

Appendices

Appendix A	Public Input Summary
Appendix B	Swedesford Road Emergency Access Evaluation
Appendix C	Engineer's Conceptual Opinion of Cost
Appendix D	Valley Creek Bridge Evaluation
Appendix E	Little Valley Creek Bridge Evaluation
Appendix F	Warner Spur Trail FAQ

Public Comment Disclaimer

This Appendix includes and documents written comments received during the planning process for the Warner Spur Multi-Use Trail Master Plan. Inclusion of these comments in the Appendix does not constitute an endorsement on behalf of the Plan Advisory Committee.

An effort has been made to protect the personal information of individuals that submitted written public comment on the Warner Spur Multi-Use Trail Master Plan. As such, names and contact information have been removed from the following correspondence.

Sweatfork Rd. Bridge
 → impact to property value

Yellow Springs Rd washout

* Security
 * Privacy + Crime

↓
 for lower density
 → Vegetation may be a solution

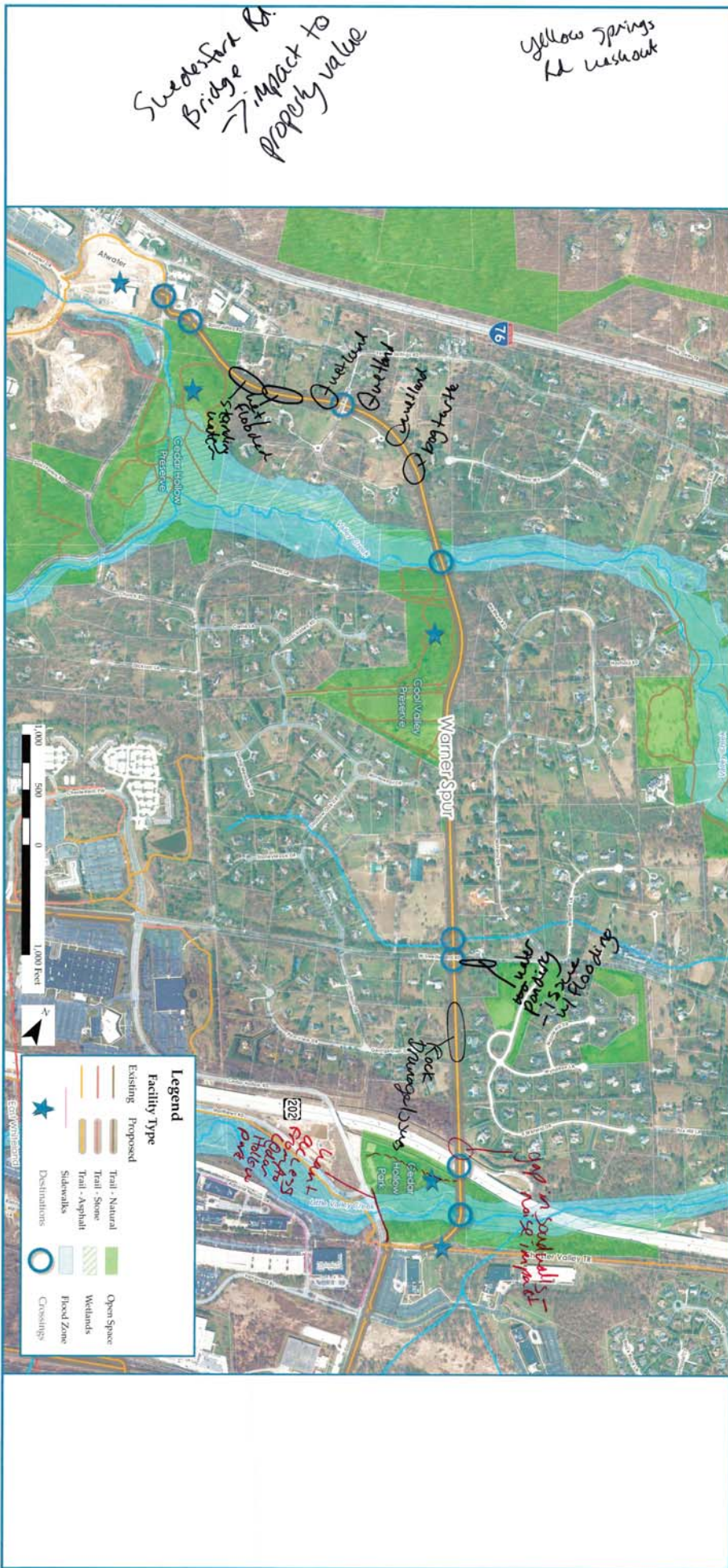
Maintenance during the winter

Trail surface
 * - concern of stormwater runoff parcels → want

Indian Run trail, loitering → question about ownership

Liability
 - Signage to keep users on trail
 - private road
 - not a trailhead

* Concern about wildlife environment + crossings
 → valued
 Deer,



with-use v. over path

Environmental impact -
 how do local folks
 perceive v. screens/walls?

concern -
 how do local folks
 perceive v. screens/walls?

bridge v. flat grade
 Sweated is very busy -
 safety of care v. bike etc

walking is ok
 - No parking
 - No parking

Cost of trail

2025 solution was
 postponed for
 this trail

people that
 live along trail
 will have to
 pay for trail
 presence on
 parcel / pay
 for trails
 on parcel

Existing Features (1 of 3)

CONSIDER
 "NO FORMAL
 FUNDING"
 OPTION
 RAILS TO TRAILS:
 LOWER SEYMOUR
 COUNTY PID THIS

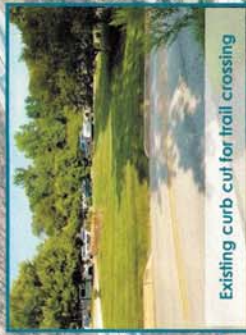
22 SALOM WAY
 WANTS SOME
 TRACK PART
 FROM ROAD
 GRANGES+++
 NO BARBER



Residences and backyards visible from rail bed



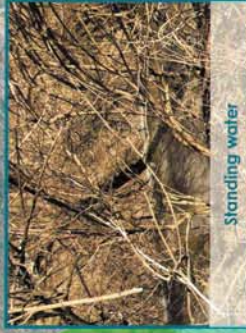
Drainage inlets on either side of road



Existing curb cut for trail crossing



ROW reserved by land development



Standing water



Drainage wash-out

Railroad bed elevated at private road crossing

Turtle found

22 SUEMMA WAY
 NO FENCE WAY

Legend

Facility Type

- Existing: Proposed
- Trail - Natural
- Trail - Stone
- Trail - Asphalt
- Sidewalks
- Open Space
- Wetlands
- Flood Zone

Warner Spur Grade

- All-Grade
- In-Cut
- On-Fill



- EMERGENCY ACCESS?

Existing Features (2 of 3)



* PARKING CONCERNS

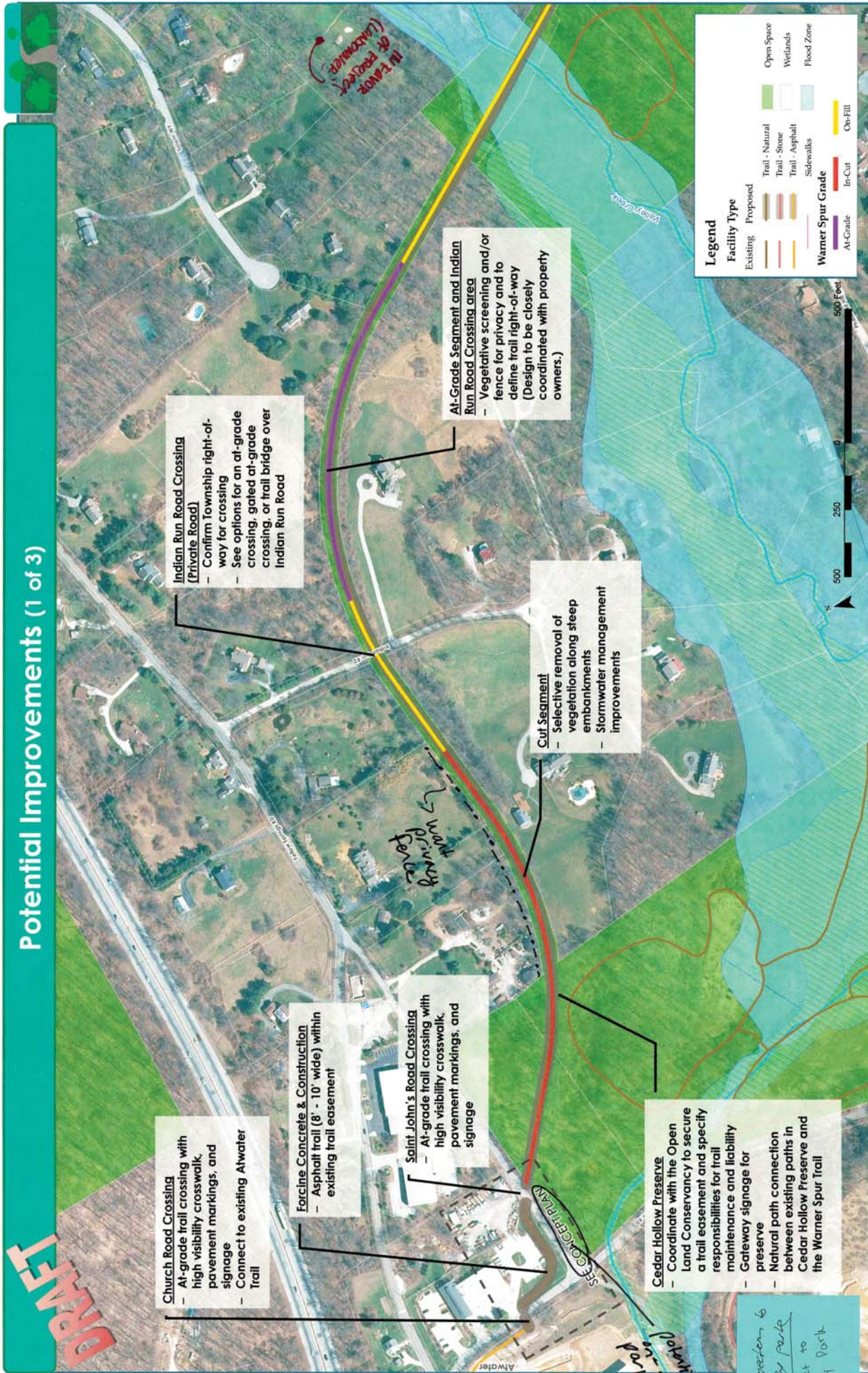
EXTEND SOUND WALL
↳ EXHIB D.

Existing Features (3 of 3)



Potential Improvements (1 of 3)

DRAFT



Church Road Crossing
 - At-grade trail crossing with high visibility crosswalk, pavement markings, and signage
 - Connect to existing Atwater Trail

Forcine Concrete & Construction
 - Asphalt trail (8' - 10' wide) within existing trail easement

Saint John's Road Crossing
 - At-grade trail crossing with high visibility crosswalk, pavement markings, and signage

Indian Run Road Crossing (Private Road)
 - Confirm Township right-of-way for crossing
 - See options for an at-grade crossing, gated at-grade crossing, or trail bridge over Indian Run Road

At-Grade Segment and Indian Run Road Crossing area
 - Vegetative screening and/or fence for privacy and to define trail right-of-way (Design to be closely coordinated with property owners.)

Cut Segment
 - Selective removal of vegetation along steep embankments
 - Stormwater management improvements

Cedar Hollow Preserve
 - Coordinate with the Open Land Conservancy to secure a trail easement and specify responsibilities for trail maintenance and liability
 - Gateway signage for preserve
 - Natural path connection between existing paths in Cedar Hollow Preserve and the Warner Spur Trail

*Connect to Valley Park
 Connect to Valley Park*

Connect to Atwater Trail

Water Runway

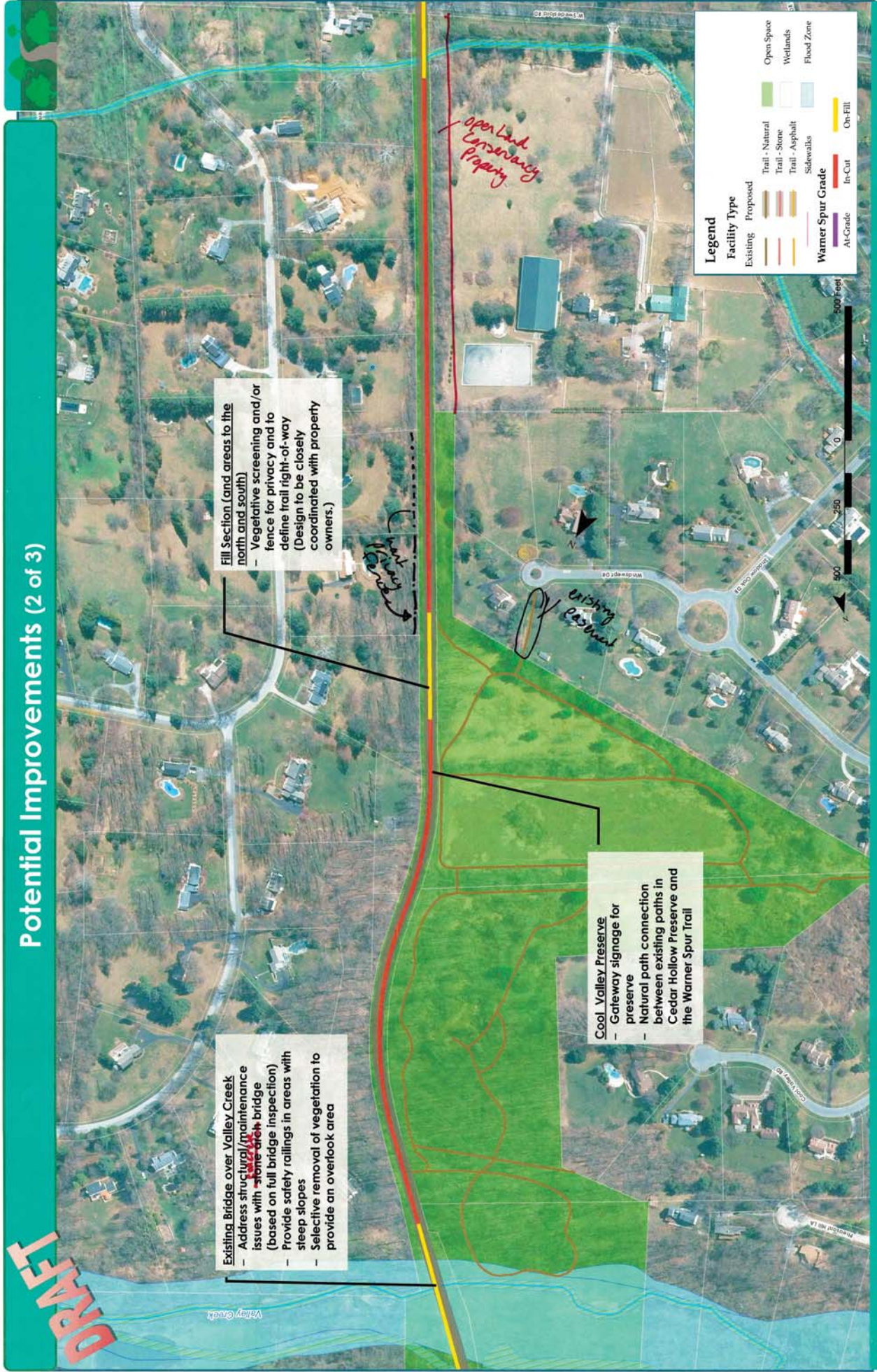
In Favor of Private

Legend

Facility Type	
Existing	Trail - Natural
Existing	Trail - Stone
Existing	Trail - Asphalt
Existing	Sidewalks
Proposed	Trail - Natural
Proposed	Trail - Stone
Proposed	Trail - Asphalt
Proposed	Sidewalks
Warner Spur Grade	
	At-Grade
	In-Cut
	On-Fill
	Open Space
	Wetlands
	Flood Zone

DRYVET

Potential Improvements (2 of 3)



Existing Bridge over Valley Creek

- Address structural/maintenance issues with stone arch bridge (based on full bridge inspection)
- Provide safety railings in areas with steep slopes
- Selective removal of vegetation to provide an overlook area

Fill Section (and areas to the north and south)

- Vegetative screening and/or fence for privacy and to define trail right-of-way (Design to be closely coordinated with property owners.)

