

CHAPTER 12

Transportation Plan

Preface

This plan serves as the update to Chapter 12, the transportation plan element, of the 2003 Cumberland County Comprehensive Plan. Background information and specific statistics on the modes of transportation in the county can be found in Chapter 11 of the comprehensive plan and in the Harrisburg Area Transportation Study (HATS) Long Range Transportation Plan¹.

Introduction

Cumberland County is home to a variety of transportation resources ranging from interstate highways to sidewalks in local neighborhoods. The transportation infrastructure found in the county supports the national, state and local economies and the high quality of life in our communities, alike. The value of our transportation system warrants the county's involvement in its planning, design, construction and maintenance.

Cumberland County's transportation planning authority emanates from Article III of the Pennsylvania Municipalities Planning Code (MPC), Act 247 of 1968. The MPC requires county comprehensive plans to include a plan for the "movement of people and goods" that includes all modes of transportation. Under this planning authorization the county's actual role in planning and implementing improvements for all modes of transportation must be carefully managed.

This plan identifies the salient transportation issues and needs facing the county and recommends a series of county-based strategies and action steps aimed at addressing the identified needs and issues.

Highways and Bridges Issues and Needs

Cumberland County has an extensively developed highway network that provides for local, regional, and national transportation. All roads in the county are owned and maintained by municipalities, the state, or the federal government. The rich hydrologic resources of Cumberland County are spanned by 438 bridges that are over 20' in length². Cumberland County owns and maintains 28 bridges, municipalities, 47, and the state, 363.

Cumberland County's Strategic Location

Cumberland County functions as a crossroads between major north/south routes (especially Interstates 81 and 83, and US Routes 11 and 15) and a major east/west route, the Pennsylvania Turnpike (Interstate 76). This highway network connects the county to major regional

¹ The HATS Long Range Plan can be accessed at www.tcrpc-pa.org

² Bridges over 20' are required by Federal regulation to be inspected every 2 years and when conditions warrant are eligible for Federal or state replacement funding. Bridges under 20' in length have no required inspection cycle and have municipal ownership and maintenance.

destinations such as Philadelphia, Baltimore, Washington, Pittsburgh, and New York. A 2006 study on goods movement in the region stated that the county's interstate highways carry 10% of the nation's gross domestic product and that 40% of the United State's population is within a 24 hour drive of Carlisle³. The study also noted that 90% of the truck traffic on the county's interstate highways is through traffic with an origin and destination outside of Cumberland County.

The county's crossroads position has made it a prime location for a variety of transportation-related activities such as warehousing, distribution, and rail freight. Approximately 56 million square feet of warehousing and distribution space is located in the county⁴ making the transportation and warehousing industry the third largest employer (nearly 12,000 family supporting jobs⁵).

Key planning implications:

- The economic benefits of the transportation industry locating in the county must be balanced with potential negative impacts to quality of life, localized traffic congestion, and road maintenance.
- The county is a keystone in a national goods movement corridor and experiences high volumes of through traffic on its interstate highways.
- The volume of truck traffic traveling on interstate highways in the county is largely beyond the purview of the county.

Linkage of Land Use and Transportation Planning

Transportation and land use must be considered and planned for jointly. To a great extent, land use determines the likely mode of travel, trip origins and destinations, and the volume of traffic that will be generated on local and regional highways. Denser, mixed use land use patterns tend to lead to fewer, shorter trip distances, a better blend of jobs and housing and an increase in the use of transit, cycling, and walking. By providing a range of transportation choices beyond the automobile, individuals who do not drive are provided new travel opportunities. Alternatively, low density, separated land uses require frequent, longer trips that are primarily served by the automobile, thereby increasing congestion and demands on roadways. The impacts of land use policies also cross political boundaries. Changes in land use in one municipality often have ripple effects that have transportation impacts throughout an entire region.

Key planning implications:

- Changes in land use affect the mode of transportation and trip generation rates.
- Municipalities control land use policies while federal, state, and regional agencies lead transportation planning and programming efforts.

³ *South Central Pennsylvania Regional Goods Movement Study*, Cambridge Systematics, November 2006.

⁴ Cumberland County Economic Development, 2010.

⁵ Center for Workforce Information and Analysis, 2010.

- Land use and transportation planning requires coordination across municipal boundaries.

Limited Funding for Highway and Bridge Projects

A 2010 report from the Pennsylvania State Transportation Advisory Committee projected \$6.5 billion of unmet transportation needs at the state level through 2030⁶. Unmet transportation needs on municipally owned facilities are estimated at \$1 billion through 2030. Escalating construction costs, lower fuel tax revenue resulting from decreasing fuel consumption, and federally rejected applications to toll Interstate 80 in Pennsylvania have led to substantial decreases in funding in the face of rising project demand. New statewide revenue streams and increases in existing streams are needed to fill the growing gap between project need and funding availability.

Key planning implications:

- Limited funding must be targeted to the projects with demonstrated need and benefit.
- New sources of sustainable transportation revenue must be identified to address transportation needs in the county.
- Federal and state funding is needed to supplement county liquid fuels funds to replace deteriorating county bridges.

Maintenance of the Existing System

Once constructed, highway and bridge facilities will require perpetual maintenance that has an increasing cost over time. More than half of the highway miles in the HATS region are considered in “good” condition, with the federal aid system accommodating over 85% of the daily vehicle miles traveled (DVMT). Roadways not on the federal aid system are twice as likely to be in “poor” condition⁷ and require more maintenance. Limited funding has led to the current HATS and PennDOT investment strategy that prioritizes investments in maintaining the existing system over constructing new capacity adding projects. Maintenance of the core transportation system, which carries the greatest volumes of traffic, is further prioritized over maintenance on the local highway and bridge network that carries less traffic.

With scarce funds and increasing costs in the long term, the condition of the highway and bridge network will continue to worsen if alternate funding sources are not pursued. In particular, county and municipal facilities will be unable to compete for the diminishing available funds needed to maintain the region’s more heavily used highways and bridges in “good”, structurally sound condition.

From the bridge perspective, Cumberland County owns fewer bridges than its municipal and state counterparts do but the county-owned bridges are in comparatively worse shape. Eleven of the county’s bridges were built before 1900 and are structurally deficient⁸. Over half of the

⁶ *Transportation Funding Study*, Pennsylvania State Transportation Advisory Committee, May, 2010.

⁷ *2035 Regional Transportation Plan*, Harrisburg Area Transportation Study, December 2010

⁸ Structurally deficient bridges show deterioration to one or more major components.

bridges have a sufficiency rating under 50 and thus are eligible for replacement⁹. Thirteen of the bridges have restrictions on the weight of the vehicles that may travel on them.

Key planning implications:

- Once built, facilities must be maintained indefinitely, and costs increase over time.
- Available funding is not sufficient to maintain all elements of the existing highway system.
- Closures and weight restrictions on county bridges are likely in the future as bridges continue to deteriorate and funds are unavailable for appropriate repairs.

