



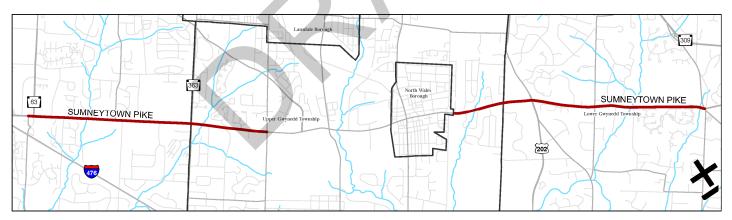
SUMNEYTOWN PIKE TODAY

STUDY AREA

This study focuses on two sections of Sumneytown Pike:

- From Bethlehem Pike to Royal Avenue in Lower Gwynedd & Upper Gwynedd Townships. This section is 2.7 miles long.
- From Broad Street to Forty Foot Road in Upper Gwynedd & Towamencin Townships. This section is 2.5 miles long.

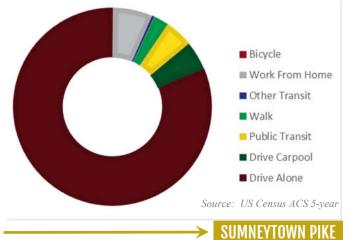
The roadway in between these sections is not owned by Montgomery County. Sumneytown Pike functions as an east-west oriented principal arterial and supports regional mobility. To the east Sumneytown Pike provides a connection to Spring House and access to PA 309 Corridor. To the west, Sumneytown Pike provides a connection to Kulpsville and the PA Turnpike—Northeast Extension (I-476) and the key growth area of Towamencin Township.



Sumneytown Pike passes through varying communities with specific transportation needs.

The demographics with one mile of these segments of Sumneytown Pike are as follows:

Demographic Indicator	Sumneytown Pike	Montgomery County Average 28.99 minutes	
Commute Mean Travel Time	31.14 minutes		
Housing Units without Access to a Vehicle	5.15%	5.51%	



On average, commuters along Sumneytown Pike are more likely to drive alone and less likely to commute by public transportation than the average commuter in Montgomery County. Commute travel times are about 2 minutes longer than the county average, but there are fewer houses without access to a vehicle.

PREVIOUS PLANS AND ONGOING PROJECTS

Capacity deficiencies have been identified in municipal comprehensive plans, Act 209 (Transportation Impact Fee) Capital Improvement Plans and special studies. Previous planning studies have identified capacity improvements along the corridor at several key intersections and widening for additional travel lanes in Towamencin and Lower Gwyedd Townships. At the time of this report, Lower Gwynedd and Upper Gwyedd Townships are updating their comprehensive plan.

Municipality	Comprehensive Plan Year	Act 209 Plan Year
Lower Gwynedd Township	2000	2004
Upper Gwynedd Township	2004	n/a
Towamencin Township	1989	1991

Sumneytown Pike is contained within the DVRPC Congestion Mitigation Process (CMP). Very appropriate strategies for this corridor include: signal improvements, transit infrastructure improvements, improve circulation, comprehensive policy approaches and modifications to existing transit routes or services.

At the time of this report, the only major transportation improvement project along Sumneytown Pike US 202 Section 65S (MPMS#63491). This project will widen US 202 between Morris Road and Hancock Road. The project includes improvements to the Sumneytown Pike intersection that will add an additional through lane eastbound and a westbound right turn lane on Sumneytown Pike. The project is currently in construction and is expected to be completed by 2025.



LAND USE CONTEXT

Sumneytown Pike can be described as suburban commercial/residential Principal Arterial. Commercial activity is centered around the area of the Northeast Extension (I-476) interchange, the Valley Forge Road intersection and the Springhouse Village Shopping Center, with residential areas between.

For its significance and volume of traffic, there has been steady redevelopment interest along Sumneytown Pike in recent years. Recent land development proposals have focused at the intersection with Bethlehem Pike with the redevelopment of the Springhouse Village Shopping Center.

Features listed as eligible for the National Register of Historic Place are listed below:

- Kulp Property—Holly Drive intersection
- Van Fossen Property—Bridal Path Drive intersection
- Residence—Kristin Court intersection
- Gwynedd Friends Meeting—Dekalb Pike intersection

Existing and Future Land Use maps can be found in Appendix B of this report.

Intersection at Forty Foot Road



TRANSPORTATION CONTEXT

Typical Sections

The typical cross-section of Sumneytown Pike varies as one moves along the corridor. The two main configurations are 2-lane and 5-lane with a center turn lane (with two lanes in the same direction). The graphics below depict the typical cross-sections that can be found along Sumneytown Pike. Shoulder widths vary along the corridor; with wider shoulders in areas of more recent land development activity, and narrower shoulders in the remaining areas.

Bethlehem Pike to Royal Avenue and Valley Forge Road to Forty Foot Road



Broad Street to Valley Forge Road



Transportation Features

There are seven traffic signals along Sumneytown Pike from Forty Foot Road to Broad Street. Montgomery County owns and maintains two bridge structures along this segment of Sumneytown Pike. They carry Sumneytown Pike over the east and west branches of Towamencin Creek. Neither bridge has a weight restriction.

