

## HISTORIC PRESERVATION PLAN

**GOAL: Work to preserve important historic buildings and promote suitable adaptive reuses within these buildings.**

Historic preservation is valuable to preserve the attractiveness and character of Lower Paxton Township, and to provide appreciation of the area's rich heritage. The Dauphin County Community History Coalition and the Township Historical Committee have compiled computerized mapping of historic buildings in Lower Paxton Township. As of 2018, that mapping was available at <http://arg.is/v4HbW>.

**Strategy H.1. – Consider using the Zoning Ordinance to require pre-approval of a proposed demolition of an important historic building.**

Lower Paxton Township has historic preservation zoning provisions in Linglestown. This zoning process requires pre-approval of demolition of important historic buildings. The intent is not to stop all demolition of older buildings, but to have a public review and approval process to make sure that important buildings are not lost without careful consideration of alternatives. Proposed demolitions of important historic buildings are required to be approved by the Board of Supervisors as a conditional use.

It is important to avoid excessive regulations upon routine changes to older buildings, in order to respect private property rights. The proposed demolition controls would not require approval of minor changes to historic buildings, such as replacement of doors and windows. As a result, this type of regulation is not a significant intrusion upon the average building owner. Instead, this provision is targeted to the actual demolition of the main building on the lot, or the removal of a major historic feature, such as a front porch. Often, if a proposed demolition is delayed, the property-owner can be convinced to consider alternatives, or a new buyer can be found who would preserve the building.

Proposed demolitions should be approved by the Supervisors if the applicant shows that: a) there is no viable reuse of the building, b) the building has structural problems or other conditions that make it infeasible to find a new use, or c) the new project would be of substantial public benefit, which would outweigh the loss of the older building.

However, there currently are no regulations to control the demolition of other historic buildings in Lower Paxton Township that are outside of Linglestown. The Zoning Ordinance has a placeholder section to allow the addition of a list of historic buildings. Unfortunately, there was not a detailed inventory of important older buildings. The Township Historical Committee was recently reorganized, is completing research on the subject, and could be asked to propose a list of buildings worthy of protection.

Under State law, the Township officials are provided with reasonable discretion to decide which historic buildings are worthy of protection in a zoning ordinance.

This type of provision can also offer incentives for reuse of historic buildings, such as allowing certain uses that are not normally allowed in the zoning district. For example, a historic house in a residential district could be allowed to be converted into an office or a bed and breakfast inn, even if the use was

not allowed in that zoning district. Those conversions could require approval by the Zoning Hearing Board. The goal is create a stronger market for the rehabilitation of older buildings.

Some communities allow a preserved historic building to not count towards allowed density within a development, so that the developer has no incentive to demolish a historic house in order to build a larger and more profitable house.

**Strategy H.2. – Promote public interest and awareness in historic preservation.**

There should be an emphasis on public education to increase appreciation of Lower Paxton Township’s historic resources, and to provide information about proper rehabilitation methods. These efforts should be assisted by the Lower Paxton Historical Society and the Historical Society of Dauphin County.

Additional historic preservation information and links to informational resources could be added on the Township website. For example, links can be provided to the free online National Park Service preservation reports on how to preserve various building features and issues. Workshops should also be offered to property owners about historic rehabilitation.

The Township could install its own historic markers to supplement the three existing State historic markers. The Township markers would not need to meet the same criteria for historic significance as the State markers.

The availability of federal tax credits for historic rehabilitation should be publicized. However, the current federal tax credits are only available for investment properties, and not for owner-occupied homes.

There are currently no buildings listed on the National Register of Historic Places. Owners of significant buildings could be encouraged to apply for recognition, after the necessary research is completed.

## **TRANSPORTATION PLAN**

- GOAL T.1. Make well-targeted cost-effective road improvements while improving safety, in cooperation with PennDOT, adjacent landowners and developers.**
- GOAL T.2. Make Lower Paxton more bicycle and pedestrian-friendly, including offering safe connections between residential areas and stores, schools, parks and trails within Lower Paxton and neighboring municipalities.**
- GOAL T.3. Promote expanded use, availability and frequency of service of public transit, while also promoting greater use of car-pooling.**

For major road improvements, the Township needs to work closely with PennDOT to seek funding through the Harrisburg Area Transportation System (HATS) process, as described below. At the same time, attention needs to be focused on short-term improvements (such as improving sight distances) that can be accomplished with Township funds or through cooperation with adjacent property-owners or developers.

Where practical, the Township should consider retro-fitting streets to incorporate "complete streets" principles that place a priority on pedestrian and bicycle travel, including traffic calming where appropriate, while encouraging safe traffic flow and the relationship to the allowed traffic speeds. Landscaped swales along roads can be very efficient to manage stormwater and promote infiltration, while providing space for adjacent street lighting and street trees.

The Township should assist in promoting use of transit services and seeking additional park and ride lots. The Plan is intended to allow wider options in mobility by promoting bicycling, walking and public transit in order to make Lower Paxton Township more bicycle- and pedestrian-friendly. Improvements should allow safer connections to stores, schools, bus stops, parks and trails within Lower Paxton Township and neighboring municipalities.

### **Overview of the Existing Road Network**

The major roads and highways in the Township include:

- Interstate 81: provides access northeast to the Scranton area and upstate New York and southwest to Carlisle, western Maryland, and Virginia. I-81 provides two interchanges in the Township at I-83 and at Paxtonia at Mountain Road. There are two nearby I-81 interchanges, at Progress Avenue to the west and in West Hanover at Route 39 to the east.
- Interstate 83: parallels the western boundary of the Township, and connects Baltimore to Harrisburg, and to I-81. I-83 provides interchanges in the Township at Union Deposit Road, at Route 22, and at its juncture with Interstate 81.
- US 22: travels east-northeast through the approximate center of the Township.
- PA Route 39: also known as Linglestown Road, provides an east-west corridor through the northern portion of the Township, and connects to I-81 and the Hershey area.
- Colonial Road and Mountain Road: provide north-south linkages between PA 39 and US 22.
- Locust Lane and Union Deposit Road: provide east-west routes in the southern portion of the Township.

Information on average daily traffic counts for major roads is included in the Appendix.

### **Crash-Prone Road Segments**

The Lower Paxton Police Department maintains statistics on the rate of occurrence and location of crashes in the Township, which are summarized below. Reportable incidents are defined as those that involve injury or death of any person, and/or damage to any vehicle to the extent that it cannot be safely driven, and therefore requires towing. Non-reportable crash incidents are defined as any other crash, such as crashes with relatively minor damage to vehicles. In 2016, Township Police received reports of 326 reportable crashes and 836 non-reportable crashes. The five most crash prone segments in 2016 were:

- 4200 Block Union Deposit Road (Between I-83 ramps and E. Park Road intersection)
- 4600 Block Jonestown Road (Between Miller Street across from the Colonial Park Mall and Prince Street)
- Ramps of I-83 at Union Deposit Road
- 4000 Block Union Deposit Road (West of I-83 ramps near Briarsdale Road)
- Route 22 / Allentown Boulevard at Mountain Road

The five most crash-prone intersections were the same in 2015 as 2016, except Devonshire Heights Road at Nyes Road was also on the list in 2015. PennDOT has scheduled improvements to that intersection, including a realignment and traffic signals. There are no easy solutions to any of the other crash-prone segments. Some issues may be improved through PennDOT's reconstruction of the I-83 ramps. However, many of the problems result from the sheer volumes of traffic passing through the intersection, such as the Route 22/Mountain Road intersection.

The Township Police do not maintain crash information along I-81 and I-83, because those roads are the responsibility of the State Police.

### **Strategy T.1. – Manage streets according to their functional classifications.**

Street patterns and access from development should be planned according to the function each streets is intended to serve within the overall network. The Township Subdivision and Land Development Ordinance includes different standards (such as maximum slopes and rights-of-way widths) for different classifications of streets. Because arterial roads are designed for traffic moving at higher speeds, the access onto arterials needs to be carefully managed. Conversely, local roads provide greater land access, and are intended for slower traffic speeds.

Streets/roads in Lower Paxton Township are classified by the following major types, which are illustrated on the map on the following page:

Expressways – These highways are designed for longer-distance travel, and only have access at interchanges, and include I-81 and I-83.

Arterial Streets – These roads provide access between major commercial developments and different towns. Arterials are designed for high volumes of traffic at moderate speeds. These include the Route

22, Union Deposit Road, Nyes Road, Locust Lane, Colonial Road south of Route 39, and Linglestown Road/Route 39.

**Major Collector Streets** – These streets mainly serve trips of moderate length, with speed limits of 35 to 55 mph. They are typically two lanes wide, and connect together various neighborhoods. Examples include Devonshire Heights Road, Devonshire Road, Crums Mill Road and Colonial Road north of Route 39. In some cases, the Township may consider reducing the speed limits to a range between 25 to 45 mph, if justified based on the results of the required PennDOT studies.

**Minor Collector Streets** – These streets are similar to major collectors, except they typically have lower traffic volumes and usually serve trips of shorter lengths. They connect together traffic from local streets. Examples include Colonial Club Road, Continental Drive, Parkway East, Conway Road and Red Top Road.