Highway and Bridge System Design and Management

The core of Cumberland County's highway and bridge network has been in place for well over 100 years. Many of the county's major highways actually follow the same courses as Indian trails that were dated to the late 1600s¹⁰ (see page 4-5). The county's highways have progressed at varying rates from trails to modern highways. Some highways have rapidly developed to multiple lane highways capable of carrying high volumes of multimodal traffic. Other highways have retained dated design and capacity characteristics that challenge their ability to adapt to modern transportation demand. Since the progression of these footpaths to our current highways, capacity adding projects and new bridges are rarely constructed given limited funding and challenging right-of-way acquisition.

Outdated roadway design is a major factor contributing to safety hazards and congestion on Cumberland County roads. Many of the county's roads have design aspects that are substandard as they were not designed to handle the volume or type of traffic they currently serve. Many low-volume and/or rural roads in the county have narrow or non-existent shoulders, or poor horizontal or vertical sight distance, reducing road safety. Some high-volume and urban roads have substandard turning lanes, on/off ramp lengths, and inadequate capacity to carry the volume of traffic currently using those roads. Even some newer road projects are inadequately designed especially where they transition to older portions of roadways. Often rural and urban roads have not been designed to accommodate cyclists, pedestrians, horse and buggy, or public transit.

Poor access management has also become a major congestion and safety-related highway issue in the county in recent years. Access management is the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway¹¹. It also involves roadway design applications, such as median treatments and auxiliary lanes, and the appropriate spacing of traffic signals. The purpose of access management is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system. In some portions of Cumberland County, such as along portions of US 11/Carlisle Pike, poor access management has created

⁹ Sufficiency rating is a calculated score from 0 (worst) -100 (best) that indicates a bridges ability to meet the traffic demands and safety needs for the route it carries. Bridges with an SR of 50 or under are eligible for Federal and state replacement funding.

¹⁰ *Cumberland County Comprehensive Plan*, Cumberland County Planning Commission, 2011.

¹¹ Federal Highway Administration, Office of Operations.
http://ops.fhwa.dot.gov/access_mgmt/what_is_accsmgmt.htm

significant congestion, degraded safety, reduced community character, and discouraged alternative modes of transportation.

Intelligent Transportation System (ITS) applications offer the potential to improve the management of our existing transportation system. ITS improvements such as variable message signs, 511 systems, closed circuit television cameras, and highway advisory radio networks allow for monitoring transportation in real time. ITS applications can make travel smarter, faster, safer and more convenient based upon emerging conditions.

Key Planning Implications:

- Many parts of the county's highway network are out of date with respect to design and management.
- Major capacity adding projects to alleviate problems ingrained in the county's seasoned highway network are unfeasible given funding and right-of-way constraints.
- Mobility improvements will depend largely on the ability to effectively maintain and manage the existing transportation infrastructure to better accommodate current travel demand and patterns.
- New technologies and planning concepts offer the opportunity to improve mobility and the safety of the county's highway network.
- Roads that accommodate multiple modes of transportation may experience decreased congestion, enhanced safety, and reduced maintenance demands.

County, Regional, and National Growth

Cumberland County is expecting modest growth in the next 20 years with a projected 26% increase in households and a 38% increase in employment¹². Dauphin and Perry Counties are projected to grow at a similar rate for employment but at a much slower rate for households, 8.4% and 4.9%, respectively. National economic growth will increase goods movement traffic in the county with a projected 79.5% increase in truck tonnage in the next 20 years. All these factors will increase travel demand on the county's roadways.

Key planning implications:

- Growth in households and employment increases demands on the local and regional highway and bridge network.
- National economic growth will increase through traffic in the county and region and increase daily traffic on the interstate highways.
- Future land use decisions must consider the associated transportation impacts.

Special Event and Detour Traffic

Increased special-event traffic has become a major issue in recent years within Cumberland County. The county hosts many special events, such as car shows in Carlisle and community festivals that attract a large number of attendees from within and outside of the county. These

¹² 2035 Regional Transportation Plan, Harrisburg Area Transportation Study, December 2010.

events often generate significant traffic congestion on local, state, and interstate roadways alike. The congestion from such events is generally short-lived, a temporary inconvenience that must be properly managed and balanced with the substantial economic impact of the special events.

As noted earlier, Cumberland County is in the middle of a national goods movement corridor given its proximity to interstate highways. Accidents on and closures of the interstate system often lead to traffic being detoured on nearby state and local highways, thereby creating heavy congestion. During major highway closures, local mobility is severely limited in the communities through which traffic is routed. Public safety can also be impacted as response times can be substantially lengthened. Such detours have varying durations, with some lasting a few hours and others lasting substantial portions of a day.

The county is not responsible for developing detour or special event routing. Detours are normally established by the local police or fire police that are responding to incidents. Special event routing is handled by the special event coordinators and the associated municipality. The county's major role is in notifying fire police of incidents as they occur through the county's Department of Public Safety (DPS).

The Cumberland County Department of Public Safety (DPS) is currently preparing a traffic management plan for the county. That plan will be numbering all the intersections in the county to assist fire police, local police, and state police and emergency responders identify where incidents occur. From there, the most effective detours can be selected by the responsible agency, most likely local or fire police.

Key planning implications:

- Special events generate predictable, short-term traffic congestion in the county.
- Despite creating traffic congestion, special events have a substantial positive impact on the local economy.
- Detour traffic generates unpredictable, heavy traffic congestion.
- Heavy traffic congestion can have crippling effects on local mobility and emergency response times, negatively affect businesses that need to deliver goods within the county and result in a loss of productivity for employers whose employees have difficulty commuting to the workplace.

Public Transit Issues and Needs

The Cumberland-Dauphin-Harrisburg Transit Authority, more commonly known as Capital Area Transit (CAT) was formed in 1973 to provide local bus service to the residents of the Harrisburg area. CAT currently operates a variety of local and express routes that serve Cumberland and Dauphin Counties. Cumberland County provides local operational support for CAT and participates on the authority's Board of Directors.

The Cumberland County Transportation Department (CCTD) provides human service transportation to the residents of Cumberland County. The system provides transportation services to the elderly and physically or mentally disabled individuals for work, medical, and personal trips. Funding for the service comes from a variety of sources, including PennDOT, via the Pennsylvania State Lottery Fund, the Cumberland County Office of Aging, the

Cumberland/Perry Mental Health Retardation program, and the Pennsylvania Department of Public Welfare.

Transit Supportive Land Use

Transit systems are best supported by dense concentrations of population and housing that are close to or mixed with employment and commercial centers. Transit supportive land use policies strive to minimize distances between origins and destinations, decrease the need for the automobile, and in turn maximize ridership.

