

PLAN 8: TRANSPORTATION

Dauphin County's transportation network has had a large impact on the cultural, economic, and social characteristics of the county in the past, and will continue to do so in the future. As a result, it is important the transportation network supports the existing community infrastructure already in place and facilitates the kind of development that enhances, rather than detracts from, the County's character. Dauphin County has a wide variety of development patterns, ranging from higher-density urban and suburban development in the Southwestern portion of the County in and around Harrisburg to rural, low-density development in the Northern half of the County. Overall, Dauphin County's existing transportation network, including all modes of transportation, generally fit the character of different parts of the county, but planning must be done to ensure that this is still the case in the future.

Dauphin County contains a number of different transportation modes that serve the county's residents, workers, and visitors in a variety of different ways. The county's well-developed highway network supports extensive private car and tractor-trailer traffic, it has the most significant transportation modes in the country, and easily allows people to get to where they want or need to go. This highway network carries people to a variety of destinations within the county and also to major regional destinations such as Philadelphia, Baltimore, Washington, Pittsburgh, and New York. Major highways, such as Interstates 81 and 83, US Routes 22, 209, 322 and 422, PA State Routes 147 and 230, and the Pennsylvania Turnpike (Interstate

76), have helped make Dauphin County a major transportation hub in the northeastern United States. However, these roads comprise only a small percentage of the overall highway network in the county. Other state and municipal roads, while not as important for transportation in a regional sense, still play an important role for regional and local traffic. The region's highways do not only support private car and tractor-trailer traffic however, public transit, mainly in the form of buses, plays an important role in the county's system, allowing people to make both local bus trips via Capital Area Transit (CAT) and regional bus trips (Capitol Trailways, Fullington Trailways, Greyhound, Hegin Valley Lines, and R&J Transportation, Inc.) without having to use their own private car.

Non-highway modes also play a major role in the county's transportation system. Freight rail services, provided primarily by Norfolk Southern, make the county a significant rail and intermodal freight hub. Passenger rail services, currently provided by Amtrak in Harrisburg and Middletown and in the future by CAT's CORRIDOR^{one} commuter rail service with service between Carlisle and Lancaster via Harrisburg, provide greater modal flexibility for people taking regional and interregional trips. Aviation services, provided at two county-based airports as well as multiple airports located not far outside the county, allow people to travel for commercial, business, and general purposes. Bicycle/pedestrian transportation plays an important role, both for non-motorized transportation and recreational purposes.

Dauphin County's location as a national and regional hub for multiple modes of transportation, particularly for highway and rail goods movement and distribution, makes it an important national commercial node. It is critical the County's existing transportation infrastructure be sufficiently maintained and augmented when necessary to allow the County to continue to play an important role in the United States' transportation network. Efforts should be made to allow Dauphin County to participate in discussions impacting the transportation modes most prominent in the county, especially highway and rail goods movement and distribution. Care should be taken to ensure a proper balance is met between national and regional transportation needs and local community interests. Only if the proper balance is met will Dauphin County continue to serve as a vital transportation center while also functioning as a desirable and attractive community for its residents and workers.

HIGHWAY

Highway transportation is the most dominant mode of transportation in Dauphin County. Most people living within or traveling through the county use the county's extensive highway network in order to reach where they are going. The county also occupies an important place in the region's highway network for a variety of reasons. At a local and regional level, Dauphin County's highways function as a gateway into the City of Harrisburg, Pennsylvania's state capital, and a center for government, business, and industry in

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south central Pennsylvania. At a national level, the county's highways help function as a regional crossroads between major north/south routes (especially Interstate 81 and Interstate 83) and major east/west routes (especially US 22, US 322, PA 230, and Interstate 76 within the area. These routes provide easy connections from the county to much of the United States population along the East Coast, and parts of the Midwest and South. The region's crossroads position has made it a prime location for a variety of transportation-related activities, especially as a center for the distribution of goods via tractor-trailers.

Highway transportation represents the most significant mode of transportation falling under the jurisdiction of the Harrisburg Area Transportation Study (HATS). Essentially all "major" highway projects in the Harrisburg area are funded through the HATS Transportation Improvement Program (TIP). [Only 28 percent of the lane miles in Dauphin County are eligible for Federal funding. Usually these are big/"major" projects. Approximately 70 percent of the land miles must rely on local jurisdictions to find a way to fund improvements.] The TIP is a four-year program in which federal funds are used, with state and local matching funds, to implement various improvements to the highway and transit-based transportation systems. Good planning is critical from the start because there is a large number of necessary transportation improvement projects and a limited amount of funds. HATS uses a ranking process based on a variety of federal regulations and planning factors, as well as regional and local planning factors. In order, to try to ensure consistency between the mix of projects and investments of the TIP and the goals and policies implemented through the plans and programs in the Region. Dauphin County is represented on HATS, and therefore has a voice in trying to address the county and region's

transportation needs and issues through voting to fund specific projects.

Highway Issues/Needs

The county's highway network has a variety of needs and issues that need to be addressed in order for the network to continue to work in an efficient manner. They include:

- ***Dispersed land use:***

Like many other places, Dauphin County continues to experience population stagnation in some developed core areas of the county and extensive growth in previously less developed portions of the county. This kind of growth puts a strain on the county's existing infrastructure, including its transportation infrastructure, because more travelers are driving by car farther distances, creating increasing pressure that new or enlarged roads be constructed. The longer trip lengths also lead to more traffic congestion on a larger portion of the transportation network. Since funding is primarily given to reconstructing or rehabilitating existing roads, congestion issues often cannot be adequately addressed. Other transportation options such as public transit and bicycle/pedestrian use are discouraged by dispersed land uses.

- ***Lack of mixed-use development:***

Much of the development that has occurred in recent years in Dauphin County has been segmented, separating residential development from commercial development from industrial development. Traditional town or village-like development with mixed uses has often been discouraged in growing suburban and rural municipalities. Although non mixed-use development protects incompatible uses from one another, it also forces people to use their cars for a higher percentage of their trips and discourages non-automobile forms of transportation. Non mixed-use development also encourages dispersed large-scale low-density development.

- ***Extensive tractor-trailer traffic and car/truck mixing:***

Due to its excellent relative location, the Harrisburg area has experienced a significant influx of distribution and other truck-related development. Much of this development is in nearby Cumberland County, though some distribution-related development is also in Dauphin County. This development brings jobs to the area, and helps the economy, but also increases the number of trucks using the area's roads, including some of its non-interstate or unlimited access roads. The higher number of trucks, combined with the higher passenger car volumes due to population growth, and dispersed development creates significant car/truck mixing issues, especially in terms of safety and congestion. It causes frustration for both passenger car and tractor-trailer drivers. This issue is most significant on Interstate 81, but occurs throughout the county.