Most streets are local/minor streets, which are designed to connect individual houses to collector streets, and which typically have a speed limit of 35 mph or lower.

**Strategy T.2. – Carry out “Complete Streets” and “Traffic Calming” concepts when planning circulation improvements.**

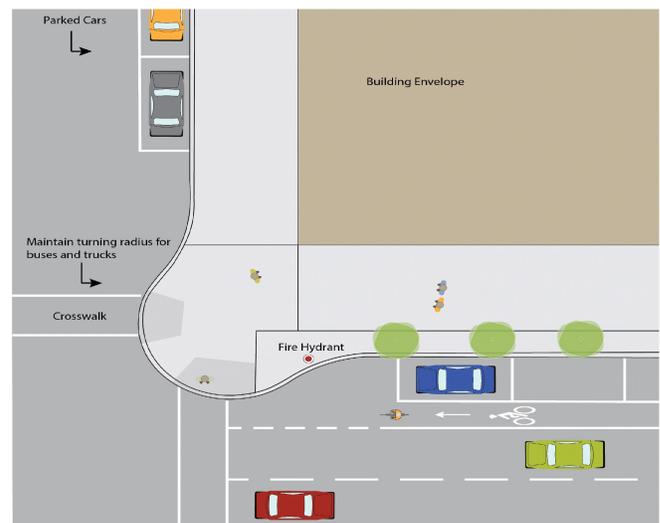
Complete Streets concepts involve considering all of the different users of a public right-of-way, as opposed to placing the priority on motor vehicle movements and speeds. This concept considers the needs of pedestrians, persons in wheelchairs, bicyclists and public transit users.

As seen on the graphic to the right, curb extensions can be used to enhance pedestrian crossings at intersections and reduce the distance of street that pedestrians must cross at intersections. They can be used along both commercial and residential streets.

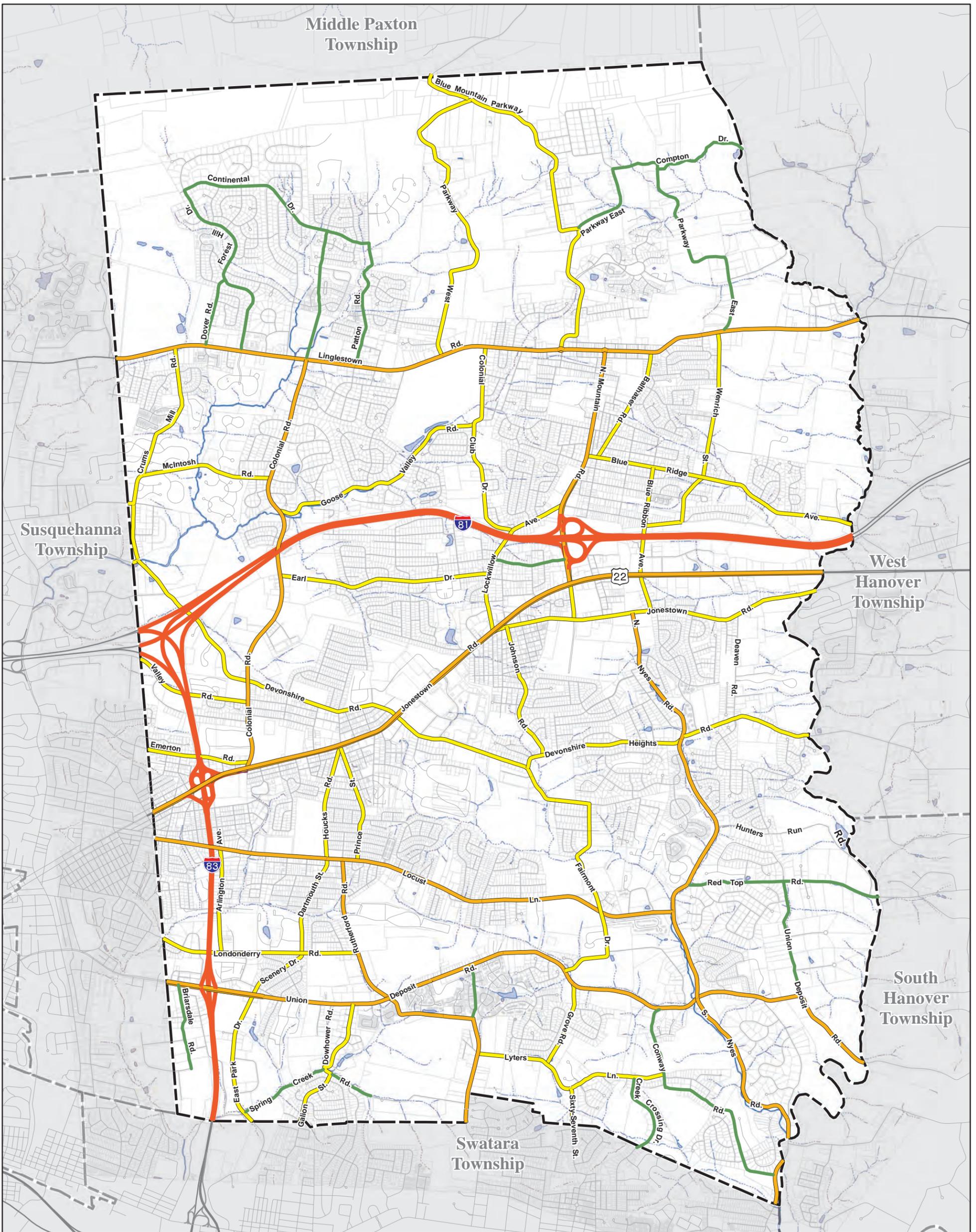
To calm traffic, a municipality can also install well-marked speed tables on local residential streets where speeding occurs. These speed tables have elongated pavement markings leading up to the softer speed humps.

The Township has installed speed tables at locations such as: Wimbledon Drive, Catherine Street, Abbey Lane and Forest Lane. Other traffic calming devices have been installed, such as a traffic circle at the intersection of Abbey Lane and Copperfield Drive, two roundabouts in Linglestown Village, and curb extensions in Linglestown and a few new developments to reduce the width that pedestrians must cross at intersections.

Curb Extensions



Curb extensions reduce the distance of a street that must be crossed by a pedestrian and prevents a right-turning driver from passing on the right along any bikepath. Curb extensions can be designed to avoid the loss of any on-street parking spaces, while also preventing illegal parking near corners and hydrants. Curb extensions also reduce the speeds of turning vehicles which helps avoid hazards to pedestrians.



## LOWER PAXTON TOWNSHIP

Base Information Provided by  
Dauphin County, 2017.



0 3,000 6,000 Feet

- Expressway
- Arterial Streets
- Major Collector Streets
- Minor Collector Streets
- Local or Minor Streets

**STREET  
CLASSIFICATION**  
January 2018



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Curb extensions also help to reduce speeding by vehicles that are turning at intersections. These curb extensions can be designed to not interfere with buses and trucks. Lower Paxton has used curb extensions in residential areas along segments where on-street parking is not appropriate.

The Township has a mobile trailer that indicates the speed of the motorist, to discourage speeding.

**Strategy T.3. – Work with TCRPC, PennDOT, developers and adjacent property-owners to seek funding and rights-of-way to complete cost-effective road improvements.**

A major traffic study is currently underway for the Route 39 corridor. This corridor is expected to see substantial new traffic as a result of continuing development along the corridor in Susquehanna, Lower Paxton and West Hanover Townships.

As described further in the Action Program, the Township should adopt an “Official Map” showing proposed road connections and trail improvements, to seek to reserve land needed for future improvements. An Official Map can delay permits for certain improvements for up to a year. This time period is intended to allow time for a municipality to purchase land for an improvement, or to convince an applicant to incorporate a needed right-of-way into a development plan.

The Transportation Plan Map shows a number of new road connections that are proposed. For instance, Continental Drive is being completed in phases as part of new developments as a collector running parallel to Linglestown Road. Inclusion on an Official Map would assist in carrying out this plan.

It would be desirable to prepare more detailed plans along the Route 22 corridor to manage traffic access along the road to improve pedestrian access. There is a desire to improve the appearance of the entire corridor, to retain existing businesses and to attract new investment. In particular the western segment of Route 22 has redevelopment opportunities, and driveways should be reconfigured to only enter Route 22 at selected locations.

The traffic signal system along major roads should be upgraded as necessary to an adaptive system. That type of system uses video cameras to automatically adjust traffic signal timing in response to traffic patterns during various times of the day. Those types of upgrades are typically completed with PennDOT funding.

An emphasis can also be placed upon relatively low-cost solutions that could be implemented to improve traffic safety. The vast majority of these improvements may improve sight distances of on-coming traffic at specific locations, such as through cutting back vegetation or regrading, restricting on-street or off-street parking near intersections, or adjusting pavement markings, or adding warning signs or reflectors.

The ramps from westbound I-81 to Mountain Road should be signalized.

There has been discussion about the possible need for a flashing signal or a regular traffic signal along Rutherford Road at the western entrance to the Central Dauphin East High School complex. Traffic is currently able to use the existing signal along Union Deposit Road. An alternative would be to consider a traffic signal at the Londonderry Road intersection with Rutherford Road, which would help create breaks in the traffic to make it easier for traffic to exit from the school complex. A sidewalk should also be installed along Rutherford Road where it does not exist near the school complex.

