

Sidley Road To Chester Valley Trail

Trail Alignment Evaluation

Presentation to Parks and Recreation Board

August 28, 2018

Prepared for:



EAST WHITELAND TOWNSHIP

THE HEART OF GREAT VALLEY

Prepared by:



Project Overview

- Mill Lane vs. Moores Road Route

Sidley Road to Chester Valley Trail

- Initial Preferred Alignment
- Revised Preferred Alignment – Mill Lane
 - Utilize / widen paved shoulder on the west side

Bryn Erin to Chester Valley Trail

- Preferred Alignment – Kelmar Ave
 - Upgrade existing worn path to asphalt trail



Evaluation Process

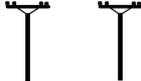
- Reviewed previous plans for trails, sidewalks, and land developments
- Developed base maps of existing conditions
- Conducted a field visit
- Considered design guidelines and best practices
- Coordinated with key property owner
- Evaluated alignment and improvement options based on connectivity, safety, feasibility, potential impacts, and costs



Evaluated Trail Alignments



Route Comparison

Mill Road	vs.	Moores Road
	Connectivity	
2/3 mile	<ul style="list-style-type: none"> Distance from Sidley Rd to Chester Valley Trail 	1 mile +
	<ul style="list-style-type: none"> Connection to residential neighborhoods 	
	<ul style="list-style-type: none"> Existing bicycle and pedestrian facilities 	
	Safety	
	Feasibility	
	Potential Impacts	
	<ul style="list-style-type: none"> Structural 	
	<ul style="list-style-type: none"> Utilities 	
\$ \$	Cost	\$ \$ \$ \$

Preferred Alignment

Mill Ln @ Conestoga to CVT: Route Comparison

	Ecology Park / Twp Campus Driveway	Mill Ln South of Conestoga Rd	Conestoga Rd
Distance	1,500 – 2,000'	500'	1,300'
Logical Routing	Circuitous path through Ecology Park	Continue straight on Mill Ln	90 degree turn at Conestoga Rd
Utility	Can avoid utility poles with routing	Possible relocation of up to 4 utility poles	Possible relocation of at least 2 utility poles
Grading	No regrading necessary	Regrading needed	No regrading necessary
Clearing	No clearing needed	Need to remove landscaping	Extensive overgrowth clearing needed
User Comfort	High	High	Low (speeding traffic)
Structures	No structural impacts	No structural impacts	Culvert crossing

Dismissed

INITIAL: Preferred Alignment & Proposed Improvements



Summary of Proposed Improvements

A Sidley Road	B Saint Gobain	C Mill Lane	D Ecology Park	E Township Campus
<ul style="list-style-type: none"> - Utilize existing 4' shoulders on both sides of Sidley Road between Flat Road and Moores Road. - Stripe high visibility crosswalks at key crossings. - Consider providing additional "Share the Road" signage. 	<ul style="list-style-type: none"> - Pave and widen existing perimeter mulch paths along the west side of Mill Lane and south side of Moores Road (to Ashlawn Road) to provide a continuous 8' wide asphalt trail. - Stripe high visibility crosswalks and provide appropriate signage at key crossings. Evaluate the need for additional improvements at the Lapp Road Intersection. 	<ul style="list-style-type: none"> - Utilize and widen the existing shoulder to provide a consistent 5' paved shoulder along the west side of Mill Lane. Consider striping a 2' wide buffer between the travel lane and shoulder. This may involve restriping the roadway and relocating guiderail to provide a wider shoulder on the west side, including in the area of the existing culvert over Valley Creek. - Utilize the existing sidewalk on the Mill Lane Bridge over US 202. 	<ul style="list-style-type: none"> - Pave and widen segments of the existing stone trail in the park and create new trail connections to provide a continuous 8' wide asphalt trail between Mill Lane and Conestoga Road and the existing parking area for Ecology Park. - Provide crosswalks and pedestrian signals at key signalized crossings. 	<ul style="list-style-type: none"> - Provide a 5' striped shoulder on the east side of the Township Campus driveway between Conestoga Road and the existing parking area for the Chester Valley Trail and Township Building. This may involve restriping at the Conestoga Road intersection.