There are seven traffic signals along Sumneytown Pike from Royal Avenue to Bethlehem Pike. Montgomery County owns and maintains two bridge structures along this segment of Sumneytown Pike. One carries Sumneytown Pike over Haines-Dittengers Creek. The other carries Sumneytown Pike over Trewellyn Creek. Neither bridge has a wight restriction.

These transportation features are depicted on the Corridor Overview Map.

Multimodal Connections

Sidewalk connections are limited to the commercial centers along Sumneytown Pike. There are no bike lanes along the corridor. DVRPC has identified Sumneytown Pike as a Level 3 and Level 4 of Traffic Stress road, meaning that the road is uncomfortable for most or no bike access. Sumneytown Pike was not identified as Priority Bike Route in Bike Montco—The Bicycle Plan for Montgomery County approved in 2018. There are two trails near the corridor:

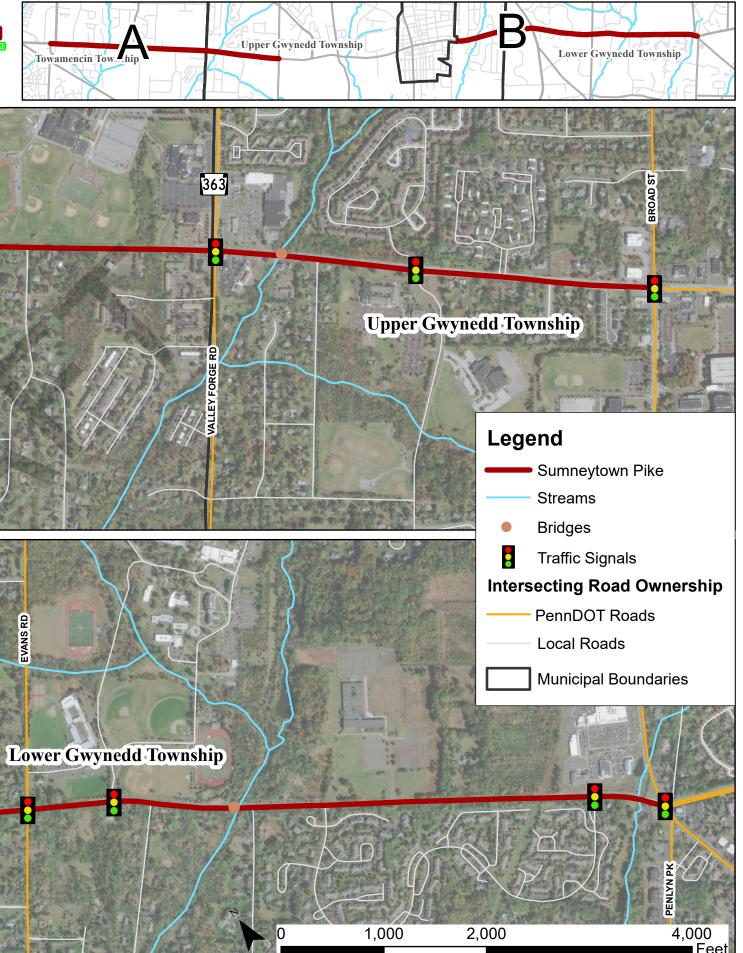
- Towamencin Township Trail runs south from the intersection with the Towamencin Corporate Center
- Treweryn Farm Trail- runs north from near Brushtown Road