Guidance provided by the Federal Transit Administration (FTA) to assess transit supportive land uses for new projects generally rates land uses with population densities under 6,667 persons per square mile and housing densities under 10 units per acre as “low” in their ability to support public transit¹³. FTA identifies communities with population densities of over 15,000 persons per square mile and residential densities of over 25 units per acre as “high” in their ability to support public transit. The Tri-County Regional Planning Commission’s Regional Growth Management Plan notes that regional rail service for the tri-county region would need a density of at least 7 dwelling units per acre to support that type of transportation investment¹⁴.

Cumberland County communities are generally characterized by lower density, dispersed land uses with an average of .98 dwelling units per acre and a population density of 388 persons per square mile. Even Shiremanstown Borough, the most densely developed municipality in the county with a residential density of 3.9 dwelling units per acre and a population density of 5,070 persons per square mile, does not demonstrate what would be generally identified as transit supportive land use characteristics¹⁵.

The best opportunities for transit supportive land use are found in the county’s boroughs. The historic activity centers of Shippensburg, Newville, Carlisle, Mechanicsburg, Shiremanstown, Camp Hill, Lemoyne, Wormleysburg, and New Cumberland have the densest population and housing characteristics in the entire county. In addition to providing the greatest potential for trip origins, several of these boroughs also serve as commercial and employment destinations.

Transit supportive land use can be developed in locations outside of the county’s core communities. New development in the county’s first and second-class townships can be designed to provide higher densities and amenities that make transit more accessible and appealing. Changes in zoning and subdivision and land development ordinances can assist in modifying future land use patterns.

Key planning implications:

- Cumberland County’s current low density, dispersed land use patterns are generally not transit supportive.
- Transit supportive densities of over 6,000 persons per square mile and over 10 dwelling units per acre are currently not found anywhere in Cumberland County.

¹³ *Guidelines for Assessing Transit Supportive Land Uses*, Federal Transit Administration, 2004.

¹⁴ *Regional Growth Management Plan*, Tri-County Regional Planning Commission, 2003.

¹⁵ *2003 Cumberland County Comprehensive Plan*, Cumberland County Planning Commission, 2003.

- Changes in municipal ordinances could improve support of transit service.

Increasing Ridership

Since 2004, CAT's ridership has increased by over 40%, reversing previous trends of decreasing ridership. In 2009, CAT carried about 10,400 daily riders, or about 2.85 million annually, a 6% increase from 2008.

The increases in ridership can be attributed to a number of factors. First, the price of gas, which escalated to near \$4.00 a gallon in 2007, was the primary factor that increased ridership. Second, numerous employers in the region have implemented commuter benefit programs which provide various incentives for employees to use public transportation. The ridership gains precipitated through commuter benefit programs and higher fuel prices have been maintained and built upon as new routes and enhanced transit awareness through marketing and public outreach that have also contributed to increasing ridership. Sustaining and growing ridership over the long term will require continued public outreach, changes in land use, ongoing system planning and the availability of capital and operational funding.

Key planning implications:

- CAT's ridership has experienced substantial increases in recent years, reversing earlier declining ridership trends.
- Ridership increases have continued despite the stabilization of fuel prices.

Public Education

In order for public transportation to prosper, the general public must understand its benefits and how to use the system. Public transit stimulates the economy, creates jobs and provides greater access to employment, education, medical appointments and business outlets. The benefits of public transit must be clearly enumerated to ensure public support and sustained funding, especially during periods of fiscal constraint.

Using a public transit system can be an intimidating experience for new riders. Reading schedules, understanding fares, and identifying appropriate routes can be challenging for those not accustomed to using public transit. Educating the public on how to use transit can help to remove perceived barriers to first-time users and in turn generate long-term sustainable ridership.

Key planning implications:

- Public transit offers a number of social and economic benefits to the residents of Cumberland County.
- Ridership can be positively affected by educating the public on how to use transit.

Unstable Operational Funding

As with other transportation modes, public transportation is not very self-sufficient by the recovery of operational costs through the farebox and must rely upon federal, state and local governmental funds for support. Funding from these sources has not grown in recent history and in fact has been reduced over the past several years. Most recently, with the failure to toll I-80,

state transit funding drops markedly below projections¹⁶. Any service expansion would be difficult to financially support without commitment of additional funds thereby making preservation of existing service a key priority.

Analysis of work travel patterns indicate that residents of the region no longer live in relative close proximity to where they work, but instead travel throughout the region and beyond. With a society where both spouses work outside the home, it is not uncommon for them to travel in opposite directions for employment. Travel patterns are more diverse, and detailed analyses must be conducted prior to the implementation of any new service.

Key planning implications:

- CAT's farebox recovery does not cover its operational costs.
- CAT requires operational subsidies from federal, state, and local sources, all of which have not seen growth in recent years or have decreased.
- New or expanded service will require additional funding from new sources.

Corridor One Regional Rail Implementation

Corridor One is the proposed regional rail system that would connect Carlisle with Lancaster at full buildout. Corridor One would operate on Norfolk Southern's Shippensburg Secondary rail line, an active freight corridor that traverses Cumberland County from the Susquehanna River to its terminus in Carlisle Borough.

Regional rail holds the potential to offer another transit alternative for the region that would operate on an independent right of way that would not be subjected to traffic congestion. Like other modes of transit, rail transit can stimulate economic development opportunities, reduce fuel consumption, and decrease air pollution.

The discussion of a regional rail system for the HATS region dates back to 1993. Since then, there have been 7 studies of regional rail, varying from federally required planning and engineering documents to peer reviews of those efforts. Regional rail still has not been implemented in the HATS region despite 17 years of planning.

CAT, the Cumberland County Commissioners, Dauphin County Commissioners, and Harrisburg City Officials signed an agreement in March of 2006, entitled the "Lemoyne Connection Agreement". This agreement established the following:

- Identified the Harrisburg to Lancaster portion of Corridor One as the minimum operating segment.
- Removed the Mechanicsburg to Harrisburg segment of Corridor One from the minimum operating segment.
- Requires Cumberland County's concurrence for any project that will serve the county.
- Absolves the county's financial responsibility to support any project not serving the county.

¹⁶ *State Transportation Funding Study*, Pennsylvania State Transportation Advisory Committee, May 2010.

- Pledges all parties' support to find capital funding for the Lemoyne Connection which would grade separate the Shippensburg Secondary from Norfolk Southern's other trackage on the west bank of the Susquehanna River.
- Pledges all parties' support to pursue dual use (rail/bus) of the CAT Bridge that crosses the Susquehanna River.

Following the signature of the Lemoyne Connection agreement, the minimum operating segment of Corridor One, now dubbed the Capital – Red Rose Corridor, progressed through preliminary engineering and was submitted to the Federal Transit Administration (FTA) for review in 2006. Before the project can obtain capital funding and progress through construction, FTA requires that full operating funds, estimated to be approximately \$10 million annually, be identified and in place. Those funds have not been identified in 4 years and the project has not progressed past preliminary engineering.

