Service would continue from Norristown to Philadelphia on existing SEPTA rail lines. State and local (county) funding sources would be required to subsidize the annual operating costs not covered by passenger fares. Prior to providing service, changes in state legislation allowing this tolling, the formation of a regional tolling authority, and securing agreements with the Federal Highway Administration, PennDOT, Norfolk Southern, and SEPTA, would be required to occur. Based on the results of these efforts, Berks County, Montgomery County, and Chester County may elect to restore this service. However, no decision has been made at this time.

2. Rail Freight Service

There are a number of industries in Berks County that rely on rail for a portion of their transportation needs. The primary users of rail freight are those industries producing or requiring large quantities of bulk items. These include coal, stone, lumber, chemicals, metals (raw, finished, and scrap), manufactured items, and food products. The majority of industries that rely on rail transportation have private sidings that allow direct shipment service. In addition, intermodal facilities located in the Lehigh Valley and Harrisburg areas permit the transfer of truck trailers to and from flat cars.

H. Air Quality

The Clean Air Act Amendments of 1990 (CAAA) mandate improvements in the nation's air quality. The CAAA directs the U.S. Environmental Protection Agency (EPA) to implement regulations that will provide for reductions in pollutant emissions. The Berks County area was originally designated under the CAAA as a moderate non-attainment area for ground level ozone. Ozone is a secondary pollutant, which means that it is not emitted directly into the atmosphere.

Ground level ozone is an eye and lung irritant that has been shown to cause difficulties in the elderly, infants, and those with weakened respiratory systems.

In June 1997, the County's designation was upgraded to an Attainment-Maintenance area. That upgrade was the result of the area's efforts to meet the CAAA standards by implementing strategies to reduce the emission of pollutants that form ozone. However in 2004, the EPA implemented more stringent standards. Berks County was redesignated as a Basic Non-Attainment area, denoting minimal violation and carrying the least demanding requirements. After demonstrating through air monitoring that Berks' air was attaining the new standard, the County was again upgraded to an Attainment-Maintenance area in September, 2007. Effective January, 2008, for a third time, the EPA tightened the ozone standard. Berks County will again be classified as a Non-Attainment Area when these standards are implemented in 2012 or 2013.

In 2005, Federal standards were established for a second pollutant - airborne particles of at least 2.5 microns in size referred to as PM 2.5. These particles have been shown to collect in the deepest part of the human lung, causing long-term respiratory concerns. Berks County was designated as Non-Attainment for the annual PM 2.5 standard.

Since vehicular emissions contribute to both PM 2.5 pollution and ozone formation, the Act requires transportation planners in Non-Attainment and Maintenance areas to consider the air quality impacts of their proposed plans, programs, and projects. These activities must be shown to conform to a plan that demonstrates improvement to air quality. The County's Long Range Plan is analyzed using the County's Regional Travel Demand Forecasting Model and the EPA's latest emissions model. According to these models, future emissions are predicted to be considerably lower than current emissions.

Transportation Policies

Transportation Goal:

To provide and maintain a balanced transportation system that will safely and efficiently move people and goods.

a. Maintenance of Existing Systems

Goal:

To develop a maintenance-first philosophy to preserve existing infrastructure through its useful lifecycle.

Policies:

- (1) The County will continue and expand its transportation planning efforts by identifying existing and future deficiencies and working with the state Department of Transportation, transportation providers, and municipalities to fund necessary improvements.
- (2) All highway maintenance projects will be evaluated for opportunities to improve bicycle and pedestrian movements.
- (3) County-based industries should maximize their use of the rail system to minimize the impact on highways and reduce energy consumption.
- (4) The County will support the expansion of carrier services from the Reading Regional Airport.
- (5) The County supports the development of non-aviation lands surrounding the Reading Regional Airport to attract light industrial uses that need air freight services. This development should not detract from the airport's ability to provide safe and efficient transportation services.

b. Intermodalism

Goal:

To provide a balance of highway, public transportation, aviation, rail, bicycle, and pedestrian systems into a coordinated transportation system.

