



# Towamencin Township Sidewalk Connectivity Study

July 2023  
SC# 22041.00



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# INTRODUCTION

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## 1.1 Plan Goal

The Towamencin Township Sidewalk Connectivity Study focuses on providing strategic decisions for future sidewalk and trail amenities that will allow the residents to have an accessible, safe, and secure walking and/or biking experience throughout the Township and to connections beyond.





### ..... 1.1.1 Plan Objectives

- Eliminate or mitigate barriers to destinations by incorporating a network of pedestrian and bike routes and trails, ideally separated from vehicular traffic.
- Connect pedestrian and bicycle routes to destinations within the Township while also providing the groundwork for connections to surrounding townships.
- Develop a comprehensive planning document that can support efforts to attract and secure funding for the future implementation of proposed improvements.



# 1.2 Project Schedule

Project Schedule	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June
<b>Task / Event</b>										
Review background data and previous studies		█								
Site Reconnaissance		█	█			█				
Set up base mapping		█								
Existing Roadway, Sidewalk & Trail inventory & mapping		█	█							
Access ADA accessibility issues / locations		█	█							
Create proposed sidewalk & trail plan			█	█						
Concept cost estimates for proposed improvements				█	█					
Prioritize improvements						█				
Funding Strategy / Implementation Strategy						█				
Write and Assemble Sidewalk Connectivity Report							█	█		
Issue Draft Report								█		
30 day draft report review								█	█	
Revisions as necessary										█
Final Report										█
<b>Public Meetings</b>										
Public Mtg #1 - info. Gathering / brainstorming/program-Monday October 10		█								
Public Meeting #2 - preliminary plan concepts - Thursday Feb 9						█				
Public Meeting #3 - draft plan - Thursday April 13								█		
Public Meeting #4 - final plan Thursday June 22										█
Meeting with Board of Supervisors - Weds May 10									█	
<b>Committee Meetings</b>										
Committee Meeting #1 - info. gathering / brainstorming - Monday Oct 3		█								
Committee Meeting #2 - preliminary plan concepts - Monday December 5				█						
Committee Meeting #3 - pre-draft plan - Monday March 6							█			
Committee Meeting #4-review comments, revisions Monday June 5										█
Write and administer public opinion survey		█	█	█	█	█	█			
Set Up and administer Wiki Mapping Interactive mapping tool		█	█	█	█	█	█			
Meeting with Montgomery County Planning (including Meeting minutes)								█		
Meeting with PennDOT District 6-0 (including meeting minutes)								█		
Coordination with Township staff		█	█	█	█	█	█	█	█	█





## 1.3 Project Team

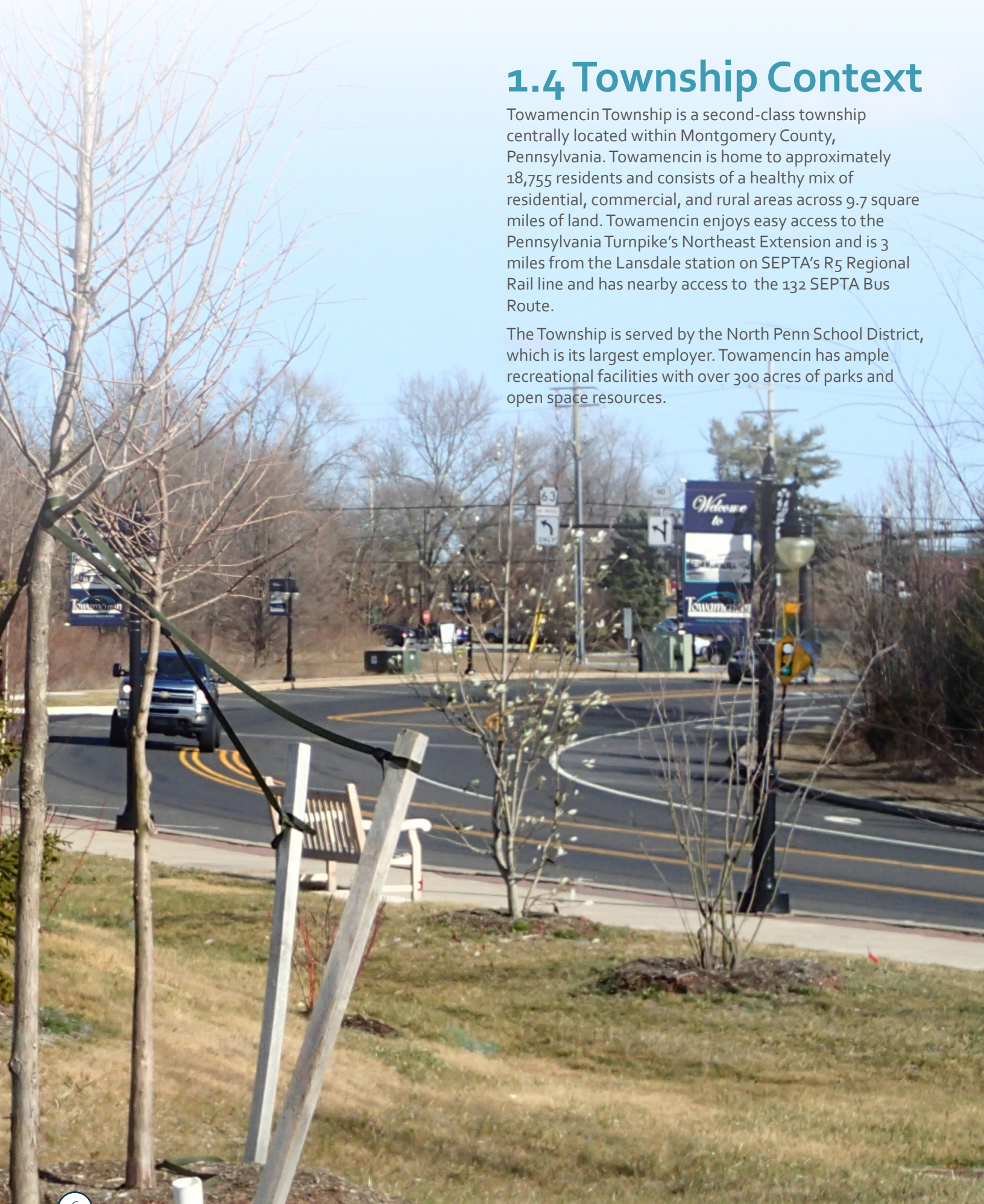
A project team composed of the Committee, Township Staff, and Consultants was formed to guide the planning process. The Committee was made up of Towamencin Township Planning Commission members. Committee insights informed and guided the team throughout the process.

Simone Collins Landscape Architecture (SC) is a planning and design firm with expertise in parks, trails, greenways, and recreational facilities. SC served as the prime consultant and was responsible for overall facility design, public participation, and coordination with the Committee, the Township, and project team.

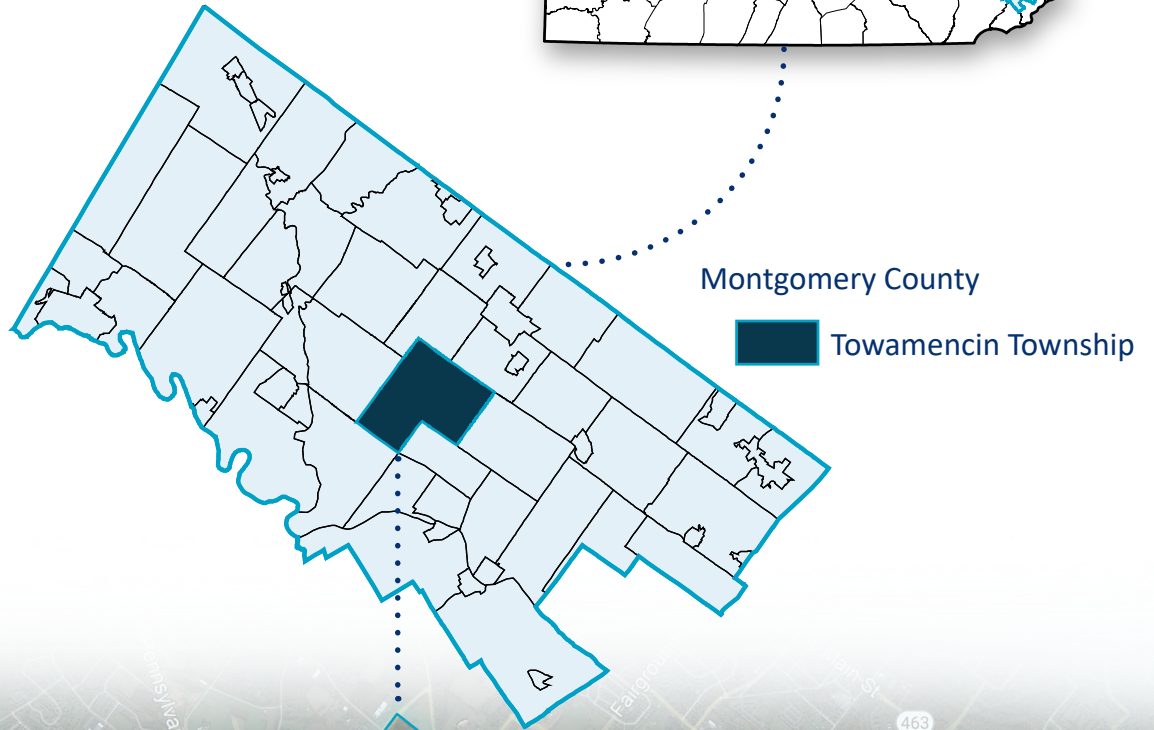
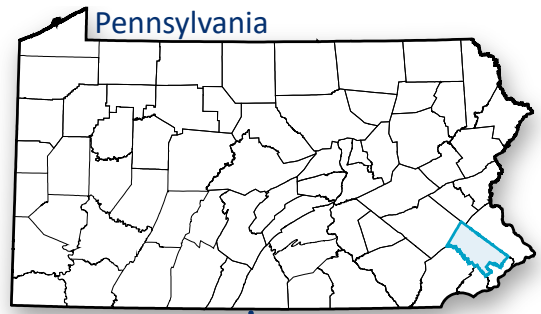
## 1.4 Township Context

Towamencin Township is a second-class township centrally located within Montgomery County, Pennsylvania. Towamencin is home to approximately 18,755 residents and consists of a healthy mix of residential, commercial, and rural areas across 9.7 square miles of land. Towamencin enjoys easy access to the Pennsylvania Turnpike's Northeast Extension and is 3 miles from the Lansdale station on SEPTA's R5 Regional Rail line and has nearby access to the 132 SEPTA Bus Route.

The Township is served by the North Penn School District, which is its largest employer. Towamencin has ample recreational facilities with over 300 acres of parks and open space resources.



# 1.4.1 Regional Context Map



# 1.5 Township History

Towamencin has a rich and well-documented history that dates to before the American Revolution. The original inhabitants of Towamencin were American Indians of the Lenni Lenape tribe, who had a settlement in the southwest section of the Township along the Towamencin Creek.

Late 1600s – Settlers of German, Welsh, and Dutch descent establish themselves in the area to pursue agriculture.

1777 – Towamencin played a role in the Revolutionary War, where soldiers camped and conducted military duties in the northern section of the Township.



1703 – The first land grant of 1,000 acres was granted by William Penn's Commissioners.

1708 – Edward Morgan purchases 309 acres of the original 1,000 acre land grant. In 1734, his daughter would give birth to Daniel Boone, who would go on to become an American folk hero known for his trailblazing and pioneering efforts.

1728 – Settlers successfully petitioned William Penn's Commissioners for Towamencin to become a Township.



1848 – Sumneytown Pike is established as a turnpike.

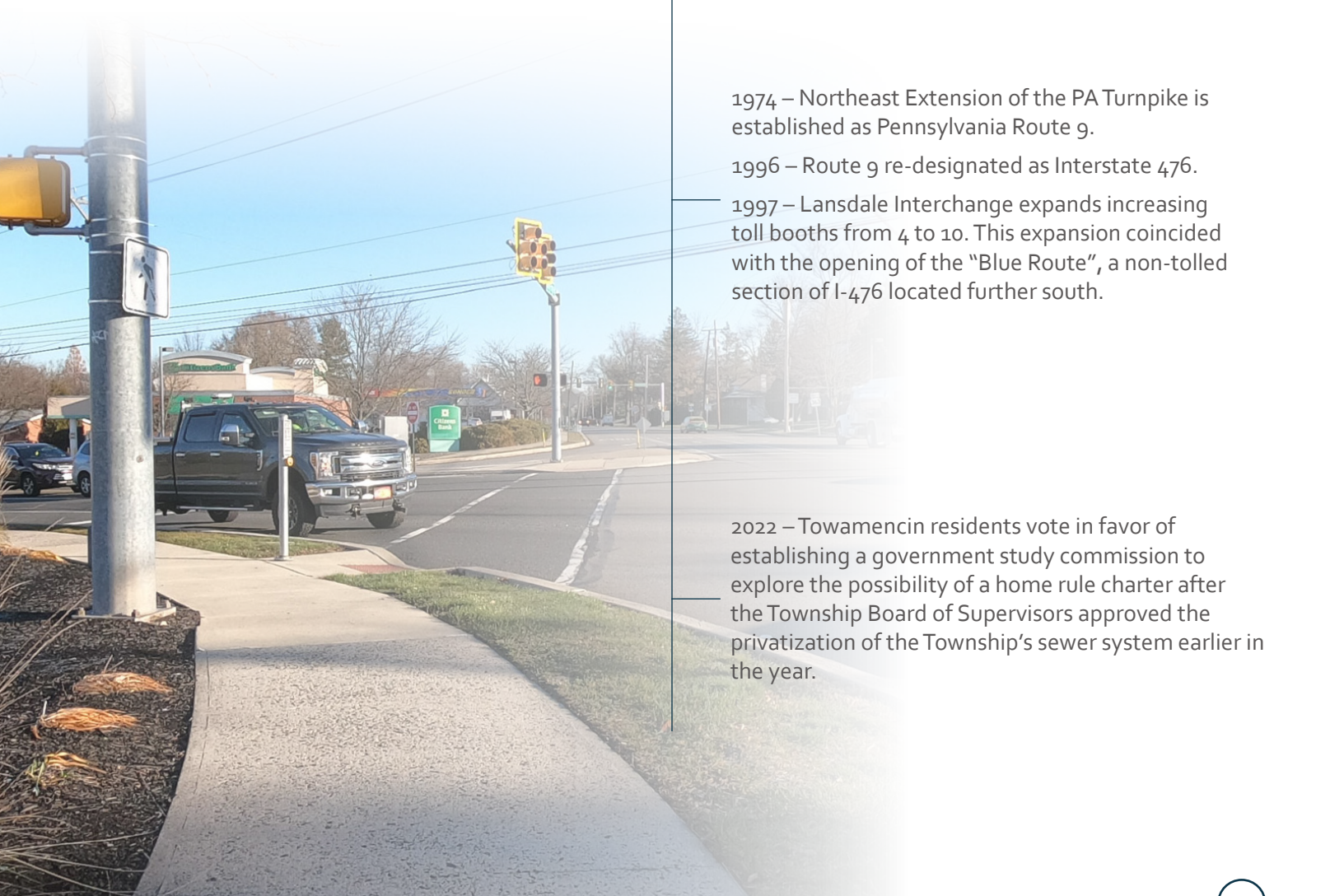


1855 – The North Pennsylvania Railroad opens the Lansdale/Doylestown line. The Lansdale railroad stop interrupts Kulpsville’s (located at the intersection of Sumneytown and Forty Foot Road) economic and social dominance in the North Penn area as commerce and industry activities relocate closer to the new rail line.

1954 – The Pennsylvania Turnpike interchange is constructed, re-establishing Towamencin as a critical transportation link between Philadelphia and the greater Lehigh Valley region.



1974 – Northeast Extension of the PA Turnpike is established as Pennsylvania Route 9.  
1996 – Route 9 re-designated as Interstate 476.  
1997 – Lansdale Interchange expands increasing toll booths from 4 to 10. This expansion coincided with the opening of the “Blue Route”, a non-tolled section of I-476 located further south.



2022 – Towamencin residents vote in favor of establishing a government study commission to explore the possibility of a home rule charter after the Township Board of Supervisors approved the privatization of the Township’s sewer system earlier in the year.







# INVENTORY AND ANALYSIS

2

## 2.1 Data Collection and Methodology

Simone Collins organized public participation and outreach through multiple mediums to compile data. This data was carefully managed and analyzed to inform recommendations. Additionally, data from Pennsylvania Spatial Data Access (PASDA), Delaware Valley Regional Planning Commission (DVRPC), and Towamencin Township was used. Meeting minutes, survey responses, and various exhibits can be found in the appendix of this report.

## 2.2 Steering Committee

- Brett Mackay
- Patricia Younce
- Douglas Leach
- Joseph Vavra
- Matt Chartrand
- Dr. Edward Buonocore
- Nancy Becker
- Dennis McGeehan
- Richard Marino
- Michael Main





## 2.3 Public Participation

Simone Collins coordinated thorough public involvement that included meetings with the public, Township staff, and Towamencin Sidewalk Connectivity Study Committee throughout the planning process. Public participation helped distinguish circulation patterns of challenging locations, destinations, and desired routes in the community through:

- four (4) public meetings,
- four (4) steering committee meetings,
- key person interviews (KPIs),
- an online survey,
- and an online mapping tool.

A transcript of the all the meeting notes can be found in the appendix of the report.

### Meeting Summaries

Committee Meeting #1 – October 10, 2022

- Committee Meeting #1 introduced the Towamencin Sidewalk Connectivity Study to the committee and informed its members on the project and future schedule.

Public Meeting #1 – November 10, 2022

- Public Meeting #1 focused on informing the public about the Towamencin Sidewalk Connectivity Study. A presentation was given which highlighted data collection, inventory of existing conditions, and future improvement tools that can be used to achieve the project's goals. After, a brainstorming workshop was held where participants voiced their ideas and concerns.

Committee Meeting #2 – December 5, 2022

- Committee Meeting #2 focused on the status of the online survey, on-going mapping, and development of the improvement plan. The committee gave input on the progress of the improvement plan and there was discussion around later steps of funding and implementation.

Public Meeting #2 – February 9, 2023

- Public Meeting #2 provided an overview of the existing conditions, data, and inventory, which included the public opinion survey and Wikimap results to date. Then, the presentation focused on who we are designing for, the basis for connectivity design, and what tools can be used for connectivity improvements. Some preliminary connectivity ideas were discussed.

Committee Meeting #3 – March 6, 2023

- Committee Meeting #3 provided an explanation of how the 'Toolbox' of Improvements can be employed and how it has been applied to the Draft Plan which was presented. The presentation focused on preliminary route concepts, how cost estimates will be formulated and draft priorities for the Plan.



Towamencin Township: Sidewalk Connectivity Study

### Public Meeting #3 – April 13, 2023

- Public meeting #3 provided a draft plan of recommendations. The improvement toolbox and route concepts were presented, and a question and answer section ensued after.

### Committee Meeting #4 – June 5, 2023

- Committee Meeting #4 focused on reviewing the public feedback that was incorporated into the draft plan. A discussion then ensued about remaining comments and possible changes. The presentation continued with an update on the prioritized route scenarios based on possible TASA grant funding. Another discussion followed with questions about the plan.

### Public Meeting #4 – June 22, 2023

- Public meeting #4 revealed the final improvements plan. The improvements toolbox was reviewed and additional public input followed.



## 2.4 Outreach

As part of the process of public participation, key stakeholders were contacted, and the plan was discussed. Notes were taken during each of the stakeholder meetings listed below. Please find those notes in the appendix of the report, and a summarized version of the notes below.

### School District, Thomas Schneider, Director of Facilities and Operations

- Discussed the potential new 9th grade building on North Penn's Campus. Traffic study on Snyder and Valley Forge is being explored for a traffic signal.
- Conversed about the student population's commuting habits. Most students drive to school or get dropped off by a parent ever since the COVID pandemic.
- Talked about possible connectivity improvements for the elementary schools.

### Evansburg State Park, Bethany Hare, Park Manager

- Discussed a possible trailhead at Keibler Meadows Park for Evansburg State Park.
- Noted that Evansburg State Park is currently working with Worcester Township on Green Lane Road to develop more trails.
- Reviewed the possibility of adding a trail through the park along Hedrick Road.

### Towamencin Township, Mary Stover Township Engineer

- Reviewed several sidewalk and trail improvement projects that are in the process of being constructed.

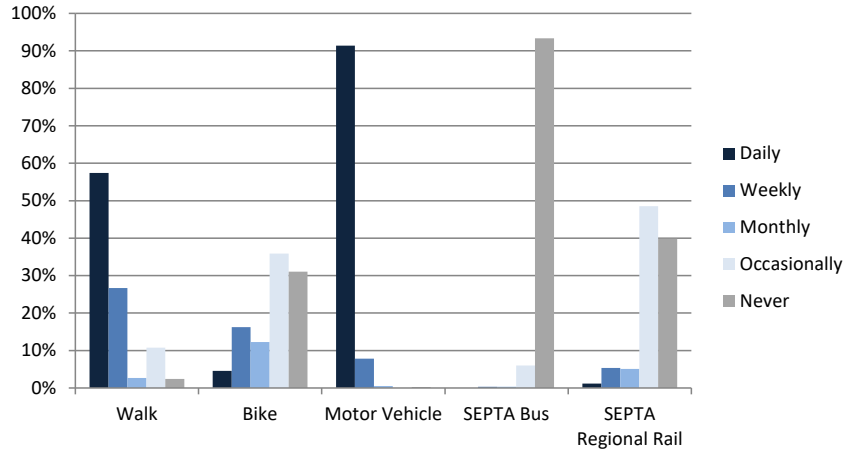


# 2.5 Online Survey

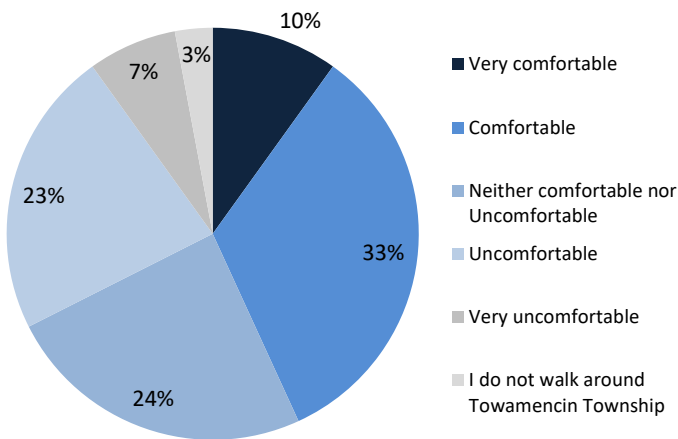
An online survey was conducted between October 2022 - April 2023. A total of 431 responses were received. The public provided responses to questions regarding household demographics, recreational habits, commuting patterns, and more. The survey also allowed users to share their thoughts and ideas related to walkability and bikeability through the Township. A few examples are as follows:

Full response data from the survey can be found in the appendix.

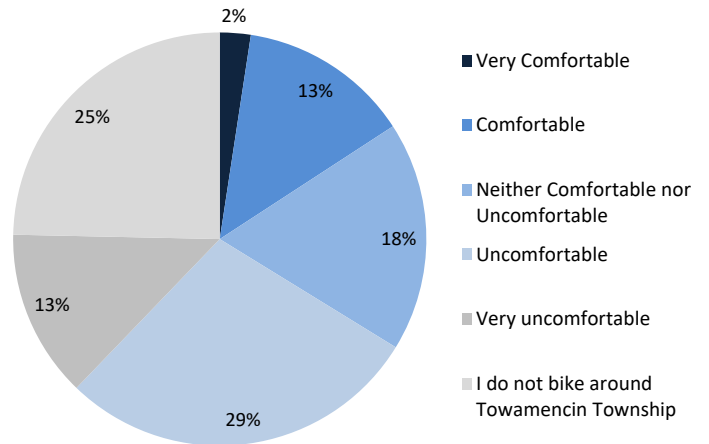
How often do you use the following modes of transportation?



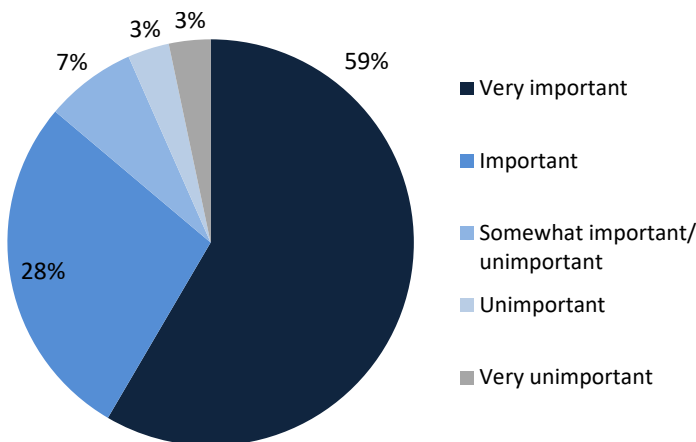
From a perspective of traffic safety, how comfortable do you feel walking in Towamencin Township?



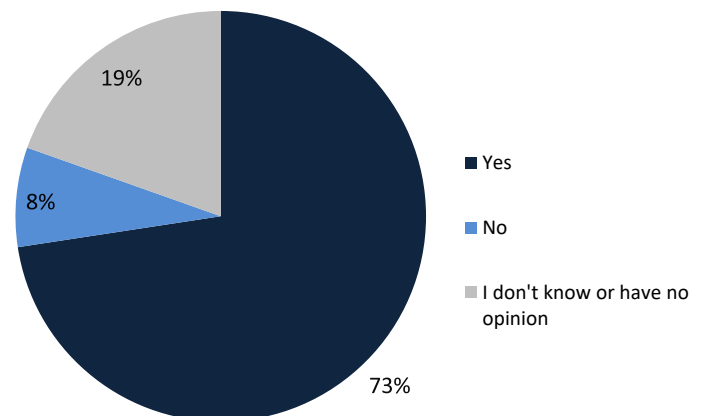
From a perspective of traffic safety, how comfortable do you feel biking in Towamencin Township?



How important are sidewalk connections and trails to the well-being of the community and quality of life in Towamencin Township?



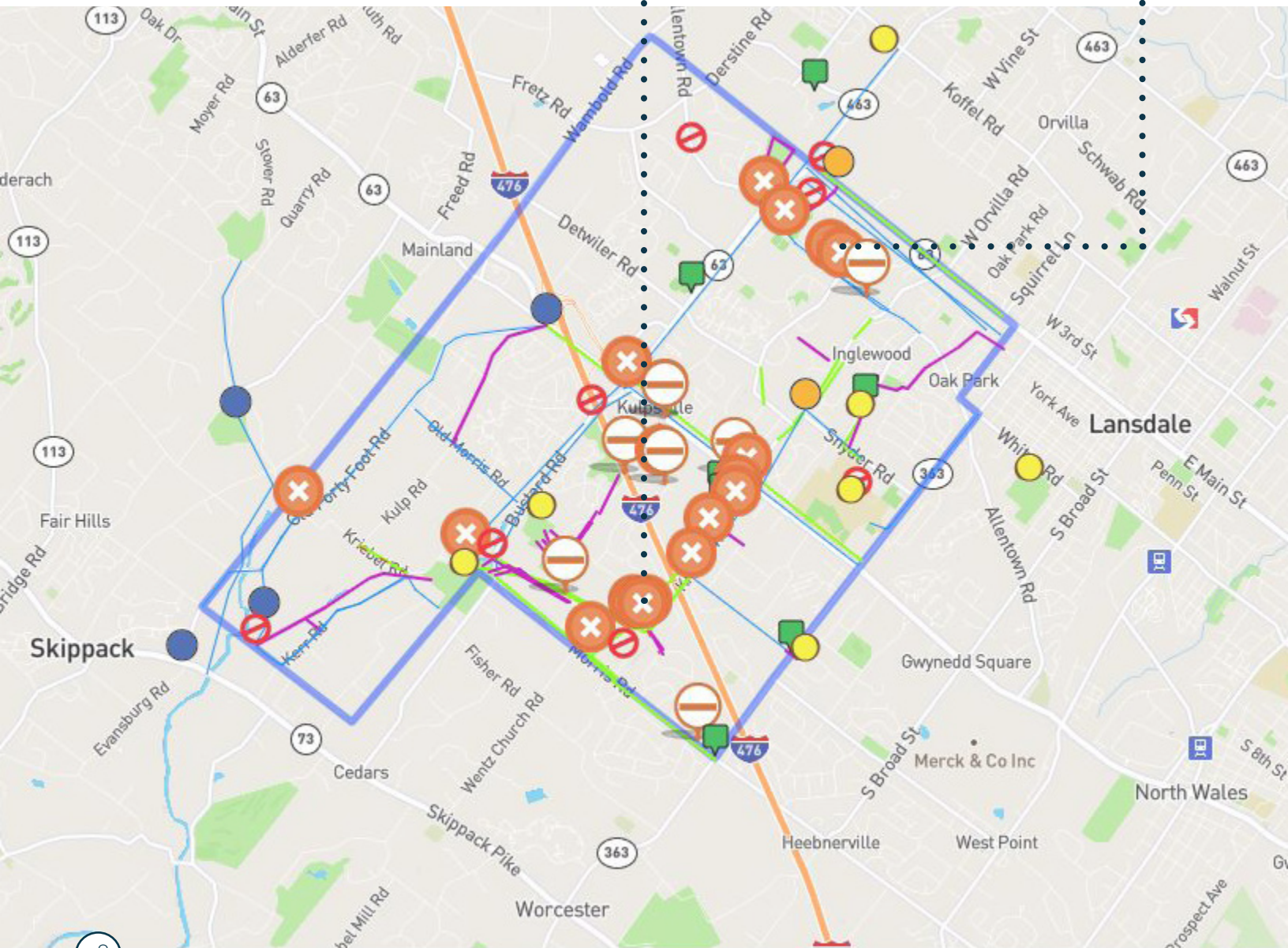
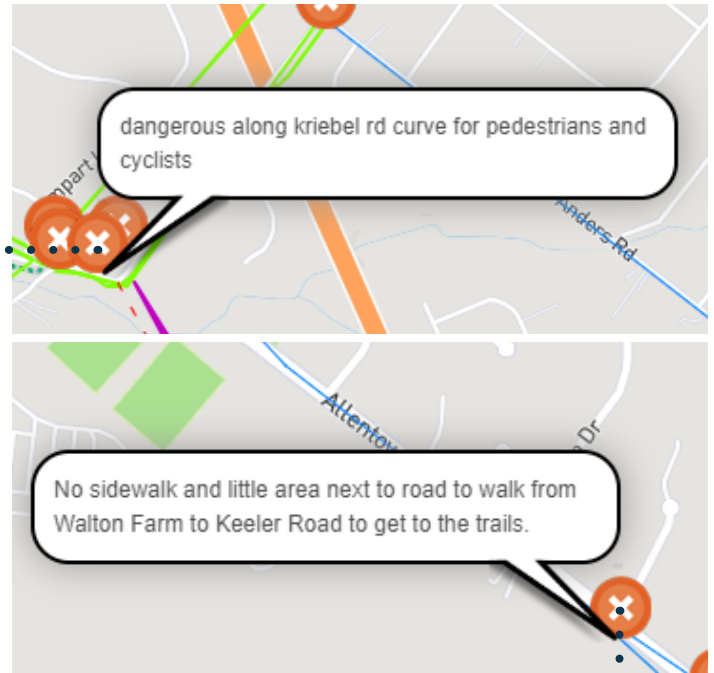
As a motorist I would accept a slightly longer travel time if that meant a safer environment for pedestrians and bicyclists.



# 2.6 Online Mapping Tool

An online mapping tool – Wikimap – was available from October 2022-April 2023. This map allowed users to place points and lines on a map. Participants could also attach comments and photos to these locations. 40 responses were received. Some examples can be found below.

Full response data from the Wikimap can be found in the appendix.





