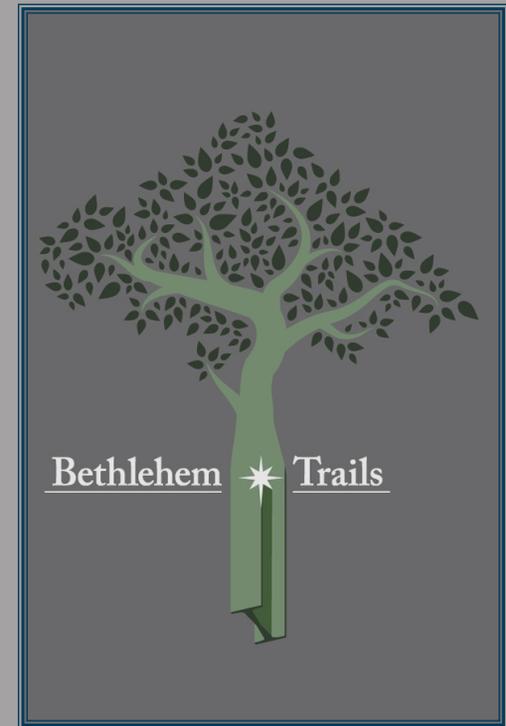
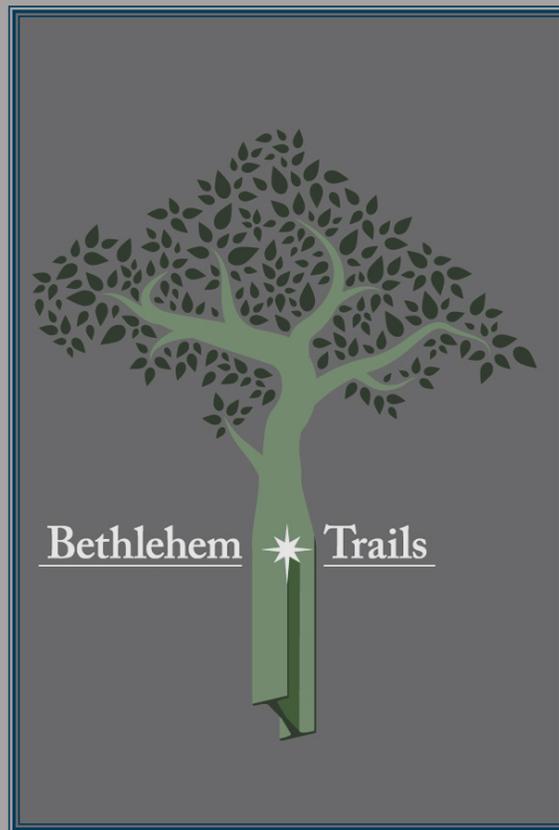
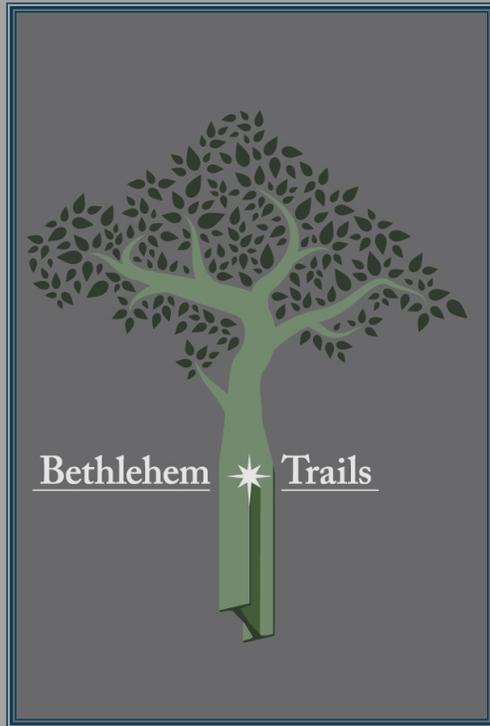


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# ***BETH CONNECTS: A TRAIL STUDY***

## *for the Bethlehem Area*

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# ***BETH CONNECTS: A Trail Study for the Bethlehem Area***

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## CONTENTS

### PLAN OVERVIEW

Purpose .....	1
Study Goals .....	1
Format of this Study .....	3

### BACKGROUND & EXISTING CONDITIONS

History and Context .....	8
Existing Transportation and Trails .....	9
Previous Plans .....	10
Public Support .....	12
Benefits of Bicycle and Pedestrian Transportation .....	12

### PHYSICAL INVENTORY

Segment One S.Bethlehem Greenway to Walking Purchase .....	16
Segment Two S.Bethlehem Greenway to Lynnfield .....	18
Segment Three Lynnfield to Saucon Rail Trail .....	20
Segment Four Sand Island to Monocacy Park .....	22
Segment Five Monocacy Park to Housenick Park .....	24
Segment Six West Bethlehem Rail Trail .....	25
Segment Seven The Bridges .....	26
Sharing the Road .....	28

**RECOMMENDATIONS**

**PRIORITY GAP CLOSURES**

1. South Bethlehem Greenway - Saucon Rail Trail.....32  
    Mapping .....35  
2. Complete Monocacy Way.....38  
    Mapping .....40  
3. South Bethlehem Greenway - D&L Trail .....44  
    Mapping .....45

**SECONDARY GAP CLOSURES**

South Bethlehem Greenway - Walking Purchase Park .....48  
West Bethlehem Rail Trail ..... 50  
Community Links - Connecting Neighborhoods to Trails .....52

DESIGN CONSIDERATIONS .....57

ECONOMIC DEVELOPMENT OPPORTUNITIES .....59

**IMPLEMENTATION**

COST ESTIMATES ..... 68  
FUNDING OPPORTUNITIES AND PARTNERS ..... 79





# PLAN OVERVIEW

## PURPOSE

The purpose of this study is to enhance the quality of life and economic vitality in the City of Bethlehem by expanding and improving the existing trail network. This study outlines a program to build on the existing network of trails network by closing trail gaps, and by connecting Bethlehem's trails to destinations outside of the city and to larger trail networks. This study suggests ways to promote recreation, art, historical and cultural amenities through the trail network, to enhance the vibrancy of neighborhoods and businesses within the city.

## STUDY GOALS

- Develop safe alternative transportation routes within the city, both on-street and off-road, connecting recreation and urban activity nodes for pedestrians and cyclists of all abilities. Work with area and regional trail and cycling groups, and schools, to ensure the safety of existing and future pedestrian and bicycle safety for all users.
- Make Bethlehem a trails hub, by connecting the city's trails to parks, recreational venues, historic sites and trail amenities in neighboring communities.
- Connect Bethlehem's North and South downtowns by providing safe river crossings to connect the South Bethlehem Greenway and the D & L Trail. Promote the art, history and cultural amenities each downtown area has to offer through targeted marketing.



*Bethlehem Festival along Monocacy Way  
in Johnston Park*

## BETH CONNECTS: A TRAIL STUDY



*South Bethlehem Greenway Trail Business*



*Heritage Trail Marker in North Bethlehem*

- Increase the visibility and viability of businesses that cater to trail users by providing formalized and ease of access to those businesses
- Identify general areas where trail markers and wayfinding signs might be located, using graphics and logos created for and unique to the City of Bethlehem's trails.
- Increase public awareness of existing trails, development plans for future trails, connections and trail amenities.
- Work with trail groups to offer the public ways to participate in trail use and to contribute to the development of the trail network.
- Work with regional and non-profit trail groups and with surrounding municipalities to promote trails as a Lehigh Valley wide effort. Provide support for the development of connections to facilities in the surrounding area.
- Engage all city departments; economic development, public works, health bureau, historical groups, urban forestry, parks and public property, traffic and law enforcement to contribute to the trail system and to ensure its sustainability for future generations.

## FORMAT OF THIS STUDY

### HISTORY AND CONTEXT

The study begins with a concise history of the City of Bethlehem, followed by an exploration of existing neighborhoods, points of interest within each, and how they are connected through the existing alternative transportation system. Past planning efforts that led to this study are reviewed.

This study was publically supported and promoted through its dedicated study committee members, public survey, key persons who provided direct input and comment, and residents of the city of Bethlehem, who attended public meetings held during the development of this report.

### PHYSICAL INVENTORY

This report divides the trail system into eight easily identified geographical sections :

1. The western terminus of the South Bethlehem Greenway at New Street, to Walking Purchase Park in Salisbury Township.
2. The completed South Bethlehem Greenway from New Street to the Eastern Gateway at the Lynnfield Trail Head.
3. The eastern terminus of the South Bethlehem Greenway from the Lynnfield Trail Head to the Saucon Rail Trail in Hellertown.
4. Monocacy Way - from the Sand Island Trail Head to Monocacy Park
5. Monocacy Way - from Monocacy Park to the Archibald Johnston Conservation Area.
6. West Bethlehem Rail Trail - future trail on an abandoned rail line beginning on Monocacy Way south of Burnside Plantation and ending in Allentown.
7. The three existing bridge connections linking North and South Bethlehem.
8. The existing system of providing for bicycle transportation needs.



*Walking the South Bethlehem Greenway*



*Walking Monocacy Way*



*Unaccessible Route from a Bethlehem Bridge to Sidewalk below*

The current condition of each trail section is analyzed; including current surface material and it's condition, width, types of users, accessibility for the handicapped and degree of completeness. Trail amenities will be analyzed including directional and wayfinding signs, bicycle racks, resting places, comfort stations, formalized access points and parking areas. Trail gaps will be highlighted, and solutions to close the gaps are proposed. An analysis of existing alternative transportation connections to the city's neighborhoods will be part of this analysis.

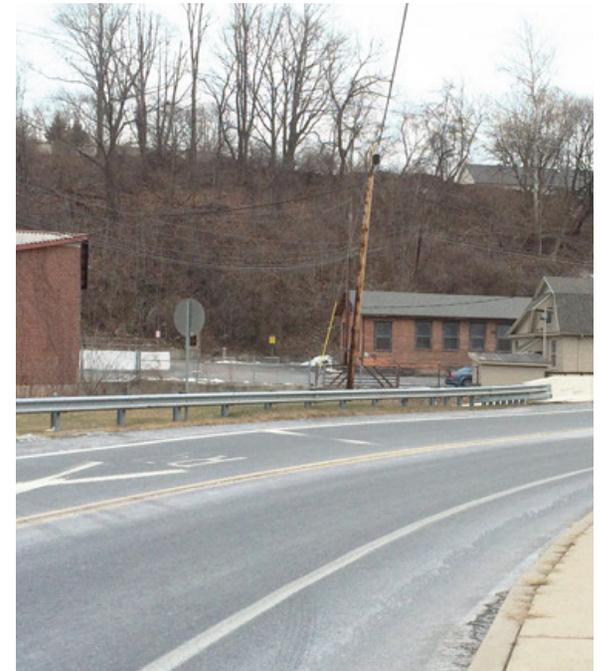
The second facet of this report deals specifically with promoting local business as a trail amenity and increasing the visibility of businesses to trail users, particularly thru-travelers. Places to stay, places to dine, places that offer emergency care for travelers or their means of conveyance should be highlighted and easy to locate from trails, including information on distances and contact information. The report will take a look at destination points close to each trail section in terms of accessibility and visibility to visitors and residents.

#### RECOMMENDATIONS AND ACTION PROGRAM

Recommended actions will be broken into the geographical sections and will include the following recommendations for each section:

- Trail Improvements for existing trail sections where amenities, trail conditions and/or accessibility is lacking or needs improvement. Particular attention will be given to safety; both at street crossings, and streets where on-road travel is considered. Alternative scenarios will be presented as with potential difficulties and opportunities of each. Alternatives will be compared in terms of accessibility and use for various modes of travel.

- Trail Gap Closures. Possible routes to close gaps will be examined with user groups in mind. Multiple alternatives may be presented for the same gap, although some may be short term solutions and some may be feasible at a future date. Trail amenities and safety will also be examined, as will costs of each alternative considered.
- Regional connections will be examined, along with regional efforts to make connections with existing local trail networks. Connections to points of interest adjacent to the city and to points at varying distances from the city will be mapped. Improvements that the City has planned will be noted and integrated into the alternatives.
- Recommendations will include suggestions for vacant and underutilized properties along the trail network, focusing on trail and recreation related businesses and opportunities. Real Estate and Business Development Program areas near to the trail network will be identified on a map. Recommendations will be backed up with statistics concerning the success of south side businesses since the greenway was built. Emerging and successful trends will be noted. Neighborhood access to the trail and these local businesses will be highlighted.
- Ways to connect and improve the visibility and vitality of Bethlehem's two downtown areas, historic and entertainment venues will be proposed. The proposed improvements will integrate suggestions of the city's current marketing study, and will suggest additional avenues for marketing, including brochures and mapping, points of distribution and coordination between groups with similar missions and goals.
- Improvements will be prioritized as per public comment in both committee meetings and public meetings. Cost benefit analysis will be a part of the process in determining long range and short term priorities.

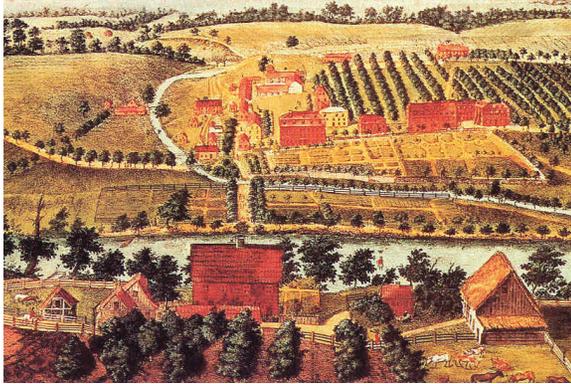


*Small Cluster of Industrial /Commercial Buildings near Monocacy Trail*





BACKGROUND &  
EXISTING  
CONDITIONS



*Moravian Settlement at confluence of the Monocacy Creek and the Lehigh River*



*South Bethlehem Coke Ovens as seen from South Mountain*

## BACKGROUND & EXISTING CONDITIONS

### HISTORY AND CONTEXT

The City of Bethlehem has a rich and varied history. The city was founded in 1741 by Moravians who built a settlement at the confluence of the Monocacy Creek and the Lehigh River. The Monocacy Creek and the Lehigh River divided the city into three geographical areas, which operated as independent boroughs until 1917. Four bridges were built to span the Lehigh River and Monocacy Creek to connect the three areas.

North Bethlehem today is home to Historic Moravian Bethlehem - a National Historic Landmark District, Burnside Plantation, the Kemmerer Museum of Decorative Arts, Moravian College and Academy, a historic district, a downtown business district and the City of Bethlehem's government offices.

South of the Lehigh River, a booming steel industry fueled the economy providing income and jobs for residents throughout the area until the early 1990s. South Bethlehem today is home to Lehigh University-a world renowned educational institution, a historic conservation district, Four Blocks International, a cultural enterprise zone created to illuminate south Bethlehem's existing cultural mix, the Arts Quest entertainment venues and Sands Casino. The revitalization of south side Bethlehem post-steel, guided by visionary community leadership, is a model success story for cities throughout the country.

West Bethlehem lies on the north side of the Lehigh River, west of the Monocacy Creek, and adjacent to the City of Allentown. West Bethlehem is home to the Mount Airy historic housing district, and the Rose Garden Park.

## EXISTING TRANSPORTATION AND TRAILS

The City of Bethlehem has excellent access via the Pennsylvania state highway system. Interstate 78 borders the city to the south and US Highway 22 borders the city to the north, each running east to west. State Highway 378 connects 22 with 78 as it winds its way through the city. Connecting to all three arterial highways is easy within the existing transportation network.

**Local Trails** - The first trails in Bethlehem began in city parks as depression era WPA projects. Many of the stone walls, entrances, bridges, pavilions and waterfalls built along the Monocacy Creek in North Bethlehem and along the Saucon Creek in South Bethlehem still stand today. In the mid 1990's the city of Bethlehem sought to connect the parks by developing a trail system. The first trail, Monocacy Way, is located north of the Lehigh River and follows the course of the Monocacy Creek from Sand Island Park to Monocacy Park. This trail travels through the Historic Moravian Bethlehem National Historic Landmark District and Burnside Plantation, with spurs providing access to North Bethlehem's downtown business district, city government offices and Moravian College campuses. The South Bethlehem Greenway, a new multi-use trail traveling from Saucon Park in South Bethlehem through the heart of the city's south business district, has become an important component of the redevelopment and revitalization efforts underway in South Bethlehem.

**Regional Connections** - The historic Lehigh Canal and towpath were built to carry anthracite from White Haven to Easton, PA from the early to mid-1800s. When the canal closed in 1932, the towpath was maintained and used for recreation. In 1988, when the Delaware and Lehigh National Heritage Corridor was established, the Lehigh Canal towpath through the Lehigh Valley became the D&L Trail. The D&L Trail runs through Bethlehem's Sand Island Park on its 165 mile path from Wilkes-Barre, PA to Bristol, PA.



*Monocacy Park WPA Walks and Structures*



*The D&L Trail through Sand Island Park*



*Monocacy Way Crossing Union Boulevard*

## PREVIOUS PLANS AND RECOMMENDATIONS

The City of Bethlehem is continually striving to improve quality of life and economic vitality for residents and businesses within the city. In the last fifteen years, the city has written at least eight plans that recommend making improvements to the transportation network for pedestrians, cyclists and the handicapped.

- [Southside Bethlehem Master Plan \(2001\)](#)
- [Elm Street Plan for North and West Side Neighborhoods \(2005\)](#)
- [City of Bethlehem Parks and Recreation Plan \(2007\)](#)
- [City of Bethlehem Comprehensive Plan \(2009\)](#)
- [The City Liveable \(2009\)](#)
- [South Bethlehem Eastern Gateway Vision \(2011\)](#)
- [Southside Vision 2012](#)
- [New Southside Vision \(2014\)](#)

Several common themes emerge in a review of these planning documents with regard to alternative transportation within the City of Bethlehem.

1. Residents want improved, safer and accessible sidewalks and street crossings for all pedestrians. They want a safer bicycle route system throughout the city. Part of providing an improved alternate transportation system will be to incorporate visible wayfinding and informational signs.
2. Trail users and supporters want an improved, safe and accessible network of trails within the city. The existing off-road trail network in Bethlehem consists of the South Bethlehem Greenway, the D&L Trail in North Bethlehem along the Lehigh River, a trail along the Monocacy Creek, and Share the Road markings

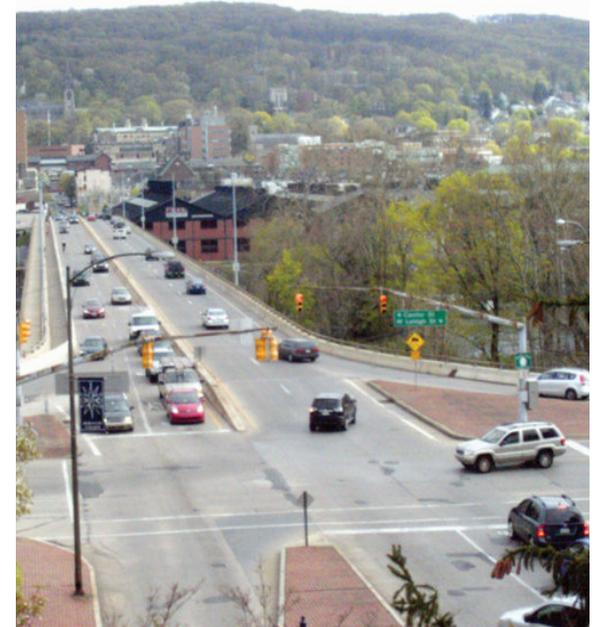
on well-traveled and busy roads. These trails should connect to each other and be accessible from the city's neighborhoods. Street and bridge crossings should be made safer and more accessible for all users.

3. Trails are meant to connect. Residents want existing trails to lead to destinations. Points of interest near the city are Lehigh University, the Walking Purchase Park in Salisbury Township, and the Saucon Rail Trail in the adjoining Borough of Hellertown. The Open Space Committee of Southside Vision 2014 sees the greenway and both of Bethlehem's downtowns as the hub of a trails network that will promote Bethlehem as a regional tourist destination. Trail advocates envision Bethlehem's trails becoming part of the PA Highlands Trail Network and the 9-11 Memorial Trail.

4. The city should purchase the land belonging to the Lehigh and New England Railroad to develop a new rail trail on an abandoned rail line. This abandoned Right of Way runs from the Monocacy Way south of Burnside Plantation to Allentown.

5. The city needs a focused marketing program to promote awareness of the trail system, to create stronger connections between the North, South and West neighborhoods and the North and South downtown business districts. This effort should include program elements to improve the visibility and viability of the trail system, Bethlehem's two downtown business districts as well as Historic Bethlehem, Arts Quest entertainment venues, festivals and community activities.

These common themes form the basis for this trail feasibility study.



*Fahy Bridge - Potential connection between the D&L Trail and the South Bethlehem Greenway*



*Discussing trail routes and potentials in the City of Bethlehem*

## PUBLIC SUPPORT

Groups actively promoting trails in the Lehigh Valley continue to work with the city to advocate for trails and to find ways to bridge trail gaps, establishing critical connections. These groups include Lehigh Valley Greenways, the D&L Trail, the Lehigh Valley Wheelmen, Appalachian Mountain Club, and The Lehigh Mountain Bikers. Lehigh and Northampton Counties, as well as the adjacent communities of Hanover, Bethlehem, Salisbury and Lower Saucon Townships, and the Boroughs of Fountain Hill and Hellertown. These entities have provided support for trails in local communities and for regional trail initiatives throughout the state, like the Laurel Highlands Trail and the National 9-11 Memorial Trail.