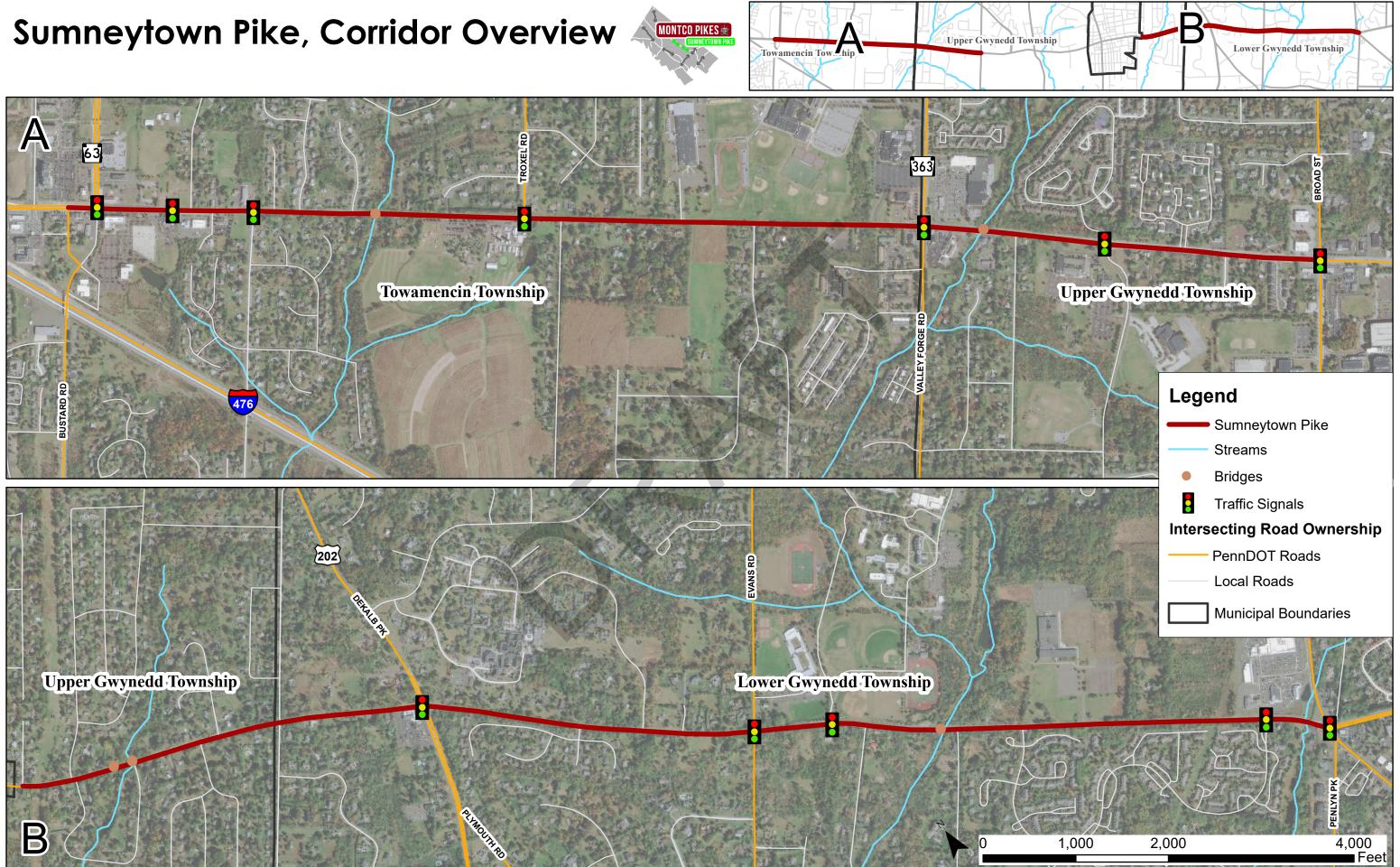
Walk Montco stated that these areas should have sidewalks installed.



Bridge structure over Towamencin Creek near Valley Forge Road







Source: Municipal Boundaries (2020), PennDOT Roads (2020), Local Roads (2020), Streams (2004) - PASDA | Traffic Signals (2020), Bridges (2020) - PennDOT

SEPTA Bus Route 96, which runs between Lansdale and the Norristown Transportation Center, runs along Sumneytown Pike between Royal Avenue and Dekalb Pike. There is a bus stop just to the west of the intersection with Dekalb Pike. There are no passenger rail facilities located along the corridor. SEPTA's Lansdale/Doylestown Regional Line does run in between to the two segments of the corridor, through the Borough of North Wales.

Additional multimodal connections are depicted on the Multimodal Transportation Features Map found in Appendix B.

Traffic Volumes and Congestion

The highest traffic volumes along Sumneytown Pike are found near the Dekalb Pike intersection. Some intersections have been identified by previous plans and studies for operating with Moderate or High Delay; those intersections are listed below. High Delay is characterized as intersections operating at an overall level of service E or F. Moderate Delay is characterized as intersection operating at an overall level of service D. Intersections operating at a level of service A, B, or C are considered to have Low Delay.

• Bethlehem Pike—High Delay

A Traffic and Intersection Operations Map containing additional information about traffic volumes and intersection operations can be found in Appendix B.

Safety

For the period between 2015-2019, the segment of Sumneytown Pike between Bethlehem Pike and Royal Avenue had 154 crashes. The most common crash types are angle and rearend crashes. This could indicate the crashes are related to congestion and turning movement geometry at numerous intersections. Only one crash resulted in a fatality.

For the period between 2015-2019, the segment of Sumneytown Pike between Broad Street and Forty Foot Road had 192 crashes. The most common crash types are angle and rear-end crashes. This could indicate the crashes are related to congestion and turning movement geometry at numerous intersections. Only one crash resulted in a fatality.

A Safety Map depicting Crash Densities along Sumneytown Pike can be found in Appendix B.

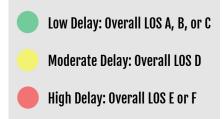
KEY ISSUES

Safety and operational issues at key intersections

There are several key intersections along Sumneytown Pike that have crash densities higher than the corridor average:

- Forty Foot Road
- Dekalb Pike (US 202)
- Bethlehem Pike

In addition, the intersection with Suplee Road has a lane drop that forces westbound traffic in the far right lane into a right turn only lane. This causes congestion and safety issues. Several side streets have difficulty turning onto Sumneytown Pike because of poor sight distance. There is currently a widening project underway on US 202 in the vicinity of Sumneytown Pike. The Bethlehem Pike intersection experiences a poor Level of Service during peak hours due to a change in the cross-sections on Norristown Road and Bethlehem Pike. A project for capacity improvements at the Bethlehem Pike intersection is currently in design.