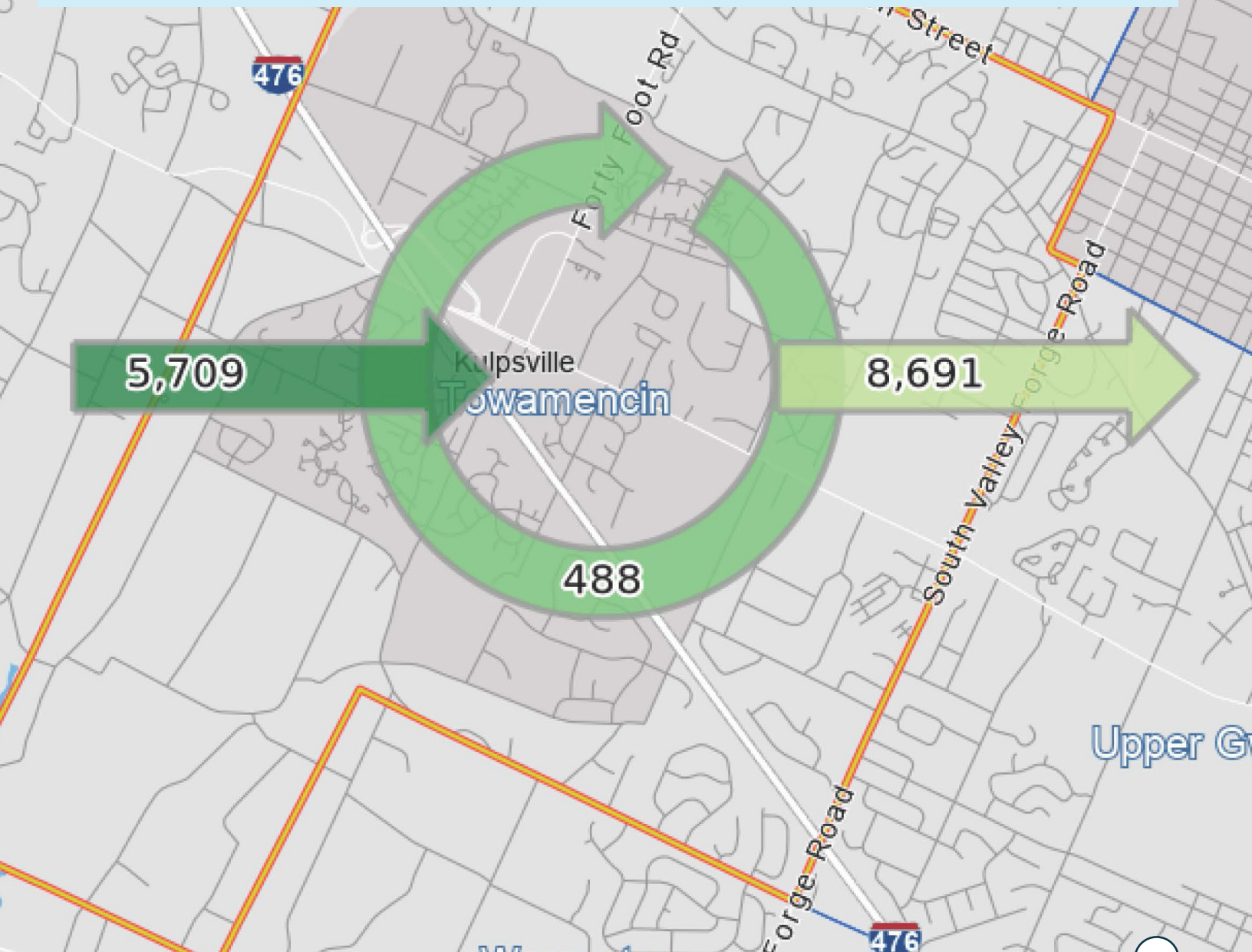
## 2.7 Demographics

According to the 2020 census, Towamencin Township has a population of 18,755 people. This population shows a 2.6% change from 18,272 in 2015. Towamencin is projected to reach 20,500 residents by 2045. It is representative of 2.2% of Montgomery County's population of 840,934. With Montgomery County projected to reach a population of 932,820 by 2045, Towamencin would continue to represent roughly 2.2% of the County's population into the foreseeable future.

The racial and ethnic composition of Towamencin Township is majority white with 76.03% of the population identifying as Caucasian. In 2010, this number was 83.39%, which shows a small, yet consistent diversification of the Township. The next largest

populations of the Township are Asian at 10.99% and African American at 5.38%. In comparison, Montgomery County is 72.18% White, 7.91% Asian, and 9.29% African American.

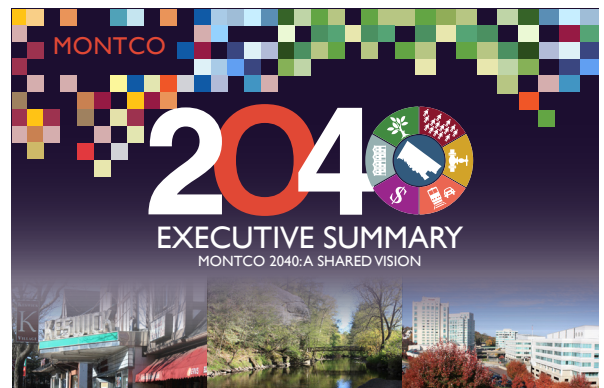
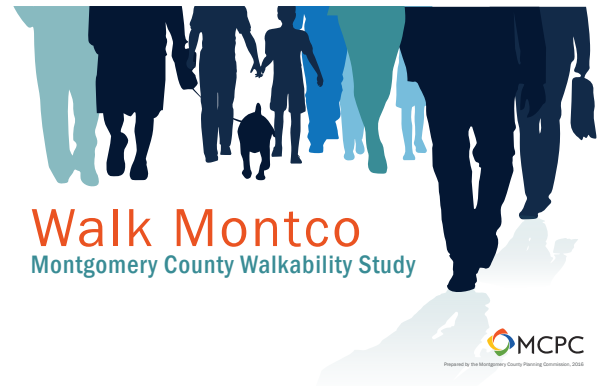
The current approximate inflow of employees to Towamencin is 5,709, while the outflow of residents who work outside of the Township is 8,691. According to the U.S Census, 448 people live and work within the Township.

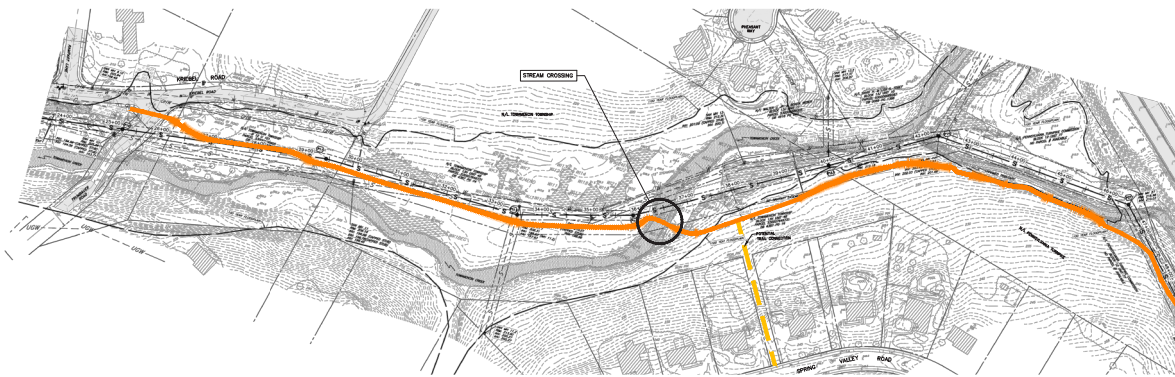
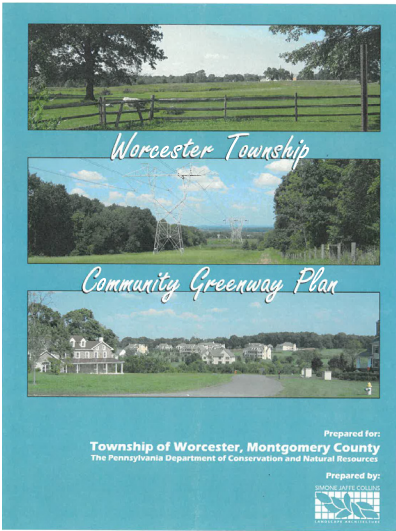


## 2.8 Relevant Planning Documents

Relevant planning documents often come from the state, county, or township level. They may also be found through planning organizations or the federal government. Below are the planning documents referred to in the preparation of the Towamencin Sidewalk Connectivity Study. Some of these documents are from surrounding communities and were used to understand existing or planned connections possible beyond the limits of Towamencin Township.

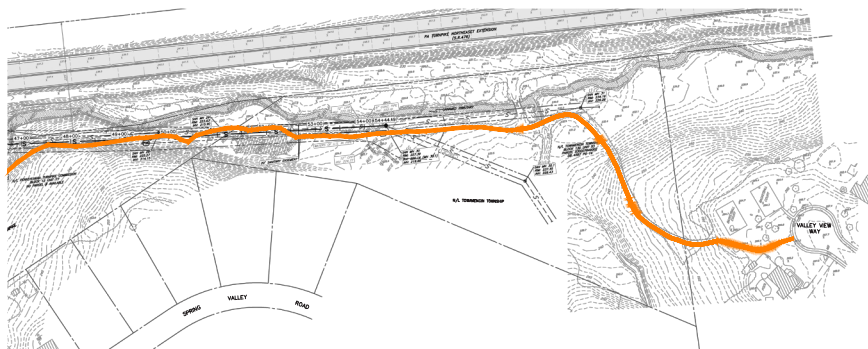
- Walk Montco, Montgomery County Planning Commission, 2016
- Bike Montco, Montgomery County Planning Commission, 2018
- Montco Executive 2040 Executive Summary
- Parks and Trails System Evaluation, Simone Collins Landscape Architecture, 2019
- Kriebel Road Fischer Park Trail Plans, Gilmore & Associates, 2022
- Allentown Road Evaluation, McMahon Transportation Engineers & Planners, 2022
- Transportation Impact Study for Proposed 9th Grade Center at North Penn High School, Heinrich & Klein Associates Traffic Engineering & Planning, 2022
- Wambold Road Tract – Phase 2 Plans, STA Civil Engineers & Land Surveyors, 2021
- Core5 at Park 31 Land Development Plans, Cornerstone Consulting Engineers & Architectural
- Worcester Township Community Greenway Plan, Simone Collins, 2004
- Lansdale Borough 2040 Comprehensive Plan, 2020
- Upper Gwynedd Township 2040 Comprehensive Plan, 2021





PLAN  
STA. 25+00 TO 48+00

LEGEND:  
KRIEBEL ROAD TO VALLEY VIEW WAY TRAIL ROUTE  
POTENTIAL TRAIL CONNECTION



PLAN  
STA. 48+00 TO VALLEY VIEW WAY

TRAIL INFORMATION  
APPROXIMATELY 4,000 L.F.  
ONE (1) SIGNIFICANT STREAM CROSSING  
ONE (1) MINOR WETLAND CROSSING

These Kriebel Road Fischer Park Trail Plans show locations of the partially installed trail, including a stream crossing and a potential trail connection

## 2.9 Site Reconnaissance

The consultants conducted initial site reconnaissance on foot and by car on October 3rd, 2022. The consultant team spent time on the major roadways and thoroughfares to better understand the pedestrian, bicycle, and vehicular challenges in Towamencin.

The consultant team returned to Towamencin for a second site reconnaissance on December 2nd, 2022. The consultants toured the Township's park and school system by car and on foot to review potential connections. Additional site visits were conducted in the subsequent weeks to check field conditions.

Important data was recorded on field maps and later used to determine placement of proposed improvements. Many photographs were taken of existing conditions in Towamencin and provided valuable reference during refinement of the draft improvement plan.





# 2.10 Existing Conditions

Existing conditions provide a basis for further analysis and provide context for the project. A map of existing conditions can be found on page 27.

## 2.10.1 Land Use

Towamencin Township is mostly residential, containing several pockets of mixed-use, institutional and commercial uses, as well as several open spaces. The Township parks system is comprised of approximately 215 acres spread over 13 park sites.

There is one large piece of agricultural land left in the Township called Freddy Hills Farm which is located on Sumneytown Pike. This is also the location of a mini golf establishment and an ice cream store. Non-motorized connections to these lands should be planned for now since future use of these lands is uncertain.

## 2.10.2 Roadways

Towamencin Township is bounded by Welsh Road to the north, Morris Road and Hedrick Road to the south, Wambold Road to the west, and South Valley Forge Road to the east.

Forty-foot Road and Bustard Road bisects the Township and runs from Hatfield Township in the north to Worcester Township in the south. Sumneytown Pike also bisects the Township and runs from Upper Gwynedd Township in the east to the I-476 Interstate / Turnpike Ramp located in the westside of the Township. The Pennsylvania Turnpike

(I-476) cuts through the center of Township in a southeast direction.

Welsh Road, Wambold Road, Forty Foot Road, Bustard Road, South Valley Forge Road, and Sumneytown Pike (west of Forty Foot Road) are all Pennsylvania Department of Transportation (PennDOT) roads. Other notable thoroughfares and PennDOT roads include Allentown Road, Old Forty Foot Road, and Troxel Road.

## 2.10.3 Sidewalks

Towamencin Township possesses a relatively well-developed sidewalk network compared to other suburban townships of similar size. Based on the Delaware Valley Regional Planning Commission (DVRPC) GIS inventory data, the sidewalk network is most complete along the Forty Foot Road corridor and some nearby neighborhoods.

Sidewalk gaps and missing connections to schools, commercial areas, and other destinations exist on the collector roads on the periphery of several of these neighborhoods.

The residential areas most affected by these gaps are those separated off by the major thoroughfares. These areas include, but are not limited to:

- The residences between Sumneytown Pike and I-476;
- The neighborhoods between the Lansdale interchange and Bustard Road;
- The neighborhoods and commercial areas around Allentown Road, Welsh Road, and Forty Foot Road;
- The residences between Allentown Road and Sumneytown Pike.



## 2.10.4 Trails

The DVRPC inventory map and other GIS inventory also identifies several existing trails within the Township. One of the most popular trails within the Township is the loop trail within Fischer's Park. Other linear trails can be found at Firehouse Park and along a segment of Kriebel Road – between Trumbauer Road and Green Lane Road. Also, there are trails located within two private developments: in the Morgandale development (off of Forty Foot Road) and the commercial office at the intersection Sumneystown Pike and Bustard Road.

Towamencin Township has plans to extend the Kriebel Road Trail (KRT) on both the east and west ends. The side extending east is under construction and will connect into Valley View Way. The plans for extending the trail to the west are set to be built in the near future, and will connect to Green Lane Park and the Municipal Sewer Authority site.

Montgomery County has a planned multiuse trail running through Evansburg State Park, which is ultimately planned to tie into the Perkiomen Trail. This trail has been in the County's plans for decades, however it has seen no progress toward implementation. A portion of this planned trail runs through the south-west corner of the Township, and should be evaluated for proposed connections.

The Liberty Trail is another planned County trail located near the Township. Currently a section of the trail runs in Hatfield Borough, and another section runs through Lansdale Borough. The sections are planned to connect and extend beyond into adjacent townships.



## 2.10.5 On-Road Bike Routes

The Township has existing on-road and off road biking routes. Existing trails are noted on the proposed improvements plan.

## 2.10.6 Public Transportation

Currently, the only public transportation within the Township is the 132 SEPTA bus, which runs along Welsh Road, the Township's northern border. The bus connects to Lansdale Borough and Hatfield Borough, via Forty Foot Road.

SEPTA regional rail stations are located within close proximity to Towamencin in Lansdale Borough. The closest stop that would appeal most to Township residents is the Lansdale Regional Rail stop located on Main Street in the borough.

## 2.10.7 Parks and Open Space

There are seventeen parks or open spaces within Towamencin Township. These parks are in three categories: Township Parks, Township Open Space, and a State Park. Township parks may have active recreation features such as trails, sports fields, and built facilities. They can be larger community parks such as Fischer's Park, or smaller neighborhood parks such as Drinnon Way Park and Heebner Way Park.

Township Open Space represents designated public space that has more passive uses. Kiebler Meadows Park and the land surrounding the new Kriebel Road Trail are examples of Open Space. The northernmost tip of Evansburg State Park is in the southern portion of Towamencin Township. The park is over 3,000 acres and welcomes hikers, equestrians, and hunters. Currently, there is no formal access into the State Park's trail system from Towamencin Township.



## 2.10.8 Schools

Towamencin Township is home to six (6) schools. Four (4) of these schools are part of North Penn School District. These include Inglewood Elementary, Nash Elementary, Walton Farm Elementary and North Penn High School. The two remaining schools, Dock Mennonite Academy, and Calvary Baptist are private. Dock Mennonite accommodate grades 9-12 while Calvary Baptist hosts kindergarten through twelfth grade.

## 2.10.9 Institutional Parcels

The Township has several institutional parcels, such as: the Township municipal building, churches, day care centers, and the North Montco Technical Career Center.

## 2.10.10 Housing

Most of the housing types in Towamencin are single-family detached homes. The density of the homes gets higher in the central portion of the Township, and the north-east portion that approaches Lansdale Borough.





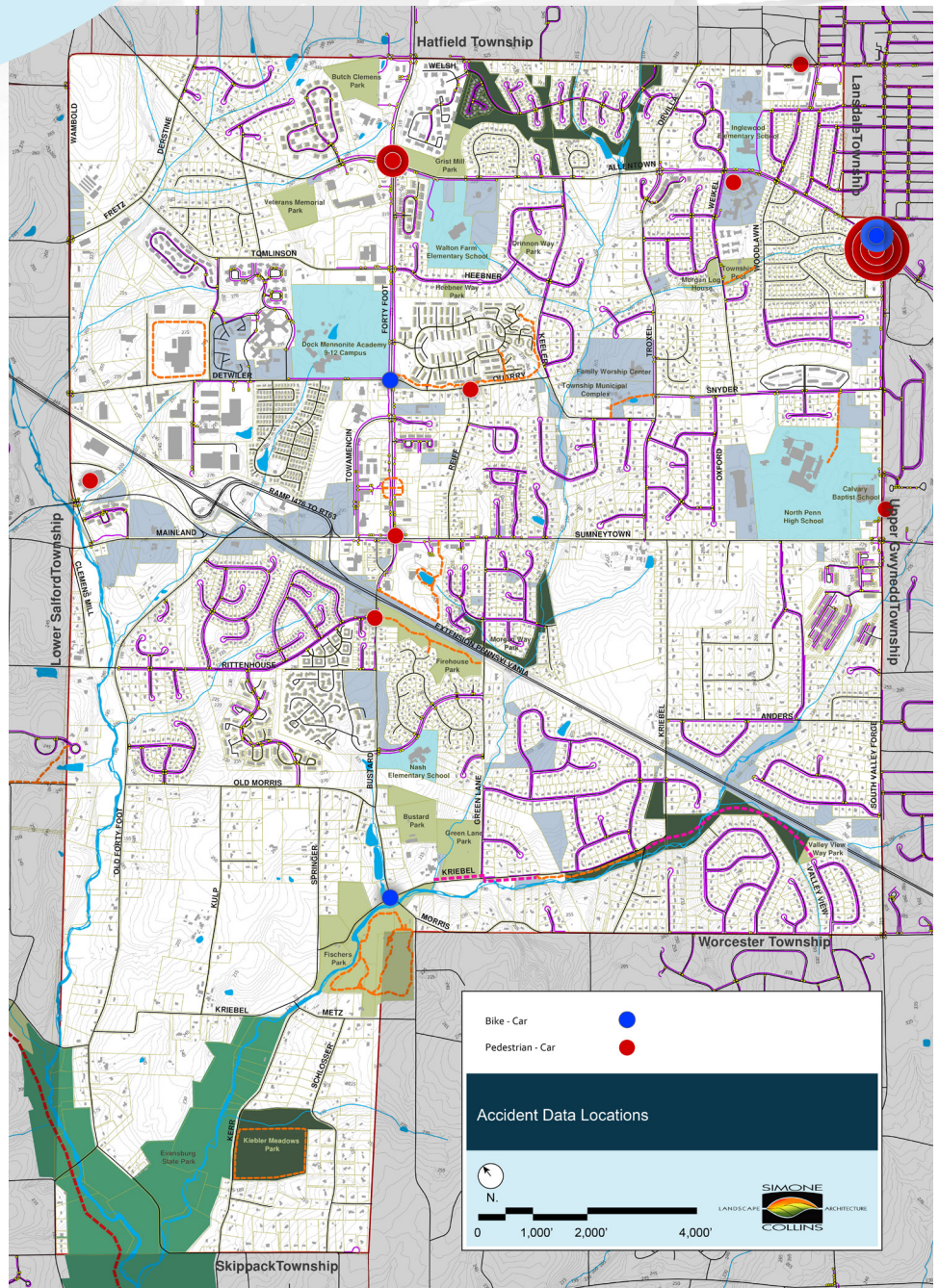


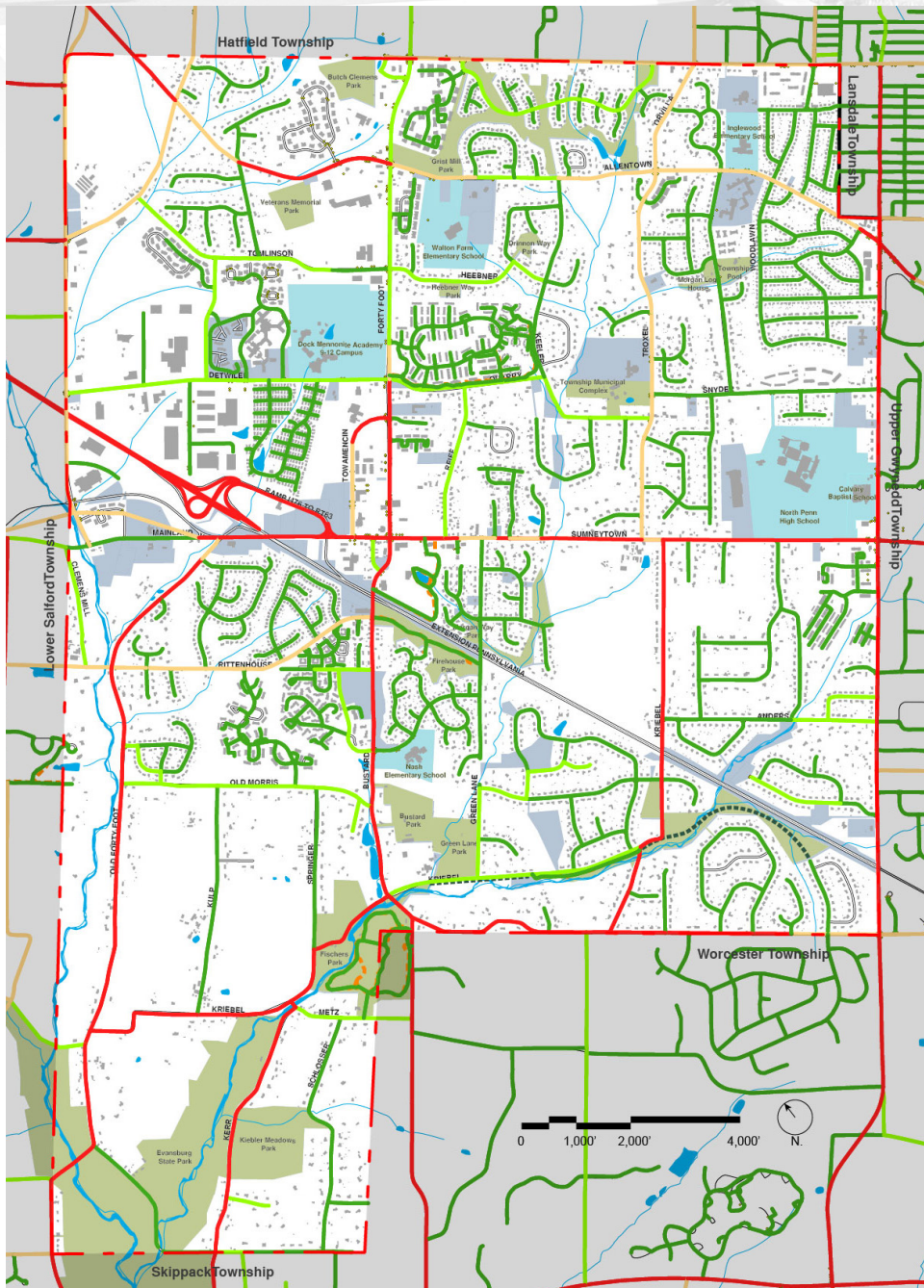
# 2.11 Analysis Maps

Analysis was conducted based on the Township's existing conditions, public participation, and collected data. The combined information was used to create the following maps, which can be used as planning tools.

## 2.11.1 Pedestrian and Cyclist Accident Data (2018-2022)

Data from Towamencin Township Police Department showing incidents involving pedestrians and bicyclists is shown in the following map. Accidents involving vehicles and pedestrians are shown in red, while vehicle and bicycle accidents are shown in blue. Each of these locations were scrutinized by the consultant team for potential pedestrian and bicycle safety improvements.





## 2.11.2 Level of Traffic Stress

The Delaware Valley Regional Planning Commission (DVRPC) developed a tool which measures the level of traffic stress based on number of lanes, vehicle speed, and bicycle facilities. This is used to determine what the estimated experience level of riders should be for specific roads.

The roadways in green are the lowest stress routes (most comfortable) for pedestrians and cyclists, roadways in yellow are mildly stressful, and roadways in red are the most stressful for multi-modal transportation (least comfortable).

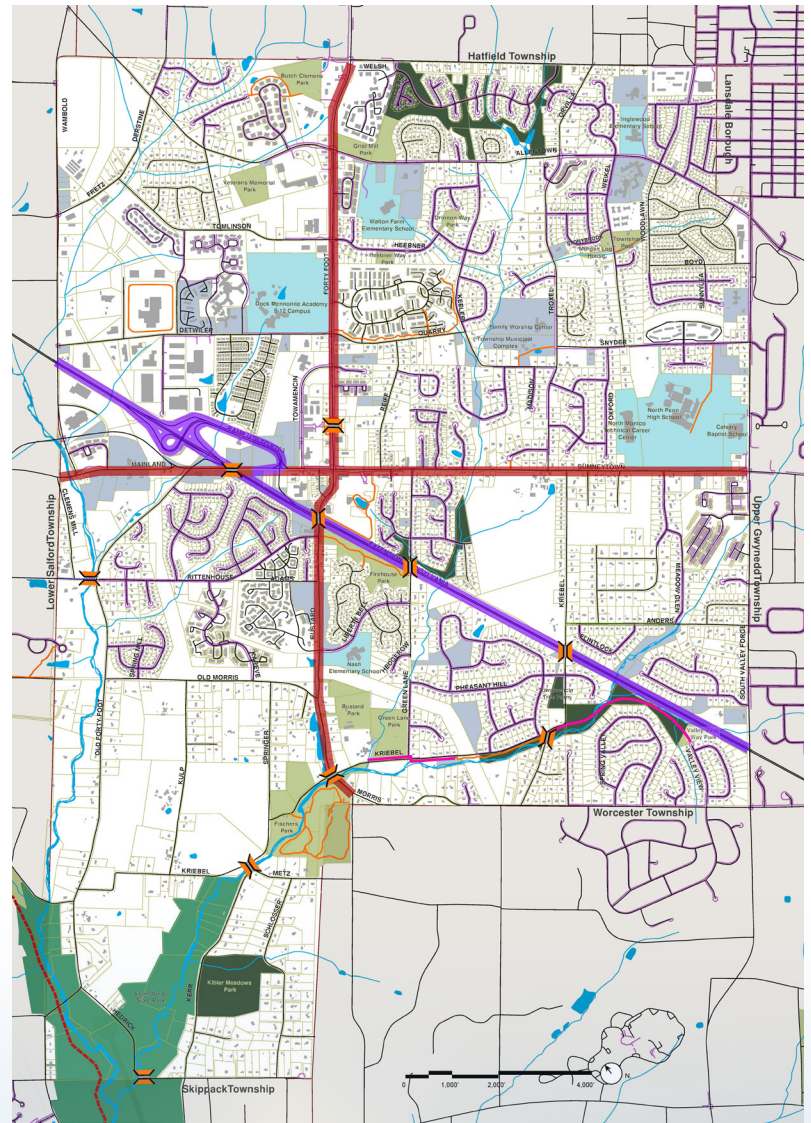
This data was combined with STRAVA data (see page 31), survey results, collision data, and other data to determine routes best suited for pedestrians and cyclists.

### 2.11.3 Barriers to Connectivity

Major highways, highly-trafficked roads, and waterways are often barriers to multi-modal connectivity. Based on the opinion survey and the DVRPC level of stress data, several roads in Towamencin Township were identified as “barriers,” or roads residents are concerned with pedestrian and/or bicyclist safety.

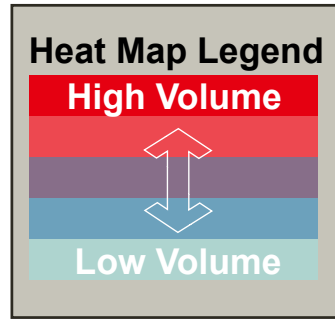
The graphic to the right highlights I-476 in purple as a major barrier that slices the Township in half. The high-trafficked roads that concern residents are highlighted in red and begins to demonstrate how the roads divide the neighborhoods.

The bridges on this map show where existing bridges or underpasses are located for vehicles to pass under or over the “barrier” roads or waterways. The wide shoulders on bridges and/or underpasses present opportunities for pedestrian and bicyclist access improvements.

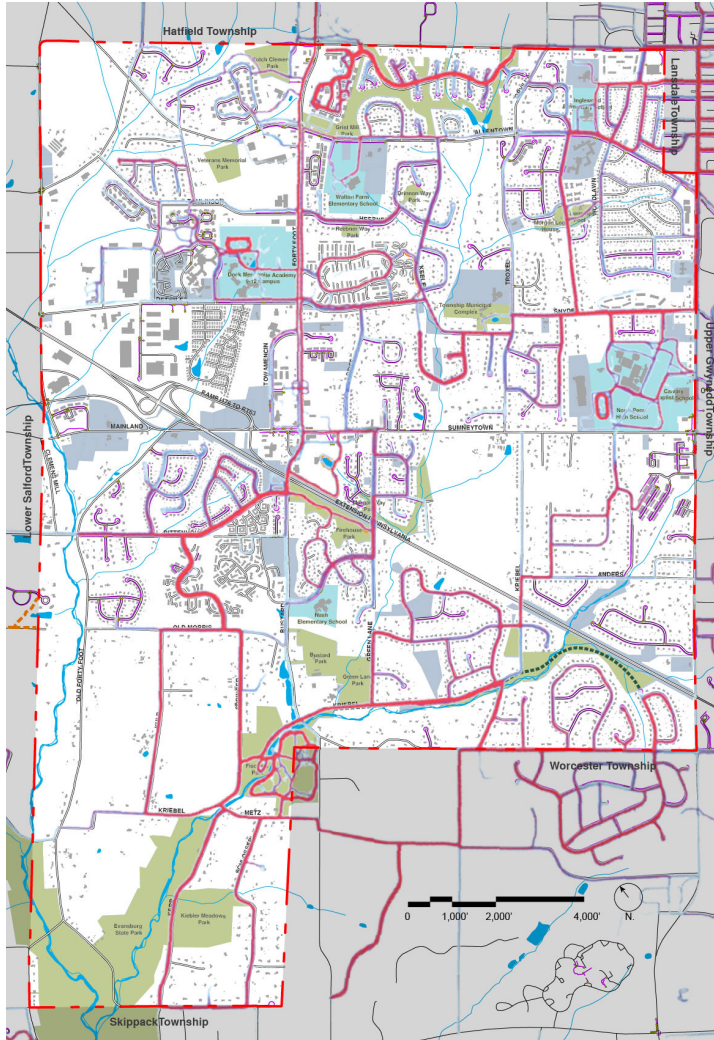


## 2.11.4 STRAVA Run & Bike

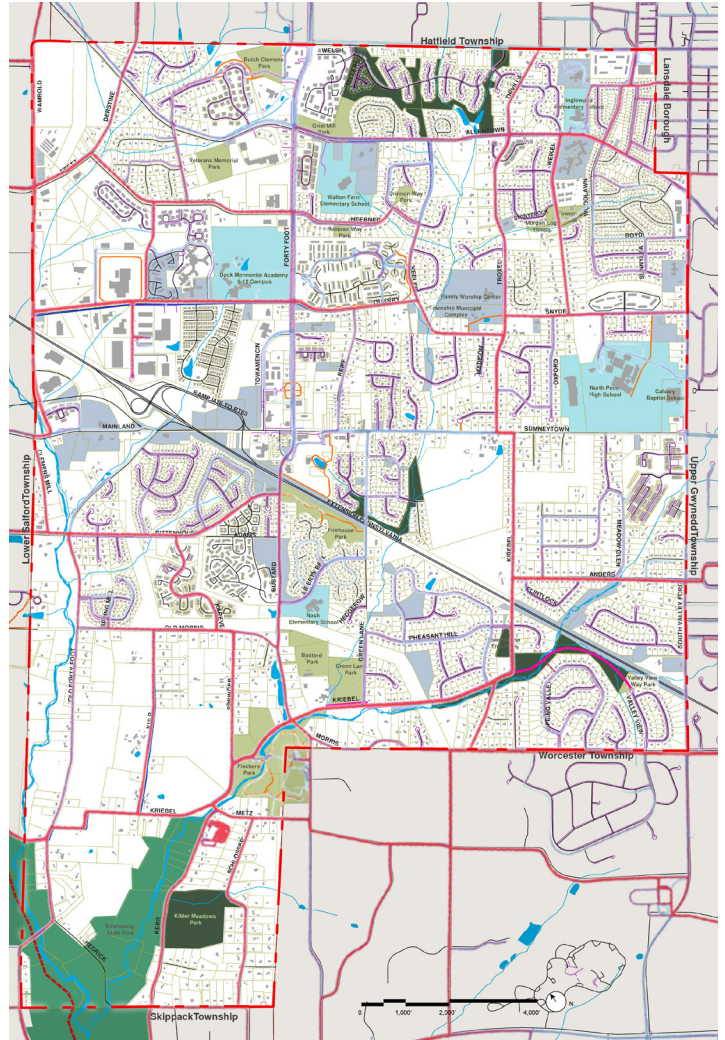
Strava is an app that athletes use to track exercise. The heatmap below shows use patterns made by aggregated activities, such as running and bicycling, over the last year. The heatmap is updated monthly. Although the data is made up of mostly experienced runners and cyclists, the platform provides insight to the most well-traveled and potentially safest routes to utilize for future pedestrian and bicycle improvements.



