

## 2. INVENTORY & ANALYSIS



### 2.3 Transportation

The following overview of the Lehman Township transportation system includes a summary of existing transportation conditions and trends in the roadway network mobility and safety within the study area. This includes the major roads and traffic, existing road conditions, and crash data history and trends within Lehman Township.

#### 2.3.1 Transportation Overview

U.S. Route 209, Bushkill Falls Road (SR 2001 and SR 2003), and Milford Road (SR 2001) are the three main roadways serving Lehman Township. U.S. Route 209 is the main artery within the Township which runs parallel to the Delaware River and connects to Interstate 80 (I-80) to the south and to Interstate 84 (I-84) to the north. Bushkill Falls Road (SR 2001) runs from U.S. Route 209 to the intersection with Milford Road (SR 2001) and continues as SR 2003 to the intersection with SR 402 in Porter Township. Milford Road (SR 2001) in Lehman Township begins at Bushkill Falls Road and runs parallel to U.S. 209 to Milford Borough within Delaware Township.

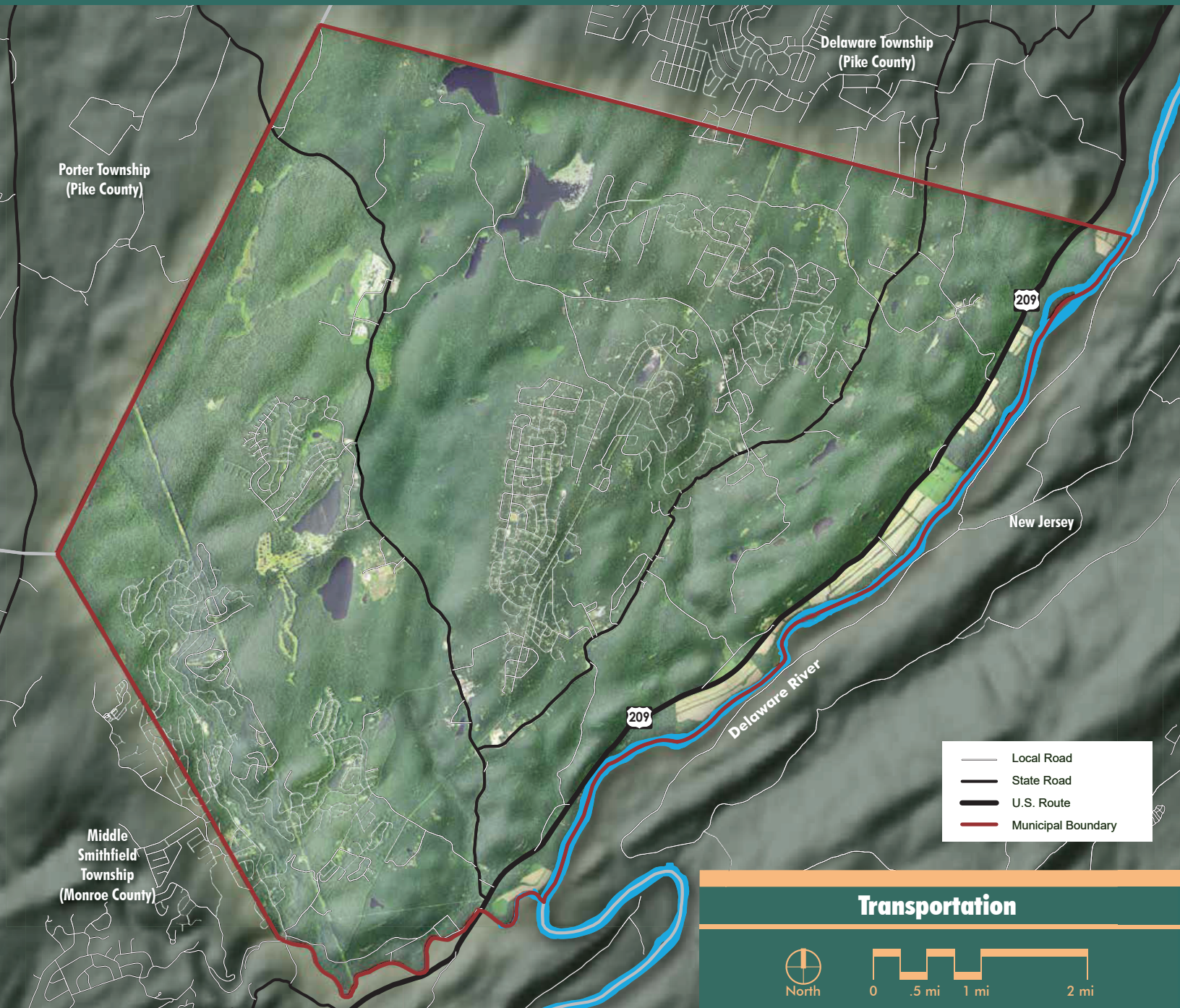
#### 2.3.2 Major Roads and Traffic

Bushkill Falls Road (SR 2001) is a two-lane roadway, one lane in each direction, with an ADT of 7,100 vpd. The speed limit on Bushkill Falls Road is 35 mph south of Milford Road to U.S. Route 209 (at Bushkill Village)