Policies:

- (1) The County encourages the development of a variety of convenient and affordable transportation options to improve mobility and promote energy conservation.
- (2) The County supports eliminating obstacles, both physical and institutional, that restrict the interrelationship among modes of transportation.
- (3) The County encourages development within Existing Developed Areas and Future Growth Areas at densities that can support cost-effective public transportation and that incorporates design elements that allow for effective and efficient service. It should also be designed to include appropriate bicycle and pedestrian facilities.
- (4) The County encourages the development of public transportation facilities and services in coordination with private providers and other forms of transportation to achieve maximum interconnection.
- (5) The County supports the continuation and expansion of inter-regional bus transportation and taxi service to meet demand.
- (6) The County encourages the provision of reasonable access to arterial highways and rail freight services for all major industrial areas.

- (7) The County supports passenger rail service reestablishment if it is cost effective and requires only minimal public subsidy.
- (8) The County encourages bicycle/pedestrian systems to be interconnected and linked to other transportation services such as bus, passenger rail and aviation in coordination with the Metropolitan Planning Organization’s *Bicycle and Pedestrian Plan*.

c. System Safety

Goal:

To incorporate system safety improvements into all projects and programs.

Policies:

- (1) The County encourages the improvement of existing highways and bridges, and the achievement of safety standards, with emphasis on highways that are included in priority networks or that provide access to mass transit, aviation, and rail facilities.
- (2) The County promotes equal access to public transportation facilities and services for all citizens in compliance with the Americans with Disabilities Act.
- (3) The County will encourage the improvement of services at all aviation facilities to increase safety and capacity.
- (4) The County encourages airport operators to work with surrounding municipalities to ensure that local development regulations protect persons and property, both on the ground and in the air.
- (5) The County supports the reduction of conflict between railroads and highways.
- (6) The County encourages the physical separation of bicycle/pedestrian facilities from major traffic routes. The sharing of rights-of-way should be considered in less heavily traveled areas.
- (7) The County encourages facilities for securing bicycles to be provided at all transit stations/airport terminals and other public facilities.

d. Congestion Management

Goal:

To focus system improvements on reducing transportation system congestion to acceptable levels.

Policies:

- (1) The County encourages methods of lowering the number of total vehicle trips to reduce congestion and energy consumption.
- (2) The County encourages the capacity of existing highways to be optimized through minor intersection improvements and the careful management of access. Municipal development ordinances should address specific and uniform design standards for right-of-way widths and access based on the highway’s functional classification. These should be coordinated with PennDOT’s Highway Occupancy Permit process.
- (3) The County encourages major developments to be directed to areas with adequate highway capacity that are designated as Growth Areas in the Land Use Plan. If major development occurs in a Growth Area with inadequate highway capacity, improvements should be required to relieve congestion.

- (4) The County encourages the promotion of publicly-supported mass transportation services to increase mobility, conserve energy resources, improve the environment, and increase economic growth.
- (5) The County encourages the location of public services close to bus routes.
- (6) The County supports improved air quality through the approved State Implementation Plan.

e. Future System Expansion

Goal:

To expand the system only if the previous goals, in conjunction with land use policies, do not produce the desired results.

Policies:

- (1) The County supports maximizing the use of existing highways before constructing new highways. New major highways should be constructed only where they serve both intra- and inter- regional travel demands. Gaps in the existing expressway system should be completed to remove traffic and congestion from inappropriate corridors. The Reading urban area should be linked to I-78 by a limited access corridor.
- (2) The County and local governments should work cooperatively with PennDOT in the preservation of rights-of-way for proposed new highway corridors and other major transportation improvements.
- (3) The County will promote transportation facilities and practices that minimize the impact on both the natural and social environments and improve the quality of life. The design of these facilities must be consistent with both the National Environmental Policy Act and the Clean Air Act Amendments.
- (4) The County encourages public transportation to extend to metropolitan areas with acceptable population densities. Public transportation should be provided to low-income and elderly neighborhoods to enable employment and social opportunities. Route structures should be periodically reviewed to ensure they meet travel demands.
- (5) The County encourages the Reading Regional Airport to remain primarily a commuter and general aviation facility with commercial, charter and local flight services for Berks and surrounding counties. All other airports are recommended for limited general aviation activities.