- ***Major new developments being created within and outside the county:***

Dauphin County and the surrounding area have been attractive areas for development, due to the area's excellent transportation connections with nearby, highly populated regions, Harrisburg's position as the state capital, and a relatively well-educated workforce. These are positive factors, but some large-scale development that has occurred or will occur within or near the county, such as the Harrisburg Mall/TecPort improvements, the proposed Penn National Racetrack modifications, and the business park development occurring near I-81 and US 209 in Schuylkill County, attract many people from both inside and outside the county and put a strain on the existing transportation infrastructure. Most developers will only pick up the costs of the near-site transportation improvements, meaning other needed improvements either are not implemented or must be funded by state or local government(s).

- ***Poor road design:***

Roads that have design aspects that are substandard, may create safety hazards and in some cases congestion because of their design. Low volume and/or rural roads sometimes may have narrow or non-existent shoulders, or have poor horizontal or vertical

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sight distance. These roads reduce safety for both automobile and non-automobile travelers. Higher volume and/or urban roads also often have design issues. Some of these roads have standard turning lane or on/off ramp lengths. Some high volume roads also have design bottlenecks that create congestion, such as Interstate 83 east of Harrisburg. In some cases the connections between roads are poor, creating congestion.

In addition to the individual road design issues, there are also road network design issues. The road network issues are often tied to a lack of road redundancy, which reduces the number of roads drivers can use to reach their destinations and creates more congestion on the roads that are available. The lack of road redundancy can also hinder emergency response. The PA 147/225 corridor immediately south of Halifax Borough, which is used by most upper Dauphin County residents to reach the Harrisburg area, is one such example. Another example is downtown Harrisburg itself, which is connected to the surrounding area by a limited number of roads due to natural and man-made physical constraints.

▪ **Poor access management:**

In some portions of Dauphin County, such as along parts of US 22/Allentown Boulevard and PA 39/Linglestown Road, there is extensive development, often commercial in nature, which generates a high volume of traffic. However, these developments in many cases have multiple access points, including some with traffic signals, but these access points often access only one or two roads. By not providing a higher number of highway choices for drivers to get to and from a development, it forces all traffic onto a small number of often already heavily traveled roads. This increases the amount of traffic on those roads, and creates more congestion on portions of the county's highway network. Forcing all traffic onto a small number of roads also increases the number of traffic signals needed, which exacerbates congestion problems, especially if the signals are not coordinated. Multiple access points may create more potential traffic conflict locations, increasing the likelihood of accidents occurring along these roads. A potential solution is to limit the number of access points onto a roadway with shared access drives and coordinated signals.

▪ **Unsafe drivers:**

In Dauphin County, many passenger car and tractor-trailer motorists drive in an unsafe manner, creating a safety hazard for other people using the road. In many cases motorists are driving above the posted speed limit, even during high volume times, increasing the odds for a traffic accident. Some drivers also tailgate or follow other drivers too closely, not allowing them to react in time should those in front of them need to slow down. Tailgating is a particular problem when cars closely follow tractor-trailers, because the tractor-trailers often cannot see them. This is also reciprocal because a problem is tractor-trailers, which closely follow cars, because tractor-trailers cannot slow down as quickly as cars.

Highway Recommendations

The highway transportation issues/concerns listed above can be addressed by various county policies, allowing the county to take a leading role in improving its highway network. In some cases the county can partner with other entities, such as its municipalities, to achieve results that benefit everyone involved. Specific recommendations include:

▪ **Encourage in-fill development and discourage sprawl development:**

Dauphin County can work with its municipalities to ensure there is consistency between the county's planned growth areas and the municipalities' zoning and future land use maps and development patterns. In cases where there is inconsistency, the county and municipality need to work together to address the inconsistency. Both entities need to encourage infill development and discouraging new development where infrastructure exists or is currently planned. Through higher population density created by infill and more compact development Capital Area Transit and other transit providers can be assisted by allowing their systems to have the ability to reach a higher number of people while serving the same routes. Discouraging sprawl development will also help preserve the county's

open space and farmland areas, an important natural resource for the county.

▪ **Encourage mixed-use development:**

Dauphin County can encourage its municipalities to create zoning areas that facilitate mixed land uses in close proximity to one another. While blatantly incompatible uses should not be forced to be located next to one another, many uses often discouraged from being next to one another, such as smaller-scale commercial developments and residential developments, should be encouraged to intermix. Allowing mixed-use development can reduce automobile trips by allowing people more transportation mode choices, such as walking, bicycling, or using public transit, to obtain many goods and services. Mixed-use development may also facilitate a community's social interaction.

▪ **Promote public transit use/discourage road expansion:**

The cost of building new or expanding existing roads can be prohibitively expensive, and will continue to get more expensive. To lessen the demand for these improvements, Dauphin County, in coordination with Capital Area Transit, should promote transit use. Past experience has shown road expansions merely postpone rather than solve congestion problems (people are attracted to using the expanded road). Public transit use does not require building new roads, and helps take cars off existing roads. Expanding roads to solve congestion problems is appropriate as a last resort, especially in situations where a recurring bottleneck due to road design exists.

▪ **Examine and better understand highway-based goods movement and distribution transportation patterns:**

Dauphin County should better plan where to locate both distribution-based and commercial/residential development and ensure the negative traffic impacts the two kinds of development have on each other are minimized. Before doing that however, it must be understood that tractor-trailer and other large truck traffic, so critical to the timely and cost effective delivery of goods, will continue to increase in the future.

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The traffic itself is validation of a healthy economy, and the region's excellent relative location and highway network will continue to make it a target for distribution-based development.

Distribution centers usually locate in areas that are easily accessible to limited-access highways, are easily accessible to the markets they serve, and have compatible zoning, among other factors. Dauphin County has no control over the first two factors, but through its municipalities can have control over its land use regulations. Dauphin County should encourage the adoption of comprehensive plans and zoning ordinances that make conscious decisions where these distribution centers should and should not be located. The municipalities can also promote various kinds of commercial and residential development at locations where car/truck mixing can be minimized.

- **Coordination with State & Federal agencies:**

Through its representation on HATS, Dauphin County has input into which projects are included on the HATS TIP. In some cases, highway projects initiated by PennDOT to be included on the TIP might impact a portion of a road the county wants to have improved in some way, such as wider shoulders on a particular road, which are not initially included as part of the PennDOT project scope. The county can then work with PennDOT through their mutual representation on the HATS Committees to ensure the proposed project addresses all PennDOT and Dauphin County transportation issues involved.

- **Coordination with developers, municipalities, and other adjacent counties:**

The county can also coordinate with developers, municipalities, and other counties to better ensure development occurs in areas that have sufficient infrastructure or can easily accommodate new but compatible infrastructure if necessary. Efforts can be made to enforce traffic impact fees, which will make developers pay in part for the improvements required as a result or partial result of the proposed development. The county can also work with municipalities to identify transportation improvements

that may be needed before significant new or expanded developments are built. Finally, Dauphin County can coordinate with adjacent counties both to keep them informed about major developments occurring within Dauphin County that may have an inter-county impact and be aware of major developments occurring in other counties that may impact Dauphin County. Having this coordination will allow for better identification of necessary improvements and more expedient implementation.