Given Pennsylvania's transportation funding crisis, PennDOT is not currently funding any new service starts. Thus, operational funding for the Capital Red Rose Corridor must come from non-state sources. In addition, a \$10 million earmark to fund the capital needs of the project expired in September of 2010, thereby creating a capital funding shortfall in addition to the lack of funding commitment to the operating threshold mentioned above.

Key planning implications:

- Despite extensive study, regional rail has not been implemented in the county.
- The Capital Red Rose Corridor has not been implemented because there are not adequate funds to capitalize or operate the system.
- State funds are not available to pay for the full operational costs of the Capital Red Rose Corridor thereby requiring substantial annual local financial commitment to operate the system.
- No local funding has been secured to date to implement the Capital Red Rose Corridor.
- Implementation of the Capital Red Rose Corridor, including FTA approval and the identification of capital/operational funding, needs to occur before the system can be considered for extension into Cumberland County.
- Extension of the regional rail system into Cumberland County will require county/municipal political support, new sources of capital and operations funding, and close coordination with Norfolk Southern to use their rail line.

Regional Coordination

There are five transit systems that serve the nine counties in Southcentral Pennsylvania (Adams, Franklin, Cumberland, York, Perry, Dauphin, Lancaster, Lebanon, and Berks Counties). The residents of the region regularly cross county boundaries for work, shopping, recreation, or other personal trip purposes. Historically, transit systems have provided service within the confines of a given county while making modest connections to surrounding counties where appropriate. The growth of the region has led to increasing demand for multi-county service and connections. Transit service coordination can improve mobility for users while improving operating efficiencies for the transit systems.

The transit operators along with the Metropolitan Planning Organizations in the region met in 2009 to discuss opportunities to promote regional transit service connections. That meeting resulted in funding from PennDOT to evaluate regional travel patterns and the associated opportunities for transit systems to cooperate in delivering service across county lines and outside of their respective county service areas. At the time of this writing, the study identified preliminary corridors where regional transit coordination may have ridership and efficiency benefits.

Similarly, PennDOT conducted a Human Services Transportation Study in 2009. This study looked at ways to coordinate and consolidate human services transportation services across the state. CAT, CCTD, Dauphin County, and Perry Counties all provide human service transportation services in the three county regions. These organizations created a Human Services Transportation Task Force in response to the 2009 study to identify coordination opportunities that would enhance efficiency, decrease costs and improve customer service. PennDOT provided a grant to the Task Force in 2011 to identify and implement priority human service transportation coordination projects.

Key planning implications:

- Transit service has traditionally operated within the confines of county boundaries.
- Increasing growth in the region has led to demand for transit trips that span multiple counties.
- Transit and human services transportation system coordination can improve mobility and improve operating efficiencies.

Rail Freight Issues and Needs

Norfolk Southern (NS) is the exclusive rail freight provider in Cumberland County and represents one of the country's six national-level Class I rail freight operators. NS has three active rail lines that combined have approximately 70 miles of rail right-of way within the county.

Norfolk Southern's Enola Line is a main line that runs north/south in eastern Cumberland County, adjacent to the Susquehanna River. It provides connections both to the west, in Pittsburgh and Chicago, and also to the north, in Buffalo. This line is multi-tracked (i.e. contains multiple rail lines), allowing a high volume of movement along the line. The Enola Yard is a major rail yard and is located along the line in Cumberland County. The yard is a major sorting hub for various materials being shipped by rail along the line.

The Lurgan Branch, the second of NS's main lines in the county, runs southwestward through the Cumberland Valley paralleling Interstate 81. The Lurgan Branch connects the Rutherford Intermodal Yard, just east of Harrisburg, with cities to the south such as Hagerstown, Roanoke, and Atlanta. The Lurgan Branch is a significant rail line within the NS system, but it is a single-tracked line. Trains traveling in opposite directions must use rail sidings (a location where a rail line is briefly double-tracked for capacity and maintenance purposes) in order to pass another train.

The Shippensburg Secondary is the third NS line in the county. This single-track branch line serves customers from Lemoyne to Carlisle. Many local manufacturers along the line ship

products to and from the Enola Yard for sorting and shipping purposes. At one time the Shippensburg Secondary ran parallel to the Lurgan Branch from Harrisburg to Hagerstown. However, west of Carlisle the rail line has now been abandoned. The rail line from Shippensburg to Newville has been redeveloped as the Cumberland Valley Rail Trail, a multi-use, ADA accessible trail. In addition, there is a proposal to extend the Cumberland Valley Rail Trail from Newville to Carlisle. The Shippensburg Secondary is the corridor proposed for Capital Area Transit's Corridor One commuter rail line.

Although not contained within Cumberland County, NS does have three major intermodal yards within the Harrisburg area. These modes affect freight traveling patterns within the county and the region. The Rutherford Intermodal Yard is located in Swatara Township, Dauphin County and the Lucknow Intermodal Yard is located in the city of Harrisburg. A third intermodal yard will be constructed in Greencastle, PA just west of Cumberland County in Franklin County. These three yards make Harrisburg one of Norfolk Southern's three major intermodal hubs in addition to Chicago and Atlanta.

A considerable amount of rail traffic from the Rutherford Yard travels along the Lurgan Branch between Harrisburg and Hagerstown. Much of the traffic enroute to the Lehigh Valley, New York area, and Philadelphia area also uses this hub as well. The Lucknow Yard is a major hub for east/west traffic. Tracks running north from the yard connect with the Enola Line north of Harrisburg, allowing traffic from the Lucknow Yard to access places such as Pittsburgh and Chicago. The yard also is connected with Northeast Corridor freight lines via track running between Harrisburg and Perryville, MD. The Greencastle yard will handle additional intermodal traffic that is generated from the implementation of the Crescent Corridor as explained below.

Crescent Corridor

NS is implementing its Crescent Corridor initiative that is a 2,500-mile rail network that will stretch from New Orleans and Memphis to New Jersey. This market-based approach proposes to divert motor freight traffic to rail freight in areas where NS's trackage parallels interstate highways. This regional network of high service intermodal trains would serve domestic freight needs by providing 20-30 new daily trains between high volume terminals. With motor freight carriers as the service's primary customer, NS estimates that full implementation could remove one million trucks from the adjacent interstate highways at buildout¹⁷.

Locally, NS is planning core improvements in track, sidings, terminals and signaling in the Manassas, Harrisburg, and North Jersey corridor that parallels Interstate 81. In particular, NS is constructing an intermodal terminal in Greencastle, PA in Franklin County to supplement the existing intermodal terminals in Harrisburg.

The Crescent Corridor will provide important safety, environmental, and economic benefits for Cumberland County and the nation as a whole.

Key planning implications:

- Implementation of the Crescent Corridor will result in increases in train traffic on the Lurgan Branch and activity at the Enola Yard.