Run



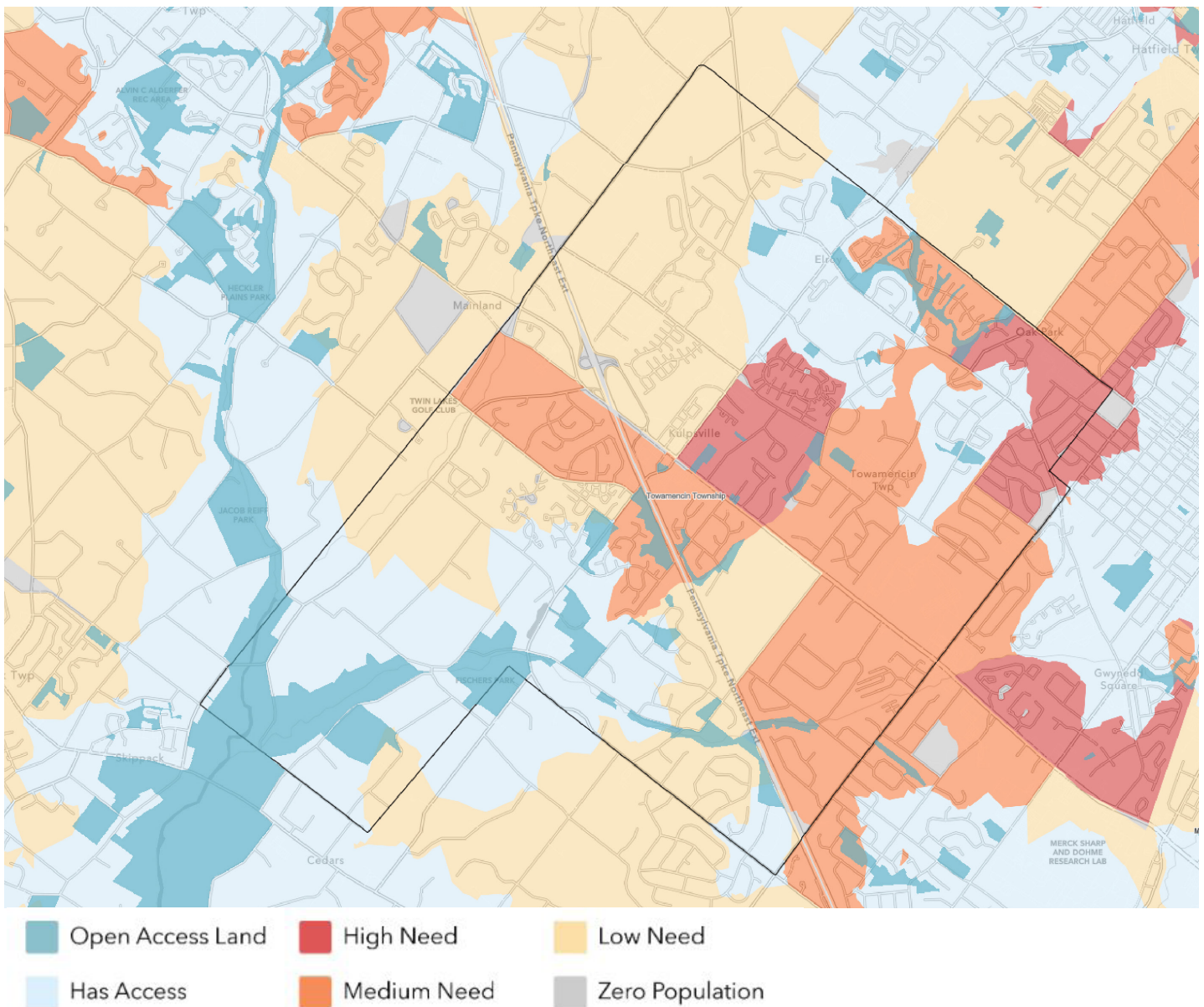
Ride



## 2.11.5 DCNR Underserved Areas

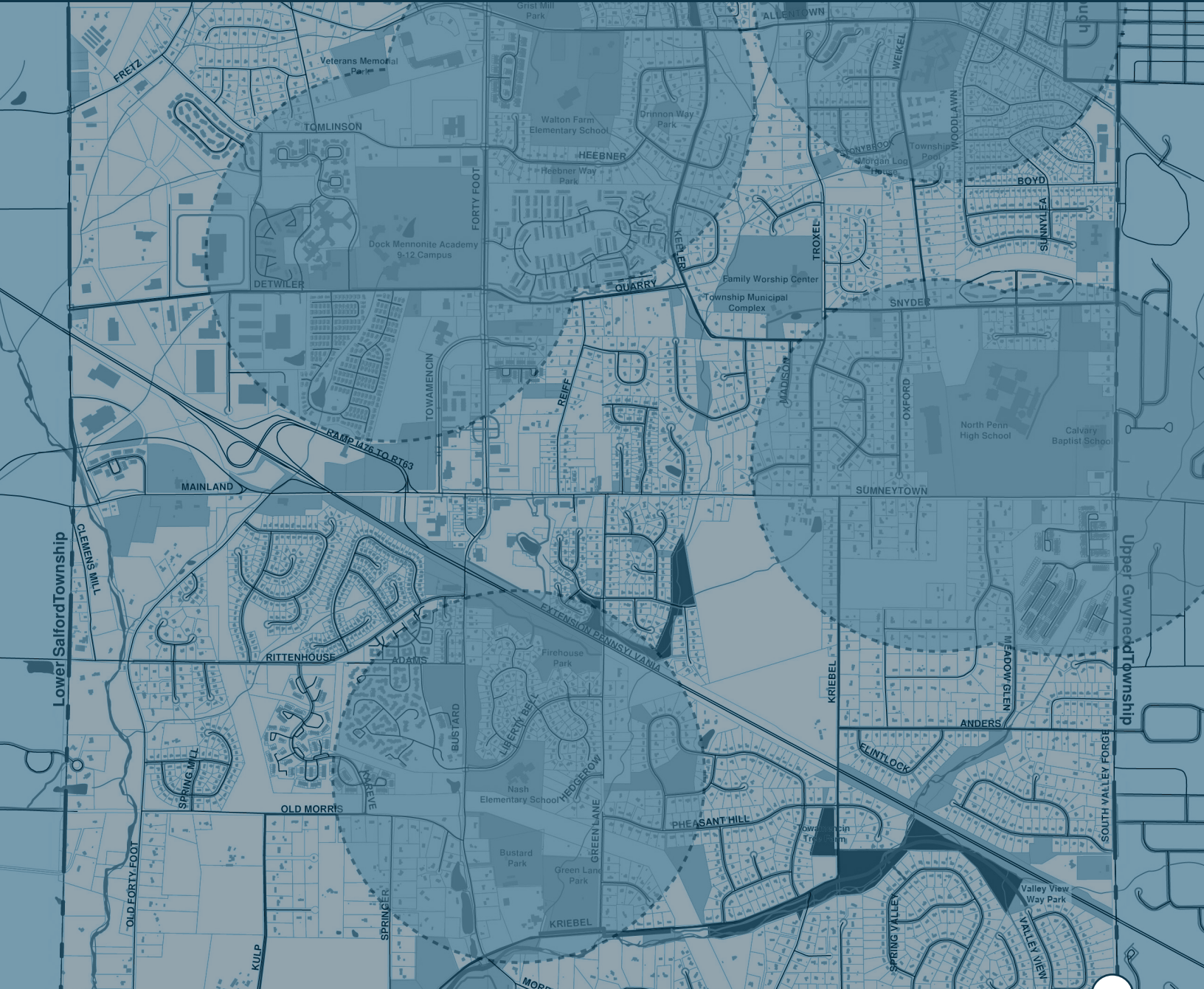
The Pennsylvania Department of Conservation and Natural Resources (DCNR) provides a tool which illustrates the need for access to parks, trails, and open space. The analysis is based on a 10-minute walk or vehicle ride to these trail and park/open space destinations. While geographic proximity plays a part in travel time, it is important to note that the previously mentioned barriers create longer and often more difficult routes to these destinations.

Please note that the consultant focused on reviewing the underserved areas in orange and red, which represented areas of medium and high need.



# 2.12 Radial Service Area Analysis

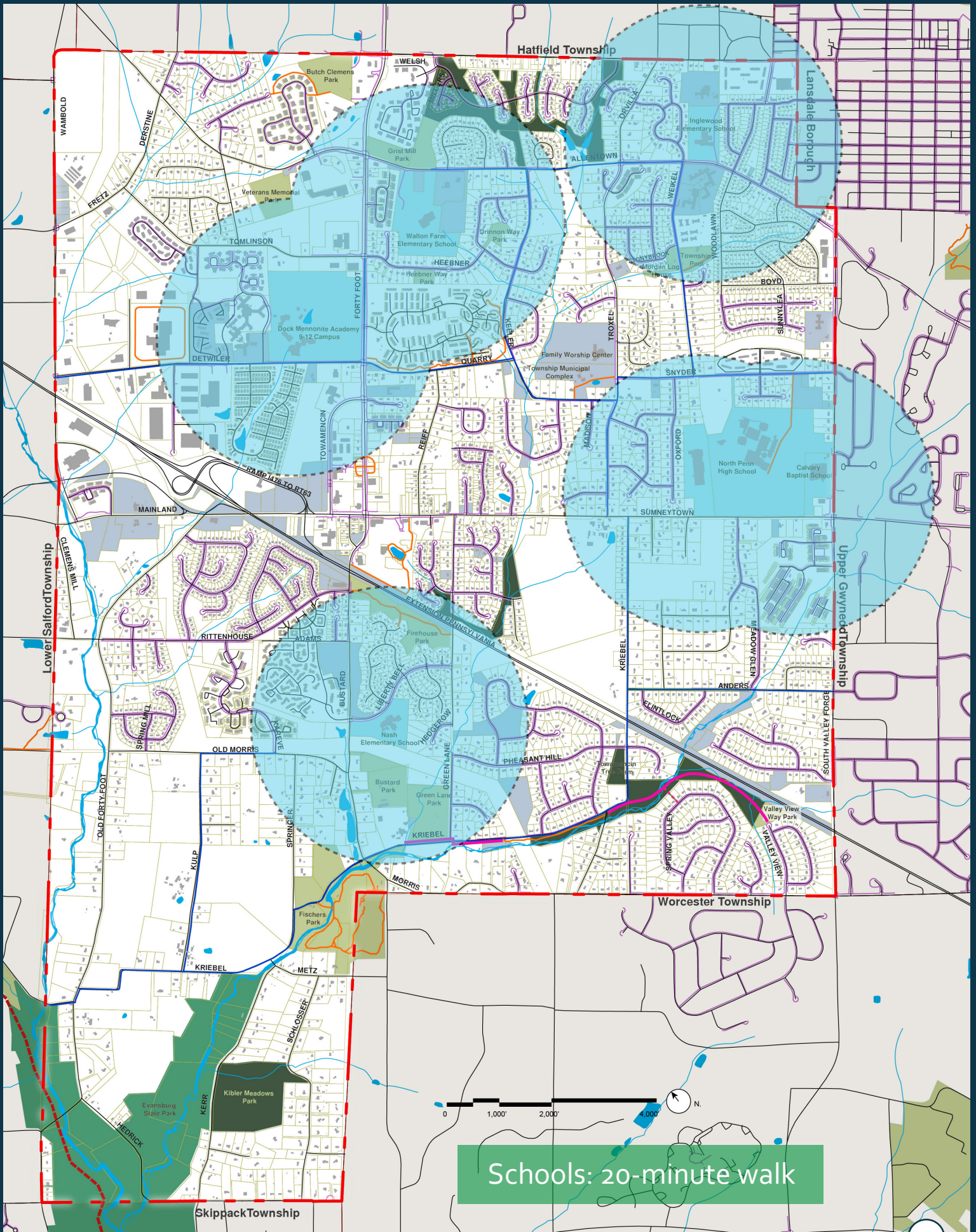
The following 'service area' graphics display specific radiuses around destination areas: schools, parks, commercial areas, and public transportation. Currently, these destinations exist in isolation with no clear routes connecting residents in Towamencin to them. All roads with the service areas have been analyzed for the best possible improvements to allow residents to walk or bike to a destination efficiently and safely.



## 2.12.1 Schools:

The service areas represented on the following page show a one-mile radius around school entrance points. This distance shown represents an approximate walking time of 20 minutes, or a 5-minute bike ride. Evaluating the roads within all the service areas allows for a potential safe school route to be defined.





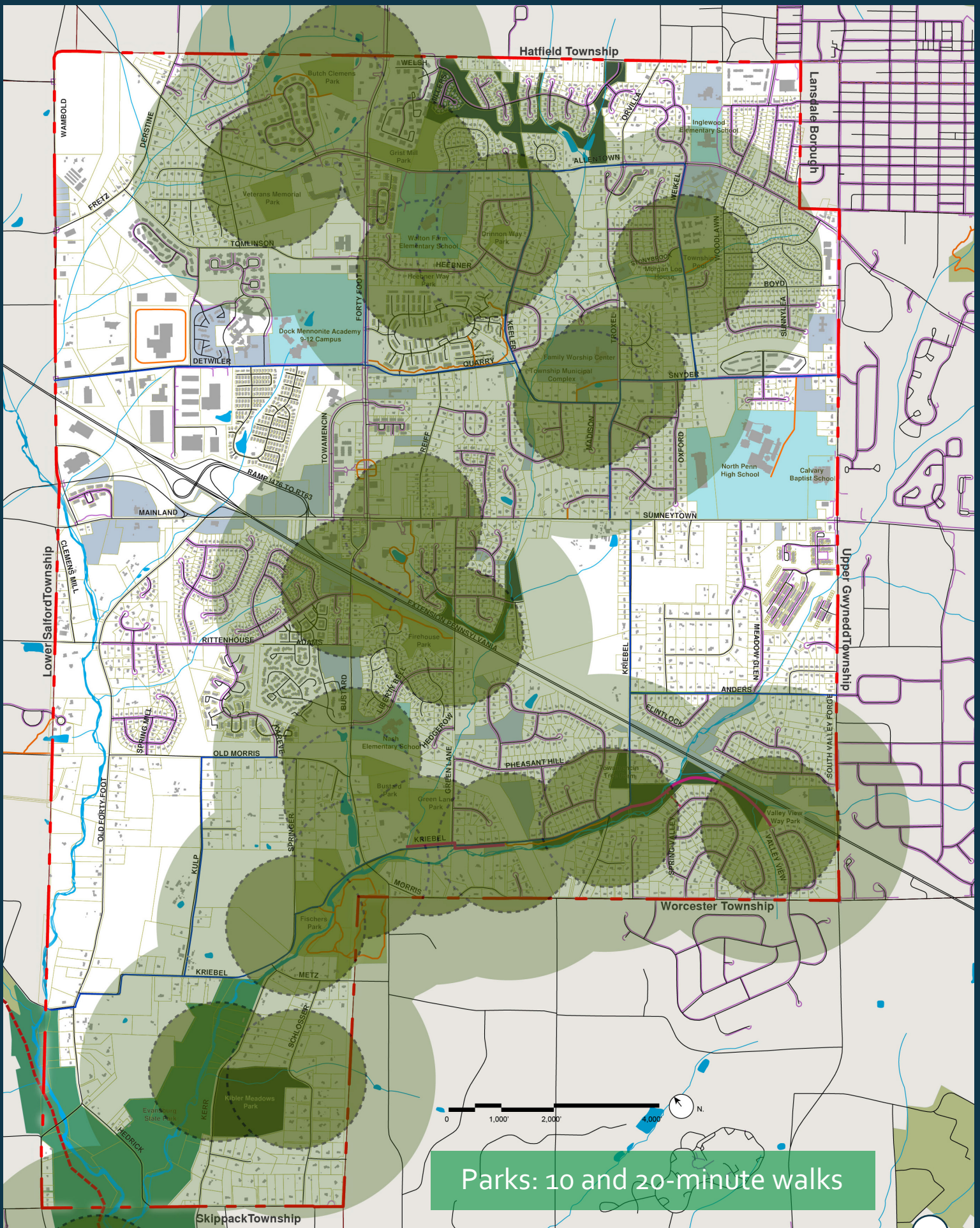
Schools: 20-minute walk

## 2.12.2 Parks:

The darker green symbol in the following map represents a half-mile radius around Township parks. This distance correlates with the DCNR “10-minute walk” initiative. The surrounding, lighter shade of green shows a one-mile radius, which represents a 20-minute walk or 5-minute bike ride. The purple lines highlight roads that fall within the service area and provide a connection from a park trail entrance to the next intersection or road break.

This representation helps define where connections within the service areas could be made to provide access to and between parks.





Parks: 10 and 20-minute walks

### 2.12.3 Commercial Areas:

The stars on the following map denote general areas where clusters of commercial uses are located within and outside of the Township. A one-mile radius has been set around each of these points, which represents a 20-minute walk, or 5-minute bike ride.

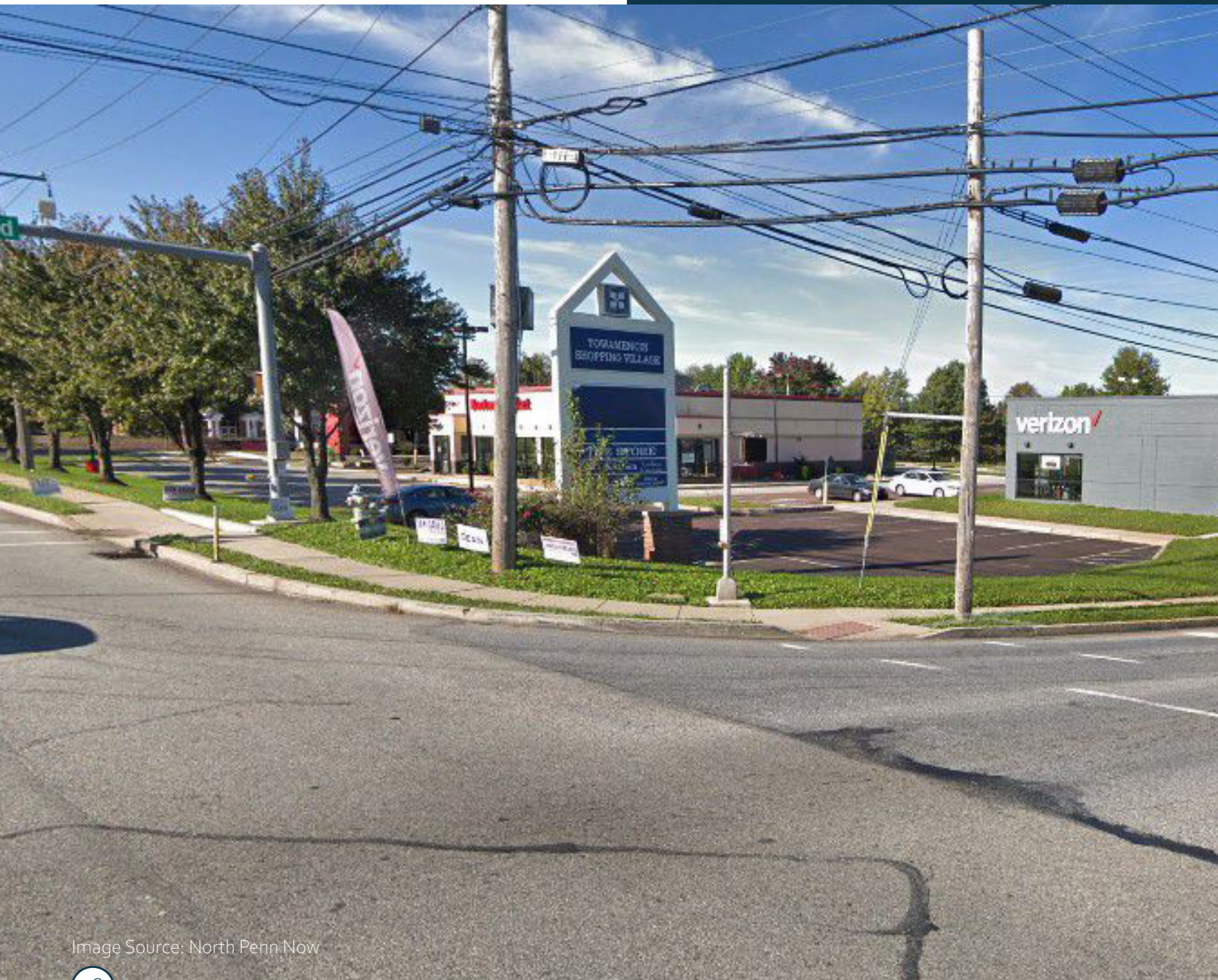
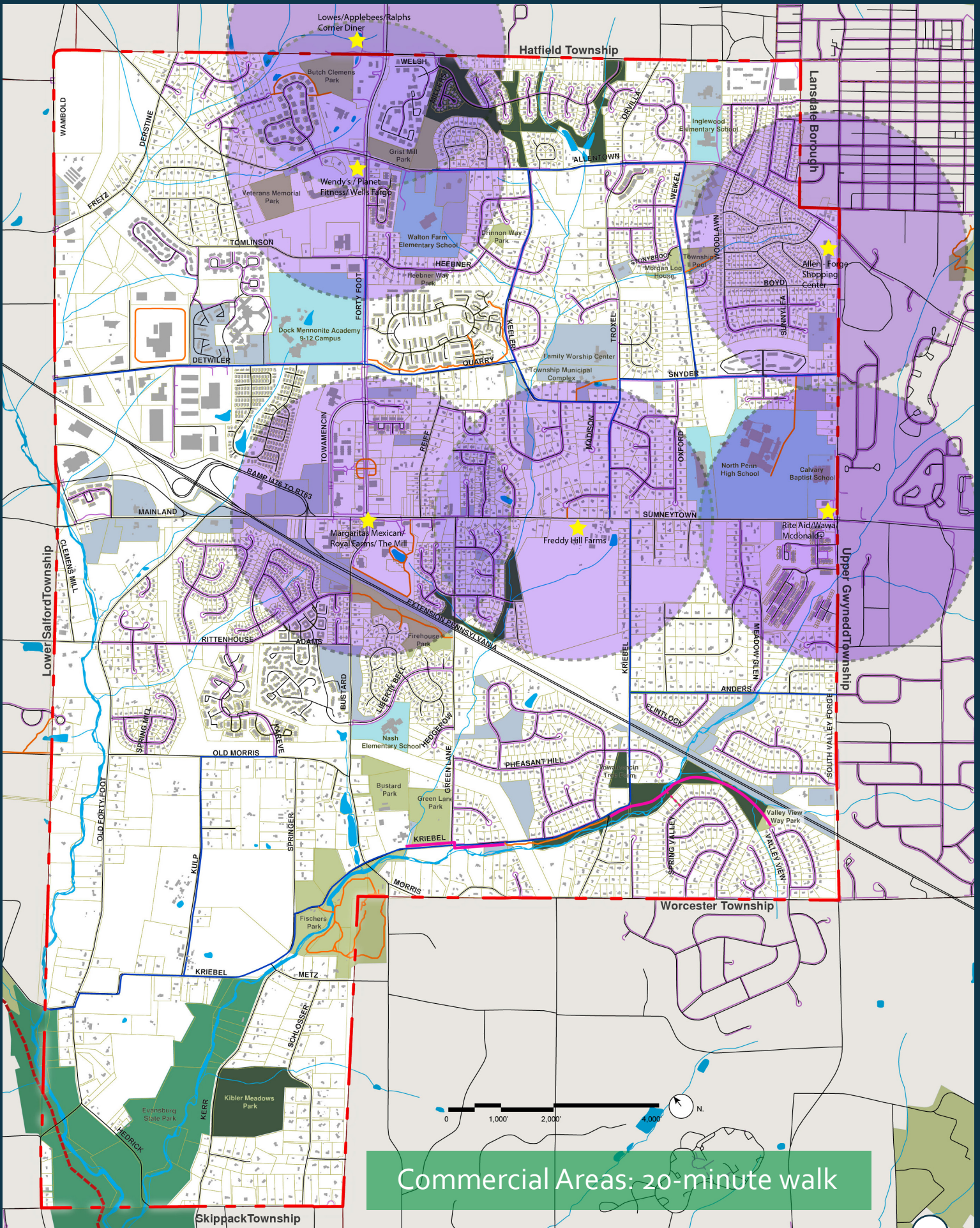


Image Source: North Penn Now



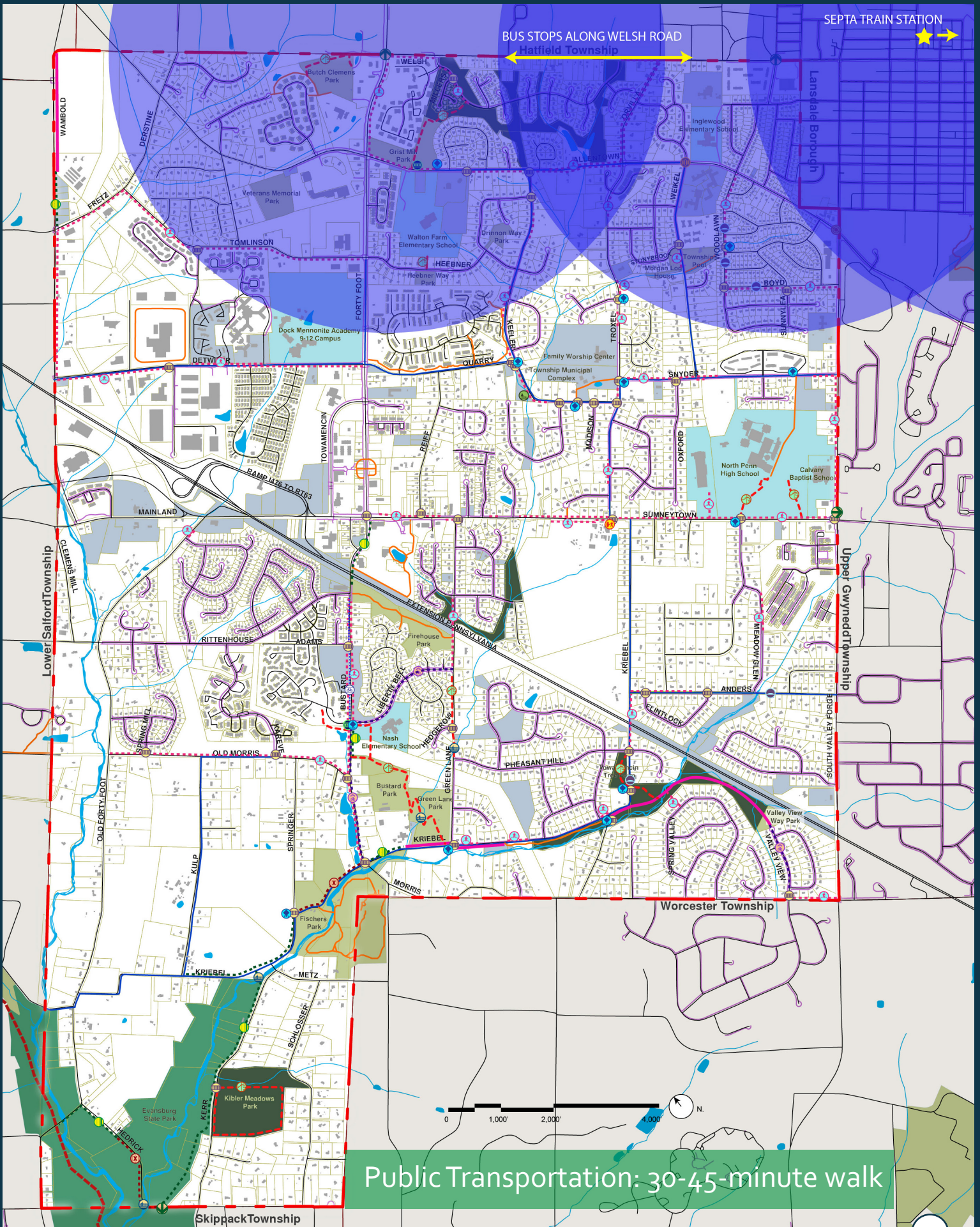
Commercial Areas: 20-minute walk

## 2.12.4 Public Transportation:

The following map shows a two-mile radius around bus and rail stops, which represents an approximate 30-45 minute walk, or a 10-minute bike ride. The service area on these destinations is set higher than the others because it is a part of the consultant's due diligence to provide multiple forms of transportation to a wider cross section of Township residents. This analysis provides information on which populations would benefit from improvements providing safe routes for travel beyond the Township.



Image Source: Philadelphia Inquirer









# RECOMMENDATIONS

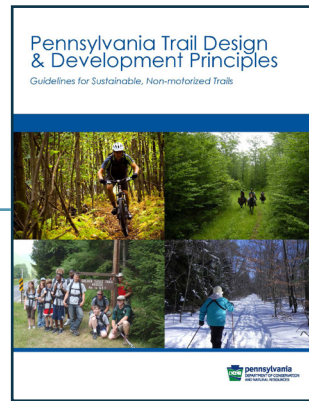
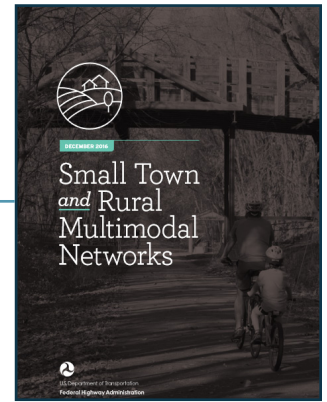
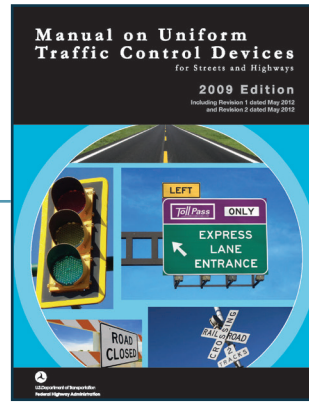
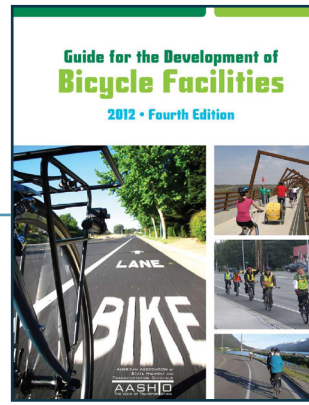
3

# 3.1 Trail Design Guidelines

Trails improvements are designed based on standards created to maximize the safety of their users. These standards are developed by national and local organizations. Examples of these standards and manuals can be found below:

- The American Association of State Highway Transportation Officials (AASHTO)
  - Guide for the Development of Bicycle Facilities
- Federal Highway Administration (FHWA)
  - Manual on Uniform Traffic Control Devices (MUTCD)
  - Small Town and Rural Multimodal Networks
- Department of Natural Resources (DCNR)
  - The Pennsylvania Trail Design and Development Principles
- The National Association of City Transportation Officials (NACTO)
  - Urban Bikeway Design Guide

AASHTO and FHWA standards are federally recognized and should be adhered to for all on-road and multi-use trail improvements. DCNR guidelines are recognized at the state level and provide techniques for sustainable design methods that make use of natural systems. NACTO is an association of North American cities and transit agencies formed to ideate on transportation issues. Their standards provide insight into the design of safe and accessible streets.



## 3.2 Vision Zero

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero has proved successful across Europe, and is now gaining momentum in American towns and cities. The guidebook provides foundational elements and actionable strategies for any community to incorporate into their transportation network.

# VISION ZERO



## 3.3 Connectivity Improvement Features

The improvements plan captures all the high-level improvements necessary to help the Township begin to strengthen their multi-modal network. All improvements have applications or features folded into them that must be designed and engineered in order to be implemented correctly. The following applications are not identified as a 'tool' in the improvements plan, but should be recognized as a supporting improvement feature.



### 3.3.1 Signage

Signage can be provided along the road or trail under many applications and scenarios. Signage informs motorists to watch out for bicyclists on the roadway. Manual on Uniform Traffic Control Devices (MUTCD) standards: Share the Road (W11- and W16-1P) signs have been replaced with "Bicyclist May Use Full Lane" (R4-11) signs; Place signs at the beginning of the bike route, roadway intersections, and throughout the segment where deemed required, and at the end of the bike route. There are many other applications where trail signage is necessary and appropriate and should be included when proposed improvements advance to full engineering.



### 3.3.2 ADA Curb Ramps

An ADA curb ramp is a sloped section through a curb that individuals use to transition up from the street to the sidewalk or vice versa. More specifically, an ADA curb ramp aides as an accessibility route for people with mobility issues. The Americans with Disabilities Act (ADA) has extensive laws, regulations, and standards set for the design and construction of the ramps at intersections.

The ADA curb ramps within the Township are documented and mapped by DVRPC. Based on the data, the Township has an extensive network of existing curb ramps. Through site reconnaissance, some curb ramps in the Township should be re-evaluated based on the current ADA standards.

As the Township begins to implement some of the accessibility tools presented in this document, ADA curb ramps should accompany the design where needed.



### 3.3.3 Walkway Surface Types

#### Asphalt Surfaces

Asphalt surfaces provide for the widest variety of trail users including bicyclists, walkers, joggers, wheelchair users, parents with baby strollers, and in-line skaters. Initial installation costs are relatively high (lower than Portland cement concrete however) compared to other trail surface types. However, long-term maintenance costs will remain moderate if properly installed and maintained. Asphalt trails are preferred in flood prone areas. Porous asphalt can also be used in situations where stormwater infiltration or a pervious surface is required. Porous asphalt should not be used in flood prone areas where silt will clog the voids in the pavement.

#### Concrete Surfaces

Portland cement concrete pavement is the most durable material for trail surfaces but is more expensive than asphalt. Concrete trails are commonly used in urban environments. Advantages of concrete include longer service life, reduced susceptibility to cracking and deformation from roots and weeds, and a more consistent riding surface after years of use and exposure to the elements. The joints in concrete trail treads can degrade the experience of using the path for some wheeled users. In addition, users can see pavement markings more easily on asphalt than on concrete, particularly at night.