Bushkill Falls Road (SR 2003) is a two-lane roadway, one lane in each direction, with an ADT of 1,600 vpd. There is a 30 MPH speed limit along Bushkill Falls Road north of the intersection with Milford Road.

Milford Road (SR 2001) is a two-lane roadway, one lane in each direction, with an ADT of 2,400 vpd between Bushkill Falls Road and Minks Pond Road and an ADT of 700 vpd east of Minks Pond Road. There are 30 MPH and 35 MPH speed limits on Milford Road.

View South Along Bushkill Falls Road



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Roadway to Public School



Milford Road



Milford Road

Lehman Township is working with PennDOT to complete improvements to Milford Road to improve the overall safety of the roadway while maintaining the rural setting and minimizing impacts to the Delaware Water Gap National Recreation Area, wetlands, and private properties. The 15-mile road improvement project will include expanded shoulders, several bridge replacements, and other geometric alignments.

Notable traffic control devices within Lehman Township include the signalized intersections of Bushkill Falls Road (SR 2001) at U.S. Route 209 and Bushkill Falls Road (SR 2003) at Timberwolf Drive (School Entrance).

### 2.3.3 Road Conditions

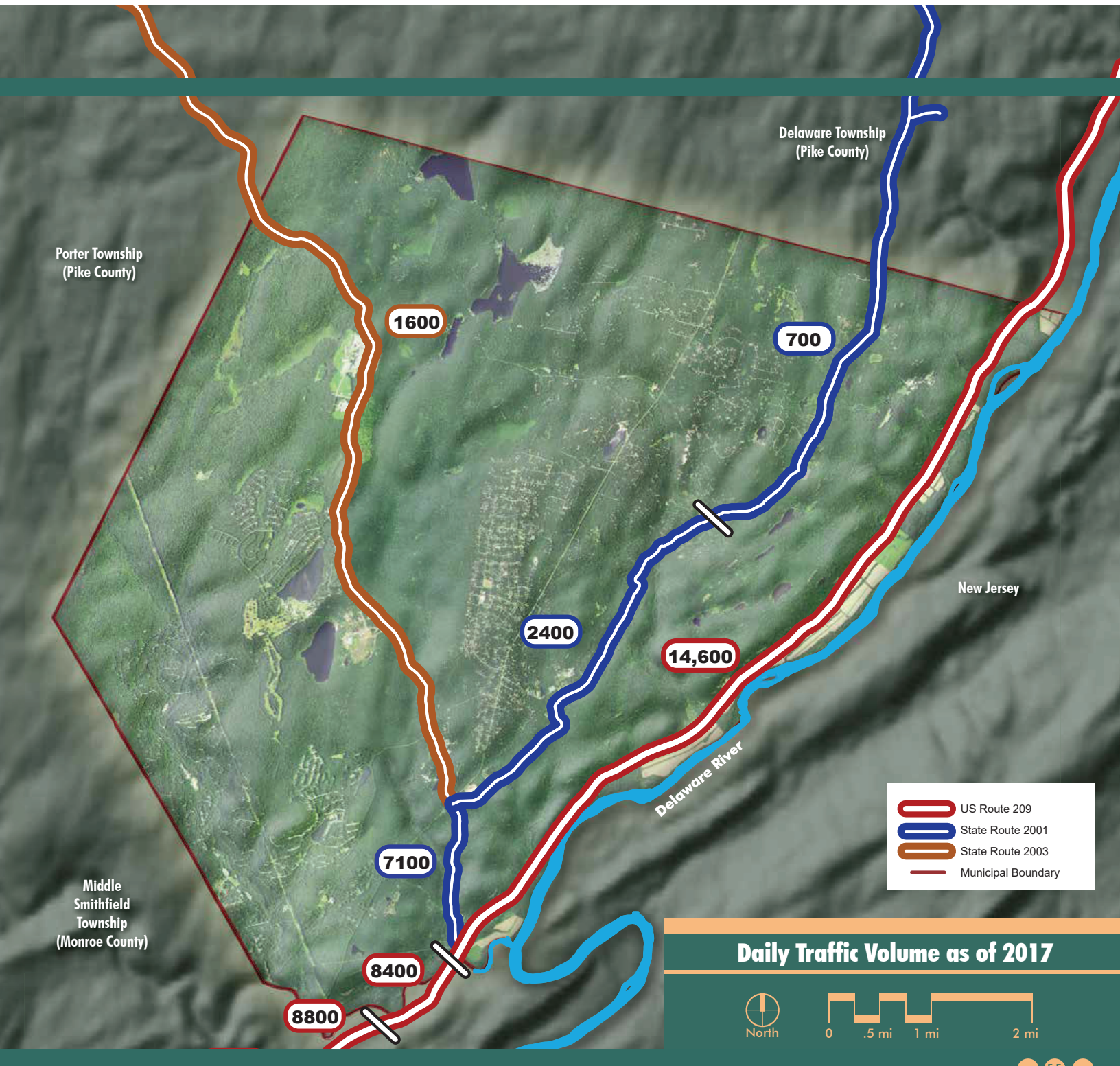
Identification of existing conditions were completed through site visits and conducting field investigations of the primary routes through Lehman Township to identify an overview of general road conditions, intrinsic qualities, key elements, and notable traffic control devices.