- **Encourage employers to implement strategies that reduce SOV trips during AM/PM rush hours:**

The county can work with the local Chambers of Commerce and large county employers to encourage work-related changes that reduce the number of single-occupancy vehicles (SOV) on the road at peak periods while also benefiting the employer. One such idea is to implement variable work hour programs. These programs would stagger the work hours for the employees working at the business, spreading the traffic impact throughout the day and reducing peak period trips. Another option is to encourage workers who can accomplish their work outside the office to telecommute. By allowing workers to complete their tasks at home, the number of trips to and from the office, especially during peak periods, could be reduced. A third option is to allow employees the option of "cashing out" their parking spaces. In this option, employers pay their employees back the amount of maintaining their free parking space and allow the employees to determine if they want to use the cash for parking or for other purposes. Some employees would keep the cash and seek other means of transportation, such as transit or carpooling, and the net result would be a reduction in the number of SOV trips.

- **Implement more Intelligent Transportation Systems (ITS) technologies:**

ITS technologies are designed to make existing highways operate more efficiently. Some technologies have already been implemented and more will need to be implemented in the future to reduce the need for high-cost, large-scale roadway improvements. Operational improvements such as traffic signal coordination, Variable Message Signs (VMS), and

Highway Advisory Radio (HAR) can help make traffic flow more smoothly and provide critical information to the public more quickly. Incident management improvements such as Closed-Circuit Television Cameras (CCTV) and Traffic Operations Centers (TOC) can help better monitor traffic, allowing quicker response to emergency or congestion related incidents. Similar to other TIP projects, the county can ensure through its representation on HATS that for many highway projects ITS technologies are considered as a way to help reduce transportation congestion.

- **Ensure new, large developments have sufficient and appropriate access into and out of the development, especially when located adjacent to other large developments:**

Dauphin County should work with and educate its municipalities of the benefits of good planning. Large developments that access a limited number of surrounding highways often experience increased congestion and/or difficult access going to and from the development. If a development (which can be of any land use type – commercial, residential, etc.) accesses multiple surrounding highways and other major adjacent developments, traffic congestion can often be reduced by allowing people to use feeder roads rather than the main highway in the area around the development. Greater interconnection between developments and the highway network can also improve safety in emergency situations.

In addition, developments that have multiple, closely spaced access points or non-delineated access points onto one road often create safety issues by increasing the potential for crashes. However, safety can be improved if the highway network surrounding a development is accessed only in clearly marked and delineated locations. Improved zoning and subdivision and land development regulations can address the issue of closely spaced access points.

- **Improved traffic law enforcement:**

Dauphin County should work with state police and local police to ensure traffic laws are more strictly enforced and unsafe drivers are more closely monitored. Doing this will make highways safer for all drivers and could

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also reduce congestion by reducing the number of accidents.

- ***Ensure locally-initiated projects get on the TIP:***

Dauphin County should work with its municipalities to get input for future projects on the TIP. To do this, the county should educate the municipalities as to what is required in the TIP application and planning process, including what HATS' role is. The county could assist in preparing TIP project applications in some cases, particularly with municipalities that usually do not need transportation improvements. Municipalities have the best knowledge of the transportation issues within their borders. Allowing them to have a voice in addressing those problems will allow the municipalities to have more control over potential improvements and will also allow the county to get a better idea of what the local transportation issues and concerns are.

TRANSIT

Public transit is a significant transportation mode in Dauphin County. Capital Area Transit (CAT) provides most of the transit service within the county, operating 17 regular routes and 2 shuttle routes in the southern half of the county. The routes provide service between residential areas and various employment centers, such as downtown Harrisburg, and shopping areas, such as the Harrisburg East Mall, Colonial Park Mall, and US 22/Allentown Boulevard shopping centers. CAT's service gives captive riders (riders who do not own or have access to a private automobile) an opportunity to travel for work and recreational-related purposes and provides non-captive riders with an alternative besides using their cars.

Both intercity bus and intercity rail service are also offered within the county. Intercity bus operators Capitol Trailways, Greyhound, and Fullington Trailways all offer extensive service to and from Harrisburg and more limited service to

places such as Hummelstown, Hershey, Halifax, and Millersburg. Charter bus carriers Hegin Valley Lines and R&J Transportation, Inc. provide regularly scheduled commuter bus service between Harrisburg and upper Dauphin County (Hegin Valley) and Harrisburg and Schuylkill County (R&J) respectively. Amtrak provides extensive service from Harrisburg and Middletown to eastward points such as Lancaster, Philadelphia, and New York and more limited service between Harrisburg and westward points such as Altoona, Pittsburgh, and Chicago.

Similar to highway planning, local public transit (CAT) planning largely falls under HATS' jurisdiction. Almost all CAT projects are funded through the HATS Transportation Improvement Program. Because transit funds are limited (federal dollars only), it is important a thorough planning process is followed to ensure CAT receives the most improvements it can receive. As with highway projects, HATS uses a variety of federal regulations and federal, regional, and local planning factors to objectively rank a project's importance to the region. Dauphin County's representation on HATS better ensures the county's transit needs will be met.

By contrast, most intercity bus planning is either done privately by the bus company or is coordinated between the state and the bus operator with little HATS involvement. Most intercity bus routes are interregional in nature. Local involvement is not as critical with these operators. Charter bus carriers are privately operated. The carriers themselves do their own planning. Amtrak is funded directly by federal allocation and the fares they receive for their operations. There is little HATS involvement in Amtrak planning or funding. HATS and Dauphin County should maintain regular

communication with these agencies and be aware of their operating needs.

Transit Issues/Needs

The county's transit service has a number of needs and issues to be addressed to ensure it can continue to operate in an efficient manner. They include:

- ***Dispersed land use:***

Low-density land uses make it harder for a transit system to operate efficiently, because it means buses need to take longer routes, on average, to pick up the same number that could be picked up in a more densely developed area. Dispersed land uses also increase the likelihood that riders will need to walk, bike, or drive further to reach the bus stop. Both of these factors discourage many potential transit users.

- ***Lack of mixed-use development:***

Segregated land uses separate different types of land uses (residential, commercial, industrial, etc.) from one another, limiting people's transportation options and increasing people's reliance on the private car while decreasing the effectiveness of public transit options. A related issue, non-downtown based jobs, in particular inhibits CAT's effectiveness, as their hub-and-spoke designed system cannot meet the needs of most people whose jobs are not located in downtown Harrisburg or other traditional downtown communities.

- ***Decreasing CAT ridership:***

Over the last 15 years CAT's overall ridership has declined by about 50%, from roughly four million riders to two million riders. Various factors, including a low number of captive riders, the easy availability of parking spaces, including some free parking spaces, in downtown Harrisburg, the high number of workers commuting to jobs not located in downtown Harrisburg, and the increased number of "chained trips", where a person needs to stop at multiple locations between home and work, have all contributed to declining ridership totals.