The intersection of Crums Mill Road with Linglestown Road will need a traffic signal. That will be particularly true once the development of the existing Blue Ridge Golf Course is underway, because the main entrance is proposed to be aligned with Crums Mill Road. That development will have its second main entrance road aligned with the intersection of Carol Road and Linglestown Road, which may also warrant a traffic signal.

A number of intersections are identified on the Transportation Plan Map as needing engineering analysis and improvement. Several other transportation concerns were identified through this process:

- There are a limited number of north-south through-roads in the Township, and a limited number of bridges crossing I-81. As a result, the north-south roads experience a higher than usual amount of traffic. Also, because heavy truck traffic is prohibited along the eastern portion of Linglestown Road, truck traffic is increased on other roads (such as Colonial Road) to reach the western portion of Linglestown Road.
- Wenrich Street will need to be widened and reconstructed to reduce hilly conditions to handle as future development occurs, including the improvement of the adjacent Wolfersberger Parkland.
- There is limited sight distance at Revere Street at Locust Lane because of the I-83 bridge. However, Revere is being relocated to the west by PennDOT, which should improve the situation.
- There are concerns about the need to provide sufficient numbers of pedestrian and bicycle connections under I-83, so that it is easier for residents of the western part of the Township to reach stores, parks, trails and schools.
- The intersection of Wenrich Street and Blue Ridge Avenue has an awkward alignment.
- Many road shoulders are narrow, rough and/or are not conducive to pedestrians or bicycles.

#### PennDOT Improvement Projects

Most state and federal funding for major road improvements are allocated through the Transportation Improvement Program (TIP). The TIP is prepared by the Harrisburg Area Transportation (HATS) Committee, which is staffed by Tri-County Regional Planning Commission (TCRPC) and PennDOT, with input from municipalities and others. It allocates available federal and state transportation funding to various projects in different years, based upon consideration of priorities.

The TIP includes the following projects within Lower Paxton and immediately adjacent areas:

- Realignment and signalization of the intersection of Nyes Road and Devonshire Heights Road. Completion in circa 2019.
- Widening or replacement of the Blue Ridge Avenue bridge over the Beaver Creek. Completion circa 2025-2028.
- Replacement of the Jonestown Road bridge over the Beaver Creek. Completion in 2019.

- Widening of I-83, as described below.
- Reconstruction of the Eisenhower interchange between I-83 / Route 283 / Route 322 in Swatara Township. Completion in 2022.

### I-83 Improvements

The rebuilding and widening of much of the eastern portion of the Capital Beltway is occurring over the next decade. Currently estimated to cost more than \$1 billion, the planned improvement will take place in a series of phases.

PennDOT had previously developed an I-83 Master Plan. The master plan divided the 11 miles of I-83 from the New Cumberland Exit to the junction with I-81 into four segments, including three in Dauphin County. The improvements were programmed and scheduled through PennDOT's highway planning process.

The three Dauphin County projects are:

- I-83 East Shore Section 1 — between the junction with I-81 and Derry Street, just north of the complex I-83/I-283/U.S. 322 Eisenhower Interchange.
- I-83 East Shore Section 2 — south of Union Deposit Road through the Eisenhower Interchange to 29<sup>th</sup> Street, including widening I-83 to three lanes in each direction.
- I-83 East Shore Section 3 — west of the Eisenhower Interchange near 29<sup>th</sup> Street to just east of the Susquehanna River.

Bridges on and over I-83 in Lower Paxton Township were recently rebuilt to accommodate additional lanes on I-83. I-83 is being widened to three through-lanes in each direction from the I-81 interchange to below Union Deposit Road.

Homes along Revere Street, adjacent to the southbound lanes of I-83, were recently demolished. Revere Street will then be shifted to the west to accommodate new sound barriers along I-83.

The project includes improvements to two interchanges in Lower Paxton: Jonestown Road/Route 22 and Union Deposit Road.

Future phases will include the rebuilding of the Eisenhower Interchange (estimated to begin in 2022), and widening the highway from the banks of the Susquehanna River to the new Eisenhower Interchange, tentatively scheduled to begin in 2025. Completion of the entire project is scheduled for circa 2030.

Nevertheless, the widening may not ease traffic congestion on I-83. In a phenomenon referred to as "induced demand," motorists who are currently using alternate routes to avoid the congested highway will likely return to the improved highway. However, the widening should ease congestion on other north-south roads. The project will increase safety and provide sound barriers to increase the quality of life for nearby residents.

Few other road improvement projects in Lower Paxton are currently programmed for federal or state funding. The Township can assist in seeking state and federal funding for projects by: 1) completing necessary engineering studies to refine a project and to develop an accurate cost estimate, 2) seeking funding contributions towards projects from nearby developers, which can be placed into escrow for future use, and 3) obtaining right-of-way for needed projects through cooperation with adjacent landowners or subdivision dedication requirements, which can greatly simplify the process.

The Township can also cooperate with PennDOT through PennDOT's Agility Program. The Agility Program authorizes PennDOT and municipalities to trade services or arrange mutually beneficial agreements.

**Strategy T.4. – Improve pedestrian and bicycle access, especially by installing sidewalks near parks and schools.**

The Greenway Plan and trails planning overlap the Transportation Plan and the Parks and Recreation section of this Plan. Most discussion of trails is included in the Parks and Recreation section.

The Township Greenway Committee has recommended a set of high priority locations for sidewalks, which are shown on the Transportation Plan Map. These locations emphasize approaches to parks and schools.

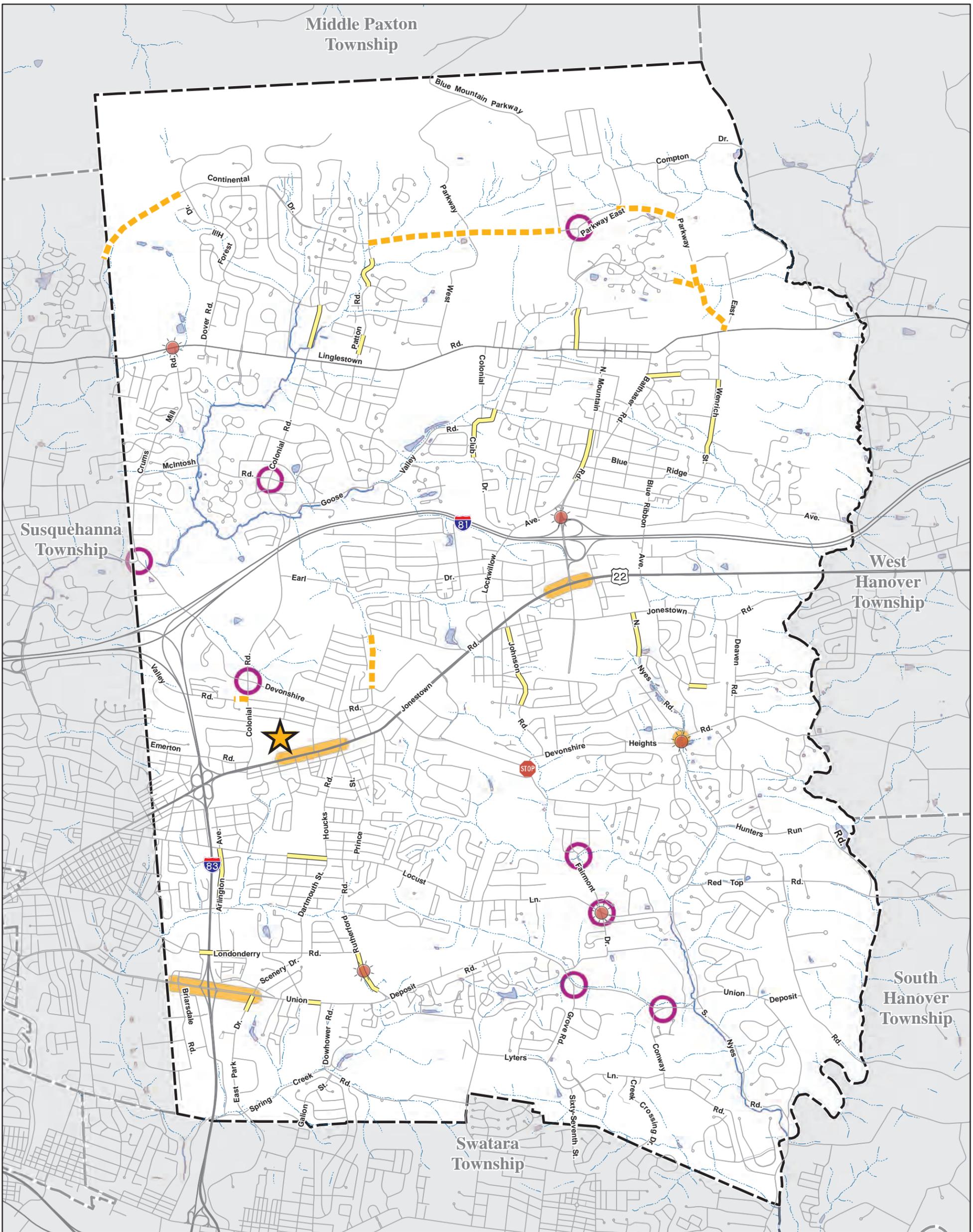
Selected locations along the Route 22 should be emphasized as pedestrian and bicycle crossings. Ideally, they would be located where a center island can provide a refuge so that persons only have to cross one direction of traffic at a time. These designated crossings should be near bus stops, because bus passengers (including many employees of commercial businesses) on a daily basis need to cross Route 22. The sketch to the right shows an example of a pedestrian refuge island in the median of a major road.