The field investigation included the review of the intersection of Bushkill Falls Road and U.S. Route 209 to observe operational and queuing conditions.

Regarding typical roadway sections, paved shoulders exist along SR 2001 / Bushkill Falls Road south of Milford Road and along the majority of SR 2001 / Milford Road. Shoulders are present on SR 2001. Rumble strips do not exist. SR 2003 has no paved shoulders, although centerline rumble strips are present. These roadway features are relevant regarding crash history – accounting for a large percentage of roadway departure crashes as reflected in the following Crash History Data section.

### 2.3.4 Crash History Data

Roadway crash data was collected for two (2) of the major state routes through Lehman Township, including along SR 2001 and SR 2003. The crash study area along SR 2001 includes along the Bushkill Falls Road (SR 2001) segment south of the T-intersection with Milford Road (SR 2001), and along the segment of Milford Road (SR 2001) east of the T-intersection with SR 2003/ Bushkill Falls Road. The crash study area along SR 2003 / Bushkill Falls Road extends to the north of the T-intersection with SR2001/ Milford Road.



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**Crashes by Road Surface Conditions –  
SR 2001 / Bushkill Falls Road / Milford Road**

Roadway Conditions	2013	2014	2015	2016	2017	5 Year Totals	Total Percent
Dry	7	8	11	8	9	43	78%
Wet	1	0	0	2	2	5	9%
Ice Patch	0	2	1	0	0	3	5%
Slush	0	0	2	0	0	2	4%
Snow	0	0	0	1	0	1	2%
Other	0	0	0	1	0	1	2%

**Crashes by Lighting Conditions – SR 2001 / Bushkill Falls Road / Milford Road**

Lighting Conditions	2013	2014	2015	2016	2017	5 Year Totals	Total Percent
Dark	3	5	4	5	2	19	34%
Daylight	5	4	9	5	8	31	56%
Dusk	0	0	0	1	1	2	4%
Dawn	0	0	1	0	0	1	2%
Street Lit	0	1	0	1	0	2	4%

**Crashes by Weather Conditions – SR 2001 / Bushkill Falls Road / Milford Road**

Weather	2013	2014	2015	2016	2017	5 Year Totals	Total Percent
Clear	8	9	11	9	9	46	83%
Rain	0	0	2	1	2	5	9%
Snow	0	0	0	1	0	1	2%
Rain/Fog	0	0	1	0	0	1	2%
Sleet	0	1	0	0	0	1	2%
Other	0	0	0	1	0	1	2%

**– Crash Per Year – SR 2001 / Bushkill Falls Road / Milford Road**

Crash Classification	2013	2014	2015	2016	2017	5 Year Totals	Total Percent
Property Damage	3	7	8	5	4	27	49%
Personal Injury	3	3	6	4	6	22	40%
Fatality	0	0	0	0	0	0	0%
Unknown Severity	2	0	0	3	1	6	11%
<b>Total Crashes</b>	<b>8</b>	<b>10</b>	<b>14</b>	<b>12</b>	<b>11</b>	<b>55</b>	<b>100%</b>
Collision Type							
Angle	0	0	1	2	3	6	11%
Hit Fixed Object	4	4	8	9	3	28	51%
Rear End	0	1	1	1	2	5	10%
Head On	4	1	0	0	1	6	11%
Non Collision	0	1	3	0	2	6	11%
Opposite Direction Sideswipe	0	2	1	0	0	3	4%
Unknown	0	1	0	0	0	1	2%