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▪ **Implementing *CORRIDORone* commuter rail service:**

CAT is planning on implementing its first ever commuter rail service within the Harrisburg area before 2010. This service is called *CORRIDORone*, it operate between Carlisle, Harrisburg, and Lancaster using existing rail lines, and serve Dauphin County communities such as Middletown, Steelton, and Harrisburg, as well as serving Harrisburg International Airport. A number of issues related to operating the service must be addressed in order for *CORRIDORone* to become a successful operation. Some of those issues include determining station locations, determining how existing or new bus service will be coordinated with the train service, and ensuring Capital Area Transit and Amtrak properly coordinate their efforts with each other (Amtrak owns the trackage/right-of-way that *CORRIDORone* proposes to use in Dauphin County, and CAT and Amtrak will need to ensure their operations complement rather than compete with one another). To promote the success of *CORRIDORone*, land uses in the vicinity of the corridor should be of sufficient density to support ridership that will provide a cost effective operation of the system. The preservation of areas near the proposed *CORRIDORone* stations is encouraged so as to permit future development of densities that support the use of the corridor. This linkage of land use and transportation supports other similar objectives of the Comprehensive Plan.

• **Improved connections between CAT and other transit providers:**

Though CAT in general has better operational and scheduling connections between itself and other regional and interregional transit providers than other public transit agencies in other metropolitan regions, there are still connections that could be implemented or enhanced. Most interregional transit providers (Amtrak, Capital Trailways, Fullington Trailways, Greyhound) have their primary Dauphin County station/stop at the Harrisburg Transportation Center. However, not all of CAT's buses stop at or near the Harrisburg Transportation Center. In addition, there isn't full coordination between the interregional providers' schedules and CAT's schedule. CAT also does not currently have direct connections with regional transit operators in nearby metropolitan regions, such as COLT in Lebanon, Red Rose Transit in Lancaster, and Rabbit

Transit in York. Some communities near the Dauphin County border that have significant interaction with locations across county borders, such as Hershey and Elizabethtown, may benefit from increased transit connections.

Transit Recommendations

The transit issues/needs listed above can be addressed through various solutions. The county can work with both its municipalities and Capital Area Transit to better ensure CAT's system operates in an efficient manner, benefiting those who live and/or work in the county. Specific recommendations include:

▪ **Encourage transit oriented development (including in-fill development and mixed-use development):**

Dauphin County can work with its municipalities to create higher density and mixed-use land uses located near existing and proposed public transit routes (including *CORRIDORone*). Higher density land uses allow more people to access transit in the same amount of area relative to low-density land uses. This would enable CAT to operate both shorter and more frequent routes, benefiting both CAT and its riders. Mixed-use development usually indicates smaller-scale development, increasing density, and also means people have more attractions located in one place (traditional downtown), which means people, can stop at one location to accomplish a variety of tasks. With *CORRIDORone*, land uses near the proposed stations should be high density and mixed-use; the stations themselves then not only function as a means to an end (a way to get to downtown Harrisburg or other locations) but as an end in themselves (with various commercial and residential attractions).

The county needs to work with its municipalities to create appropriate zoning areas near transit routes, and in the case of *CORRIDORone* also preserve areas/rights-of-way near proposed *CORRIDORone* stops for future development. Both the county and various municipal future land use maps should identify areas near future *CORRIDORone* stations as being mixed small-scale commercial/residential areas. The county also needs to

ensure any *CORRIDORone*-related development or land preservation does not infringe on the companies conducting freight rail-oriented business along the rail line.

▪ **Work with CAT to create appropriate new "non-traditional" routes:**

Although the county's primary public transit goal should be to encourage transit-oriented development, it must also be acknowledged that much of the existing development cannot be easily accommodated by the existing transit system, eliminating many potential riders. In order to reach more riders, the county and CAT should work together to identify major employment centers within the county which are currently not served or insufficiently served by CAT. Then they should modify the bus system to provide people working at those employment nodes an opportunity to use public transit. Suburb to suburb routes, reverse commute peak-hour routes, and intra-municipal routes (within more populated municipalities such as Lower Paxton or Susquehanna Townships) are all viable options for CAT to reach more potential riders and provide alternatives besides the traditional hub and spoke bus network. CAT has already started to try to implement these kinds of routes; their new 17th Street and Progress Avenue routes should help them increase ridership. Implementing these kinds of improvements would help reduce traffic in the county by taking new transit riders' cars off the road and would also allow captive transit riders an opportunity to work at a place previously inaccessible to them.

▪ **Work with CAT to improve signage and parking at park and ride lots:**

Capital Area Transit has a number of park-and-ride lots within the Harrisburg area that can be used by commuters wishing to ride the bus and do not live within walking distance of a transit stop. However many of these lots are not well signed, either within the lot or outside the lot, to let people know a park-and-ride lot exists at a particular location. This lack of signage reduces people's knowledge about the lots and reduces the likelihood potential riders will use the lots and ride the bus. The county can work with CAT to identify signing deficiencies and determine where signs can be placed both on the highway network and within the parking lot to let people know the park-and-ride lot

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exists. The county could also work with CAT and the lot owners to ensure adequate parking is set aside for the park-and-ride lot while not infringing on the business' operations.

Encourage employers to provide transit subsidies:

Many of the factors that have contributed to the decline in CAT bus use over the last 15 years, such as increased parking in downtown Harrisburg, cannot be changed by county policies. However, there are means by which the county can encourage transit use. One way is by working with employers within the county to provide transit subsidies. Many employers already sponsor TransitChek, a subsidy program that allows employees to buy CAT multi-ride or monthly passes at reduced rates. The county could encourage more employers to sponsor TransitChek, which could increase transit ridership. The county could also institute its own subsidy program, following whatever regulations it most prefers, and encourage employers to sponsor the program. Reduced rate or free transit rides will encourage transit ridership, and will also educate people about the benefits of public transit, making them more likely to use public transit in the future.

▪ ***Promote the Susquehanna Regional Transportation Partnership (SRTP):***

The SRTP is a six-county effort involving Dauphin, Cumberland, Perry, Lancaster, Lebanon, and York Counties that will provide transit and carpool information, via an interactive website, for commuters traveling between or within the counties. Commuters will have the opportunity to link between local transit providers, increasing their transportation options. Various chambers of commerce are also participating in the effort, which could facilitate greater transit use by the business community. The effort should not only benefit urban and suburban area residents but also rural area residents by at least making them more aware of their transportation options. Dauphin County can support this effort through its participation on HATS and through its interaction with both CAT and the Harrisburg Regional Chamber of Commerce. The success of this initiative should help reduce traffic on the area's highways

• **Enhance/create connections between CAT service and other transit providers:**

Creating new connections or enhancing existing connections between CAT and other regional transit providers could better serve areas with latent demand for better transportation options and help boost CAT ridership. Efforts such as CorridorONE implementation and the Susquehanna Regional Transportation Partnership will help meet that goal. CorridorONE will serve Elizabethtown, Mount Joy, and Lancaster in addition to Dauphin and Cumberland County communities, providing an opportunity to link the rail service with local Red Rose Transit bus service in Lancaster County. In addition, greater utilization of the Harrisburg Transportation Center and schedule coordination with the other transit operators located there will encourage transit use and provide a benefit to all affected transit providers. Finally, CAT and its fellow regional transit providers (COLT, Red Rose Transit, Rabbit Transit) should explore opportunities to possibly connect and coordinate their services directly. In Hershey, both CAT and COLT provide service to the Hershey Outlets, so the opportunity for a connection between the two services is available and can be promoted by coordinating schedules and providing necessary information to riders. In Elizabethtown, which is a terminus location for some Red Rose Transit bus lines in northwestern Lancaster County, there is potential demand for service between the borough, including Elizabethtown College, and the Hershey attractions about 10 miles north. CAT and Red Rose could work together to provide connecting service between Elizabethtown and Hershey, benefiting both communities and both transit providers.