Highly visible pedestrian crosswalk materials should be used, and sufficient lighting should be provided near major crosswalks. The best locations for public transit stops need to be carefully considered, and shelters, benches and informational signs should be provided for riders. Lower Paxton has also installed landscaped medians as a traffic calming method.



Any new development above a threshold density and any new development near parks, schools and commercial areas should be required to include sidewalks. An exception should apply for cul-de-sac streets that serve few homes and have limited traffic. Bituminous pathways can be an acceptable alternative in less dense locations and can be designed to serve both pedestrians and bicyclists. Where sidewalks or pathways cannot be justified, then an area along each road within the right-of-way should be graded and maintained in grass that is suitable for walking, unless it is physically infeasible.



## LOWER PAXTON TOWNSHIP

Base Information Provided by Dauphin County, 2017.



0 3,000 6,000 Feet

- |  |  |
|--|--|
|  Sidewalk Priorities, Recommended by the Greenway Committee |  Add Traffic Signal   |
|  Conceptual Road Connections                                |  Transit Transfer Center  |
|  Most Crash Prone Locations 2016 and 2015                   |  Other Road Segments that should be studied for possible improvements |
|  Add All-Way Stop Signs                                     |  |

## TRANSPORTATION PLAN

Revised February 2018

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The Township should develop a program to identify and prioritize those streets without sidewalks and pathway connections and develop a plan of staged construction/implementation.

The Township may require the installation of sidewalks along certain existing properties where feasible and appropriate, or determine that an existing sidewalk needs to be replaced. After bids, many municipalities enter into a master contract with one contractor that agrees to be available as needed to install sidewalks. If a property-owner is ordered to install or replace their sidewalk, that property-owner could be given the option of paying that contractor to do the work at a set rate, or hiring their own contractor. The costs are typically lower if the property-owner chooses to hire the contractor with the master contract.

It would be desirable to encourage that any new sidewalks include concrete along the main pedestrian walkway, and then pervious brick or grass between the curb and the main walkway. Concrete walkways are easiest for snow shoveling and safer for wheelchairs and persons wearing high heels. Using un-mortared pervious pavers or grass along the curb would also allow easier access to any underground utilities, because the pavers can be set back in place after the work is done. Also, these pavers allow water and air to reach the roots of street trees, and reduce problems from tree roots damaging sidewalks.

A high priority under the law must be placed upon curb ramps that are well-designed for wheelchairs, and for warning strips for persons with limited eyesight. Federal Community Development Block Grants may be available to fund installation of these curb ramps, because projects that benefit persons with disabilities are automatically considered to be eligible for CDBG funding.

Even where official bicycle lanes are not installed with signs, there still can be improvements to make the shoulders smooth enough for bicyclists. Also, there should be regular street sweeping of shoulders intended for bicycle use, particularly after cinders and other materials accumulate during the winter. Street sweeping is also valuable to help meet requirements of the Federal MS4 stormwater regulations, by removing oils and other potential pollutants to creeks. Well-marked white lines along shoulders of roads are valuable to separate vehicle traffic from bicyclists, where room allows for it.

**Strategy T.5. – Provide additional locations for bicycle parking.**

The Township should encourage major new commercial developments to provide bike racks or other suitable facilities for the parking and locking of bicycles. The Township should provide bike racks at parks, and the School District should provide bike racks at their recreation areas.

**Strategy T.6. – Promote use of public transportation.**

Public transportation reduces congestion, provides a mode of transportation for those without automobiles, relieves stress on roadways, bridges, and intersections, reduces the demand for expensive infrastructure upgrades, and improves air quality.

There are often difficulties in addressing "the first mile" and "the last mile" of travel. This is because many persons need to walk or bicycle at least a mile from their home to a bus stop, and from their transit stop to their job or other destination. These distances can be particularly burdensome in bad or cold weather, or for people with limited mobility. The time to walk to and from a bus stop can also discourage use of public transit, particularly early in the morning.

Commonly known as Capital Area Transit (CAT), the Cumberland-Dauphin-Harrisburg Transit Authority provides mass transit services for residents of the capital region. As of 2018, it is being managed by the York-based Rabbitransit system. All CAT buses have a rack in the front that can hold two bicycles. CAT operates six bus routes that serve Lower Paxton Township. The bus routes include:

- Route 3 extends from Linglestown Road and then through the City of Harrisburg.
- Route 12 extends from Linglestown and then along Route 22 into Harrisburg, and also serves Locust Lane.
- Route 14 serves the Union Deposit Road corridor.
- Route 15 serves Pinnacle Osteopathic Hospital area and Harrisburg.

Park and ride sites for CAT riders are found at the following locations:

- 600 North Mountain Road (at the Grocery Outlet store)
- K-mart on Route 22 / 5050 Jonestown Road
- The Point Mall on Union Deposit Road (near the Giant)
- Colonial Park Mall (at Boscov) on Route 22

Nearby, park and ride facilities are also provided at the Harrisburg Mall on Paxton Street. The above parking areas are only authorized for CAT riders, and not for carpool parking. There are no carpool parking areas in the vicinity. The Commuter Services of South Central Pennsylvania organization assists in organizing carpooling. They also offer an Emergency Ride Home Service for persons who regularly carpool but are faced with an unforeseen emergency.

CAT services also provide connections to Harrisburg International Airport and to Amtrak and commercial buses at the Harrisburg Transportation Center.

CAT's door-to-door shared ride service mainly serves senior citizens and persons with disabilities, and requires advanced reservations.

**Strategy T.7. – Seek additional bus passenger shelters.**

Additional bus shelters are needed, with benches, security lighting, informational signs and trash receptacles. If the Township allows an off-premises advertising sign on a shelter, a private company is typically willing to pay to install and maintain it. The intensity of lighting of any sign should be carefully controlled, and electronically changing advertising signs should not be allowed. However, in other locations that are more residential in nature, an off-premises sign may not be appropriate, which would require another source of funding. In some cases, an adjacent building owner may be willing to install and maintain an attractive bus shelter if it helps to serve their residents or customers. Better sidewalk connections are needed to reach transit stops, and a hard ADA-accessible surface is needed between the shelter and the curb.

In southeastern Pennsylvania, SEPTA has prepared Bus Stop Design Guidelines which are available online and which may also provide useful standards for the CAT system. When a major new development is proposed along a bus route, CAT should be given an opportunity to comment on the design as it affects a bus stop and pedestrian access to the bus stop.

**Strategy T.8. – Seek additional park and ride parking areas, preferably in locations served by buses.**

The provision of park and ride lots can reduce traffic, travel expenses and air pollution by encouraging persons to share rides, and/or to use public transit. As described above, CAT has agreements to allow bus riders to use less used portions of parking lots of large commercial centers for park and ride parking. However, these locations in Lower Paxton are not open to carpoolers. The Township should cooperate with CAT and PennDOT to expand the park and ride facilities.

## ENERGY CONSERVATION PLAN



This Energy Conservation chapter offers ideas about how the Township can encourage conservation of various forms of energy. Additional energy conservation recommendations are also presented in the Natural Resources Conservation Plan, including ways to promote use of renewable energy.

### **GOAL E.1: Encourage modes of transportation, patterns of land uses and designs of sites and other actions that conserve energy.**

Objective: Increase public awareness of energy conservation methods.

Objective: Promote building orientations and designs and landscaping that maximizes access to solar heating in the winter and provides shading in the summer.

The increasing costs of energy, concerns about air pollution and the desire to reduce American dependence on foreign fuel sources generates the need for energy conservation. Energy costs are also a major part of the Township's annual expenses, including to heat buildings, light streets and operate vehicles.

Opportunities should continue to be considered to reduce energy consumption in each Township-owned building. Improvements should be carried out that are shown to be cost-effective over the long run. Any new building should be designed to minimize its energy consumption, including making use of passive solar technology and making maximum use of natural light.

The Township should also evaluate current street lighting and other outdoor lighting to determine the possibilities of using more energy-efficient methods. Energy efficient luminaires can be incorporated into all types of decorative street lights. New street lights should only be installed where there is a clear need. In some cases, reflective devices can be used to identify hazards to motorists at a much lower cost than a street light.

The Township should also promote land use patterns that are energy-efficient. This includes encouraging opportunities for close-to-home shopping, employment and recreation. Bicycling and walking opportunities should be emphasized, as well as use of transit services to reduce dependence on individual motor vehicles. Car-pooling should be promoted, particularly through the provision and publicizing of lots that are open to car-poolers or bus riders.