**– Crash Per Year – SR 2003 / Bushkill Falls Road**

Crash Classification	2013	2014	2015	2016	2017	5 Year Totals	Total Percent
Property Damage	6	5	8	4	3	26	52%
Personal Injury	2	2	3	4	3	14	28%
Fatality	1	0	0	0	0	1	2%
Unknown Severity	2	2	1	3	1	9	18%
<b>Total Crashes</b>	<b>11</b>	<b>9</b>	<b>12</b>	<b>11</b>	<b>7</b>	<b>50</b>	<b>100%</b>
Collision Type							
Angle	0	0	1	0	2	3	6%
Hit Fixed Object	10	6	9	6	4	35	70%
Rear End	0	1	0	1	0	2	4%
Head On	1	0	0	1	1	3	6%
Non Collision	0	2	2	2	0	6	12%
Unknown	0	0	0	1	0	1	2%

**– Crashes by Road Surface Conditions – SR 2003 / Bushkill Falls Road**

Surface Conditions	2013	2014	2015	2016	2017	5 Year Totals	Total Percent
Dry	7	6	7	8	3	31	62%
Wet	2	2	2	2	3	11	22%
Ice Patch	2	0	2	1	1	6	12%
Slush	0	1	0	0	0	1	2%
Snow	0	0	1	0	0	1	2%

**– Crashes by Lighting Conditions – SR 2003 / Bushkill Falls Road**

Lighting Conditions	2013	2014	2015	2016	2017	5 Year Totals	Total Percent
Dark	6	3	3	2	2	16	32%
Daylight	5	6	9	9	5	34	68%

**– Crashes by Weather Conditions – SR 2003 / Bushkill Falls Road**

Weather	2013	2014	2015	2016	2017	5 Year Totals	Total Percent
Clear	10	7	9	10	6	42	84%
Rain	0	2	1	1	1	5	10%
Snow	0	0	2	0	0	2	4%
Rain/Fog	1	0	0	0	0	1	2%

The crash data included analyzing a five-year study period from January 1, 2013 to December 31, 2017. There was a total of 55 reported crashes along SR 2001 and a total of 50 reported crashes along SR 2003 within the five-year study period. It should be noted that in review of the crashes for both crash study areas, there were three (3) crashes that overlapped at the intersection of Bushkill Falls Road and Milford Road, or were listed as duplicates.

#### 2.3.4a SR 2001 / Bushkill Falls Road / Milford Road

55 reported crashes along SR 2001 included eight (8) in 2013, ten (10) in 2014, fourteen (14) in 2015, twelve (12) in 2016, and eleven (11) in 2017. While there was trend of crashes per year increasing from 2013 to 2015, those numbers decreased in 2016 and again in 2017. Accordingly, there are no apparent trends in crashes per year, whether an increase or a reduction.

Of the 55 crashes along SR 2001 (approximate 8.0-mile segment), 35 crashes (64%) were classified with a collision type of: "hit fixed object", "non collision", or "unknown". Regarding road surface conditions, lighting conditions, and weather conditions at the time of the reported crashes, 43 crashes (78%) occurred under dry road conditions, 33 crashes (60%) occurred under daylight or street light illumination, and 46 crashes (83%) occurred under clear weather conditions.

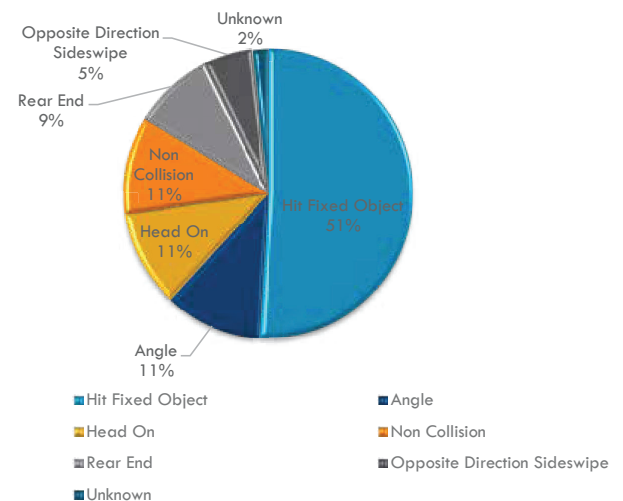
#### 2.3.4b SR 2003 / Bushkill Falls Road

50 reported crashes along SR 2003 included eleven (11) in 2013, nine (9) in 2014, twelve (12) in 2015, eleven (11) in 2016, and seven (7) in 2017 as reflected in Table 5. There are no apparent trends in crashes per year, whether an increase or a reduction, as the number of crashes by year fluctuates between seven (7) and twelve (12) crashes.