### Compacted Aggregate Surfaces

Compacted aggregate surfaces, or stone dust trails, can accommodate all trail user types with the exception of in-line skaters. Initial installation costs for this trail surface are relatively low, however long-term maintenance costs increase due to this surface's higher susceptibility to erosion, especially if not properly installed with swales and cross drains. Crushed limestone or sandstone or "Trail Surface Aggregate (TSA) Mix" are typical aggregates used in this situation. A compacted aggregate surface can also serve as base material for an asphalt surface if trail use increases or funds become available for a surfacing upgrade. Compacted aggregate surfaces should be avoided in flood prone areas or on slopes over 3%.



### Pavers

Pavers, composed of clay or concrete, may be a suitable pavement material where the context is of a historic or institutional nature. This material is highly aesthetically pleasing and durable. However, this material is the most expensive type of trail or sidewalk surface and is typically used only in areas of high visibility or in areas of historic significance.



# 3.4 Proposed Improvements Plans

The proposed improvement plans are divided into three (3) pages with plans drawn at a scale of 1" = 1,000'. These plans illustrate the locations of pedestrian and bicycle improvements in Towamencin. Based upon site analysis, field reconnaissance, and information gathered at committee and public meetings, several guiding principles were established. These are as follows:

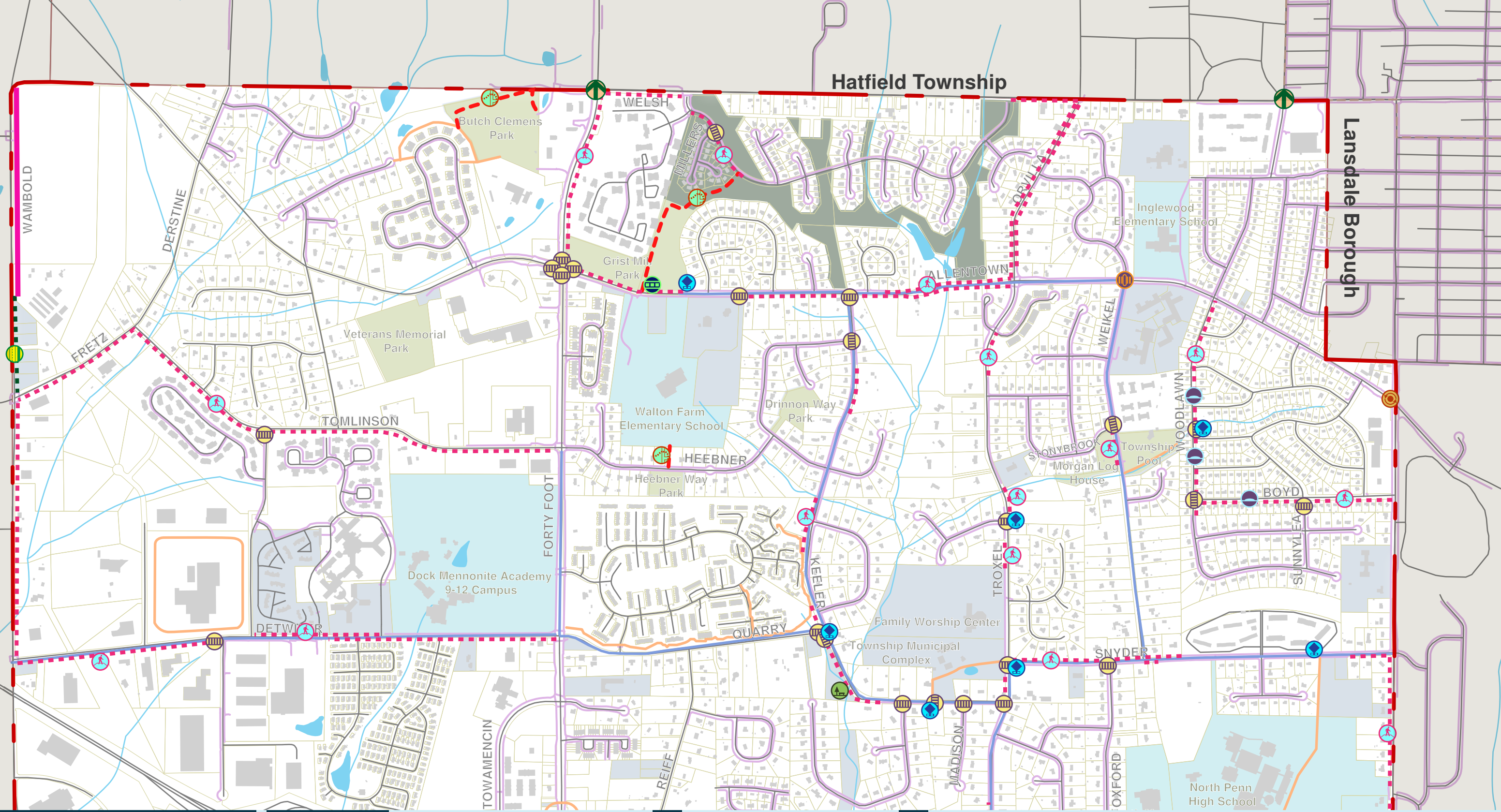
- Establish safe connections to schools.
- Connect to parks, trails, and open space within Towamencin and the surrounding area.
- Establish safe connections across "barriers" such as railroad lines and high-volume roadways.
- Connect to the amenities and services in Towamencin as well as in adjacent municipalities.
- Establish cross-township connections (north/south & east/west) on low-stress or low-traffic volume routes.
- Connect neighborhoods to other destinations in the Township.





# Hatfield Township

Lansdale Borough



Sheet A  
Sheet B  
Sheet C

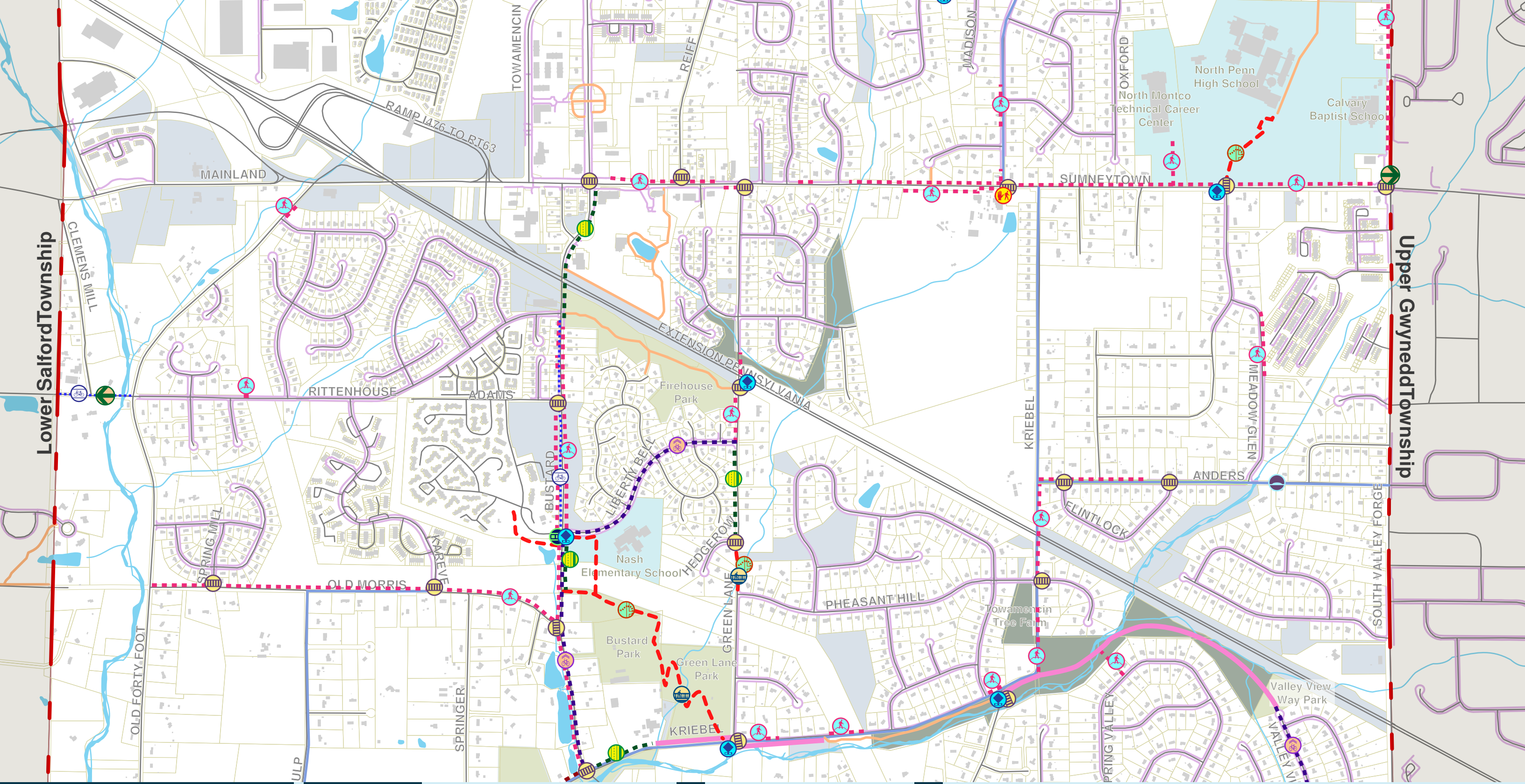


## Existing

- State Park
- Township Park
- Open Space
- Institutional
- School
- Existing Sidewalk
- Existing On Road Route
- Existing Trail

## Proposed

- Township Trail
- County Trail
- Sidewalk
- Multi-Use Trail
- Side Path
- Sharrow
- Bicycle Lane
- Road/Lane Closure
- Crosswalk
- Decorative Crosswalk
- Speed Cushion
- Rapid Flashing Beacon
- Hand Man
- Pedestrian Refuge Island
- Trail Bridge
- Pocket Park
- Connection to Adjacent Twp
- Roundabout

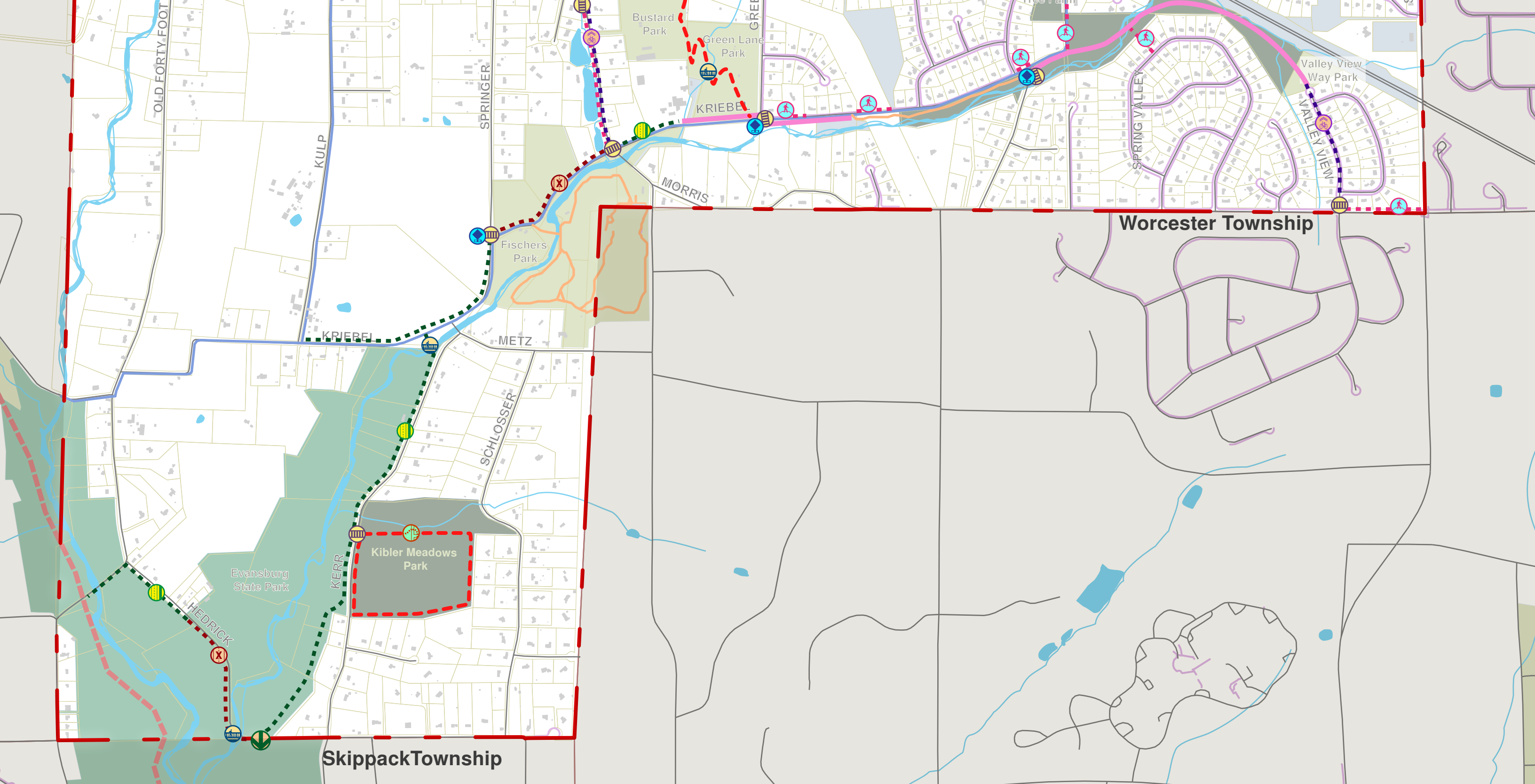


**Existing**

- State Park
- Township Park
- Open Space
- Institutional
- School
- Existing Sidewalk
- Existing On Road Route
- Existing Trail

**Proposed**

- Township Trail
- County Trail
- Sidewalk
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- Existing**
- State Park
  - Township Park
  - Open Space
  - Institutional
  - School
  - Existing Sidewalk
  - Existing On Road Route
  - Existing Trail

- Proposed**
- Township Trail
  - County Trail
  - Sidewalk
  - Multi-Use Trail
  - Side Path
  - Sharrow
  - Bicycle Lane
  - Road/Lane Closure
  - Crosswalk
  - Decorative Crosswalk
  - Speed Cushion
  - Rapid Flashing Beacon
  - Hand Man
  - Pedestrian Refuge Island
  - Trail Bridge
  - Pocket Park
  - Connection to Adjacent Twp
  - Roundabout



# 3.5 Improvement Toolbox

A list of needed connectivity improvements for Towamencin Township was developed. These improvements adhere to the previously described design standards and include off-road and on-road recommendations. The following section of this report will provide information on each toolbox item.





## 3.5.1 Sidewalk

*Sidewalks are the basic transportation network for pedestrians in any village or town, and probably the most familiar 'improvement tool' to residents.*

Typically, sidewalks are a minimum of five feet wide, constructed of concrete, and located parallel and adjacent to a roadway.

Sidewalks allow pedestrians to safely move and access home, work, school, transit stops, parks, places of worship, and any other desired destinations. The existing sidewalk infrastructure has been expanded to connect to other areas in the Township. Proposed locations of new sidewalks are based on site reconnaissance, sidewalk inventory completed by the consultants, and input from committee and public meetings.

### TOOL METRICS

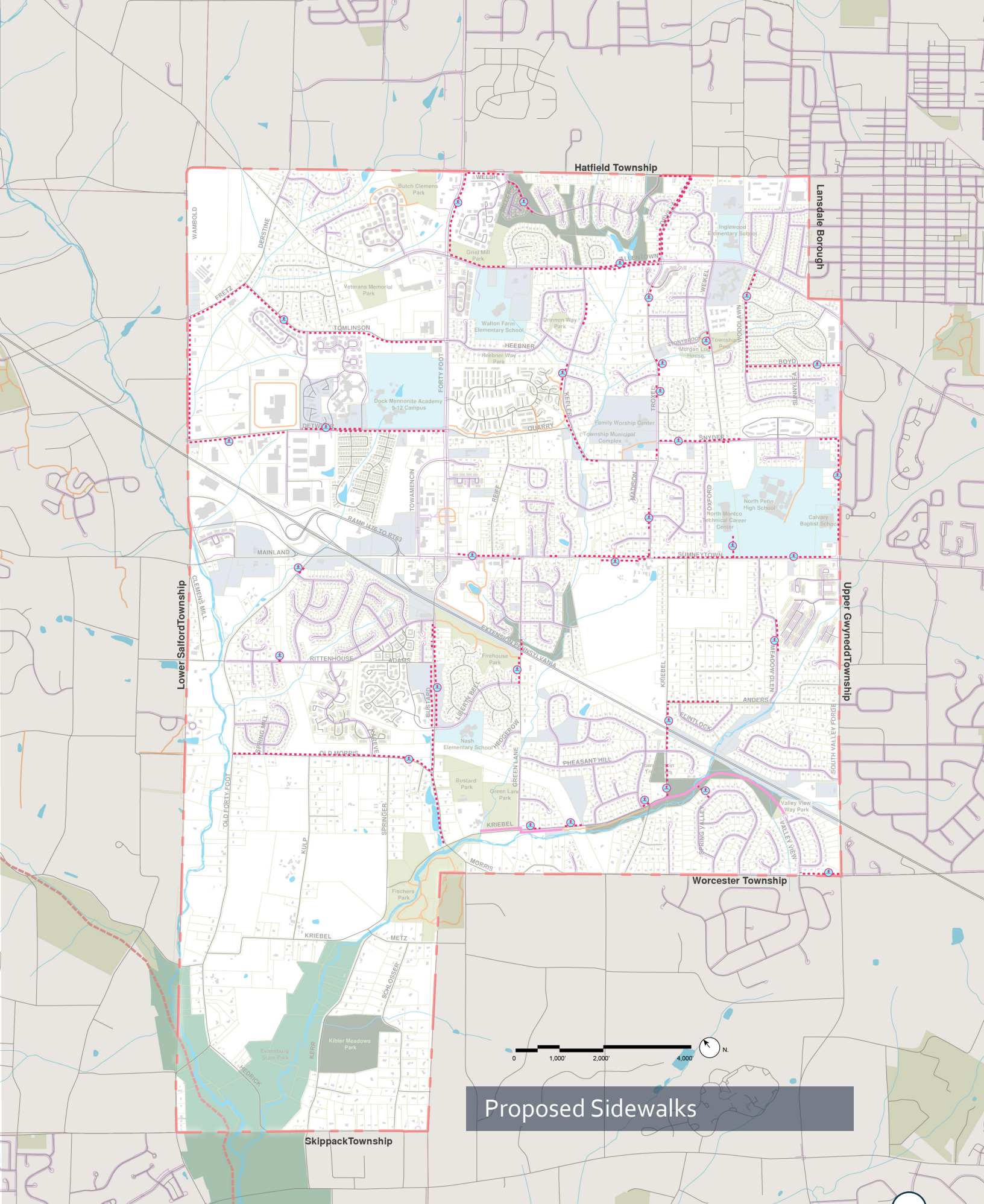
67,880 linear feet of new sidewalk are proposed.

*Equivalent to 13 miles*

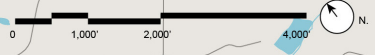
### DESIGN GUIDELINES

Typically, sidewalks are a minimum of five feet wide, constructed of concrete, and located immediately adjacent to a roadway.





**Proposed Sidewalks**





## 3.5.2 Crosswalk

*Similar to sidewalks, crosswalks are proposed to benefit the largest number of residents and establish safe travel corridors to and from the destinations of Towamencin.*

Crosswalks can be delineated in several ways. The continental crosswalks (“piano keys or “zebra stripes”) are the most common type and highly visible crosswalks and are generally preferred by PennDOT and most regulatory agencies. The “keys” or “stripes” can be contained (or not) by another thick white stripe parallel to the direction of pedestrian traffic. Continental crosswalks are generally constructed of thermoplastic materials that are applied onto the surface of asphalt paving and are highly durable, generally with an effective life span of up to ten years

(dependent on traffic). In recent years, thermoplastic materials have been preferred to pavers placed in crosswalks since pavers become loose are subject to damage from snowplows.

When used on state roads, PennDOT engineers must be consulted to approve of decorative crosswalks as some engineers note that decorative crosswalks may potentially distract drivers. The decision to allow or not allow a decorative crosswalk on a state road includes levels of traffic or level of service at an intersection, accident history, posted speed limit and other contextual considerations.

Similar to sidewalks, crosswalks are proposed to benefit the largest number of residents and establish safe travel corridors to and from the destinations of Towamencin.

### DESIGN GUIDELINES

- Crosswalks must contain parallel white stripes
- Generally constructed using thermoplastic materials

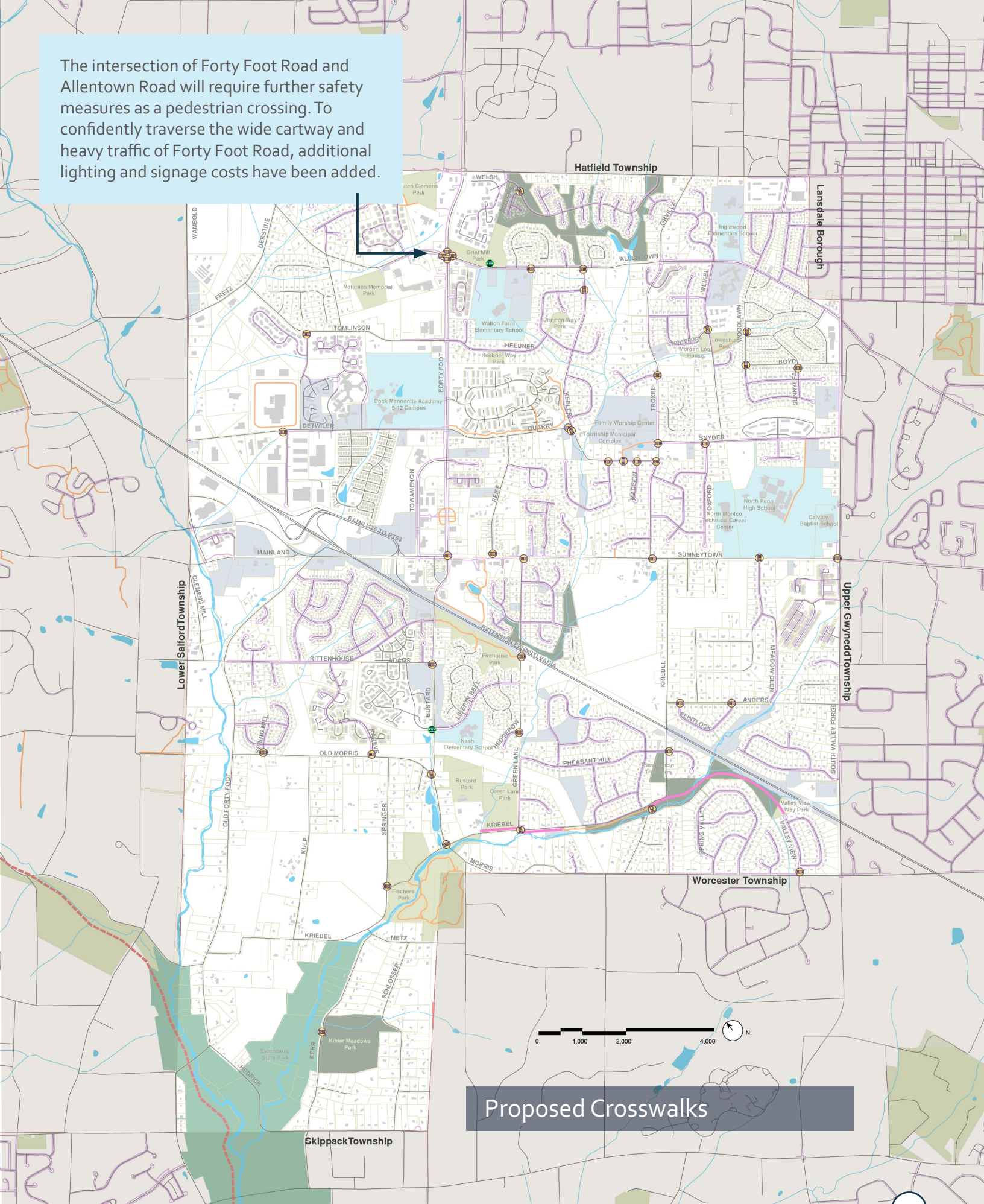
### TOOL METRICS

46 locations proposed in plan

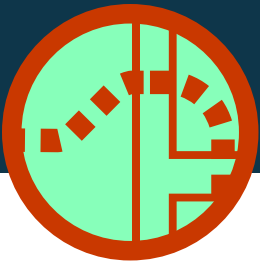




The intersection of Forty Foot Road and Allentown Road will require further safety measures as a pedestrian crossing. To confidently traverse the wide cartway and heavy traffic of Forty Foot Road, additional lighting and signage costs have been added.



Proposed Crosswalks



# 3.5.3 Multi-Use Trail

*Multi-use trails, also referred to as multi-modal or shared use trails, provide a safe and distinct route for pedestrians and similar user groups.*

These trails are generally a minimum of 10 feet in width and may be designed at widths of up to 14 feet for high-volume routes. In rare instances where space is limited, trails may be installed at an 8-foot width. Such trails can be paved with asphalt or stone dust / stone screenings.

The Towamencin Township Connectivity Study includes multi-use trails at multiple parks, open space, and school areas. Many of the multi-use trails connect into existing trail infrastructure in order to expand on the existing network.

In Grist Mill Park, a multi-use trail is proposed to promote a more formal connection between the park and the adjacent residents to the northeast. connecting to the adjacent residential area to its northeast. In Butch Clemens Park, a trail is proposed which connects to an existing trail in the residential area on Pleasant Valley Drive. A loop trail is proposed in Kibler Meadows Park, near Evansburg State Park.

A trail is proposed on the Walton Farm Elementary School property, connecting to sidewalks on Heebner Way. North Penn High School has two proposed multi-use trails connecting sidewalks from improvements on Bridal Path Road and the existing school sidewalk. The example pictured below shows a multi-use trail. This is the trail type proposed to connect Nash Elementary School to Bustard Park. This segment also contains a small loop trail.

### TOOL METRICS

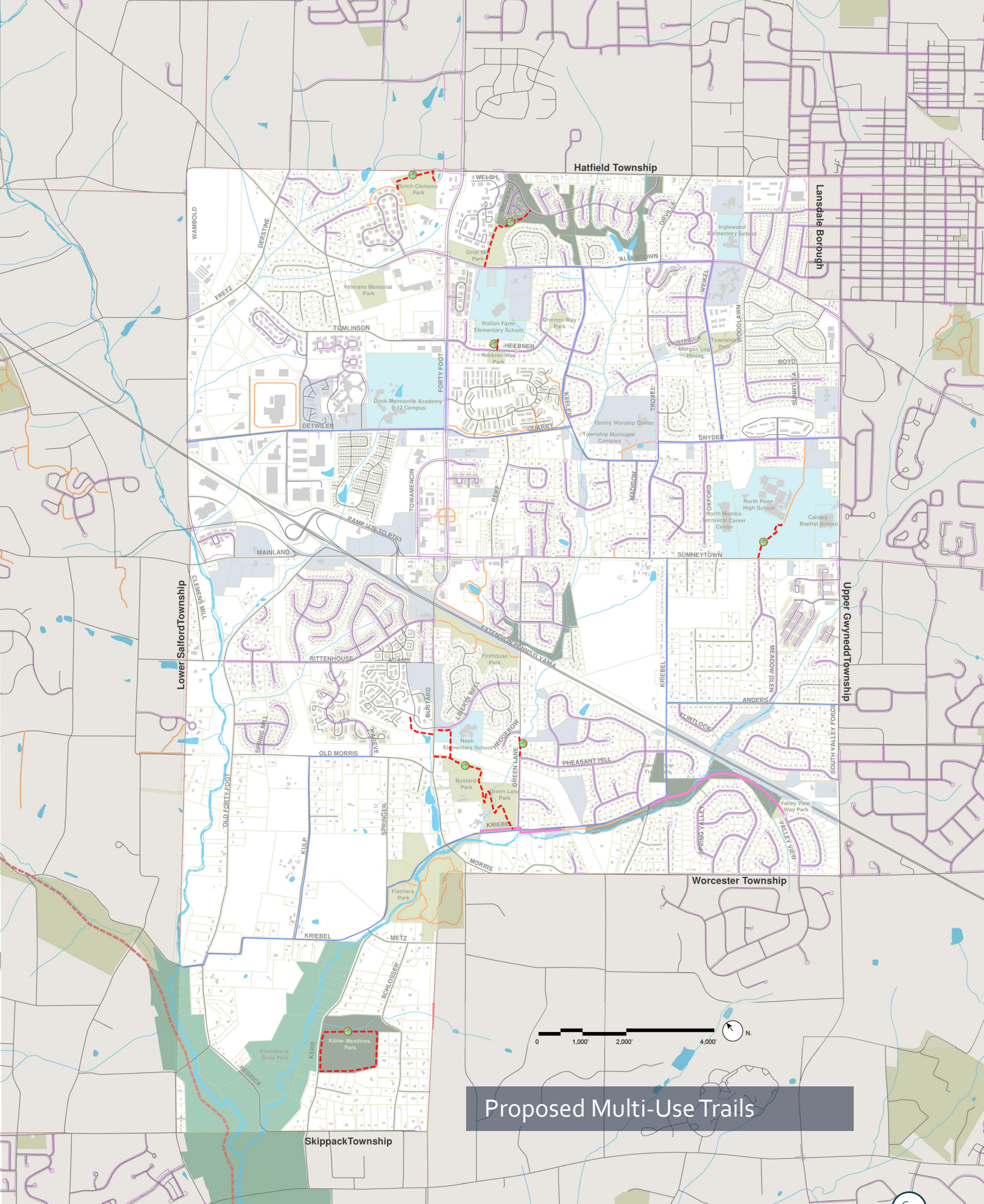
12,750 linear feet of new multi-used trails are proposed.

*Equivalent to 2.4 miles*

### DESIGN GUIDELINES

8'-14' wide, depending on existing conditions





**Proposed Multi-Use Trails**



# 3.5.4 Side Path

*A side path can encourage bicycling and walking in areas where high-volume traffic and/or high-speed traffic might otherwise discourage such activity.*

A side path is a multi-use trail located immediately adjacent and parallel to a roadway. These trails require a 5' setback from the cartway if no curb or barrier is present. Side paths vary from 5' to 8' in width and are often constructed from asphalt. A side path can encourage bicycling and walking in areas where high-volume traffic and/or high-speed traffic might otherwise discourage such activity.

A side path is recommended along Bustard Road from the intersection of Sunnyside Pike to the entrance of Firehouse Park. An opening in the guiderail needs to be created at the end of the bridge to safely get pedestrians and bicyclists off of the road, and onto the side path.

A side path is also recommended from the intersection of Liberty Bell Drive and the entrance to Bustard Park.

The Kriebel Road Trail project, which is currently under construction, ends at Green Lane Park. This connectivity study recommends a side path continuation of this trail, west to Bustard Road.

Other trail and sidewalk projects are being developed along Wambold Road, as noted on the Improvements Plan. The Plan proposes extending a side path south to Fretz Road in order to connect to proposed sidewalks along Fretz Road and Wambold Road.