The zoning ordinance should continue to provide opportunities for attached housing. Attached housing (such as townhouses) typically require substantially less energy for heat than single-family detached houses, because they are less exposed on the sides to the elements. The zoning ordinance should also allow wind turbines on larger lots and height modifications, if needed, for solar energy devices.

New buildings should be oriented to take maximum advantage of a southern orientation. The Township’s development regulations could also allow some flexibility in setbacks so that new buildings can maximize their access to southern sunlight. Evergreen landscaping should be emphasized on the northern side of buildings to provide protection against Winter winds. Deciduous trees should be emphasized on the southern side of buildings to allow the sun to provide warmth during the Winter, while providing shade during the Summer.

**Strategy E-1: Work to make residents, property owners, builders and developers more aware of energy conservation methods.**

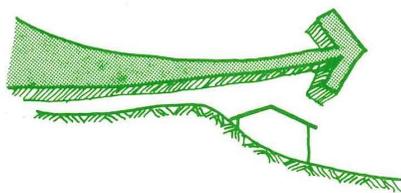
The Township should provide information on energy conservation and water conservation methods, including through the Township newsletter and website. This should emphasize simple and low-cost ways of conserving energy and links to reliable sources of information.

The Township should publicize programs that are available to reduce the costs of energy conservation methods, such as rebates from energy suppliers and any Federal or State tax incentives. Lower income homeowners should be encouraged to take advantage of Federally-funded programs to weatherize their homes to reduce home heating costs.

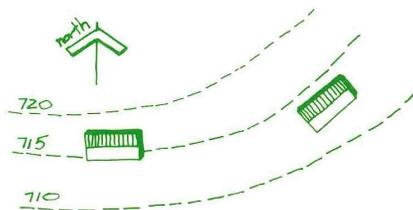
**Strategy E.2: Encourage developers and builders to fully consider sun angles, prevailing winds and landforms and to use vegetation to reduce heating and cooling costs.**

The term “solar access,” refers to the availability of sunlight, considering the angles of the sun. It is also important to minimize shading by obstructions, including future tree growth. A general southern exposure is essential for solar systems to be effective. An exposure within the range of 20 degrees east to 20 degrees west of south is generally acceptable for most solar applications. This orientation can work most efficiently if most streets are in a general east-west direction.

1. Siting

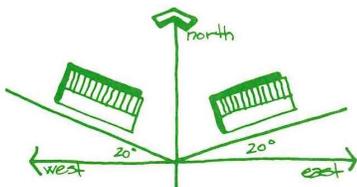


Use Landform to Deflect Winter Winds



Use South and Southeast Facing Slopes as Much as Possible

2. Building Orientation

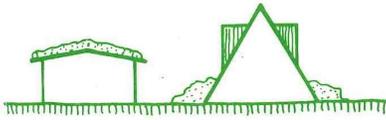


Orient Buildings on an East-West Axis to Maximize Solar Access and Minimize Overheating



Orient Unheated Buildings to Buffer Heated Buildings from Winter Winds

3. Building Design and Construction



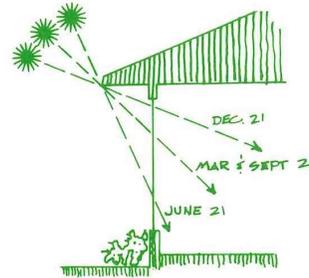
Flat or Shallow Pitched Roofs Hold Snow for Added Insulation



Buildings Built into Hillside or Partially Covered with Earth and Planting are Naturally Insulated

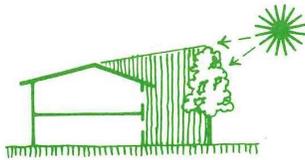


Darker Colors Absorb More Radiant Energy from the Sun

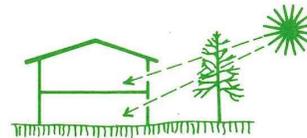


Overhangs Can Control the Sun's Rays

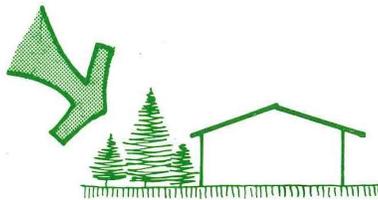
4. Landscaping



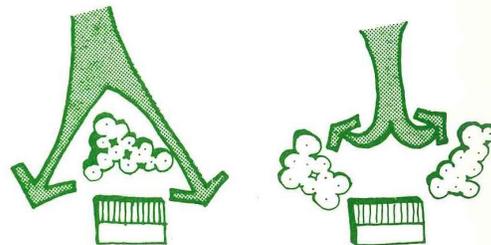
Deciduous Trees Provide Shade in Summer



Deciduous Trees Allow Sun in Winter



Evergreens Buffer Winter Winds



Deflect Rather than Dam Winds

If two or more of homes are being developed that are intended to use solar energy, the developer should be encouraged to place deed restrictions on the lots to prevent the construction of obstructions or the planting of trees where they would obstruct the solar access for the neighboring property.

## COMMUNITY FACILITIES AND SERVICES PLAN

**GOAL:** Provide high quality community and municipal facilities and services in the most cost-efficient manner.



The locations of the major community facilities in Lower Paxton Township are shown on the Community Facilities Map in the Appendix.

**Strategy C.1. – Continue to provide excellent parks and recreation facilities. Seek funding to improve existing parks to meet a wide variety of recreational needs and to add selected parkland.**

Lower Paxton Township offers 15 public parks, which include 378 acres of parkland. However, at least 84-acres are steeply sloped and not suitable for active recreation. The following describes the major public parks and recreation facilities:

Koons Park – This 33-acre park is in Linglestown off of North Mountain Road and Laurie Street. This park includes four lighted tennis courts, lighted basketball and volleyball courts, seven ball diamonds, a football field, three picnic pavilions, restrooms, playground apparatus and the independently operated Koons Swimming Pool. A Master Plan was prepared in 2014 to guide improvements to the park. The Plan calls for reducing the amount of facilities at Koons Park, and replacing them with new facilities at the nearby Wolfersberger Park.

Brightbill Park – This 41-acre park is located along Commons Drive, north of the Colonial Commons Shopping Center. It includes the Friendship Center (described below), a pavilion, playground equipment, restrooms, a walking trail, one softball field, three baseball fields, one all-purpose field, three basketball courts, a veterans memorial, and four tennis courts.

Kohl Memorial Park – This 20-acre park is located on Dowhower Road, south of Union Deposit Road in the southwestern part of the Township. It includes a pavilion, restrooms, playground equipment, a nature trail, two softball fields, an all-purpose field, two handball courts, two tennis courts, a dog park and a basketball court.

Lingle Park – This 20-acre park is located at the end of Pleasant Road, off of Union Deposit Road. It is next to Kohl Park and Southside Elementary School. It includes a pavilion, playground equipment, a nature trail, two softball fields, an all-purpose field, and two sand volleyball courts.

Thomas B. George Jr. Park – This 62-acre park is along Nyes Road adjacent to Paxtonia Elementary School in the southeastern part of the Township. It includes seven soccer fields (including “Ranger Fields”), a picnic pavilion, an in-line hockey rink, a playground (including apparatus known as Possibility Place that is designed for children of various abilities), and an environmental education area with wetlands. It also includes 10-acres known as Paxtonia Ballfields with six baseball and softball fields that are leased to the Township by the School District, next to Paxtonia Elementary School.

Centennial Acres Park – This four-acre park is located along Continental Drive off of Colonial Road. It includes a playground, a picnic pavilion, one all-purpose field, one basketball court and two tennis courts.

Forest Hills Park – This 11-acre park is located on both sides of Forest Hills Drive. It includes picnic tables, an all-purpose field, a basketball court and a tennis court.

Hocker Park – This 12-acre park is located near the top of the Blue Mountain off of the Blue Mountain Parkway. It includes an informal picnic area, hiking along the Darlington Trail, and areas to enjoy nature. Part of the land is in Middle Paxton Township.

Kings Crossing Park – This five-acre park is located near the intersection of Nyes and Union Deposit Roads in the southeastern part of the Township. It includes a picnic pavilion, a playground, a baseball diamond and a soccer field.

Lamplight Park – This five-acre park is located on Mayfair Drive near Nyes Road. It includes a picnic pavilion, playground equipment, an all-purpose field and a basketball court.

Friendship Center – This indoor recreation center with 62,000 square feet of floor area offers a wide variety of activities and facilities. It is primarily funded by user fees. It includes exercise equipment, an indoor swimming pool, a gymnasium, an aerobics studio, locker rooms, an indoor track, and classrooms. An annex includes the Friendship Senior Center. It is located north of Commons Drive, north of the intersection of Devonshire Road and Route 22. The Senior Center offers a variety of programs to persons age 60 and older. It also includes a meal program operated by the County Area Agency on Aging.

Wolfersberger Tract – These two unimproved adjacent tracts are located off of Wenrich Street off of Blue Ridge Avenue, and include a total of 92-acres. A Master Plan was completed in 2014 to guide its improvement in phases, as described below.

Hodges Heights Park – This two-acre park is located on Conway Road. It includes a picnic pavilion, tennis court, basketball court, baseball field and playground.