## BENEFITS OF BICYCLE AND PEDESTRIAN TRANSPORTATION

The benefits of active outdoor recreation are well researched and documented. Trails promote outdoor recreation and an alternative to vehicular transportation within communities. When people choose to use alternate transportation the environment and the community benefit as the following studies show:

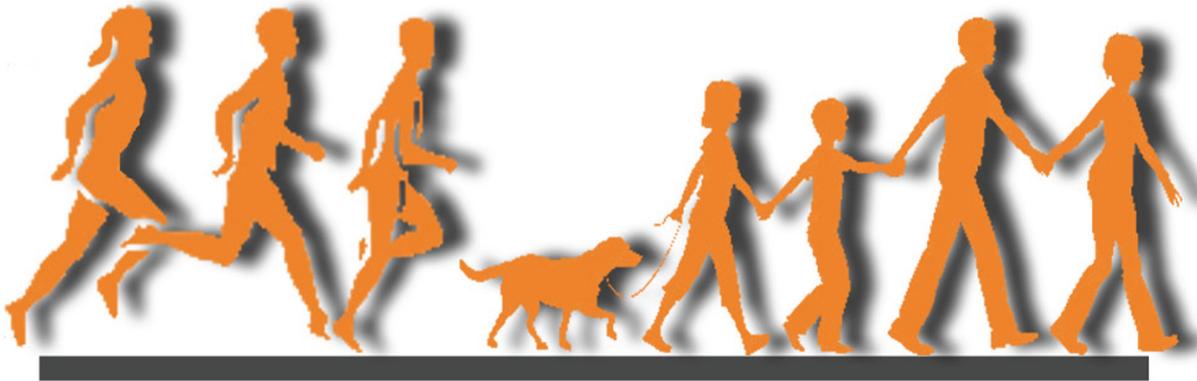
- Nearly two thirds of all local trips Americans make are distances of five miles or less. *Source: Bureau of Transportation Statistics*
- Americans are willing to walk a distance of two miles or less, and are willing to ride a bicycle a distance of five miles or less, to reach a destination or point of interest. *Source: Bureau of Transportation Statistics*
- Building a public transportation network, including sidewalks and bike paths, increases the opportunity residents have to make a choice to reduce their own carbon footprint by choosing alternative transportation. *Source: EPA.gov Smarth Growth*

- Smart zoning and urban planning, which places residences, schools, stores and businesses close together, helps to reduce the need for multiple small trips every day. *Source: EPA.gov Smarth Growth*
- In the US, transportation contributes to 28% of total greenhouse gas emissions. That is the largest economic section contributor, outside of electricity production, which contributes 32%. The largest sources of transportation related greenhouse gas emissions include passenger cars and light duty trucks; sources which accounted for over half of the emissions from this sector. *Source: EPA.gov*
- Trails benefit local economies in many ways including increased tourism, urban redevelopment, community improvements, increased property values, health care savings, job creation and investment, and consumer spending. *Source: American Trails.org*
- Reports show that trail users from out of town, who plan an overnite stay as part of their trip, spend anywhere from 80 to 95 dollars per day during their stay. *Source: Rails to Trails .org*
- Local trail users spend an average of 10-15 dollars per person per day on soft goods (e.g. beverages, food and snacks) per trip. *Source: Rails to Trails.org*
- Residents in locations with an active trail network have reported spending between 300 and 500 dollars per year on hard goods ( e.g. equipment, clothing, accessories, and footwear) associated with recreational trail use. *Source: Rails to Trails .org*



*Example of Successful Trail Side Business*





## PHYSICAL INVENTORY

# PHYSICAL INVENTORY

## SEGMENT ONE

SOUTH BETHLEHEM GREENWAY at NEW ST. to  
WALKING PURCHASE PARK, in SALISBURY TOWNSHIP (Proposed)



*Current End of South Bethlehem Greenway at New Street*



*South Bethlehem Greenway - 3rd St/RT 412 Crossing*

Surfaces:	Railroad Bed, Sidewalk, Paved Roads
Widths:	8-12', Various Sidewalk widths, Various Road Conditions
ADA:	Trail is ADA compliant to the existing end of the South Bethlehem Greenway at New Street. From the Greenway to Walking Purchase Park taking the RT378 ramp and Brighton Street there are existing slopes over 10%. The RT 378 crossing is signaled for pedestrians. From the Greenway to Walking Purchase Park via Riverside Drive the grades are accessible. Riverside Dr. has a railroad crossing and the cartway is in poor condition
Signs:	There are no directional signs past the South Bethlehem Greenway There are no signs to locate Walking Purchase Park's upper or lower tracts when traveling from Bethlehem



*Aerial of existing conditions between South Bethlehem Greenway and Walking Purchase Park  
 This area is densely developed and traffic is steady.*

<p><b>Safety:</b></p>	<p>From the South Bethlehem Greenway to the signaled pedestrian crossing at RT 378, traffic is heavy, slopes are steep, and several road crossings are required.                  After crossing RT378, streets are narrow, on-street parking is permitted, sidewalks are incomplete and in various conditions.                  Riverside Drive access would require a railroad crossing and co-operation between Lehigh County, Salisbury Township, the City of Bethlehem, the railroad and the businesses it serves.</p>
<p><b>Parking &amp; Access:</b></p>	<p>Walking Purchase Park is two separate areas - The Lowlands and Lehigh Uplands. They are separated by Riverside Drive and the active railroad lines.                  Lehigh Mt. Bikers maintain popular mountain bike trails in the uplands; locals know how to access the site and where to park.                  The lower tract is not developed. There is no parking and no facilities.</p>
<p><b>Vacant Parcels:</b></p>	<p>Along the RT 412 Corridor in South Bethlehem, near the end of the Greenway, businesses are in constant flux.                  This area has a strong potential for recreation-based businesses.</p>



*Aerial of Riverside Drive between South Bethlehem Greenway and Walking Purchase Park. This area is sparsely developed with industrial and municipal uses.*



*Riverside Drive to Walking Purchase Park's lowland area*



*Entrance to Walking Purchase Park uplands & Lehigh Mountain Bike Trails*

**SEGMENT TWO**

SOUTH BETHLEHEM GREENWAY at NEW ST. to LYNNFIELD TRAILHEAD  
(Complete)



*The South Bethlehem Greenway*



*A Plaza connecting to the Greenway*

Surfaces:	Bituminous, Concrete and Compacted Gravel
Widths:	10-12' Multi-Use
ADA:	Trail is ADA compliant to Lynnfield Trailhead. Existing surface is a 1-2% slope with ADA compliant crosswalks. Existing slopes north of the greenway complicate ADA compliant access from neighborhoods. Planned access points to and from South Side Neighborhoods will feature accessible ramps. Parking areas along the trail provide ADA compliant access.
Signs:	Signs are plentiful along the greenway. Directional signs to other trails and recreation connections are lacking.



*Typical Greenway Intersection and Street Sharrow for Cyclists*

Safety:	Well detailed, designed and visible crosswalks. The greenway is well segregated from vehicular travel lanes. The greenway has decorative pedestrian lighting for night time safety. Traveling off of the greenway to access local businesses or neighborhoods is undefined and can be unsafe.
Parking & Access:	There are several parking areas along the greenway. There is metered parking on the streets surrounding the greenway. Residents have created informal footpaths from neighborhoods.
Facilities:	Numerous benches, trash receptacles, plantings, bike racks and pedestrian decorative lighting, gathering spaces, plazas, gardens, gazebos, a playground and the Bethlehem Skateplaza are existing.
Vacant & Under Used Parcels:	Multiple parcels in Eastern Gateway area. A plan for the revitalization of this area and reuse of these parcels was completed. Many opportunities for trail side businesses exist along the greenway.



*Bethlehem Skateplaza on the South Bethlehem Greenway*



*Gravel Section between the Skateplaza and the Lynnfield Trailhead*



*The Lynnfield Trailhead and a footpath access from the neighborhood*



*Lynnfield Trailhead Looking East*

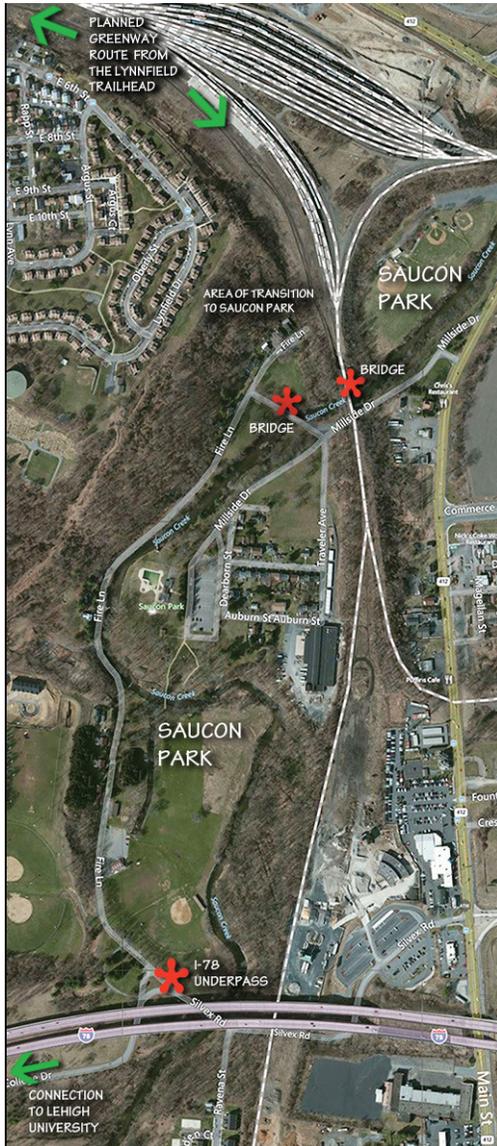


*Bridge in Saucon Park - not ADA accessible*

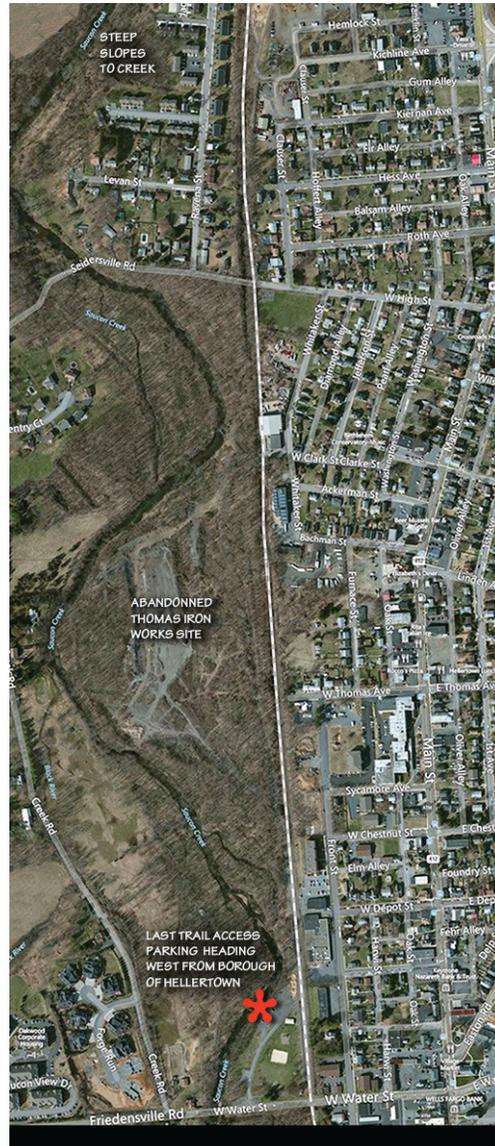
### SEGMENT THREE

SOUTH BETHLEHEM GREENWAY from the LYNNFIELD TRAILHEAD to SAUCON RAIL TRAIL in HELLERTOWN. (Proposed)

Surfaces:	Bituminous, Concrete, Railroad Ballast, Compacted Gravel, Earth
Widths:	Varies depending on surface type
ADA:	Trail is undeveloped and not ADA compliant past Lynnfield Trailhead. Existing railroad ballast slope will provide for ADA compliance. A transition ramp to Saucon Park is planned. The bridges in Saucon Park were not designed for ADA compliance. The existing footpaths and roads in Saucon Park are not formalized. Traveling south from Saucon Park there are existing steep slopes.
Signs:	No signs are existing for this section of proposed trail.
Safety:	Rail bed route has isolated sections near industrial uses. Development of the trail would improve safety on these sections.
Parking & Access:	The South Bethlehem Greenway will end near Hellertown at properties that hold long term leases for industrial and commercial uses. There is existing parking in Saucon Park and for the Saucon Rail Trail in Hellertown. There is parking along the South Bethlehem Greenway.
Facilities	Benches, trash receptacles, plantings, bike racks and lighting end at the Lynnfield Trailhead. Saucon Park has a playground, pavilions, sports fields and some lighting. There are no facilities on the undeveloped sections of this route.
Vacant Parcels	Old Thomas Iron Works site. The railroad right-of-way is partially leased to industrial uses in this segment. The railroad right-of-way that is not leased is not currently used.



*Aerial of existing gap between Lynnfield Trailhead and the I-78 underpass*



*Aerial of existing gap between the I-78 underpass and the Saucon Rail Trail*



*Tunnel under Rail ROW could be reopened to connect east and west parts of Saucon Park, currently separated by Route 412*



*Footpaths are found all along Saucon Creek*

**SEGMENT FOUR**

MONOCACY WAY - SAND ISLAND to MONOCACY PARK  
(Semi-Complete)



*Monocacy Way in Johnston Park*



*Monocacy Way Trail on Union Boulevard*

Surfaces:	Compacted Gravel, Sidewalks, Earth, Lawn and Wooden Decking
Widths:	Varies widely along course of the trail
ADA:	Trail is ADA compliant from Sand Island Park to Union Boulevard Remainder of the trail varies in accessibility.
Signs:	Wayfinding and Directional signs can be found at the crossing on Union Boulevard. There are no Wayfinding or Directional signs in Sand Island Park to locate Monocacy Way or the D&L. There are no signs to guide travelers to Historic Moravian Bethlehem.
Safety:	Roads on Sand Island are narrow and shared by pedestrians, vehicles and cyclists. There is little separation, but speeds are slow. Trail sections between streets are long and seem remote. There is some lighting along the trail at street crossings.



*Hidden Monocacy Way Trail Signs at Union Blvd. 378 ramp*



*Cantilevered Decking on Monocacy Way Trail*

<p><b>Parking &amp; Access:</b></p>	<p>Parking is provided at Sand Island Park and at Monocacy Park.                  There is parking for Historic Moravian Bethlehem under the RT378/Main St. Bridge which is used by locals and Moravian College.                  Maps are provided by Historic Moravian Bethlehem for historic area walking tours using streets on the north and south sides of Bethlehem.</p>
<p><b>Facilities</b></p>	<p>Sand Island Park has courts, a playground and an event venue.                  Monocacy Park has pathways, waterfalls and pavilions.                  There is a natural area with mulched paths across from Monocacy Park with no facilities.                  Burnside Plantation is a private parcel. Trail users are permitted access, although the trail may be closed during plantation events.                  Plastic barrels for trash can be found along the trail route.</p>
<p><b>Vacant &amp; Under-Utilized Parcels</b></p>	<p>On Union Street in the block that is part of the Monocacy Way Trail.                  East of the Schoenersville Road Crossing.                  On Lehigh Street west of Monocacy Way near Sand Island.</p>



*Monocacy Way & Illicks Mill Road crossing to Monocacy Park*



*Monocacy Way -Schoenersville Road Crossing at Burnside Plantation*



*Monocacy Way split to Memorial Pool/Dog Park or Rail Crossing thru Natural Area to Monocacy Park*

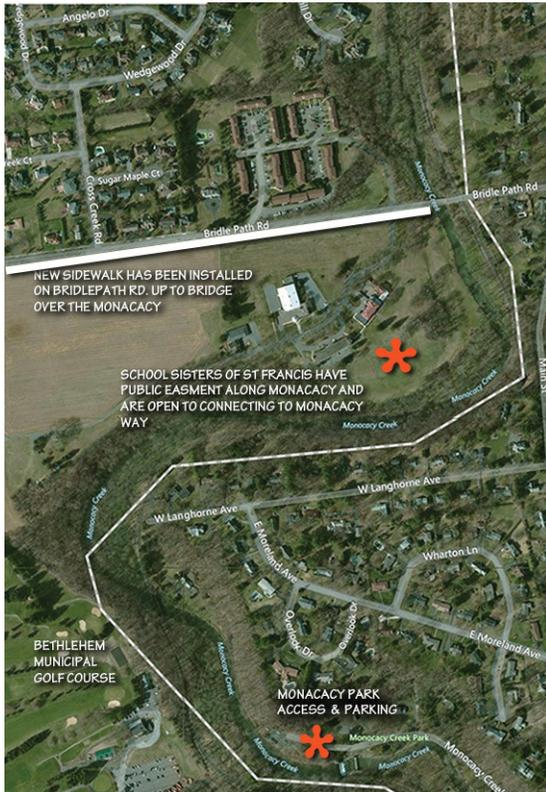


*Illicks Mill at Monocacy Park*

SEGMENT FIVE

MONOCACY WAY - MONOCACY PARK to HOUSENICK PARK  
in BETHLEHEM TOWNSHIP - (Proposed)

Surface:	Footpaths exist in Housenick Park
Widths:	2-6'
ADA:	A trail along the Monocacy could be ADA compliant on existing slopes
Signs:	No signs exist to locate Housenick Park. In the park there is a kiosk with a map of the area.
Safety:	There is an active rail line that follows the Monocacy Creek which would need to be crossed. State Route 512 would have to be crossed. The Monocacy may need to be crossed as land easements become available.
Parking & Access:	Parking is available at Monocacy Park and at Housenick Park Maps, wayfinding and informational signs will be needed.



*Monocacy Way Park and current end of Monocacy Way.*



*Monocacy Way proposed destination - Housenick Park and Archibald Johnston Conservation Area. Northampton County has plans to join efforts to connect Housenick Park with the Nor-Bath Trail and Monocacy Way.*

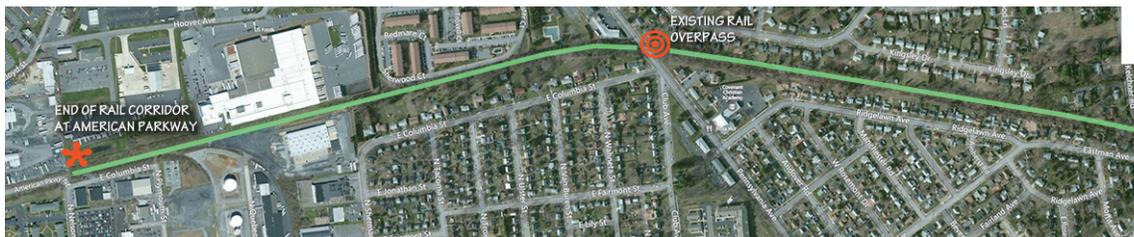
**SEGMENT SIX**

**WEST BETHLEHEM RAIL TRAIL - MONOCACY WAY to ALLENTOWN (Proposed)**

Surface:	Existing railroad right-of-way and railroad ballast
Widths:	10-12' with vegetation overgrowth
ADA:	Trailway could be ADA compliant on existing slopes
Safety:	This is an abandoned railroad corridor adjacent to businesses and neighborhoods. There are road crossings that would have to be navigated.
Parking & Access:	This property is still owned by the railroad. Land acquisition will be the first step. Parking could be provided in an existing business lot.



*Future West Bethlehem Rail Trail from Monocacy Way to Bethlehem /RT 378 overpass*



*Future West Bethlehem Rail Trail from Bethlehem/RT 378 overpass to Allentown*



*Existing RT 378 overpass*



Hill to Hill Bridge - sidewalk both sides

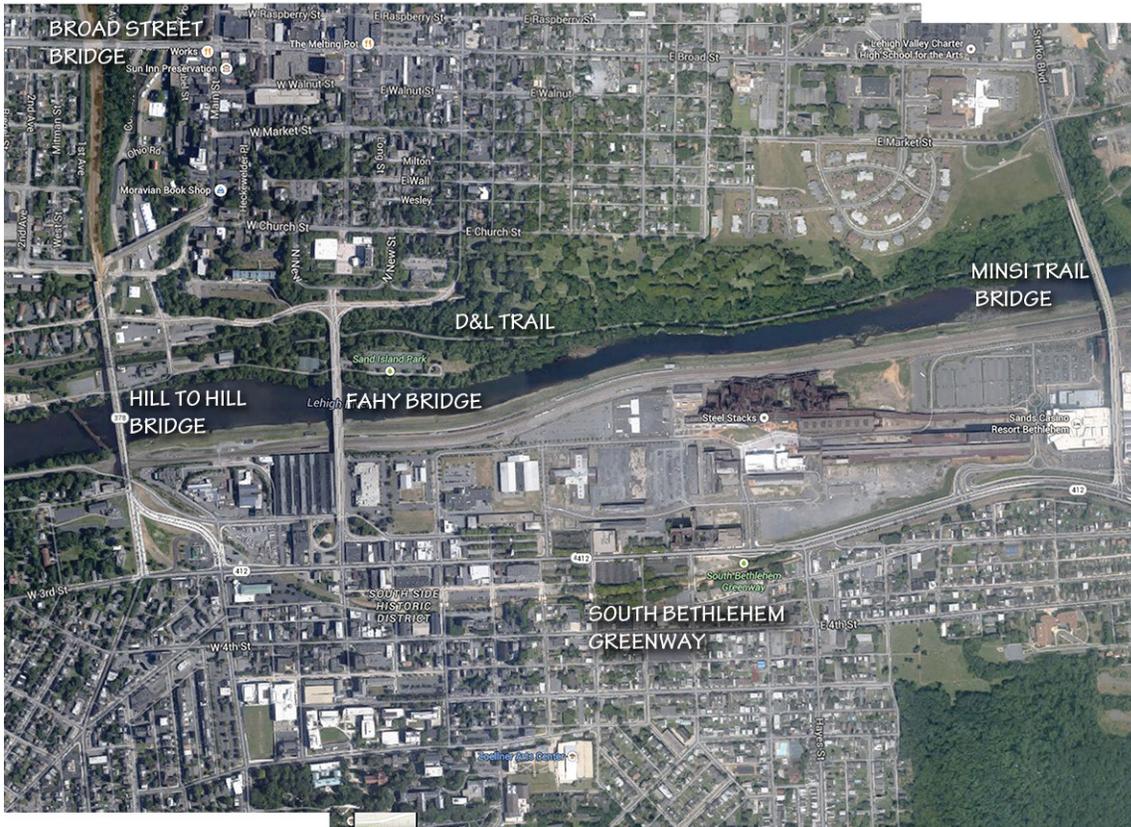


Fahy Bridge - sidewalk one side

**SEGMENT SEVEN - THE BRIDGES**

CONNECTING NORTH, SOUTH and WEST BETHLEHEM  
The Hill to Hill/RT 378, Fahy, Minsi Trail & Broad St. Bridges

Surface:	Concrete sidewalk on one side of the Minsi Trail and Fahy Bridges, sidewalk on both sides of the Broad Street and Hill to Hill Bridges. Share the Road designations for cyclists can be found on the Fahy Bridge.
Widths:	5-6' existing widths
ADA:	Sidewalks crossing bridges are ADA compliant. Sidewalk conditions vary. Access to bridge sidewalks at end points will need further study to achieve ADA compliance.
Signs:	Roadway identification signs exist. Wayfinding signs to direct walkers and cyclists to trails are needed.
Safety:	Sidewalks on bridges separate pedestrians from traffic with railings or barriers. Sidewalks on the bridges are not always on both sides. Existing sidewalk widths do not accommodate two-way multi-use pedestrian and/or bicycle traffic. The transition areas at the ends of bridges need to be examined to make them safer for pedestrians and cyclists. Sharrows do not accommodate recreational cyclists.
Parking & Access:	Parking is available on the Broad Street Bridge. Bridges are all easily accessible via sidewalks and the city's sharrows can be followed to the Broad Street Bridge and the Fahy Bridge. The Hill to Hill and Minsi Trail Bridges are not save for on-road cyclists.
Facilities	Facilities are available at Sand Island Park.