Location of proposed Wawa at Forty Foot Road intersection



Lack of consistent roadway cross-section causes bottlenecks

Sumneytown Pike narrows from five lanes to two lanes between Forty Foot Road and Valley Forge Road. This reduction in the number of lanes causes traffic to back up during peak periods and is confusing to motorists. Municipalities along the corridor have indicated they would like to see a five-lane roadway from Forty Foot Road to Suplee Road.

Development along the corridor will increase traffic

There are several developments proposed along the Sumneytown Pike corridor:

- Future Amazon fulfilment center near Northeast Extension interchange
- Wawa at Forty Foot Road
- Main Street Town Center mixed use development near Forty Foot Road
- Possible redevelopment of the Freddy Hill Farms site
- Potential addition of 9th grade to North Penn High School
- Redevelopment of the Merck site
- Expansion of the Gwynedd Mercy Campus

If all of these potential developments are constructed, it will put strain on the existing crosssection of Sumneytown Pike. The section of the roadway in Towamencin and Upper Gwynedd Townships (west of North Wales) is mostly one lane in each direction with left turn lanes at major intersections. The section of the roadway in Upper Gwynedd Township (east of North Wales) and in Lower Gwynedd Township is only one lane in each direction. There are left turn lanes at major intersections.

Flooding and maintenance issues due to the lack of drainage features, topography, and creek crossings

There is limited stormwater management infrastructure in some sections on Sumneytown Pike. Today, most stormwater runs off the roadway into roadside ditches, which require routine maintenance. In addition, there are approximately four locations where Sumneytown Pike crosses a creek or stream. In some of these locations, roadway flooding can occur during storm events. In particular, the segment of Sumneytown Pike that crosses Towamencin Creek to the east of Valley Forge Road and the segment of Sumneytown Pike that crosses Haines-Dittingers Creek near Gwynedd Manor Drive often floods during major weather events.

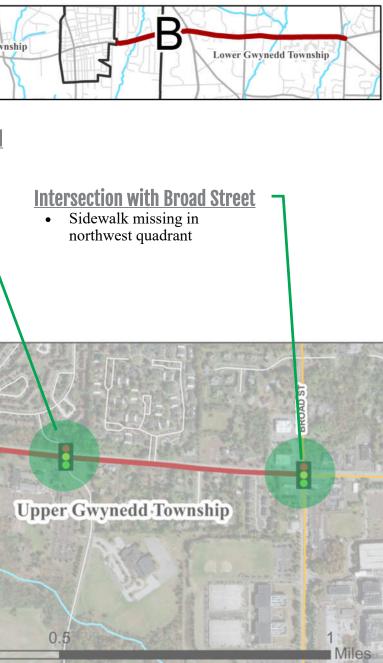
Interest and support for bicycle, pedestrian and bus accommodations, but constraints to providing dedicated infrastructure along the corridor

Community members noted that it is a popular bike route, but may not be safe for biking given the lack of dedicated facilities. In addition to biking, stakeholders highlighted the interest and need for pedestrian connections and crossings in specific locations, such as the area near the North Penn Market Place. The horizontal and vertical geometry, as well as structures, utility poles, residential fences/decorative walls and heavily wooded and vegetated areas close to the roadway, impact the feasibility of providing dedicated bicycle and pedestrian facilities along Sumneytown Pike. Community members have also expressed interest in bus service between US 202 and the Borough of North Wales. Sumneytown Pike currently has limited bus stop infrastructure.



Flooding location over Haines-Dittingers Creek

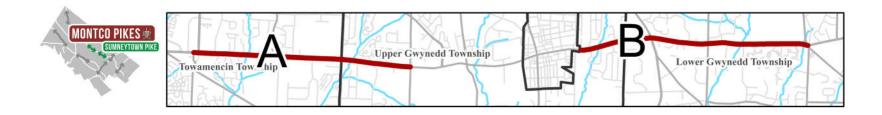
Sumneytown Pike | Key Issues MONTCO PIKES 👜 SUMNEYTOWN PIK Upper Gwynedd Townsh amencin To **Corridor-Wide Issues** • Sidewalk is not continuous throughout the **Between Kriebel Road and Valley Forge Road** corridor • Vertical geometry creates safety concerns • Desire for increased bicycle and pedestrian connections and crossings **Towamencin Main Street Intersection with Suplee Road** Westbound lane drop causes • Significant town center • development planned near the congestion and safety issues intersection with Forty Foot Road A 363 **Towamencin** Township RD BUSTARD 476 0.25 0.5 **Intersection with Forty Foot Road Intersection with Valley Forge Road Between Forty Foot Road & Valley Forge Road** • Crash density higher than corridor Reduction in roadway cross section from six • No sidewalk connection in lanes to two lanes causes congestion and northwest quadrant average • North Penn High School students operational issues • Several developments proposed cut across Valley Forge Road **Crossing of Towamencin Creek** • Crossing over Towamencin Creek has poor drainage leading to water • Vertical geometry creates safety concerns