## DESIGN GUIDELINES

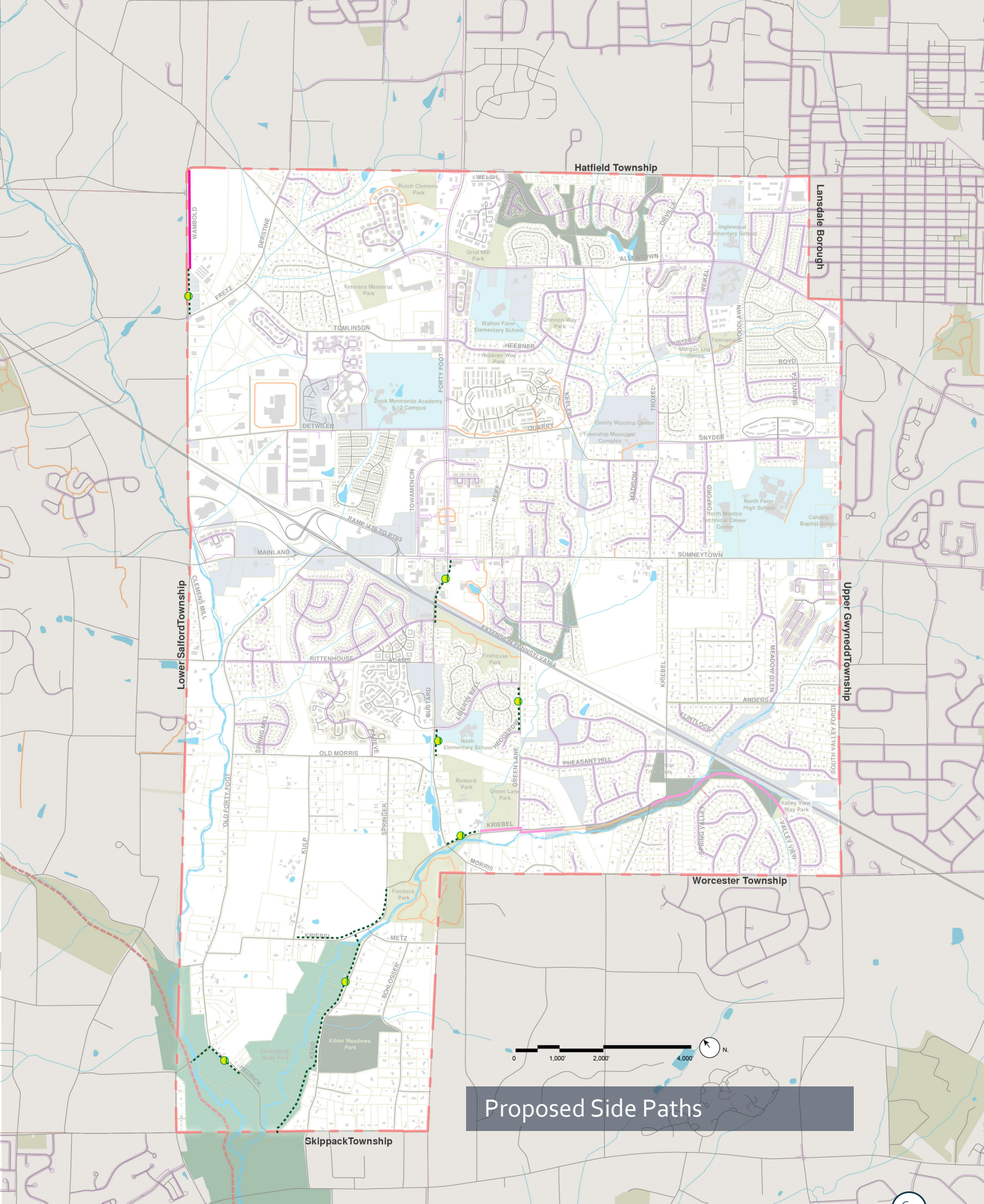
- 5'-8' in Width
- Require 5' setback from cartway if no curb or barrier is present

## TOOL METRICS

4,500 linear feet proposed in plan

*Equivalent to 0.85 mile*





Proposed Side Paths



# 3.5.5 Sharrow

*These pavement markings represent a bicyclist and directional arrows and are designed to alert motorists to the presence of cyclists.*

Sharrows are pavement markings that represent a bicyclist and directional arrows and are designed to alert motorists to the presence of cyclists.

In the Towamencin Connectivity Study, sharrows are proposed along Liberty Bell Drive near Nash Elementary School. This section is already a dedicated school zone with other precautionary signage and a 25 mile per hour speed limit. The on-road addition of sharrows would guide cyclists to other trail destinations such as the proposed side path between Bustard Park and Green Lane Park.

Sharrows are also proposed along Bustard Road from its intersection with Liberty Bell Drive to its intersection with Kriebel Road.

### TOOL METRICS

5,000 linear feet of "Share the Road"

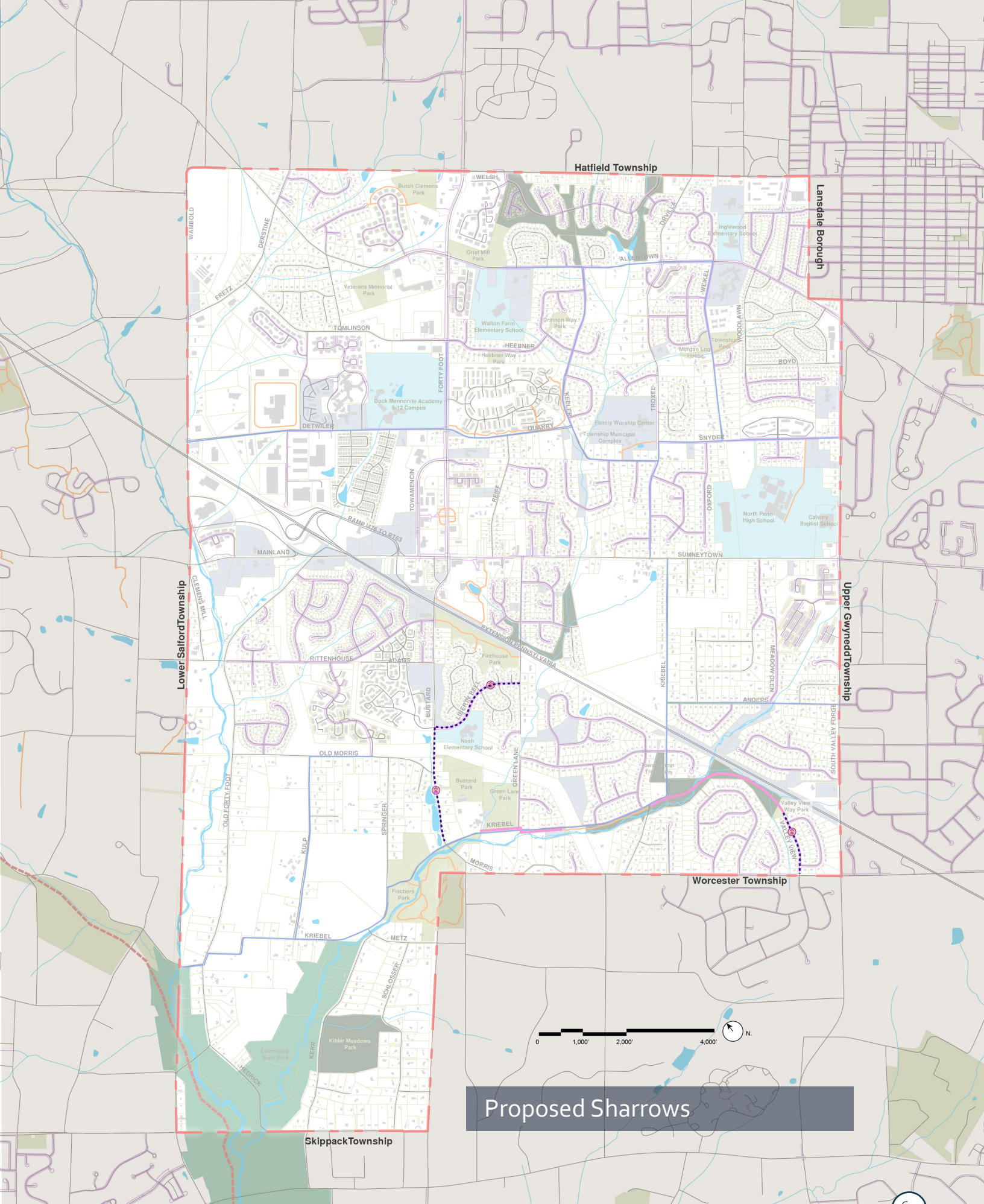
*Equivalent to 1 mile*

Total of 21 Sharrow Markings

### SHARROW DESIGN GUIDELINES

- Not to be used on roads with posted speed limits more than 35 mph.
- Placed at intersections and at intervals not greater than 250'.
- The striping position on cartway with parallel parking should be 11' from face of curb or edge of travel way.
- The striping position on cartway with no parking should be 4' from face of curb or edge of travel way.
- Sharrows are accompanied by signage. Guidelines from the MUTCD for signage are as follows:
  - Signage informs motorists to watch out for bicyclists on the roadway.
  - Bicyclist May Use Full Lane (MUTCD R4-11) signs.
  - Place signs at the beginning of the bike route, roadway intersections, and throughout the segment where deemed required.





Proposed Sharrows



# 3.5.6 Bike Lane

*Bike lanes enable cyclists to ride at a comfortable speed without interference from traffic.*

Bicycle lanes are designed to create corridors of increased safety, separated from motorists using pavement markings, striping, and signage. Bike lanes enable cyclists to ride at a comfortable speed without interference from traffic.

When evaluating locations for potential bike lanes, wide shoulders on a roadway should be prioritized.

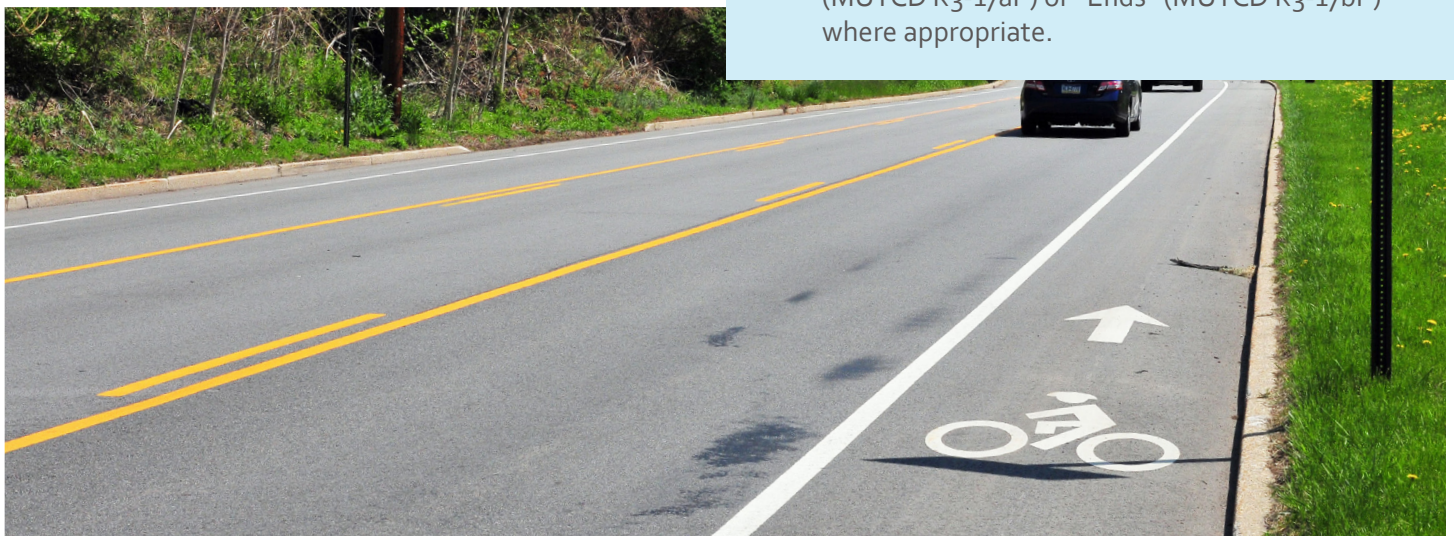
Large shoulders along Bustard Road are an opportunity to create more dedicated bicycle lanes in Towamencin Township. Beginning at Rittenhouse Road and continuing to Adams Road, the cartway shoulder is 12' wide and is only on the west side of Bustard Road. It is recommended that this 12' shoulder be redistributed as two 5' bike lanes with 1' buffers for each.

After this intersection, from Adams Road to Liberty Bell Drive, shoulder easement on both sides of the road. It is recommended that this width be redistributed as two 5' foot bike lanes with 2' buffers on either side of the road. The remaining 10' shall be a remaining shoulder on the west side of the road. See the photo below for an example of a bike lane.

### TOOL METRICS

5,000 linear feet of bike lanes

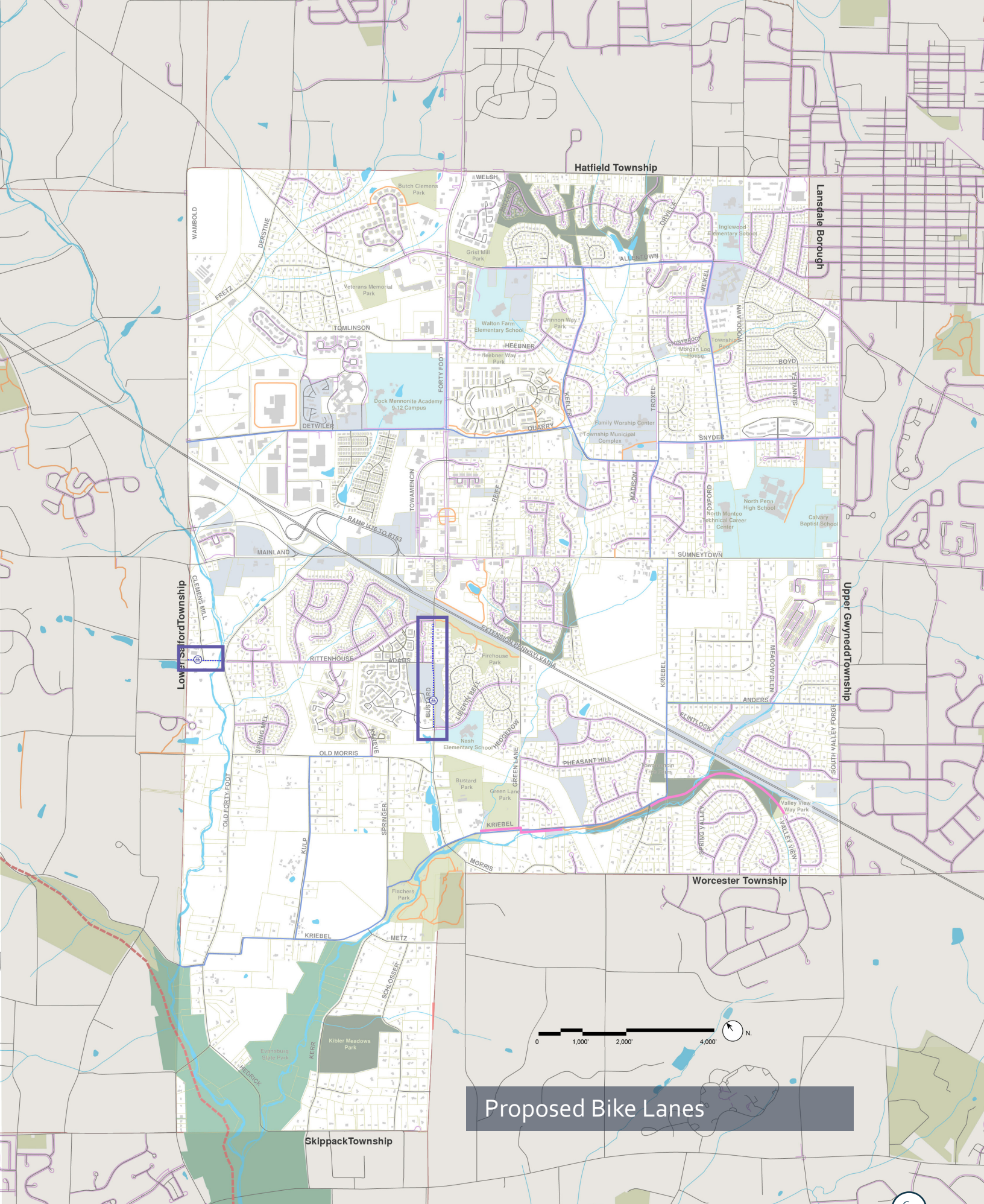
*Equivalent to 1 mile*



### **BIKE LANE DESIGN GUIDELINES**

- Bike lanes should be provided on both sides of two-way streets.
- Bike Lane Widths without Parking: 4' minimum (not adjacent to curb) and 5' minimum (adjacent to curb or other obstacles).
- Bike Lane Widths with Parallel Parking: 5' minimum to 7' (wider bike lanes are recommended adjacent to parking areas to reduce conflict with opening vehicle doors).
- Bike lanes should be placed between the parking lane and travel lane (this applies to diagonal and parallel parking).
- Storm Drains and Utility Covers: Bike lanes should be wide enough to accommodate bicyclists swerving to avoid obstructions.
- Bike Lane Striping: 4" to 6" solid white line (dotted lines are optional at major driveways and intersections, solid lines should be continued at all minor driveways).
- Pavement Marking: Bike Lane Symbols (MUTCD 9C - 3).
- Bike Lane Signage: Bike Lane (MUTCD R3-17) placed at periodic intervals with either "Ahead" (MUTCD R3-17aP) or "Ends" (MUTCD R3-17bP) where appropriate.





Proposed Bike Lanes



## 3.5.7 Trail Bridge

*Trail Bridges are used for pedestrians and bicyclists to traverse site obstacles such as streams.*

While trail bridges are often prefabricated, their application costs are based on site conditions.

There are 4 locations within the connectivity study where trail bridges are proposed.

### *Kriebel Road and Metz Road*

A recommended side path going north from Kibler Meadows Park on Kerr Road eventually reaches a barrier at Towamencin Creek. While there is a vehicular bridge on Metz Road, it does not provide enough space for pedestrians and cyclists to safely cross. A trail bridge is recommended to the west side of the existing bridge.

### *Bustard Park and Green Lane Park*

The recommended multi-use trail that winds through Bustard Park eventually approaches a tributary crossing through Green Lane Park. In order to complete the connection between the two parks, a trail bridge is recommended.

### *Green Lane Road*

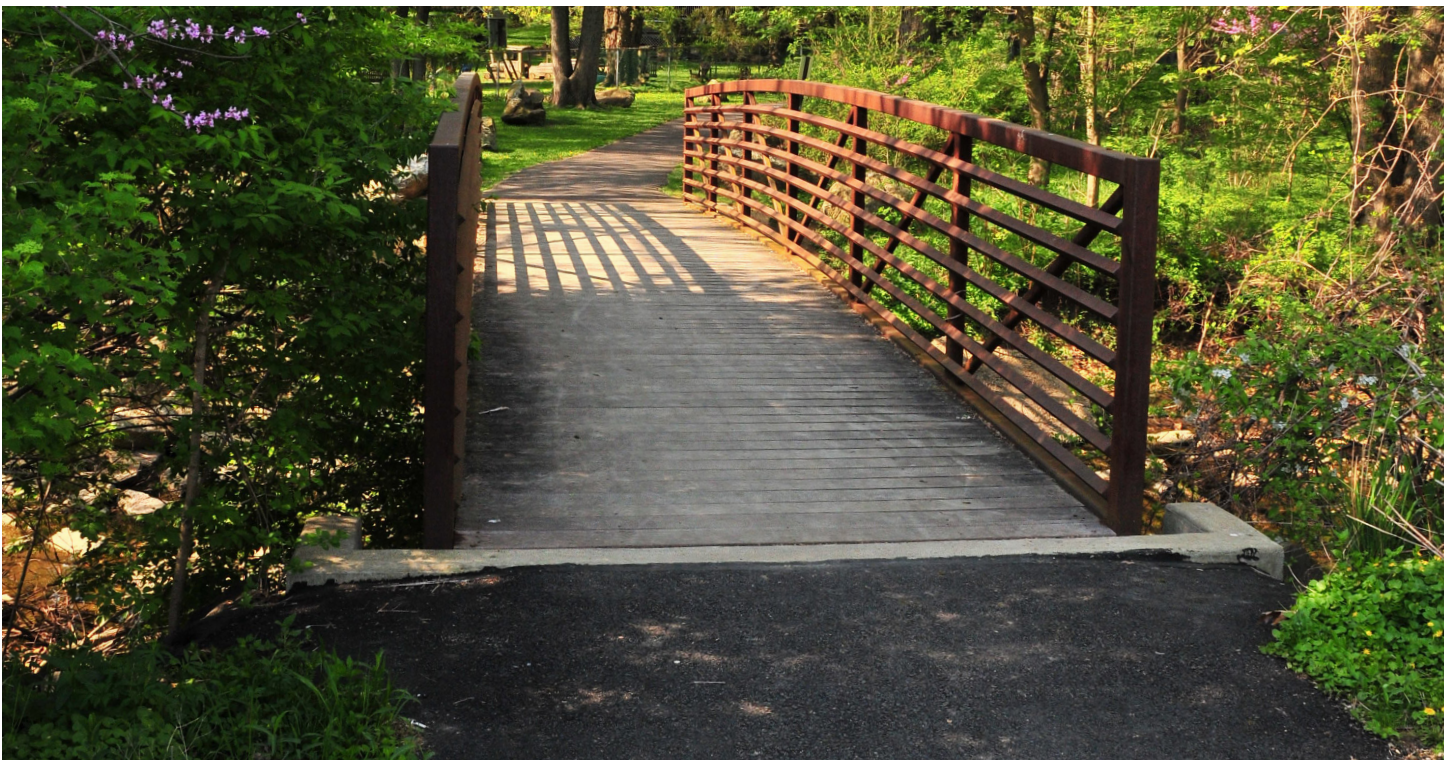
Currently, the portion of Green Lane Road south of the Turnpike is segmented by a small tributary. A side path is recommended along the northern half to the dead end of Green Lane Road. A recommended trail bridge will link the proposed side path with an existing sidewalk.

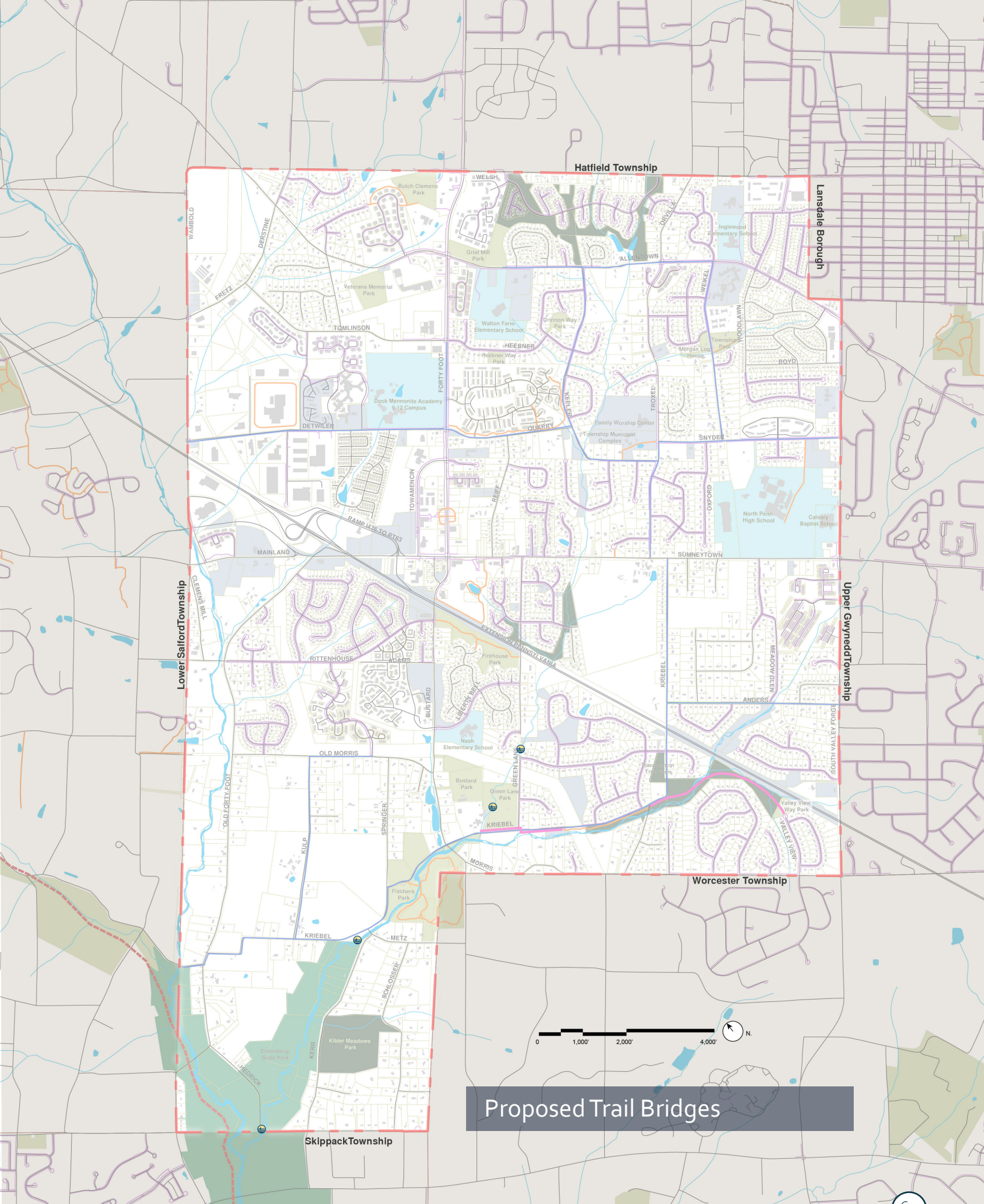
### *Hedrick Road in Evansburg State Park*

Currently, the segment of Hedrick Road within Evansburg State Park is not accessible to the public because the existing bridge over Towamencin Creek is deemed structurally unsound. In order to incorporate this segment of Hedrick Road (see the Road Closure improvement), while connecting to the other proposed features, a trail bridge is recommended to replace the existing bridge.

### TOOL METRICS

4 new trail bridges





**Proposed Trail Bridges**



## 3.5.8 Hand-Man

*A "Hand-Man" or pedestrian crossing signal indicates to pedestrians or cyclists when it is safe to cross a road intersection. These devices can be visual-only or also equipped with an auditory component.*

Hand/Man pedestrian crossing indicators can be installed at existing signalized intersections. These indicators alert pedestrians when and for how long it is safe to cross.

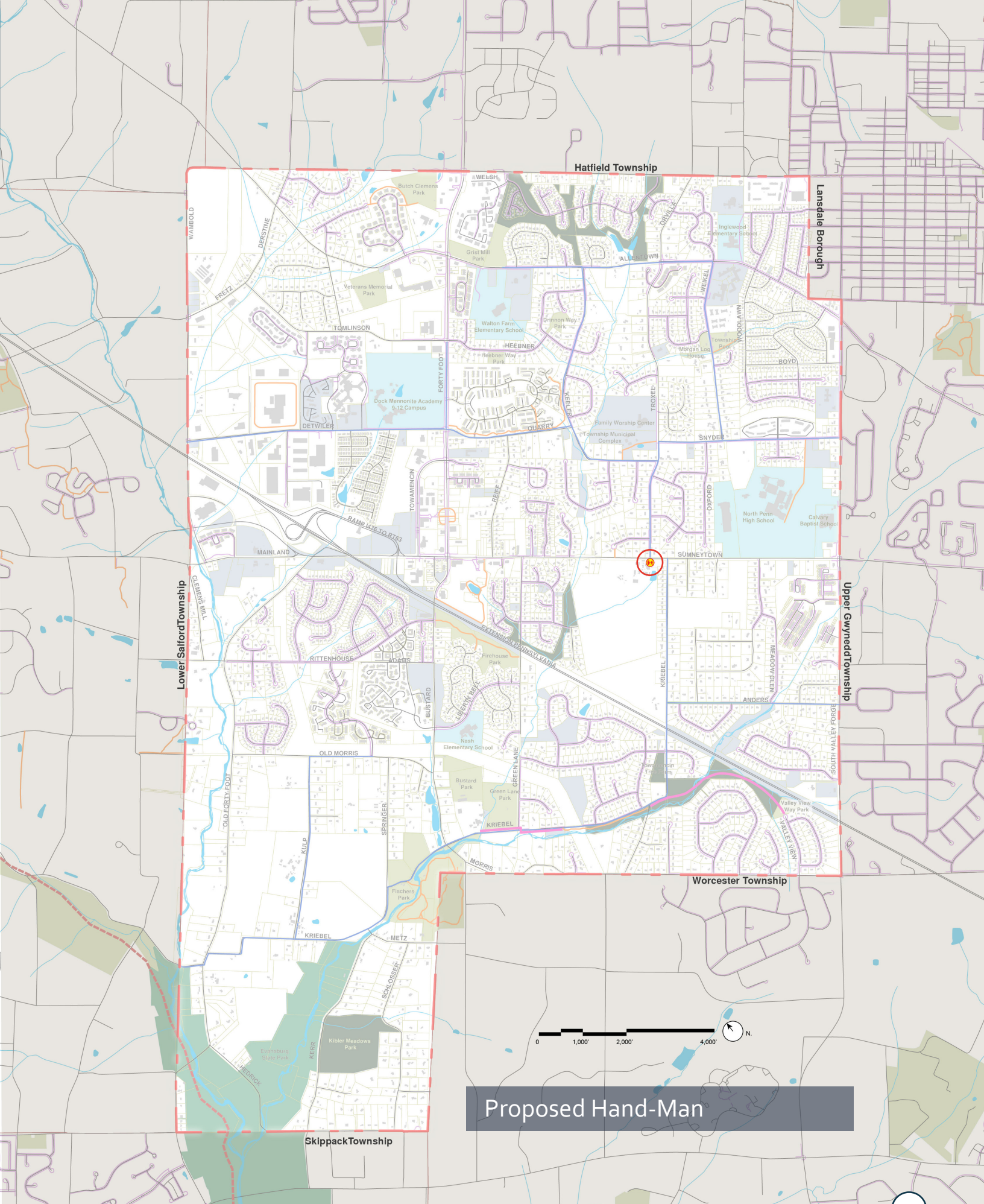
The MUTCD (Manual on Uniform Traffic Control Devices) states that an "upraised hand" or "don't walk" signal informs pedestrians they cannot enter the street at that moment. A numbered countdown will appear as the signal prepares to change. A steady "walking man" indicates when it is safe for pedestrians to cross the street.

Hand/Man signals are funded by PennDOT for PennDOT roads.

### TOOL METRICS

1 hand-man





**Proposed Hand-Man**



## 3.5.9 Rapid Flashing Beacon

*These beacons alert motorists to the presence of pedestrians or cyclists crossing the street.*

Rapid flashing beacons are traffic devices used at non-signalized intersections or at mid-block pedestrian crossings. These beacons alert motorists to the presence of pedestrians or cyclists crossing the street.

Rapid flashing beacons can be activated in a number of ways. Users may press a button to activate the light. Beacons may include cameras that detect the presence of a pedestrian/cyclist about to go through an intersection that activates the flashing beacon. Beacons may include infra-red heat sensing devices that sense body heat and activate the beacon.

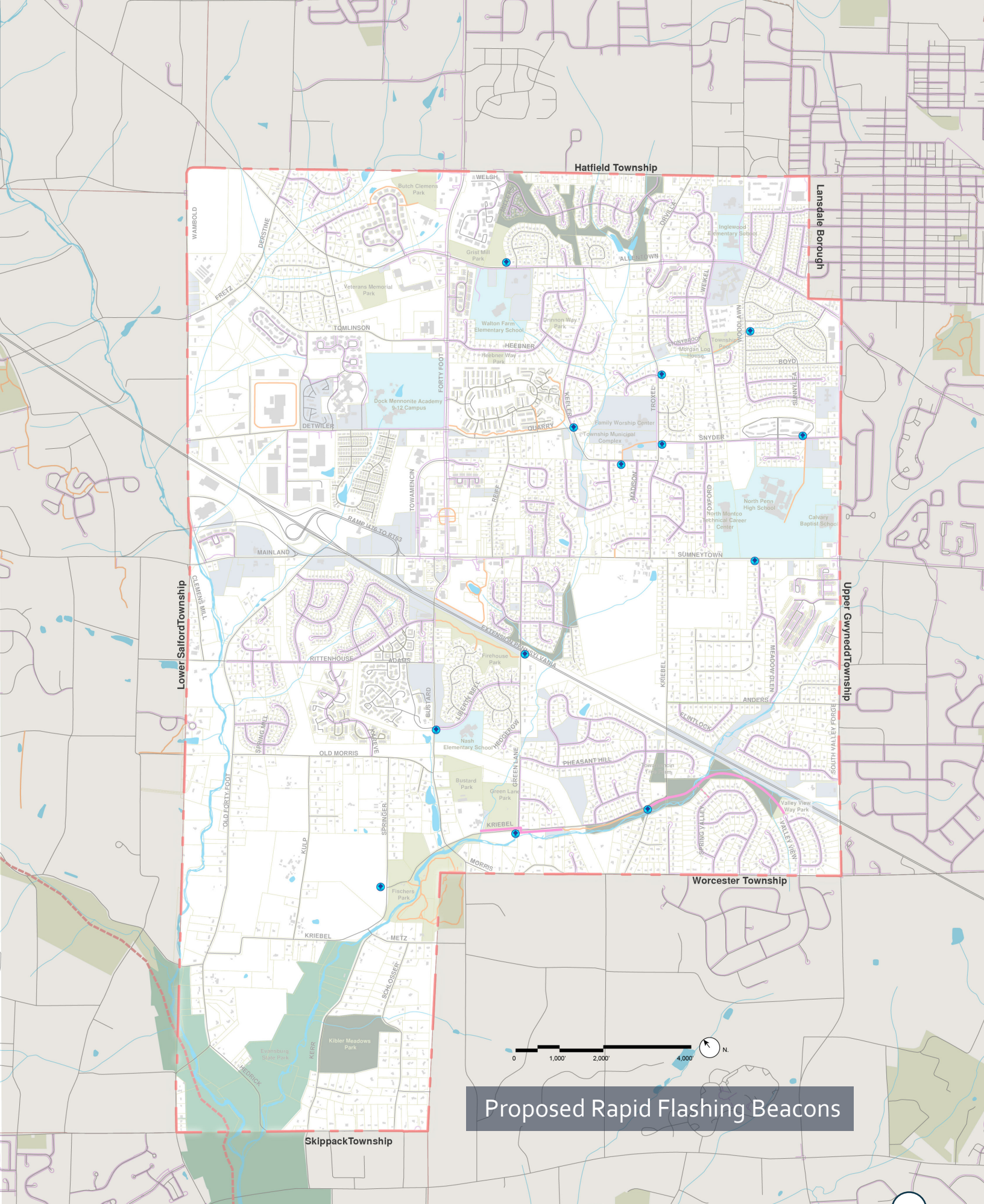
Rapid flashing beacons are used in the Township to safely get the pedestrian / cyclist from one side of the road to a destination point, without them having to travel up to a roadway intersection to cross.