*Aerial view of Bethlehem's bridges and trails to the south and north*



*Minsi Trail Bridge – sidewalk one side*



*Broad Street Bridge – sidewalk both sides*



*Sharrow Route in North Bethlehem on Main Street - entering Central Business District*

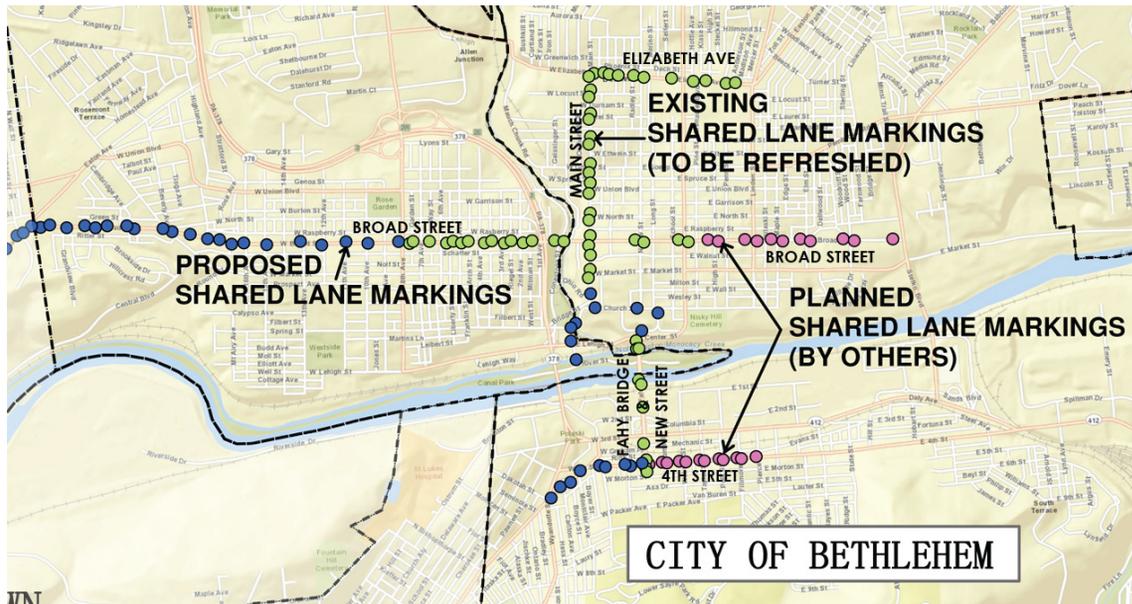


*Sharrow Route in North Bethlehem on Broad Street - entering Central Business District*

### SHARING THE ROAD - BICYCLE TRAVEL IN THE CITY

Surface:	<p>Bituminous cartways with Share the Road “Sharrow” designations for cyclists has become standard practice in the city; however, not all cyclists are in favor of this practice.</p> <p>The Coalition for Alternative Transportation (CAT) supports the use of Sharrows.</p> <p>Families and recreational cyclists are more comfortable riding in dedicated lanes.</p>
Widths:	<p>Cartway widths vary</p> <p>Sharrows are recommended on roads with a minimum lane width of 14’.</p> <p>Dedicated bike lanes are recommended on roads with a minimum lane width of 15-17’.</p>
Signs:	<p>Road Pavement Markings known as “Sharrows” are used.</p> <p>Wayfinding signs do not exist to direct cyclists to designated shared use roads or for cyclists to follow through the city.</p>
Safety:	<p>The roads selected for Sharrows are through streets that are continuous through the city’s central business districts and connect to neighboring communities.</p> <p>Some of the designated streets are heavily traveled two-lane streets with parking on both sides of the street and turn lanes.</p> <p>The Sharrow markings can wear off quickly and are not highly visible.</p> <p>Motorists do not always see or recognize pavement markings.</p>
Parking & Access:	<p>People using Sharrows are typically local commuters, leaving vehicles at home or traveling from other accommodations.</p> <p>Sharrow routes connect some schools, parks and Bethlehem’s north and south downtowns. Connections to off-road city trails are lacking.</p>

Facilities:	Facilities are available at various business establishments along the designated shared routes, at parks and at trailheads.
Debate:	<p>Sharrows are welcomed by confident mature cyclists and CAT because they reinforce cycling in the same direction as traffic, they provide clearance from parked car doors. Sharrows are intended to keep cyclists over age 10 from riding on sidewalks.</p> <p>Dedicated lanes are preferred by less confident and/or recreational riders and families. Dedicated lanes are best when roads are wide enough to provide adequate lane width to avoid conflicts with parked car doors, speeds and traffic volumes are low.</p> <p>A system of travel that addresses the needs of all cyclists should be created. Priority should be to guide cyclists to off-road trails where possible.</p>



Bethlehems designated Share the Road "Sharrow" map



Sharrow Route in South Bethlehem on 4th Street - in Business District



Sharrow Route in South Bethlehem on Broad Street - leaving Business District





## RECOMMENDATIONS

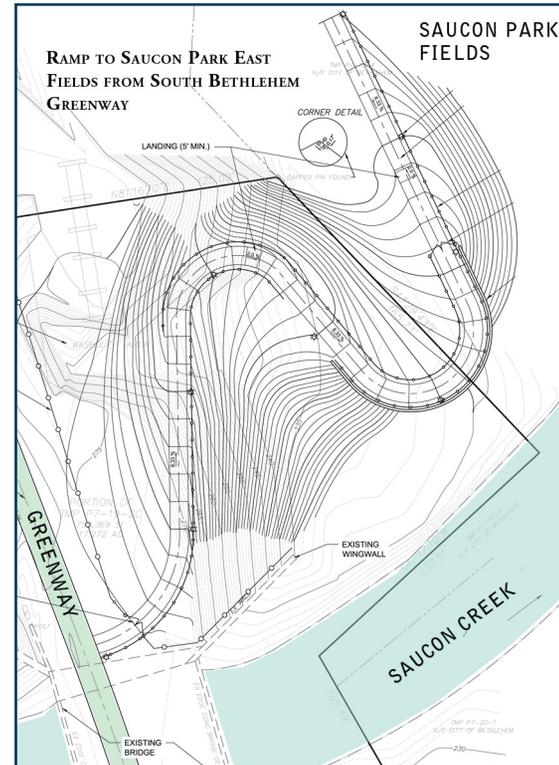


SEE MAP  
PAGE 36

<b>PRIORITY 1: GAP CLOSURE - South Bethlehem Greenway to Saucon Rail Trail</b>		
<b>SEGMENT A - LYNNFIELD TRAILHEAD TO SAUCON PARK ACCESS RAMP &amp; AUBURN STREET</b>		
<b>Scheduled for 2016 Construction</b>	<b>Width</b>	<b>Access</b>
Pave neighborhood access path from Lynnfield Dr to the Greenway	8'min.	Local streets
Install planned access from Lynn Ave Bridge to the South Bethlehem Greenway	8'min.	Lynnfield Trailhead
Extend the SBG with a compacted gravel surface using the existing railroad bed	8-12'	Lynnfield Trailhead
Install proposed ADA compliant ramp to Saucon Park east of railroad right of way	8'min.	Saucon Park Lots



*Next Phases of the South Bethlehem Greenway from Lynn Avenue to Auburn St. - 2016 Construction (source: City of Bethlehem)*



*Saucon Park Access Ramp from the South Bethlehem Greenway to the east side of Saucon Park -as designed (Source: City of Bethlehem)*

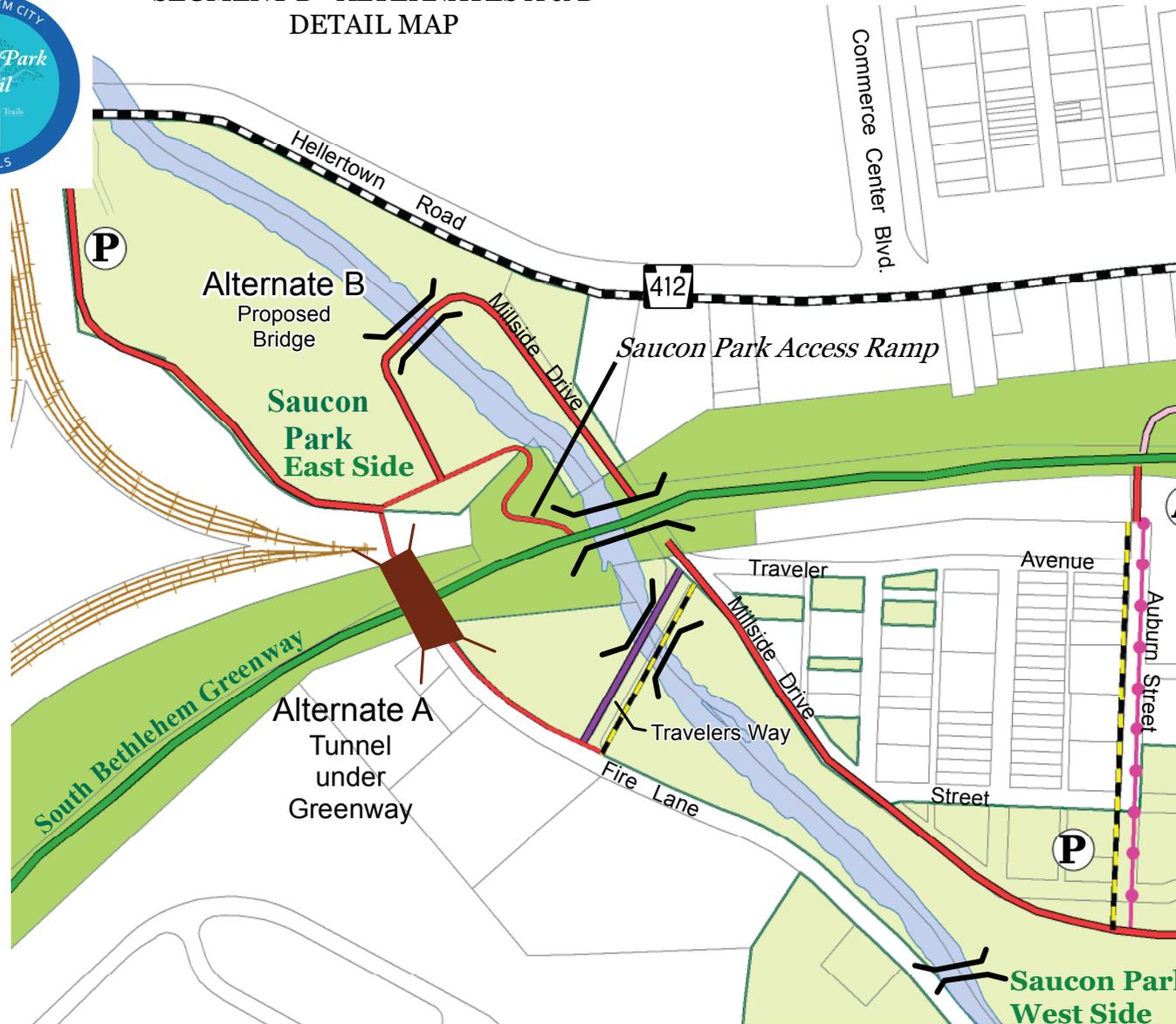


ALT A & B  
SEE DETAIL MAP  
PAGE 34

ROUTE MAP  
SEE  
PAGE 36

<b>SEGMENT B - SAUCON PARK ACCESS RAMP &amp; AUBURN ST. TO SILVEX ROAD</b>		
<b>OPTION 1 - Bypass Railroad. High Priority</b>	<u>Width</u>	<u>Access</u>
<b>ALT. A - Connect Saucon Park east and west of the SB Greenway</b>		
Clear tunnel at end of Fire Lane and install multi-use trail through it connecting east and west sides of Saucon Park	8-12'	Saucon Park Lots
Install paved multi-use trail adjacent to Fire Lane (east side) to Traveler Ave.	8-12'	"
Complete sidewalk on Traveler Ave. to intersection with Millside Drive	6'min.	"
Install dedicated bike lanes on Traveler Ave. to intersection with Millside Drive	4'min.	"
<b>ALT. B - Connect Saucon Park east and west of the SB Greenway</b>		
Install new non-vehicular bridge over Saucon Creek in Saucon Park east of the SBG connected to the Saucon Park Access Ramp with paved multi-use trail	8-12'	Saucon Park Lots
<b>Create alternate route through Saucon Park west of the SB Greenway to Saucon Rail Trail</b>		
Install paved multi-use trail along Millside Drive (west side) to parking area in Saucon Park south of pool	8-12'	"
Install paved accessible multi-use trail through Saucon Park from parking area to Fire Lane/Silvex Road using existing bridge or bridge abutments to cross Saucon Creek and circumventing existing athletic fields	8-12'	"
Install paved multi-use trail adjacent to Fire Lane (east side) to bridge on Silvex Road. Cyclists will dismount at Silvex Road bridge	8-12'	"
Complete the sidewalk on Silvex Road (west side) from the bridge to RT 412 in Hellertown. Provide ADA compliant access to existing sidewalk on bridge.	6'min.	Park N Ride Lot
Create permanent paved neighborhood access point to SBG from Auburn Street	8'min.	Local streets
<b>OPTION 2 - Finalize land deal with Railroad. High Priority</b>		
<u>Width</u>		
<u>Access</u>		
Acquire rail road right-of-way or easements to continue South Bethlehem Greenway from Auburn Street (Bethlehem) to Bachman Street (Hellertown)	8-12'	Saucon Park Lots
If easement/right of way is acquired and developed as a rail trail, create an access ramp from SBG to Saucon Park at Silvex Road	8'min.	"

SEGMENT B - ALTERNATES A & B  
DETAIL MAP



**DETAIL SEGMENT B**  
Option 1:  
**South Bethlehem Greenway to Saucon Rail Trail**

- Off Road Multi-Use Trail
- Alternative Off Road Multi-Use Trail
- Proposed Dedicated Bike Lane
- Sharrows
- Existing Sidewalk
- Proposed Sidewalk
- Lehigh University Trails
- South Bethlehem Greenway
- Proposed South Bethlehem Greenway
- Saucon Rail Trail
- P Existing Trailheads and Parking
- A Neighborhood Access Point
- Saucon Park
- Parks & Recreation
- Currently Leased Railroad Property
- City of Bethlehem
- Adjacent Municipalities

0 350 Feet ↗

**SEGMENT C - SILVEX ROAD TO SAUCON RAIL TRAIL**

Design and install paved multi-use trail along Saucon Creek (east side) to High St. /Seidersville Road. Provide ramp or switch back to access trail from the road.	8-12'	Saucon Park Lots Water Street Lot
Provide warning signs and crosswalk on Seidersville Road at trail crossing.	8'min.	"
Complete sidewalks on streets connecting to Hellertown businesses	6'min.	On-Street
Create paved multi-use trail from Seidersville Road to Bachman Street and the Saucon Rail Trail. Provide ramp or switch back access from trail to the crossing on Seidersville Road.	8-12'	Water Street Lot
Install natural path along Saucon Creek between Bachman & West Chestnut Sts	6-8'	"



SEE MAP  
PAGE 36-37



*Example of pervious paved trail along Saucon Creek between Seidersville and Silvex Roads with Trail Identification Sign*



*Silvex Road Pedestrian Trail Connection*

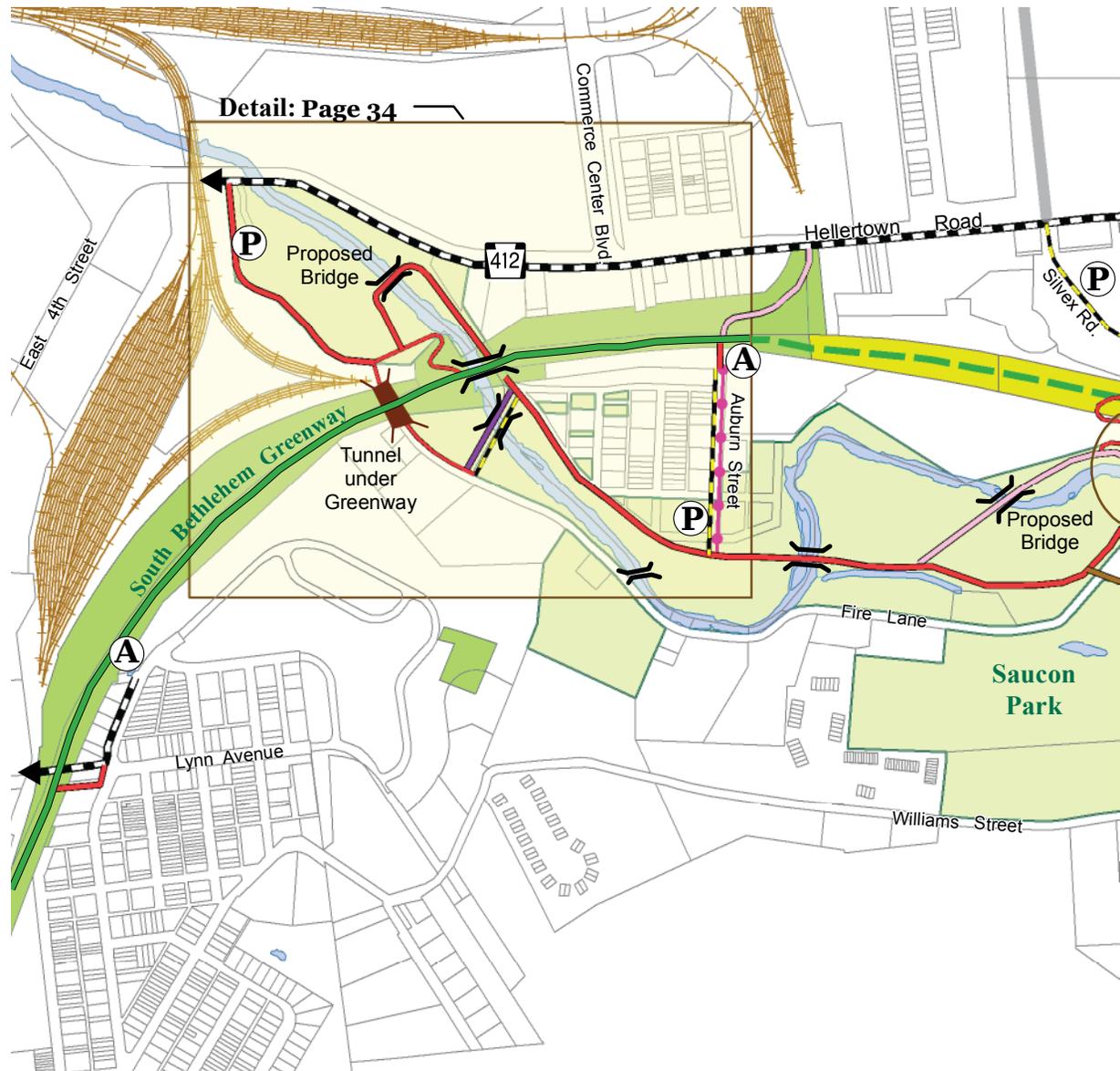
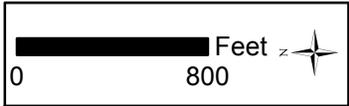


**South Bethlehem Greenway to Saucon Rail Trail**

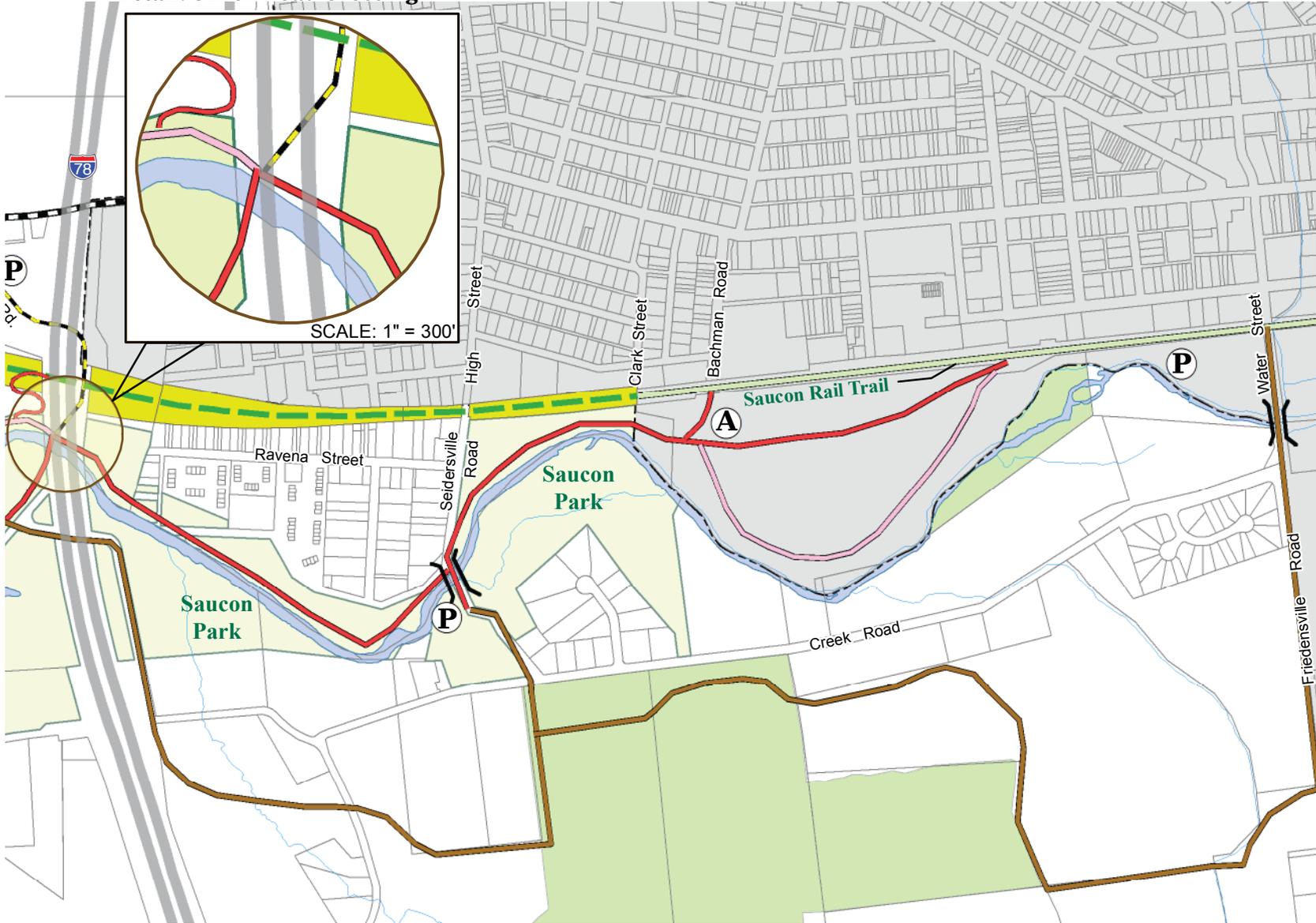
**SEGMENTS**  
**A & B**

Lynn Avenue to Auburn and through Saucon Park to Silvex Road

- Off Road Multi-Use Trail
- Alternative Off Road Multi-Use Trail
- Proposed Dedicated Bike Lane
- Sharrows
- Existing Sidewalk
- Proposed Sidewalk
- Lehigh University Trails
- South Bethlehem Greenway
- Proposed South Bethlehem Greenway
- Saucon Rail Trail
- P Existing Trailheads and Parking
- A Neighborhood Access Point
- Saucon Park
- Parks & Recreation
- Currently Leased Railroad Property
- City of Bethlehem
- Adjacent Municipalities