▪ ***Work with CAT to initiate Sunday service:***

There are a significant number of people who spend or would prefer to spend many of their weekends shopping at local malls or shopping centers. Some of these people do not have their own automobile and rely on public transit to get them to these shopping attractions and places of employment. CAT's existing Saturday service within the county provides significant service throughout the day to the US 22 shopping corridor, the Harrisburg East Mall, and other major shopping centers within the county in or near Harrisburg. However, CAT currently does not offer Sunday service, restricting

some riders' shopping options. Dauphin County has a significant number of captive riders and it is possible these riders would take advantage of new Sunday service. In order to reach those riders, CAT and Dauphin County can work together to identify where captive riders are located and devise bus schedules that meet the riders' Sunday needs. Sunday routes could be similar to existing Saturday routes, but it is also possible new routes may need to be created.

▪ ***Support improvements to the Harrisburg Transportation Center:***

The Harrisburg Transportation Center is the primary transit hub within the Harrisburg area. It serves as the most significant railroad and intercity bus station within the HATS area. The station also serves multiple local bus routes within the CAT bus system and will be the primary station for CorridorONE when that service is initiated. Its close proximity to downtown Harrisburg allows it to conveniently serve both local and regional passengers who come to the area for work or leisure-related purposes. However, in many ways the station's services could be further enhanced. The station's hub position and high passenger volume increases the need to provide more services and area information at the station. The station also has significant space available for economic development. To enhance the station's services, the county can work with station owners (Amtrak and the Harrisburg Redevelopment Authority) to ensure more area attraction and transportation information is provided at the station and the county business community is involved in trying to get businesses to locate within the station. The county can also work with CAT, Amtrak, and the station's intercity bus providers to ensure better scheduling coordination between the agencies. Improving the station will benefit Amtrak, CAT, and the station's intercity bus provider tenants (Greyhound, Capitol Trailways, and Fullington Trailways).

▪ ***Support construction of the HIA Railroad Station:***

The proposed HIA Railroad Station, which will be located west of Middletown just outside the airport's property, has been delayed due to funding. The station will serve Amtrak, CAT CorridorONE, and CAT buses on-site, and serve HIA, private taxis, and possibly intercity bus's nearby at the airport itself. The station's

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multimodal functions will make it a regional transit hub, much like the Harrisburg Transportation Center. It has the potential to bring more people into the area, benefiting the county and region. Dauphin County can play a proactive role through

FREIGHT RAIL

Freight rail is an important, but often-overlooked, transportation mode in Dauphin County. The county's relative location and well-developed transportation network makes it a hub for freight rail operations. Norfolk Southern, one of six national Class I freight railroad operators in the country, owns and operates ~~on~~ four rail lines in the Dauphin County, and two of these lines, the Pittsburgh Line and the Harrisburg Line, are among the most important lines in the entire Norfolk Southern system. In addition, within the Dauphin County Norfolk Southern operates two intermodal rail yards: Harrisburg Intermodal Yard (also known as Lucknow Intermodal Yard) and Rutherford Intermodal Yard. Both contribute significantly to rail traffic within the county. Freight rail traffic is projected to increase significantly in the future and this transportation mode will remain significant within the county in the years to come.

Unlike highway and transit planning, freight rail planning is done by the freight rail operators themselves (Norfolk Southern) and does not fall under either HATS or county jurisdiction. For that reason the county needs to take more of a supportive/advisory role in addressing freight rail needs and issues.

Freight Rail Issues/Needs

Norfolk Southern's rail network within Dauphin County has a number of needs and issues that need to be addressed in order for the network to continue to operate in an efficient manner. The

county can help provide support on these needs and issues. They include:

- ***Preserving rail rights-of-way:***

Dauphin County has experienced extensive land development in recent years, and some of this land development has occurred near or adjacent to freight rail rights-of-way. Some kinds of development, especially residential development, are not appropriate near active freight rail lines for safety reasons. Many people living near rail lines do not take proper safety precautions and may venture out onto the rail lines even when trains are active, putting themselves in dangerous situations. It is possible that in the future more rail lines will be added to the rights-of-way, which would both increase rail traffic and bring the traffic closer to the development. Both of these factors would increase safety concerns for Norfolk Southern as well as nearby residents.

- ***Upgrading safety at railroad crossings:***

One of the primary goals Norfolk Southern has with its existing rail lines is to upgrade safety along the lines, especially at highway crossings. Many existing crossings either are not signalized or have substandard signals in place. This creates a safety hazard at these crossings by not giving drivers sufficient warning that a train is approaching the intersection. Some at-grade crossings are being eliminated entirely, as highway or railroad overpasses are constructed to eliminate the safety hazard.

- ***Encouraging more businesses to operate rail-based operations:***

The Harrisburg area is a center for goods distribution, and many of these operations occur by truck. Goods movement is expected to nearly double between 2000 and 2020 across all modes in the northeastern United States. HATS does not have the resources to widen highways to accommodate increased goods movements, so other ways to handle goods movements will need to be explored. One way to handle more goods is to shift some of the movements to rail. The existing rail network is also facing capacity issues in some locations. However, there is generally a capacity for growth,

especially for shipments where shipping by rail is economically competitive with shipping by truck (generally speaking, this break point occurs at a distance of somewhere between 500 and 800 miles).

- ***Improving access into the Harrisburg and Rutherford Intermodal Yards:***

Intermodal shipments, which utilize both rail and highway (truck) transportation to ship goods in a cost-effective manner, are becoming more prevalent as companies try to take advantage of the cost and time advantages of both trains and tractor-trailers. The increase in intermodal shipments will mean more trucks will need to access the intermodal yards. However, existing access into the Harrisburg/Lucknow and especially Rutherford Intermodal Yards is substandard or has community issue concerns. At Rutherford Yard, although the yard is near US 322 and the Eisenhower Interchange, physical, road design, and social/community barriers make accessing the yard confusing and difficult. At the Harrisburg Yard, proximity to and vehicular mixing with Harrisburg Area Community College (HACC) traffic at the south end of the yard and poor intersection design at PA 39/Industrial Road at the north end of the yard create problems. These issues will become acute as intermodal shipments and the number of trucks accessing both yards increases in the future.