Reasons for Revisions to Preferred Alternative

- Initial feedback from Township's Parks and Recreation Board
- Feedback from 18 and 20 Moores Road property owners/tenant
- Interest in providing a more consistent alignment and design treatment



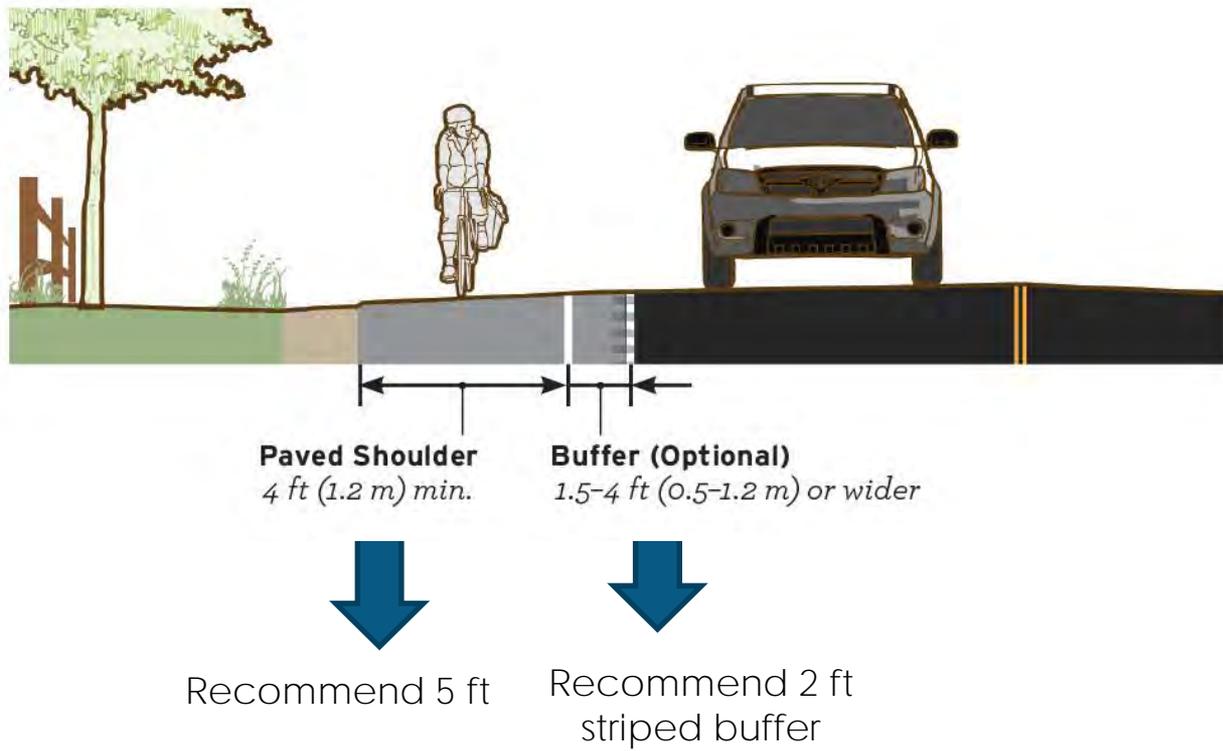
REVISED: Preferred Alignment & Proposed Improvements



Summary of Proposed Improvements

A Sidley Road and Moores Road	B Mill Lane	
<ul style="list-style-type: none"> Utilize existing 4' shoulders on both sides of Sidley Road between Flat Road and Moores Road. Utilize the existing shoulder on the north side of Moores Road between Sidley Road and Ashlawn Road. Evaluate options for restriping the roadway to provide a wider shoulder. Stripe high visibility crosswalks at key crossings. Consider providing additional signage and pavement markings to designate the shoulder for use by pedestrians/bicyclists. 	<ul style="list-style-type: none"> Utilize and widen the existing shoulder to provide a consistent 5' paved shoulder along the west side of Mill Lane. Consider striping a 2' wide buffer between the travel lane and shoulder. Consider providing additional signage and pavement markings to designate the shoulder for use by pedestrians/bicyclists. Evaluate other traffic calming measures for Mill Lane. 	<ul style="list-style-type: none"> B.1 Moores to Lapp - Evaluate the need and feasibility of regrading Mill Lane in conjunction with shoulder widening. B.2 Lapp to US 202 - At the Lapp Road intersection, evaluate potential locations for a crosswalk and other safety improvements. - Utilize the existing sidewalk on the Mill Lane Bridge over US 202. B.3 Over US 202 - Evaluate options for restriping the roadway, relocating guiderail, and providing a wider shoulder on the west side. - Evaluate the need for future improvements to the culvert over Valley Creek to maximize the shoulder width on Mill Lane. B.4 Conestoga to CVT - At the Conestoga Road intersection, install pedestrian countdown signals and high visibility crosswalks.