Cool Valley Preserve

- Gateway signage for preserve
- Natural path connection between existing paths in Cedar Hollow Preserve and the Warner Spur Trail

open land Conservancy Property

existing Preserve

Potential Improvements (3 of 3)

DRY FEM



Connection to Chester Valley Trail

- Maintain existing alignment
- Provide signage, pavement markings, and grass island to define travel ways
- Provide clearing for sight distance

Existing Bridge over Little Valley Creek

- Address structural/maintenance issues with stone arch bridge (based on full bridge inspection)
- Provide safety railings in areas with steep slopes

Bridge over US 202

- Provide protective railing/barrier on the bridge
- Provide fencing along approaches to the bridge
- Close gap in noise walls on north side

Cut Segment

- Selective removal of vegetation along steep embankments
- Stormwater management improvements

Swedestord Road Crossing

- Provide a new trail bridge over Swedestord Road (15'6" clearance)

Connection to Cedar Hollow Park

- Provide asphalt path (8' wide) between Cedar Hollow Park and the Warner Spur Trail following a general alignment south of the noise walls

Cedar Hollow Park Enhancements

- Expand the parking lot (and potentially relocate the volleyball court)

Connection along Cedar Hollow Road

- Provide a sidewalk (5' wide) on the east side of Cedar Hollow Road between the park driveway and Chester Valley Trail
- Utilize the existing sidewalk on the bridge over Little Valley Creek

Trail Access/Parking

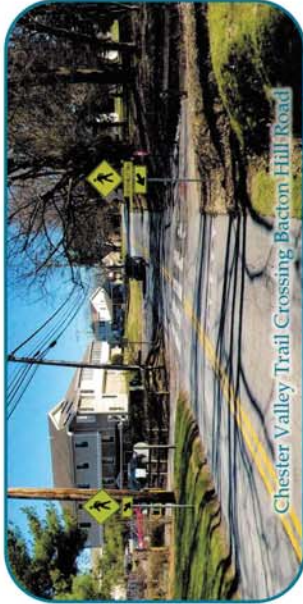
Trail Access to Little Valley

Legend

Facility Type	
Existing	Proposed
Trail - Natural	Open Space
Trail - Stone	Wetlands
Trail - Asphalt	Flood Zone
Sidewalks	
Warner Spur Grade	
At-Grade	In-Cut
	On-Fill

Indian Run Road Crossing Options

At-Grade

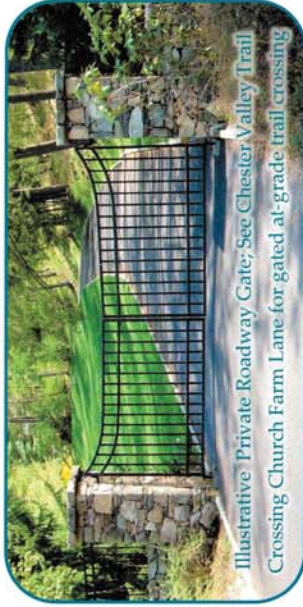


Chester Valley Trail Crossing Bacton Hill Road

Key Features

- Trail users cross at road level, which requires regrading to remove rail bed embankments
- Pavement markings and signage to advise trail users to stop at crossing and stay on the trail, warn drivers of the trail crossing, and prohibit parking for trail access
- Discourages access between the trail and Indian Run Road with signage and/or fencing

Gated At-Grade

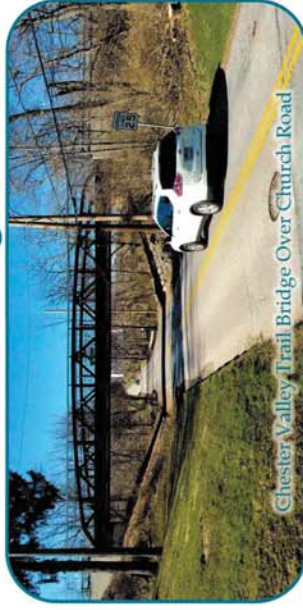


Illustrative Private Roadway Gate; See Chester Valley Trail Crossing Church Farm Lane for gated at-grade trail crossing

Key Features

- Similar to at-grade trail crossing with minimal signage and pavement markings
- Two new actuated gates across Indian Run Road, one on either side of the trail, to provide privacy and security for residents
- Restricts access between the trail and Indian Run Road by keeping trail users on the trail and limiting public access to the trail

Trail Bridge



Chester Valley Trail Bridge Over Church Road

Key Features

- New trail bridge over Indian Run Road (14'6" clearance)
- Requires regrading on adjacent properties and/or retaining walls to provide adequate clearance and acceptable grades on the trail
- Restricts access between the trail and Indian Run Road

Which option do you prefer?

Place a dot in the corresponding box to cast your vote.



Comment Form

Warner Spur Multi-Use Trail Master Plan | Community Workshop | 4/3/19

Please provide written comments, questions, or concerns regarding the Warner Spur Multi-Use Trail Master Plan. Thank you for your interest and input!

Contact Information (optional)

Name: _____

Address: _____

Email: _____

Fully Supportive. Please build it!

Continue on other side if more space is needed →

Additional information can be found at the website below.

www.warnerspurtrail.com

Please return to the sign-in table or send by **April 17, 2019** to:

Natasha Manbeck

McMahon Associates, Inc.

835 Springdale Drive, Suite 200

Exton, PA 19341

nmanbeck@mcmahonassociates.com



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Name: _____

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Email: _____

Please do not pave
all aspects of this
trail.

Residents of private community
(of which I am not) feel
as though they have no say.
Very unfortunate for them.

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The sooner the better! We're excited by the possibilities!

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Email: _____

Many thanks to county, township and consultants for detailed maps and analysis of issues. It seems that there are good solutions to privacy concerns and logistical/construction issues.
A great resource for the community!

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Address: _____

Email: _____

No Trail on Indian Run

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Contact Information (optional)

Name: _____

Address: _____

Email: _____

- consider no federal funding as an alternative (i.e. don't wait for D.C. to pay checks).
- eliminate federal strings in procurement and use ^{more} local (non-federal) contractors¹
- consider private sector clearing (sweat equity) from biking clubs.

Please connect soon to Devant trail and SRT!

Thanks,

Andy Shea

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Contact Information (optional)

Name: _____

Address: _____

Email: _____

Our property rear boundary is on trail +
I'm concerned about privacy and safety/security
of my backyard & pool area.
Request consultation re privacy fencing.

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Contact Information (optional)

Name: _____

Address: _____

Email: _____

Concerns: lowers my property value
water runoff.
Construction noise
Trash cans
COSTS!
I am against this! We have lots of
trails already that are not at
capacity.

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Contact Information (optional)

Name: _____

Address: _____

Email: _____

Raised concerns on:

- ① Vegetation line behind the property
- ② Property value negatively impacted
- ③ Privacy concerns
- ④ Natural life adversely affected
- ⑤ Please update ~~us~~ on your study reports

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△ OVERLOOK WANTS FEATURES FOR SCORES / SAFETY

TRAIL

Potential Improvements (1 of 3)



Connection to Chester Valley Trail

- Maintain existing alignment
- Provide signage, pavement markings, and grass island to define travel ways
- Select removal of vegetation to provide adequate sight distance

Existing Bridge over Little Valley Creek

- Address structural/maintenance issues with stone arch bridge (based on full bridge inspection)
- Provide safety railings in areas with steep slopes

Bridge over US 202

- Provide protective railing/barrier on the bridge
- Provide fencing along approaches to the bridge
- Close gap in noise walls on north side

Cut Segment

- Selective removal of vegetation along steep embankments
- Stormwater management improvements
- Potentially reduce trail width to 8' due to steep embankments and stormwater management

Swedesford Road Crossing

- Provide a new trail bridge over Swedesford Road (15'6" clearance)
- Vegetative screening and/or fence for privacy and to define trail right-of-way (Design to be closely coordinated with property owners.)
- Monitor future need for emergency access at Swedesford Road or an alternative location

Connection to Cedar Hollow Park

- Provide asphalt path (8' wide) between Cedar Hollow Park and the Warner Spur trail following a general alignment south of the noise walls

Parking at Cedar Hollow Park

- Expand the parking lot (and potentially relocate the volleyball court)

Legend

Facility Type

Existing	Proposed	Open Space	Wetlands	Flood Zone
Trail - Natural	Trail - Stone	Trail - Asphalt	Sidewalks	Warner Spur Grade
At-Grade	In-Cut	On-Fill	Width Limited	

Handwritten note: Park for 20-30 (off-park) for parking

Connection along Cedar Hollow Road

- Provide a sidewalk (5' wide) on the east side of Cedar Hollow Road between the park driveway and Chester Valley Trail
- Utilize the existing sidewalk on the bridge over Little Valley Creek

OPERA TRAIL

Potential Improvements (2 of 3)

OWNER:
DOES NOT WANT A CONNECTION FROM WINDSWEEP TO WARNER TRAIL.

*** TRAINI OWNERS**
(ADULT FENCING + VEGETATION)
NO BENCHES

Existing Bridge over Valley Creek

- Address structural/maintenance issues with stone arch bridge (based on full bridge inspection)
- Provide safety railings in areas with steep slopes

Cut segment

- Potentially reduce trail width to 8' due to steep embankments and stormwater management

Fill Section (and areas to the north and south)

- Vegetative screening and/or fence for privacy and to define trail right-of-way (Design to be closely coordinated with property owners.)

House owners can provide screening

COOL VALLEY PRESERVE

- Access point amenities (bench, bicycle rack, kiosk, gateway sign, fencing) at entrance to Cool Valley Preserve
- Natural path connection between existing paths in Cedar Hollow Preserve and the Warner Spur Trail
- Monitor future need and coordinate with the Open Land Conservancy regarding a potential gravel or paved trail connection between Windswept Drive and Warner Spur Trail

May need restrict parking on windswept

Legend

Facility Type

Existing

- Trail - Natural
- Trail - Stone
- Trail - Asphalt
- Sidewalks
- Open Space
- Wetlands
- Flood Zone

Proposed

- Trail - Natural
- Trail - Stone
- Trail - Asphalt
- Sidewalks
- Open Space
- Wetlands
- Flood Zone

Warner Spur Grade

- At-Grade
- In-Cut
- On-Fill
- Width Limited

PRIORITIES FOR IMPLEMENTATION

Number the trail segments listed below in priority order for implementation.

1 = Highest

6 = Lowest

Segment		Priority (1—Highest)
A	Chester Valley Trail to US 202	1
B	US 202 to Swedesford Road	2
C	Swedesford Road to Valley Creek Crossing	3
D	Valley Creek to Cedar Hollow Preserve	5
E	Cedar Hollow Preserve to Church Road	6
P1, P2	Cedar Hollow Park Trailhead Enhancements	4

Provide additional notes or comments on the back.

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Segment		Priority (1—Highest)
A	Chester Valley Trail to US 202	2
B	US 202 to Swedesford Road	2
C	Swedesford Road to Valley Creek Crossing	2
D	Valley Creek to Cedar Hollow Preserve	1
E	Cedar Hollow Preserve to Church Road	1
P1, P2	Cedar Hollow Park Trailhead Enhancements	1

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On the way to Phoenixville!

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Better sandwalls/less gaps on 201.

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P1, P2	Cedar Hollow Park Trailhead Enhancements

This Trail
 Support
 Do Not

Provide additional notes or comments on the back.

- ~~X~~ Added value of the trail to the community is not clear

- There are multiple other trails available

- There are other priorities in the community that can use this money.

PRIORITIES FOR IMPLEMENTATION

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E	Cedar Hollow Preserve to Church Road	
P1, P2	Cedar Hollow Park Trailhead Enhancements	

Live on Swedesford Road
Provide additional notes or comments on the back.
Do NOT like the 10' all-purpose trail. →

is agreed at meeting in
there should be studies conducted -
already done on

- impact do local
wildlife affected
- impact of runoff

Not like the
edge or ~~the~~ raising
embankment higher
accommodate the
flow. It will look
straw and ruin all
fuel chain.
not funnels for wildlife
to get through.

PRIORITIES FOR IMPLEMENTATION

Number the trail segments listed below in priority order for implementation.

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C	Swedesford Road to Valley Creek Crossing	3
D	Valley Creek to Cedar Hollow Preserve	4
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P1, P2	Cedar Hollow Park Trailhead Enhancements	6

Provide additional notes or comments on the back.

We live on "old" Wisteria
and would love to see this
happen.



GREAT VALLEY ASSOCIATION



Preserving the Quality of Life in the Great Valley for over 80 Years

**P.O. Box 328
Paoli, PA 19301**

February 21, 2010

Tredyffrin Township Board of Supervisors
1100 DuPortail Road
Berwyn, PA 19312

Mr. DiBuonaventuro, Mr. Donahue, Mr. Kampf, Ms. Kichline, Mr. Lamina, Mr. Olson, and Ms. Richter,

Enclosed is a summary of resident feedback on the Cedar Hollow Segment of the proposed Patriots Path. A complete list of resident comments also has been provided.