¹⁷ Norfolk Southern, 2011, <http://www.thefutureneedsus.com/crescent-corridor/>

- The Crescent Corridor needs to be considered in terms of its highway and rail impacts.
- Cumberland County could see an increase or decrease of truck traffic with the Crescent Corridor. While increases in rail freight may remove trucks from interstate highways, local warehousing and distribution needs may be increased given the development of a new intermodal terminal, which could result in local increases in truck traffic despite an overall decrease Corridor-wide.

Growth in Rail Freight Traffic

Cumberland County participated in a regional goods movement study in 2006. The study analyzed existing and future trends in highway and rail freight movements and affirmed the county's position as a significant goods movement hub. The study forecasted rail tonnage carried in the county to increase by 39% in the next 20 years.

NS forecasts that initial implementation of the Crescent Corridor initiative could result in 6 additional trains on the Lurgan Branch each day. Similarly, the Shippensburg Secondary is one of NS's busiest branch lines and increases in traffic are likely in the future.

Key planning implications:

- Growth in rail freight creates jobs and positively affects the economy at all levels.
- Rail freight growth can result in a decrease in through truck traffic and congestion on interstate highways with each rail car carrying a load equivalent to 4-5 tractor-trailers.
- Increased train traffic generates need for enhanced rail crossing safety.
- Communities adjacent to rail corridors will experience increased railroad activity at all times of the day.
- Certain local areas in the county may experience an increase in truck traffic.

Preserving rail right-of-ways and industrially zoned land

Preserving rail right-of-ways and adjacent industrially zoned land has become a significant issue as freight rail traffic increases. Cumberland County has experienced extensive land development in recent years some of which has occurred near or adjacent to freight rail right-of-ways, threatening the viability and safety of rail operations. Some kinds of development, especially residential development, are not appropriate near active freight rail lines. In addition, it is possible that more rail lines will be added to the right-of-way, which would increase rail traffic and bring it closer to the development. These factors increase safety concerns for both Norfolk Southern and nearby residents.

Ideal sites for rail freight service would be approximately 10-20 acres of industrially zoned land with flat topography, public utilities, and access to major highways. Cumberland County has 14,861 acres zoned for industrial use, which constitutes only 4.2% of the county's land area. An assessment of Cumberland County's tax assessment database shows that there are only seven undeveloped parcels of 5 acres or larger that are zoned for industrial use in the entire county.

Key planning implications:

- Incompatible adjacent uses can challenge the safety and viability of rail freight operations.

- Limited land availability could discourage development of new rail served businesses in the county or constrain expansion of existing rail served businesses.
- Existing rail served sites must be preserved given the absence of additional industrially zoned lands.

Rail crossing safety

Safety at railroad crossings is another significant freight rail issue for Norfolk Southern in Cumberland County. Many existing crossings are either not signalized or have substandard signals in place. This creates a safety hazard at these crossings by not providing drivers, cyclists or pedestrians with sufficient warning of approaching trains. Some at-grade crossings are being eliminated, as highway or railroad overpasses are constructed to eliminate the safety hazard.

Key planning implications:

- Unprotected at-grade rail crossings pose a safety hazard for motorists and Norfolk Southern alike.
- Growth in traffic on county roadways and on NS's railroads will increase the risk of accidents happening on roads with at-grade rail crossings.
- State funds are provided on an annual basis to provide protection at the highest priority at-grade rail crossings.

Shared Use of Rail Freight Corridors

Several proposals have been made in Cumberland County to use the existing NS right-of-way and adjacent areas to operate public transit service. NS indicates that shared use of its right-of-way creates significant safety and customer service issues. Vehicles using the right-of-way must be designed to safely operate adjacent to heavy freight rail and must be scheduled to not interfere with freight service to customers served by the same line. Expansion of the right-of-way and installation of double trackage are the only alternatives that could effectively alleviate the challenges posed by public transit shared use proposals.

Another proposal has been made to pursue a "rails with trails" concept whereby a pedestrian trail would be located adjacent to the Shippensburg Secondary at its terminus west of Carlisle. Such a facility would connect with the Cumberland Valley Rail Trail and could connect Carlisle with Shippensburg in the future. While rails with trails do not have the operational and logistical challenges of shared use with public transit, the recreational benefits need to be balanced with safety concerns.

Key planning implications:

- The public benefits of shared use proposals must be closely balanced with the economic impacts of degraded service to existing and potential rail freight customers.
- Projected increases in rail freight service further limit NS's ability to accommodate shared use requests without negatively impacting its freight customers.

Aviation Issues and Needs

Although aviation represents only a small portion of the transportation modal network in Cumberland County in terms of people served and goods transported, it has significant emergency services and economic benefits for the county and the Harrisburg region. Airports provide for a variety of uses, including commercial aviation services, business aviation services, general aviation services, flight instruction and air cargo services. Airports also allow emergency response personnel to reach accident victims and medical facilities more quickly. Cumberland County contains one business service airport, the Carlisle Regional Airport, and through its representation on the Susquehanna Area Regional Airport Authority (SARAA), it also helps maintain the Harrisburg International Airport (HIA) and Capital City Airport (CCA). The Shippensburg Airport in western Cumberland County is a small, privately owned airport that serves recreational aviation needs and does not play a major role in the county's aviation services.

Aviation planning usually falls under the responsibility of the airport owner. The Carlisle Regional Airport is privately owned while Harrisburg International Airport and the Capital City Airport are publicly owned. Since the county does not have operational authority over airports, it needs to take an advisory/supportive role in addressing aviation issues at the airports serving the county.

Preservation of the Carlisle Regional Airport

The preservation of Carlisle Airport is a significant aviation issue within the county. Carlisle Airport serves the business community of Cumberland County and acts as a reliever airport to HIA and CCA. The airport also serves an important emergency response function as it houses the Hershey Medical Center's Life Lion critical transport helicopter and associated operations. The airport has an estimated economic impact of \$1.2 million¹⁸.

Despite its importance, encroaching land uses and incompatible zoning threaten the airport's ability to expand. The airport has little room to expand, and this inhibits the airport's ability to handle larger planes for business, reliever, and general aviation services. The airport's limited area also increases safety risks for surrounding land uses.

The Cumberland County Commissioners appointed a study group in 2010 to examine opportunities to enhance and expand Carlisle Regional airport. The group will be focusing on the capacity of the airport to expand, the demand of the business community to use the airport, and different ownership scenarios that may enhance the viability of the airport.

Key planning implications:

- The Carlisle Airport has important economic development, business retention, and mobility benefits for the county and region.
- New airports are extremely difficult to site and construct which highlights the importance of preserving the airports we currently have.
- The importance of Carlisle Airport needs to be considered in conjunction with HIA and Capital City Airport as it serves as a reliever for the two larger facilities.

¹⁸ *Economic Impacts of Aviation*, Pennsylvania Department of Transportation, 2000.