Detail: Silvex Road Crossing



SEGMENT C

Silvex Road  
to  
Saucon Rail Trail



SEE MAP  
PAGE 41

Illustration  
SEGMENT A

PAGE 44

<b><u>PRIORITY 2: COMPLETE MONOCACY WAY</u></b>		
<b>Sand Island to Archibald Johnston Conservation Area</b>		
<b><u>SEGMENT A - SAND ISLAND TO UNION BOULEVARD</u></b>		
<b>High Priority</b>	<u>Width</u>	<u>Access</u>
Provide designated trail parking and trailhead at Sand Island	NA	Sand Island
Sand Island to Lehigh Street - Create accessible sidewalk route by modifying existing driveway aprons and ramps.	6'min.	"
Provide Sharrows on Main Street between Lehigh Street and Sand Island	NA	"
Improve crossing at Main and Lehigh Streets with new ADA ramps and themed crosswalks. Widen ramp area for bicycles and pedestrians	8'	Sand Island or Spring St. Lot
Install bike trail offset from sidewalk between Lehigh and Spring Streets (E).	8'min.	"
Install Stop Signs or Rapid Flashing Beacons and themed crosswalks on Main Street in front of Spring Street parking area	8'min.	"
Continue multi-use trail between the parking lot on Spring St and Monocacy Creek	8'min.	"
Under Bridge Street overpass install guiderails to identify trail route and to separate trail from parking area	8'min.	"
Continue Monocacy Way through Historic Moravian Bethlehem using existing wooden bridge	8'min.	Johnston Park or Spring St. Lot
Install wayfinding signs to identify Monocacy Way in Historic Moravian Bethlehem	NA	
Direct trail users into Johnston Park from Historic Moravian Bethlehem with wayfinding signs and themed pavement treatment	8'min.	"
Develop Monocacy Way as a multi-use trail adjacent to Old York Rd. (west side) through Johnston Park to Union Blvd.	8'min.	"
Define trail under the Broad Street bridge overpass using wooden guard rail to separate and define the trail.	8'min.	Johnston Park Lot
Define the trail through the Old York Rd cul-de-sac with ramps and a themed crosswalk.	8'min.	"

<b>SEGMENT B - UNION BOULEVARD TO MONOCACY PARK</b>		
<b>High Priority</b>	<u>Width</u>	<u>Access</u>
Provide guiderail adjacent to parking area at Union Blvd. and Old York Rd lot	NA	Johnston Park Lot
Improve ramps to meet ADA and provide themed crossing at Union Boulevard	8'min.	"
Explore design options for the trail segment between Union Blvd. and the RT 378 ramp. Provide multi-use trail, identified with signs and themed surface materials	8'min.	"
Explore potential to install separate bridge for trail users north of vehicular bridge on Union Blvd. and west of existing rail crossing to connect to Monocacy Way west of Monocacy Creek	8'min.	Johnston Park Lot
Install paved trail through Burnside Plantation to Schoenersville Road.	8'min.	Monocacy Lots
Install DWS tiles, Rapid Flashing Beacons and themed crosswalk at Schoenersville Road Crossing	8'min.	"
Provide consistent paved trail surface between Schoenersville Road and Illicks Mill Natural Area	8'min.	"
<b>ALT 1 connection to Monocacy Park</b>		
Work with railroad to create accessible rail crossing at nature area south of Illicks Mill Road	8'min.	Monocacy Lots
Install boardwalk type trail or paved surface with deep stone base in natural area	8'min.	"
<b>ALT 2 connection to Monocacy Park</b>		
Design new multi-use trail to traverse hill west of railroad tracks at moderate slopes through woods, crossing Illicks Mill Road west of the mill, using existing sidewalk that crosses tracks to access Monocacy Park	8'min.	Monocacy Lots
Install ADA compliant ramps and rapid flashing beacons at Illicks Mill Road crossing	8'min.	"
<b>SEGMENT C - MONOCACY PARK TO ARCHIBALD JOHNSTON CONSERVATION AREA</b>		
Separate and identify bicycle and pedestrian routes through Monocacy Park, using existing paths. Improve surfaces and widths and make accessibility improvements.	8'min.	Monocacy Lots
Work with property owners and St. Francis School Sisters to install Monocacy Way from Monocacy Park through to Bridlepath Road.	8'min.	Monocacy Lots
Work with Northampton County to design and install Monocacy Way from Bridlepath Road to Archibald Johnston Conservation Area/Housenick Park	8'min.	Archibald Johnston Lot



SEE MAP  
PAGES 41-43

Illustration  
SEGMENT B

PAGE 45

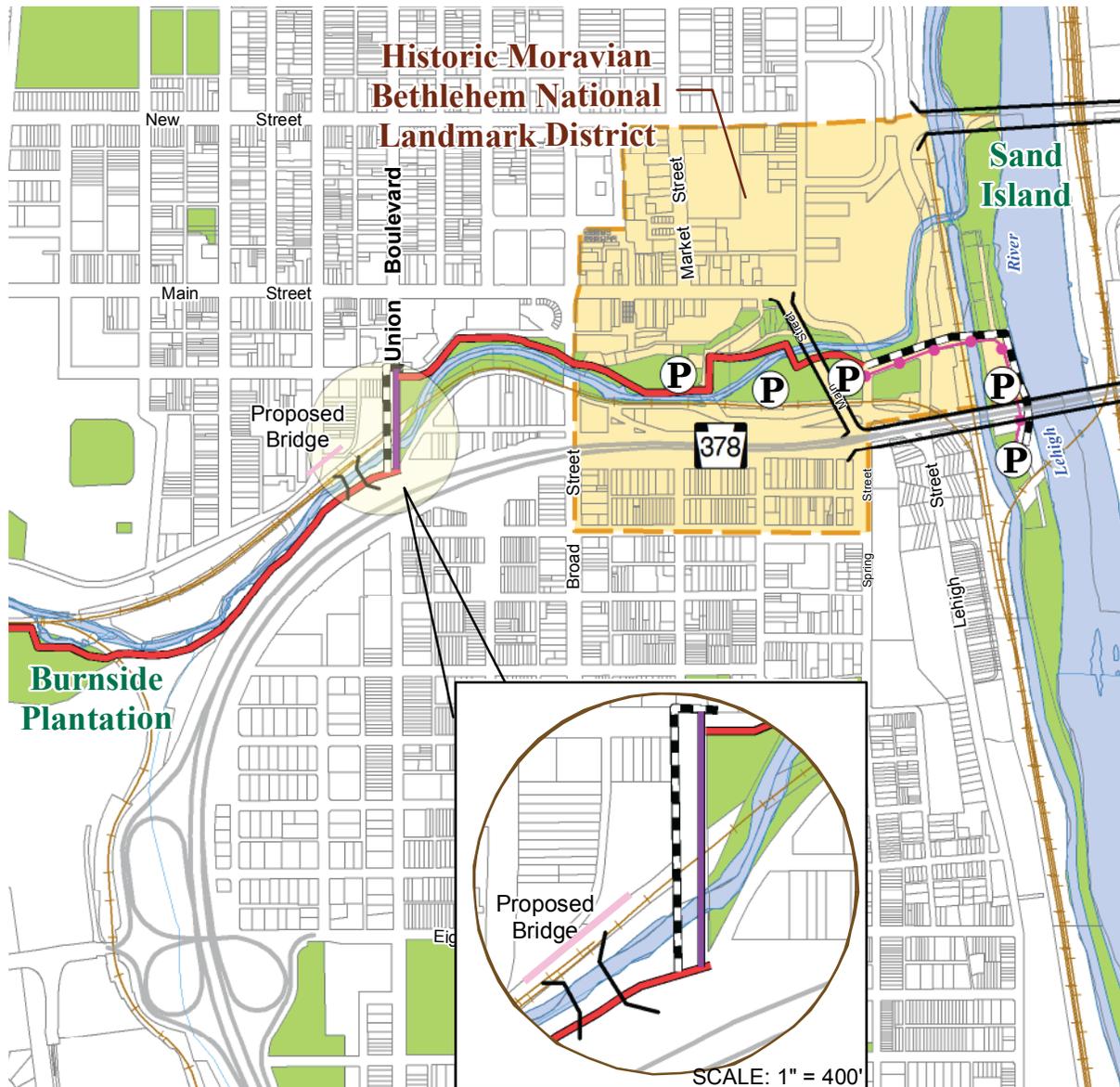
SEE MAP  
PAGES 42 -43



**SEGMENTS**  
**B & C**

Burnside Plantation  
to  
Monocacy Park  
to  
Bridlepath Road  
(St. Francis  
School Sisters)





**Monocacy Way-Sand Island to Archibald Johnston Conservation Area**

- Off Road Multi-Use Trail
- Alternative Off Road Multi-Use Trail
- Existing Sidewalk
- Sharrows
- Proposed Dedicated Bike Lane
- Existing Trailheads and Parking
- Parks & Recreation
- Historic Moravian Bethlehem National Historic District
- City of Bethlehem
- Adjacent Municipalities

SCALE: 1" = 1000'



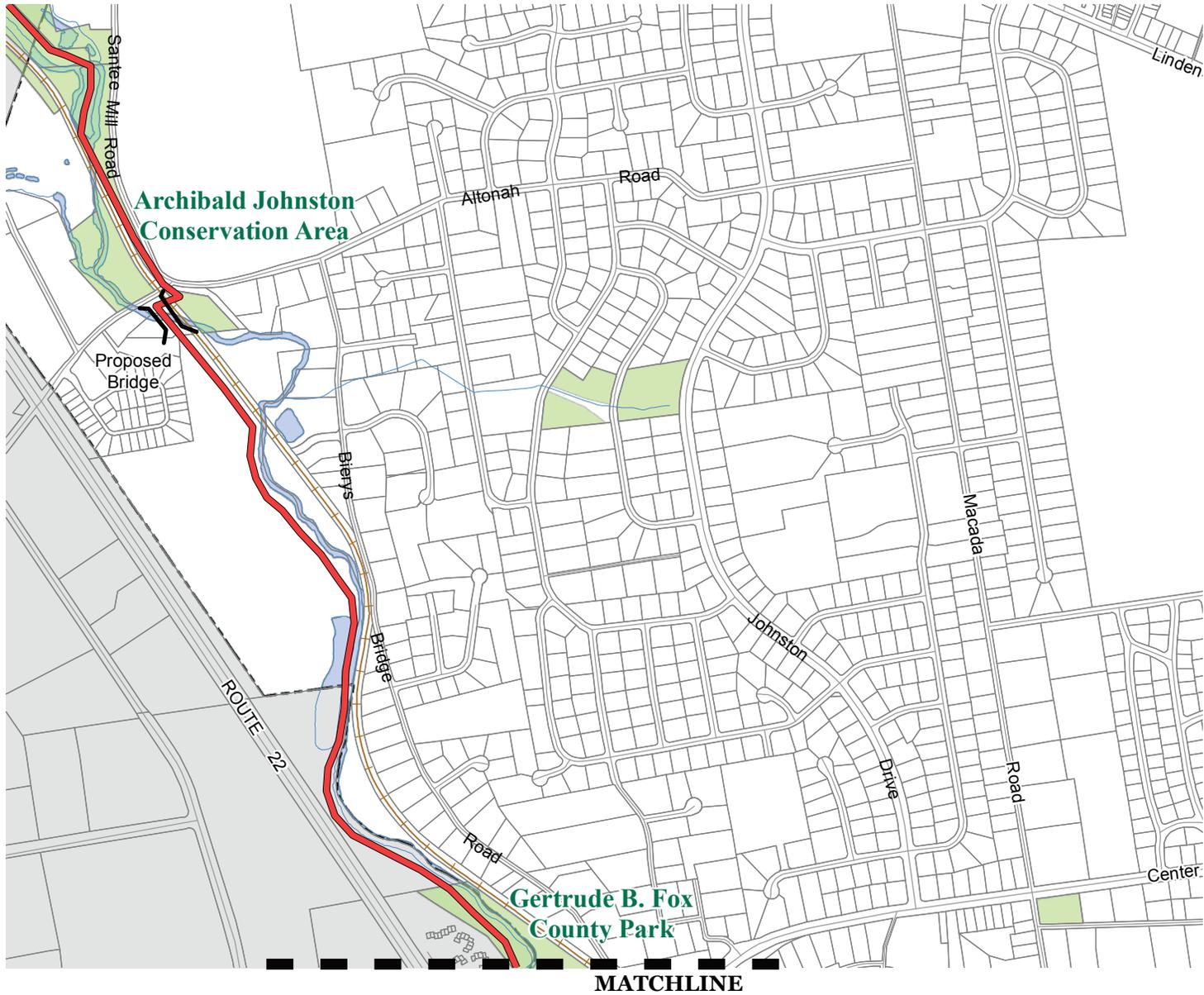
**SEGMENTS**  
**A & B**

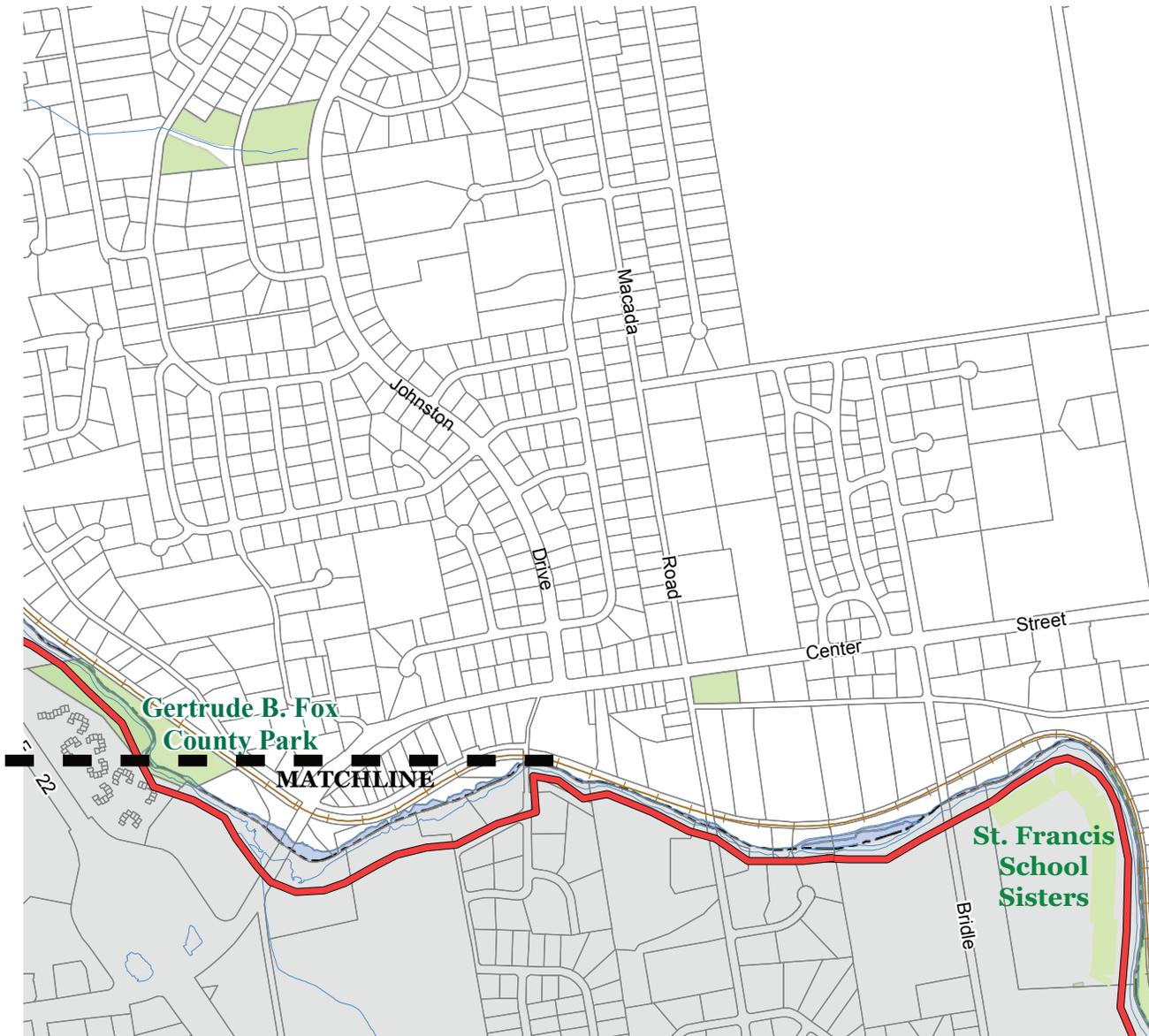
Sand Island  
to  
Union Boulevard  
to  
Burnside Plantation



**SEGMENT C**

Gertrude B. Fox  
County Park  
to  
Archibald Johnston  
Conservation Area





**Monocacy  
Way-Sand Island  
to Archibald Johnston  
Conservation Area**



-  Off road Multi-Use Trail
-  Parks & Recreation
-  City of Bethlehem
-  Adjacent Municipalities

**SEGMENT C**

Bridlepath Road  
to  
Gertrude B Fox  
County Park

SCALE: 1"= 1000' 



**SEGMENT A**



*Monocacy Way under Bridge St. leading to Historic Moravian Bethlehem*

**SEGMENT A**



*Monocacy Way on at Johnston Park Trail Head and Parking Area*

**SEGMENT B**



*Monocacy Way along Union Boulevard with Complete Street Improvements*

**SEGMENT B**



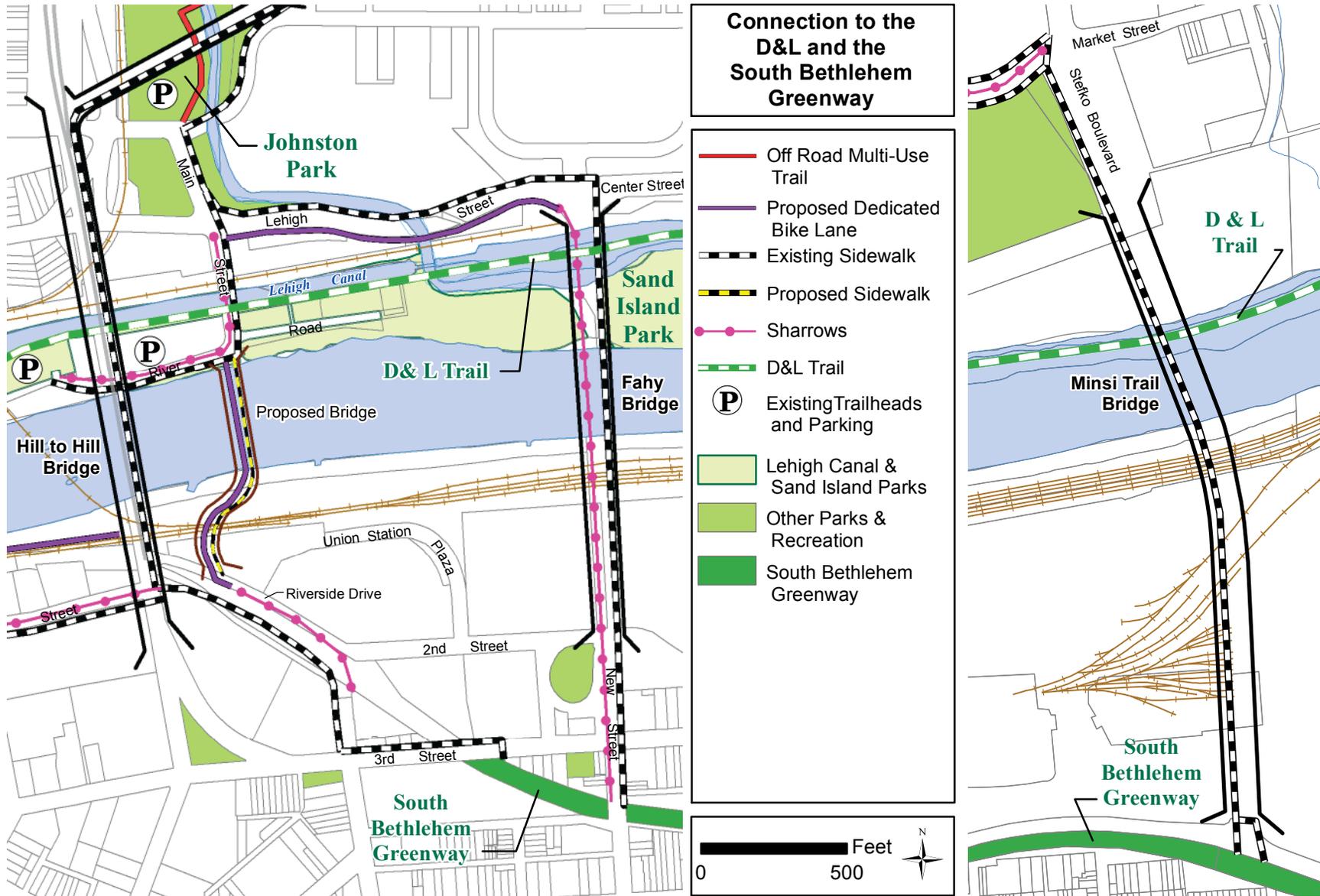
*Monocacy Way signalized crosswalk at Schoenersville Road*