Of the 50 crashes along SR 2003 (approximate 6.5-mile segment), 42 crashes (84%) were classified with a collision type of: "hit fixed object", "non collision", or "unknown", as shown in Figure 6. In review of various conditions at the time of the reported crashes, 31 crashes (62%) occurred under dry road conditions (Table 6), 34 crashes (68%) occurred under daylight illumination (Table 7), and 42 crashes (84%) occurred under clear weather conditions.

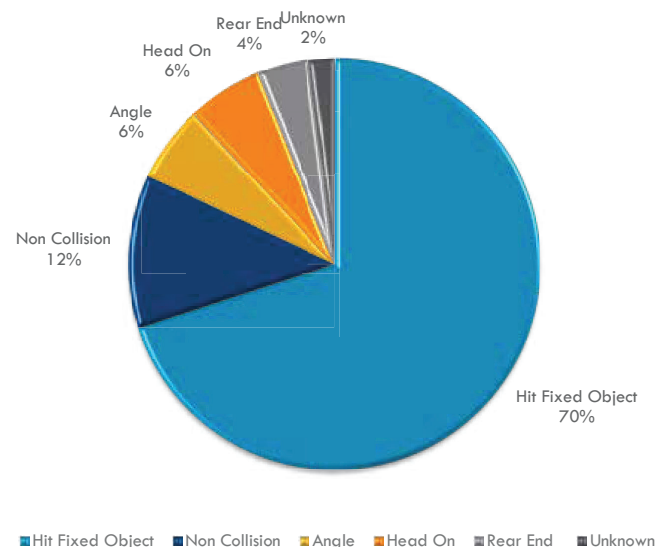
#### – Collision Type – SR 2001 / Bushkill Falls Road / Milford Road

(1/1/2013 - 12/31/2017)



#### – Collision Type – SR 2003 / Bushkill Falls Road / Milford Road

1/1/2013 - 12/31/2017



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### 2.3.4 Public Transportation

#### 2.3.4a Pike County Transportation Department

The Pike County Transportation Department, located in Milford Borough, is responsible for the transportation of Pike County residents under four programs. These programs are: Shared Ride, Medical Assistance Transportation Program, People with Disabilities, and General Public.

##### **Shared Ride Program**

This program helps seniors of Pike County access to medical, financial, and social services and visits the three County senior centers at Blooming Grove, Lackawaxen, and Bushkill. This service provides transport to grocery shopping, banking, and post office access on scheduled days. There is a reduced fare required for Seniors, and age verification is required. All Seniors who are 65+ with proof of age are eligible to use this program.

##### **Medical Assistance Transportation Program**

This program provides medical assistance recipients, regardless of age, access to medical and pharmacy locations. Reservations are required. The Transportation Department assesses the mode of transportation to be provided. Destinations must be to medical assistance providers only. Verification is required, and eligibility is verified on a regular basis.

##### **People With Disabilities**

This program serves individuals 18-64 with mental and physical disabilities. This service provides access to social, employment, medical, and other services in Pike County.

##### **General Public**

All other transportation needs are considered general public and follow the same schedules listed in the other programs. All inquiries regarding scheduling, applications, and eligibility must be made to the Transportation Office - all transportation is shared and coordinated with others accessing the same areas.

### 2.3.4b Coach USA

The Coach USA ShortLine offers daily bus service to New York City. The closest bus pickup is at 611 Broad Street in Milford Borough (20 miles north of Lehman Township)

### 2.3.4c Martz Bus Line

The Martz bus lines service the Pocono region with daily routes to New York City. Martz Trailways bus service has three stops close to Lehman Township:

- **Marshalls Creek Park & Ride, East Stroudsburg**
- **Stroudsburg Park & Ride, Stroudsburg**
- **Martz Bus Terminal, Foxtown Hill Road, Delaware Water Gap**

### 2.3.4d Metro Transit Authority (MTA)

The closest regional rail service is available in Port Jervis, New York (27 miles north of Lehman Township). The Metro Transit Authority offers daily rail service from Port Jervis to New York City.

#### **Future Pike County transit service**

Lehman Township is interested in investigating partnership options for Pike County to collaborate in a future 'river line' bus service between Matamoras and East Stroudsburg - possibly integrated with a version of the MCTA Pocono Pony Service.

### 2.3.4e Fernwood Multi-modal Park & Ride Concept

Park and Ride locations offer a safe, convenient location for commuters to leave their automobiles and to their destinations in carpools, vanpools or buses. Ride sharing reduces the total number of vehicle miles of travel by reducing the number of motorists on the road.