The attached letter, fact sheet, map and questionnaire were developed by members of the Great Valley Association with input from members of a Patriots Path subcommittee. The materials were sent to 340 residents living in close proximity to the proposed Cedar Hollow Segment. These residents were targeted on the basis of the path's impact on their lives - its proximity to their homes, and the likelihood that they would make regular use of this amenity. The area surveyed is bounded by Yellow Springs Road on the north, North Valley Road on the east, Route 202 on the south, and Church Road on the west.

The GVA's letter and questionnaire were mailed on January 23, 2010 to all homes within the target area. To date, 119 responses have been received for a 35% response rate. Of the 46 homes whose properties are adjacent to the Cedar Hollow segment, 24 residents, or 52%, have responded.

Some background:

In anticipation of the January 4 Public Meeting on the Patriots Path, the Great Valley Association notified residents living near the proposed Cedar Hollow Segment of the formation of a subcommittee to meet and discuss the proposed Patriots Path.

A report, The Patriots Path Plan: A Development Guide on How to Design and Build the Patriots Path Trail Network was used as a reference. Also, Assistant Township Manager, Tom Scott, gave an in-depth presentation of the Plan at our first meeting on December 15. There was further discussion at a second meeting, held on January 14, at which residents voiced their concerns and a draft of the questionnaire was reviewed. A third meeting was held on February 18 to discuss survey results.

The subcommittee includes Planning Commission and STAP member Bob O'Leary, GVA members Albert Charpentier, Lou Erdelan, Carol Clarke and Kathleen Keohane and a number of interested residents living in close proximity to the Cedar Hollow Segment.

In addition, on January 16 Supervisors Kichline and Richter walked the proposed path with Lou Erdelan, STAP Chair Sean Moir, Open Land Conservancy Director Tim Lander, and GVA member Carol Clarke in an effort to gain a clearer sense of the path's terrain and proximity to homes, roadways and preserved open space.

Methodology:

Each household received one questionnaire. If more than one person from the same household responded, each questionnaire was weighted as fraction of a vote. Respondents were categorized in the following way:

- Supporters of the Cedar Hollow Segment
- Supporters who would like to see some changes to the Plan
- Opponents

Responses were also grouped in one of two categories:

- Those whose properties adjoin the Cedar Hollow Segment
- Those who live in close proximity to the Cedar Hollow Segment

Results:

- 84 out of 119 (71%) support the development of the Cedar Hollow Segment of the Patriots Path.
- 9.5 out of 119 (8%) support the development of the Cedar Hollow Segment if some changes are made to the Plan.
- 25.5 out of 119 (21%) are opposed to any development along the former Warner Spur Rail Line.
- Of the 24 respondents whose properties are adjacent to the Cedar Hollow Segment:
 - 9 (38%) support it
 - 3.5 (15%) support it with conditions
 - 11.5 (48%) oppose the path's development

Conclusion:

A strong majority of those who responded support the development of the Cedar Hollow Segment of the Patriots Path. The most frequent comment: This trail will be an asset to Tredyffrin.

However, residents expressed a number of concerns. (Please refer to the attached for a complete list.) Generally, they fall into the following categories:

- The privacy and security of residents living along the path must be given special consideration
- The cost of constructing and maintaining the Cedar Hollow Segment may be a burden
- The impact on the natural setting and environment should be minimized
- The proposed path is too wide
- The use of pervious materials is favored over asphalt

Respondent Comments

GVA Survey Regarding Cedar Hollow Segment of the Patriots Path – February 2010

Trail is an Asset and General Support for Trail (All Yes respondents unless noted)

- It is a great idea.*
- This would be a wonderful amenity for the community. *
- Get built ASAP. Great addition to our community! Can't wait to be able to ride to Valley Forge Park without using Yellow Springs Rd.*
- This is a fantastic idea for quality of life in Tredyffrin.*
- I am a big supporter of the trail – both the main trail and the spur.*(CY)
- Hurry!
- Sounds like a good idea.
- I am very excited about the proposal.
- Like the idea.
- As one of many who walk this area, I think the extension is a great idea and will add value to “walking history.” Good luck with the trail!
- We are looking forward to the trail. Twice a week we drive to Valley Forge Park so we can walk and bike without car traffic.
- I used to walk the rail line daily until somebody threw so much debris on the tracks that it made it impassable. It would be a wonderful addition to Great Valley.
- I believe the trails would be a positive for the surrounding area. It would be great to be able ride my bike to various attractions without having to get in my car. I also like the idea of being able to enjoy the scenery from the trail without worrying about deer ticks.
- I have walked most of the rail line and believe it would be a wonderful asset to the Township as a public trail or path.
- I have seen these paths in Massachusetts, Arizona, & Colorado. They have always proven great amenities. They seem to be similar to Open Land Preserves, which is another wonderful way to use open space and preserve it.
- I believe that the Township should actively pursue public and private funding sources and move expeditiously to implement this tremendous resource for its citizens.
- Since the \$1.17 mil will be used elsewhere, I believe the tax expenditure is justified for our community's improvement on recreation and life activities with this permanent and useful addition.
- Overall it's a good idea. It would be nice to have a bridge over Swedesford Road. The railroad bed is raised there and pedestrians and cyclists would not have to deal with high speed, high volume traffic.
- Yes - plus strong support for the Patriots Path and the trail going east and west from King of Prussia, across North Valley and West to Exton and Downingtown. Chester County has lagged badly to Montgomery County, with their wonderful network of trails, starting at Valley Forge. Please note, I am speaking as a 50-year resident of Tredyffrin Township and former supervisor. As we reach building maturity, we need the lovely amenities of many walking, biking trails.
- Use Radnor's trail as an example. Much higher home values and land values – this has not negatively affected their community but only enhanced it in every way!
- We are strongly in favor of the Cedar Hollow Trail.
 - The trail will link our neighborhoods and provide a sense of community in an area where sidewalks are lacking. We will be less dependent on our cars and will be able to walk or ride bikes to do errands that now require driving. We can visit the Uptown Worthington shops or

the many parks on the network of trails. Commuters to the Great Valley Corporate Park will have an option of riding their bike to work, reducing the load on our busy neighborhood roads. We will burn less oil and more calories - something that would benefit all of us.

- We must also remember that the trail will be built on public land and the public has a right to enjoy what they have paid for.
- Public spaces and pedestrian walkways increase our connections to each other and strengthen our communities. I have friends who live along the Radnor trail who enjoy the impromptu meetings with their neighbors on the trail. They appreciate the trails' physical and social value and view it as a great asset.

Address Adjacent Resident Privacy and Security Needs

- Consider privacy for homeowners. *(Y)
- For the homeowners with adjacent property we hope that the project is as minimally intrusive as possible during construction as well as after completion. *(Y)
- We understand the concerns of the property owners directly adjacent to the proposed trail and would like to see their concerns addressed. (Y)
- I would like to see a respect for those whose homes are located along the proposed route. (Y)
- I would hope the residents adjacent will have their concerns addressed. (Y)
- Yes, as long as the people whose properties it abuts have a say on any impact on these properties. (Y)
- I do think you have to give additional "weight" to residents' comments/concerns who live adjacent to the path. (Y)
- I think the plan needs to make sure that it includes appropriate privacy barriers (fencing, plantings, etc.) for those houses that back directly up to the path. (Y)
- Perhaps we can put up trees to screen the properties of the neighbors whose properties are adjacent to the trails. (Y)
- We also need to be mindful of those living long the trail. We should consider earthen berms, fencing, and landscaping as a buffer to the trail. (Y)
- The developers and designers must work with the adjoining neighbors to meet their needs to maintain privacy. Appropriate plantings will meet most but not all needs. I am sure that some attractive form of fencing may be agreed upon. Most of the path is either below grade or in the Open Land Conservancy so only a handful of residential neighbors will have privacy concerns. (Y)
- The sides where the spur is exposed to homeowner's property should be densely planted with evergreen bushes and trees. Homeowner's property should also be protected during construction. *(CY)
- Privacy of property owners abutting the path should be protected with trees or fencing. My concern is the privacy of the property owners along the path. The path will run along half of my property line. We purchased this property because the lot afforded beautiful nature views and seclusion. I have a young daughter who will now be visible from the Patriot's Path where before I felt she was safe when there was not a thoroughfare in our back yard. The other concern is dogs and the barking and the mess. Our dog will undoubtedly be barking at everyone that walks the path which will be a nuisance for all. Also, how will this loss affect our property value? The question is what will the townships do to protect the privacy and property values of the homeowners? I know that that in Radnor trees or fencing were offered the citizens. Will we be offered the same consideration? *(CY)
- Access around our property – privacy concern
 - Trail crosses over our private property – Township must address - no easement will be provided by homeowner. (Wisteria Drive) *(CY)

- I like the idea, but not if the neighbors are against it. (CY)
- We moved to Wisteria Dr. for privacy and seclusion. The last thing we want is a bike & hiking trail thru our backyard. Security would be a major problem. Land and home values would drop severely *(N)
- Extremely concerned about the loss of privacy and increased security risks. *(N)
- Concerns about the loss of privacy and security in backyard. Will lose view of woods. *(N)
- We settled, along with our neighbors, in a community that greatly values its privacy. The proposed trail will compromise this considerably. *(N)
- The path will expose many houses' backyards to public trail. I am very concerned for the safety of my kids when they play in the backyard. Also, it provides another entrance to our community without driving a car in front of houses in the neighborhood, so the path will generate many risks for the whole community. *(N)
- Privacy cannot be maintained – access to this leg is not necessary. My backyard will become a noisy, risky, thoroughfare! Keep our children safe! *(N)
- A major concern is for the safety of our grandchildren and the neighbor's children playing in our back yard. The joy of living in a safe environment was a major reason for moving here. With strangers freely walking, running, etc. on the trail will mean all children will have to be guarded by an adult while being outside. The houses are not close together to hear one calling for help. *(N)
- I do not want a trail running along my yard – I love it here because it's beautiful, natural, quiet and private. I don't want that to change. I am certain it will reduce the value of my house. It will no longer be a private-feeling rural residence. The surrounding area will appear more commercial and less rural with signage, fencing, bridge(s), and macadam paths. I worry about possible intruders or trouble makers in our woods, open land, neighborhoods and yards at night. People from outside our neighboring communities will have direct access to our rural areas (wooded areas are mighty attractive to troublemakers) and our backyards and houses, because of the network of connecting pathways. I did not buy my property to be adjacent to a public park! My daughter and her friends who play in the yard will have to be continually supervised. *(N)
- It appears to border many properties (not my own). I can't imagine this would not be an intrusion on those homeowners affected. (N)
- The bike path will cause homeowners bordering the path to build fences to protect their privacy. This will damage the appearance of the neighborhood, in which there are presently no high solid fences. This has happened along existing bike paths that run closely in backs of residential back yards. (N)

Development and Maintenance Costs

- I am surprised that this is being pursued given the economic issues within T/E. (Y)
- The plan also should try to keep initial and ongoing costs to a minimum. For example, I see no need to have bike racks. People using the trail will be riding their bikes. While trash receptacles are nice and necessary to have, we shouldn't have so many that the costs of collecting the trash are high. (Y)
- Promises of security imply additional police force. How will that be funded? (CY)
- We have enough trails in this area and none of them is crowded. It is not a good idea to spend a million dollars to build a new one. Due to the population in this area, I believe the traffic on the path will be very light. It is not worth it to spend \$13,000 to maintain it every year. Also, in order to protect the neighborhood, police visits on this path will further increase the cost. *(N)

- Why incorporate into Comprehensive Plan now when Township is simply unable to afford basic services. *(N)
- Tredyffrin cannot afford to pave even a portion of the Warner Spur or the cost of maintaining it. *(N)
- Cost estimates do not include storm water management and buffer to current residents. *(N)
- If the CHS is built and the Township fails or is unable to budget for its maintenance, what recourse do the residents whose properties abut the path have when the path begins to deteriorate? It's estimated that it will cost over 1 million dollars, and such estimates are almost always low. The township can probably find better ways of spending 1 million dollars, especially in light of the over 9 million dollar shortfall in the school budget. *(N)
- How will T/E afford to properly manage the entire Cedar Hollow Segment (Warner Spur Line)? It will be an active bicycle/running thoroughfare with bridges, trash cans (somewhere), litter, stray dogs, and inevitable people problems such as trespassers and security issues. This will also mean maintenance to drains, floods, fallen trees (where they're left), fencing, and the trail. We will need additional maintenance hours and police enforcement, too. *(N)
- I don't want my taxes to be increased. (N)
- At a time where the township is considering a raise in property taxes (never, of course, to be lowered, no matter how much surplus the township may incur) there is **NO** need to spend on maintenance on a trail!!!! (N)
- Too much money at a time when the economy is down. My wife and I are both over 80 years old and we get our exercise at Planet Fitness – not riding bicycles! Also, to ask our Tredyffrin Police to patrol the bike path takes them away from other more important police duties. This is an age issue – 35 and under and their children would be the users of the path. Re-consider five (5) years from now when money should be more plentiful. (N)
- Cost – Initial, including design, engineering, water management, maintenance, including trash, fencing, pet waste, policing, etc., etc. (N)
- Will be too expensive to build and maintain. It is too big a project and not necessary in our community. (N)
- I am sure that it will cost more than estimated to build and maintain a paved path along the spur due to significant erosion, especially on the portion going over Valley Creek – money the Township does not have to spend! (N)
- We have plenty of parks and trails in the area. Funds should be used for more deserving and necessary projects such as road repair and improving traffic on Swedesford and Yellow Springs Roads. (N)

Maintain the Natural Setting – Concerns about wildlife and the natural environment

- We would like to see minimal changes in the natural trees and bushes at the end of our properties. *(Y)
- Every attempt should be made to minimize the destruction of trees, plantings and wildlife along the trail – both during construction and maintenance. (Y)
- When construction is started, minimum damage should be done to present trees, bushes, and wild flowers. Homeowners should be consulted as to the saving of trees, wild flowers and wild animal habitat. *(CY)
- Maintain a natural look, no bikes, no pet stations, no bike racks. (CY)
- Some animals, like deer and fox, use this path to the Valley Creek to drink water. Disturbing this path will push them to use people's backyards more often. *(N)
- Concern that it will force deer into foraging in backyard. *(N)