### TOOL METRICS

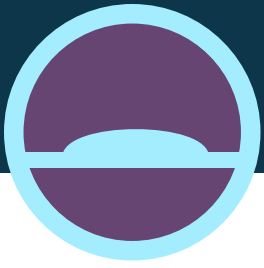
13 new rapid flashing beacon locations



Image: Texas A&M Transportation Institute



Proposed Rapid Flashing Beacons



## 3.5.10 Speed Cushion

*Speed cushions are effective traffic calming measures that may be appropriate in the areas around Towamencin Township parks and neighborhood streets.*

Speed cushions are mounted on the road and slow the movement of vehicular traffic while allowing bicycles and first responders to travel unimpeded.

Speed cushions are traffic control devices that can be designed for specific speeds and may be combined with crosswalks for greater pedestrian visibility. Speed cushions are effective traffic calming measures that may be appropriate in the areas around Towamencin Township parks and neighborhood streets.

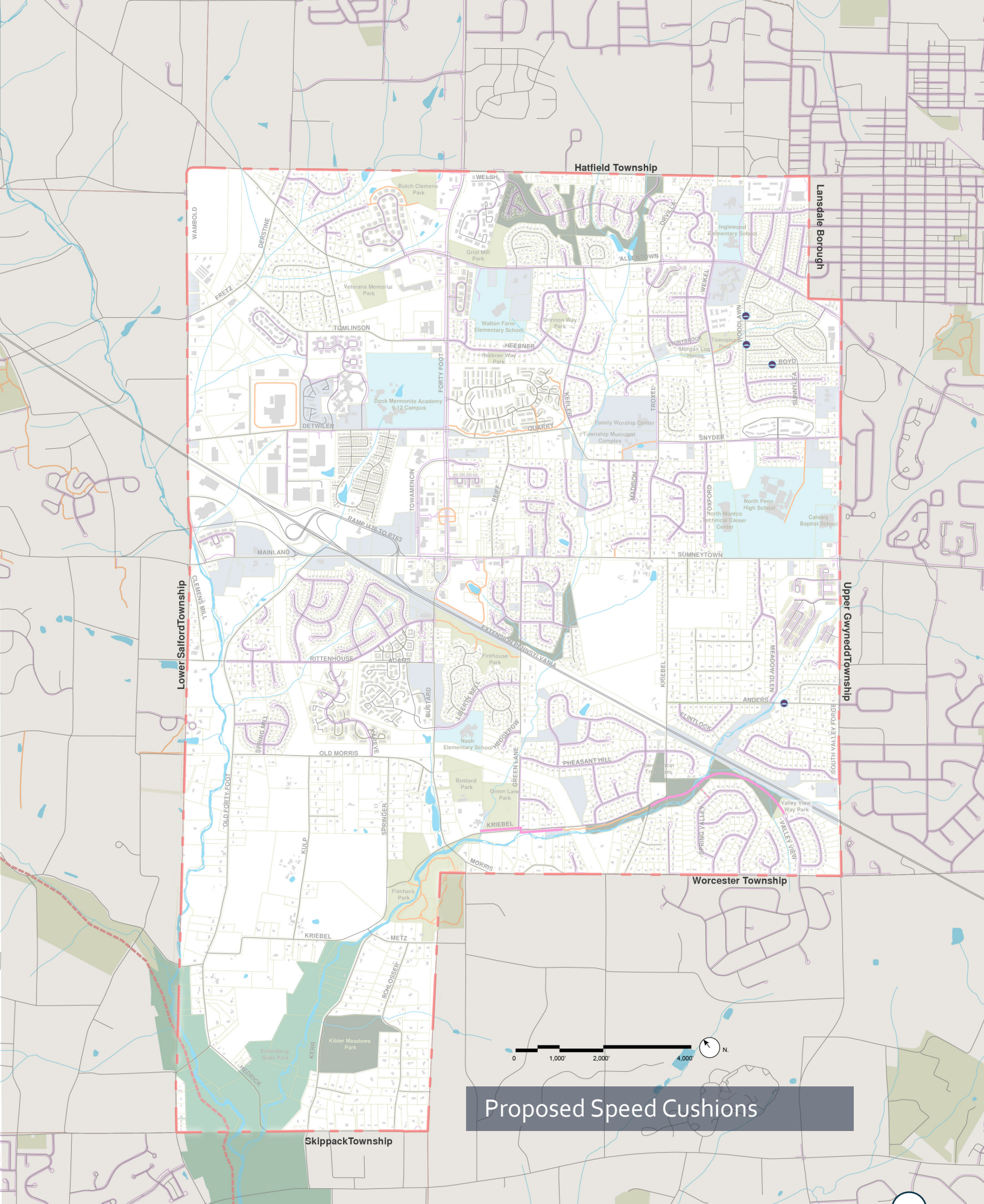
Public meeting participants expressed concern about vehicle speeds on neighborhood streets. Speed cushions are recommended at strategic locations along Township-owned or local roads. These locations include areas that approach intersections where a high volume of foot traffic is expected, such as at the intersection leading up to the Towamencin Township Pool.

### TOOL METRICS

4 new speed cushion locations







**Proposed Speed Cushions**



## 3.5.11 Pedestrian Refuge Island

*A pedestrian refuge island is a pedestrian road crossing safety device that is used between lanes of opposing traffic.*

A pedestrian refuge island is a pedestrian road crossing safety device that is used between lanes of opposing traffic. This provides pedestrians a place of “refuge” to pause or rest when crossing busy or wide streets. Pedestrian refuge islands can take many forms - from basic islands to large expanses of pavement seen in larger urban settings. Pedestrian refuge islands may be combined with stormwater management solutions.

Pedestrian refuge islands should be at least 6 feet wide but have a preferred width of 8’-10’.

The width of Allentown Road presents the opportunity to incorporate the toolbox item in front of Inglewood Elementary School. This recommendation will create safer access to the school, especially for the neighborhoods directly south of the Elementary school.

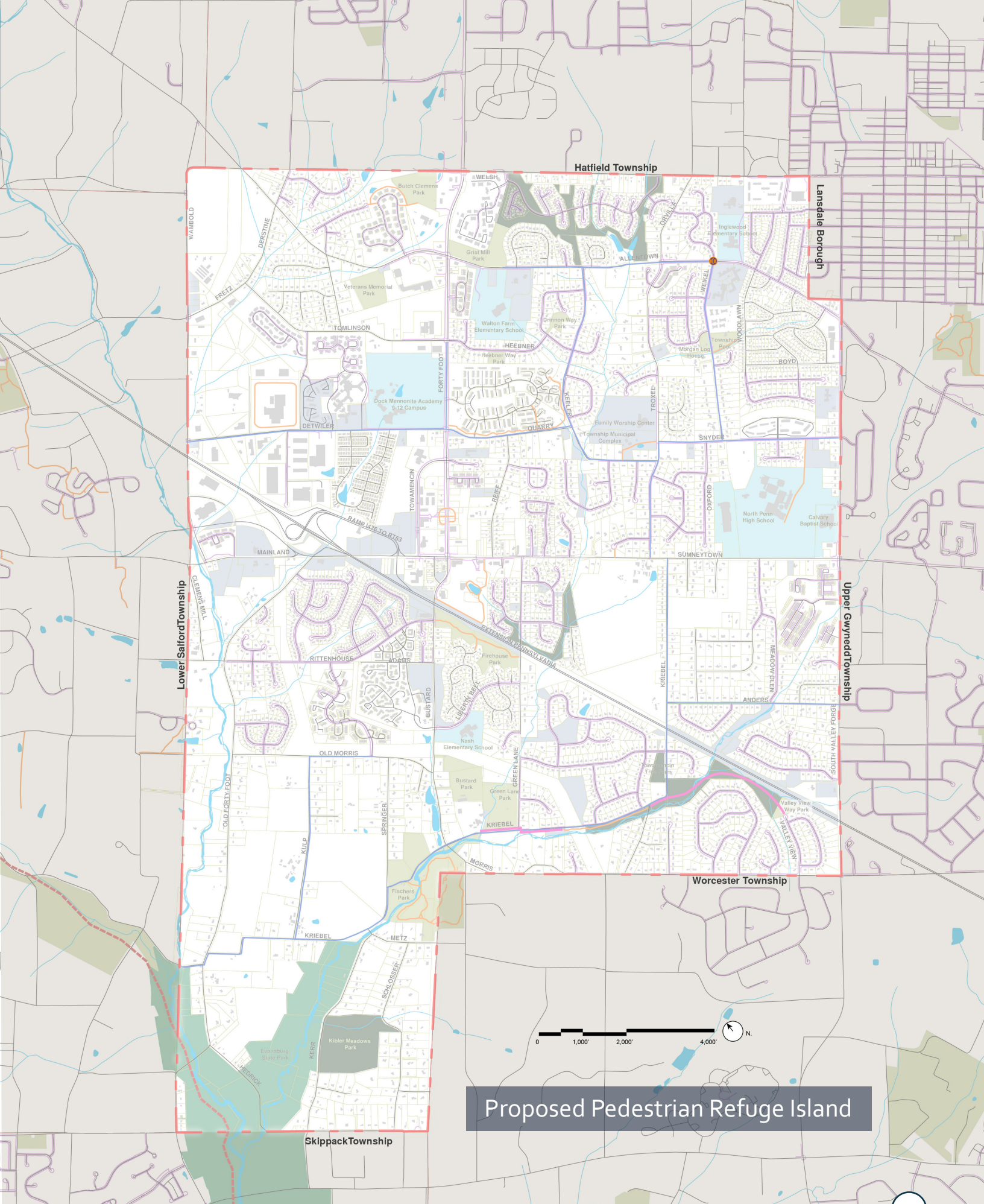
### TOOL METRICS

1 new pedestrian refuge island location

### DESIGN GUIDELINES

- 6’ wide minimum
- 8’-10’ wide preferred





Proposed Pedestrian Refuge Island



## 3.5.12 Road Closure

*Road closures provide opportunities for safe multi-modal transportation.*

The Road Closure tool removes or restricts vehicular access in favor of pedestrian and cyclist access.

Accessibility for emergency vehicles should still be provided.

### *Kriebel Road Segment within Fischer's Park*

Kriebel Road, between Springer Road and Bustard Road, mostly runs through Fischer's Park. The narrow segment of road poses a safety risk for pedestrians accessing the park by foot or bicycle. The road closure has been mentioned in the 'Trails and Parks Evaluation' and is being proposed again in this report to reinforce a stronger network of paths. The improvement will not only add to the growing network of proposed trails within the Township, but also add to the park's current walking path route. This closure will also make the intersection of Bustard and Kriebel safer since a lane of traffic is

essentially eliminated.

### *Hedrick Road Segment within Evansburg State Park*

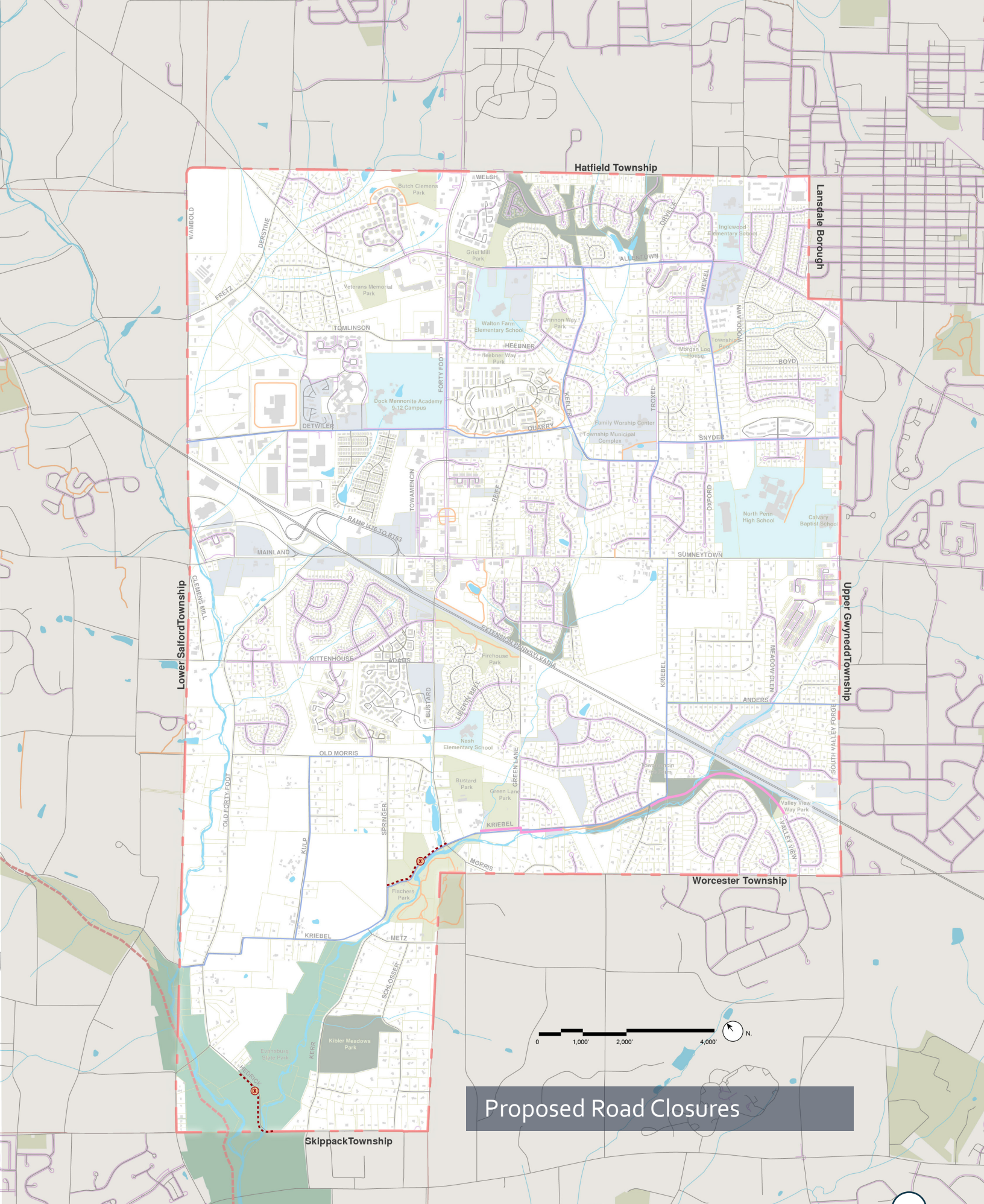
Under current conditions, the stretch of Hedrick Road that falls within Evansburg State Park is closed to the public. The road was closed in the 1980's because the bridge spanning the Towamencin Creek was deemed no longer safe for vehicles or pedestrians. If the bridge were to ever be restored or redesigned (see Trail Bridge for proposed improvement), the road is recommended to be for pedestrians and bicyclists only. The segment of road will contribute to the Evansburg State Park trail network, and provide a great connection from Towamencin and Skippack Townships into the Park.

### **TOOL METRICS**

3,200 linear feet of closed road

*Equivalent to 0.6 mile*





Proposed Road Closures



## 3.5.13 Roundabout

*A roundabout is a circular intersection in which three or more roads join and direct traffic to flow in one direction around a central island.*

A roundabout is a type of circular intersection in which three or more roads join and direct traffic to flow in one direction around a central island.

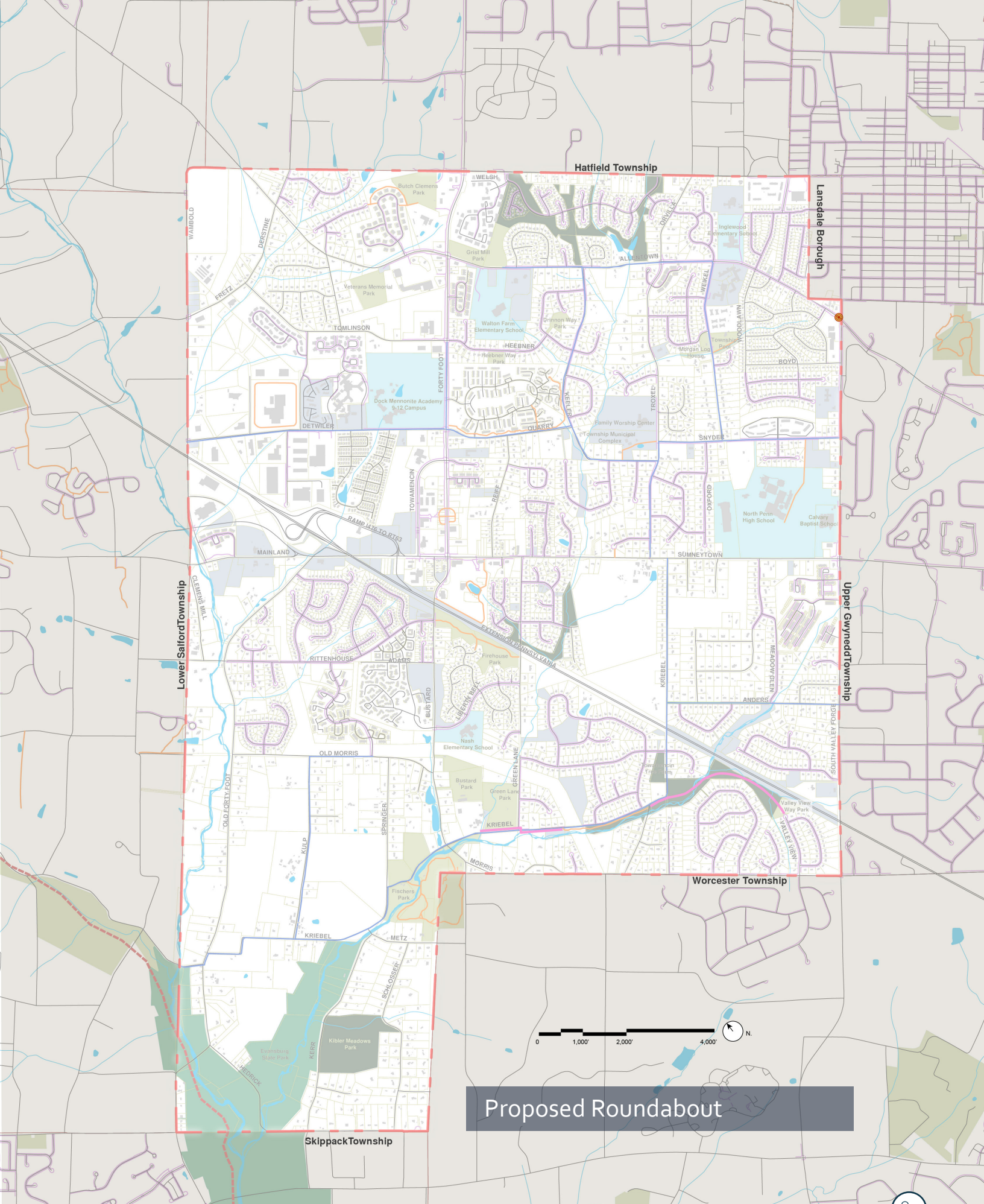
Roundabouts are a traffic calming device for not only vehicles, but also for cyclists and pedestrians to cross busy roads. The flow of traffic exiting the roundabout comes from one direction, instead of possibly three, which simplifies the pedestrian's sightlines. Slower traffic enables better visual engagement between the driver and the pedestrian.

There is one roundabout recommended within the Township – at the intersection of South Valley Forge Road and Allentown Road. The collected accident data and conversations during public meetings helped identify the crossroads as the most challenging intersection within the Township. This improvement will require the cooperation of Upper Gwynedd Township and PennDOT.

### TOOL METRICS

1 new roundabout location





Proposed Roundabout



## 3.5.14 Pocket Park

*A pocket park is a small park or open space accessible to the public.*

A pocket park is a small park or open space accessible to the public. The functions of a pocket park can vary from a small play areas for children, to a space to sit or meet friends.

In this instance, the recommended pocket park can be a sitting area along the sidewalk on Keeler Road.

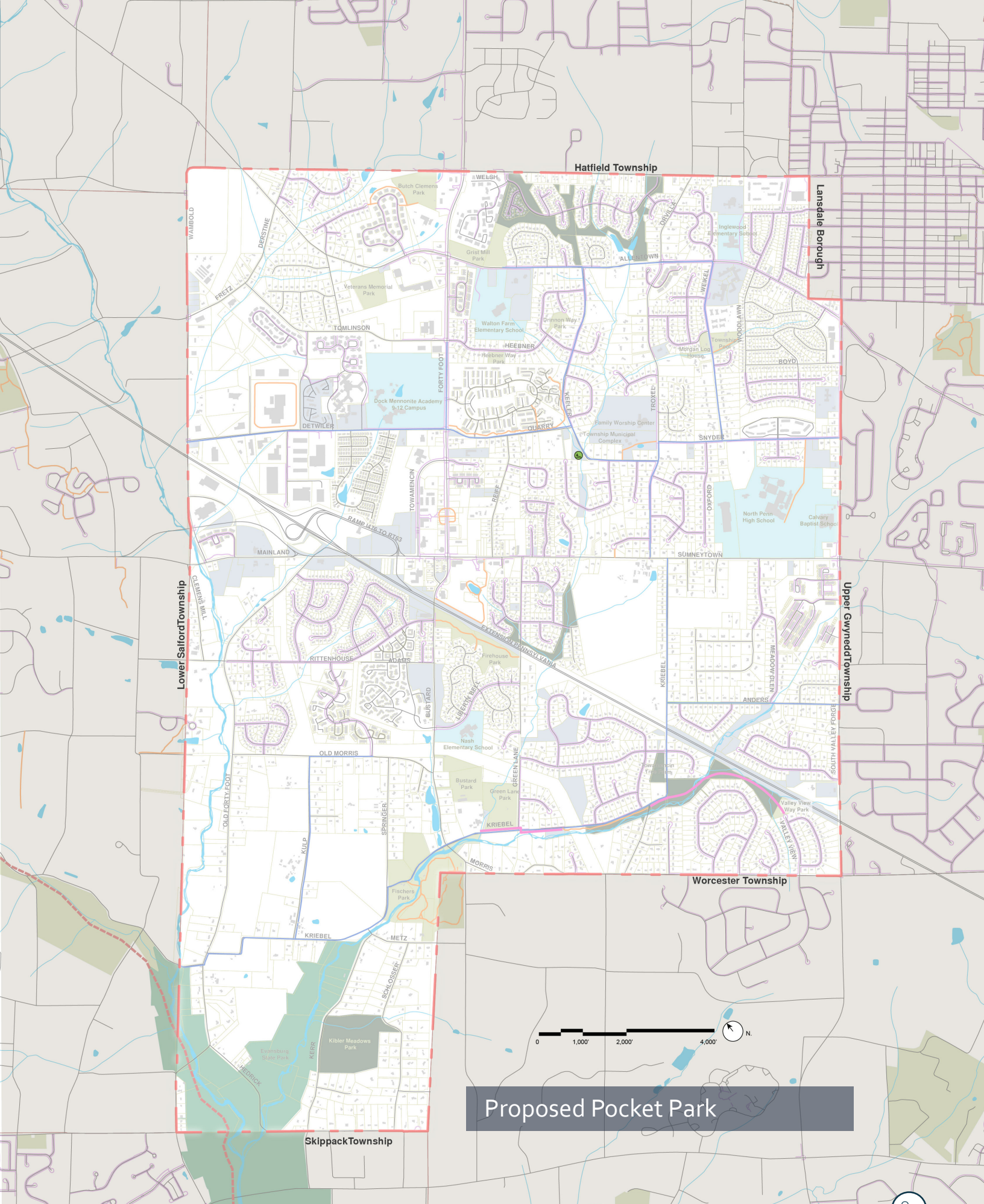
### TOOL METRICS

1 new pocket park location

Approximatly 0.9 acres







Proposed Pocket Park



# 3.5.15 Connection Out of Township

*Identifies the best locations to connect pedestrians and cyclists into neighboring municipalities.*

The 'Connection Out of Township' toolbox item is not tangible like the rest of the toolbox items. Incorporating wayfinding or signage might be a way to incorporate the tool into the landscape, but not needed for the use of this planning document. Instead, the icon calls out the best corridor connections between the improvements recommended in the Plan to popular destinations in other surrounding townships. The tool identifies where collaboration between two townships might be needed to ensure an improvement is completed to a destination.

### *A. Connection to Hatfield Township*

The connection to Hatfield Township is identified at the intersection of Forty Foot Road and Welsh Road. This junction leads the way for township residents to access Ralphs Corner Shopping Center and Hatfield Pointe Shopping Mall, which were identified as a key destinations by the community.

### *B. Connection to Lansdale Borough*

Lansdale Borough is the densest municipality surrounding Towamencin Township – filled with a variety of shops, bars, and restaurants. Some major destinations located within Lansdale Borough are the SEPTA regional stop and the Liberty Bell Trail. A connection between the two municipalities is identified at the intersection of S Valley Road and Columbia Road as an important access point for Towamencin Township residents to access the two destinations. The improvements along Woodlawn Road strengthen that connection for accessibility.

### *C. Connection to Upper Gwynedd Township*

The connection to Upper Gwynedd Township is identified at the intersection S Valley Road and Sumneytown Pike. The community identified the Wawa located right outside of the Township as a destination point. The improvements proposed along Sumneytown Pike for Towamencin Township should continue into Upper Gwynedd to allow each of the township residents to access the amenity.

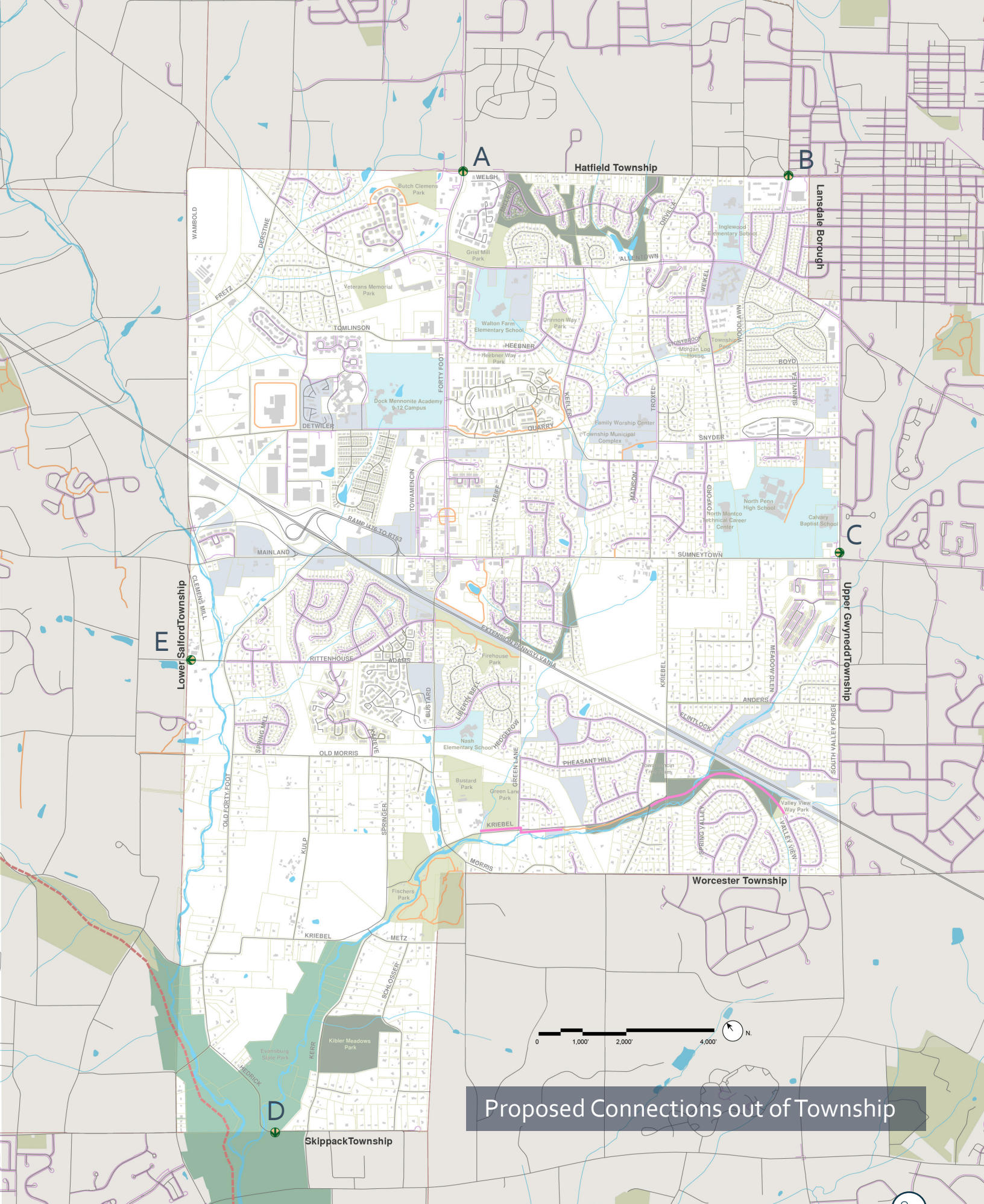
### *D. Connection to Skippack Township through Evansburg State Park*

The connection to Skippack Township is identified within the Evansburg State Park. The side path proposed alongside the State Park will enable and strengthen the connection between the two townships, and open each township up to a larger network of trails throughout the State Park. In order for Towamencin Township to gain access to Evansburg State Park's trail system, it is recommended that Evansburg State Park explores a Trail Network Master Plan. The plan should extend trails within the northern portion of Skippack Township (adjacent to Towamencin Township) to provide a connection for Towamencin Township residents to connect to the State Park trail head located on Leshar Road.

### *E. Connection to Lower Salford*

Lower Salford Township is located along the western edge of the township. A connection between the townships is identified at Rittenhouse Road. A bike lane is proposed to run west from the existing bridge to the edge of the Township boundary. The connection will provide for bicyclists to safely and immediately access the Mainland Golf Course and Restaurant in Lower Salford. Coordination with Lower Salford Township should be pursued to create a completed improvement to the intersection of Store Road.





## 3.6 Themed Connection Routes

The following pages delineate several themed routes. These routes take users across multiple improvement facilities, including sidewalks, side paths, and multi-use trails. These routes can give a particular mobility improvement an identity when seeking grant funding.

Out of each of the routes, the committee members prioritized improvements along the School Connection Route.

### Township Collector Connection Route

This route explores the opportunity to connect all directions or quadrants of the Township together. More specifically, it re-envisioned major thoroughfares like Forty Foot Road, Bustard Road, and Sumneytown Pike as multi-modal passages.

This route has been divided into three corridors for phasing efforts:

- The Bustard Road Corridor: from the intersection of Sumneytown Pike to the intersection of Kriebel Road, then along Kriebel Road to the intersection of Springer Road.
- Evansburg State Park Corridor: from the intersection of Springer Road and Kriebel Road along the edge of Evansburg State Park, then along Hedrick Road to Old Forty Foot Road, and a short segment of Old Forty Foot Road until it connects into the planned county trail in Evansburg State Park.
- Sumneytown Pike Corridor: from the intersection of Bustard Road to South Valley Forge Road.

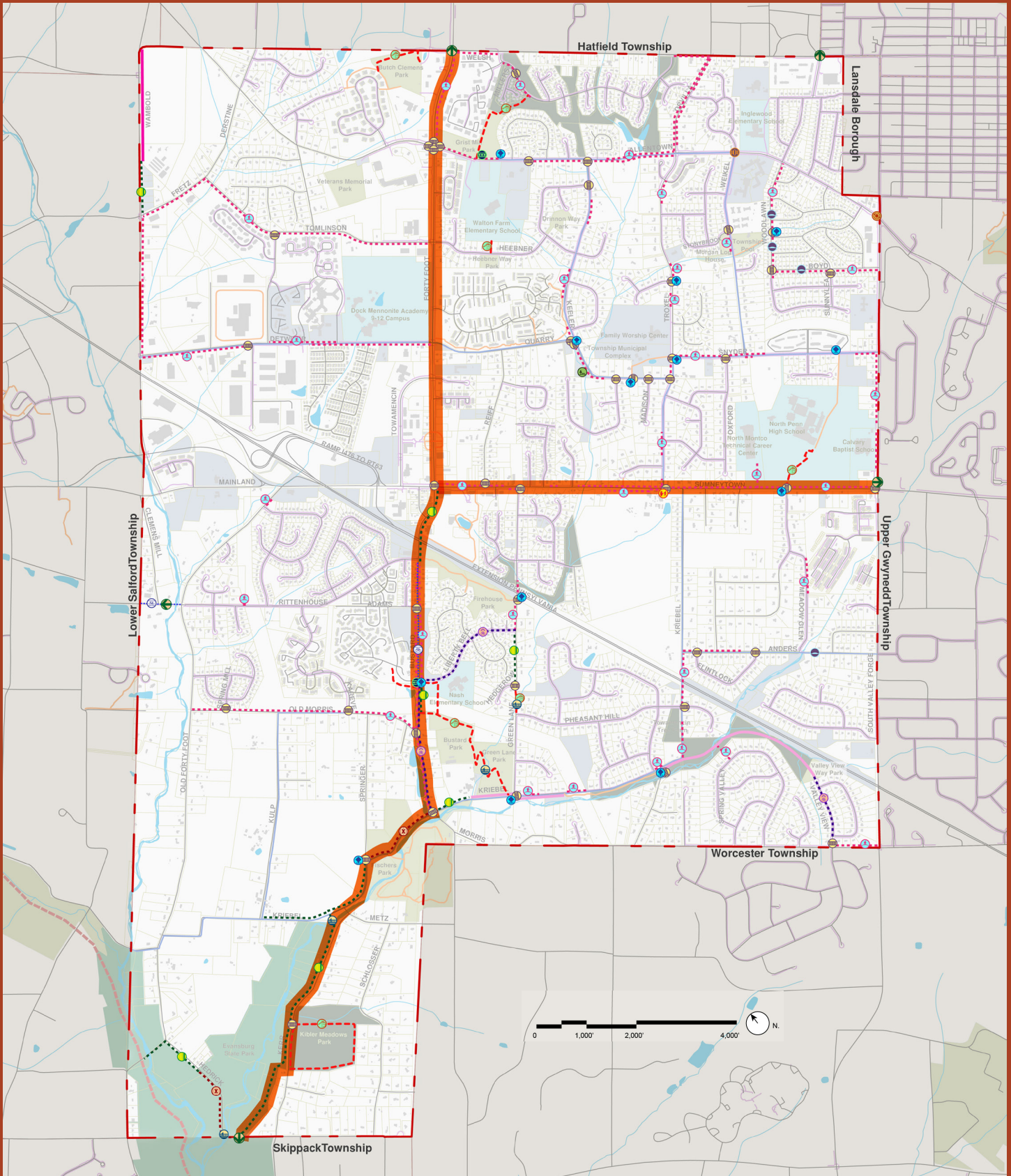
### School Connection Route

There are six schools in Towamencin Township. The purpose of the route is to provide safer connections for children and parents to walk or bike to school. A high concentration of 'toolbox' improvements can be found along these routes; such as, crosswalks, bike lanes, and side paths.