Freight Rail Recommendations

Though Norfolk Southern and other freight rail operators have ultimate control over almost all improvements that occur to the rail system, the county can still play an active role in helping the freight rail operators achieve their goal of having more efficient and safer operations. Specific recommendations include:

- ***Promote appropriate land uses and zoning along rail corridors:***

Freight rail operations are usually noisy and sometimes dirty, and should not be located next to incompatible land uses such as residential or commercial development. However, in some cases in the past

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these incompatible land uses have been located adjacent to a rail right-of-way. To prevent that from happening in the future, the county and its municipalities should work together to ensure projected future land uses and zoning along rail corridors are "rail friendly". Industrial uses, conservation uses (acting as a buffer between the rail line and other uses) and other compatible uses are just some of the types of development that should be planned for along a freight rail corridor. Creating rail compatible land uses and zoning can also encourage businesses that can support rail operations to locate along rail lines, which can both potentially reduce the number of trucks on the road, improve traffic flow and spur economic development.

▪ **Promote improved safety at rail crossings:**

Though the county has little control over the rail crossing/signalization improvements Norfolk Southern and other freight rail operators implement, the county can still support freight rail operators by understanding their needs and helping to educate the general public about freight rail safety. People need to understand railroad signals are not fail safe, and do periodically malfunction. People also need to realize unsignalized crossings might still be active, and they need to take necessary precautions at these crossings. The county can support Norfolk Southern and freight rail operators in general by helping to educate the public about railroad safety issues. This education can help to reduce the incidence of rail crossing accidents. The county can also promote improved safety by financially supporting Norfolk Southern's county safety improvements, either directly or through HATS, if and when appropriate.

▪ **Improve roadway access into the Harrisburg and Rutherford Intermodal Yards:**

Unlike the rail-based improvement recommendations shown above, the county, through its representation on HATS, can directly support and help fund roadway improvements that improve access into the area's two intermodal yards. Improving this access will improve air quality and could reduce long-haul truck traffic, benefiting the entire region. At the Harrisburg Yard, one possible improvement includes modifying the PA

39/Industrial Road intersection to move the access point away from the PA 39/US, 22/322-interchange ramps. This would improve safety for all vehicles, allow better truck access to US 22/322 eastbound, and possibly divert some eastbound trucks going from the yard to East Coast destinations from using the southern access road (Wildwood Park Drive) into the yard. Diverting trucks from the southern access point would reduce car/truck mixing with HACC and Pennsylvania Farm Show traffic. The PA 39/Industrial Road intersection improvement has been proposed as part of the Route 39/743 Study. Another possible improvement is to create a new access road between HACC and US 22. This possible improvement would reduce car/truck mixing.

At the Rutherford Yard, one possible improvement is to create better signage directing drivers to where they need to go. Trucks (except those coming from the Hershey area) should use the Penhar Drive interchange off of US 322 whenever possible and access the yard via Rupp Hill Road and Grayson Road. Ensuring trucks use these roads will prevent them from using higher volume roads and/or steep grade roads such as Mushroom Hill Road and reduce car/truck mixing. Another possible improvement is to straighten out the Rupp Hill Road/Grayson Road transition area. Currently the road has two tight curves that are not well designed for tractor-trailers. This relatively minor improvement would improve safety for truck drivers.

AVIATION

Aviation represents only a small portion of the transportation modal network in Dauphin County, but the portion it represents has a significant safety and economic benefit for the County and the Harrisburg region. Airports provide a variety of uses, including commercial aviation services (which occur only at a very small percentage of airports), business aviation services, general aviation services, and flight instruction. Airports also facilitate general safety by allowing emergency response personnel to reach accident victims and/or medical facilities more quickly than they often could by land alone.

Dauphin County contains the area's major commercial airport, Harrisburg International Airport, which serves all of south central Pennsylvania. Dauphin County also contains another public use airport, Bendigo Airport, located in Rush Township near Tower City. The county is also represented on the Susquehanna Area Regional Airport Authority (SARAA), which helps maintain a significant business class airport (Capital City Airport, or CCA) that also serves county residents. Capital City Airport is located in northern York County, just outside New Cumberland Borough in Cumberland County.

Aviation planning usually falls under the domain of whoever owns a particular airport. This is particularly true with smaller non-commercial airports, which are often privately owned by a single individual or a family. Though Dauphin County is indirectly involved with two of the three primary airports serving the county (both HIA and CCA through SARAA), the county does not have operational authority over either of these airports or Bendigo Airport. Instead, Dauphin County's role is advisory/supportive in addressing aviation issues at these three airports.

Aviation Issues/Needs

The airports serving Dauphin County all have a number of needs and issues that need to be addressed in order for the network to continue to operate in an efficient manner. They include:

▪ **Continued viability of Harrisburg International Airport:**

HIA serves as a major gateway for businesses, tourists, and residents in Dauphin County and the entire Harrisburg region. SARAA wants to see land uses around the airport to remain compatible and not interfere with airport operations. Though trends began

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changing after the September 11, 2001 terrorist attacks, historically HIA has drawn in a lower percentage of passengers relative to its market area population than other airports in similar-sized markets, possibly because of higher fares compared to other nearby airports in larger markets (especially BWI – Baltimore/Washington International Airport and PHL – Philadelphia International Airport) and fewer markets served by non-stop direct flights compared to BWI and PHL. In order for HIA to continue to grow and become more economically viable, more Dauphin County businesses and residents need to use HIA for their commercial aviation needs rather than an out-of-market airport.

▪ **Enhancing northern Dauphin County aviation services:**

While the southern portion of Dauphin County is well served by a variety of commercial, business, and general aviation airports inside or a short distance outside the county, northern Dauphin County has few aviation options. Bendigo Airport was recently upgraded and a new, paved runway was constructed in fall 2002 to better handle general aviation services at the airport. However, the airport is located in an isolated portion of the county, far away from even many of northern Dauphin County's residents. The airport is also still classified as a limited airport, the lowest of the four classifications defined by the PennDOT Bureau of Aviation. Other, higher function airports outside the county that serve northern Dauphin residents, such as Penn Valley Airport in Selinsgrove, Snyder County and Schuylkill County Airport northwest of Pottsville, are not conveniently accessible to northern Dauphin County residents.

The Bureau of Aviation released its updated Statewide Airport System Plan (SASP) in early 2003. It identified areas within the state that may need greater general aviation service in the future, based on population densities and projected population growth. Northern Dauphin County was not one of the areas identified that had the highest need for aviation improvements. The northern portion of the county, especially near the Millersburg/Halifax/Elizabethville area, has some need for a new public use airport that meets the basic or at least a limited level of service. Such an airport would improve general aviation services, provide at least limited business aviation services, and provide a

takeoff/landing location for airborne emergency response services.

Aviation Recommendations

Though Dauphin County does not have operational control over the public airports that serve the county, the county can still play an active role in preserving and improving aviation services at those airports. Specific recommendations include:

▪ **Promote multimodal links to Harrisburg International Airport:**

SARAA has upgraded HIA, constructing a new, compact, user-friendly terminal, and is planning a new multimodal parking garage that will serve private cars, taxis, and local buses with enhanced services, and a new passenger rail station adjacent to the airport property that will serve both regional (Capital Area Transit's CORRIDORone) and interregional (Amtrak) rail passengers and allow them to reach the airport directly from the rail station. Dauphin County will be impacted by these improvements, and the county can encourage its residents to use the airport and keep money within the county. More specifically, the county can work with CAT and SARAA to encourage its residents to use CORRIDORone to reach the airport, which will benefit CAT, SARAA, and the county itself.