Continued Viability of Harrisburg International and Capital City Airports

Another important aviation issue in Cumberland County is the continued viability of Harrisburg International and Capital City Airports. These airports provide important scheduled service, business, air cargo, and general aviation services to the county and the region.

HIA is located in Dauphin County and serves as a major gateway for businesses, tourists, and residents in the entire Harrisburg region, including Cumberland County. HIA is one of Pennsylvania's 16 scheduled service airports providing regional, national, and international flights. The US Air Force continues to maintain an Air National Guard presence at Harrisburg International Airport in the form of Harrisburg Air National Guard Station and the Pennsylvania Air National Guard's 193rd Special Operations Wing (193 SOW), an Air Force Special Operations Command (AFSOC)-gained unit. HIA also supports airfreight transportation as Fed Ex and United Parcel Service both maintain services at the airport. On August 29, 2004, HIA became the first airport terminal complex in the United States to be completely designed, built, and opened since September 11, 2001. A study conducted in 2000 by PennDOT estimated the economic output of the airport at \$518 million¹⁹.

Capital City Airport, located in Fairview Township, York County, provides business, charter, and general aviation services. Capital City Airport is the designated reliever and sister airport of Harrisburg International Airport, and primarily serves the business communities of Dauphin, Cumberland, and York counties. A study conducted by PennDOT in 2000, concluded that Capital City Airport generates nearly \$24 million a year in total economic output into the regional economy²⁰.

Key planning implications:

- HIA is a key national and international aviation gateway for the county and our region.
- Capital City Airport's business aviation services helps to retain and attract new businesses to the county and the region.

Airport Hazard Zoning

Collaborative land-use management between local communities and their local airports is necessary to contain costs, promote safety, and ensure the airport has room to grow to meet future demand. Act 164 was passed in 1984 and requires that municipalities with an airport or within a designated hazard area implement zoning regulations to provide for safe airport operations and provide for the safety of surrounding land uses.

The presence of the Carlisle Airport, Shippensburg Airport, Capital City Airport and HIA, Act 164 affects 16 municipalities in Cumberland County, most of which have not adopted appropriate airport hazard zoning regulations.

Key planning implications

- Proper land use planning around airports protects the safety of the airports and residents.

¹⁹ *Economic Impacts of Aviation*, Pennsylvania Department of Transportation, 2000.

²⁰ *Economic Impacts of Aviation*, Pennsylvania Department of Transportation, 2000.

- Poorly planned land uses adjacent to an airport can restrict the growth of the airport and threaten the safety of its operations.
- Cumberland County municipalities are largely non-compliant with Act 164.

Safety and emergency response capability

The Carlisle Airport serves and houses a base for the Life Lion Critical Care Transport that is owned and operated by the Penn State Hershey Medical Center. Life Lion provides on scene accident response as well as interfacility emergency transfers between hospitals in 17 counties in Southcentral Pennsylvania, including Cumberland County. The helicopters can travel 180 miles per hour as they transport accident victims or critically ill patients to the Hershey Medical Center or other appropriate medical facilities in PA or surrounding states.

Key planning implications:

- Life Lion's presence in Cumberland County provides important public safety benefits for county residents and visitors and those passing through on the major highways.
- Life Lion's ongoing presence in the county is predicated upon the continued operation of the Carlisle Airport.

Nonmotorized Transportation Issues and Needs

Non-motorized transportation is an important but sometimes overlooked transportation mode in Cumberland County. Non-motorized transportation modes in the county include bicycles, pedestrians, wheelchairs and horse and buggy. Ideally, non-motorized transportation users travel on the shoulder of the highway, on sidewalks, or dedicated off-road trail facilities. Often however, these improvements do not exist and non-motorized users must travel on highways. Non-motorized transportation is a basic mobility requirement for persons with disabilities and offers a viable transportation choice for other system users that can decrease congestion, offer recreational amenities, and improve quality of life.

Non-motorized transportation planning falls under the responsibility of various groups. PennDOT is responsible for integrating non-motorized transportation into every federally and state funded projects. Municipalities are similarly responsible for integrating non-motorized transportation improvements into locally initiated and funded projects. The county plays an advisory role when interacting with PennDOT and municipalities on their respective projects. The county has direct control over non-motorized improvements for its bridge projects and recreational trails contained in the county-owned Mt. Holly Marsh Preserve.

Limited accommodation of non-motorized transportation in roadway design

Unlike the other transportation modes discussed in this chapter, relatively little dedicated planning has been done for non-motorized transportation. As a result, non-motorized modes have been considered an ancillary issue or sometimes not considered as part of highway projects, recreational improvements, or residential and commercial developments.

The lack of planning has resulted in highways that do not safely accommodate non-motorized traffic. Roads with narrow or non-existent shoulders discourage and create safety hazards for walking, cycling and horse and buggy transportation. Similarly, residential developments

without sidewalks, crosswalks, or trail connections to adjacent uses force residents to use the automobile for trips that could otherwise be made by walking or cycling. Also, older commercial developments were sometimes designed without taking non-motorized modes into consideration.

Key planning implications:

- Non-motorized transportation has not received the dedicated planning, design, and accommodation characteristic of other modes.
- Non-motorized transportation complements highway and public transit modes and provides a viable transportation option for system users.
- Without proper accommodation, non-motorized transportation users face repeated safety risks.

ADA accommodation throughout the transportation system

The Americans with Disabilities Act (ADA) of 1990 is a civil rights statute that prohibits discrimination against people with disabilities. ADA implementing regulations for Title II prohibit discrimination in the provision of services, programs and activities by state and local governments. Title II, subpart A, of the ADA covers state and local government services, including the design and construction of buildings and facilities and the operation of government programs. Designing and constructing pedestrian facilities in the public right-of-way that are not usable by people with disabilities may constitute discrimination. Section 504 of the Rehabilitation Act of 1973 (504) includes similar prohibitions in the conduct of federally funded programs.

PennDOT reaffirmed its commitment via a 2008 strike-off letter to make the accommodation of persons with disabilities a routine and integral element of its planning, design, construction, Highway Occupancy Permit review and approval, and qualifying maintenance activities for all projects.

Key planning implications:

- New construction must be accessible and usable by persons with disabilities.
- Alterations to existing facilities, within the scope or limits of a project, must provide usability by persons with disabilities to the maximum extent feasible.
- Existing facilities that are within the project limits that have not been altered must not deny access to persons with disabilities.

Dispersed Land Uses

The varying land use patterns throughout the county can promote or discourage non-motorized transportation. Many of the county's boroughs were developed before the predominance of the automobile and thus exhibit the density and walkability of that time. These high density, mixed use activity centers allow residents and visitors to walk or bike for work, shopping, or pleasure.

In stark contrast to the borough environment, many of the county's townships developed after the proliferation of the automobile. The associated low-density land use patterns discourage walking and cycling as origins and destinations are physically separated by greater distances.