Hurley Fields – This five-acre park is along Porsche Drive off of Locust Lane, adjacent to Covenant Christian Academy. It includes baseball fields and a playground.

Meadow Brook Park – This two-acre park is located along Oak Avenue off of Meadowbrook Drive. It includes a half basketball court, an all-purpose field, and a playground.

Buchanan Tract – Includes 40-acres of natural lands along the Blue Mountain north of Parkway East.

Forest Hills Open Space – Includes 25-acres of natural lands in the northwestern corner of the Township.

Leisure Open Space – Includes 5-acres of natural lands.

Boyd Big Tree Conservation Area – This 994-acre area is owned by the Pennsylvania Department of Conservation and Natural Resources and extends for approximately one mile along the Blue Mountain west of the Blue Mountain Parkway. It is open to the public for hunting, hiking and similar activities. Over half of the land extends into Middle Paxton Township.

Swimming Pools – The privately-operated swimming pools in the Township include Koons Pool (inside Koons Park), Penn Colonial Pool and the Devon Swim Club.

Public School Recreation Facilities – The ten public schools in Lower Paxton each provide recreation facilities, although they are limited to use by school students during many hours of the week. For example, every elementary schools has at least one playground, and the middle schools and high school have multiple athletic fields.

The 2010 Parks and Recreation Plan reported that public parks in Lower Paxton included the following total numbers of major facilities:

- 10 softball fields
- 14 baseball fields
- 2 football fields
- 6 soccer fields
- 8 multi-purpose fields
- 6 volleyball courts
- 11 basketball courts
- 14 tennis courts
- 11 picnic pavilions
- 10 playgrounds

### Recreation Land Guidelines

After reviewing various national standards and amounts of parkland provided by similar townships, the Township Recreation Board in the Parks and Recreation Plan recommended establishing a goal of 10 acres of Township recreation land per 1,000 residents. Under that guideline, as of 2010, the Township had a deficit of 178 acres. If the Township reaches a population of 54,000 residents (which the Tri-County Regional Planning Commission projects will occur by 2035), it would mean a deficit of 246 acres.

### Service Areas of Public Parks and Playgrounds

The Township Greenway Plan mapped existing parks and public schools and highlight which areas were within a one-half mile radius of each facility, as of 2007. The following major neighborhoods were outside of these radii:

- the neighborhoods south of Linglestown Road, west of Colonial Club Road and north of I-81;
- neighborhoods north of the Linglestown area;
- neighborhoods west of I-83;
- neighborhoods along the Nyes Road corridor between Devonshire Heights Road and Locust Lane; and
- neighborhoods along the Page Road (61<sup>st</sup> Street) corridor.

A new Township Park is proposed to be dedicated as part of the development of the former Blue Ridge Golf Club, in the northwest part of the Township north of Linglestown Road.

A property has been purchased at the corner of Nyes Road and Conway Road, which is intended to replace Hodges Heights Park. Hodges Heights was built on a former landfill tract, and has experienced subsidence problems.

### Park and Trail Funding

The main sources of funding for park and trail projects involves use of competitive matching grants through the State Department of Conservation and Natural Resources. These grants are typically matched with recreation fees. The Subdivision and Land Development Ordinance requires that developers provide recreation land and/or fees in-lieu-of-land for improvements of existing public parks. These in-lieu-of-land and/or land dedication requirements by developments should also be reviewed and modified if appropriate.

### Darlington Trail

The Darlington Trail extends east-west along the top of the Blue Mountain near the Lower Paxton/Middle Paxton border. It eventually connects to the Appalachian Trail, which runs east-west to the north, parallel to the Darlington Trail.

### Koons and Wolfersberger Parks Master Plans

The Township intends to carry out the Koons Park and Wolfersberger Park Master Plans in logical phases of construction, as funding allows.

The 2013 Master Plans include recommendations for rehabilitation of Koons Park and development of major new recreation facilities on Wolfersberger Park, which is currently undeveloped. The two parks are within one-half mile of each other. Wolfersberger Park is in two segments with a narrow connection between the two, and is east of Weinrich Street. Wolfersberger Park totals 91.5 acres, while Koons Park includes 28 acres. Wolfersberger Park includes substantial areas of woods.

An extensive public participation program helped to guide the Master Plan. The Master Plan recommends a total of \$10 million of improvements, to be completed in phases over 15 years.

The Master Plan concluded that Koons Park is overused and that some facilities should be relocated to Wolfersberger Park.

The Master Plan for Koons Park includes:

- Improve/ increase parking and park access—including pedestrian access,
- Upgrade/ reorient / replace substandard fields and deteriorated park facilities,
- Remediate on-site stormwater issues by designing facilities as natural amenities in each phase,
- Retain the focus of Koons as a youth, active sports-oriented park, but add other amenities,
- Relocate the salt dome and maintenance building from Koons to Wolfersberger,
- Add playgrounds, pavilions, spray pool, volleyball, concession, and other amenities, and
- Support efforts by civic organization(s) to maintain and eventually replace the existing pools.

The Master Plan for Wolfersberger Park includes:

- A mix of new multi-use fields with protection of existing wetlands and woodlands,
- A series of walking trails to provide passive uses for multiple ages,
- Two softball fields (relocated from Koons Park),
- Four tennis courts (relocated from Koons Park),
- A dog park with a second possible location,
- Immediate retention of private paintball concession in describes areas of the northern half,
- Two vehicular entrances to the new park with perimeter interior road and dispersed parking,
- A relocated salt dome and new township maintenance building,
- Stormwater management system and wetland boardwalk / overlooks, and
- A picnic grove, sled hill, playground and tot lot.

In addition to seeking matching grants from the State, the Master Plan recommends ways to “leverage” other funding sources. It may be that other municipal budget categories or projects can contribute to the Koons/ Wolfersberger improvements—such as importing fill material from other projects, or budgeting municipal road funds to street/ parking/ access improvements to create the new perimeter parking systems. Developer fees may be dedicated toward improvements at Wolfersberger or Koons at the discretion of the Township supervisors.

The Plan notes that private organizations such as dog clubs and sports clubs have the capacity to assist the Township with capital projects and maintenance. Private organizations that enter into cooperative partnerships with the Township have a much stronger position to solicit private foundation funding.

The Plan notes that there are insufficient crosswalks and sidewalks connecting Koons Park to adjacent neighborhoods.

The Plan recognizes that improvements will be needed to Weinrich Street to handle added traffic from the park and any other development in the area.

**Strategy C2: Work to carry out the Township Greenway Plan and to improve bicycling and pedestrian access.**

Bicycling and walking are valuable not only for recreation and exercise, but are valuable for children to be able to reach recreation facilities, and to serve persons who cannot drive or who do not have access to their own car. In addition, walking and bicycling trails and routes can provide alternatives to using a car. Moreover, some persons choose to use bicycling for everyday travel. Improvements to pedestrian and bicycle facilities will reduce noise pollution and improve air quality, traffic flow, and overall quality of life.

There are few existing bike paths in the Township, outside of parks. The Lower Paxton Township Greenway Plan proposed a series of bicycle and pedestrian improvements that will provide various transportation and recreation opportunities in the Township. It also recommended modifications to development regulations to provide additional protection to the Township’s natural resources. This plan proposes links between neighborhoods and greenway destination points, such as local and regional parks, schools, community and commercial destinations, and other trails beyond the Township boundaries.

The Greenway Plan analyzed information to identify the opportunities and constraints for greenway development, and identified the appropriate trail types for each of the preferred trail routes.

Public participation included public meetings and a number of key person interviews. This input assisted in prioritizing the proposed trail routes and bicycle / pedestrian facilities that should be first implemented in order to have the most benefit for the majority of Township residents.

The trails and greenway system will improve the community's general health and well-being through regular physical activity. This physical activity not only fights obesity and related diseases, but also results in reduced health care costs, increased work productivity, and improved longevity. Other benefits include enhanced property values and environmental education opportunities.

### Improvements Proposed in the Greenway Plan

The Greenway Plan includes the following proposed bicycle and pedestrian improvements to be implemented primarily within new residential land developments and within existing public rights-of-way:

- Neighborhood Off-Road Trails;
- Neighborhood Bikeway and Walkway Connections;
- Township – Off-Road Trails;
- Township – On-Road Cycling Routes; and
- Intersection Improvements.

The estimated total cost for these improvements is \$14.1 million. The Plan envisions that many of the improvements will be funded through land development and roadway improvement projects. Other projects are intended to leverage grants and various funding sources outlined in the report.

### General Greenway Plan Recommendations

The Greenway Plan recommends that the Township:

- Ensure that the proposed trail and greenway improvements in the Plan are incorporated into all new land development and roadway improvement projects;
- Use its municipal funds to leverage additional grant funding from state and federal sources; and
- Adopt a Riparian Corridor Conservation Overlay Zoning District to provide “protective” greenways that have the potential to preserve long corridors of natural land or sensitive features and which may allow opportunities for future trails plans.