- Nature is a plus here. Enjoying the fox, deer, birds, etc. will be lost when their homes are destroyed to make a 12' macadam trail. Fill will have to be brought in for each side of the trail to make a supporting slope. This fill will destroy the natural landscape. *(N)
- Paving Warner Spur would have catastrophic impact on resident wildlife. *(N)
- The building of this 12' path will mean destruction of thousands of trees and shrubs along the rail bed (up to 40' or more). This means the ecosystem will be greatly affected. I would like to request that a study be conducted along the Cedar Hollow Segment to evaluate the potential impact of a trail and all that's connected to the trail, on the local ecosystem and local wildlife. *(N)
- It would be good to know the number of private fences erected along the Radnor Trail since its construction. If the CHS were built, it is likely that a number of residents whose properties abut the Segment would construct fences. (We would certainly build such a fence, more than 400' in length.) What would be the effect of such a fence on the movement of the local wildlife? *(N)
- Construction of the CHS would involve paving over many acres of land. (This is one of my favorite arguments against the CHS, which I believe was made by Lou Erdelan at the January Supervisor's meeting.) *(N)
- A 12' wide paved path will have a detrimental effect on the naturally woodsy bucolic environment that exists along the spur now, created by the conservancy and the neighborhood. (N)

Path Width Reduction

- Can see no reason for a 12 foot wide path!! Wide enough for golf cart patrol is all that is needed at the most! Feel the paved width is wider than necessary. I've seen miles of old track being used in N.Y. State where paved area is 8' or even six – heavily used – plenty of room to pass – patrolled by golf cart size vehicles. (Y)
- A 12' path seems excessive. V.F. Park's path is 7-8' at most and accommodates high-volume foot and bike traffic. I would like to see as small a footprint as possible and a respect for those whose homes are located along the proposed route. (Y)
- The path cannot be 12 feet wide in many sections due to erosion of the rail bed. I strongly recommend a narrower path along the entire path – perhaps 6 feet? (Y)
- Yes, if the path is strictly a walking trail, approximately four to six feet wide, crushed stone and or grass. *(CY)
- 12 foot wide paved path is too large & too difficult to maintain. *(CY)
- A 12' wide paved path seems excessive for foot traffic. 6' should suffice. *(CY)
- I question the need for a 12 foot wide path. That seems excessive. Wouldn't a 8, 9 or 10 foot wide path suffice, so it looks more like a "trail" than a "street", possibly with "cut offs" to allow for benches, bike racks, trash bins, etc. (CY)
- 12' is excessive and unnecessary. 8' would be more acceptable and less intrusive on the adjoining property owners. (CY)
- Make the trail narrow for 2 pedestrians, no bikes (CY)

Alternate Path Surfaces (Unpaved)

- Consider unpaved trail instead of paved. *(Y)
- Consider the use of compacted modified stone as the trail surface. Much of the Perkiomen Trail in Montgomery Township is surfaces this way. This would encourage drainage and favor walking over bike racing. (Y)

- Make it a permeable, unpaved, natural trail, a lighter impact than the main trail. I will use the trail nearly daily from April through October, both the Cedar Hollow Segment and the main trail, to commute to work, via bicycle, to my job in West Conshohocken. (I used the Radnor trail similarly, commuting 6 months of the year from 2005-2008 before I moved here in 2009.) *(CY)
- In no case do I want to see an asphalt paved trail. This is not an urban area where an asphalt paved trail would fit into the character of the environment. This is a rural section of the Township and everything should be done to assure it stays that way. Use crushed stone or grass. There are various colored stone which would fit into the environment of the spur. *(CY)
- Make the trail unpaved. This path does not have to be like the CV Trail – let it be like a nature preserve path. (CY)
- As an avid runner I am very hopeful that the path gets done. I have one suggestion that I hope you would consider. I much prefer to run on dirt rather than a paved path. Packed dirt is easy on the knees and also easy to ride bikes. The upkeep is minimal and this would lower the budget immensely. Clear the path first. I volunteer to help. Worry about all of the expensive stuff later (fences, benches, paving). (CY)

Fencing – Pro and Con

- An aesthetic fence to separate the path is also important. *(Y)
- Fencing will be important. There should be flexibility within a predetermined set of options that might include: a) post/rail for, say, highly vegetated areas bordering the Conservancy; b) some kind of metal mesh fence to isolate sensitive private properties, and c) a high wood fence where there are legitimate privacy concerns. (Y)
- Fencing to keep walkers and dogs on the trail. *(CY)
- Use fencing to limit access to the OLC Preserves (CY)
- Fences would destroy our view. *(N)

Concerns about Indian Run Road – a Private Road

- I want to make sure the private property of Indian Run is maintained with input from the owners of those properties. (Y)
- This path would cross a private road, Indian Run. We have concerns over giving up any of our privacy; having trespassers leave the path; liability for any injuries that may occur should a user leave the trail to access Indian Run; users leaving vehicles of any kind on Indian Run in an attempt to access the path, even at a point without a trail head. *(N)
- Have not addressed how the Trail will traverse through the private road. *(N)
- What is the legal status of Indian Run Road, i.e. who owns it? If a path is built across Indian Run, who would be responsible for its maintenance? If the company that the residents of Indian Run contract with to plow during the winter damages the path, who is responsible? *(N)

Additional Access Points and Connections

- Connect to Horseshoe Trail and Paoli Station. * (Y)
- We would love to access a trail right here. (Wisteria) (Y)
- It would be helpful if there are occasional access points along the path that would allow easier access, particularly for young children, for those not immediately adjacent to the path but without requiring driving to one of the larger access points. (Y)
- Add an entry point in Wisteria Drive if possible. (Y)
- (Add) Exit/entry point near new “Uptown Worthington” shopping. (Y)

- I would like to see a path added that would provide access from the Chester Valley Trail to Paoli. (Y)
- Definitely would like to see the trail connect to St. Peter's church. (Y)
- Provide parking at various access points. (Y)

Add Signage, Restrooms, and Other Amenities

- Provide signage for historically important places. (Y)
- This year is the tercentennial, 300th anniversary of Great Valley Church. This landmark could be pointed out by signage on the appropriate point of trail, as well as other historical and patriotic places, facts and notoriety, along the way. (Y)
- Provide mileage markers along trail and at access points. (Y)
- Perhaps a map of the entire system somewhere along the trail, a bench here and there. (Y)
- Provide restrooms and benches, picnic tables. (Y)
- I would like to see benches placed strategically along the trail to encourage relaxation and to make the trail manageable to those with limited endurance. (Y)
- Bathroom facility? Water? (Y)
- While features such as toilet facilities are nice to have, their use should be limited to trailhead locations such as Cedar Hollow Park. (Y)

Storm Water Management

- We are concerned about the storm water management connected with the trail's development. * (Y)
- At present, most of the storm water is absorbed by the spur, using the approach of a narrower path (4 – 6') with crushed stone or grass minimum storm water management would be required. *(CY)
- Our property floods from Swedesford Rd. The trail will cause additional water on our property and will flood our stream in the back yard. *(N)
- Water run-off and flooding should be addressed and studied, as many low-lying properties and roads will be flooded due to this paved road bed. A study should be done before anything is put into motion on this project. Our section of Swedesford Road floods like crazy every time there is abundant precipitation. Now we'd be adding an additional 1 ¾ miles of macadam to our run-off! *(N)
- Concerns about storm water problems in yard if path is paved. *(N)
- The segment 200 feet North of the Rte. 202 bridge (nice fence and grading) is very wet and needs special drainage attention. It's a low section. * (N)

Additional Safety Concerns on Trail

- I'm also concerned about police patrols/monitoring – there are a number of areas that are isolated; as a frequent walker, I would like to think I would feel safe while walking the Cedar Hollow section. (Y)
- Maybe a few solar powered cell stations like you see on the turnpike to address fears regarding increased crime? (Y)
- It may be prudent to adopt a curfew and limit foot traffic after dark during winter months. For example, post hours of operation as dawn to dusk. Develop some recommended fines – just to have them in the proposal. These fines may help boost the impression of safety enforcement. Fines for littering; curfew violations; open liquor containers prohibited; no loitering, etc. (Y)
- More needs to be said about safety and litter control. (CY)
- The "bridge" over Valley Creek presents problems of safety and engineering. (CY)

Maintenance

- Townships need to keep up with regular maintenance (overgrowth, repair, trash, etc.) (Y)
- I'm also concerned about proper maintenance for safety reasons. (Y)
- The design should be such that the path can be easily maintained, thus stimulating users to also behave well on the trail. Experience at Summerhill is that a mulched trail requires regular additional treatments. I would advocate some form of permeable pavement, with vegetated sides that either need no mowing to be kept neat or that can be easily mowed and that would also be more favorable for all kinds of bikers, who I believe would be major users of the trail. (Y)

Biking Issues

- The trail should be designed to discourage excessive bicycle speeds. Not sure what exactly that would entail, but sections that narrow down to fit in with existing narrow sections of the railbed over Valley Creek would be quite appropriate. (Y)
- Due to the height and narrowness of the path in some sections, I am not sure whether it is appropriate for bike riding. Bikers would need to observe speed limits or dismount and walk several sections of the trail. (Y)
- The trail should be strictly a walking trail. (No bikes) *(CY)
- A walking trail only – no bikes. (CY)

Protect the Open Land Conservancy's Preserves

- Since cyclists would use the trail, the entrances to the Conservancy properties must be carefully designed to ensure that bikes can not be taken into the preserves. (Y)
- Limit access into OLC's nature preserves by fencing, etc. OLC borders the trail for over ½ mile. As a volunteer organization we have to avoid potential problems in managing our 8 preserves. (no bikes) (CY)

Other Recommendations

- Yes, only if the Township is able to protect itself from lawsuits of users. (Y)
- Based on feedback from Radnor Township, limit the length of dog leashes to prevent accidents and entanglements. (Y)
- My concerns are noxious insects and plants such as poison ivy and deer ticks. I would like to hear that this will be controlled. (Y)

Other Issues

- This is not a highly populated area. People can walk on own properties. (N)
- There are plenty of other places in the Great Valley area for walking/biking. No compelling need for this one. (N)
- Our need for "open" space - our need for "privacy" in an already "ex-rural" area. Nearby parks should be sufficient for walkers/hikers in my opinion. (N)
- Lack of historical significance for the Cedar Hollow Segment. *(N)
- There is no historical value to the proposed Cedar Hollow Segment (CHS), and all of the historical sites connected by the Patriot's Path could still be accessed via the Chester Valley Trail if the CHS were not built. If the Warner spur did not exist, there would certainly be no call to acquire the land to build such a path. *(N)

- Concerns about increased personal liability – has a pool, will have to maintain own side of the fence. *(N)
- If the trail is attractive and draws additional visitors, how and where will parking be provided? Will open land need to be paved? Is overburdened Church Rd going to be an issue once more? (CY)
- I'd also like to request another study to weigh in on those living along the Radnor Trail, and what any issues may be – whether people are pleased with the trail nearby, or not, and why. *(N)
- The proposed segment is unique in the rural setting and is improperly compared to trails in more populated areas. *(N)
- 2004 Survey of Township Residents showed negligible support for extending trail system. 2004 Survey showed most residents do not want bike/pedestrian trails adjacent to their homes. A large part of the Warner Spur is shown on relevant maps as permanently prescribed open space. *(N)
- - One of the arguments in favor of the adopting the plan for the CHS into the township's Comprehensive Plan (CP) was that such an adoption amounted to no more than a "renaming," since the CP already includes plans for a trail network involving the Warner spur. (I believe this was suggested by someone who was involved with the adoption of the current CP.) It would be interesting to see how the trail network envisioned in the current CP compares with Proposed CHS; e.g. does it involve a 12' wide paved surface, etc.
- Another argument in favor of the CHS was that given the use level of the trails in Valley Forge Park (VFP), the CHS would certainly see considerable use. However, a good deal of the attraction of the 28 miles of hiking/biking trails through VFP is likely that they pass through almost 3500 acres of pristine park land. The CHS passes almost entirely through residential districts, affording walkers/riders with a view of nothing but other people's backyards.
- Comparisons between Radnor Trail and the proposed CHS will inevitably be made, likely in favor of building the Segment. One such argument made at the January meeting was that it would give people an alternative to driving their cars. Given the housing density near the Radnor Trail, that trail can arguably be said to offer a large number of people convenient alternative access to Rt. 30. Given the density around the proposed CHS, no such argument can be made for the CHS. *(N)

Thanks for opportunity to provide input

- Thank you for laying it out so clearly and providing the maps. (Y)
- Thank you very much for your efforts on behalf of our "neck of the woods." (Y)
- Thank you for considering this wonderful asset to our community. (Y)
- Thank you for this opportunity to reply. (N)

Patriots Path – Cedar Hollow Segment

GVA Survey Results

Total Residents Adjacent and Indian Run

<u>Mailings</u>		
Surveys Mailed:	340	46
Surveys Received:	119	24
Response Rate:	35%	52%
<u>Results:</u>		
Support Cedar Hollow Segment: (Y)	84 (71%)	9 (38%)
Conditional Support for CHS: (CY)	9½ (8%)	3½ (15%)
Opposed to CHS: (N)	25½ (21%)	11½ (48%)

Most Frequent Comments:

- An Asset to Tredyffrin
- Resident Privacy and Security Needs
- Development and Maintenance Costs
- Natural Setting and Environment Preservation
- Path Width Reduction and Alternate Surfaces
- Various Enhancements

GREAT VALLEY ASSOCIATION



Preserving the Quality of Life in the Great Valley for over 80 Years

**P.O. Box 328
Paoli, PA 19301**

January 22, 2010

Dear Neighbors,

The Great Valley Association is seeking your input regarding the proposed walking/biking path referred to as the Cedar Hollow Segment (along the former Warner Spur Rail Line) which either adjoins your property or a property near you. Next month, the Tredyffrin Board of Supervisors will continue a public hearing and potentially vote on this matter. We have been asked to identify resident recommendations and concerns. The GVA plans to present a summary of the feedback we receive at the February 22 Board of Supervisors meeting.

As background I think it is useful to outline the history that has led to the trail proposal. Several years ago, Chester County proposed a network of walking/biking trails that would connect a number of the historic landmarks in Chester County. Named the Patriots Path, it will connect Revolutionary War sites in East Whiteland (Battle of the Clouds Park), Malvern Borough (Paoli Battlefield Site), and Tredyffrin (Valley Forge National Park). (See attached Map A.) Townships along the path have participated in the planning process for this trail network. Tredyffrin Township also proposed a path along the old Warner Spur Rail Line, the Cedar Hollow Segment, which it had obtained in 2004 with the intent of creating a public path. The planning process for the trail network has proceeded with County funding. The other Townships along the trail have already voted to include the Patriots Path into their Comprehensive Plans. The Supervisors' vote will determine how the Patriots Path should be added to Tredyffrin's Comprehensive Plan.