Paved Shoulder



Source: *Small Town and Rural Design Guide* (<http://ruraldesignguide.com/>)

Examples of Paved Shoulders



Duck, NC



Allegheny County (Ingomar Road)

Source: *Small Town and Rural Design Guide* (<http://ruraldesignguide.com/>)
<https://bfbwalkways.com>

A- Sidley Road and Moores Road

Existing Conditions – Sidley Road

- Speed humps
- 4' wide striped shoulders
- Relatively low vehicular travel speeds



A- Sidley Road and Moores Road

Options Considered

		Recommended Improvement
	<p>Sidewalk (5' wide on one or both sides)</p>	<p>Utilize existing shoulders and enhance signage and pavement markings</p>
Pros:	<p>Separates pedestrians from vehicular traffic</p>	<p>Increases awareness that road is a shared-use facility; lower cost improvement</p>
Cons:	<p>Significant impacts to residential properties; higher cost improvement</p>	<p>Does not separate bicyclists and pedestrians from vehicular traffic</p>
	<p>Asphalt Trail (6' or 8' wide on one side)</p>	
	<p>Separates pedestrians (and bicyclists) from vehicular traffic</p>	
	<p>Significant impacts to residential properties; higher capital improvement cost</p>	

B.1- Sidley Road between Moores & Lapp

Existing Conditions

- Existing mulch trail on west side of Sidley Road (Saint-Gobain)
 - Washed out/overgrown
 - Vegetated buffer between roadway and trail
- Existing asphalt trail on east side of Sidley Road (HOA)
- No shoulders on Sidley Road and steep, vegetated banks on both sides of the roadway
- Topography along Sidley Road limits sight distance to provide pedestrian crossings



B.1- Sidley Road between Moores & Lapp

Options Considered

Recommended Improvement

	Asphalt trail (8' wide) on <u>east</u> side utilizing existing asphalt trail alignment	Asphalt trail (8' wide) on <u>west</u> side following mulch trail alignment	Improved and widened (7' wide) shoulder on west side along Mill Ln
Pros:	Separates pedestrians and bicyclists from vehicular traffic	Separates pedestrians and bicyclists from vehicular traffic; reduces maintenance cost for existing mulch trail	Lower capital and ongoing maintenance costs; reduces impacts to adjacent properties
Cons:	Existing trail needs to be extended; significant impacts to residential properties; higher capital cost improvement; no clear crossing locations on Sidley Rd	Higher capital improvement cost; Requires easement on private property	Does not separate bicyclists and pedestrians from vehicular traffic; may require regrading and removal of vegetation to provide a wider shoulder

B.1- Sidley Road between Moores & Lapp

Additional Considerations

- Evaluate the need and feasibility of regrading Sidley Road in conjunction with shoulder widening



B.2- Mill Lane between Lapp & US 202

Existing Conditions

- Existing mulch trail on west side of Mill Lane (Saint Gobain)
 - Washed out/overgrown
 - Vegetated buffer between roadway and trail
- No shoulders on Mill Lane
- Steep, vegetated bank on east side of the roadway
- Utility poles on west side of roadway



B.2- Mill Lane between Lapp & US 202

Options Considered

Recommended Improvement

	Option 1	Option 2	Recommended Improvement
Pros:	<p>Asphalt trail (8' wide) on west side with 5' buffer adjacent to Mill Ln</p> <p>Separates bicyclists and pedestrians from vehicular traffic</p>	<p>Asphalt trail (8' wide) following alignment of existing mulch trail</p> <p>Provides reliable and safe surface for trail users; separates bicyclists and pedestrians from vehicular traffic</p>	<p>Improved and widened (7' wide) shoulder on west side along Mill Ln</p> <p>Lower capital improvement and maintenance costs;</p>
Cons:	<p>Impacts roadway drainage infrastructure; high capital improvement costs</p>	<p>High capital improvement costs; Potential tree and vegetation removal</p>	<p>Does not separate bicyclists and pedestrians from vehicular traffic; Potential impacts to utilities</p>

B.2- Mill Lane between Lapp & US 202

Additional Considerations

- At Lapp Road, evaluate potential locations for a crosswalk and other safety improvements