pooling on the roadway



Sumneytown Pike | Key Issues



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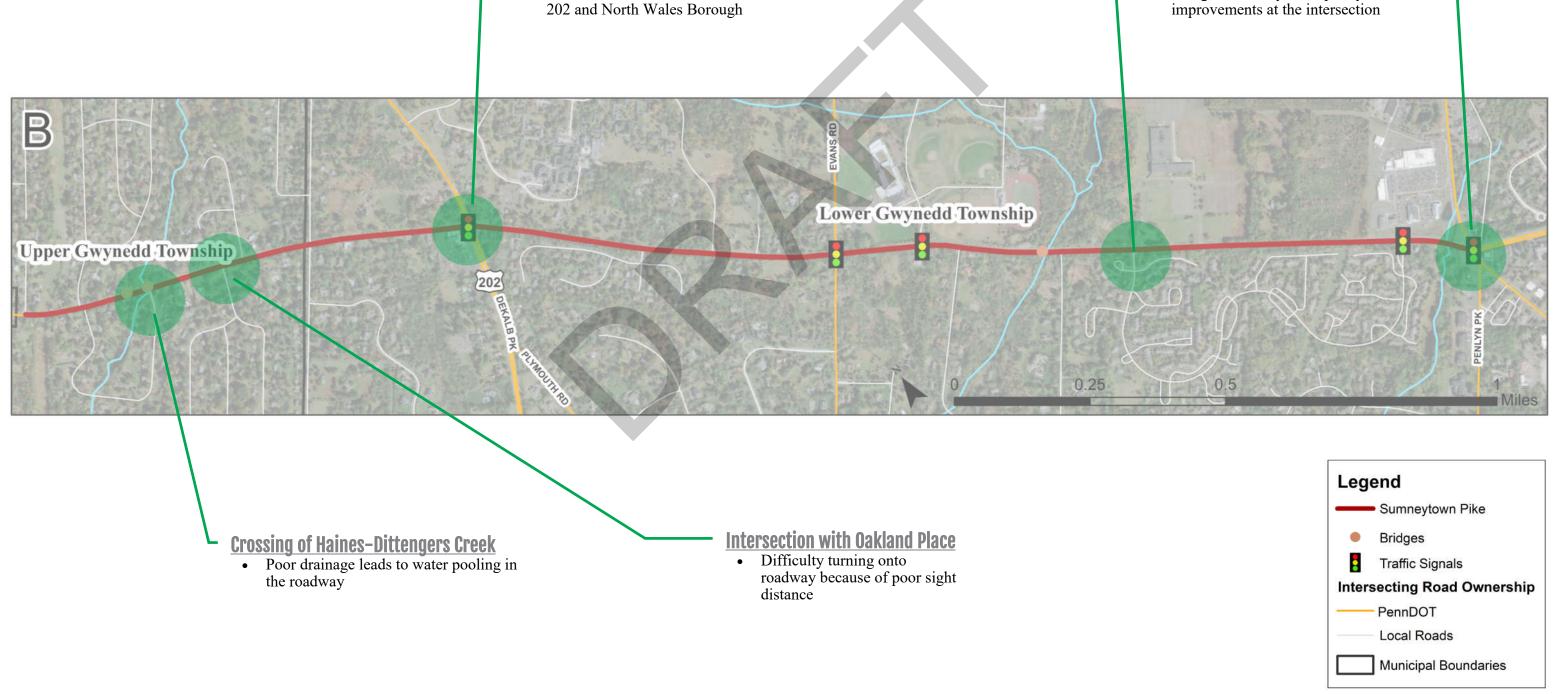
Intersection with Wellington Drive

• Difficulty turning onto roadway

from Wellington Drive

Corridor-Wide Issues

- Sidewalk is not continuous throughout the corridor
- Desire for increased bicycle and pedestrian connections and crossings



Intersection with Dekalb Pike

Capacity deficiencies

underway in the area

average

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• Crash density higher than corridor

US 202 widening construction

Bus service needed between US

- **Intersection with Bethlehem Pike** • Crash density higher than corridor average
 - Poor Level of Service in peak hours due to change in cross sections on Norristown Road and Bethlehem Pike
 - Design underway for capacity
 - improvements at the intersection





SUMNEYTOWN PIKE TOMORROW

CORRIDOR EVALUATION

Sumneytown Pike is divided into two segments for the study. The evaluation of Forty Foot Road to Broad Street focuses on adding lanes and bicycle and pedestrian facilities for a consistent cross section. The Royal Avenue to Bethlehem Pike segment focuses on improving general operations through the addition of a two-way center left turn lane and providing consistent bicycle and pedestrian facilities, as the study showed that volume concerns were important. A more detailed evaluation of Sumneytown Pike can be found in the corridor evaluation worksheets located in Appendix C.

Traffic Operations

Consideration of additional through travel lanes is needed because of traffic volumes, heavily congested intersections, and significant proposed development. Both segments of the corridor should be evaluated to provide a two-way center left turn lane.

Turn lanes exist at some signalized intersections. Additional turning lanes at key intersections, such as Valley Forge Road, should be considered based on turning movements and safety considerations.

Multimodal Connections

Sidewalks should be added to fill in gaps on both sides of the roadway between Forty Foot Road and Broad Street where sidewalk exists today. Bike lanes are also recommended along this segment. The sidewalk and bike lanes will provide multimodal access to the numerous commercial developments along the segments and the Towamencin Township Trail.