In Tredyffrin there are two Patriots Path Segments: The Valley Forge Segment connects the Chester Valley Trail to Valley Forge National Park through Chesterbrook, and the Cedar Hollow Segment (which goes through our neighborhoods) is part of a loop which accesses the Chester Valley Trail at Cedar Hollow Park and follows the Warner Spur Rail Line north across Route 202 and Swedesford Road to the Cool Valley Preserve and the Cedar Hollow Preserve. It then extends west to scenic quarry overlooks at Atwater and into East Whiteland's Valley Creek Park and ultimately to Route 29. (See attached Map B.) The entire Patriots Path Plan can be found on Tredyffrin's website at: <http://www.tredyffrin.org> .

While the concept of the two proposed Tredyffrin Segments (Valley Forge and Cedar Hollow) are already in the Tredyffrin Comprehensive Plan, the Patriots Path Plan officially names and incorporates them into the larger multi-municipal effort. Adoption will enhance the funding opportunities from non-township sources to conduct next phase studies such as design, engineering, storm water management, and construction.

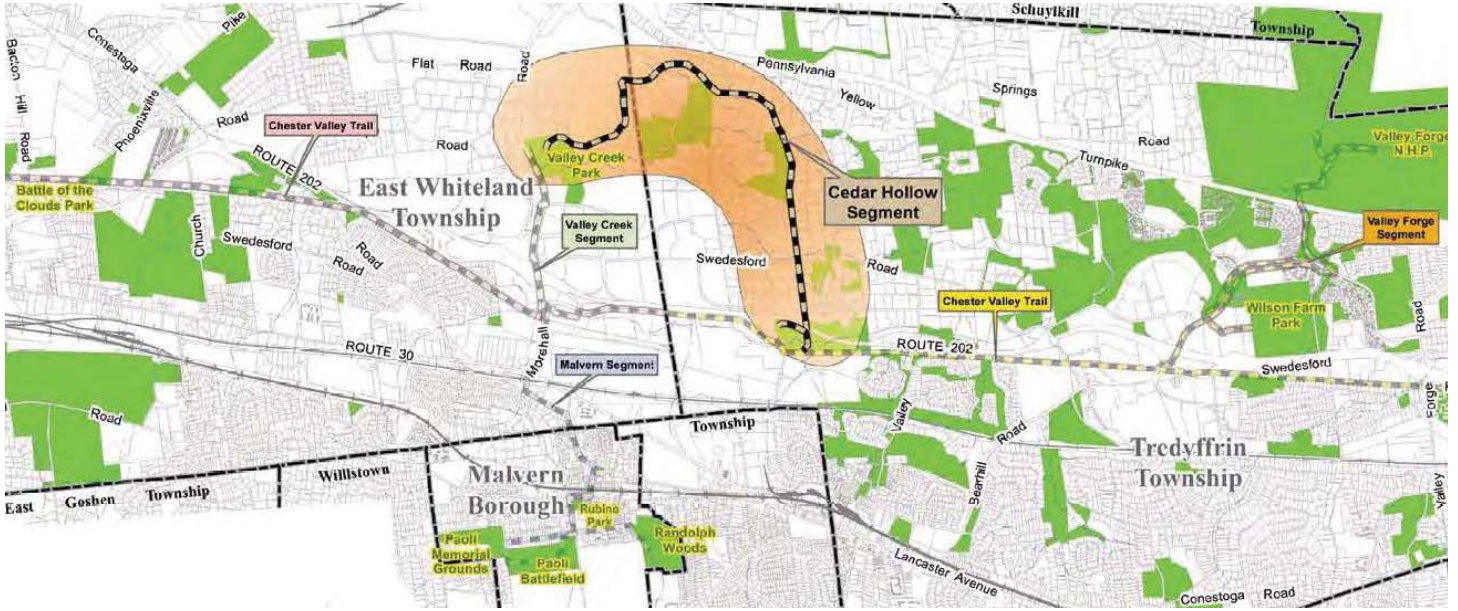
After you've looked over the information, please take a few minutes to let us know how you feel about the Cedar Hollow Segment of the Plan and complete the enclosed questionnaire. Please make sure your voice is heard.

If you have any questions or would like additional information, please call Carol Clarke at (610) 578-0358, or Kathy Keohane at (610) 644-1980. Please feel free to e-mail us at ciclarke@comcast.net or kekeohane@aol.com.

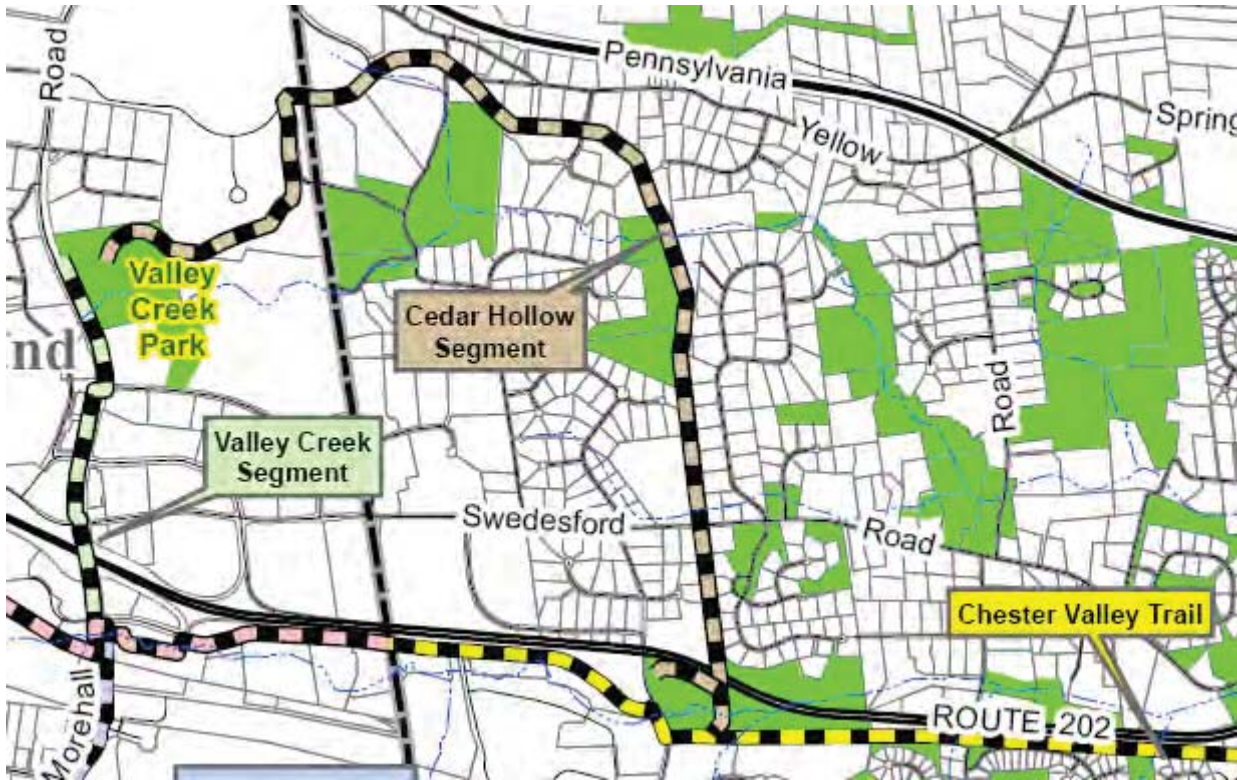
Sincerely,

Albert Charpentier
President, Great Valley Association

MAP A - Complete Trail



MAP B - Cedar Hollow Segment



Frequently Asked Questions regarding the Cedar Hollow Segment

Who currently owns the land of the proposed path?

Most of the path follows the former Warner Spur Rail Line which Tredyffrin obtained in 2004 with the intention of creating a public path. The proposed path crosses Forcine Concrete and enters the Atwater Business Park at its northern end. The path also crosses several roads: Route 202, Swedesford Road, Indian Run Road, St. John's Road, and Church Road.

Indian Run Road is a private road. How will this be handled?

The issues related to this road will need to be addressed in the design and engineering phase.

When will construction begin?

There are many studies such as design, engineering, and storm water management which must be completed before any construction begins. Funding for these studies does not exist at this time and the Township does not have the resources to seek funding this year. Therefore, construction is not envisioned for at least several years.

Must the Cedar Hollow Segment adhere to the specifications identified in the Plan?

No. The specifications provided in the Plan are recommendations. Exact specifications will be developed during the design phase. Currently, the Plan recommends a 12' wide paved path in most sections and both directional and interpretive signage at various access points. Trash receptacles, pet waste stations, benches, bike racks, and fencing are also recommended. The type of fencing will need to be determined during the design phase.

What is the cost for development and maintenance of the Cedar Hollow Segment within Tredyffrin?

The cost is currently estimated at \$1.17 Million for development and construction, and \$13,000 for annual maintenance. The Townships will seek external funding sources (e.g. grants). These costs are not in the current 2010 Tredyffrin Budget and any costs would have to be approved during the Township's budgeting process in future years.

Must a wide area be cleared for this path?

The plan recommends a 12 foot wide, paved path on what was previously a rail line within the Township's 45 to 50 foot wide property. Undergrowth will be cleared on the property as necessary to allow for the path and its construction. The objective is to keep the entire area as natural as possible.

How will storm water management be handled?

Storm water management will be in accordance with the Township's Storm Water Ordinance which has strict rules for managing run-off from any impervious surfaces.

What are the hours of operation? Will there be police patrols? How will loose dogs and trash be handled?

The paths will be treated similarly to the Township's parks. Tredyffrin Police will patrol the paths, dogs must be kept on leashes, and trash will be collected from the trash receptacles. Specific operational details such as these will be addressed in later planning phases.

How have similar trails impacted crime and property values?

Numerous studies have been conducted across the country where "rails" have been turned into trails. These studies have found that incidents of burglary did not increase as a result of the trails. Rail-trail crime rates are almost non-existent. Generally, trails are listed as an amenity to home sales, property values are higher for homes along the trails, and homes along trails often sell faster than those further away.

Frequently Asked Questions regarding the Cedar Hollow Segment – Continued

How does one access the Cedar Hollow Segment?

There are several access points:

- 1) At Cedar Hollow Park, this segment connects to the Chester Valley Trail and to a parking lot.
- 2) Cool Valley and Cedar Hollow Preserves will permit walking access to the Trail.
- 3) At Valley Creek Park in East Whiteland where the Cedar Hollow Segment ends, there is parking and the trail will connect to the Valley Creek Segment and, ultimately, to Route 29 and the Chester Valley Trail.
- 4) The path will cross St. John's Road and Church Road.
- 5) The path connects with the Atwater Development at the quarry.
- 6) The path may connect with the historic St. Peter's Church and Cemetery if property owners are amenable.

Will other access points be added?

Property owners adjacent to the path may access the path. Additional access points have not been identified at this time.

Will adoption of the Patriots Path into the Comprehensive Plan guarantee that the Cedar Hollow Segment will be built?

No, the Board of Supervisors will not be obligated to complete the Path. Adoption, however, is an indication of support and intention to develop it. Adoption of the Patriots Path is a formality which names the Tredyffrin trails and incorporates them into the larger multi-municipal effort which will enhance funding opportunities from external sources for the next phases of design, engineering, storm water management, and construction.

GREAT VALLEY ASSOCIATION



Preserving the Quality of Life in the Great Valley for over 80 Years

Please complete this questionnaire and return it in the enclosed envelope by February 12th. We are especially interested in understanding all concerns or recommendations you may have regarding the Cedar Hollow Segment. Please attach your responses on a separate piece of paper if you need more space. The GVA will present a summary of all feedback received at the February 22 Board of Supervisors meeting.

- Do you support the development of a walking/biking path along the former Warner Spur Rail Line - referred to as the Cedar Hollow Segment - as described in the Patriots Path Plan?

(Select one)

Yes

Please identify any recommendations you have or amenities you would like added.

Yes, but I would like to see the following changes made to the plan:

Please identify your required changes. Please provide any additional concerns or recommendations you may have separately.

No

Please specify why you do not support this path along the former Rail Line. If you have several concerns or recommendations, please indicate their relative importance to you.

Please include your name and address for your survey to be counted and comments included in the public record. (Individuals and their associated comments will not be identified in the public record.)

Name: _____

E-mail _____

Address: _____

Phone No: _____

Thank you for responding promptly. Please use the enclosed stamped return envelope.

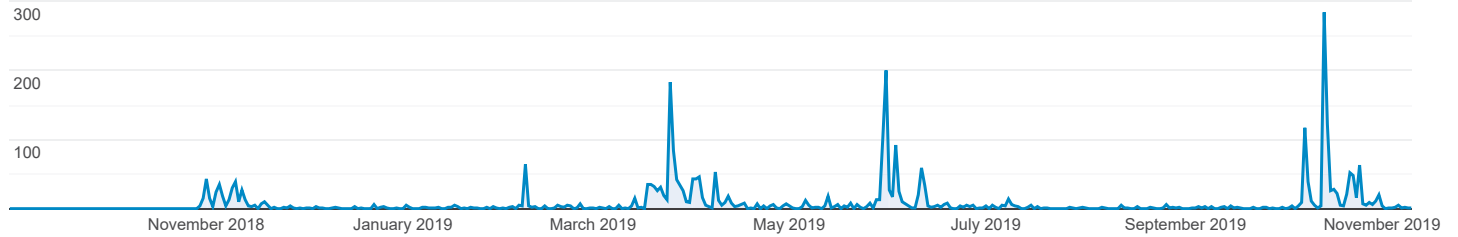
Pages

Sep 1, 2018 - Nov 10, 2019

All Users
100.00% Pageviews

Explorer

Pageviews



This data was filtered with the following filter expression: **warner**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	3,322 % of Total: 1.96% (169,716)	2,626 % of Total: 1.97% (133,007)	00:02:55 Avg for View: 00:01:54 (53.46%)	2,406 % of Total: 2.64% (91,203)	78.01% Avg for View: 67.37% (15.81%)	71.31% Avg for View: 53.74% (32.70%)	\$0.00 % of Total: 0.00% (\$0.00)
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3. /projects/warner-spur-trail?fbclid=IwAR1dpEyM5PUjoiwphUGJruArzE5xuf1nnuxjJtvGuTeAyyCGY4EI6QWBHQM	85 (2.56%)	75 (2.86%)	00:01:39	68 (2.83%)	79.41%	78.82%	\$0.00 (0.00%)
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5. /projects/warner-spur-trail/?surveySuccess=1&qsid=1541011104	14 (0.42%)	12 (0.46%)	00:00:45	0 (0.00%)	0.00%	42.86%	\$0.00 (0.00%)
6. /projects/warner-spur-trail?fbclid=IwAR2o2_J8anZEy3GU2FBHlvWDOcNRr9M433a3pDP0uulzycq7N2uqDStYXIE	9 (0.27%)	7 (0.27%)	00:03:23	7 (0.29%)	71.43%	66.67%	\$0.00 (0.00%)
7. /projects/warner-spur-trail?fbclid=IwAR1V_8O63EFczjJVK49bKOrzju2-dAszT1_xkhL-7U9WDDiFm2ERSjfuTM8	7 (0.21%)	3 (0.11%)	00:02:08	3 (0.12%)	33.33%	42.86%	\$0.00 (0.00%)
8. /events/details/warner-spur-multi-use-trail-open-house-3-338	6 (0.18%)	6 (0.23%)	00:02:21	1 (0.04%)	0.00%	16.67%	\$0.00 (0.00%)
9. /projects/warner-spur-trail?fbclid=IwAR06PCHpHKRWJIEsH02VytvrTScK-6rhrc tfp4KEiv35i57SxyiTxkgqG4	4 (0.12%)	3 (0.11%)	00:05:42	3 (0.12%)	66.67%	75.00%	\$0.00 (0.00%)
10. /projects/warner-spur-trail?fbclid=IwAR0m3jAHCDPFAodfcHaMjLEAW6FxFHRCQihxBayjMvWagPbL8PM_7f0mllg	4 (0.12%)	3 (0.11%)	00:04:40	3 (0.12%)	66.67%	75.00%	\$0.00 (0.00%)

Rows 1 - 10 of 213

From:
Sent: Sunday, November 3, 2019 9:35 AM
To: info@warnerspurtrail.com
Subject: Warner Spur Trail Support

Hello,

My name is _____ and I support the Warner Spur Trail. I recently moved to Phoenixville and the existing trail network and plans for expansion were a major factor in this decision. I frequently use the SRT and CVT trails and think the connection created via the Warner Spur and Devault trail is vital. The community has benefited significantly from the existing trails and I believe the Warner Spur will be a great addition!