▪ **Open a public use airport in northwestern Dauphin County:**

There are two options for creating a new public use airport. One option is to try to convince the owners of an existing private airport to allow their airport to be open for public service. The airport would need to meet Bureau of Aviation operating standards, including runway length and width, be relatively accessible from surrounding areas, and have airport-compatible zoning enacted around the airport. There are a few private airports in northwestern Dauphin County that might currently meet public use airport operating standards or meet the standards with modest improvements. Those airports include Lunt Airport in Upper Paxton Township, the Lykens Valley Flying Association Airport in

Washington Township, Harman Airport in Jackson Township, Tobias Airport in Halifax Township, and Gusler Airport in Wayne Township. The other option is to find a flat open tract with sufficient space and roadway access that could be converted to a public use airport. Such a new airport would also need to meet PennDOT guidelines. Accomplishing either option may be difficult, due to liability, safety, or area resident concerns. Still, Dauphin County can support this goal by either working with the private airport landowner to ensure this facility would not be negatively impacted by opening it for public use or by buying a tract of land either directly or indirectly to use for aviation uses.

▪ **Create airport compatible zoning around Harrisburg International Airport and Bendigo Airport:**

SARAA (Susquehanna Area Regional Airport Authority) has expressed a need to promote appropriate land uses and zoning in the vicinity of Dauphin County airports. The Future Land Use Plan reflects uses which are compatible with HIA. The Future Land Use Plan contains designations of Commercial, Conservation Public/Semi-Public (Penn State Harrisburg campus), and Village Mixed Use (Middletown and Highspire Boroughs). Municipal Comprehensive Plans and Zoning Ordinances, per the Pennsylvania Municipalities Planning Code, are to be generally consistent with the County Comprehensive Plan.

One of the major issues smaller public use airports face is incompatible zoning conflicting with airport operations and safety. Public use airports are important for general aviation, reliever airport, and flight instruction-related purposes and need to be preserved for future use. Though Bendigo Airport is located in a rural part of the county, it still faces some land use and development issues and needs to be protected to ensure it can continue to be an effective public use airport. To prevent incompatible development near the airport and preserve it for the future, the County encourages Rush Township to adopt a comprehensive plan and zoning ordinance.

All the host municipalities should integrate the Bureau of Aviation's Compatible Land Use Guidelines and Model Airport Zoning Ordinance regulations into the appropriate planning documents. Using these aviation-related guidelines and regulations would help maximize

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safety at both the airport and within the surrounding community.

BICYCLE/PEDESTRIAN

Bicycle/pedestrian transportation is an important but usually overlooked transportation mode in Dauphin County. Since everyone is a pedestrian at some time or other, pedestrian transportation issues impact everyone. Many people also ride bicycles, even if it is only for recreational purposes, making bike transportation issues significant to many people. Within Dauphin County there are essentially two different types of bike/pedestrian routes: (1) those located along highway shoulders and sidewalks; and (2) dedicated bike/pedestrian trails, which are often located along waterways, mountains, and other naturally preserved areas.

Unlike the other transportation modes discussed in this chapter, relatively little dedicated planning has been done for bike/pedestrian transportation uses. Instead, bike/pedestrian improvements have either been included within highway improvements or have been included as part of public or private recreational improvements. In many cases highway-based bike/pedestrian improvements have been overlooked or poorly addressed as part of highway projects, making it difficult for bicyclists and pedestrians to optimally use roadways for their transportation needs. The HATS Transportation Enhancements (TE) Program, a component of the biannual, federal and state-funded Transportation Improvement Program (TIP), is a program dedicated to funding non-traditional transportation projects, including bike/pedestrian projects, and has enabled more recreationally-oriented bike/pedestrian projects to receive funding and improve the county's bike/pedestrian network.

Bicycle/Pedestrian Issues/Needs

The county's bicycle/pedestrian network has a number of needs and issues that need to be

addressed in order for the network to continue to operate in an efficient manner. They include:

- ***Narrow highway shoulders:***

Bicyclists and/or pedestrians often use shoulders for transportation or recreational purposes. However, many state and township roads in Dauphin County have substandard shoulder widths. Bike/pedestrian users often consider these roads unsafe, due to high motor traffic volumes or speeds and/or poor vertical or horizontal sight distances. As a result, bike/pedestrian use is discouraged and motorized traffic is increased, which further discourages bike/pedestrian use along these roads.

Narrow shoulders can also create a safety hazard whenever motorists experience car troubles and need to stop along the road, both for drivers (who cannot get their vehicles entirely off the road and are in closer proximity to passing traffic) and for bicyclists and pedestrians (who need to get around the stalled vehicle by driving/walking further into the road). This situation can be especially dangerous in high traffic volume locations.

- ***Lack of dedicated bike lanes and/or sidewalks in some locations:***

Dedicated bike lanes and/or sidewalks facilitate both bicycle and pedestrian transportation, especially in more densely developed urban or suburban areas. However, many urban and suburban areas do not have either bike lanes or sidewalks in many locations. Some of these locations

without dedicated bike/pedestrian facilities also have narrow roadway shoulders, further inhibiting bike/pedestrian movement. The lack of dedicated bicycle (bike lanes) and pedestrian (sidewalks) facilities discourages bike/pedestrian use and encourages a greater volume of motorized transportation.

- ***Sprawl/dispersed land use:***

Lower density and non-mixed land uses discourage bike/pedestrian transportation by making it impractical for people to bicycle or walk for transportation-related purposes because of the greater distance required for travel. Sprawl development also hinders bike/pedestrian users by encouraging motorized traffic, which increases the volume and sometimes speed of vehicles using the road. The increased volume and speed of cars and trucks using the road reduces safety for bike/pedestrian users.

- ***Poor bicycle/pedestrian access into downtown Harrisburg:***

Access into many parts of the city of Harrisburg, especially the portion between the Susquehanna River and the Norfolk Southern/Amtrak rail lines, which includes downtown Harrisburg, is restricted to a small number of bridge overpasses and underpasses. This impedes the flow of all highway-based transportation modes and further impacts bike/pedestrian transportation by forcing users to utilize highways that are heavily used and often congested. Some of these highways, such as Walnut Street in Penbrook, have significant shoulder and/or sidewalk issues, discouraging many potential bike/pedestrian users into using motorized transportation, which further exacerbates congestion and also safety-related bike/pedestrian problems.

Bicycle/Pedestrian Recommendations

Dauphin County, both through its representation on HATS and through its coordination with its municipalities, can play an active role in improving and encouraging

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bike/pedestrian transportation in the county. Specific recommendations include:

- ***Incorporate bike and pedestrian improvements into the transportation planning process:***

Historically, bike/pedestrian transportation improvements have been overlooked when highway transportation projects have taken place, as bike/pedestrian improvements have been considered to be of secondary importance compared to motorized transportation issues. As a result, many area roadways have narrow shoulders or lack adjacent sidewalks. However a significant number of people walk, run, or bike along area roadways for either transportation or recreational purposes, so their concerns also need to be addressed. To address those concerns, the county, through its representation on HATS, can push to ensure bike/pedestrian improvements are incorporated into Transportation Improvement Program projects, where appropriate. HATS also published a Bicycle and Pedestrian Transportation Plan in 2001, and projects in the plan not yet implemented should be strongly considered for inclusion on the TIP. The county can also work with its municipalities to strengthen their township and borough Subdivision and Land Development regulations related to bike/pedestrian concerns (primarily roadway width and sidewalk requirements) and ensure bicyclists and pedestrians are properly accommodated on the roadway network.