From Royal Avenue to Bethlehem Pike, sidewalks should be added on both sides of the road. Bike lanes are also recommended along this segment. The sidewalk and bike lanes will provide multimodal access to the commercial developments at the eastern end of the segment as well as offering access to Gwynedd Mercy University and the Treweryn Trail.

Constraints

Utilities are predominantly above-ground throughout the corridor alternating between the west and east sides of the corridor. It is very common along many areas of Sumneytown Pike for several types of obstructions to be located close to the paved cartway including areas of trees/heavy vegetation, fences, decorative walls, utility poles, and building structures.

The table below highlights some of key geometric, environmental and potential historical features along the study limits of Sumneytown Pike.



Intersection with Oakland Place, Upper Gwynedd Township



Sidewalk abruptly stopping along Sumneytown Pike, Upper Gwynedd Township



Туре	Corridor Constraint	
Geometry	 Vertical curve between Kriebel Road and Valley Forge Road Vertical curve at crossing of Haines-Dittengers Creek Horizontal curves at Oakland Place intersection 	
Environmental	•Towamencin Township Trail •Treweryn Farm Trail	
Potential Historic	 Kulp Property at Holly Drive intersection Van Fossen Property at Bridal Path intersection Residence at Kristin Court intersection Gwynedd Friends Meeting House at Dekalb Pike intersection 	Lane drop at Suplee Road, Upper Gwynedd Township

FUTURE VISION

Cross Sections

Sumneytown Pike is a Community Arterial with a Suburban Corridor land use context. The standard design criteria should be generally followed, except at locations when constraints limit the ability to meet the standard criteria.

Forty Foot Road to Broad Street

The existing cross section would be enhanced by the addition of a two-way center left-turn lane throughout the segment. An additional travel lane in each direction should be added from the Towamencin Corporate Center to Supplee Road. This would create a five-lane vehicular traffic section throughout the segment. This will improve safety and traffic capacity and provide better access to the numerous commercial developments at the western end of the segment in Towamencin Township and the village of Kulpsville.

Pedestrian accessibility will be improved by filling in gaps in the sidewalk between and providing a consistent width. Sidewalk should be installed in quadrants at the Valley Forge Road & Broad Street intersections where it is currently missing. Bike lanes should be added to the entire segment. These bicycle and pedestrian facilities will improve multi-modal connections throughout the segment.

Traffic signal upgrades, such video detection and fiber interconnection, should be made at the intersections of Forty Foot Road, Towamencin Corporate Center and Green Lane Road to improve capacity and accommodate future development.

Drainage facilities should be improved east of the Valley Forge Road intersection to reduce flooding on the roadway.



Existing Cross Section:

Supplee Road to Broad Street



Forty Foot Road to Valley Forge Road; Royal Avenue to Bethlehem Pike



Royal Avenue to Bethlehem Pike

This cross section would be improved with a center two-way left turn lane. This will provide a safer means for vehicles to make left turns at the numerous driveways in the segment.

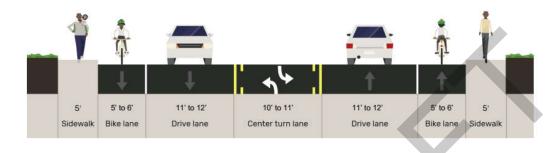
Filling in gaps in the sidewalk network and providing bike lanes will improve multi-modal connections throughout the segment and provide access to the commercial developments at the Bethlehem Pike intersection (Spring House Village, Gwynedd Mercy University (near Evans Road) and several trails.

Drainage facilities should be improved at the crossing of Haines-Dittengers Creek to reduce flooding on the roadway. The roadway geometry at the Oakland Place intersection should be improved to provide increased corner radii and removing vegetation. The intersection at Wellington Drive should be evaluated to determine if a traffic signal is warranted. Traffic signal upgrades should also be investigated at the Bethlehem Pike intersection to improve capacity.

Existing Cross Section:

Forty Foot Road to Valley Forge Road; Royal Avenue to Bethlehem Pike





Corridor Improvements

The Corridor Improvement Map on the following pages for Sumneytown Pike identifies multimodal improvements at a total of eleven intersections and corridor segments to address issues for traffic operations, safety considerations, bicycle and pedestrian travel, and maintenance. The Corridor Improvement Map identifies the improvement categories to address future needs, estimated range of construction costs, and general priority levels.

The following general corridor-wide improvement strategies apply to Sumneytown Pike:

Improve intersection alignments and geometry

Several intersections along Swamp Pike have been identified on the corridor improvement maps for alignment improvements. These improvement include increased corner radii and an additional travel lane to eliminate a lane drop

Add bicycle and pedestrian facilities

There are short segments of sidewalk along the corridor. The gaps in this network may be filled through small projects or potentially through land development projects. The county should work with Towamencin, Upper Gwynedd and Lower Gwynedd Townships to develop a bicycle and pedestrian facility master plan to implement the bike lanes and sidewalks on the future cross section. The master plan can provide a conceptual scope by identifying the alignment, crossings and right-of-way needs.