Thank you,

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From:
Sent: Thursday, October 31, 2019 7:03 AM
To: info@warnerspurtrail.com
Subject: I Support the Warner Spur Trail

My name is _____ and I would like to express my support for the Warner Spur Trail!

About a year ago I moved to Phoenixville and one of the contributing factors was the existing trail network and plans for expansion.

I frequently use the SRT and CVT trails and I always see other users engaging in health activities. The popularity of these trails and benefits to community health are undeniable. I believe the new trail would also see high use given the connection to Atwater and other surrounding communities.

I believe the popularity of the SRT and CVT would increase as a result of the connection created by the Warner Spur and Devault Trails. Less than once a week I use the SRT and CVT to ride my bike to work. I would like to ride more frequently but the safe route that runs through Valley Forge is too long (approximately 30 mile round trip). The distance is not only an obstacle for me but also my coworkers. Many coworkers who live in Phoenixville express a desire to ride to work but never try once they learn of the distance or on road sections they would have to take during rush hour.

This trail would be highly beneficial to the community. Please let me know if I can provide any additional insight into why I support this trail. Thank you for reading this letter and considering my perspective.

Thank you,

From:
Sent: Tuesday, October 29, 2019 2:01 PM
To: Info@warnerspurtrail.com
Subject: Public Comment — Warner Spur Trail

Dear Hearing Examiner:

The proposal for the Warner Spur Trail is impressive and thoroughly examined. However, a key stakeholder has been omitted from the process: SEPTA.

In order to reach our sustainable transportation goals for the County, as well as encourage multimodal use and maximize coordinated connectivity in advance of Comprehensive Bus Network Redesign (CBNR), efforts to connect and/or bolster infrastructure with the nearby SEPTA Bus Routes 204 and 206 are essential to making this not just a recreational tool, but a corridor that can promote car-free living.

I encourage you to contact Harley Cooper, Senior Suburban Operations Planner, at SEPTA to better understand the areas of overlap and possibilities moving forward.

Best regards,

From:
Sent: Sunday, October 27, 2019 10:19 PM
To: info@warnerspurtrail.com
Subject: Warner spur trail

Hi,
I saw your proposed plans for the Warner Spur Trail and I am very much interested in seeing the spur trail built.

I saw some of the concerns of the people who lived along the potential trail and they are mostly the same old argument that have been proven incorrect along other exiting trails.

I noticed an intention to put up plastic fencing to block the view to homes along the trail and I object to this type of screening. I think it would be much wiser to put up natural screen blocking such as evergreen trees, native shrubbery and such. There are several reasons why and one that the home owners themselves are concerned about and that is disrupting the wildlife. If you put up the plastic fence it will completely block off any animal "migration". Natural fencing would not block wildlife movement and actually help protect the wildlife and enhance wildlife habitat.

That is my two cents.

Thanks,

From:
Sent: Friday, October 25, 2019 6:09 PM
To: info@warnerspurtrail.com
Subject: Warner Spur Trail Comments

Thank you for putting your document out on Facebook. It is a good project and we are excited about it. I would like to provide some comments that I hope you will consider.

I am the Head Coach of the Tredyffrin Easttown Mountain Bike Team and a Parks and Recreation Board member in Tredyffrin Township. The mountain bike team is a heavy user of Cedar Hollow Park from August through October. We have been almost the only users of the wooded end of the park. Our mission is to simply, get more kids on bikes and produce confident/safe cyclists for life. I share these fact about myself so that you can see my perspective.

Here are my thoughts:

Trail Surface:

As a frequent user of trails for cycling (I commute from Paoli to Oaks PA), I travel regularly on the CVT, the SRT and the Perkiomen Trail. I find by far that the Perkiomen trail is the safest trail for all users. Having a cinder surface slows down cyclist and makes them more prepared to react. Over the years I have seen many crashes on the SRT because cyclists are drafting each other or they are triathletes in an aero position which takes their hands away from the brakes. This does not happen on the Perkiomen Trail. Everyone has to ride with their hands near their brakes on gravel. For speed and energy conservation, drafting other cyclist is very effective above 15 miles per hour and especially effective above 20 miles per hour..... but... on gravel, speeds are slower and that benefit is lost to cyclists... so they tend to ride side by side and more socially on these trails. All in all gravel equals reduced speeds which is safer for all users. From my review of the current Waren Spur plan, I see only 1 road crossing the length of the trail which if paved will be a very a fast an uninterrupted trail section.

This is a personal feeling but it might be of interest. When we pave trails we eliminate a connection to the earth. I don't think I am alone feeling that when I am walking on a lose natural surface, I feel like I am more in nature. It is more soothing to walk on a natural surface. Also as a former runner, we would seek out these surfaces to reduce the strain on our joints that is created by running on pavement. Our area (Tredyffrin Township) lacks any gravel trail running/walking options and it could be a very nice alternative for people in our area.

Splitting Cedar Hollow Park:

I do hope that when the final design is done, there will be substantial access Cedar Hollow Park woods. My students (6th through 12 graders) ride there regularly and fences on both sides of the trail right up to 202 would split the park reducing a current use. Cedar Hollow Park was a virtually abandoned park and not used by anyone. We started using the park 3 years ago and have hauled out well over 100 bags of trash in those 3 years. It is becoming a nicer park due to the efforts of the kids and we are seeing people start to walk the primitive trails that we ride in the park. I would like to see the fewest possible fences in Cedar Hollow Park.

I appreciate your efforts. Creating non motorized travel options is some of the most important work to be done and I commend you for your efforts. If you every have any questions or would like further input, please do not hesitate to reach out to me.

From:
Sent: Friday, October 25, 2019 10:32 AM
To: info@warnerspurtrail.com
Subject: Comments concerning Warner Spur Trail

While I applaud the creation of multi-use trails connected to the CVT, I have some concerns. The Warner Spur Trail proposal seems to benefit a small subset of the population. Particularly in the context of reducing car traffic in the region. Having to drive a car from home to a trail head partially defeats the benefits of having a trail network.

A concern not described is the failure of motorists to yield to pedestrians at trail crossings and lack of enforcement of the state law.

There are statements of using sidewalks as part of the trail. It is illegal to ride a bike on a sidewalk. Unless one is going to formally re-purpose sidewalks for trail use, cyclists have to move to the street. The typical sidewalk is too narrow for multi use.

The statement "experienced recreational cyclists and commuters" can use sections of local roads is at best naive and at worst is dangerous. There are very few roads in the region that are safe to ride at rush hour. The problem is the lack of adequate shoulders(4ft) on the roads and for the roads that have shoulders, the shoulders are cluttered with debris and potholes. I appreciate the comments concerning Swedesford Rd. I don't know if you are paying attention to the number of cyclists that have been killed in 2019.

Page 3-21. The picture shows the sudden end of the bike lane which means the cyclist must turn into the traffic. Doesn't anyone see the danger. Since unprotected bike lanes provide ZERO safety for cyclists. In my opinion from a cyclist's perspective eliminate the bike lanes, let the cyclist position themselves in traffic.

There does not appear to be any study of the elevation changes particular between Swedesford Rd and Atwater. Any steep grades will inhibit the use of trail by all but the most fit.

The planning document points out P.J. Whelihan's as though it is an endpoint. I have no problem with restaurant chain but there are other restaurants nearby that are not mentioned. Does this mean P.J. Whelihan's will provide secure bike parking and their parking lot can be considered a trailhead for car parking?

The use of privacy fences have more impact on wildlife than any other aspect of the proposed trail.

I am a frequent user of the CVT and a big supporter of the expansion of multi use trails.

From:
Sent: Friday, October 25, 2019 10:26 AM
To: info@warnerspurtrail.com
Subject: Cedar Hollow Park improvements for safety

Hi. We love the Warner Spur Trail plan! Since money & timing will be issues we want to suggest a phase 1a focusing solely on all of the improvements around CedarHollowPark.

The CVT desperately needs safer connections to this <expanded> parking. The current situation is dangerous with CedarHollow Road getting heavy Paoli Train & Vanguard traffic who even use the narrow shoulder to avoid cars turning left onto Matthews Road. This is a quick & cheap fix as phase1a <of 2 or 3> for this project and is urgently needed even if the Warner Trail project never moves forward.

Good work on the plan. We just want this phase 1a option so this could be fast tracked for safety.

Thanks!

Sent from my iPhone

From:
Sent: Friday, October 25, 2019 10:09 AM
To: info@warnerspurtrail.com
Subject: Warner Spur Trail

I am excited to hear about the Warner Spur Trail. I reviewed the Draft Master Plan and it looks well thought out, regardless of which options are chosen for the crossings and I look forward to using this trail some day! I live very close by and already use the Chester Valley Trail often, so this would be an excellent option to add variety. Trails like this are also excellent ways to showcase the natural land of the area, such as Valley Creek and it's tributaries, which this trail will cross.

From:
Sent: Friday, October 25, 2019 8:55 AM
To: info@warnerspurtrail.com
Subject: Warner Spur Trail

As a Chester County resident and frequent user, at least twice weekly, of the CVT I'm very much in favor of this proposal. Having read it in its entirety, I believe the asphalt trail would be a great addition to the Circuit Trail system. The concerns expressed by a few people of decreased property values, wildlife intrusion, and trespassing have certainly been disproved during the life of the CVT. I wholeheartedly encourage moving forward with the Warner Spur Trail. Thanks for listening,

From:
Sent: Friday, October 25, 2019 8:21 AM
To: Info@WarnerSpurTrail.com
Subject: Warner Spur Trail

I support the construction of the Warner Spur Trail. I am a Chester County resident.

From:
Sent: Wednesday, October 23, 2019 5:21 PM
To: info@warnerspurtrail.com
Subject: Warner Spur Trail Public Comments

To Whom It May Concern,

The Warner Spur Trail (WST) would be an important and much needed trail extension AND connection with the Chester Valley Trail (CVT). While trails on their own are inherently valuable for public health reasons and recreational activities, if they don't connect to where people live, work and shop, you are missing a big opportunity for more use and less traffic as people still need to drive to a trailhead, which only adds congestion to our roads. The suburban counties of Philadelphia, and specifically Chester County, are fortunate to have the SRT and CVT as east/west trails. What we really need now are north/south trails across Chester County that connect the SRT and CVT. The WST would be the first step in connecting the SRT and CVT between Phoenixville and Malvern. Hint: We then need the proposed Devault Trail to connect the SRT in Phoenixville to Atwater, but one thing at a time!

Specific to the Warner Spur Trail, there would be two direct benefits to connecting to where people live, work and shop:

1. The proposed end of the trail at the Atwater development is a massive new residential and commercial development, so it would link the CVT and Atwater to where people live and work. People would then be able to bike to shopping at the Wegmans and Target in Malvern, as they would only be about 3 miles away by way of the trail.
2. For those who work in the Great Valley Corporate Center at the top of the Rt. 29 hill, there is no good and safe way to bike commute to work from the CVT, due to needing to take some combination of Matthews Road, Cedar Hollow Road or Swedesford Road to get to Rt. 29 and then you need to go up the Rt. 29 hill on a road where people regularly travel in excess of 55mph...regardless of the posted speed limit. Only experienced cyclists do this and as a result, there isn't much bike commuting within the Great Valley Corporate Center. I would know...I'm one of them. Building this trail would get cyclists to and from the CVT to the top of the Great Valley Corporate Center where they can take Flat Road to get into and out of the Center safely and easily.

One of the big sticking points and loud objections here seems to be the Indian Run Road Neighborhood. I'd like to address their concerns point by point:

1. Members of the public will park along Indian Run Road and use it as an access point - Based on the existing trail network, there is simply no evidence that supports this as it doesn't happen anywhere else along the SRT or CVT. People that use the SRT and CVT for health and recreation purposes park at the trailheads, mostly for convenience and safety reasons. No one would be interested in parking along the side of a road somewhere.
2. Members of the public would travel off the trail and onto Indian Run Road and private properties - Again, based on the existing trail network, this simply doesn't happen and no one would have a reason to do this. Where exactly are they going to go and how far? Indian Run Road only connects into Yellow Springs Road, which most trail users wouldn't feel comfortable being on.
3. Trail users (mostly cyclists) won't be safe and abide by stop signs and other posted signs - The primary roads around Indian Run Road include Yellow Springs Road, Rt 29, North Valley Road, Swedesford Road and Church Road (which many motorists use as a cut through). Motorists regularly speed, fail to signal, and don't come to complete stops across all these roads...and so let me get this right, the residents of Indian Run Road are concerned about cyclists not being safe and stopping at a stop sign?
4. Signage and pavement markings will negatively impact Indian Run Road - First, this is just an incredibly weak argument and lacks common sense. This is truly grasping at straws. Second, research has shown that properties within close proximity to a community trail actually increase in value in the neighborhood of 10-15%.
5. The trail and crossing will provide easy access to adjacent properties and increase liability for property owners, as well as introducing safety concerns - Wow. This reads as a subtle reference to not wanting people of a different socio-

economic background around the Indian Run Road community. But putting that aside, again, based on the other trails in the area, this simply doesn't happen. There is essentially no crime or issues or incidents stemming from the CVT or the SRT and there are plenty of properties and communities along the CVT and SRT. If anything, you actually have more safety as the Chester County park rangers and maintenance people are on the trail and patrolling it, so it is actually increasing official presence on top of the police force.