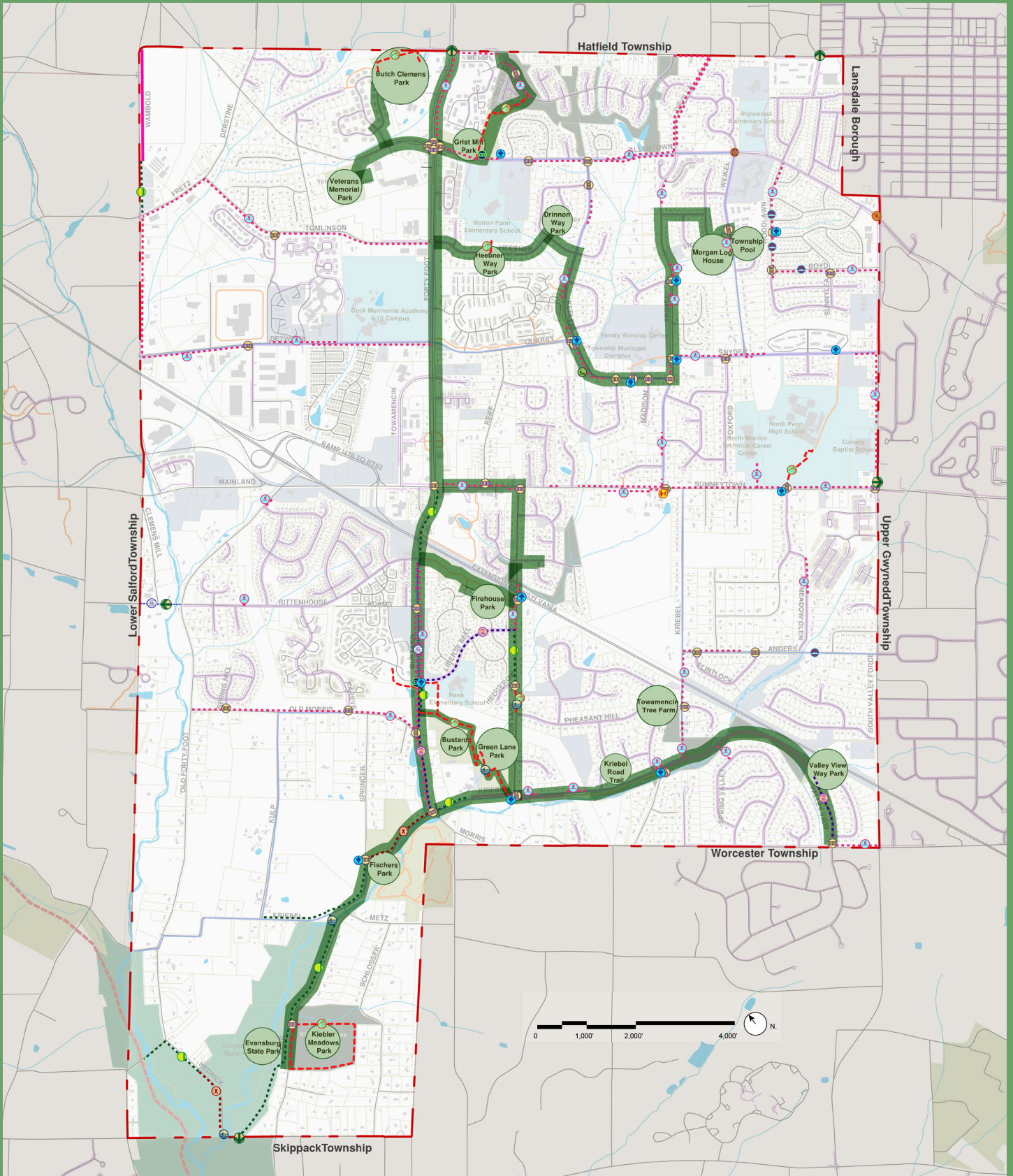
### Park Connection Route

The purpose of this route is to easily connect residents to parks. The plan utilizes the existing pathways within the parks and stitches them together with proposed and existing infrastructure outside of the parks to form a greater network of trails. Ultimately, all improvements will connect all the parks within the Township.

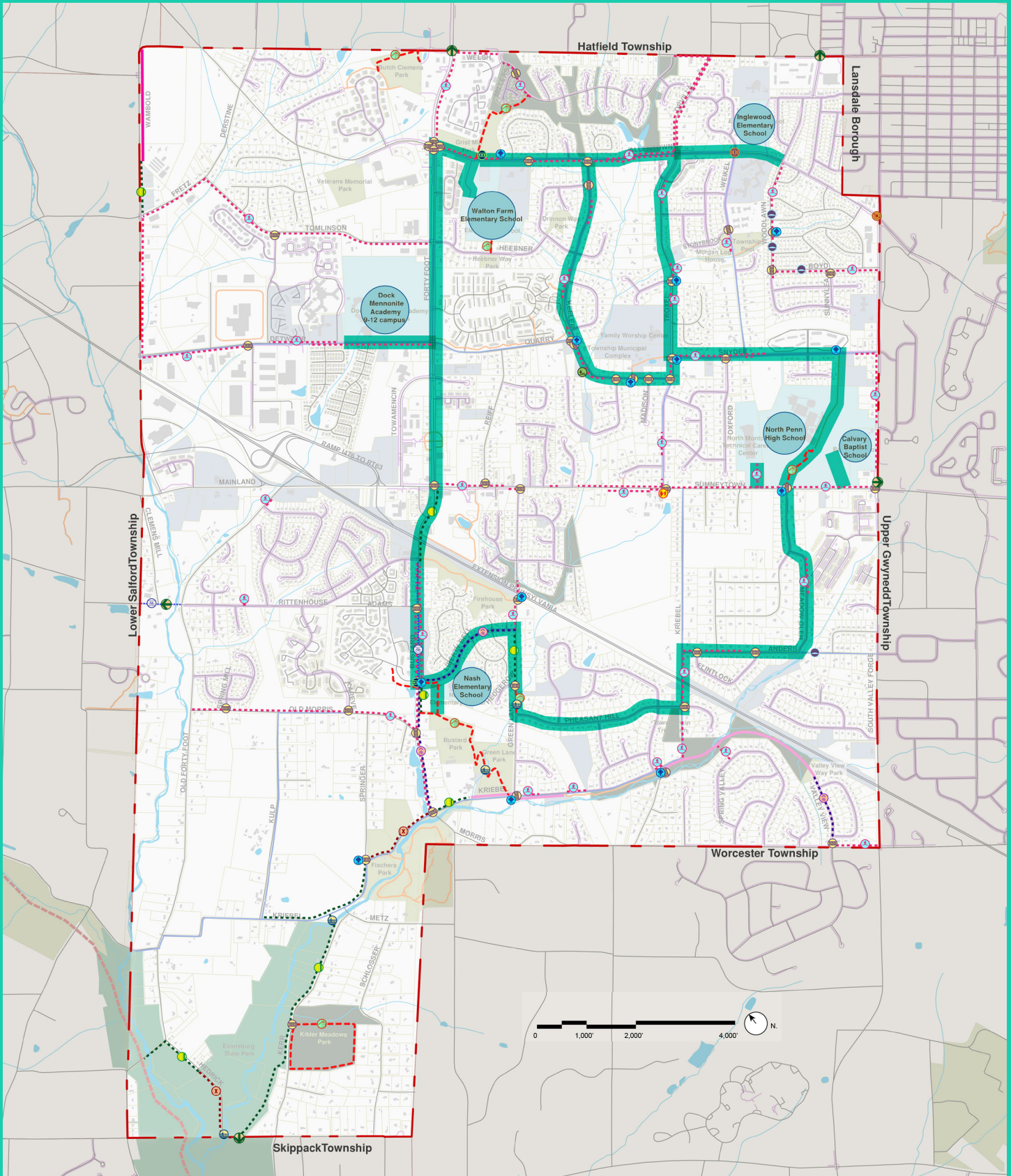
### 3.6.1 Collector Connection Route



### 3.6.2 Park Connection Route



### 3.6.3 School Connection Route









# IMPLEMENTATION

4

# 4.1 Estimated Costs of Development

These figures provide an approximate estimate to implement all proposed improvements within this plan. Final and more detailed costs will be required as more refined details are developed for each project.

All projects would not be completed at the same time, and would be approached individually and strategically depending on available grants.

Costs for development were established based on unit costs from construction projects of similar scope and scale and reflect prevailing wage rates that are required for publicly bid construction projects. The probable cost of all proposed improvements is estimated at \$12,677,500. The Cost Summary below provides summarized costs of each Cost Improvement Map, which includes estimated mobilization, erosion and sediment control, and stormwater allowance costs (estimated at 7% of the total site improvements); design and engineering fees (estimated at 15% of the total site improvements); and a construction contingency (estimated at 10% of the total site improvements).

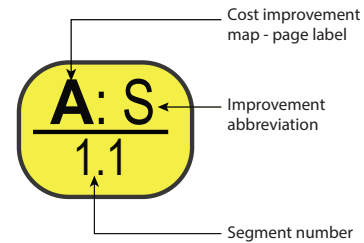
The Cost Improvement Maps provide a comprehensive graphic to review the costs associated with creating the Improvements Plans (as seen on page 51-53). Similar to the Improvements Plans, the Cost Improvements Map is divided into (3) three pages – labeled A, B, or C – with plans drawn at a scale of 1" = 100'.

The yellow labels provide a unique identification number for each improvement that coordinates with the itemized cost estimate. The unique identification number is broken down into three parts: sheet letter, improvement

abbreviation, and road segment number.

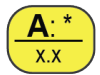
The sheet number can be found on each of the three maps labeled A, B, or C – with 'A' starting at the northern most part of the Township. The improvement identified on the plan has been assigned an abbreviation. The improvement abbreviations can be found in the blue box below. Lastly, the labels occur at the beginning/end of each road segment that intersects with another street. Each of these segments will be assigned a number. If the segment is continuous, the number will continue to the tenths.

See the diagram below that graphically describes how to reach each label.

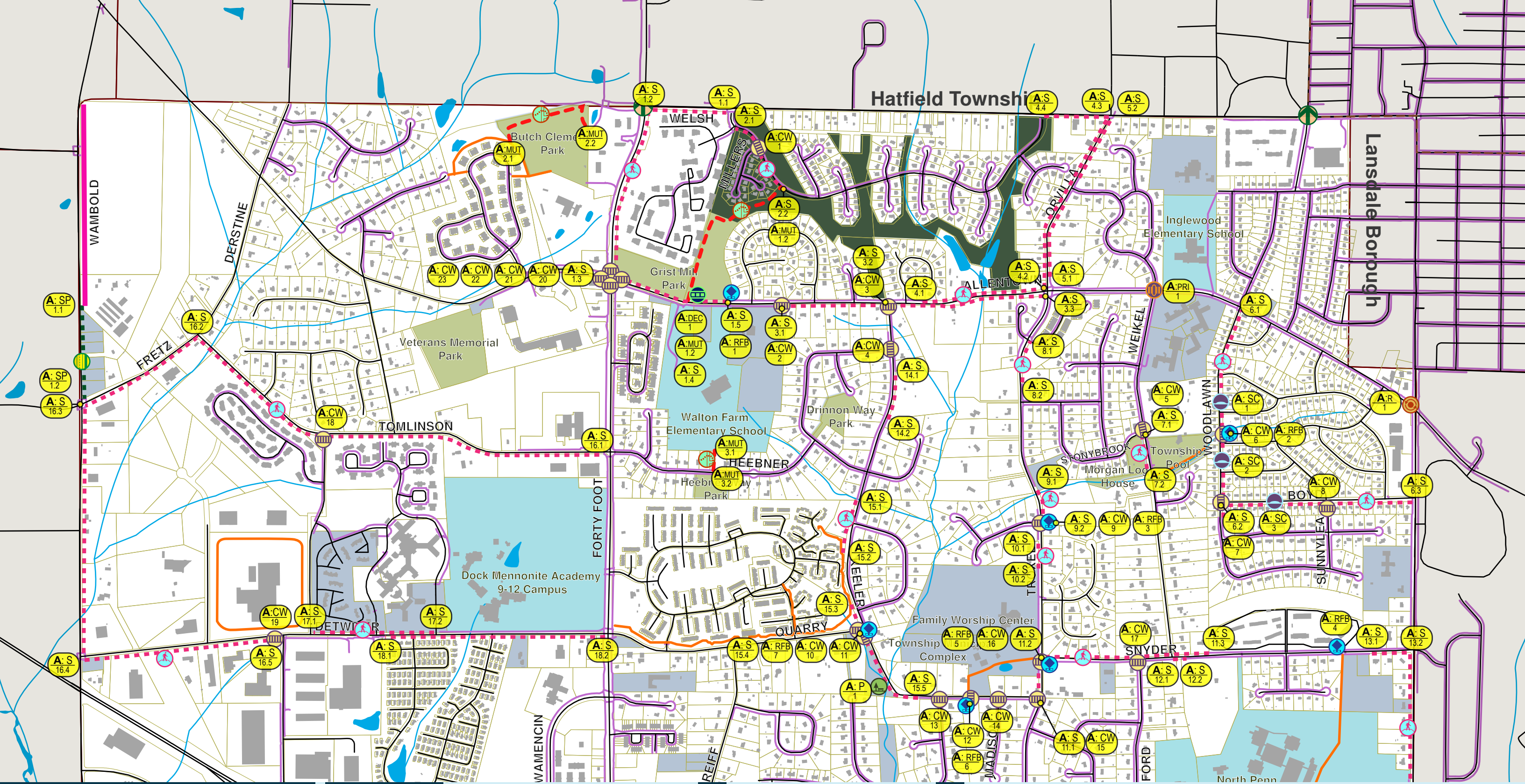


## Improvement Abbreviations

- BL = Bike Lane
- CW = Crosswalk
- DEC = Decorative Crosswalk
- HM = Handman
- MUT = Multi-use Trail
- P = Pocket Park
- PRI = Pedestrian Refuge Island
- R = Roundabout
- RC = Road Closure
- RFB = Rapid Flashing Beacon
- S = Sidewalk
- SC = Speed Cushion
- SP = Side Path
- SR = Sharrows
- TB = Trail Bridge

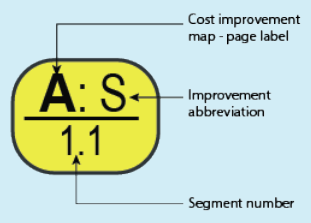


Towamencin Connectivity Study Cost Summary	
<b>Cost Improvement Map - A</b>	
Total Proposed Site Improvements	\$ 4,515,263
Mobilization, E&S, Stormwater Allowances	\$ 316,300
Construction Contingency (10%)	\$ 451,600
Design & Engineering (15%)	\$ 677,300
<b>Estimated Costs</b>	<b>\$ 5,960,500</b>
<b>Cost Improvement Map - B</b>	
Total Proposed Site Improvements	\$ 3,080,663
Mobilization, E&S, Stormwater Allowances	\$ 215,900
Construction Contingency (10%)	\$ 308,100
Design & Engineering (15%)	\$ 462,100
<b>Estimated Costs</b>	<b>\$ 4,066,800</b>
<b>Cost Improvement Map - C</b>	
Total Proposed Site Improvements	\$ 1,887,900
Mobilization, E&S, Stormwater Allowances	\$ 132,300
Construction Contingency (10%)	\$ 188,800
Design & Engineering (15%)	\$ 283,200
<b>Estimated Costs</b>	<b>\$ 2,492,200</b>
<b>Total Project Cost</b>	<b>\$ 12,519,500</b>



**Towamencin**  
T O W A M E N C I N  
**Connectivity Study**

Sheet A  
Sheet B  
Sheet C



**Existing**

- State Park
- Township Park
- Open Space
- Institutional
- School
- Existing Sidewalk
- Existing On Road Route
- Existing Trail

**Proposed**

- Township Trail
- County Trail
- Sidewalk
- Multi-Use Trail
- Side Path
- Sharrow
- Bicycle Lane
- Road/Lane Closure
- Crosswalk
- Decorative Crosswalk
- Speed Cushion
- Rapid Flashing Beacon
- Hand Man
- Pedestrian Refuge Island
- Trail Bridge
- Pocket Park
- Connection to Adjacent Twp
- Roundabout

# Cost Improvement Map A

Improvement Map A

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Sidewalk (5' Wide)	A: S			42365	LF		\$ 67.50	\$ 2,859,637.50
	A: S1.1 - S1.2	Welsh Road	South Side of Welsh Road from Grist Mill Drive to Forty Foot Road	900	LF	2		\$ 60,750.00
	A: S1.2 - S1.3	Forty Foot Road	East side of Forty Foot Road Between Welsh Road and Allentown Road	1900	LF	4		\$ 128,250.00
	A: S1.3 - S1.4	Allentown Road	North Side of Allentown Road Between Forty Foot Road and Walton Farm Elementary School	750	LF	2		\$ 50,625.00
	A: S1.4 - S1.5	Allentown Road	From Walton Farm Elementary School to End of sidewalk gap	600	LF	2		\$ 40,500.00
	A: S2.1 - S2.2	Grist Mill Drive	South side of road from Jacobs Hall Lane to proposed Grist Mill Park Trail	950	LF	2		\$ 64,125.00
	A: S3.1 - S3.2	Allentown Road	South side of Allentown Road from sidewalk gap to Keeler Road	1100	LF	2		\$ 74,250.00
	A: S3.2 - S3.3	Allentown Road	South side of Allentown Road from Keeler Road to Troxel Road	1700	LF	2		\$ 114,750.00
	A: S4.1 - S4.2	Allentown Road	North side of Allentown Road from sidewalk gap to Orvilla Road	1350	LF	2		\$ 91,125.00
	A: S4.2 - S4.3	Orvilla Road	West side of road from Allentown Road to Township Boundary on Welsh Road	2100	LF	2		\$ 141,750.00
	A: S4.3 - S4.4	Welsh Road	South side of road from Orvilla Road to Grist Mill Drive	660	LF	2		\$ 44,550.00
	A: S5.1 - S5.2	Orvilla Road	East side of road from Allentown Road to township boundary on Welsh Road	2100	LF	2		\$ 141,750.00
	A: S6.1 - S6.2	Woodlawn Drive	East side of road from Allentown Road to Boyd Avenue	2150	LF	2		\$ 145,125.00
	A: S6.2 - S6.3	Boyd Avenue	South Side of Road from Woodlawn Drive to Township Boundary on South Valley Forge Road	2100	LF	2		\$ 141,750.00
	A: S7.1 - S7.2	Weikel Road	West side of road in front of Morgan Log House	430	LF	2		\$ 29,025.00
	A: S8.1 - S8.2	Troxel Road	East side of road from West Hampton Way to Sidewalk Gap	430	LF	2		\$ 29,025.00
	A: S9.1 - S9.2	Troxel Road	East Side of road from sidewalk gap to Carriage Way	300	LF	2		\$ 20,250.00
	A: S10.1 - S10.2	Troxel Road	West side of road sidewalk gap	300	LF	2		\$ 20,250.00
	A: S11.1 - S11.2	Troxel Road	East side of road from Keeler Road to Snyder Road	250	LF	2		\$ 16,875.00
	A: S11.2 - S11.3	Snyder Road	North Side of road from Troxel Road to sidewalk gap	1840	LF	2		\$ 124,200.00
	A: S12.1 - S12.2	Snyder Road	South side of road sidewalk gap	100	LF	2		\$ 6,750.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
	A: S13.1 - S13.2	Snyder Road	South side of road from sidewalk gap to Township Boundary on Valley Forge Road	450	LF	2		\$ 30,375.00
	A: S13.2 - S13.3	South Valley Forge Road	West side of road from Snyder Road to Sidewalk Gap	2300	LF	2		\$ 155,250.00
	A: S14.1 - S14.2	Keeler Road	East side of road Sidewalk Gap near Drinnon Way Park	550	LF	2		\$ 37,125.00
	A: S15.1 - S15.2	Keeler Road	West side of road sidewalk gap to existing trail	680	LF	2		\$ 45,900.00
	A: S15.2 - S15.3	Keeler Road	use existing trail	650	LF	N/A	N/A	N/A
	A: S15.3 - S15.4	Keeler Road	West side of road from Existing Trail to Intersection of Quarry Road and Keeler Road	185	LF	4		\$ 12,487.50
	A: S15.4 - S15.5	Keeler Road	West side of road from Quarry Road to sidewalk gap	1000	LF	4		\$ 67,500.00
	A: S16.1 - S16.2	Tomlinson	South side of road from Forty Foot Road to Fretz Road	5000	LF	4		\$ 337,500.00
	A: S16.2 - S16.3	Fretz Road	South side of road from Tomlinson Road to Wambold Road	1440	LF	4		\$ 97,200.00
	A: S16.3 - S16.4	Wambold Road	West side of road from Fretz Road to Detwiler Road	2700	LF	4		\$ 182,250.00
	A: S16.4 - S16.5	Detwiler Road	South Side of Road from Wambold Road to Gehman Road	2200	LF	2		\$ 148,500.00
	A: S17.1 - S17.2	Detwiler Road	North side of road from Gehman Road to Woods Drive	1350	LF	2		\$ 91,125.00
	A: S18.1 - S18.2	Detwiler Road	South side of road from sidewalk gap to Forty Foot Road	2500	LF	2		\$ 168,750.00

Improvement Type	Segment Label	Intersection	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Crosswalk (Note: crosswalk costs will vary based on number of ADA curb ramps needed)	A: CW			23	EA		\$ 1,125.00	\$ 241,875.00
	A: CW 1	Grist Mill Drive and Millers Way	South/West side of Grist Mill Drive	1	EA	1		\$ 1,125.00
	A: CW 2	Allentown Road and Private Drive at Presentation of Our Lord Ukrainian Catholic Church	South side of Allentown Road *Requires (2) curb ramps	1	EA	1		\$ 19,125.00
	A: CW 3	Allentown Road and Keeler Road	South side of Allentown road *Requires (1) curb ramps	1	EA	1		\$ 10,125.00
	A: CW 4	Keeler Road and Tennis Circle	West side of Keeler Road	1	EA	1		\$ 1,125.00
	A: CW 5	Weikel Road and Stonybrook Lane	West side of Weikel road, *requires (2) curb ramps	1	EA	1		\$ 19,125.00
	A: CW 6	Woodlawn Drive Crossing	West side of Woodlawn Drive, *requires (1) curb ramp	1	EA	1		\$ 10,125.00
	A: CW 7	Woodlawn Drive and Boyd Avenue	East side of Woodlawn Drive *Requires (2) curb	1	EA	1		\$ 19,125.00
	A: CW 8	Boyd Avenue and Sunnylea Road	South side of Boyd Avenue *Requires (2) curb ramps	1	EA	1		\$ 19,125.00

Improvement Type	Segment Label	Intersection	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
	A: CW 9	Troxel Road and Carriage Way	crossing Troxel, north side of Carriage Way	1	EA	1		\$ 1,125.00
	A: CW 10	Keeler Road and Quarry Road	West side of Keeler Road *Requires (2) curb ramps	1	EA	1		\$ 19,125.00
	A: CW 11	Keeler Road	Crosses Keeler Road with flashing beacon	1	EA	1		\$ 19,125.00
	A: CW 12	Keeler Road	Crossing Keeler Road with Flashing Beacon *Requires (1) curb ramp	1	EA	1		\$ 10,125.00
	A: CW 13	Keeler Road and Michael Way	South side of Keeler Road *Requires (2) updated curb ramps	1	EA	1		\$ 19,125.00
	A: CW 14	Keeler Road and Madison Way	South side of Keeler Road	1	EA	1		\$ 1,125.00
	A: CW 15	Troxel Road and Keeler Way	East Side of Street *Requires (2) curb ramps	1	EA	1		\$ 19,125.00
	A: CW 16	Troxel Road	Crossing Troxel from entrance of Township Building *Requires (1) curb ramp	1	EA	1		\$ 10,125.00
	A: CW 17	Snyder Road	South side of road * Curb ramps May require updates to meet code	1	EA	1		\$ 1,125.00
	A: CW 18	Tomlinson Road and Gehman Road	South side of road *Requires (2) curb ramps	1	EA	1		\$ 19,125.00
	A: CW 19	Detwiler Road and Gehman Road	South side of road *Requires (2) curb ramps	1	EA	1		\$ 19,125.00
	A: CW 20	Forty Foot Road and Allentown Road	West Side of Forty Foot Road	1	EA	1		\$ 1,125.00
	A: CW 21	Forty Foot Road and Allentown Road	East Side of Forty Foot Road	1	EA	1		\$ 1,125.00
	A: CW 22	Forty Foot Road and Allentown Road	North side of Allentown Road	1	EA	1		\$ 1,125.00
	A: CW 23	Forty Foot Road and Allentown Road	South side of Allentown Road	1	EA	1		\$ 1,125.00

Improvement Type	Segment Label	Intersection Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Intersection Improvements	N/A			1	EA		\$ 50,000.00	\$ 50,000.00
	A: CW 20 - A: CW 23	Forty Foot Road and Allentown Road	All corners of intersection - Lighting, signage, lead pedestrian interval to crosswalk signal.	1	EA	1		\$ 50,000.00

Improvement Type	Segment Label	Intersection Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Decorative Crosswalk	A: DEC			1	EA		\$ 2,250.00	\$ 20,250.00
	A: DEC 1	Allentown Road and Entrance of Grist Mill Park	North Side of Allentown at Entrance of Grist Mill Park	1	EA	2		\$ 20,250.00

Improvement Type	Segment Label	Location/Adjacent Street	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Multi-Use Trail (10' Wide)	A: MUT			3550	LF		\$ 70.00	\$ 248,500.00
	A: MUT 1.1 - 1.2	N/A	Through Grist Mill Park to Grist Mill Drive	1800	LF	4		\$ 126,000.00

Improvement Type	Segment Label	Location/Adjacent Street	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
	A: MUT 2.1 - 2.2	N/A	From existing trail in residential development through Butch Clemens Park	1300	LF	4		\$ 91,000.00
	A: MUT 3.1 -3.2	N/A	From Walton Farm Elementary to Heebner Way	450	LF	2		\$ 31,500.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Roundabout	A: R			1	EA		\$ 750,000.00	\$ 750,000.00
	A: R 1	South Valley Forge Road	Intersection of Allentown Road and South Valley Forge Road	1	EA	4		\$ 750,000.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Rapid Flashing Beacon	A: RFB			7	EA		\$ 30,000.00	\$ 210,000.00
	A: RFB 1	Allentown Road	Near entrance to Grist Mill Park	1	EA	2		\$ 30,000.00
	A: RFB 2	Woodlawn Road	Near Township Pool	1	EA	4		\$ 30,000.00
	A: RFB 3	Troxel Road	North of Family Worship Center	1	EA	2		\$ 30,000.00
	A: RFB 4	Snyder Road	North of North Penn High School	1	EA	2		\$ 30,000.00
	A: RFB 5	Troxel Road	Eastern Entrance to Township Municipal Complex	1	EA	2		\$ 30,000.00
	A: RFB 6	Keeler Road	Southern Entrance to Township Municipal Complex	1	EA	2		\$ 30,000.00
	A: RFB 7	Keeler Road	Crossing Keeler Road from Quarry Road	1	EA	4		\$ 30,000.00

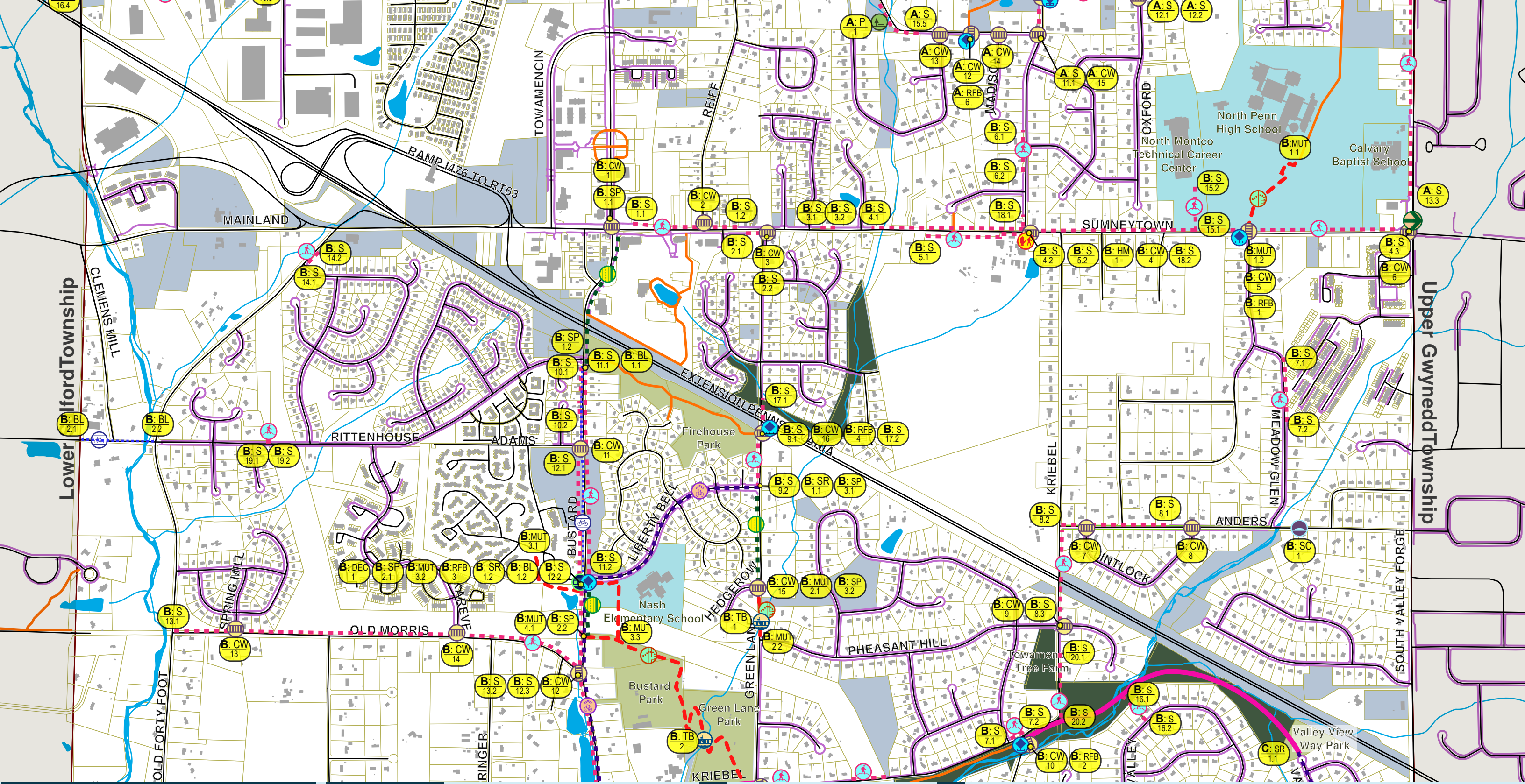
Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Pedestrian Refuge Island	A: PRI			1	EA		\$ 20,000.00	\$ 20,000.00
	A: PRI 1	Allentown Road	Near Entrance to Inglewood Elementary	1	EA	2		\$ 20,000.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Speed Cushion	A: SC			3	EA		\$ 4,000.00	\$ 12,000.00
	A: SC1	Woodlawn Road	North of Township Pool	1	EA	2		\$ 4,000.00
	A: SC2	Woodlawn Road	South of Township Pool	1	EA	2		\$ 4,000.00
	A: SC3	Boyd Avenue	Between Woodlawn Road and Sunnylea Road	1	EA	2		\$ 4,000.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Pocket Park	A: P			1	EA		\$ 26,000.00	\$ 26,000.00
	A: P 1	Keeler Road	Between Quarry Road and Michael Way	1	EA	4		\$ 26,000.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Side Path (10' Wide)	A: SP			1100	LF		\$ 70.00	\$ 77,000.00
	A: SP 1.1 - SP 1.2	Wambold Road	East Side of road from Schoolhouse Road to Fretz Road	1100		4		\$ 77,000.00

SubTotal: \$ 4,515,262.50



**Towamencin**  
T O W N S H I P  
**Connectivity Study**

Sheet A  
Sheet B  
Sheet C

0 500' 1000' 2000'

N

Cost improvement map - page label

Improvement abbreviation

Segment number

**B: S**  
1.1

- Existing**
- State Park
  - Township Park
  - Open Space
  - Institutional
  - School
  - Existing Sidewalk
  - Existing On Road Route
  - Existing Trail