Access management in commercial areas

A large commercial development is proposed at the western end of the corridor near I-476. Best access management practices should be implemented in this area along the corridor.

Add shoulders and widen existing shoulders to preferred width

Each of the future cross sections along the corridor recommend preferred shoulder width based on the preferred design criteria. The preferred shoulder with for most of the Sumneytown Pike corridor is 4 to 8 feet. Some segments of Sumneytown Pike may be constrained from the preferred shoulder width due to obstructions located close to the roadway. In these areas, the retrofit criteria of 2 to 4 foot shoulders may be more practical and appropriate.

Upgrade traffic signals and provide improved coordination systems between closely spaced intersections

Sumneytown Pike from Forty Foot Road to Broad Street includes five signalized intersections through Towamencin and Upper Gwynedd Townships. Sumneytown Pike from Royal Avenue to Bethlehem Pike includes five signalized intersections in Upper

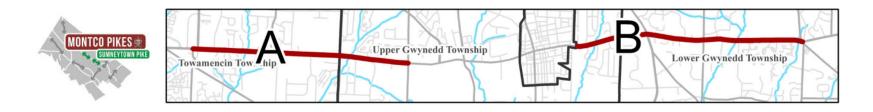
Gwynedd and Lower Gwynedd Townships. The townships, county and PennDOT should work cooperatively with PennDOT to implement upgrades.

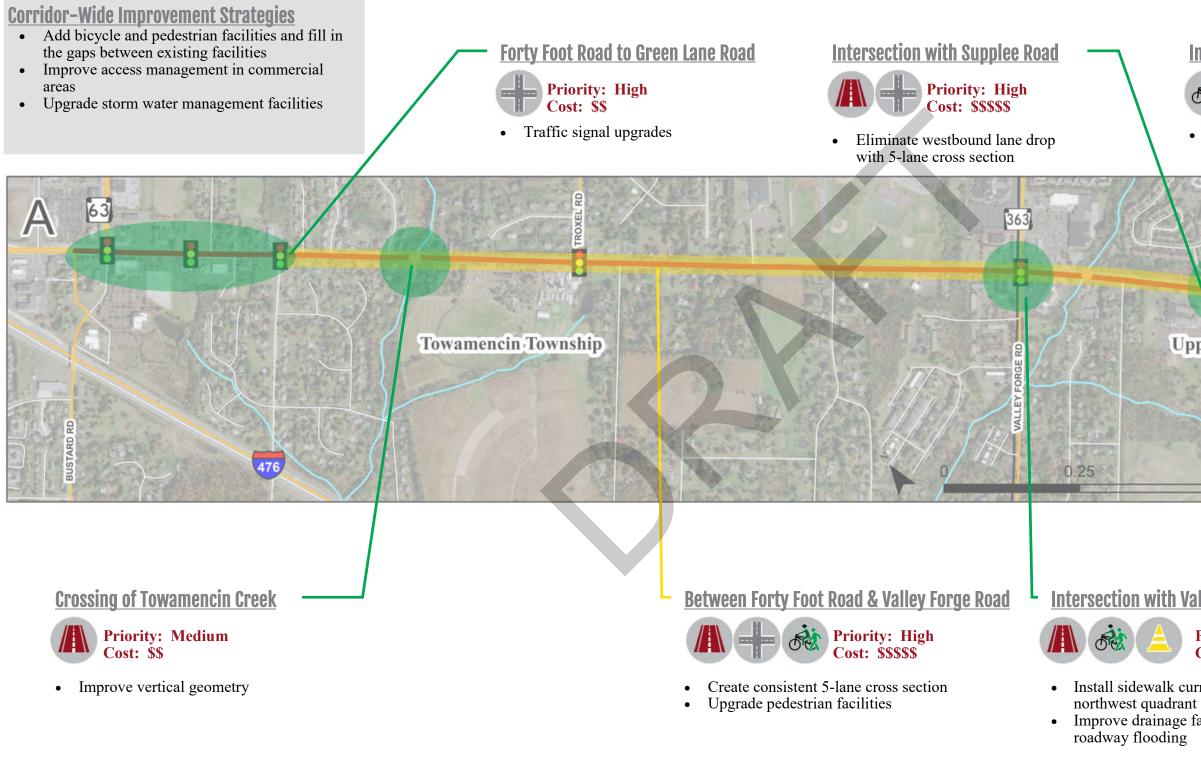
Improve stormwater management facilities

Specific locations with stormwater management issues were not identified by the key stakeholders or the public, but it was common general issue identified by municipalities that should be addressed throughout the corridor when improvements are implemented by the county or developers.