A conceptual Park & Ride facility has been identified near Fernwood Lane adjacent to US Route 209. A multi-modal facility in this location is outside the DEWA Park boundary and could benefit southbound commuters traveling beyond Lehman Township to Monroe County, and destinations south and east in New Jersey and the New York metropolitan area.

In 2018 Lehman Township secured Federal Lands Access Program (FLAP) funding from the Federal Highway Administration (FHWA) to complete a study of park user improvements that include a future park and ride at this location. The FLAP was established to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The FLAP supplements state and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.

This investigation will explore potential partnerships between Lehman and Middle Smithfield Townships and Pike and Monroe Counties.

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### 2.3.4f The Pocono Pony - River Runner

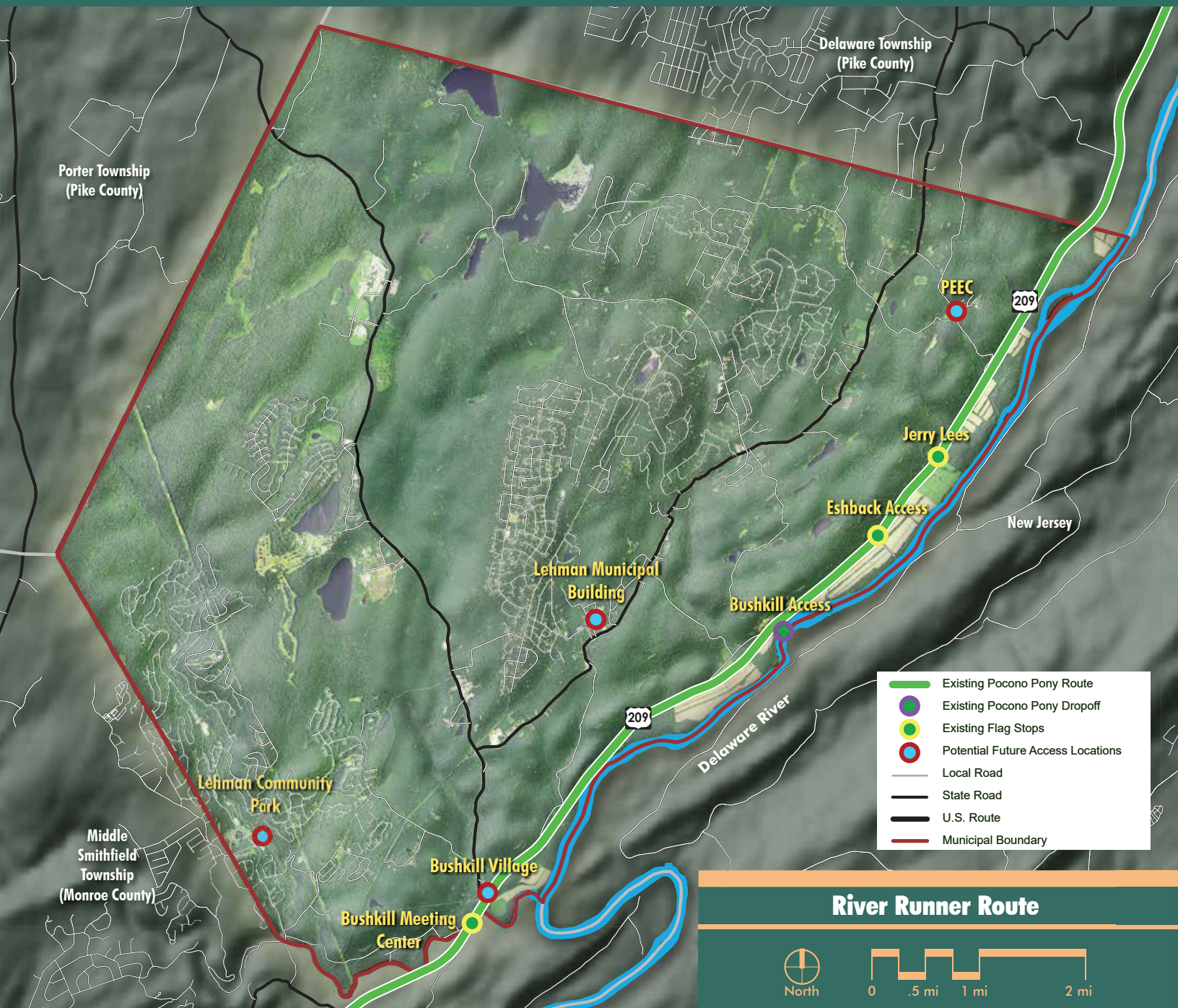
The Monroe County Transit Authority (MCTA), in partnership with DEWA, offers a free summertime transit service along the Delaware River - called the River Runner. This program, has several stops within Lehman Township, and operates through the existing Pocono Pony transit service which serves Monroe County. Service runs spring to fall each season. The River Runner has designated stops at the following locations:

- **Kittatinny Point**
- **Delaware Water Gap**
- **Shawnee Inn**
- **Smithfield Beach**
- **Bushkill Access (within Lehman Township)**
- **Dingmans Access**
- **Milford Beach**

The River Runner has 'flag stops' (Designed to enable riders to board the bus at several places along the route. Passengers wave to the driver from a safe and observable location pickup) at the following locations:

- **Hialeah**
- **Fernwood Resort**
- **Bushkill Meeting Center (In Lehman Township)**
- **Eshback Access (within Lehman Township)**
- **Jerry Lees (In Lehman Township)**
- **Schneider Farm**
- **Dingmans Campground**
- **Pittman Orchard**
- **Periodically Pocono Environmental Education Center (PEEC) (within Lehman Township)**

The Pocono Pony service was paused during the 2020 season due to Covid-19 protocols, but is anticipated to resume for the 2021 season.



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### 2.3.5 Multi-Modal: Trails

Pedestrian and bicycle facilities in Lehman Township are concentrated along the Delaware River. These include:

#### **McDade Recreational Trail:**

The McDade Trail within DEWA is a 32-mile packed-gravel path that parallels the Delaware River on the Pennsylvania side of the park. This trail is used by hikers, runners, and cyclists. There are eight McDade trailheads within Lehman Township.

#### **Pocono Environmental Education Center Hiking Trails**

PEEC maintains 10 miles of hiking trails which include the: Fossil Trail, Ridgeline Trail, Scenic Gorge Trail, Tumbling Waters Trail, Two Ponds Trail, Sensory Trail. The Pocono Environmental Education Center (PEEC), in cooperation with the National Park Service, is one of the longest running residential centers in the United States for environmental education.

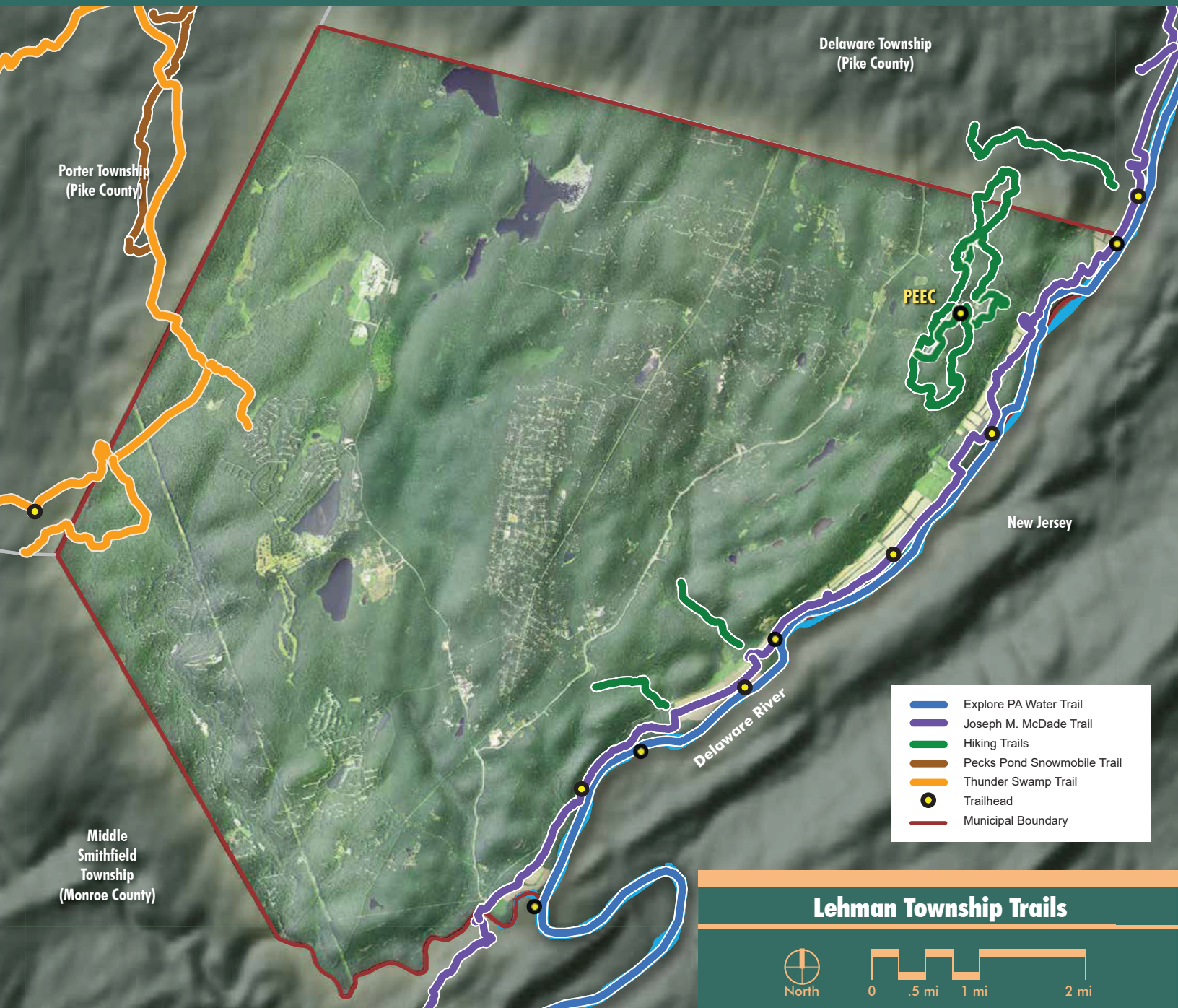
PEEC is a Pennsylvania Outstanding Conservation Organization and is located on the Pocono Plateau, within the Delaware Water Gap National Recreation Area. There are no multimodal trail connections between PEEC hiking trails and the McDade Trail.