### Greenway Plan Implementation Priorities

The Greenway Plan recommended that the Township:

- Construct a ‘Safe Routes to School’ demonstration project, while seeking DCNR grants;
- Complete the Neighborhood bikeway and sidewalk connections along existing roadway corridors between neighborhoods and destinations;
- Complete the Neighborhood off-road connections;

MIDDLE PAXTON TOWNSHIP

WEST HANOVER TOWNSHIP

SUSQUEHANNA TOWNSHIP

SOUTH HANOVER TOWNSHIP

SWATARA TOWNSHIP

Legend

Recommended Improvements

- Neighborhood Bikeway & Walkway Connections
- Neighborhood Off-Road Trails
- Township On-Road Bikeway
- Township Off-Road Trails
- Walkways
- Intersection Improvements
- Destinations
- 1/2 Mile Walking Radius

Existing Conditions

- Parks/Open Space
- Township Owned Land
- Educational Facilities
- Utility Owned Land
- High Tension Overhead Utility
- New Developments
- Developments With Existing Sidewalks
- Floodplains
- Darlington Trail
- Underpass / Overpass
- Shopping Center



**LOWER PAXTON TOWNSHIP GREENWAY PLAN**

SIMONE COLLINS - LANDSCAPE ARCHITECTURE - SC# 06016.1

September, 2007

**GREENWAY PLAN**



- Prepare Feasibility Studies/ Master Plans for the off-road trail connections along stream corridors; and
- Keep an eye on the opportunities to provide connections to regional trails and/or bikeway systems beyond Township borders.

When trails are to be built within or next to a new housing development, the trail be built before the homes are occupied.

### Sidewalks

The Township Greenway Committee proposed a set of high priority sidewalk connections, which are shown on the Transportation Plan Map, in a previous section of this report.

Careful consideration is needed of each development and road to determine whether sidewalks or some other form of pathway or trail should be required. Where a sidewalk is not currently needed, the requirement to build it may be deferred into the future. Where a sidewalk is not required, where practical, a relatively level grass area should be provided along a road, so that it can be used by pedestrians and so that a sidewalk could be easily built in the future if needed.

The Township should consider enacting a provision authorizing a payment of a fee-in-lieu of constructing sidewalks, where the Township decides that a sidewalk is not currently needed as part of a new development. The fee would be required to be used in the general vicinity of the development that paid the fee, and could only be used for sidewalk and trail connections. The goal is to utilize the funds where the sidewalks are most needed, particularly along heavily traveled roads.

### **Strategy C.3 – Continue to provide high quality recreation programs for persons with a wide variety of interests, ages and abilities.**

The Township Parks and Recreation Department offers 400 recreation programs and special events that attract 15,000 participants.

The 2010 Parks and Recreation Plan reported that recreation facilities in Lower Paxton served: four major Township-run athletic leagues, six baseball organizations, 16 softball organizations, two football organizations, four soccer organizations, one handball organization, one frisbee organization, one tennis organization and one field hockey organization.

### **Strategy C.4. – Work with the School District to coordinate plans for growth and recreation.**

The Township should continue to encourage regular communication with the Central Dauphin School District to make them aware of the sizes and timing of development proposals that may affect student enrollments. Also, it is recommended that the Township and the School District should work cooperatively to find the most cost-effective ways of meeting the recreation needs of students and community members.

Information on public and private schools is included in the Community Facilities Background section.

**Strategy C.5. – Continue to provide high-quality police protection services.**

The Lower Paxton Township Police Department provides 24-hour police services to its residents and businesses. The Lower Paxton Township Police Department is housed within the Township Building on Prince Street. The Department as of 2017 included 57 sworn officers and 7 civilian employees, and is budgeted for 59 sworn officers in 2018. In addition, there are 4 part-time crossing guards.

The Township should periodically consider whether additional officers are needed, depending upon needs related to growth, traffic and crime.

As of 2017, the Lower Paxton Township Police Department operated 31 vehicles, including one crime scene van, three motorcycles, and 27 cars and sport-utility vehicles. There are also three trailers, including one that displays traffic speeds. Emergency dispatching is handled through the Dauphin County Communications Center.

The Township’s crime rates and trends are similar to most suburban townships. The Department’s highest incident rates are for automobile break-ins, retail thefts, vandalism, and responses to traffic accidents. In 2016, there were no homicides, and 63 serious crimes against persons, such as assault with a weapon or robbery of a person. There were 108 serious crimes against property, such as burglary or theft of a vehicle. Among the more common incidents in 2016, there were 558 theft offenses, which mainly included shoplifting, 298 fraud incidents, and 227 reported incidents of vandalism. There were also 118 driving while under the influence incidents and 95 reported incidents involving illegal drugs.

The most difficult traffic control conditions arise when lanes of I-81 or I-83 are closed because of a crash or construction. The State Police have the responsibility to patrol the interstates, but the Township Police and Fire Police are responsible to manage traffic detours. Lanes on an interstate often need to be closed to protect emergency responders or to clean up hazardous spills. It would be impossible to widen local roads sufficiently to handle the traffic.

The Police Department reports its amount of building space is expected to be adequate for the foreseeable future. Some alterations may be desirable to convert the former booking area into new purposes for the police.

**Strategy C.6. Continue to provide high-quality Fire Protection and Emergency Medical services.**

Fire protection services in Lower Paxton Township are provided by three companies: Colonial Park Fire Company, Paxtonia Fire Company, and Linglestown Fire Company. The stations are well located. While each company has a primary response area, all three companies respond to major calls throughout the Township. There are mutual aid agreements with surrounding municipalities. Emergency dispatching is handled through the Dauphin County Communications Center. A real estate tax levy is paid by property owners to fund a portion of fire and emergency expenses.

The delivery of fire protection services in Lower Paxton Township is highly dependent upon the availability of volunteers. It can be challenging to have sufficient numbers of volunteers available during weekday mornings and afternoons when many persons are working outside of the Township. The operation of a “Live-In” program at the Colonial Park and Paxtonia stations has helped avoid a shortage of volunteers during the days. This program involves college students living at the station while they are completing their education, while serving as volunteer firefighters.

Continued efforts are needed to attract and retain a sufficient numbers of trained volunteers, particularly as existing volunteers become older. Some municipalities provide incentives for their municipal workers to serve as volunteer firefighters, and to offer flexibility for those workers to leave work as needed to respond to emergencies. The Township already provides limited pension benefits for active volunteer fire-fighters. The Township has been considering use of a recently enacted State law that allows municipalities to offer tax incentives to emergency service volunteers. Other incentives should be considered for recruitment and retention of volunteer firefighters, such as discounts for Friendship Center membership and other recreation programs, businesses allowing volunteers to leave work to respond to emergencies, discounts being offered by local businesses, and events to recognize volunteers.

The Colonial Park Fire Company is based on South Houcks Road at Ruth Ann Street at a station built in 2005. The Company provides the primary response for the southwestern part of the Township. Colonial Park's main apparatus includes: a 2008 pumper, a 2000 rescue engine, a 1998 75-foot aerial ladder truck, a 2004 squad truck, a 2008 traffic control truck, and two sport utility vehicles.

The Linglestown Fire Company is located at 5901 Linglestown Road in Linglestown in a station built in 1991, and is responsible for providing primary response services to the northern portion of the Township. The Linglestown Fire Company has specialized abilities in dealing with areas without public water service, areas with steep driveways and wildfires. The Linglestown Fire Company also provides fire police services, as well as some emergency medical services.

Linglestown's apparatus includes: a 2000 aerial platform truck, a 2017 pumper, a 2006 rescue engine, a 2008 tanker truck with a 2,500 gallon main tank and a 2,500 gallon folding tank, a 2001 high clearance truck (intended for long steep driveways), a 2001 traffic control truck, an off-road all terrain vehicle, a utility trailer (mainly for wildfires), a 2002 utility truck, two sport utility vehicles, and a 1998 air compressor and light truck.

Located at 125 South Johnson Street, south of Jonestown Road, the Paxtonia Fire Company serves as the primary response agency for the southeast portion of the Township. Paxtonia's apparatus includes: a 1988 aerial ladder truck (which will soon be replaced by a new aerial ladder), a 2009 pumper truck, a 1998 rescue engine truck, a 2012 squad truck, a 2015 pickup utility truck, a 2011 rehab trailer (to assist at incident scenes), and two sport utility vehicles.

The Township Fire Marshal is responsible for fire scene investigations and data compilation of fire and emergency response services across the Township.

In outlying areas without public water systems and fire hydrants, tankers need to be used. For a major fire, multiple tanker trucks from various fire companies need to operate in rotation. The fire companies are moving towards using large portable collapsible water tanks to speed the process of emptying tankers, so the trucks can leave for another trip. This process involves planning in advance for sites where tankers can be re-filled and coordinating routes with neighboring fire companies.

Concerns were expressed that the current emergency vehicle preemption system for traffic signals does not always work as intended. The system is intended to turn a set of traffic signals to green for an oncoming emergency vehicle. However, the system is sometimes not activated until a fire truck is within 50 feet of an intersection.

Concerns were expressed about the difficulty of fire vehicles leaving stations and backing into stations in heavy traffic or when other vehicles are speeding. It was suggested that some form of alerting system be installed near fire stations. For instance, this could include an overhead flashing light that is activated when fire trucks are leaving or entering the station, with a sign directing motorists to yield.