B.3- Mill Lane over US 202

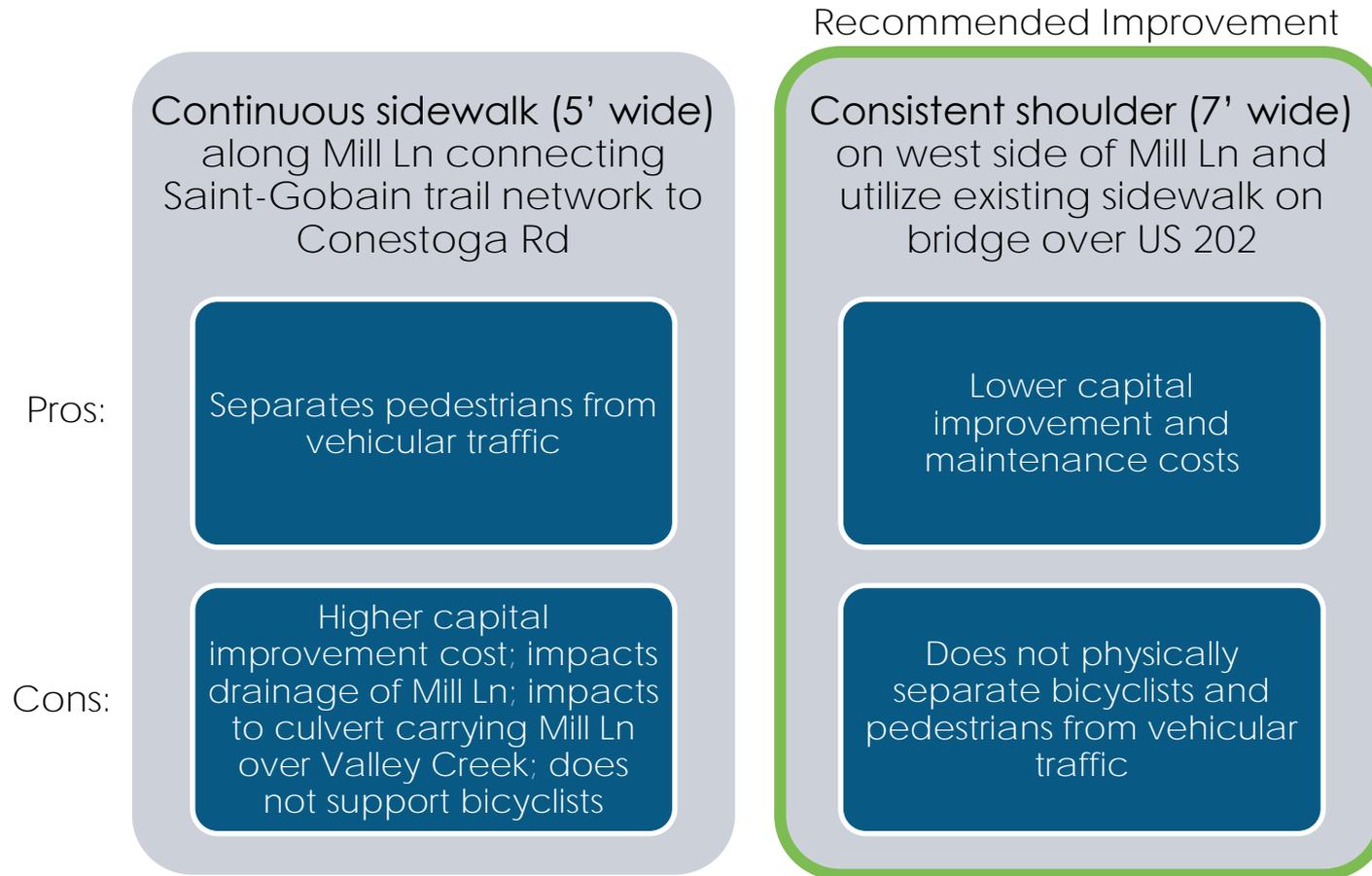
Existing Conditions

- Approximately 7' wide shoulders approaching bridge over US 202
- Existing guiderail on both sides of roadway
- Existing sidewalk on west side of bridge over US 202
- Shoulders narrow over culvert carrying Mill Ln over Valley Creek



B.3- Mill Lane over US 202

Options Considered



B.3- Mill Lane over US 202

Additional Considerations

- Evaluate options for restriping the roadway, relocating guiderail, and providing a wider shoulder on the west side.
- Evaluate the need for future improvements to the culvert over Valley Creek to maximize the shoulder width on the west side of Mill Lane.