The segregation of the types of uses also discourages walking and cycling by requiring travel to and from several separate destinations rather than one, mixed-use activity center. In addition, the lack of sidewalks within residential areas discourages walking and cycling.

Key planning implications:

- Land use has a direct affect on usage of non-motorized transportation.
- Non-motorized transportation is best supported by higher density, mixed land uses.

Recommendations

The following table of recommended strategies and actions responds directly to the issues and needs covered in the previous sections. The recommendations are organized by mode and include a broad strategy that is supported with specific action steps. The action steps are divided according to the timeframe in which they should be conducted and include the following categories:

- Ongoing – Indicative of actions that are currently underway, may have no real end date, and should be continued into the future.
- Short-Term – These action steps should be completed in 0-3 years.
- Mid-Term – These action steps should be completed in 3-6 years.
- Long-Term – These action steps should be completed over the course of the next 6-10 years.

The county's role in implementing each action step is also listed. Cumberland County assumes a variety of roles with respect to transportation planning and implementation. The role the county assumes has a relationship with the ability to control planning and implementation activities for any given mode of transportation. Each of the county's transportation planning roles are listed and described below:

1. Direct role – The county has sole authority for transportation planning and implementation. The county can take independent action, including funding, to plan and construct transportation improvements. Cumberland County has a direct role for planning and implementation of its paratransit bus system and county-owned bridges.
2. Indirect role – The county has shared authority with other counties and organizations and therefore, must achieve consensus with other partners and work in cooperation to plan and implement transportation improvements. In these cases, Cumberland County may have one vote in a larger organization and will not be able to independently dictate planning and implementation activities. Cumberland County assumes an indirect role in highway, bridge, public transit, aviation, and non-motorized transportation planning and implementation through its participation with the Harrisburg Area Transportation Study (HATS).
3. Advisory – The county has no authority to address the planning and implementation on its own but can provide guidance and technical assistance to other partners and organizations that hold such authority. In these cases, the county must influence other partners to take action to plan and implement needed transportation improvements. Cumberland County exercises an advisory role in rail freight planning and implementation and by providing municipal technical assistance for transportation and land use planning.

Highway and Bridge Strategies and Actions

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
Coordinate land use and transportation planning.	Advisory	1. Distribute PennDOT guidance materials on access management, impact fees, and developing a transportation element of a comprehensive plan.	Short
		2. Provide municipal technical assistance for complementary transportation and land use planning techniques such as access management, mixed use zoning, transportation impact fee ordinances, official maps, and others.	Short
		3. Continue active participation and leadership in the I-81 Corridor Coalition.	Ongoing
		4. Consider land use and transportation planning principles and make appropriate recommendations as part of county subdivision and land development plan reviews.	Short
Participate in the Regional Goods Movement Forum	Indirect	1. Coordinate with HATS to evaluate if the 2006 study needs to be updated to incorporate current data/needs.	Mid
		2. Continue to appoint a CCPC member to serve on the RGMF, monitor activity and provide county specific input.	Ongoing
		3. Integrate the data and information from the RGMF into local plans and ordinances, as applicable.	Mid
Incorporate PennDOT’s smart transportation principles for highways, intersections and interchanges into municipal design guidelines	Advisory	1. Provide a training session for municipal officials on smart transportation principles and PennDOT’s <u>Smart Transportation Guidebook</u> .	Short
		2. Provide technical assistance to municipalities that update their comprehensive plans, zoning ordinances, or subdivision and land development ordinances using Smart Transportation principles	Ongoing
Ensure locally initiated projects are considered on the TIP	Indirect	1. Solicit local project recommendations from municipalities during regular updates of the HATS LRTP and TIP.	Mid
		2. Provide technical assistance to municipalities in preparing and submitting project recommendations to HATS for funding consideration.	Mid
Explore and support sustainable transportation funding sources and policies.	Indirect	1. Partner with HATS to quantify the transportation funding needs and explore various transportation funding options of the region.	Short
		2. Communicate with the state legislative delegation on the financial need and potential funding solutions for the region.	Short

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
		3. Educate municipalities on the transportation funding crisis and potential funding opportunities.	Short
		4. Promote public/private partnerships (developer or local funding of preconstruction) as a means of providing the required 20% match on federally funded projects.	Mid
		5. Support a “maintenance first” funding policy through participation in HATS.	Ongoing
Promote Travel Demand Management (TDM) and Intelligent Transportation System (ITS) policies within Cumberland County and the region as a means of decreasing traffic congestion.	Direct/ Advisory	1. Continue the county’s active participation in and support the ongoing activities of the Susquehanna Regional Transportation Partnership (SRTP) (flex time, work from home capabilities, subsidies for employees that carpool/use mass transit, etc.).	Ongoing
		2. Partner with the SRTP to implement TDM policies in other public and private organizations in the county.	Ongoing
		3. Support implementation of PennDOT’s ITS Architecture project.	Ongoing
Mitigate traffic problems generated by detour and special event traffic.	Direct	1. Partner with the Department of Public Safety and municipalities to develop and implement the Countywide Traffic Management Plan to improve safety and alleviate traffic congestion associated with special events and detoured traffic.	Short
		2. In municipalities that receive a high frequency of special event/detour traffic recommend that transportation improvement projects include design features that can address surges in traffic as a result of such events (i.e., traffic responsive signal systems, appropriate directional signing, etc).	Mid
Implement the county’s bridge capital improvement plan	Direct	1. Complete a maintenance contract for county bridges every other year or as needed.	Short
		2. Partner with HATS and legislators to secure funding to replace Orr’s Bridge and Wolf Bridge.	Mid

Public Transit Strategies and Actions

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
Promote transit supportive land use	Advisory	1. Make appropriate recommendations for transit supportive land use (i.e. park and rides, bus shelters, density/density bonuses, building location/setback, roadway right-of-ways, etc) as part of county subdivision and land development plan reviews.	Short
		2. Provide technical assistance to municipalities that update their comprehensive plans, zoning ordinances, or subdivision and land development ordinances to incorporate transit supportive land use.	Ongoing
		3. Partner with CAT and HATS to conduct a training session on transit supportive land use targeted for municipal staff, elected officials, and developers.	Short
Implement interim actions to make progress in keeping the long term vision of CORRIDORone viable.	Indirect	1. Continue funding support for the Lemoyne Connection.	Long
		2. Coordinate with municipalities to preserve the right-of-way for proposed regional rail stations.	Long
		3. Coordinate with CAT to support the interim use of proposed train stations as bus stops/park and rides	Mid
		4. Conduct updated studies for Corridor One to enter Cumberland County commensurate with the implementation of the Capital Red Rose or as circumstances warrant in the future.	Long
		5. Evaluate the feasibility of using the CAT Bridge over the Susquehanna River for emergency service vehicles or bus transit.	Mid