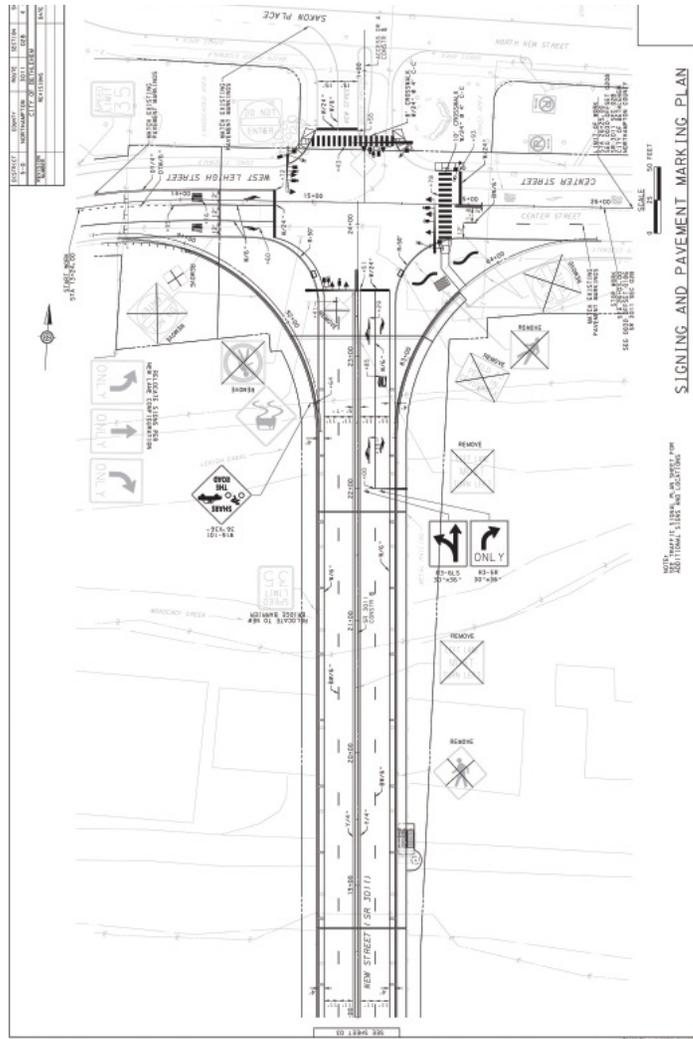


SEE MAP  
PAGE 47

Illustrations  
ALTS A,B & C  
PAGES 48-49

<b>PRIORITY 3: CONNECT THE SOUTH BETHLEHEM GREENWAY with THE D&amp;L TRAIL</b>		
<b>ALT A. CONNECT USING EXISTING BRIDGES - High Priority</b>		
<b>Connection via Fahy Bridge (Short Term Solution)</b>		
Provide accessible sidewalk for pedestrians from the South Bethlehem Greenway/New Street intersection across the Fahy Bridge to the intersection of Lehigh and New Streets.	Width 6'min.	Access Sand Island
Provide Sharrows on New Street and on the Fahy Bridge for cyclists	NA	"
Provide sidewalk on north side of Lehigh Street and dedicated bicycle lanes on Lehigh St. from the Lehigh-New Street intersection to the Lehigh-Main St. intersection	6'min.	Sand Island
Improve the safety and visibility of ramps and crosswalks at Lehigh and Main Sts.	8'min.	"
Improve accessibility of sidewalk on Main Street (E) between Lehigh St. and Sand Island	6'min.	"
Install Sharrows on Main Street for cyclists between Lehigh St. and Sand Island	NA	"
<b>Connection via Hill to Hill Bridge</b>		
Connect the Hill to Hill Bridge with the D&L at Sand Island, using a sidewalk/Sharrow system on Bridge and Main Streets. Pedestrian trail connection via sidewalk should be on the east side of the bridge. Install "Cyclists Must Dismount" signs at crosswalks and on bridge.	6'min.	Spring St.
<b>Connection via Minsi Trail Bridge</b>		
Provide signs on the Minsi Trail Bridge pedestrian sidewalk to connect the D&L and the South Bethlehem Greenway. Install "Cyclists Must Dismount" signs at crosswalks and on bridge.	6'min.	Greenway Parking
<b>Universal Design Considerations</b>		
Provide wayfinding signs to trail heads using unique Bethlehem City Trails Logo to guide visitors through the city. Identify trails with similar marker signs at mile stones.	NA	"
Improve safety and visibility of all pedestrian crosswalks at all bridges crossing the Lehigh River	8'min.	
Install dedicated trail parking on Sand Island with a kiosk and trail map		
<b>ALT B (Long Term Goal)</b>		
Design and install new pedestrian and bicycle bridge across the Lehigh River between the end of Main Street on Sand Island and Union Station in South Bethlehem.	Width 12'min.	Access Sand Island
<b>ALT C (Long Term Goal)</b>		
Design and install new non-vehicular bridge suspended under the existing Fahy Bridge using Belle Island Bridge in Richmond as a model	12'min.	Greenway Parking





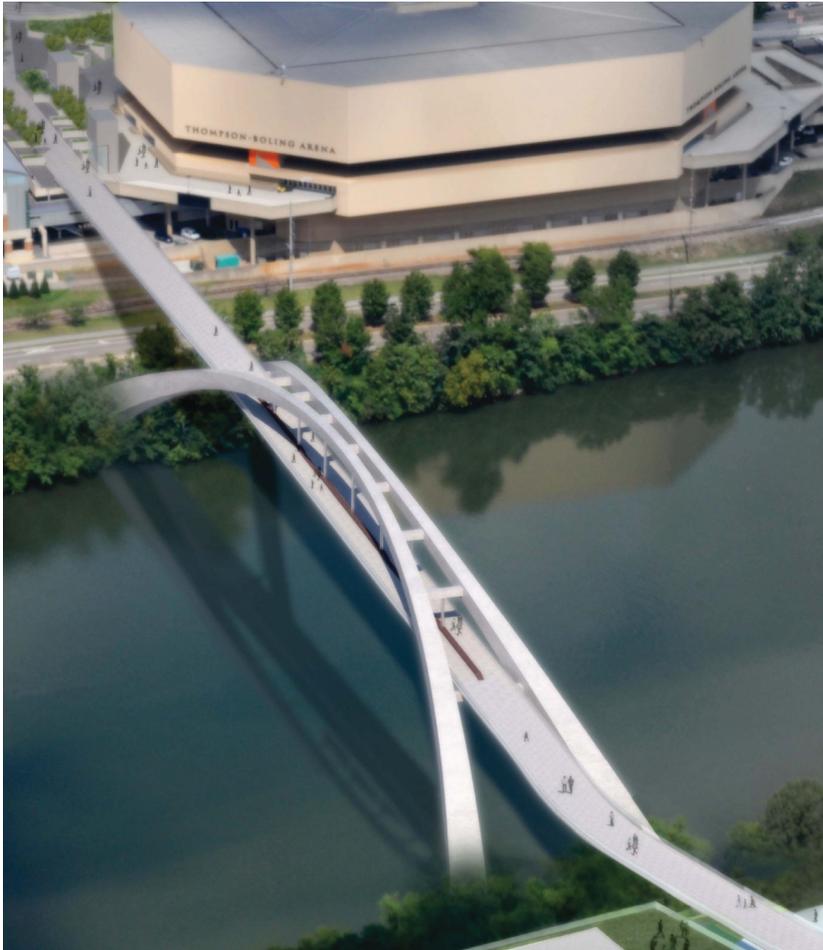
*PennDOT plans for the Fahy Bridge & Lehigh Street intersection, to improve pedestrian and bicycle safety.  
Source: City of Bethlehem*

## ALTERNATE A



*Example: Pedestrian/bicycle sidewalk lane designations  
Hawthorne Bridge in Portland, Oregon*

**ALTERNATE B**



*Example: Dedicated pedestrian/bicycle bridge  
Knoxville Waterfront Redevelopment Area, TN*

**ALTERNATE C**



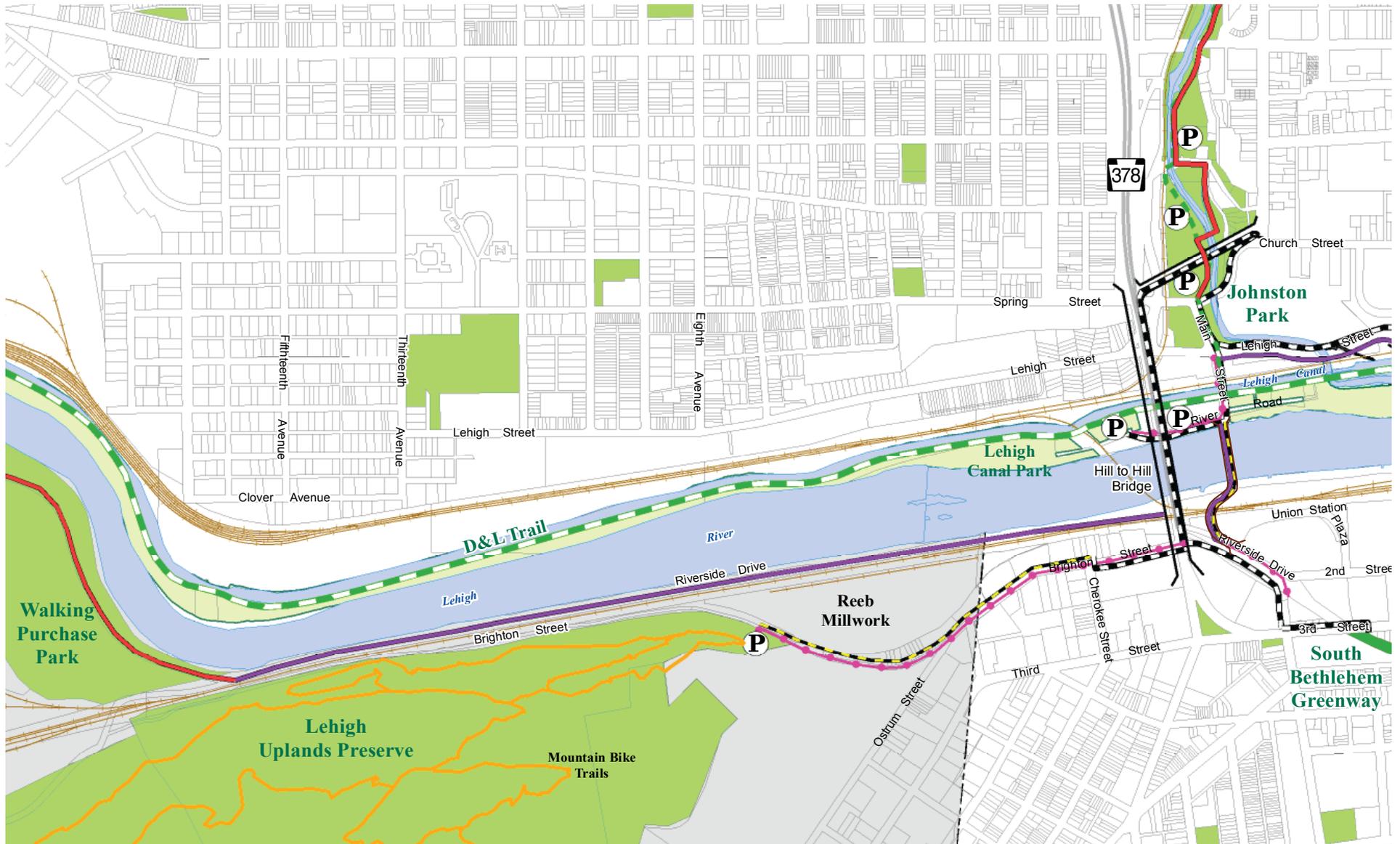
*Example: Bicycle/pedestrian bridge suspended under  
vehicular bridge - Belle Isle Bridge, Richmond, VA*

<b>CONNECT SOUTH BETHLEHEM GREENWAY WITH WALKING PURCHASE PARK</b>		
<b>SEGMENT A - SOUTH BETHLEHEM GREENWAY TO WALKING PURCHASE PARK - UPLANDS</b>		
<b>Moderate Priority</b>	<u>Width</u>	<u>Access</u>
From end of South Bethlehem Greenway to intersection at Broadhead Ave. and Third St. (RT 412) create accessible sidewalk and install wayfinding signs to Walking Purchase Park	6'min.	Greenway Parking
Provide crosswalk and signs at intersection of Third St.(RT 412) and Broadhead Ave.	NA	"
Use existing sidewalk on RT 378 ramp (S) for pedestrian route. Install Cyclists must Dismount signs.	6'min.	"
Improve visibility of crosswalk on RT 378	8'	"
Keep pedestrian access on existing sidewalk on Brighton St.(south side) to Cherokee St., install accessible crosswalks and maintain sidewalk in good condition	6'min.	Greenway Parking
Install crosswalk at Cherokee St. to switch pedestrian access from the south to the north side of Brighton St.	8'	"
Install Sharrows on Brighton St. for cyclists	NA	"
Work with the Borough of Fountain Hill to make improvements to and to complete sidewalks on Brighton St. to cul-de-sac at end of Brighton St.	6'min.	Brighton Street
Formalize parking and provide trailhead amenities at end of Brighton St. and entrance to the Lehigh Uplands Mountain Bike Trails	NA	"
<b>SEGMENT B - BETHLEHEM GREENWAY TO WALKING PURCHASE PARK LOWLANDS</b>		
<b>Lower Priority</b>	<u>Width</u>	<u>Access</u>
Provide wayfinding signs at the Third St. (RT 412) and Broadhead Ave. intersection leading to Riverside Dr.	6'min.	Greenway Parking
Support City of Allentown, Salisbury Township and Lehigh County to make improvements to Walking Purchase Park	NA	"
Explore potential of connecting upland and lowland sections of Walking Purchase Park with a permanent easement through Reeb Millwork property	8'min	Walking Purchase Park
Continue to evaluate the opportunity to swap street right of way with railroad right-of-way improving conditions for road and rail and providing room for trails	NA	"

**Connect South Bethlehem Greenway with Walking Purchase Park**

-  Off Road Multi-Use Trail
-  Proposed Dedicated Bike Lane
-  Existing Sidewalk
-  Proposed Sidewalk
-  Sharrows
-  D&L Trail
-  Mountain Bike Trails
-  Existing Trailheads and Parking
-  Lehigh Canal & Sand Island Parks
-  Other Parks & Recreation
-  South Bethlehem Greenway
-  City of Bethlehem
-  Adjacent Municipalities

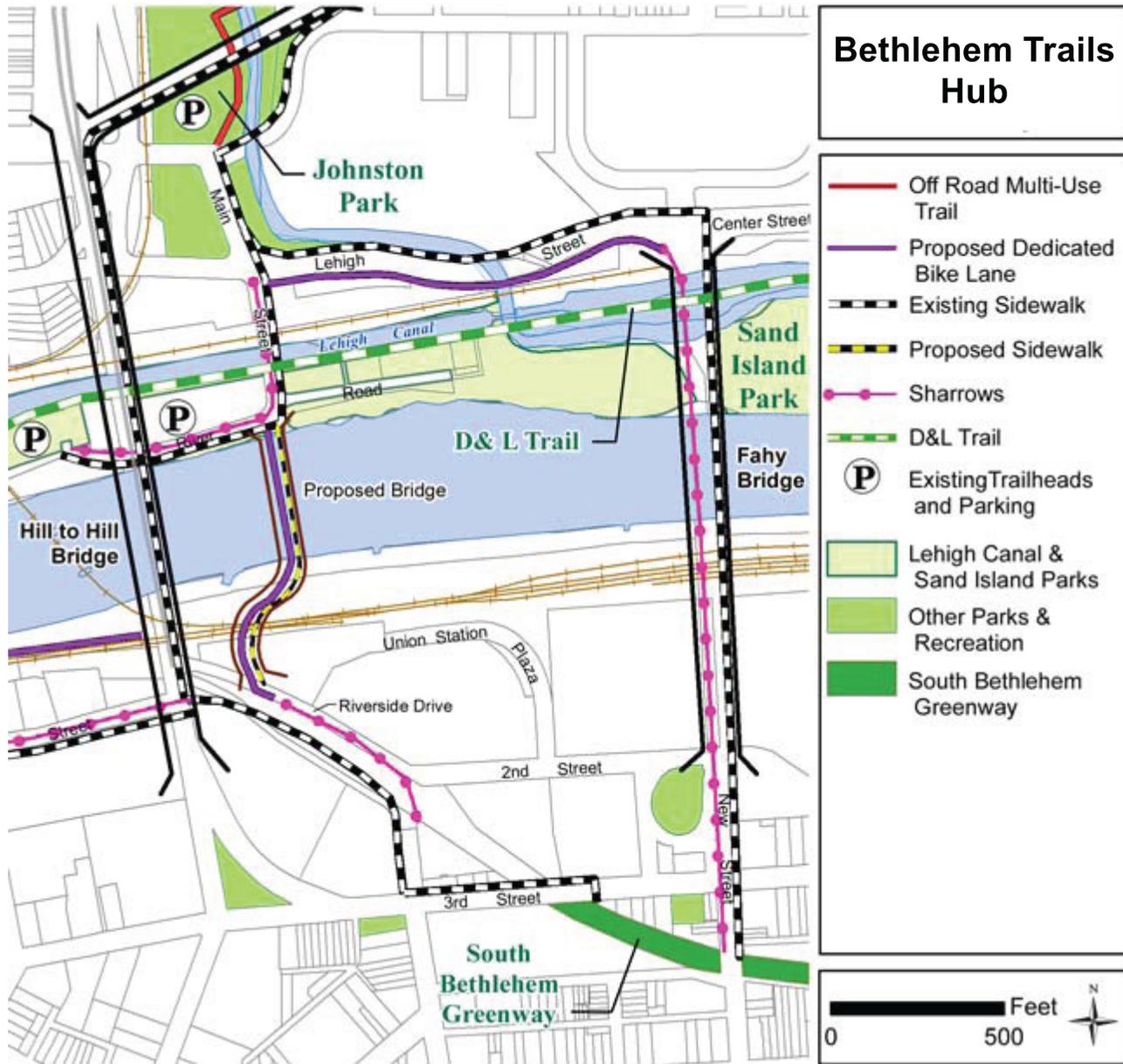
SCALE: 1"=1000' 





SEE MAP  
PAGE 53

COMMUNITY LINKS - Directing Pedestrians & Cyclists to Off Road Trail System
<b>Moderate Priority</b>
<b><u>Connecting South Side Neighborhoods to the Trails Hub via the South Bethlehem Greenway</u></b>
Complete Founders Park project at 3rd Street and the South Bethlehem Greenway
Improve connection along Hobart Street between Bethworks, the greenway and Donegan Elementary School
Pave and light all approved access paths to the greenway from the surrounding neighborhood
Strengthen connection to Lehigh University on New Street
Strengthen connection to Four Blocks International by improving gateway on Hayes Street
Improve connection to SteelStacks visitors center and Hoover Mason Trestle
Install Wayfinding Signs to trail parking at major intersections on 3rd Street (RT 412)
Work with local community agencies and the police department to keep trails well maintained and safe
Provide matching facilities and amenities along the trails with wayfinding signs to neighborhood points of interest
<b><u>Connecting North and South Side Bethlehem Neighborhoods to Trails Hub</u></b>
Use existing pedestrian walkways on bridges, create safe ADA compliant access to and from all bridges with special focus on crosswalks at all major trail/roadway intersections
Provide information for cyclists at bridge crossings; identify Sharrow route or provide "Cyclists must Dismount" signs at crosswalks
Provide wayfinding signs and highly visible signalized crosswalks to guide visitors to bridge crossings
Work with funding agencies and partners to fund pedestrian/bike suspension trail under existing bridge
Strengthen connection to Historic Moravian Bethlehem, a National Historic Landmark District
Strengthen connection to Bethlehem's northern central business district
Work with Lehigh University to connect Saucon Park Trail to Goodman trail system and to South Mountain bike trails
<b>High Priority</b>
Work with all available funding agencies and partners to fund dedicated pedestrian/bicycle bridge crossing the Lehigh River