#### **Explore PA Water Trail – Delaware River**

The Delaware River - Explore PA Water trail is classified as a recreational corridor. By boat users can travel the Delaware River to explore the local history, ecology, geology and wildlife of DEWA and Lehman Township. Lehman Township has two boat access locations for the Delaware River: Eschbach River Access; Bushkill Boat Launch

#### **Edgemere Snowmobile Trail System**

The Delaware State Forest maintains one hundred and fifteen miles of public snowmobile trails. The Edgemere and Luke trails can be used for hiking, cross-country skiing, snowshoeing, all-terrain vehicles, and snowmobiling. Mountain biking is allowed on all roads but not on the Thunder Swamp Trail. The Edgemere Snowmobile Trail System, predominately in Porter Township, Pike County, has several miles located in western Lehman Township.



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### **Thunder Swamp Trail**

The Thunder Swamp Trail System is in Delaware State Forest and can be reached in western Lehman Township. This trail is suitable for hiking and the system consists of a blue-blazed main loop trail of 30 miles, plus 15 miles of red-blazed side trails.

### **Luke Trail**

The Luke Trail is an approximately 1-mile spur trail in the Delaware State Forest in western Lehman Township, southeast of 12 Mile Pond.

### **McDade Trail-Bushkill Creek Bridge**

In 2018 Lehman Township secured Federal Lands Access Program (FLAP) funding from the Federal Highway Administration (FHWA) to complete schematics for the missing McDade Trail pedestrian/bicycle bridge across the Bush Kill Bushkill Creek, between US 209 and the Delaware River confluence. Improvements in this location require stewardship management by NPS at DEWA.

### **2.3.6 Multi-Modal: Sidewalk**

Sidewalks are the backbone of most walkable communities. They can provide safe pedestrian access between residential areas, parks and open space, and other amenities.

Lehman low-density developments have limited sidewalk and bicycle connections to Township destinations and amenities. Sidewalks are primarily located within the Township's six residential developments. In the public opinion survey 68% of respondents noted that there are destinations in Lehman Township that they would like to walk to but cannot because there is no safe pedestrian infrastructure.

"Walk Score" is a nationally recognized standard for measuring walkability. This system analyzes hundreds of walking routes to nearby amenities and rates and rates a community on a scale from zero (not walkable at all) to 100 (most walkable). Lehman Township has a 'zero' Walk Score rating with the following description "Almost all errands require a car".

### 2.3.6a Pedestrian improvements – Bushkill Village

In 2018 Lehman Township secured Federal Lands Access Program (FLAP) funding from the Federal Highway Administration (FHWA) to complete a study of park user improvements that include Bushkill Village pedestrian and bicycle safety improvements. The FLAP was established to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The FLAP supplements state and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.

FLAP funds include study of sidewalk/walkway/trail spur and crosswalk improvements along the US 209 Corridor to help improve safety and access – as well as mitigate previous highway impacts to the Peters House, with ADA access and aesthetic improvements at the street level for this National Register resource.

Improvements in this location require stewardship management by NPS at DEWA.