6. The trail and crossing will exacerbate existing stormwater management issues in the area - Any development or public works project would include a review of stormwater management and would include any remediation that is required.

Thank you for the opportunity to submit public comment on the Warner Spur Trail. I hope the local governments involved see the value of increasing our trail network in the area.

Resident of East Coventry Township, Chester County, who commutes twice per week between East Coventry Township and Malvern 25 miles each way utilizing the SRT and CVT. My commute would be dramatically shortened with a Phoenixville to Malvern trail connection and I would be able to bike to work more times per week, keeping another car off the road in this heavy traffic area.

From:
Sent: Wednesday, October 23, 2019 6:36 AM
To: Info@WarnerSpurTrail.com
Subject: Public comment

I believe the Warner Spur project looks like an excellent use of public space, time, and resources. I am an avid bicyclist and enjoy exploring the surrounding neighborhoods. My husband and I often plan bike excursions to include new areas or a restaurant destination. This spur would help others do the same and to connect to the Chester valley trail would open up many miles of safe trails.

From:
Sent: Tuesday, October 22, 2019 8:06 PM
To: Info@WarnerSpurTrail.com
Subject: Support for the Warner Spur Trail

Good evening. As you likely already know trails help to connect communities and provide alternative methods of transportation for the residents and families of these communities.

Please support the development of the Warner Spur Trail.

Thank you.

From:
Sent: Tuesday, October 15, 2019 1:40 PM
To: info@warnerspurtrail.com
Subject: Vanguard employee in support of the warner spur trail

I've read through the warner spur master plan and wanted to communicate my support for this project. As an avid local trail user (both runner and cyclist), this has me very excited. Safe passage along 29 would alleviate much of the risk in cycling to work from Phoenixville without going too far out of my way. Today I travel through valley forge on the SRT and connecting to the CVT via W Valley road or cutting across and accessing the CVT via Bacton Hill Rd to avoid traffic. Both of these options add about 5 miles to the ride each way when compared to a direct route as proposed by the combination of the warner spur and Devault. While I welcome the extra miles on most occasions, it would be nice to have a shorter option in case I need the flexibility in my schedule. Another benefit to me in having such close access to the warner spur would be the increased optionality for runs.

I look forward to developments here and am in full support of moving forward. Thank you for your efforts to date.

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From:
Sent: Tuesday, October 15, 2019 10:52 AM
To: info@warnerspurtrail.com
Subject: WST comment

This individual has requested more information.

Name:

Company:

Mailing Address:

Country: US

Phone:

Fax:

eMail:

Contact By: Email

Comments: I just want to send an email in support of the Warner SPUR trail proposal. I'm an avid rider in both Montgomery and Chester counties and this would be a fantastic addition to your already abundant trail system.

Allow Release of Information: yes

Received: 10/15/2019 6:37:20 AM

From:
Sent: Monday, October 14, 2019 4:17 PM
To: Info@WarnerSpurTrail.com
Subject: Watner Spur Trail - Yes Please!

As someone who regularly bikes to work and makes heavy use of the Chester Valley Trail, the Warner Spur Trail would be a boon. I would love to see this expansion of our already-great trail. I look forward to opening day of the new spur with great anticipation.

Thanks!

From:
Sent: Monday, October 14, 2019 4:27 PM
To: Info@warnerspurtrail.com
Subject: Proposed Warner Spur

The CVT is a great source of community activity. My bicycle group does 90% of our training here. I salute and look forward to continued expansion.

Is there an available map showing where the Devault line would be and how that would connect to the SRT?

From:
Sent: Saturday, October 12, 2019 6:09 PM
To: Info@WarnerSpurTrail.com
Subject: Warner Spur Trail

I am absolutely in full agreement for this to be built. I am also very interested in seeing the Devault portion to Phoenixville completed as well as I live right along side of it.

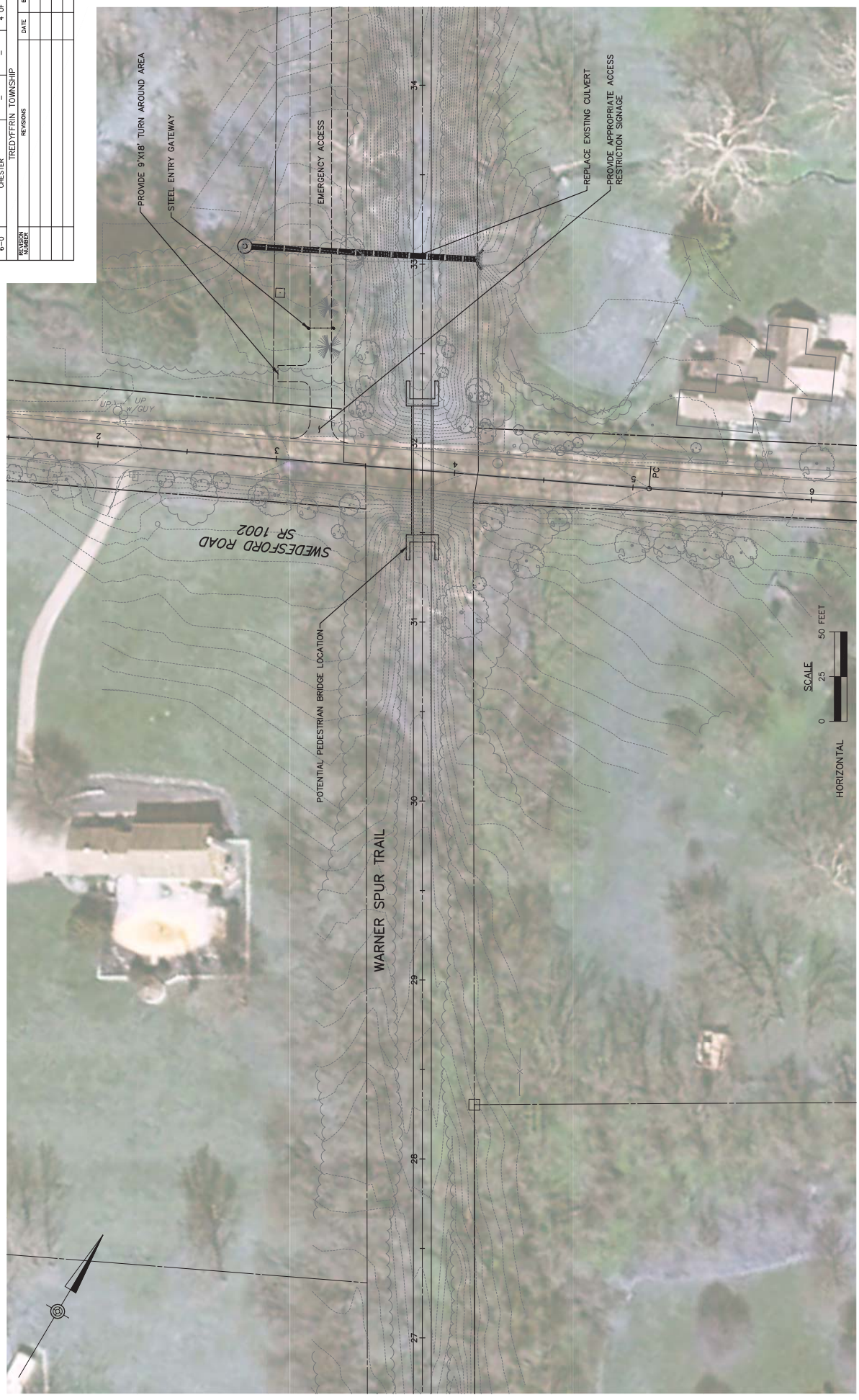
Any help I can provide I am willing to do so.

Thanks

From:
Sent: Tuesday, October 08, 2019 3:45 PM
To: Info@WarnerSpurTrail.com
Subject: Impressive report

I just finished reading the Warner trail spur draft report and was very impressed by its detail. The majority of the right of way is owned by the people and should be enjoyed by everyone. It is a great "bang for the buck". This short trail would make a positive impact on the walking and biking transportation opportunities for the Shadow Oak and Atwater neighborhoods. Thanks for all of the hard work. Looking forward to the growing trail network.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	CHESTER			4 OF 28
REVISION NUMBER	TREDYFFRIN TOWNSHIP		REVISIONS	DATE



 McMAHON ENGINEERS, ARCHITECTS, PLANNERS	835 SPRINGDALE DRIVE EXTON, PA 19341 PH: (610) 594-9995 FAX: (610) 594-9565	DESIGN BY: JCT DRAWN BY: JCT CHECKED BY: JJK	JOB NO: 818535 DWS: 538CPT04 DATE: 12-20-18	CHESTER COUNTY PLANNING COMMISSION 600 WESTTOWN ROAD, SUITE 270 WEST CHESTER, PA 19382 (610) 344-6285	TREDYFFRIN TOWNSHIP CHESTER COUNTY	WARNER SPUR TRAIL	CONCEPTUAL DESIGN EXHIBIT
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	CHESTER			5 OF 28
TREDYFFRIN TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	



835 SPRINGDALE DRIVE
 EXTON, PA 19341
 PH: (610) 594-9995
 FAX: (610) 594-9565

MCMMAHON
 ENGINEERS ARCHITECTS PLANNERS

DESIGN BY: JCT
 DRAWN BY: JCT
 CHECKED BY: JJK

JOB NO: 818538
 DWG: 538CPT05
 DATE: 12-20-18

CHESTER COUNTY PLANNING COMMISSION
 600 WESTOWN ROAD, SUITE 270
 WEST CHESTER, PA 19382
 (610) 344-6285

WARNER SPUR TRAIL
 TREDYFFRIN TOWNSHIP
 CHESTER COUNTY

CONCEPTUAL DESIGN EXHIBIT

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	CHESTER			4 OF 28
REVISION NUMBER	TREDYFFRIN TOWNSHIP			
	REVISIONS			



CHESTER COUNTY PLANNING COMMISSION
 600 WESTTOWN ROAD, SUITE 270
 WEST CHESTER, PA 19382
 (610) 344-6285

WARNER SPUR TRAIL
 TREDYFFRIN TOWNSHIP
 CHESTER COUNTY

CHESTER COUNTY PLANNING COMMISSION
 JOB NO: 818535
 DWR: 538CPT04
 DATE: 12-20-18

DESIGN BY: JCT
 DRAWN BY: JCT
 CHECKED BY: JJK

835 SPRINGDALE DRIVE
 WEST CHESTER, PA 19381
 PH: (610) 594-9995
 FAX: (610) 594-9565



CONCEPTUAL DESIGN EXHIBIT

Engineer's Conceptual Opinion of Cost for Warner Spur Trail Project

Segment	Length		Totals from Detailed Estimates				Totals Rounded for Summary Table			
	(miles)	(feet)	PRECON	CON + CI	TOTAL	PRECON	CON + CI	TOTAL	TOTAL	
Segment P1 - Cedar Hollow Road Sidewalk	0.07	370	\$ 29,900	\$ 159,072	\$ 188,972	\$ 30,000	\$ 160,000	\$ 190,000	\$ 190,000	
Segment P2 - Cedar Hollow Park Trail to Warner Spur	0.23	1,200	\$ 69,600	\$ 363,495	\$ 433,095	\$ 70,000	\$ 364,000	\$ 434,000	\$ 434,000	
Segment A - CVT to US 202	0.17	875	\$ 156,300	\$ 659,294	\$ 815,594	\$ 157,000	\$ 660,000	\$ 817,000	\$ 817,000	
Segment B - US 202 to Swedesford Road	0.36	1,925	\$ 186,500	\$ 767,775	\$ 953,275	\$ 186,000	\$ 768,000	\$ 954,000	\$ 954,000	
Segment C - Swedesford Road to Valley Creek	0.75	3,975	\$ 637,300	\$ 2,733,695	\$ 3,370,995	\$ 638,000	\$ 2,734,000	\$ 3,372,000	\$ 3,372,000	
Segment D - Valley Creek to Cedar Hollow Preserve (Indian Run At-Grade)	0.49	2,600	\$ 288,700	\$ 1,235,235	\$ 1,523,935	\$ 289,000	\$ 1,236,000	\$ 1,525,000	\$ 1,525,000	
Segment D - Valley Creek to Cedar Hollow Preserve (Indian Run Bridge)			\$ 550,900	\$ 2,388,890	\$ 2,939,790	\$ 551,000	\$ 2,389,000	\$ 2,940,000	\$ 2,940,000	
Segment E - Cedar Hollow Preserve to Church Road	0.19	1,000	\$ 76,600	\$ 324,026	\$ 400,626	\$ 77,000	\$ 325,000	\$ 402,000	\$ 402,000	
Total Cedar Hollow Park Trailhead Enhancements (P1, P2)	0.30	1,570	\$ 99,500	\$ 522,567	\$ 622,067	\$ 100,000	\$ 524,000	\$ 624,000	\$ 624,000	
Total Warner Spur Trail Segments A - E (Indian Run At-Grade)	1.96	10,375	\$ 1,344,400	\$ 5,720,025	\$ 7,064,425	\$ 1,347,000	\$ 5,723,000	\$ 7,070,000	\$ 7,070,000	
Total Warner Spur Trail Segments A - E (Indian Run Bridge)	1.96	10,375	\$ 1,606,600	\$ 6,873,680	\$ 8,480,280	\$ 1,609,000	\$ 6,876,000	\$ 8,485,000	\$ 8,485,000	
Total Project Cost (Indian Run At-Grade)	2.26	11,945	\$ 1,443,900	\$ 6,242,592	\$ 7,686,492	\$ 1,447,000	\$ 6,247,000	\$ 7,694,000	\$ 7,694,000	
Total Project Cost (Indian Run Bridge)	2.26	11,945	\$ 1,706,100	\$ 7,396,247	\$ 9,102,347	\$ 1,709,000	\$ 7,400,000	\$ 9,109,000	\$ 9,109,000	

Engineer's Conceptual Opinion of Cost for Warner Spur Trail Project

Segment	Description	Cost
Segment P1 - Cedar Hollow Road Sidewalk		\$ 188,972.00
Segment P2 - Cedar Hollow Park Trail to Warner Spur		\$ 433,095.00
Segment A - CVT to US 202		\$ 815,594.00
Segment B - US 202 to Swedesford Road		\$ 953,275.00
Segment C - Swedesford Road to Valley Creek		\$ 3,370,995.00
Segment D - Valley Creek to Cedar Hollow Preserve	Bridge Alternative	\$ 2,939,790.00
Segment D - Valley Creek to Cedar Hollow Preserve	At-Grade Alternative	\$ 1,523,935.00
Segment E - Cedar Hollow Preserve to Church Road		\$ 400,626.00
	Total Cedar Hollow Park Trailhead Enhancements (P1, P2)	\$ 622,067.00
	Total Warner Spur Trail Segments (A - E, Indian Run Bridge)	\$ 8,480,280.00
	Total Warner Spur Trail Segments (A - E, Indian Run At-Grade)	\$ 7,064,425.00
	Total Project Cost (Indian Run Bridge)	\$ 9,102,347.00
	Total Project Cost (Indian Run At-Grade)	\$ 7,686,492.00

Notes and Assumptions:

Construction estimates are based on quantities derived from the conceptual design for the Warner Spur Trail Project and unit prices from recently bid local projects and PennDOT ECMS bid prices for similar projects.