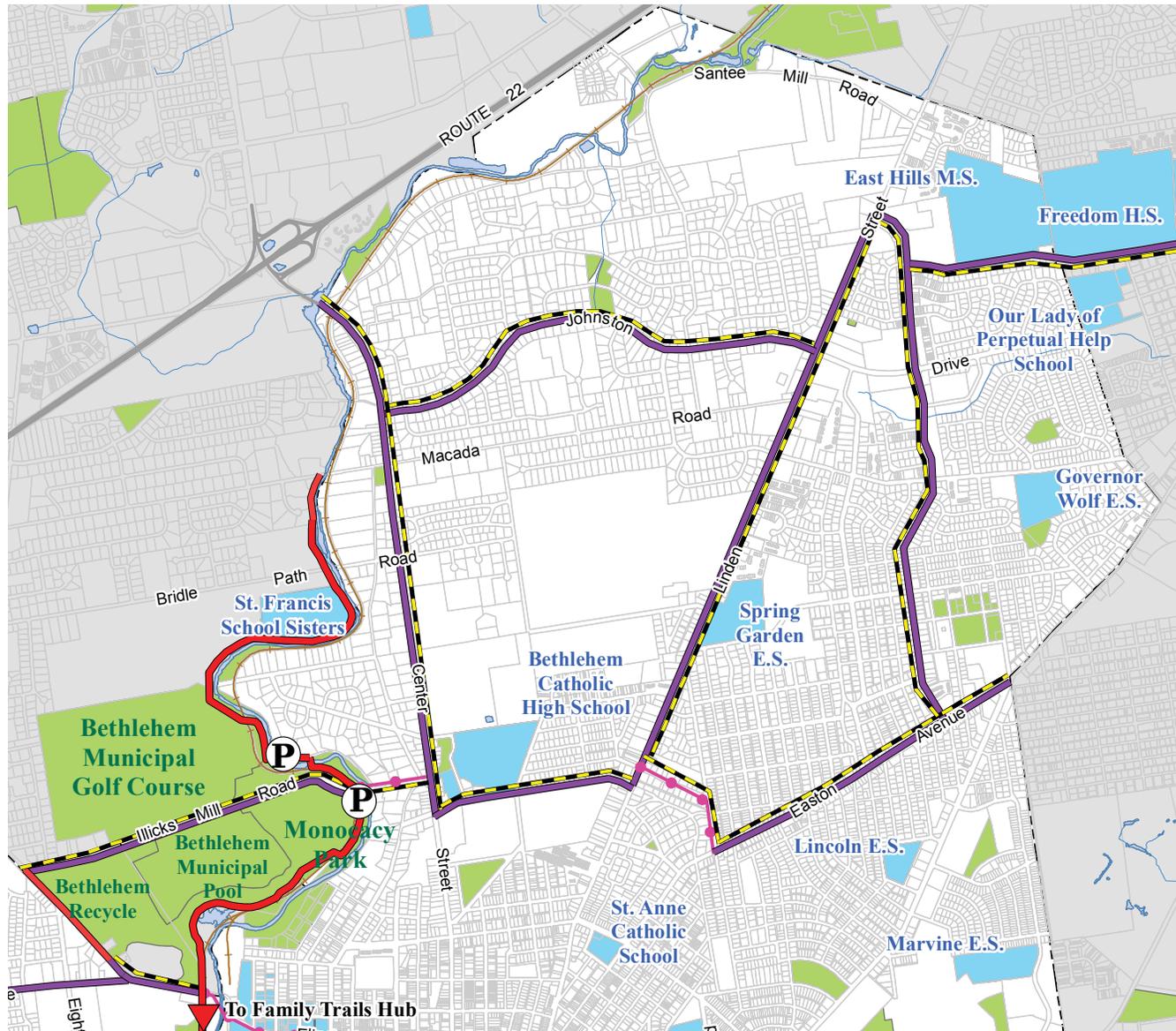




SEE MAP  
PAGE 55

SEE MAP  
PAGE 56

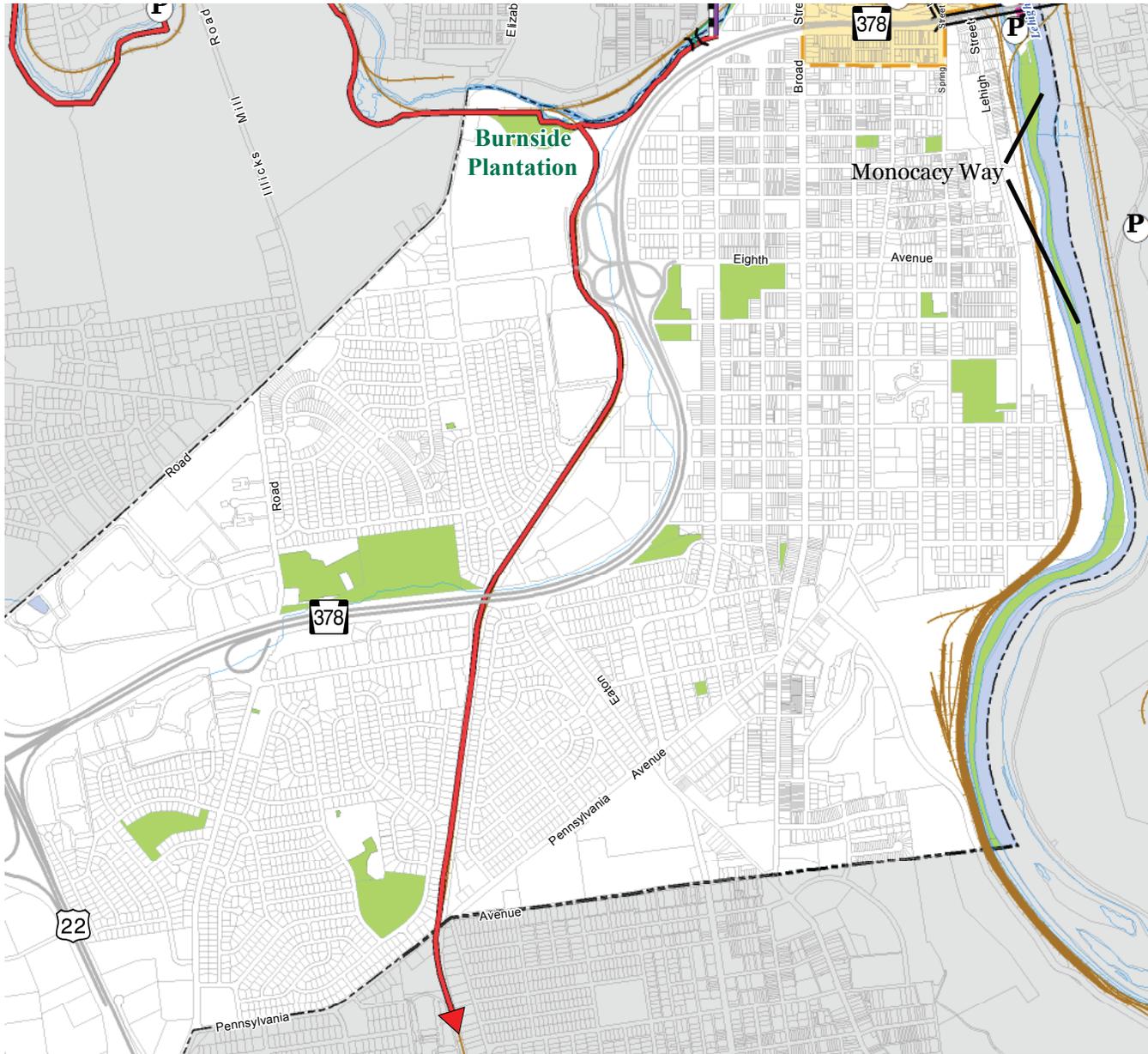
<b><u>Connecting North and East Side Neighborhoods to Trails Hub via Monocacy Way</u></b>	
	Create Complete Streets - Provide sidewalks and dedicated bike lanes on roads with limited or no parking, wide cartways and traffic speeds above 25 mph to connect families, neighborhoods, schools and parks to trails
	Work with PennDOT to create a complete street with dedicated bike lanes and sidewalk on RT 512 between the Monocacy bridge crossing at Gertrude Fox Park and Illicks Mill Road
	<b>Suggested Complete Streets leading to Monocacy Way:</b>
	Linden Street from East Blvd. to Dewberry Ave. (connect Bethlehem Catholic High School)
	East Boulevard from Linden Street to Easton Ave.
	Chester Road from Oakland Road to East Blvd. (connect Freedom High School & Bethlehem Township trails)
	Easton Ave. from East Blvd to Jennings Street
	Easton Ave past Jennings could continue with use of sharrows to Liberty High School and Elizabeth Avenue, a city identified sharrow route
	Jennings St. from Easton Ave. to Elmhurst Ave. (use Sharrows on this neighborhood street)
	Elmhurst Ave. from Jennings St. to Linden St. (use Sharrows on this neighborhood street)
	Johnston Drive from Linden Street to Center Steet (RT 512)
	Illicks Mill Road from Center Street (RT 512) to Schoenersville Road
	Schoenersville Road from Illicks Mill Road to Monocacy Way Crossing
	Complete sidewalk on Elizabeth Ave.(south side) to Main Street, provide Sharrows for cyclists (connect Moravian)
	Illicks Mill Road has the only bridge with sidewalks crossing Monocacy Creek in North Bethlehem. Explore possibility of widening Illicks Mill Road between Center Street and Monocacy Park to provide a stronger safer connection to schools and neighborhoods
	Install wayfinding signs at signalized intersections throughout the area to direct visitors to trail parking
<b><u>West Side Neighborhoods to Trails Hub via Monocacy Way</u></b>	
	Create complete street on Eaton Avenue from Pennsylvania Avenue to Schoenersville Road
	Establish the West Bethlehem Rail Trail - Work to purchase or lease rail road right of way to connect Monocacy Way with the Amercian Parkway in Allentown (Coca-Cola Park)
	Install Wayfinding Signs at major intersections throughout the area to direct visitors to trail parking



### Connecting North & East Side Neighborhoods to Trails Hub

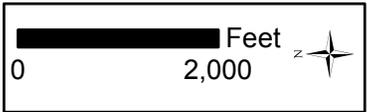
- Off Road Multi-Use Trail
- Proposed Dedicated Bike Lane
- Proposed Sidewalk
- Sharrows
- P Existing Trailheads and Parking
- Public and or Private Schools
- Other Parks & Recreation
- City of Bethlehem
- Adjacent Municipalities

0 2,500 Feet



**Proposed  
West Bethlehem  
Rail Trail**

-  Off Road Multi-Use Trail
-  Existing Trailheads and Parking
-  Parks & Recreation
-  Historic Moravian Bethlehem National Historic District
-  City of Bethlehem
-  Adjacent Municipalities



<b>DESIGN CONSIDERATIONS</b>
<b>Trail Surfaces and Crosswalks</b>
Consult with transportation planning professionals in designing all bike lanes, Sharrows, ramps, crosswalks and signs to ensure compliance with current federal, state and local transportation and accessibility guidelines
Create unique ADA compliant surface to identify each trail.
South Bethlehem Greeway - pervious asphalt and compacted limestone screening
Monocacy Way - use red crushed stone in compacted stone and paved solid surfaces. Use red textured crosswalks for street crossings and red tinted concrete for sidewalk on Union Street.
Saucon Park Trail - compacted stone and paved pervious surfaces. Use tan/brown stamped surfaces for street crossings.
Install dedicated lanes for recreational cyclists where cartway is wide enough and on-street parking is limited.
Maintain all Sharrows and lane markings in visible condition. Install long wearing street treatments and schedule regular inspections.
Consider installation of Rapid Flashing Beacons at mid block or otherwise unsignalized crossings to keep trail user safety a top priority
<b>Signs</b>
Provide wayfinding signs on arterial streets directing visitors to parking and trailheads
Provide wayfinding signs on trails to connect users to nearby amenities and connections
Provide trail identification signs on long portions of a trail to ensure users they are on the trail
Provide informational signs at trailheads showing users allowed, accessibility, trail length, surface and slopes (this information may be located on the kiosk trail map also)
Create unique logo identifier for each major trail within the Bethlehem City trails network:
South Bethlehem Greenway, Monocacy Way and Saucon Park Trail



	
Trail Length	2.8 Miles
Trail Surface	Asphalt
Trail Width	10 feet
Typical Running Slope	2%
Maximum Running Slope	15%
Typical Cross Slope	2%
Maximum Cross Slope	5%

**DESIGN CONSIDERATIONS**

**Trailhead Parking Facilities and Trail Amenities**

Install kiosks with mapping, take away and return map boxes at all trailhead parking areas

Install comfort stations at all trailhead parking areas

Provide designated trail parking with identified trail logo at trailhead parking if in shared use lot (ie, Saucon Park)

Provide wide spaces for parking with room for unloading/loading of vehicles, children, gear, etc.....

Provide benches, trash receptacles, bicycle racks and lighting at all trail parking areas

Use unifying theme in selection of amenities on trails:

South Bethlehem Greenway - match existing black benches, trash receptacles, bike racks and acorn lighting

Monocacy Way - use historical themed benches, trash receptacles, bike racks and lighting

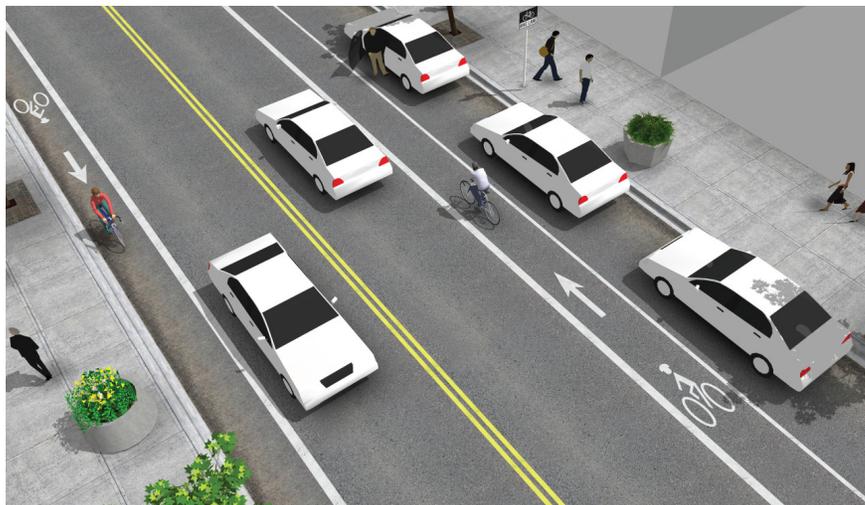
Saucon Park -use natural themed benches, trash receptacles, bike racks and lighting

Install lighting on all trail sections within the city, keeping parking areas and trailheads well lit

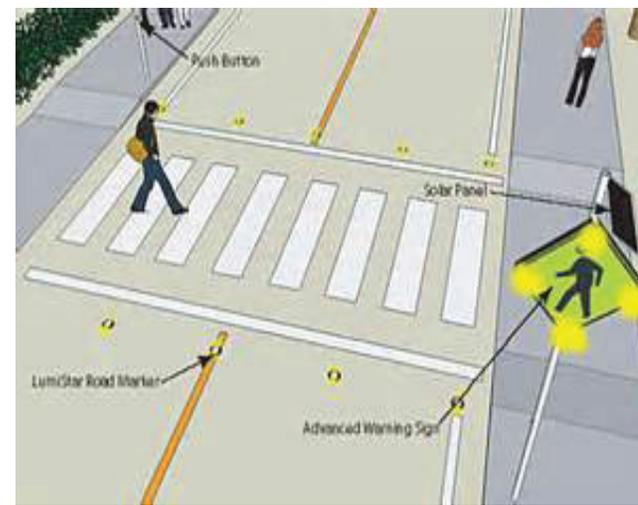
**Bridges**

Provide room on new bridges for viewing, fishing, etc.

Provide "Cyclists must Dismount" signs at bridge ends if pedestrian way is too narrow to accommodate cyclists



*Example of Bicycle Lanes and Parking Lanes  
(Source: NACTO - National Association of Community Traffic Officials)*



*Example of Rapid Flashing Beacon Warning Sign*

## **ECONOMIC DEVELOPMENT OPPORTUNITIES**

The popularity of trails has been growing in every community across the country. Trails are now seen as a key amenity for new development. More and more people want to live, work and open businesses along trail corridors. This factor is encouraging for the sustainable development of vacant property close to trails. This study envisions the Bethlehem trail network as a living artery for businesses and residents. It recommends promoting Bethlehem's trails; in particular the South Bethlehem Greenway as an important amenity to developers. It also recommends some basic design considerations for economic development directly adjacent to the South Bethlehem Greenway and Monocacy Way. These recommendations are explored in more detail below.

### **SOUTH BETHLEHEM GREENWAY DEVELOPMENT OPPORTUNITIES**

#### **Lehigh Valley Industrial Parks (LVIP) Lands:**

LVIP develops industrial and business parks within the Lehigh Valley. The goal is to create jobs, increase tax revenues and diversify the local economy. LVIP VII is located on former Bethlehem Steel lands along SR 412 which parallels the South Bethlehem Greenway. LVIP's recent master plan for the SR 412 corridor reserves many interior sites for office, light industrial and industrial uses. A hotel use is planned on the north side of East Fourth Street (SR 412) adjacent to the South Bethlehem Gateway. The narrow strip of land along the south side of East Fourth Street is proposed for commercial/retail and upper story office uses. The following recommendations concur with LVIP's proposed land uses:

- Continue to develop LVIP VII with uses proposed
- New businesses in LVIP VII should provide bike racks for commuters
- Provide safe, ADA compliant trail connections between LVIP lands and the South Bethlehem Greenway at Lynn Avenue and Saucon Park to facilitate commuting and access to hotel, retail and commercial uses.
- Provide wayfinding signs to strengthen connections between businesses and the South Bethlehem Greenway.
- Include amenities such as bike racks, comfort stations, seating, maps, trash receptacles and lighting at trail heads.



### **South Bethlehem Eastern Gateway:**

The South Bethlehem Eastern Gateway is located where East Fourth Street meets Daly Avenue. The City of Bethlehem's South Bethlehem Eastern Gateway Vision Plan (2011) calls for vacant and underutilized parcels just west of the South Bethlehem Greenway between the Skate Park and East Fifth Avenue to be developed with residential, office and mixed-use buildings. This study concurs with the findings of the Vision Plan and offers the following recommendations:

- Continue to develop the South Bethlehem Eastern Gateway with the uses recommended by the Gateway Vision Plan
- New development should be of a scale and design that "fits" with the surrounding neighborhood
- Provide safe ADA compliant greenway access points to facilitate commuting and to promote visibility of businesses for residents and trail users.
- Provide wayfinding signs strengthening connections between the South Bethlehem Eastern Gateway and the South Bethlehem Greenway.
- Include amenities such as bike racks, seating, trash receptacles and lighting at trailheads.

### **Bethworks and SteelStacks:**

The Bethworks/ SteelStacks area is located on former Bethlehem Steel lands north of East Third Street and Daly Avenue. This area has experienced a rebirth with the development of the Sands Casino, Outlet Mall, Hotel, ArtsQuest Center, Levitt Pavilion, Northampton County Community College, and other office, light industrial and commercial uses. The Hoover-Mason Trestle has been redesigned as an elevated pedestrian trail through this area. A new multi-level parking deck is proposed for the corner of Polk and East Third Streets. Creating a strong connection between this popular tourist and entertainment venue and the South Bethlehem Greenway is critical to the sustainability of both. This study recommends the following:

- Continue to develop the Bethworks/SteelStacks area as a mixed use entertainment destination,
- New development should be of a scale and design that compliments the context of the area,
- Provide safe ADA compliant trail access to facilitate commuting and to promote visibility of businesses for visitors, business owners, residents and trail users.
- Provide wayfinding signs strengthening connections between the South Bethlehem Eastern Gateway and the South Bethlehem Greenway.
- Include amenities such as bike racks, comfort stations, maps, seating, trash receptacles and lighting at trailheads.

**Four Blocks International:**

Four Blocks International is a four block area along East Fourth Street between Filmore and Hayes Streets just south of the greenway. A recent plan prepared for the City of Bethlehem calls for this area to be revitalized as a vibrant mixed use neighborhood celebrating the rich cultural diversity that is Bethlehem’s Southside. The Four Blocks International Plan envisioned renovating and adaptive reuse of existing buildings, infill with new construction, streetscape improvements and strengthening connections to the South Bethlehem Greenway. This study supports those findings and offers the following recommendations:

- Continue to revitalize the Four Block International neighborhood as mixed-use, while preserving and enhancing the unique and rich cultural diversity of the neighborhood.
- Adaptive reuse of existing underutilized properties is strongly encouraged.
- New development infill should be of a scale and design that compliments the context of the area.
- Strengthen connections and provide safe ADA compliant access to the South Bethlehem Greenway along Hayes, Monroe, Buchanan, Pierce and Filmore Streets with an emphasis on Hayes Street as the primary entrance to the neighborhood.
- Provide wayfinding signs to strengthen connections between the Four Blocks International neighborhood and the South Bethlehem Greenway.
- Allow local businesses to post directional and advertisements to guide trail visitors to their establishments.



**Mechanic Street Parking Lots:**

Mechanic Street between Adams and Polk Streets is three continuous blocks of public parking lots adjacent to the greenway. While parking is in demand, these blocks could be developed to incorporate parking with additional uses that would improve the viewshed along the greenway. Mixed use development would help to create a twenty four hour presence on the greenway that would help to promote the greenway as an amenity to developers.

This plan envisions redevelopment of these properties as multi-storied buildings with lower level public parking accessed from Mechanic Street and mixed use development in the levels above. The mixed use development would face the trail and be composed primarily of residential units with commercial units on the corners where the streets intersect the trail.



## **MONOCACY WAY DEVELOPMENT OPPORTUNITIES**

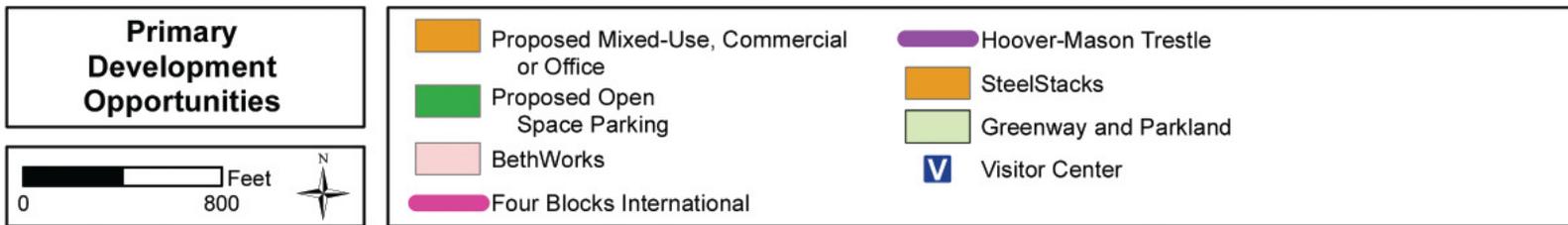
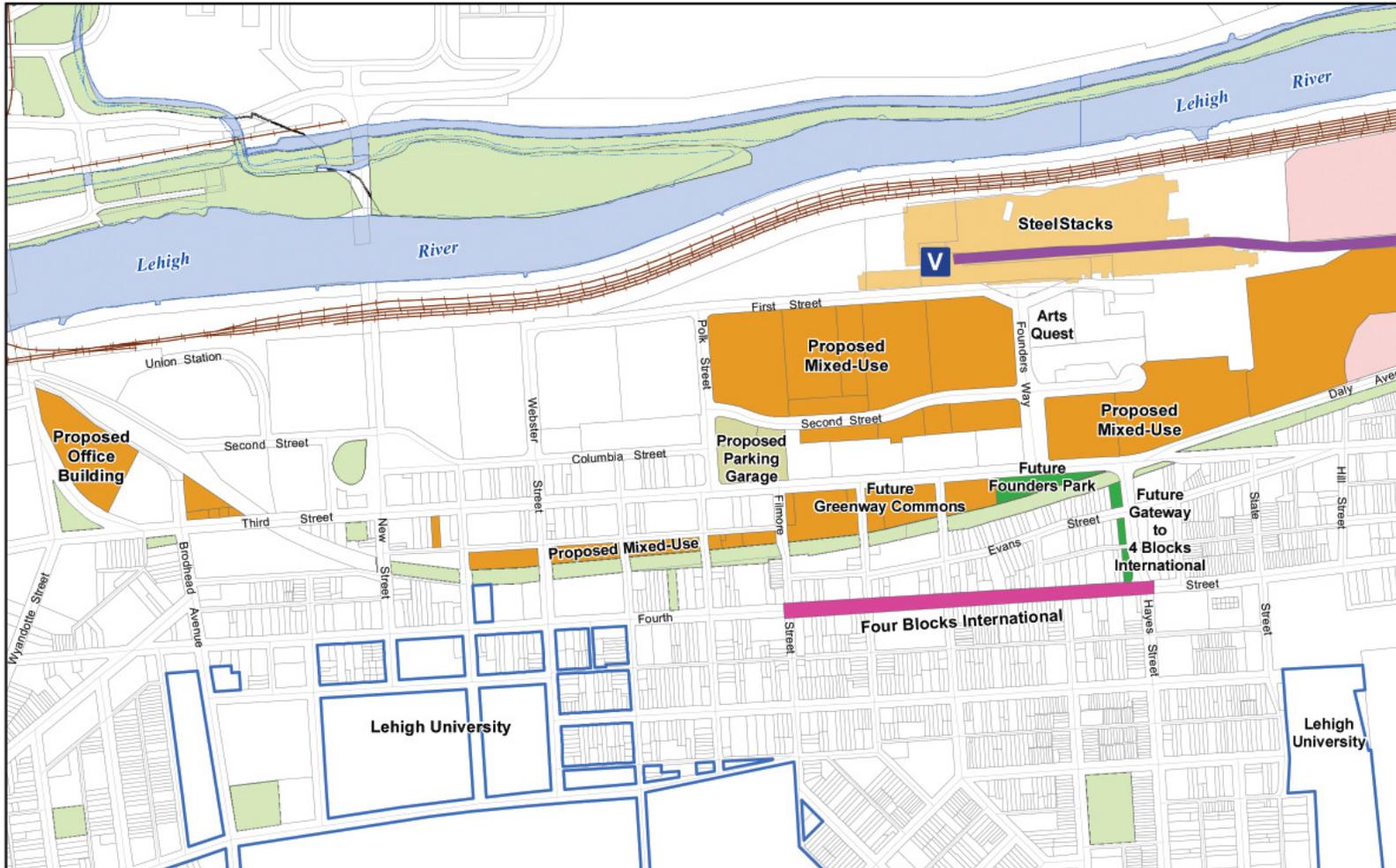
Few undeveloped parcels of land exist along Monocacy Way. Monocacy Way is envisioned as supporting economic development primarily as a connector for tourism to the north side's many historic sites and the D&L Trail. There are pockets of uses along Monocacy Way that if proposed for redevelopment should be uses that enhance the sustainability of Monocacy Way and that of the proposed use.