- ***Encourage mixed-use zoning and “traditional” community development:***

As stated above, sprawling, non-mixed land uses discourage bike/pedestrian use by making it inconvenient for bicyclists and pedestrians to get to desired locations, both in terms of distance required for travel and safety. By contrast, mixed land uses/zoning, similar to that found in “traditional” town or village-like community development, would facilitate bike/pedestrian transportation by placing different types of land uses closer together, making it easier for bicyclists and pedestrians to travel to various destinations. “Traditional” community development also discourages high traffic speeds and increases the safety of bike/pedestrian transportation. Finally,

mixed-use zoning not only increases bike/pedestrian transportation, it also decreases motor vehicle traffic, reducing congestion on the area’s roadways. Dauphin County can promote “traditional” community development by establishing planned growth areas, which would experience denser, mixed-use zoning in most areas. The county can also work with its municipalities to creating larger mixed land use zones that can more easily accommodate bike/pedestrian transportation.

- ***Encourage development/preservation of greenways, rail/trails, and open space:***

Preserving greenways, rail/trails, and open space provides a number of benefits to both bike/pedestrian users and the county in general. Greenways and rail/trails allow bike/pedestrian users to travel for transportation or recreational reasons without encountering motorized traffic that reduces their safety. They also enable bicyclists and pedestrians to travel in an aesthetically pleasing, naturally preserved area. Greenways and rail/trails in general promote non-motorized transportation, which can help reduce traffic congestion. Greenways and rail/trails also provide a number of non-transportation related benefits, including economic benefits (by functioning as a buffer and by creating a tourist attraction), social benefits (by providing access to historical and cultural features in the community), ecological benefits (by preserving open space and wildlife habitats), and recreation benefits (by promoting other types of outdoor recreational activities). The county can preserve greenways and rail/trails by working with its municipalities to preserve these environmentally important lands.

- ***Consider using county Liquid Fuels funds to finance certain bicycle and pedestrian improvements:***

All Pennsylvania counties, including Dauphin County, receive state liquid fuels tax funding every year to help cover the cost of highway maintenance. The amount received is based on the population and road mileage within a county. These funds are used for a variety of transportation-related purposes, and augment the liquid fuels tax funding received by all Pennsylvania municipalities to implement municipal transportation

improvements. The county has many transportation priorities that require funding from the county liquid fuels tax allocation, but it is also possible some county priority bike/pedestrian improvements that meet the liquid fuels tax funding criteria could be financed using the county liquid fuels allocation. Much like federally funded TIP projects, the bike/pedestrian improvements funded (such as improved highway shoulders) could be part of larger-scale highway improvements implemented. Using this funding source could help the county achieve its bike/pedestrian improvement goals more easily.

- ***Specify bicycle/pedestrian routes into downtown Harrisburg:***

The county, through its representation on HATS and its association with its various municipalities, can address this issue in multiple ways. One way is to widen shoulders, build sidewalks, or create bike lanes on various roads. Another way is to designate certain roads and side streets as bike/pedestrian routes. The latter option would be useful in areas such as Walnut Street in Penbrook Borough where bike/pedestrian facilities could not be easily implemented. Portions of the Capital Area Greenbelt could also be utilized to improve access into downtown Harrisburg. All of the various types of improvements would improve bike/pedestrian transportation and could encourage more non-motorized transportation.

TRANSPORTATION PLAN			
GOALS	OBJECTIVES	STRATEGIES	
T-1 Provide a safe, efficient highway system	T-1.1 Link transportation and land use	T-1.1.A	Encourage in-fill development and discourage sprawl development
		T-1.1.B	Encourage mixed use development
		T-1.1.C	Promote public transit use & discourage road expansion
		T-1.1.D	Examine and better understand highway-based goods movement and distribution transportation patterns
		T-1.1.E	Through HATS committees ensure that proposed road projects address all PennDOT and Dauphin County transportation issues involved
		T-1.1.F	Implement more Intelligent Transportation System (ITS) technologies
		T-1.1.G	Ensure that new, large developments have sufficient and appropriate access into and out of the development, especially when located adjacent to other large developments
		T-1.1.H	Ensure locally initiated projects get on the TIP
	T-1.2 Promote interagency coordination and cooperation	T-1.2.A	Encourage employers to implement strategies that reduce SOV trips during AM & PM rush hours
		T-1.2.B	Promote improved law enforcement
T-2 Provide a safe, efficient transit system	T-2.1 Link transit and land use	T-2.1.A	Encourage transit oriented development (including in-fill development and mixed use development in CORRIDORone)
	T-2.2 Encourage coordination with CAT	T-2.2.A	Work with CAT to create appropriate new "non-traditional" routes
		T-2.2.B	Work with CAT to improve signage and parking at park and ride lots
		T-2.2.C	Work with CAT to initiate Sunday service
		T-2.2.D	Support improvements to the Harrisburg Transportation Center
	T-2.3 Promote interagency coordination and cooperation	T-2.3.A	Encourage employers to provide transit subsidies
		T-2.3.B	Promote the Susquehanna Regional Transportation Partnership (SRTP)
T-2.3.C		Support construction of the HIA railroad station	
T-3 Provide a safe, efficient freight rail system	T-3.1 Link freight rail and land use	T-3.1.A	Promote appropriate land uses and zoning along rail corridors
		T-3.1.B	Improve roadway access into the Harrisburg and Rutherford Intermodal yards
	T-3.2 Promote safety	T-3.2.A	Promote improved safety at rail crossings
T-4 Provide safe, efficient airports	T-4.1 Link aviation and land use	T-4.1.A	Create airport compatible zoning
	T-4.2 Enhance northern Dauphin County's aviation services & opportunities	T-4.2.A	Open a public use airport in northwestern Dauphin County
	T-4.3 Promote multi-modal linkages	T-4.3.A	Promote multi-modal links to Harrisburg International Airport (HIA)
T-5 Provide a safe, efficient bicycle/pedestrian system	T-5.1 Link bicycle/pedestrian systems and land use	T-5.1.A	Encourage mixed-use zoning and "traditional" community development
		T-5.1.B	Encourage development/preservation of greenways, rail/trails, and open space
		T-5.1.C	Specify bicycle/pedestrian routes into downtown Harrisburg

TRANSPORTATION PLAN (continued)

GOALS	OBJECTIVES	STRATEGIES	
T-5 (continued)	T-5.2 Promote interagency coordination and cooperation	T-5.2.A	Incorporate bike and pedestrian improvements into the transportation planning process