B.4- Mill Lane between Conestoga and CVT

Existing Conditions

- East Whiteland Fire Department and East Whiteland Township owned properties on west side of Mill Lane to Chester Valley Trail
- Steep grades adjacent to roadway
- Existing drainage swales and landscaping
- No shoulder
- Existing utility poles
- Direct connection to Chester Valley Trail



B.4- Mill Lane between Conestoga and CVT

Options Considered – (west side of Mill Ln)

		Recommended Improvement	
	<p>Sidewalk (5' wide with 3' buffer) along Mill Ln</p>	<p>Asphalt trail (8' wide with 5' buffer) along Mill Ln</p>	<p>Striped shoulder (7' wide) along Mill Ln</p>
Pros:	<p>Separates pedestrians from vehicular traffic</p>	<p>Separates vulnerable users from vehicular traffic</p>	<p>Lower maintenance costs</p>
Cons:	<p>Utility relocations, regrading, and clearing needed; higher capital improvement costs; does not support bicyclists</p>	<p>Utility relocations, regrading, and clearing needed; higher capital improvement costs</p>	<p>Utility relocations, regrading, and clearing needed; does not separate bicyclists and pedestrians from vehicular traffic</p>

B.4- Mill Lane between Conestoga and CVT

Additional Considerations

- At the Conestoga Road intersection, install pedestrian countdown signals and high visibility crosswalks



Ecology Park

Existing Conditions

- Existing gravel trail network throughout park
- No direction connection to Mill Ln or Conestoga Rd



Connection to Ecology Park - *Optional*

Options Considered

Recommended Improvement

	Option 1	Option 2	Recommended Improvement
Pros:	<p>New asphalt trail 8' wide with 5' wide (minimum) buffer along Conestoga Rd to Township Campus</p> <p>More direct route to Township campus</p>	<p>New crushed stone trail between existing trail network in the park and Mill Ln and Conestoga Rd intersection</p> <p>Increase access to the park; Lower capital improvement cost</p>	<p>Upgrade sections of existing trail network in the park to asphalt and provide new asphalt trail connections (8' wide) to Mill Ln and Conestoga Rd</p> <p>Utilize existing trail alignments and increase access to the park; Separate trail users from vehicular traffic along Conestoga Road; Lower</p>
Cons:	<p>Potential utility impacts and/or relocations; Crossing driveway for pumping station; Higher capital improvement cost</p>	<p>Higher maintenance cost; More circuitous route to Township campus</p>	<p>More circuitous route to Township campus</p>