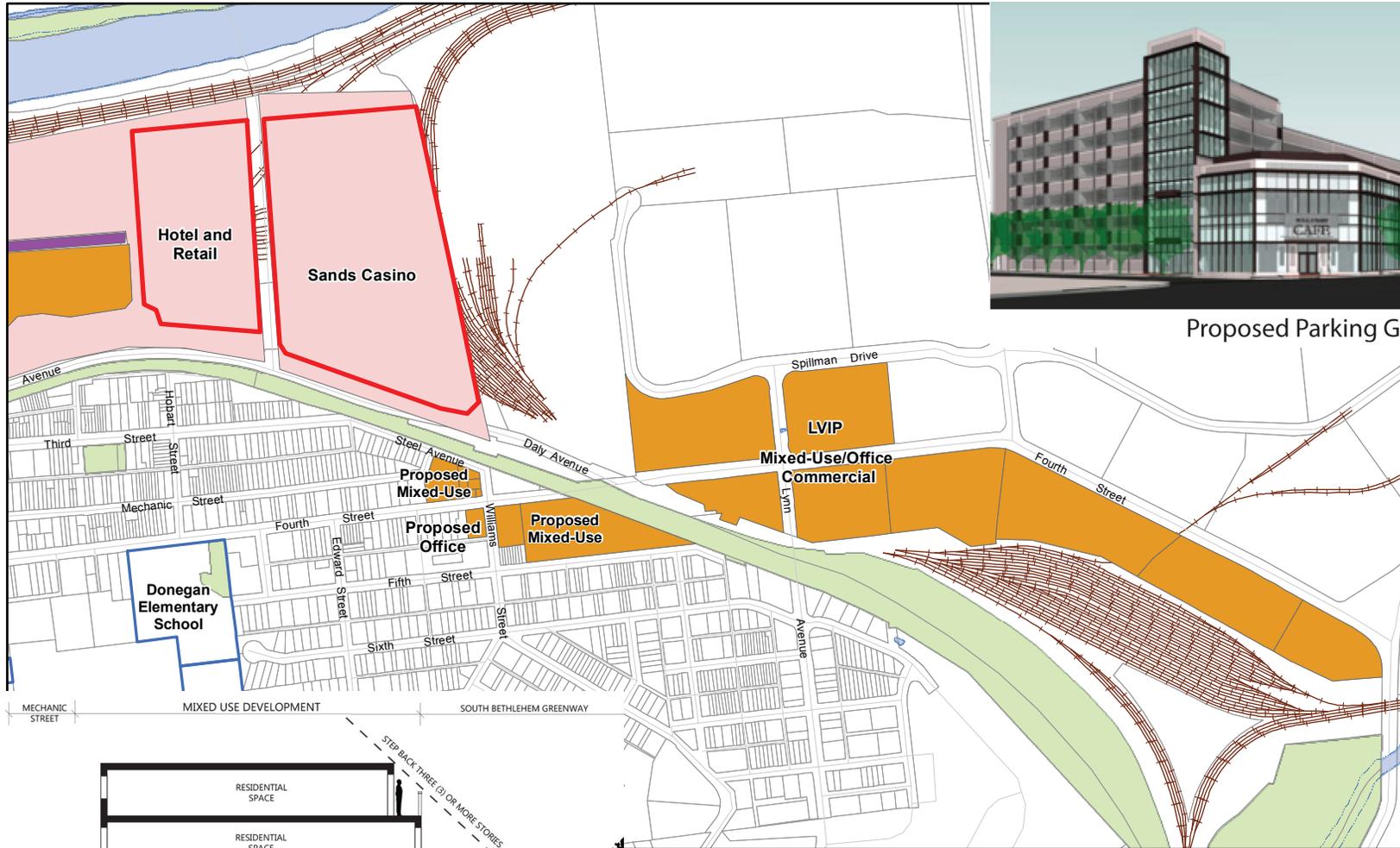
### **Union Boulevard Corridor:**

The former memorial business and vacant lot located along the north side of Union Boulevard between the Monocacy Creek and Monocacy Street forms an underutilized area along a key entry into Bethlehem's northern downtown business and historic districts. Currently one lot is vacant and the other is being used for storage of stone and other debris. This plan recommends commercial and/or mixed residential and commercial use for these properties. It's location along the Monocacy Way, and proximity to Historic Bethlehem and Moravian College would make it an ideal location for a recreational related business, boutique hotel or other trail/tourism related use. This study offers the following recommendations:

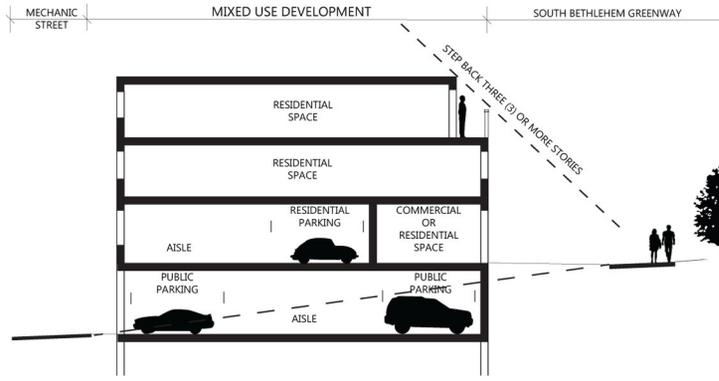
- Redevelop with commercial and/or mixed residential and commercial use infill for these properties,
- Any new development should face Union Boulevard and should blend with the scale of the existing neighborhood
- Development should be set back from Union Boulevard far enough to allow for proposed trail improvements







Proposed Parking Garage



Proposed Mixed-Use





## **IMPLEMENTATION STRATEGIES**

## **TRAIL NETWORK IMPLEMENTATION STRATEGIES**

Previous chapters of this *Beth Connects: A Trail Study* describe the Bethlehem trails network concept, identify physical conditions along existing and proposed trail routes, propose improvements for the development of the trail network, and highlight some common standards and specifications. The focus of this chapter is implementation; or how to move each project from concept to the drawing board to reality. The topics included are construction estimates and potential funding sources.

### Construction Estimates:

Construction costs are broken down into the three established priority connections, followed by the lower priority connections. Each connection is broken down by established segments, to make a project more fiscally manageable.

- Priority One - Connect the South Bethlehem Greenway with the Saucon Rail Trail
- Priority Two - Complete Monocacy Way from Sand Island to Archibald Johnston Conservation Area
- Priority Three - Connect the South Bethlehem Greenway with the D&L Trail
- Lesser Priorities:
  - Connect the South Bethlehem Greenway with Walking Purchase Park, Uplands and Lowlands
  - Connect north, south, east and west Bethlehem neighborhoods to the Bethlehem Trails Hub with a network of complete streets, dedicated bike lanes and sharrows

Construction cost estimates include trail surface materials, widths and lengths, pavement markings and crosswalks, concrete sidewalks, ADA ramps and signals, trail amenities and signs.

Costs are presented only for the trail segments within the City of Bethlehem. Some connections will require multi-municipal efforts to become reality. The Walking Purchase Park connections, in particular, will rely on the combined efforts of the Borough of Fountain Hill, the City of Allentown, Lehigh County, Salisbury Township, Reeb Millwork and possibly the railroad.

Total estimated costs do not include design and engineering, which typically range from 20-30 percent of the total anticipated cost of construction. Specialty services such as bridge and structural engineers add to the up-front costs. Other costs that vary with each project and are not included with these cost estimates are permitting, land lease and land acquisition costs. Permitting costs vary with the proximity to natural resources, especially water. Land lease and land acquisition costs will include appraisals, and legal fees.

SOUTH BETHLEHEM GREENWAY TO SAUCON RAIL TRAIL						
SEGMENT A - 1. Lynn Avenue to Auburn Street - funded and scheduled to be installed in 2016						
2. Access Ramp to Saucon Park -Engineering Scheduled for 2016, Construction Proposed for 2017						
SEGMENT B - Auburn St. connecting through Saucon Park to Silvex Road						
OPTION1: Trail Improvement Item		Quantity	Unit Cost			Cost
1	Provide 8.0' wide paved secondary access path from Auburn St. to the SBGreenway	68 SY	58.00		\$	3,944.00
2	Improve existing sidewalks on Auburn St. to meet ADA standards	475 SY	68.00		\$	32,300.00
3	Install Sharrows on Auburn Street	2 EA	100.00		\$	200.00
4	Install 10' wide gravel multi-use trail from the SBGreenway to RT 412 sidewalk at Auburn St.	702 SY	20.00		\$	14,040.00
5	Install 12.0' wide paved multi-use trail along Millside Dr. from Travelers Way to Saucon Park lot	1302 SY	58.00		\$	75,516.00
6	Install 12.0' wide paved multi-use trail from Saucon Park lot to Fire Lane through Saucon Park using existing paths where possible	4800 SY	58.00		\$	278,400.00
7	Upgrade approaches to bridge over Saucon Creek to meet ADA requirements. Replace bridge decking if necessary.	1 LS	15,000.00		\$	15,000.00
8	Install 12.0' paved multi-use trail adjacent to Fire Lane to Saucon Creek bridge on Silvex Rd	100 SY	58.00		\$	5,800.00
9	Install 5.0' wide sidewalk on Silvex Rd (north side)from bridge over Saucon Creek to RT 412	830 SY	68.00		\$	56,440.00
10	Install Trailhead Signs/Map Kiosks ( Saucon Park (2) & Silvex Rd. Parking Areas)	3 EA	2,200.00		\$	6,600.00
11	Install wayfinding Signs	10 EA	850.00		\$	8,500.00
12	Install Benches	3 EA	2,500.00		\$	7,500.00
13	Install Mile Markers	1 EA	150.00		\$	150.00
14	Install Trash Receptacles	3 EA	1,500.00		\$	4,500.00
15	Install Bike Racks	3 EA	1,200.00		\$	3,600.00
16	Install Security Cameras at Ramp/Bridge, Tunnel and Auburn St.	3 EA	750.00		\$	2,250.00
					Subtotal:	\$ 514,740.00
	OPTION: Install Trail Lighting	25 EA	10,000.00		\$	250,000.00

**BETH CONNECTS: A TRAIL STUDY**

SOUTH BETHLEHEM GREENWAY TO SAUCON RAIL TRAIL						
<b>SEG.B, OPTION 1, ALT A. - Connect Saucon Park east &amp; west of the SBGreenway through existing tunnel</b>						
1	Conduct engineering study, clear tunnel, resurface walls and provide structural support if needed	1	LS	75,000.00		\$ 75,000.00
2	Install 12' wide multi-use trail through tunnel and adjacent to Fire Lane to Travelers Way Bridge	958	SY	58.00		\$ 55,564.00
3	Complete sidewalk on both ends of Travelers Way bridge to Millside Dr.	271	SY	70.00		\$ 18,970.00
4	Stripe dedicated bike lanes on Traveler Way to Millside Dr.	422	LF	2.00		\$ 844.00
Alternate A Total						\$ 150,378.00
<b>SEG.B, OPTION 1, ALT. B - Connect Saucon Park east &amp; west of the SBGreenway with new bridge over Saucon Creek</b>						
1	Install new non-vehicular bridge over Saucon Creek in Saucon Park east of SBG	1	EA	75,000.00		\$ 75,000.00
2	Install 12' wide paved multi-use trail adjacent to Millside Dr. from Saucon Park ADA access ramp to Travelers Way	1642	SY	58.00		\$ 95,236.00
Alternate B Total						\$ 170,236.00
<b>SEGMENT B, OPTION 1 TOTAL - including Alternates A&amp;B:</b>						<b>\$ 835,354.00</b>
<b>SEG. B, OPTION 2: Trail Improvement Item</b>						
		<u>Quantity</u>		<u>Unit Cost</u>		<u>Cost</u>
1	Acquire railroad right-of way or easements from Auburn St. to Bachman St. to continue the SBGreenway	1	LS	unknown		Donation or Appraisal Value
2	Install 8' wide paved access ramp from SBGreenway to Silvex Rd (if rail right-of-way is acquired)	580	SY	150.00		\$ 87,000.00
3	Install 12' wide multi-use gravel trail on railroad right-of-way from Auburn St. to Bachman St. (if right-of-way or easement is acquired)	7388	SY	20.00		\$ 147,760.00
<b>SEGMENT B OPTION 2 - TOTAL KNOWN COSTS :</b>						<b>\$ 234,760.00</b>

SOUTH BETHLEHEM GREENWAY TO SAUCON RAIL TRAIL						
SEGMENT C - Silvex Road south through Saucon Park to Bachman Street and Saucon Rail Trail						
Trail Improvement Item		Quantity		Unit Cost	Cost	
1	Provide safe ADA crossing of Silvex Road with signs, decorative crosswalks and push button operated flashing signals	1	LS	120,000.00		\$ 120,000.00
2	Complete 5.0' wide sidewalk on Ravena St south of Silvex Rd	220	SY	68.00		\$ 14,960.00
3	Provide paved 10' wide multi-use trail along Saucon Creek from Ravena St./Silvex Rd to Seidersville Rd/High St	4,028	SY	58.00		\$ 233,624.00
4	Install Wayfinding Signs at Silvex Road Crossing	2	EA	1,200.00		\$ 2,400.00
5	Provide ramp or switch back access to new multi use trail from Seidersville Rd.	1	LS	12,000.00		\$ 12,000.00
6	Provide warning signs on Seidersville Road at trail crossing.	6	EA	500.00		\$ 3,000.00
7	Provide crosswalk striping on Seidersville Road at trail crossing.	60	LF	2.00		\$ 120.00
8	Create 10' wide paved multi-use trail from Seidersville Rd to Bachman St and the Saucon Rail Trail	2,110	SY	58.00		\$ 122,380.00
9	Create 10' wide paved multi-use trail from Bachman Street and the Saucon Rail to Chestnut Street and the Saucon Rail Trail	1,778	SY	58.00		\$ 103,124.00
10	Install 6' wide natural path along Saucon Creek between Bachman St. and the terminus of the Saucon Rail Trail at Chestnut St.	1,866	SY	20.00		\$ 37,320.00
11	Install Wayfinding Signs	20	EA	850.00		\$ 17,000.00
12	Install Mile Markers	2	EA	150.00		\$ 300.00
13	Install Benches	4	EA	2,500.00		\$ 10,000.00
14	Install Bike Racks	2	EA	1,200.00		\$ 2,400.00
15	Install Trash Receptacles	3	EA	1,500.00		\$ 4,500.00
16	Complete sidewalks on streets the trail crosses to connect with Hellertown business corridor. Work with Borough of Hellertown					
Segment C Total						\$ 683,128.00
<i>Note: costs do not include engineering, permitting, leasing or land purchase costs</i>						

Complete and Improve Monocacy Way						
Segment A - Sand Island to Union Boulevard						
Trail Improvement Item		Quantity		Unit Cost	Cost	
1	Provide trailhead with designated parking at Sand Island including ADA spaces, signs and striping	1	LS	5,000.00		\$ 5,000.00
2	Install sidewalk along east side of Main St from Sand Island trailhead parking to Lehigh St, modifying existing driveway aprons to meet ADA Standards (5ft width)	112	SY	68.00		\$ 7,616.00
3	Install Sharrows on Main St from Lehigh St to River St on Sand Island	2	EA	100.00		\$ 200.00
4	Install crosswalks at intersection of Main and Lehigh Streets.	3	EA	2,500.00		\$ 7,500.00
5	Install one themed crosswalk to designate the trail at the Main and Lehigh Street intersection	36	SY	165.00		\$ 5,940.00
6	Improve ADA ramps at Main and Lehigh Sts by widening ramp area for bicycles and pedestrians	8	EA	3,000.00		\$ 24,000.00
7	Install 8.0' wide bicycle trail offset from sidewalk between Lehigh St. and Spring St. <i>or</i> widen existing sidewalk to 12.0' for multi-use	266	SY	58.00		\$ 15,428.00
8	Improve safety at Main and Spring St. trail crossing : Install ADA ramps, warning signs, themed crosswalk and push button activated flashing signals	1	LS	120,000.00		\$ 120,000.00
9	Provide trailhead with designated parking in the Spring St. lot including ADA spaces, signs and striping	1	LS	5,000.00		\$ 5,000.00
10	Install 12.0' wide paved multi-use trail between the Spring St parking lot and Monocacy Creek	632	SY	58.00		\$ 36,656.00
11	Install wooden guide rails to highlight and protect the trail segments under Bridge Street Bridge	100	LF	50.00		\$ 5,000.00
12	Install Comfort Station in Spring St. Lot near bridge crossing into Historic Moravian Bethlehem	1	LS	85,000.00	LS	\$ 85,000.00
13	Improve multi-use trail through Historic Moravain Bethlehem, designate shared use for trail users	670	SY	58.00		\$ 38,860.00
14	Provide trailhead with designated parking in the Johnston St. parking lot including ADA spaces, signs and striping	1	LS	5,000.00		\$ 5,000.00

	<u>Trail Improvement Item</u>	<u>Quantity</u>		<u>Unit Cost</u>		<u>Cost</u>
15	Install 12.0'paved multi-use trail along Old York Rd.through Johnston Park to Union St.	1420	SY	58.00		\$ 82,360.00
16	Install guide rails on edge of trail corridor to highlight and protect trail users under Broad Street Bridge	100	LF	50.00		\$ 5,000.00
17	Provide guiderail adjacent to parking area on Old York Road and Union Blvd.	200	LF	50.00		\$ 10,000.00
18	Install ADA ramps and M-Way themed crosswalk through Old York Road cul-de-sac	1	LS	40,000.00		\$ 40,000.00
19	Install Trailhead Signs at Sand Island, Spring St. and Johnston Park	3	EA	1,200.00		\$ 3,600.00
20	Install Wayfinding Signs	20	EA	850.00		\$ 17,000.00
21	Install Mile Markers	2	EA	150.00		\$ 300.00
22	Install Benches	4	EA	2,500.00		\$ 10,000.00
23	Install Trash Receptacles	4	EA	1,500.00		\$ 6,000.00
24	Install Bike Racks	4	EA	1,200.00		\$ 4,800.00
<b>Segment A Total</b>						<b>\$ 534,260.00</b>
<b>Segment B - Union Boulevard to Monocacy Park</b>						
	<u>Trail Improvement Item</u>	<u>Quantity</u>		<u>Unit Cost</u>		<u>Cost</u>
1	Provide guardrail between parking and sidewalk on Union Boulevard	100	LF	50.00		\$ 5,000.00
2	Improve ADA ramps at Union Blvd and Old York Rd by widening ramp area for bicycles and pedestrians and provide landings	4	EA	3,000.00		\$ 12,000.00
3	Install M-Way themed crosswalk at Union Blvd and Old York Road	36	SY	165.00		\$ 5,940.00
4	Provide 6-8' wide trail M-Way themed sidewalk on Union Blvd., north side, from Monocacy St.to RT 378 south entrance ramp	462	SY	165.00		\$ 76,230.00
5	Provide M-Way themed surface bicycle lane along Union Street from Old York Road to RT 378 ramp	615	SY	165.00		\$ 101,475.00
6	Install 12.0' wide paved trail through Burnside Plantation to Schoenersville Rd	1863	SY	58.00		\$ 108,054.00
7	Improve safety at Schoenersville Rd. trail crossing : Install ADA ramps, warning signs, themed crosswalk and push button activated flashing signals	1	LS	120,000.00		\$ 120,000.00