As part of a national trend, the fire companies have had to respond to a greatly increasing number of calls to assist emergency medical services.

### Emergency Medical Services

South Central Emergency Medical Services (SCEMS) provides basic and advanced life support services. The organization operates 15 emergency vehicles from three stations, including one with three vehicles in Lower Paxton. The Lower Paxton Station is their busiest, handling 5,000 911 calls per year. It is located adjacent to the Paxtonia Fire Station at 5531 Poplar Street. SCEMS employs both paramedics and emergency medical technicians.

The Township's real estate tax levy also provides funding to South Central EMS.

### **Strategy C7: Ensure that a high quality water supply continues to be available.**

SUEZ Environment (formerly known as United Water Pennsylvania) provides public water services to Lower Paxton Township and adjacent areas. The highest elevations of the system are near the base of the Blue Mountain, including in the Forest Hills development. Township officials report that they have not experienced problems with water pressure in firefighting, which typically would be a problem at higher elevations. A storage tank was added in recent years west of Parkway West to provide adequate pressure for new developments at higher elevations.

Private wells serve scattered mostly rural areas, but essentially all major development of Lower Paxton Township is served by the public water system. Since most of the Township is underlain by the Martinsburg geologic formation, wells are typically low yielding, including many yielding only a few gallons per minute.

The main treatment facility draws water from the Susquehanna River (with the Stony Creek as alternative supply). It is located near 6<sup>th</sup> Street and Linglestown Road in Susquehanna Township and has a permitted capacity of 12 million gallons per day (mgd). A second treatment plant is located in Hummelstown and draws water from the Swatara Creek and is permitted for 4 mgd.

The system has sufficient supply to handle anticipated growth in Lower Paxton. In many parts of the service area, total water consumption has actually been falling, because of successful leak detection, water conservation fixtures, and reduced industrial operations. In addition, the SUEZ system is able to buy well water from the Susquehanna Area Regional Airport Authority and has an emergency interconnection with the Steelton system.

SUEZ regularly tests the water quality. The 2017 water quality report did not show any violations of federal water quality standards.

A Source Water Assessment was completed to consider vulnerabilities to the water system. The Assessment indicated that the Susquehanna River is most vulnerable to potential contamination from

agricultural activities, gas stations, urban runoff, and potential spills from transportation corridors. Stony Creek is most vulnerable to potential contamination from on-lot septic systems, storage facilities, and lawn care while the Swatara Creek is most vulnerable to agricultural activities and urban runoff. Control of potential pollution sources from surface activities is very important to maintain the quality of groundwater supplies and creeks. Continued efforts are also needed to promote groundwater infiltration throughout the region, particularly to prepare for periodic drought conditions.

Continued efforts are needed to upgrade old water lines. While a few miles have been replaced in recent years in Lower Paxton, the overall system has not been replacing lines at a sufficient rate, according to a Public Utility Commission audit. Homeowners also need to be made aware of the potential from lead contamination from old laterals and pipes within homes, which is a nationwide problem.

**Strategy C8: Ensure that adequate wastewater treatment allocations and transmission capacities continue to be available.**

Nearly the entire Township, as well as a small section of West Hanover Township, is served by public sewage provided by the Lower Paxton Township Authority. The Township Sewer Department provides the maintenance and billing services.

The Authority owns almost all the sewer systems of Lower Paxton Township, except for some small sections of privately-owned collection lines and small private pumping stations that connect to the Authority's system.

For many years, an active program has been underway to reduce infiltration and inflow (I/I) during wet weather.

Wastewater is collected in Lower Paxton Township in four discrete basins that approximate the watershed boundaries of Beaver Creek, Paxton Creek, Spring Creek, and Asylum Run. The Beaver Creek Basin collects wastewater from the eastern half of the Township and discharges to the Joint Use Interceptor for conveyance and treatment at the Swatara Wastewater Treatment Plant (WWTP). The Paxton Creek Basin collects wastewater from the northwestern portion of the Township and discharges to Susquehanna Township's Paxton Creek Interceptor, ultimately reaching the Harrisburg Wastewater Treatment Facility. The Spring Creek Basin located in the south-western portion of the Township, is subdivided into two sub-basins. SC-1 is a tributary to the West Branch of the Spring Creek Interceptor in Susquehanna Township, while SC-2 is a tributary to the East Branch of the Spring Creek Interceptor in Lower Paxton Township. All wastewater from both branches is conveyed via the Spring Creek Interceptor through Swatara Township and Paxtang Borough to the Harrisburg facility. Wastewater collected from the Asylum Run drainage basin, a relatively small area in Colonial Park section of the Township, is conveyed through Susquehanna Township and the City of Harrisburg to the Harrisburg facility.

While nearly the entire Township is served by public sewage services, there are less dense areas mainly in the northeast and along the Township's eastern border that are served by on-lot disposal systems. In many cases, elevated sand mounds or other types of septic alternative systems have needed to be used. There are no concentrated areas of the Township that are known to have malfunctioning on-lot systems.

### Wastewater Facilities Planning

In 2013, Lower Paxton adopted a Sewage Facilities Plan Update. The Update was to revise the Beaver Creek Basin portion of the existing Plan. The full existing Plan was approved in 2003, with a limited update in 2006.

There are four separate drainage areas in the Township: Beaver Creek, Spring Creek, Asylum Run, and Paxton Creek.

Wastewater from the public sewerage service area in the Beaver Creek Drainage Area is conveyed to the Swatara Township Authority's wastewater treatment facility (WWTF), while wastewater from public sewerage service areas in the other three drainage areas is conveyed to the City of Harrisburg's WWTF.

The Plan was updated in 2006 to reduce the size of the planned public sewerage service areas in the Paxton Creek and Beaver Creek drainage basins, to correspond to zoning changes. The Plan allowed for de-centralized wastewater treatment (such as on-lot systems) in parts of the Township that were formerly located within the planned public sewerage service area.

A package wastewater treatment plant that served the Springford Village development was recently closed and the customers were connected into the public system.

Existing flows are within Lower Paxton Township's allocated capacity in Swatara Township's treatment plant, except during periods of extreme wet weather, which typically occur 3-7 times per year.

An "Equivalent Dwelling Unit" is based upon the average sewage flow from one dwelling, but could result from non-residential development. Most of the land area in the Beaver Creek Basin planned public sewerage service area is either developed, or within approved developments that are in progress. As of 2013, there were approximately 800 acres of undeveloped land within the service area. As of 2013, there were 1,699 additional EDUs remaining to be constructed in existing approved developments, and an estimated 1,805 projected EDUs for undeveloped lands based on current zoning.

The 2013 Plan Update showed that there would be sufficient treatment allocation in the Swatara Plant to handle the average daily flow of the new potential growth in the Beaver Creek watershed, based upon current zoning. However, the peak hourly flow during extreme wet weather would be substantially beyond the capacity of the Swatara Plant and the main interceptor that flows into it if flow reductions are not achieved (such as through sewer system rehabilitation).

As a result, the Authority has been actively working at replacing and rehabilitating many existing sanitary lines and reducing infiltration and inflow into the system. Two properties have been purchased to hold the "first flush" to store wastewater underground in tanks during extreme wet weather events, so that the effluent can be treated after the high flows subside. One facility will be on Commerce Drive, west of Crums Mill Road, and the second will be at the intersection of Nyes and Conway Roads.

#### **Strategy C.9. Continue to coordinate street, sidewalk and utility improvements.**

Ideally, major street, sidewalk and curbing reconstruction projects should be coordinated with any needed storm drainage, water line, sewage line or other utility projects along the same corridor. This

advanced planning and coordination between the Township and utilities reduces the total costs of a project and allows the costs to be distributed among various entities. Also, it avoids the need to later cut into a newly paved street or a sidewalk that is in good condition. If a street or utility project is combined with street tree plantings, pedestrian and other streetscape improvements, it can provide additional benefits to the neighborhood.

**Strategy C.10. Continue to implement storm water management improvements.**

As part of the federal National Pollution Detection and Elimination System (NPDES) Phase II Program and the Federal MS4 Stormwater Program, the Township is required to put into effect pollution prevention measures. There are six Minimum Control Measures (MCMs) that make up this program: 1) Public Education and Outreach, 2) Public Involvement and Participation, 3) Illicit Discharge Detection and Elimination, 4) Construction Site Runoff Control, 5) Post-construction Stormwater Management in New Development and Redevelopment, and 6) Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance.

The Township expects to complete a number of projects in future years to stabilize creek banks and plant trees and thick vegetation along creeks. These types of projects are not only important to meet MS4 requirements, but also standards of the Chesapeake Bay Program. It would be desirable to prioritize a list of stormwater projects that would be accomplished over a number of years. That type of planning would maximize coordination with other street and utility projects, which can reduce costs, as described above.

**Strategy C.11. Plan for capital improvement needs.**

The Public Works Department maintains bridges, streets, parks, plows snow, and repairs storm sewers. The Township should prepare a comprehensive capital improvements plan that will address these needs for the next 10 years, along with possible funding alternatives. Many of the largest capital needs are for stormwater improvements. This process would serve as the basis for annually budgeting for infrastructure improvements. A Capital Improvements Program is also described in the Action section of this Comprehensive Plan.