Connection to Township Campus - *Optional*

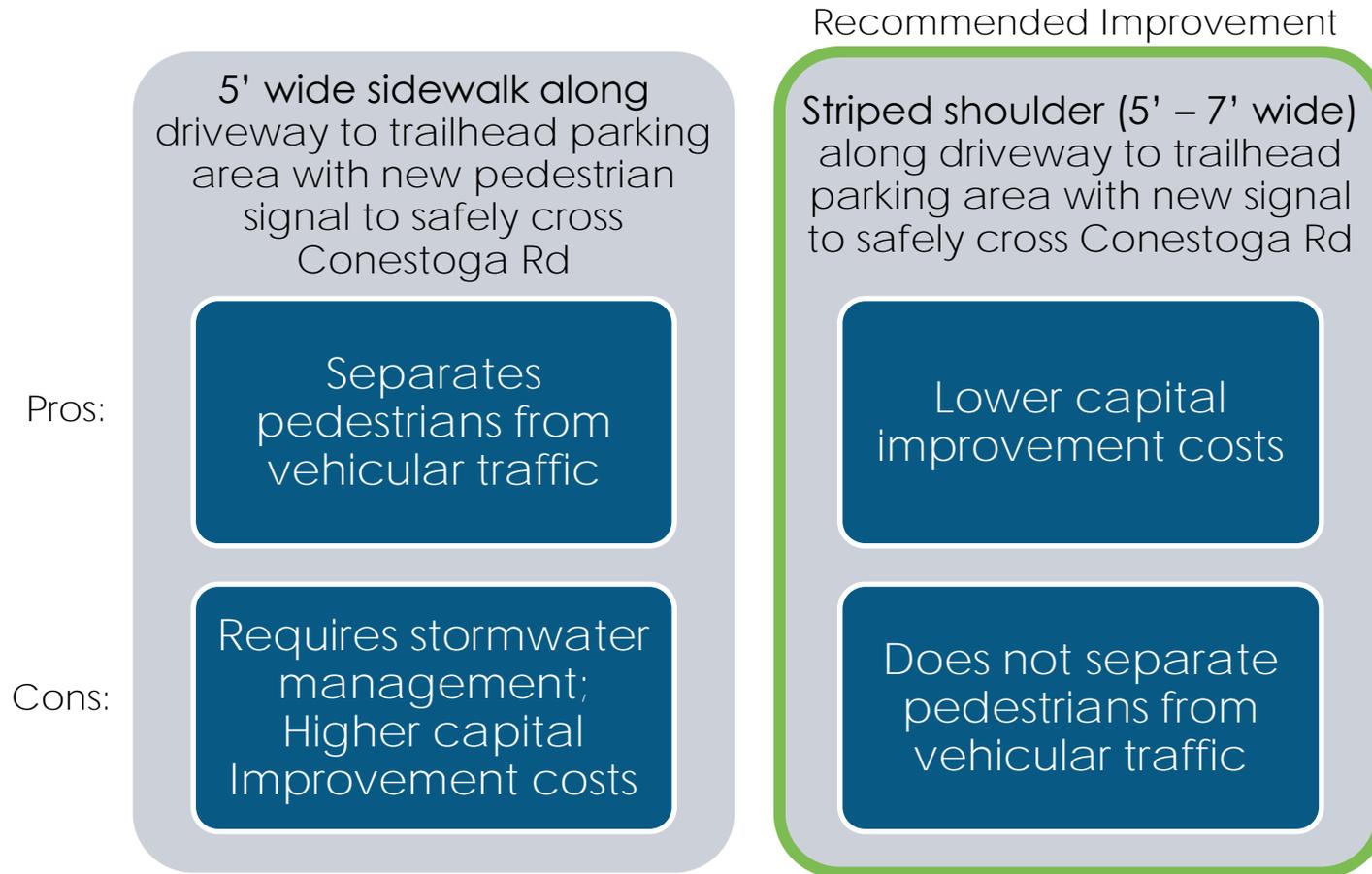
Existing Conditions

- Existing signal for Township Campus driveway on Conestoga Rd
- Parking lot currently used as a public trailhead for the Chester Valley Trail
- Prohibited pedestrian crossing of Conestoga Rd
- Relatively low vehicular travel volume and speeds along driveway



Connection to Township Campus - *Optional*

Options Considered



Key Crossings – Recommended Improvements

- High visibility striped crosswalks
- Signage
- Mill Lane and Lapp Road: Evaluate potential locations for a crosswalk (to maximize sight distance and safety) and possibly consider traffic calming measures along Mill Lane
- Mill Lane and Conestoga Road (Route 401): Pedestrian countdown signals at signalized intersections



Bryn Erin to Chester Valley Trail

Kelmar Connection

- Widen and pave an existing worn path between the playground at Kelmar Avenue and the Chester Valley Trail. The new trail would provide a continuous 8' asphalt trail connecting the Bryn Erin neighborhood to the Chester Valley Trail.



99 Church Road Connection

- A crushed stone path will be installed by others as part of the 99 Church Road land development plan. The path will connect to an internal sidewalk network within the development, including a pedestrian crossing of Church Road.

Bryn Erin to Chester Valley Trail

Existing Conditions

- Existing worn path along PennDOT US 202 Right of Way (township owned property)
- Existing worn path through Haym Salomon property
- Township owned playground at Kelmar Ave cul-de-sac
- Retention basin



Bryn Erin to Chester Valley Trail

Options Considered

		Recommended Improvement
	8' wide asphalt trail on either of the two worn path alignments	8' wide asphalt trail routing around retention basin and following the alignment of the worn path along US 202
Pros:	Existing routing known and used by residents of Bryn Erin	Easier to construct; Limits potential impacts to retention basin; Provides connection to the existing playground
Cons:	Difficult to construct due to logistical concerns	None

Next Steps

- Refine preferred alignment and proposed improvements
- Develop cost estimate for preferred alignment and proposed improvements
- Identify potential phasing and next steps
- Presentation to Board of Supervisors