Complete and Improve Monocacy Way - Continued						
	<u>Trail Improvement Item</u>	<u>Quantity</u>		<u>Unit Cost</u>		<u>Cost</u>
8	Provide consistant 12.0' wide multi-use paved surface from Schoenersville Rd to Illicks Mill Rd	6340	SY	58.00		\$ 367,720.00
9	Improve safety at Illicks Mill Rd. crossing : Install ADA ramps, warning signs, themed crosswalk and push button activated flashing signals	1	LS	114,000.00		\$ 114,000.00
10	Provide trailhead with designated parking within the Illicks Mill natural area parking lot including ADA spaces, signs and striping	1	EA	5,000.00		\$ 5,000.00
11	Install wayfinding signs	20	EA	850.00		\$ 17,000.00
12	Install Mile Markers	1	EA	150.00		\$ 150.00
13	Install Benches	1	EA	2,500.00		\$ 2,500.00
14	Install Trash Receptacles	4	EA	1,500.00		\$ 6,000.00
15	Install Bike Racks	1	EA	1,200.00		\$ 1,200.00
Monocacy Way - Segment B Sub-Total						\$ 936,269.00
SEGMENT B, ALT. A - Crossing Railroad tracks at Illicks Mill Natural Area						
1	Create accessible RR crossing on Monocacy Way south of Illick's Mill Natural Area	1	LS	10,000.00		\$ 10,000.00
2	Install 12.0' wide boardwalk trail or paved trail with deep stone base through the wet natural area	660	SY	175.00		\$ 115,500.00
Seg.B, Alternate A Total						\$ 125,500.00
SEGMENT B, ALT. B - Avoid Crossing Railroad tracks						
1	Install 12.0' paved multi-use trail west of railroad tracks over hill from existing Monocacy Way RR crossing to Illick's Mill Rd	2781	SY	58.00		\$ 161,298.00
2	Install new safe ADA crossing with signs, themed crosswalk and push button activated flashing signal for trail crossing at Illick's Mill Road	1	LS	120,000.00		\$ 120,000.00
Seg.B, Alternate B Total						\$ 281,298.00
Monocacy Way - Segment B Total with Alternates A & B						\$ 1,343,067.00

Segment C - Monocacy Park to Archibald Johnston Conservation Area						
	Trail Improvement Item	Quantity		Unit Cost	Cost	
1	Install pedestrian paved paths through Monocacy Park (route west side of Monocacy Creek (8ft wide)	979 LF	SY	99.00		\$ 99.00
2	ADA Improvements to Monocacy Park Bridge	1	LS	12,500.00		\$ 12,500.00
3	Install bicycle route with paint striping through Monocacy Park (route east side of Monocacy Creek )	1420	LF	2.00		\$ 2,840.00
4	Install paved multi-use trail from parking lot in Monocacy Park to Bridal Path Road (8' wide)	4652	SY	58.00		\$ 269,816.00
5	Install safe ADA crossing with signs, themed crosswalk and push button activated flashing signal for trail crossing at Bridal Path Road	1	LS	120,000.00		\$ 120,000.00
6	Install paved multi-use trail from Bridal Path Road to Gertrude Fox Park (8' wide)	4620	SY	58.00		\$ 267,960.00
7	Install safe ADA crossing with signs, themed crosswalk and push button activated flashing signal for trail crossing at Macada Road	1	LS	120,000.00		\$ 120,000.00
8	Install ADA crossing with signs, themed crosswalk and push button activated flashing signal for trail crossing at Bella Vista Drive	1	LS	120,000.00		\$ 120,000.00
9	Install safe ADA crossing with signs, themed crosswalk and push button activated flashing signal for trail crossing at Route 512	1	LS	130,000.00		\$ 130,000.00
10	Install 8' wide paved multi-use trail from Gertrude Fox Park to Altonah Rd.	2168	SY	58.00		\$ 125,744.00
11	Install 8' wide paved multi-use trail from Altonah Rd to Archibald Johnston Conservation Area/Housenick Park	2700	SY	58.00		\$ 156,600.00
12	Install trailhead signs at northern parking area in Monocacy Park	1	EA	1,200.00		\$ 1,200.00
13	Install Wayfinding Signs	20	EA	850.00		\$ 17,000.00
14	Install Mile Markers	2	EA	150.00		\$ 300.00
15	Install Trash Receptacles	4	EA	1,500.00		\$ 6,000.00
16	Install Comfort Station in Monocacy Park near Trail Head	1	EA	85,000.00		\$ 85,000.00
17	Install Benches	1	EA	900.00		\$ 900.00
18	Install Bike Racks	1	EA	1,200.00		\$ 1,200.00
Monocacy Way - Segment C Total						\$ 1,437,159.00
<i>Note: costs do not include engineering, permitting, leasing or land purchase costs</i>						

**BETH CONNECTS: A TRAIL STUDY**

Connecting South Bethlehem Greenway with D&L Trail							
Alternate A - Connect using existing bridges (short term solution)							
Connection via Fahy Bridge							
	Trail Improvement Item	Quantity	Unit Cost			Cost	
1	Install accessible sidewalk from the greenway at New St crossing north to Fahy Bridge	450 SY	68.00		\$	30,600.00	
2	Provide Sharrows on New St and Fahy Bridge	8 EA	100.00		\$	800.00	
3	Provide accessible sidewalks on north side of Lehigh St from Lehigh/New St intersection to Lehigh/Main St intersection	850 SQ	68.00		\$	57,800.00	
4	Paint stripe dedicated bicycle lanes on both sides of Lehigh St from Lehigh/New St intersection to Lehigh/Main St intersection	1250 LF	2.00		\$	2,500.00	
5	Install wayfinding signs	8 EA	850.00		\$	6,800.00	
						Fahy Connection Total	\$ 98,500.00
<i>Note: Improvements for Main Street between Lehigh St and the D&amp;L Trail are in Seg. A of Monocacy Way</i>							
Connection via Hill-to-Hill Bridge							
1	Improve sidewalks on Bridge and Main Streets	1200 SQ	68.00		\$	81,600.00	
2	Install Sharrow system on Bridge and Main Streets	10 EA	100.00		\$	1,000.00	
3	Signage 'Cyclists Must Dismount' and "Walk Bikes Across Bridge"	2 EA	850.00		\$	1,700.00	
4	Install wayfinding signs	8 EA	850.00		\$	6,800.00	
						Hill-to-Hill Connection Total	\$ 84,300.00
Connection via Minsi Trail Bridge							
1	Install wayfinding signs to connect D&L Trail and the greenway	6 EA	850.00		\$	5,100.00	
2	Install 'Cyclists Must Dismount' signs	2 EA	850.00		\$	1,700.00	
						Minsi Trail Bridge Connection Total	\$ 6,800.00
						Alternate A Total	\$ 189,600.00
Alternate B (long term goal)							
1	Install new pedestrian and bicycle bridge between Sand Island at end of Main Street to Union Station in South Bethlehem	Range	LS	1,500,000.00	to	\$ 3,000,000.00	
						Alternate B Total	\$1,500,000.00 to \$ 3,000,000.00
Alternate C (long term goal)							
1	Install new pedestrian and bicycle bridge under Fahy Bridge	1	LS	1,500,000.00		\$ 1,500,000.00	
						Alternate C Total	\$ 1,500,000.00
<i>Note: costs do not include engineering, permitting, leasing or land purchase costs</i>							

Connecting the South Bethlehem Greenway to Walking Purchase Park						
Segment A - South Bethlehem Greenway to Walking Purchase Park, Uplands						
	Trail Improvement Item	Quantity	Unit Cost		Cost	
1	Provide accessible sidewalk from end of South Bethlehem Greenway to Broadhead Ave and Third Street intersection	890 SY	68.00		\$	60,520.00
2	Install trail wayfinding signs from end of South Bethlehem Greenway to Broadhead Ave and Third Street intersection	3 EA	850.00		\$	2,550.00
3	Provide themed crosswalk at Third St and Broadhead Avenue	40 SY	165.00		\$	6,600.00
4	Install 'Cyclists Must Dismount' at street crossings	6 EA	850.00		\$	5,100.00
5	Install accessible crosswalks along Brighton Street at Cherokee Street, Uncas Street and Ostrum Street	106 SY	165.00		\$	17,490.00
6	Install Sharrows on Brighton Street	8 EA	100.00		\$	800.00
7	Complete sidewalk along Brighton Street from Cherokee Street intersection to cul-de-sac	1400 SY	68.00		\$	95,200.00
8	Make ADA improvements to existing sidewalk on Brighton St	335 SY	68.00		\$	22,780.00
9	Provide designated parking at Walking Purchase Park Uplands for Mountain Bike venue	200 SY	58.00		\$	11,600.00
10	Install Parking Signs & Kiosk at Trailhead	1 EA	1,200.00		\$	1,200.00
11	Install Wayfinding Signs	20 EA	850.00		\$	17,000.00
12	Install Mile Markers	2 EA	150.00		\$	300.00
13	Install Benches	1 EA	2,500.00		\$	2,500.00
14	Install Bike Racks	1 EA	1,200.00		\$	1,200.00
					Segment A Total	\$ 244,840.00
Segment B - South Bethlehem Greenway to Walking Purchase Park, Lowlands						
1	Provide wayfinding signs at Third St and Broadhead Avenue	8 EA	850.00		\$	6,800.00
2	Make improvements to Walking Purchase Park, working with the City of Allentown, Salisbury Township and Lehigh County to develop Walking Purchase Park					unknown
3	Acquire and develop permanent easement through Reeb Millwork property; work with Reeb, City of Allentown, Salisbury Township and Lehigh County to connect Walking Purchase Park's uplands and lowlands					unknown
4	Continue to evaluate opportunity to swap Riverside Drive right-of-way with railroad right-of-way; partner with City of Allentown, Salisbury Township, Lehigh County, railroad and St. Lukes Hospital					unknown
					Segment B Total	\$ unknown
<i>Note: costs do not include engineering, permitting, leasing or land purchase costs</i>						

West Bethlehem Rail Trail						
Trail Improvement Item		Quantity		Unit Cost		Cost
1	Install 12' wide gravel trail on existing railroad bed from Monocacy Way to City of Allentown border	13327	SY	20.00		\$ 266,540.00
2	Install trailhead signs	3	EA	1,200.00		\$ 3,600.00
3	Install wayfinding signs	20	EA	850.00		\$ 17,000.00
4	Install Mile Markers	2	EA	150.00		\$ 300.00
5	Install Benches	3	EA	900.00		\$ 2,700.00
6	Install Bike Racks	3	EA	1,200.00		\$ 3,600.00
West Bethlehem Rail Trail Total						\$ 300,540.00
<i>Note: costs do not include engineering, permitting, leasing or land purchase costs</i>						
PROJECT COST SUMMARY						
South Bethlehem Greenway - Segment A Total						Funded
South Bethlehem Greenway - Segment B , Option 1 Total						\$ 835,354.00
South Bethlehem Greenway - Segment B, Option 2 Total (Known Costs)						\$ 234,760.00
South Bethlehem Greenway - Segment C Total						\$ 683,128.00
Monocacy Way - Segment A Total						\$ 534,260.00
Monocacy Way - Segment B with Alternates A & B Total						\$ 1,343,067.00
Monocacy Way - Segment C Total						\$ 1,437,159.00
D&L and South Bethlehem Greenway Connection						
Alternate A (all bridges) Total						\$ 189,600.00
Alternate B - Total						\$ 1,500,000.00 to \$ 3,000,000.00
Alternate C - Total						\$ 1,500,000.00
South Bethlehem Greenway to Walking Purchase Park, Uplands - Total						\$ 244,840.00
South Bethlehem Greenway to Walking Purchase Park, Lowlands - Total						\$ unknown
West Bethlehem Rail Trail Total						\$ 300,540.00

*NOTE: Costs do not include engineering, permits, leasing, or land purchase costs*

## **FUNDING OPPORTUNITIES AND PARTNERS**

The federal government, state government, county government and private organizations such as foundations, provide various opportunities for funding trail projects. Funding sources are always changing; as new programs become available, older programs are revised or deleted. Applicants should contact the administering agency to determine requirements in effect at the time of application.

Funding partners can often be found in neighborhood business and entities for whom community health is a concern. Many businesses donate to local efforts to improve quality of life where they are located by offering grants. Banks also offer grant opportunities on a yearly basis. Competition can be tough, but even a small donation can serve as a match for a larger state funded grant program.

Funding partners may also be found in adjoining communities who are working on like projects. A joint municipal effort is given a higher rank than the efforts of an individual municipality.

Including an environmentally positive impact as part of a trail grant can increase the chances of success with conservation minded funding sources. Improving a riparian buffer or restoring a stream bank, while adding to project costs, can also propel your funding request to the top of the stack. Adding ADA requirements to a project, to make the trail accessible for all, is always looked upon with favor.

The following chart lists 26 current grant programs that center on transportation, including alternative transportation and trails, which can be both urban and rural in nature.

Information shown is sourced from publication and internet sites of various agencies; Pennsylvanian Magazine, PA DCED Resource Directory, PA DCNR and PA Growing Greener websites, and URDC.

**BETH CONNECTS: A TRAIL STUDY**

Program	General Description of Program	Administering Agency
1 Community Conservation Partnerships Program (C2P2)	<p>Provides matching grants to eligible entities for projects in the following areas:</p> <ul style="list-style-type: none"> <li>•Planning                             <ul style="list-style-type: none"> <li>– Comprehensive Recreation, Park, and Open Space Plan</li> <li>– Conservation Plan</li> <li>– Feasibility Study</li> <li>– County/Municipal Greenway/Open Space Network Plan</li> <li>– Specific Greenway, Trail, or Rails-to-Trails Plan</li> <li>– Snowmobile/All-Terrain Vehicle Plan</li> <li>– Master Site Plan</li> <li>– Rivers Conservation Plan</li> </ul> </li> <li>• Technical Assistance                             <ul style="list-style-type: none"> <li>– Education, Training, Implementation</li> <li>– Peer-to-Peer Technical Assistance</li> <li>– Circuit Rider</li> </ul> </li> <li>• Acquisition                             <ul style="list-style-type: none"> <li>– Park and Recreation Areas</li> <li>– Greenways/Trails/Rivers Conservation</li> <li>– Rails-to-Trails</li> <li>– Snowmobile/All-Terrain Vehicle</li> </ul> </li> <li>–Natural and Critical Habitat Areas</li> <li>•Development                             <ul style="list-style-type: none"> <li>– Park and Recreation Areas</li> <li>– Greenways and Trails</li> <li>– Rails-to-Trails</li> <li>– Snowmobile/All-Terrain Vehicle</li> <li>–Rivers Conservation</li> </ul> </li> <li>•Pennsylvania Recreational Trails</li> <li>•Land and Water Conservation Fund (LWCF)</li> </ul>	PA DCNR
2 Community Development Block Grant (CDBG)	Offers grants for a wide variety of activities, provided the applicant proves by survey or census that the project will benefit 51% low and moderate income persons or handicapped persons or eliminate "blighted" conditions in officially designated areas. For example, funds can be used for water and sewage improvements, storm drainage, handicapped accessibility, parks / recreation / greenways, street and sidewalk improvements, planning, and historic rehabilitation.	PA DCED Bethlehem is an Entitlement Community and receives funding directly from US Gov.
3 Community Revitalization Program	Very broad grant program. Officially intended to promote community stability, increase tax bases and improve quality of life. Applications may be made by municipalities, authorities, economic development organizations, and nonprofit corporations. Public/non-profit/profit partnerships are encouraged. Generally can be used for infrastructure, community revitalization, building rehabilitation, demolition of blighted structures, public safety, and park and greenways projects.	PA DCED & Governor's Office
4 PA Conservation Corps	Provides funding for work crews for community projects, such as trail improvements	PA Dept. of Labor and Industry
5 Environmental Protection Agency (EPA) Healthy Watershed Initiative	The Environmental Protection Agency (EPA) provides large Watershed Initiative grants ranging in size from approximately \$300,000 to \$1.3 million. Twenty grants are given out each year. The program is very competitive and requires state endorsement of the proposed project(s). Funds for assessment, development, planting, remediation, reclamation, education and outreach.	U.S. EPA (Philadelphia)
6 Growing Greener Program	As part of Pennsylvania's Growing Greener Program, PA DEP offers various grants that can be used for greenway related projects. They include: Watershed Grants, Technical Assistance Grants, and New or Innovative Technology Grants.	PA DEP

Program	General Description of Program	Administering Agency
7. Safe Routes to School	The Home Town Streets Program provides funding for a variety of streetscape improvements that are aimed at reestablishing downtown and commercial centers. The Safe Routes to School Program provides grants and is designed to work with both school districts and pedestrian and bicycle safety advocates to make physical improvements that promote safe walking and biking passages to schools. Both programs require a 20% local match.	PennDOT with Federal Highway Administration
8 Greenways Trails & Recreation Program (GTRP)	Required under Act 71 (the Gaming Act) allocated funds for planning, acquisition, development, rehabilitation and repair of greenways, recreational trails, open space, parks and beautification projects	PA DCED
9. Land & Water Conservation Fund	The Land & Water Conservation Fund (LWCF) provides matching grants to state and local governments for the acquisition and development of public outdoor recreation areas and facilities.	National Park Service in cooperation with PA DCNR
10. Key 93 — Rails to Trails	Provides grants for feasibility studies, master site plans, acquisition, and improvement of former railroad lines for recreation trails. A 50% local match is required. Open to municipalities, authorities, and non-profit agencies.	DCNR
11. Rivers, Trails, and Conservation Assistance Program	The National Parks service operates this program aimed at conserving land and water resources for communities. Eligible projects include conservation plans for protecting these resources, trail development, and greenway development.	National Park Service
12 SAFETEA-LU (part of federal Transportation Equity Act)	Provides grants of up to 80% for: pedestrian and bicycle facilities (including trails), acquisition of scenic easements at scenic or historic sites, development of scenic or historic route programs, landscaping and other scenic beautification along highways, restoration of historic transportation facilities (such as canals), preservation of rail corridors (particularly for multiple-use trails), control and removal of outdoor advertising, archeological research, and mitigation of water pollution due to highway runoff. All projects must have a direct correlation with transportation.	U.S. DOT funds administered by PennDOT
13 Pennsylvania Recreational Trails	Provides matching funds (80/20) to federal state, and local agencies and private organizations to develop and maintain recreational trails and facilities for motorized and non-motorized use.	PA DCNR
14. Smart Transportation Projects	Supports transportation projects that promote sustainable communities, including walking and bicycling connections.	PennDOT
15. Bikes Belong Coalition Grants Program	Provides grants for bicycling facilities and bicycling education.	Bikes Belong Coalition
16. Multi-modal Transportation Fund	Provides grants to encourage development, rehabilitation and enhancement of transportation assets to existing communities, streetscapes, lighting, sidewalk enhancement, pedestrian safety, connectivity of transportation assets and transit-oriented development. Grants are available to projects with a total cost of \$100,000 or more and may not exceed \$300,000. Funds are available to municipalities, Gov't councils, businesses, Economic Development Org, Public Transportation Agencies and Ports for rail and freight	PennDot

<b>Program</b>	<b>General Description of Program</b>	<b>Administering Agency</b>
17 Transportation Investment Generating Economic Recovery Discretionary Program (TIGER)	Funds are available for transit access enhancement, bicycle and/or pedestrian plans, protected bike lanes, parking, shelters storage, bridge crossings, maps, sidewalks, signals and signage, etc. Lighting may be eligible for funds as part of a bicycle and pedestrian-related project but not as a highway project. Subject to annual appropriations.	PA state administered FHWA funds
18 Federal Transit Administration Capital Funds (FTA)	Funds are available for transit access enhancement, bicycle and/or pedestrian plans, protected bike lanes, parking, shelters storage, system maps and GIS maps, sidewalks, signals and signage, etc.	PA state administered USDOT funds
19 Associated Transit Improvement (ATI) MAP 21	Funds are available for transit access enhancement, protected bike lanes, parking, shelters storage, system maps and GIS maps, sidewalks, street scaping, signals and signage, etc. 1% set-aside of Federal Transit Administration Capital. Program extended thru 2016	PA state administered FTA funds
20 Congestion Mitigation and Air Quality Improvement Program (CMAQ), Now Part of MAP 21	Focus is on projects that will improve air quality. Several activities may be eligible for funds as part of a bicycle and pedestrian-related project but not as a highway project. Funds may be used for shared use paths but not for primarily recreational use trails. Eligible activities include protected bike lanes, crosswalks, tunnels, bridges, maps, signals, signs, etc.	PA state administered FTA and FHWA funds
21 Highway Safety Improvement Program(HSIP) Part of MAP 21 Program	Funds are available for protected bicycle lanes on roads, bridges for bikes and pedestrians, crosswalks, curb cuts, paved shoulders, shared use paths, signs, signal improvements, etc. Lighting may be eligible for funds as part of a bicycle and pedestrian-related project but not as a highway project.	PA state administered FTA and FHWA funds
22 National Highway Performance Program (NHPP) Part of MAP 21 Program	Funds are available for signals, shared use, traffic-calming techniques, tunnels, intersections, data collection, crosswalks, curb cuts, etc. Lighting may be eligible for funds as part of a bicycle and pedestrian-related project but not as a highway project.	PA state administered FHWA and FTA funds
23 Surface Transportation Program (STP) Part of MAP 21 Program	Funds are available for transit access enhancement, bicycle and/or pedestrian plans, protected bike lanes, sidewalks, signals and signage, historic preservation, landscaping, streetscaping, etc. Some activities only eligible as SRTS funds and restricted to projects which benefit school age children kindergarten to 8 <sup>th</sup> grade.	PA state administered FHWA and FTA funds
24 Transportation Alternatives Program /Transportation Enhancement Activities (TAP/TEA) Part of MAP 21	Funds are available for transit access enhancement, bicycle and/or pedestrian plans, protected bike lanes, sidewalks, self-evaluation plans, signals and signage, historic preservation, landscaping, streetscaping, etc. Some activities only eligible as SRTS funds and restricted to projects to benefit school age children kindergarten to 8 <sup>th</sup> grade.	PA state administered FHWA and FTA funds
25 Recreational Trails Program (RTP) Part of MAP 21	Bicycle parking, self-evaluation plans, crosswalks, curb cuts, data collection, lighting maps, etc. Several activities may be eligible for funds as part of a bicycle and pedestrian-related project but not as a highway project.	DCNR administered FHWA and FTA funds
26 402 -State Highway Safety Program (under MAP 21)	Funding to implement approved State Highway Safety Plans. Funds are available for self – evaluation plans, bicycle and pedestrian safety plans, helmet promotion, police patrols, safety brochures, and driver training.	PA state administered FHWA funds

	<b>Saucon Rail Trail</b>	<b>4.5 miles</b>	
	<b>Saucon Park</b>	<b>3 miles</b>	
	<b>South Bethlehem Greenway</b>	<b>.5 miles</b>	
	<b>Walking Purchase Park &amp; Lehigh Mountain</b>	<b>3 miles</b>	
	<b>D&amp;L TRAIL</b>	<b>.5 miles</b>	
	<b>Monocacy Way</b>	<b>.5 miles</b>	