Location	Improvement Categories	Potential Improvements	Relative Priority	Relative Cost
Forty Foot Road to Green Lane Road	0	• Traffic Signal Upgrades	High	\$\$
Between Forty Foot Road & Valley Forge Road		 Create consistent 5-lane cross section Upgrade pedestrian facilities 	High	\$\$\$\$\$
Intersection with Supplee Road	A +	• Eliminate westbound lane drop	High	\$\$\$\$\$
Royal Avenue to Bethlehem Pike		 Improve drainage facilities to reduce roadway flooding 	Medium	\$\$\$\$\$
Crossing of Towamencin Creek		Improve vertical geometry	Medium	\$\$
Intersection with Valley Forge Road		 Install sidewalk currently missing in northwest quadrant Improve drainage facilities to reduce roadway flooding 	Medium	\$
Crossing of Haines- Dittengers Creek		 Improve drainage facilities to reduce roadway flooding 	Medium	S
Intersection with Oakland Place	A+	Improve horizontal/vertical geometry	Medium	S
Intersection with Broad Street	लंखे	 Install sidewalk currently missing in northwest quadrant 	Low	\$\$
Intersection with Wellington Drive	+	• Evaluate need for a traffic signal	Low	S
Intersection with Bethlehem Pike	A	• Traffic signal upgrades	Low	S

Sumneytown Pike |Corridor Improvements





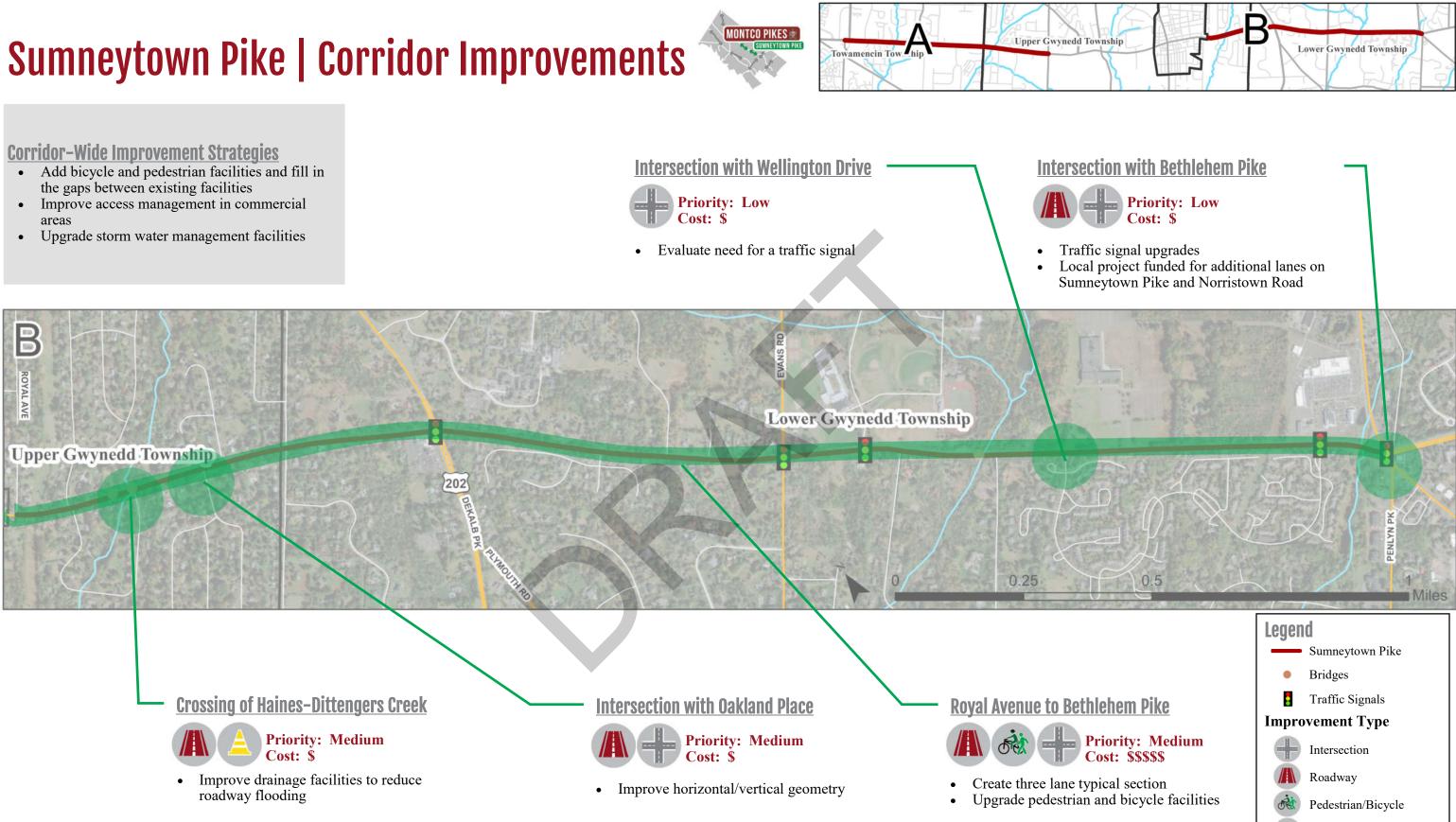
Intersection with Broad Street Priority: Low Cost: \$\$ • Install sidewalk currently missing in northwest quadrant **Upper Gwynedd Township** 0.5 Miles

Intersection with Valley Forge Road

Priority: Medium Cost: Š

• Install sidewalk currently missing in Improve drainage facilities to reduce





Transit Parking Maintenance