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
Partner with CAT to improve public transit in Cumberland County	Indirect	1. Implement the 2009 CAT Service Planning Study.	Short
		2. Evaluate transit service on an annual basis in concert with CAT, our regional partners, and CAT customers to identify new routes, remove underperforming routes, modify existing routes, or explore new modes (i.e. BRT, rail, etc)..	Short
		3. Request HATS consideration of a Cumberland County park and ride analysis similar to that completed in 2010 for northern Dauphin County.	Mid
		4. As part of the county's role on HATS, advocate for an appropriate level of federal, state, and private funding for transit.	Ongoing
		5. Partner with CAT, Dauphin County, and the City of Harrisburg to update the funding agreement in the 1973 "Transit Service and Funding Agreement" to reflect current funding and operations situation and provide the appropriate local operational match from Cumberland County.	Short
Promote transit education and outreach to public/private sector employees and county residents.	Indirect	1. Distribute the recently completed CAT "how to" DVD on riding the CAT system via the county website and in hard copy at county offices.	Short
		2. Provide direct public and private sector employer outreach via the Susquehanna Regional Transportation Partnership on the benefits of using public transit and associated subsidy programs.	Mid
		3. Support CAT marketing efforts via the county seats on the CAT Board of Directors.	Ongoing
Coordinate the shared ride services of the CCTD with similar services in Dauphin and Perry Counties	Direct	1. Implement the recommendations of the Human Services Transportation Pilot Program being conducted in coordination with CAT, PennDOT, Dauphin County, and Perry County.	Short
		2. Continue participation in the South Central Human Services Transportation Task Regional Task Force.	Ongoing

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
Promote regional transit service in the 9-county Southcentral PA region.	Indirect	1. Support CAT service that may extend beyond the borders of Cumberland and Dauphin Counties through the county seats on the CAT Board of Directors.	Long
		2. Partner with adjoining transit providers to implement appropriate recommendations from the 2011 Regional Transit Coordination Study.	Mid
		3. Encourage sharing of best practices between CAT and adjoining transit operators.	Ongoing

Rail Freight Strategies and Actions

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
Promote appropriate land uses and zoning along rail freight corridors	Advisory	1. Review Norfolk Southern's industrial rail freight properties database to identify potential rail freight sites and review the municipal zoning of those sites.	Short
		2. Educate municipalities on the importance of proper land use/zoning along rail freight corridors and provide recommendations on appropriate rail freight zoning when updating local zoning ordinances.	Mid
		3. Promote rail access for new industrial developments that are consistent with county and local plans.	Mid
		4. Support requests for "quiet zones" in local communities that improve the compatibility of rail freight and residential neighborhoods.	Ongoing
Partner with PennDOT to identify priority rail crossings needing safety improvements in the county	Indirect	1. Solicit feedback from local municipalities/general public on determining the priority rail crossing improvements and communicate those needs to PennDOT.	Mid
		2. As part of the county's role on HATS, advocate for an appropriate level of funding for such safety projects.	Ongoing

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
Coordinate with NS on proposals to share the NS ROW for pedestrian or passenger rail service	Advisory	1. Meet with Norfolk Southern to work collaboratively to determine potential areas for shared use while considering their plans for expansion, safety concerns, and appropriateness of the location.	Long
Support NS efforts to expand rail capacity locally and nationally	Advisory	1. Identify, recruit, and retain rail-served businesses through the CCED's Business Retention Program and site selection services.	Mid
		2. Regularly meet with NS to review available rail served properties.	Mid
		3. Continue financial and policy support of the Crescent Corridor initiative through HATS.	Ongoing
		4. Explore the impacts of the Crescent Corridor initiative on regional roadways, bridges, and land use.	Mid

Aviation Strategies and Actions

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
Cooperate with airport officials to preserve the Carlisle Airport	Advisory	1. Continue participation in the 2010 Carlisle Airport Study Group.	Ongoing
		2. Review, analyze and support appropriate recommendations coming from the Airport Study Group.	Mid
		3. Coordinate with airport officials and the Hershey Medical Center to assist in securing the long-term presence of Life Lion at the Carlisle Airport.	Long
Support viability of Harrisburg International Airport and Capital City Airports	Indirect/Advisory	1. Continue participation on the SARAA Board.	Ongoing
		2. Promote usage of HIA and CCA through CCED and the Cumberland Valley Visitors Bureau for county business and for recreational purposes.	Ongoing

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
Provide municipal technical assistance to Implement Act 164 of 1984 that requires airport hazard zoning in the county's municipalities.	Advisory	1. Distribute the PennDOT model ordinance to affected municipalities.	Short
		2. Provide municipal technical assistance through the Local Planning Assistance Program to develop and implement regulations for each affected municipality.	Ongoing
Promote multimodal and intermodal links to Harrisburg International Airport	Indirect	1. Support the funding of multimodal highway, bus, rail and park and ride projects that link to HIA through participation on the HATS Technical and Coordinating Committees.	Long
		2. Through the Regional Goods Movement Forum, quantify and analyze the link of air cargo operations on Cumberland County and regional highways.	Long

Nonmotorized Transportation Strategies and Actions

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
Incorporate bicycle, pedestrian, horse and buggy and ADA improvements into county and municipal transportation projects	Advisory / Direct	1. Provide training sessions for municipalities on the new PennDOT ADA requirements.	Mid
		2. Provide training sessions for municipalities on design standards from PennDOT's <u>Smart Transportation Guidebook</u> , as this publication provides specific design guidance on accommodating bicycle/peds within the road environment (bike lanes, sidewalks, etc.) based on the adjoining land use context.	Short
		3. Advise and provide technical assistance through the Local Planning Assistance Program to municipalities to update their SALDO to incorporate current PennDOT ADA design requirements and design standards found in PennDOT's <u>Smart Transportation Guidebook</u> .	Ongoing
		4. Incorporate ADA and Smart Transportation designs into county bridge maintenance and replacement projects.	Mid

Strategy	County Role	Action Steps	Implementation Time Frame (Short, Mid, Long, Ongoing)
		5. Establish a non-motorized transportation checklist for use with county reviews of municipal SALDO plans.	Short
Promote land use planning practices that support cycling and walking	Advisory	1. Provide technical assistance to municipalities to implement local ordinances that support cycling and walking such as. <ul style="list-style-type: none"> • Mixed use zoning • Traditional Neighborhood Development • Transit Oriented Development • Incentive programs • Trail development • Site planning and design (i.e. sidewalks, lighting, etc) 	Ongoing
		2. Outreach to school districts to discuss and find opportunities to find safe routes to school for walking and cycling.	Mid
Update and implement Land Partnerships, the County's Open Space and Smart Growth Plan.	Direct	1. Secure funding from DCNR to assist in the update process	Short
		2. Update the plan through the assistance of the Land Partnerships steering committee.	Short
		3. Provide municipal technical and financial assistance to implement park, recreation and trails projects consistent with the goals and objectives of the plan.	Ongoing