- Proposed**
- Township Trail
  - County Trail
  - Sidewalk
  - Multi-Use Trail
  - Side Path
  - Sharrow
  - Bicycle Lane
  - Road/Lane Closure
  - Crosswalk
  - Decorative Crosswalk
  - Speed Cushion
  - Rapid Flashing Beacon
  - Hand Man
  - Pedestrian Refuge Island
  - Trail Bridge
  - Pocket Park
  - Connection to Adjacent Twp
  - Roundabout

# Cost Improvement Map B

Improvement Map B								
Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Sidewalk (5' Wide)	B: S			26,065	LF		\$ 67.50	\$ 1,641,262.50
	B: S1.1 - S1.2	Sumneytown Pike	North side of road from sidewalk gap near Forty Foot Road to sidewalk gap	1,140	LF	3		\$ 76,950.00
	B: S2.1 - S2.2	Sumneytown Pike	South side of road, sidewalk gap east of Green Lane Road	150	LF	3		\$ 10,125.00
	B: S3.1 - S3.2	Sumneytown Pike	North side of road, sidewalk Gap between Green Lane Road and Troxel Road	100	LF	3		\$ 6,750.00
	B: S4.1 - S4.2	Sumneytown Pike	North side of road from sidewalk gap to Troxel Road	1700	LF	3		\$ 114,750.00
	B: S4.2 - S4.3	Sumneytown Pike	North side of Road from Troxel Road to Township Boundary on South Valley Forge	4100	LF	3		\$ 276,750.00
	B: S5.1 - S5.2	Sumneytown Pike	South side of road from Troxel Road to Freddy Hill Farms property Boundary	1100	LF	3		\$ 74,250.00
	B: S6.1 - S6.2	Troxel Road	West side of road, sidewalk gap	475	LF	2		\$ 32,062.50
	B: S7.1 - S7.2	Meadow Glen Drive	East side of road sidewalk gap	700	LF	2		\$ 47,250.00
	B: S8.1 - S8.2	Anders Road	North side of road from sidewalk gap to intersection with Kriebel Road	1200	LF	2		\$ 81,000.00
	B: S8.2 - S8.3	Kriebel Road	East side of road from Anders Road to entrance of Towamencin Tree farm	1100	LF	1		\$ 74,250.00
	B: S9.1 - S9.2	Green Lane Road	West side of road from Firehouse Park extension to Liberty Bell Drive	500	LF	4		\$ 33,750.00
	B: S10.1 - S10.2	Bustard Road	West side of road from Rittenhouse Road to sidewalk gap (reaches to EX sidewalk)	500	LF	2		\$ 33,750.00
	B: S11.1 - S11.2	Bustard Road	East side of road from Rittenhouse Road to Liberty Bell Drive	2300	LF	2		\$ 155,250.00
	B: S12.1 - S12.2	Bustard Road	West side of road from Adams Road to Liberty Bell Drive	1400	LF	2		\$ 94,500.00
	B: S12.2 - S12.3	Bustard Road	West side of road from Liberty Bell Drive to Old Morris Road	900	LF	3		\$ 60,750.00
	B: S12.3 - S12.4	Bustard Road	West side of road from Old Morris Road to Kriebel Road	1700	LF	3		\$ 114,750.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
	B: S13.1 - S13.2	Old Morris Road	North Side of road from Old Forty Foot Road to Bustard Road	4600	LF	4		\$ 310,500.00
	B: S14.1 - S14.2	Old Forty Foot Road	Sidewalk gap North of Rittenhouse Road	300	LF	2		\$ 20,250.00
	B: S15.1 - S15.2	N/A	North Penn VoTech School	350	LF	2		\$ 23,625.00
	B: S16.1 - S16.2	N/A	Between Spring Valley Road and New Kriebel Road Trail	400	LF	4		\$ 27,000.00
	B: S17.1 - S17.2	N/A	East side of Green Lane Road under Turnpike underpass	400	LF	1		\$ 27,000.00
	B: S18.1 - S18.2	N/A	East side of Troxel Road sidewalk gap. *Requires Retaining wall section	150	LF	2		\$ 73,425.00
	B: S19.1 - S19.2	N/A	North Side of Rittenhouse Road sidewalk gap	50	LF	2		\$ 3,375.00
	B: S20.1 - S20.2	N/A	East side of Kriebel Road from sidewalk gap to Kriebel Road Trail	750	LF	4		\$ 50,625.00

Improvement Type	Segment Label	Intersection	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Crosswalk	B: CW			19	EA		\$ 1,125.00	\$ 174,375.00
	B: CW 1	Forty Food Road and Sumneytown Pike	All intersections (Currently have lines, need stripes)	4	EA	1		\$ 4,500.00
	B: CW 2	Sumneytown Pike and Reiff Road	North Side of Sumneytown Pike crossing Reiff Road	1	EA	1		\$ 1,125.00
	B: CW 3	Sumneytown Pike and Green Lane Road	South side of Sumneytown Pike crossing Green Lane Road	1	EA	1		\$ 1,125.00
	B: CW 4	Sumneytown Pike and Troxel Road	Crossing Sumneytown Pike (North to South) *requires (2) new Curb Ramps	1	EA	1		\$ 19,125.00
	B: CW 5	Sumneytown Pike and Trail crossing to North Penn	Crossing Sumneytown Pike (North to South) *requires (1) new Curb Ramp on School Side	1	EA	1		\$ 10,125.00
	B: CW 6	South Valley Forge Road and Sumneytown Pike	East side of South Valley Forge, crossing Sumneytown Pike Currently has lines, add stripes	1	EA	1		\$ 1,125.00
	B: CW 7	Anders Road and Flintlock Circle	South side of Anders Road crossing Flintlock Circle	1	EA	1		\$ 1,125.00
	B: CW 8	Anders Road and Flintlock Circle	South side of Anders Road crossing Flintlock Circle	1	EA	1		\$ 1,125.00



Improvement Type	Segment Label	Intersection	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
	B: CW 9	Kriebel Road and Pheasant Hill	East side of Kriebel Road, crossing Pheasant Hill Road	1	EA	1		\$ 19,125.00
	B: CW 10	Kriebel Road Midblock Crossing	Crosses Kriebel to trail with flashing beacon *Requires (2) curb ramps	1	EA	1		\$ 19,125.00
	B: CW 11	Bustard Road and Adams Road	West side of Bustard Road crossing Adams Road *Requires (2) curb ramps	1	EA	1		\$ 19,125.00
	B: CW 12	Old Morris Road and Bustard Road	West side of Bustard Road crossing Old Morris Road	1	EA	1		\$ 19,125.00
	B: CW 13	Old Morris Road and Spring Mill Way	North Side of Old Morris Road crossing Spring Mill Way	1	EA	1		\$ 19,125.00
	B: CW 14	Old Morris Road and Kareve Drive	North Side of Old morris Road crossing Kareve Drive	1	EA	1		\$ 1,125.00
	B: CW 15	Green Lane Road and Hedgerow Way	West side of Green Lane Road crossing Hedgerow Way *Requires (2) curb ramps	1	EA	1		\$ 19,125.00
	B: CW 16	Crossing Green Lane Road from Firehouse Park	West side of Green Lane Road crossing Hedgerow Way *Requires (2) curb ramps	1	EA	1		\$ 19,125.00

Improvement Type	Segment Label	Location/Adjacent Street	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Multi-Use Trail (10' Wide)	B: MUT			6000			\$ 70.00	\$ 420,000.00
	B: MUT 1.1 - B: MUT 1.2	Sumneytown Pike	North Penn High School Trail	1000	LF	2		\$ 70,000.00
	B: MUT 2.1 - B: MUT 2.2	Green Lane Road	From Hedgerow Way to Pheasant Hill through Right Of Way easement	500	LF	4		\$ 35,000.00
	B: MUT 3.1 - B: MUT 3.2	Near Bustard Road	From Residential to Bustard Road	700	LF	4		\$ 49,000.00
	B: MUT 3.2 - B: MUT 3.3	Near Bustard Road	From Bustard Road through Nash Elementary into Bustard Park	800	LF	2		\$ 56,000.00
	B: MUT 4.1 - B: MUT 4.2	Near Bustard Road	Through Bustard Park and Green Lane Park	3000	LF	4		\$ 210,000.00

Improvement Type	Segment Label	Location/Adjacent Street	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Side Path (10' Wide)	B: SP			2200	LF		\$ 70.00	\$ 77,000.00
	B: SP 1.1 - SP 1.2	Bustard Road		700	LF	1		\$ 49,000.00
	B: SP 2.1 - SP 2.2	Bustard Road		400	LF	2		\$ 28,000.00
	B: SP 3.1 - SP 3.2	Green Lane Road		1100	LF	4		\$ 77,000.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Sharrows	B: SR			21	EA		\$ 275.00	\$ 5,775.00
	B: SR 1.1 - 1.2	Liberty Bell Drive	Between Green Lane Road and Bustard Road	10	EA	1		\$ 2,750.00
	B: SR 1.2 - 1.3	Bustard Road	Between Liberty Bell Drive and Kriebel Road	11	EA	1		\$ 3,025.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Bike Lanes	B: BL			5800	LF		\$ 1.50	\$ 7,500.00
	B: BL 1.1 - BL 1.2	Bustard Road	West Side of Road	2500	LF	2		\$ 3,750.00
	B: BL 1.1 - BL 1.2	Bustard Road	East Side of road	2500	LF	2		\$ 3,750.00
	B: BL 2.1 - BL2.2	Rittenhouse Road	Across bridge	800	LF	3		\$ 1,200.00

Improvement Type	Segment Label	Area/Connecting Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Pedestrian Trail Bridge	B: TB			2	EA		\$ 400,000.00	\$ 650,000.00
	B: TB 1	Green Lane Rd.	Crosses creek north of Green Lane Park in Right of Way easement	1	EA	4		\$ 400,000.00
	B: TB 2	Green Lane Park	Crosses Creek within Green Lane Park	1	EA	4		\$ 250,000.00

Improvement Type	Segment Label	Intersection	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Decorative Crosswalk	B: DEC			1	EA		\$ 2,250.00	\$ 11,250.00
		Bustard Road and Liberty Bell Drive	Crosses Bustard Road - Entrance to Nash Elementary	1	EA	2		\$ 11,250.00

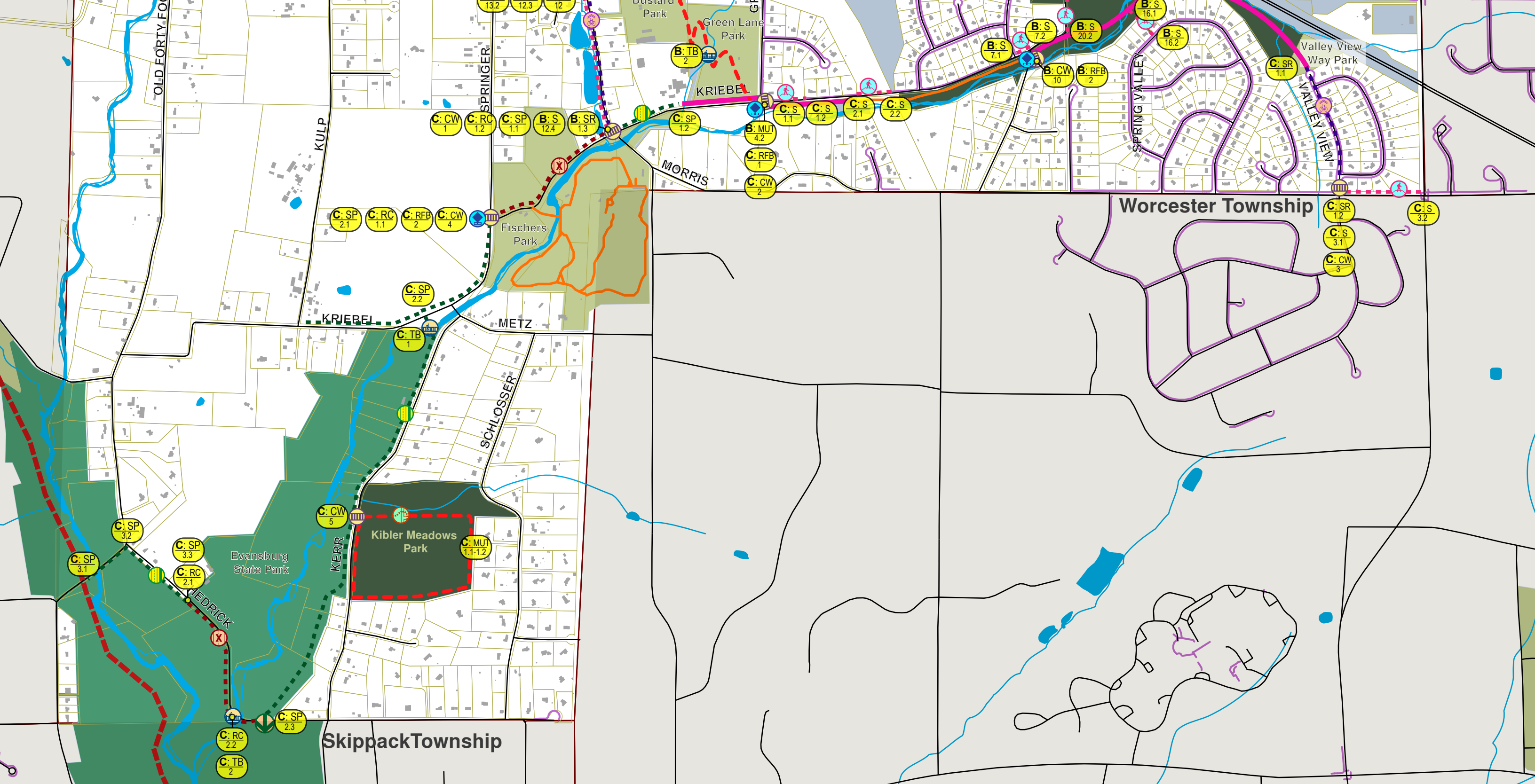
Improvement Type	Segment Label	Intersection Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Hand Man	B: HM			1	EA		\$ 3,500.00	\$ 3,500.00
	B: HM1	Sumneytown Pike and Troxel Road	South side of Sumneytown Pike at proposed sidewalk location	1	EA	2		\$ 3,500.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Rapid Flashing Beacon	B: RFB			4	EA		\$ 30,000.00	\$ 90,000.00
	B: RFB 1	Sumneytown Pike	At Bridle Path Drive	1	EA	2		\$ 30,000.00
	B: RFB 2	Kriebel Road	At Trumbaur Road	1	EA	4		\$ 30,000.00
	B: RFB 3	Bustard Road	At Liberty Bell Drive	1	EA	2		\$ 30,000.00
	B: RFB 4	Green Lane Road	At Firehouse Park	1	EA	1		\$ 30,000.00

SubTotal: \$ 3,080,662.50

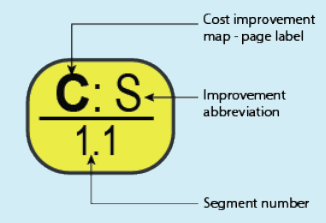






**Towamencin**  
T O W A M E N C I N  
**Connectivity Study**

Sheet A  
Sheet B  
Sheet C



**Existing**

- State Park
- Township Park
- Open Space
- Institutional
- School
- Existing Sidewalk
- Existing On Road Route
- Existing Trail

**Proposed**

- Township Trail
- County Trail
- Sidewalk
- Multi-Use Trail
- Side Path
- Sharrow
- Bicycle Lane
- Road/Lane Closure
- Crosswalk
- Decorative Crosswalk
- Speed Cushion
- Rapid Flashing Beacon
- Hand Man
- Pedestrian Refuge Island
- Trail Bridge
- Pocket Park
- Connection to Adjacent Twp
- Roundabout

# Cost Improvement Map C

Improvement Map C

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Sidewalk (5' Wide)	C: S			1,550	LF		\$67.50	\$ 104,625.00
	C: S1.1 - S1.2	Kriebel Rd.	North side of road from Green Lane Road to sidewalk gap	270	LF	4		\$ 18,225.00
	C: S2.1 - S2.2	Kriebel Rd.	North side of road sidewalk gap	430	LF	4		\$ 29,025.00
	C: S3.1 - S3.2	Morris Rd.	from Valley View Way to South Valley Forge Road	850	LF	4		\$ 57,375.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Multi-Use Trail (10' Wide)	C: MUT			4300	LF		\$70.00	\$301,000.00
	C:MUT1.1 - MUT 1.2	N/A	Kibler Meadows Loop	4300	LF	4		\$ 301,000.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Side Path (10' Wide)	C: SP			3200	LF		\$ 70.00	\$ 609,000.00
	C: SP 1.1 - SP 1.2	Kriebel Road	From Bustard Road to Kriebel Road Trail	800	LF	3		\$ 56,000.00
	C: SP 2.1 - SP 2.2	Kriebel Road	From Fischers Park to Kulp Road	1200	LF	3		\$ 84,000.00
	C: SP 2.2 - SP 2.3	Kerr Road	Along Evansburg State Park	4750	LF	3		\$ 332,500.00
	C: SP 3.1 - 3.2	Old Forty Foot Road	Within Evansburg State Park	950	LF	3		\$ 66,500.00
	C: SP 3.2 - 3.3	Hedrick Road	Within Evansburg State Park	1000	LF	3		\$ 70,000.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Road Closure	C: RC			3200	LF		N/A	\$ 6,000.00
	C: RC 1.1 - RC 1.2	Kriebel Road	Close road between Springer Road and Bustard Road. Barriers & Signage	1700	LF	3	3000	3000
	C: RC 2.1 - RC 2.2	Hedrick Road	Paint Trail on Hedrick Road	1500	LF	3	N/A	3000

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Pedestrian Trail Bridge	C: TB			2	EA		\$ 400,000.00	\$ 800,000.00
	C: TB 1	Metz Road		1	EA	3		\$ 400,000.00
	C: TB 2	Hedrick Road		1	EA	3		\$ 400,000.00

Improvement Type	Segment Label	Intersection	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Crosswalk	C: CW			5	EA		\$ 1,125.00	\$ 5,625.00
	C: CW 1	Bustard Road and Kriebel Road		1	EA	1		\$ 1,125.00
	C: CW 2	Green Lane Road and Kriebel Road		1	EA	1		\$ 1,125.00
	C: CW 3	Morris Road and Valley View Way		1	EA	1		\$ 1,125.00
	C: CW 4	Springer Road and Kriebel Road		1	EA	1		\$ 1,125.00
	C: CW 5	Kerr Road and Kibler Meadows Park		1	EA	1		\$ 1,125.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Rapid Flashing Beacon	C: RFB			2	EA		\$ 30,000.00	\$ 60,000.00
	C: RFB 1	Kriebel Road	At intersection of Green Lane Road	1	EA	4		\$ 30,000.00
	C: RFB 2	Springer Road	At intersection of Kriebel Road	1	EA	3		\$ 30,000.00

Improvement Type	Segment Label	Street Name	Description	Estimated Quantity	Unit	Priority	Unit Cost	Total Cost
Sharrows	C: SR			6	EA		\$ 275.00	\$ 1,650.00
	C: SR 1.1 - 1.2	Valley View Drive		6	EA	1		\$ 1,650.00

Sub Total: \$ 1,887,900.00

## 4.2 Implementation Priorities

The recommendation plan for Towamencin Township includes a large number of improvements. It is important to note that implementation priorities can change based on available opportunities. For instance, if a landowner donates a section of property, or an applicable grant becomes available, the sections of the plan affected should take priority.

The high priority items in this plan are labeled “1” in the cost estimate. These items focus on connecting populations where Interstate 476 creates barriers in the Township. These locations include:

- Bustard Road near Firehouse Park
- Green Lane Road Underpass
- Kriebel Road near the Towamencin Tree Farm Park

Other high priority items include low challenge recommendations that are less complex to achieve, such as:

- All crosswalk locations
- Sharrow routes along Liberty Bell Drive and Bustard Road
- Signage along routes

Improvements categorized as priority “2” in the cost estimate include those that focus on connecting school routes and completing sidewalk gaps. Improvements on Allentown Road and Snyder Road are examples which allow for neighboring residents to readily access schools such as North Penn High School and Inglewood Elementary. Improvements on Forty Foot Road and Bustard Road accommodate schools such as Walton Farm Elementary, Dock Mennonite 9-12 Campus, Walton Farm Elementary School, and Nash Elementary School.

The following items are labeled “3” in the priority column of the cost estimate. These recommendations focus on improvements along collector routes. These include:

- Bustard Road Corridor
- Evansburg State Park Corridor
- Sumneytown Pike Sidewalk corridor

Improvements categorized as priority “4” in the cost estimate focus on connecting parks within the Township. These improvements are primarily concentrated on the north-south connection of Forty Foot Road and Bustard Road. They also focus on connections to the new Kriebel Road Trail.

### 4.2.1 Towamencin Township Sidewalk Deferral Program

The Township has some data about sidewalk installation deferrals that have been granted through the land development process. However, escrow fees are not collected from applicants when these deferrals are made. As a result, these deferrals are not enforced, and the sidewalks never get constructed.

This study recommends that the Township pass an ordinance requiring payment of a fee in lieu of sidewalk construction if there are any sidewalk deferrals in order that these important pedestrian facilities are constructed.



## 4.2.2 Adopt an Official Map

An Official Map is both an ordinance and a map on which a municipality can express its interest in possibly acquiring land to construct public improvements. These improvements can include roads, trails, parks and open space, stormwater management facilities and other public improvements. This plan recommends that the Township adopt an Official Map for the purpose of including improvements recommended by this plan on that map. The Township's adoption of an Official Map creates a planning basis for the trail and sidewalk improvements proposed in the Connectivity Study, it does not, however commit the municipality to acquire the land to build these improvements. Additionally, private developers can play an important role in the implementation of these proposed improvements as they can build them, as shown on the Official Map, during the land development process.

For information about the Official Map please go to:  
<https://conservationtools.org/guides/60-official-map> and  
<https://www.dot.state.pa.us/public/PubsForms/Publications/PUB%20703.pdf>

## 4.2.3 Collaboration with Adjacent Municipalities and Evansburg State Park

Where planned connectivity improvements abut or connect to facilities in neighboring municipalities or Evansburg State Park, Towamencin Township should seek to work with these neighbors on grants and/or construction projects to advance these improvements. Many grant programs rank multi-municipal planning and construction funding applications higher than single community requests.





## 4.3 Potential Funding Sources

### 4.3.1 Pennsylvania Department of Transportation (PennDOT)

#### Transportation Alternatives Set-Aside (TASA)

The Transportation Alternatives Set-Aside Program (TASA) is a Federal highway and transit funds set-aside under the Surface Transportation Program (STP) for community-based “non-traditional” projects designed to strengthen the cultural, aesthetic, and environmental aspects of the nation’s intermodal transportation system. The program seeks to provide funding for projects such as construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportation.

Non-motorized forms of transportation include sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990. There is a minimum award of \$500,000 for construction projects. There is a maximum award of \$1,500,000, although higher awards can be justified for “exceptional” projects. No applicant match is required. This program is available every other year, however current awardees must provide all design and engineering for the project through the PennDOT ECMS process.

For more information, visit <https://www.penndot.gov/ProjectAndPrograms/Planning/Pages/Transportation%20Alternatives%20Set-Aside%20-%20Surface%20Trans.%20Block%20Grant%20Program.aspx>

#### PennDOT Multimodal Transportation Fund (MTF)

The Multimodal Transportation Fund (MTF) was created in 2013 when the Pennsylvania State Legislature passed and the Governor signed Act 89. This dedicated fund can be used for “projects that coordinate local land use with transportation assets to enhance existing communities” as well as “Projects related to streetscape, lighting, sidewalks and pedestrian safety.” Grants are available for projects with a total cost of \$100,000 or more. Grants will not normally exceed \$3,000,000. Consideration will be given to projects with costs over \$3,000,000 should they significantly impact PennDOT’s goal of creating jobs and leveraging private investment.

Additional information is available online at: <https://www.penndot.gov/ProjectAndPrograms/MultimodalProgram/Pages/default.aspx>

#### Safe Routes to School (SRTS)

Administered through TASA, SRTS is a national and international movement to create safe, convenient and healthy opportunities for children to walk and bicycle to school. The program encourages children to walk and bicycle to school, helping to reverse an alarming decrease in students’ physical activity and an associated increase in childhood obesity. Eligible activities include new or reconstructed sidewalks or walkways, pedestrian and bicycle signs or signals, transportation projects that achieve ADA compliance, such as curb ramps, bike parking facilities or bus bike racks, shared use paths, side paths, trails that serve a transportation purpose, crossing improvements, and traffic realignments, road diets, or intersection changes.

For more information, visit <https://www.penndot.pa.gov/ProjectAndPrograms/Planning/Pages/Safe-Routes-to-School.aspx>

## 4.3.2 Office of the Budget

### Redevelopment Assistance Capital Program (RACP)

The Redevelopment Assistance Capital Program (RACP) is a grant program administered by the Office of the Budget for the acquisition and construction of regional economic, cultural, civic, recreational, and historical improvement projects. RACP projects are state-funded projects that cannot obtain primary funding under other state programs. A RACP project must have a total cost of at least \$1,000,000. At least 50% of the project cost must be match (non-state) participation.

For more information, visit <https://www.budget.pa.gov/Programs/RACP/Pages/Main%20Page.aspx>

## 4.3.3 Pennsylvania Department of Conservation and Natural Resources (PA DCNR)

### Community Conservation Partnership Program (C2P2)

The Community Recreation and Conservation Program through the PA DCNR Community Conservation Partnership Program (C2P2) provides funding to municipalities and authorized nonprofit organizations for recreation, park, trail and conservation projects. These include planning for feasibility studies, trail studies, conservation plans, master site development plans, and comprehensive recreation park and open space and greenway plans. In addition to planning efforts, the program provides funding for land acquisition for active or passive parks, trails and conservation purposes, and construction and rehabilitation of parks, trails, and recreation facilities. Most of these projects require a 50% match, which can include a combination of cash and/or non-cash values.

For more information, visit: <https://www.dcnr.pa.gov/Communities/Grants/Pages/default.aspx>

### Recreational Trails Program

The Pennsylvania Recreational Trails Program, also through the C2P2 Program, awards grants to federal and state agencies, local governments, non-profit and for-profit organizations to assist with the construction, renovation and maintenance of trails and related facilities for both motorized and non-motorized recreational trail use, the purchase or lease of equipment for trail maintenance and construction and the development of educational materials and programs. These grants require a minimum 20% match, which can include a combination of cash and/or non-cash values. Grants are typically due in Spring.

More information on this program can be found at the DCNR website: <https://www.dcnr.pa.gov/Communities/Grants/TrailGrants/Pages/default.aspx>

## 4.3.4 Commonwealth Financing Agency (CFA)

### Greenways, Trails and Recreation Program (GTRP)

Administered through the Department of Economic Development (DCED), the Greenways, Trails and Recreation Program (GTRP) provides funding for planning, acquisition, development, rehabilitation and repair of greenways, recreational trails, open space, parks and beautification projects. The program awards up to \$250,000 per project to eligible applicants and requires a local match of 15% of the total project cost. Funding from DCED for "sidewalk" connections will need to be categorized as multi-use trails. Some of the recommended sidewalk gap improvements may fit within a "trail" designation. Applications are typically due at the end of May

For more information, visit <https://dced.pa.gov/programs/greenways-trails-and-recreation-program-gtrp/>

## 4.3.5 Department of Community and Economic Development (DCED)

### **DCED Multimodal Transportation Fund (MTF)**

The DCED Multimodal Transportation Fund provides grants to encourage economic development and ensure that a safe and reliable system of transportation is available to the residents of the commonwealth.

Applications for the Multimodal Transportation Fund are accepted annually between March 1 and July 31. All applications and all required supplemental information must be electronically submitted by close of business on July 31st for hopeful consideration at the November CFA board meeting. Please note that technical assistance will not be available after 5pm on July 29th.

Funds may be used for the development, rehabilitation, and enhancement of transportation assets to existing communities, streetscape, lighting, sidewalk enhancement, pedestrian safety, connectivity of transportation assets and transit-oriented development. Grants are available for projects with a total cost of \$100,000 or more. Grants shall not exceed \$3,000,000 for any project.

Additional information is available online at: <https://dced.pa.gov/programs/multimodal-transportation-fund/>

### **Keystone Communities Program (KCP)**

The Keystone Communities (KC) program is designed to encourage the creation of partnerships between the public and private sectors that jointly support local initiatives such as the growth and stability of neighborhoods and communities; social and economic diversity; and a strong and secure quality of life. The program allows communities to tailor the assistance to meet the needs of its specific revitalization effort.

Communities may wish to consider designation through the KC program as a Keystone Main Street, Keystone Elm Street, Keystone Enterprise Zone, or Keystone Community. Designation is an opportunity for targeted investment and development including the identification of specific needs for investment and/or development and the design and implementation of a strategy to address those needs.

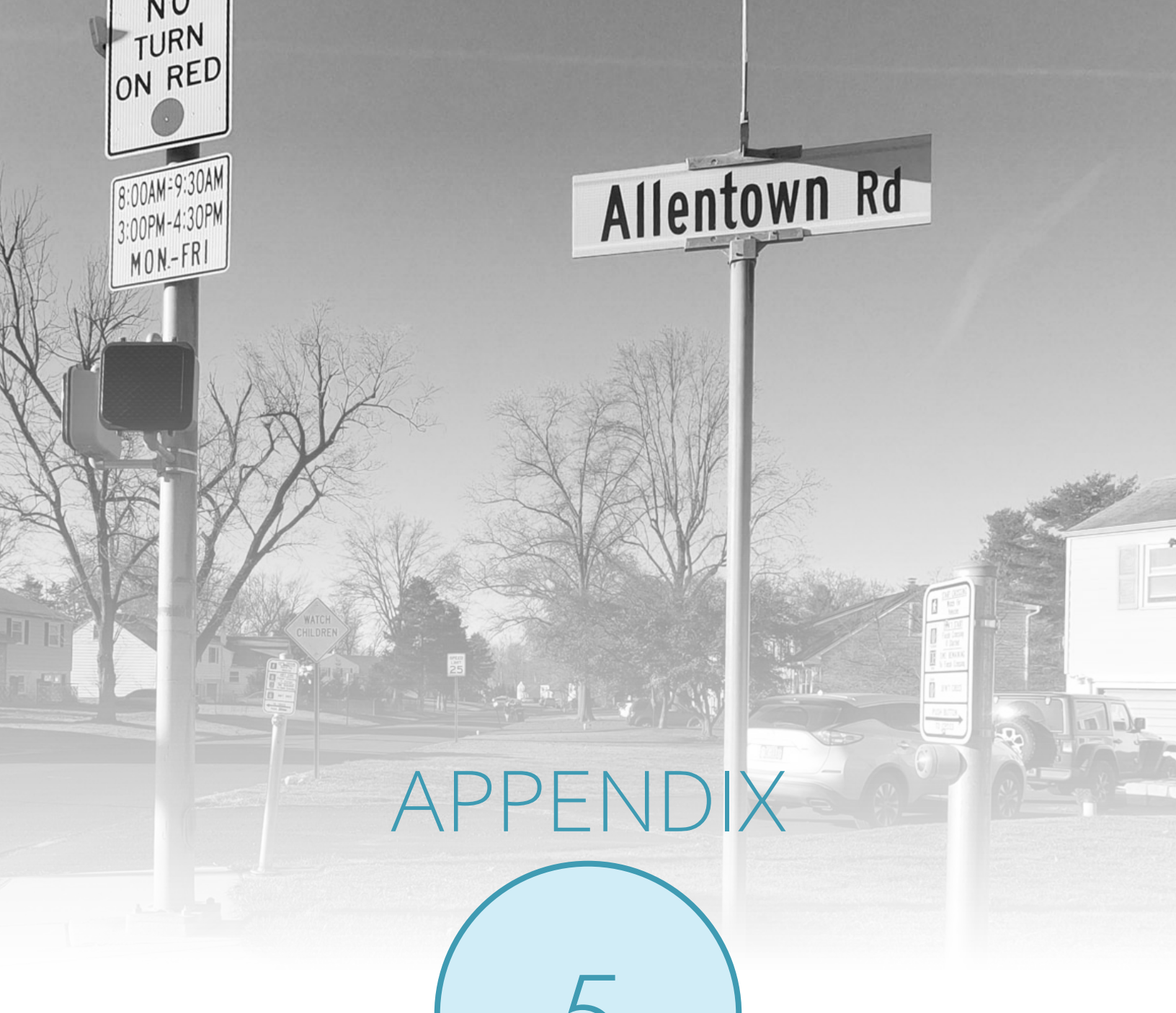
For more information, visit <https://dced.pa.gov/programs/keystone-communities-program-kcp/>

### **Montco 2040 Implementation Grant**

As part of the implementation of the Montgomery County Comprehensive Plan, Montco 2040: A Shared Vision, a grant program has been established to allow municipalities to make targeted physical improvements that work to achieve goals of the Plan. The maximum amount awarded is \$200,000 (although typical maximum awards are closer \$100,000.00) and the program requires a 20% local match. Projects must address a stated goal within one of the three themes of the Plan: Connected Communities, Sustainable Places, and Vibrant Economies. Awarded funds may only be applied to physical improvements. Funding themes change slightly each year. Applications are due each year in March. Funds must be expended within 2 years of the award.

More information can be found at: <https://www.montcopa.org/2453/Montco-2040-Implementation-Grant-Program>





# APPENDIX

5