The following costs are based on conceptual engineering for budgeting purposes only. The costs associated with these items are subject to change as the project progresses through the design process.

The mobilization includes equipment package, survey and construction schedule.

The Engineer's Conceptual Opinion of Cost does not include relocating or resetting existing underground utilities within the limits of the project or the provision of any future utilities. Impacts to existing underground utilities will need to be determined during the preliminary engineering of the project through coordination with the local utility companies.

The estimate includes a contingency of 10%-20% of infrastructure cost, per PennDOT Publication 352. This estimate does not include inflation.

The Engineer's Conceptual Opinion of Cost includes an estimate for disposition of contaminated soils, but does not include any environmental additional impact mitigation.

Disclaimer: McMahon Associates, Inc. has provided this opinion of cost as requested by the client for the purpose of Conceptual Engineering activities. This opinion of cost is based on the preliminary design for the Warner Spur Trail Project. Please note that opinions of cost are subject to change based on plan/design revisions, fluctuations in unit costs, field conditions, and differences in locale. Opinions of cost are provided for use in budgeting, but in no way intended to be construed as a final cost for the project. Final costs are contingent only on actual bids from contractors. McMahon Associates, Inc. will not be held responsible for differences between this opinion of cost and contractor bid costs.

Cost estimate prepared under the direction of:

James J. Kouch, P.E.
 McMahon Associates, Inc.
 425 Commerce Drive, Suite 200
 Fort Washington, PA 19034
 (215) 283-9444
jkouch@mcmahonassociates.com

Item No.	Description	Comment	Unit	Quantity	Unit Cost	Cost
Standard Items						
1	Clearing and Grubbing		CY	113	\$ 65.00	\$7,345.00
2	Class 1 Excavation		CY	0	\$ 50.00	\$0.00
3	Class 1B Excavation		CY	44	\$ 75.00	\$3,300.00
4	Class 4 Excavation		CY	0	\$ 35.00	\$0.00
5	Foreign Borrow Excavation		CY	0	\$ 30.00	\$0.00
6	Asphalt Trail Pavement		SY	0	\$ 50.00	\$0.00
7	Full Depth Pavement		SY	100	\$ 110.00	\$11,000.00
8	Cement Concrete Sidewalk		SY	230	\$ 140.00	\$32,200.00
9	PLCC Curb		LF	245	\$ 60.00	\$14,700.00
10	Infiltration Trench		LF	0	\$ 64.00	\$0.00
11	Guide Rail		LF	224	\$ 25.00	\$5,600.00
12	Bridge Railing		LF	187	\$ 50.00	\$9,350.00
13	Privacy Trail Fence		LF	0	\$ 50.00	\$0.00
14	Standard Trail Fence		LF	0	\$ 15.00	\$0.00
15	HD Trail Fence		LF	0	\$ 25.00	\$0.00
16	Topsoil Furnished and Placed		CY	31	\$ 70.00	\$2,170.00
17	Seeding and Soil Supplements - Formula L		LB	14	\$ 35.00	\$490.00
18	Mulching - Hay		TON	1	\$ 500.00	\$500.00
19	4" Pavement Markings		LF	217	\$ 1.00	\$217.00
20	Pavement Marking Legends		EA	6	\$ 250.00	\$1,500.00
21	Signage		SF	0	\$ 50.00	\$0.00
22	Boardwalk/Deck Structure		LF	0	\$ 1,000.00	\$0.00
23	Detectable Warning Surface		SF	54	\$ 50.00	\$2,700.00
Special Items						
24	Stormwater Management BMPs		LS	1	\$ 10,000.00	\$10,000.00
25	Subtotal Construction Cost	Items 1 - 24				\$101,072.00
26	Erosion and Sediment Control	10% of Item 25	%	10		\$10,100.00
27	Contingency	10% of Item 25	%	10		\$10,100.00
28	Mobilization	8% of Item 25	%	8		\$8,100.00
29	Maintenance and Protection of Traffic	15% of Item 25	%	15		\$15,200.00
30	Total Construction Cost (2019)	Items 25 - 29				\$144,572.00
31	Construction Inspection	10% of Item 30	%	10		\$14,500.00
32	Environmental Testing		LS	1	\$1,000.00	\$1,000.00
33	Engineering and Permitting	20% of Item 30	%	20		\$28,900.00
34	Total Project Cost (2019)	Items 30-33				\$188,972.00
35	Inflation	3% Per Year X Item 34 to 2019	YR	0		\$0.00
36	Total Construction Cost (2019)	Items 34 - 35				\$188,972.00

Engineer's Conceptual Opinion of Cost for
 Warner Spur Trail
 Segment P2 - Cedar Hollow Park Trail to Warner Spur

6/11/2019

LF

1200

Item No.	Description	Comment	Unit	Quantity	Unit Cost	Cost
Standard Items						
1	Clearing and Grubbing		CY	741	\$ 65.00	\$48,165.00
2	Class 1 Excavation		CY	284	\$ 50.00	\$14,200.00
3	Class 1B Excavation		CY	0	\$ 75.00	\$0.00
4	Class 4 Excavation		CY	0	\$ 35.00	\$0.00
5	Foreign Borrow Excavation		CY	1340	\$ 30.00	\$40,200.00
6	Asphalt Trail Pavement		SY	851	\$ 50.00	\$42,550.00
7	Full Depth Pavement		SY	0	\$ 110.00	\$0.00
8	Cement Concrete Sidewalk		SY	130	\$ 140.00	\$18,200.00
9	PLCC Curb		LF	0	\$ 60.00	\$0.00
10	Infiltration Trench		LF	1000	\$ 64.00	\$64,000.00
11	Guide Rail		LF	0	\$ 25.00	\$0.00
12	Bridge Railing		LF	0	\$ 50.00	\$0.00
13	Privacy Trail Fence		LF	0	\$ 50.00	\$0.00
14	Standard Trail Fence		LF	0	\$ 15.00	\$0.00
15	HD Trail Fence		LF	0	\$ 25.00	\$0.00
16	Topsoil Furnished and Placed		CY	233	\$ 70.00	\$16,310.00
17	Seeding and Soil Supplements - Formula L		LB	102	\$ 35.00	\$3,570.00
18	Mulching - Hay		TON	2	\$ 500.00	\$1,000.00
19	4" Pavement Markings		LF	0	\$ 1.00	\$0.00
20	Pavement Marking Legends		EA	0	\$ 250.00	\$0.00
21	Signage		SF	0	\$ 50.00	\$0.00
22	Boardwalk/Deck Structure		LF	0	\$1,000.00	\$0.00
23	Detectable Warning Surface		SF	0	\$ 50.00	\$0.00
Special Items						
24	Drainage Reconstruction	Inlet Relocation, Swale Regrading, Pipe Adjustment	LS	1	\$10,000.00	\$10,000.00
25	Subtotal Construction Cost	Items 1 - 24				\$258,195.00
26	Erosion and Sediment Control	5% of Item 25	%	5		\$12,900.00
27	Contingency	10% of Item 25	%	10		\$25,800.00
28	Mobilization	8% of Item 25	%	8		\$20,700.00
29	Maintenance and Protection of Traffic	5% of Item 25	%	5		\$12,900.00
30	Total Construction Cost (2019)	Items 25 - 29				\$330,495.00
31	Construction Inspection	10% of Item 30	%	10		\$33,000.00
32	Environmental Testing		LS	1	\$3,500.00	\$3,500.00
33	Engineering and Permitting	20% of Item 30	%	20		\$66,100.00
34	Total Project Cost (2019)	Items 30-33				\$433,095.00
35	Inflation	3% Per Year X Item 34 to 2019	YR	0		\$0.00
36	Total Construction Cost (2019)	Items 34 - 35				\$433,095.00

Engineer's Conceptual Opinion of Cost for
 Warner Spur Trail
 Segment P2-Parking - Cedar Hollow Park Parking Expansion

6/11/2019

Item No.	Description	Comment	Unit	Quantity	Unit Cost	Cost
Standard Items						
1	Clearing and Grubbing		CY	605	\$ 65.00	\$39,325.00
2	Class 1 Excavation		CY	454	\$ 50.00	\$22,700.00
3	Class 1B Excavation		CY	0	\$ 75.00	\$0.00
4	Class 4 Excavation		CY	0	\$ 35.00	\$0.00
5	Foreign Borrow Excavation		CY	0	\$ 30.00	\$0.00
6	Asphalt Trail Pavement		SY	0	\$ 50.00	\$0.00
7	Full Depth Pavement		SY	0	\$ 110.00	\$0.00
8	Gravel Parking Area		SY	907	\$ 35.00	\$31,745.00
9	Cement Concrete Sidewalk		SY	0	\$ 140.00	\$0.00
10	PLCC Curb		LF	0	\$ 60.00	\$0.00
11	Infiltration Trench		LF	0	\$ 64.00	\$0.00
12	Guide Rail		LF	0	\$ 25.00	\$0.00
13	Bridge Railing		LF	0	\$ 50.00	\$0.00
14	Privacy Trail Fence		LF	0	\$ 50.00	\$0.00
15	Standard Trail Fence		LF	0	\$ 15.00	\$0.00
16	HD Trail Fence		LF	0	\$ 25.00	\$0.00
17	Volleyball Sand		CY	712	\$ 10.00	\$7,120.00
17	Topsoil Furnished and Placed		CY	120	\$ 70.00	\$8,400.00
18	Seeding and Soil Supplements - Formula L		LB	53	\$ 35.00	\$1,855.00
19	Mulching - Hay		TON	1	\$ 500.00	\$500.00
20	4" Pavement Markings		LF	0	\$ 1.00	\$0.00
21	Pavement Marking Legends		EA	0	\$ 250.00	\$0.00
22	Signage		SF	0	\$ 50.00	\$0.00
23	Boardwalk/Deck Structure		LF	0	\$ 1,000.00	\$0.00
24	Detectable Warning Surface		SF	0	\$ 50.00	\$0.00
Special Items						
25	Stormwater Management BMPs		LS	1	\$ 10,000.00	\$10,000.00
26	Subtotal Construction Cost	Items 1 - 25				\$121,645.00
27	Erosion and Sediment Control	5% of Item 26	%	5		\$6,100.00
28	Contingency	10% of Item 26	%	10		\$12,200.00
29	Mobilization	8% of Item 26	%	8		\$9,700.00
30	Maintenance and Protection of Traffic	5% of Item 26	%	5		\$6,100.00
31	Total Construction Cost (2019)	Items 26 - 30				\$155,745.00
32	Construction Inspection	10% of Item 31	%	10		\$15,600.00
33	Environmental Testing		LS	1	\$1,000.00	\$1,000.00
34	Engineering and Permitting	15% of Item 31	%	15		\$23,400.00
35	Total Project Cost (2019)	Items 31-34				\$195,745.00
36		3% Per Year X Item 35 to 2019	YR	0		\$0.00
37	Total Construction Cost (2019)	Items 35 - 36				\$195,745.00

Item No.	Description	Comment	Unit	Quantity	Unit Cost	Cost
Standard Items						
1	Clearing and Grubbing		CY	441	\$ 65.00	\$28,665.00
2	Class 1 Excavation		CY	485	\$ 50.00	\$24,250.00
3	Class 1B Excavation		CY	0	\$ 75.00	\$0.00
4	Class 4 Excavation		CY	0	\$ 35.00	\$0.00
5	Foreign Borrow Excavation		CY	0	\$ 30.00	\$0.00
6	Asphalt Trail Pavement		SY	969	\$ 50.00	\$48,450.00
7	Full Depth Pavement		SY	0	\$ 110.00	\$0.00
8	Cement Concrete Sidewalk		SY	0	\$ 140.00	\$0.00
9	PLCC Curb		LF	0	\$ 60.00	\$0.00
10	Infiltration Trench		LF	850	\$ 64.00	\$54,400.00
11	Guide Rail		LF	0	\$ 25.00	\$0.00
12	Bridge Railing		LF	0	\$ 50.00	\$0.00
13	Privacy Trail Fence		LF	0	\$ 50.00	\$0.00
14	Standard Trail Fence		LF	0	\$ 15.00	\$0.00
15	HD Trail Fence		LF	601	\$ 25.00	\$15,025.00
16	Topsoil Furnished and Placed		CY	90	\$ 70.00	\$6,300.00
17	Seeding and Soil Supplements - Formula L		LB	39	\$ 35.00	\$1,365.00
18	Mulching - Hay		TON	1	\$ 500.00	\$500.00
19	4" Pavement Markings		LF	439	\$ 1.00	\$439.00
20	Pavement Marking Legends		EA	3	\$ 250.00	\$750.00
21	Signage		SF	21	\$ 50.00	\$1,050.00
22	Boardwalk/Deck Structure		LF	0	\$ 1,000.00	\$0.00
23	Detectable Warning Surface		SF	0	\$ 50.00	\$0.00
Special Items						
24	Chester Valley/Warner Spur Access Point		LS	1	\$ 15,000.00	\$15,000.00
25	Little Valley Creek Culvert Repair/Rehab		LS	1	\$ 250,000.00	\$250,000.00
26	Disposal of Contaminated Soils	10% of Clearing & Grubbing	CY	45	\$ 100.00	\$4,500.00
27	Subtotal Construction Cost	Items 1 - 26				\$450,694.00
28	Erosion and Sediment Control	5% of Item 27	%	5		\$22,500.00
29	Contingency	15% of Item 27	%	15		\$67,600.00
30	Mobilization	8% of Item 27	%	8		\$36,100.00
31	Maintenance and Protection of Traffic	5% of Item 27	%	5		\$22,500.00
32	Total Construction Cost (2019)	Items 27 - 31				\$599,394.00
33	Construction Inspection	10% of Item 32	%	10		\$59,900.00
34	Environmental Testing		LS	1	\$2,500.00	\$2,500.00
35	Bridge Inspection In Design		LS	1	\$4,000.00	\$4,000.00
36	Engineering and Permitting	25% of Item 32	%	25		\$149,800.00
37		Items 32-36				\$815,594.00
38	Inflation	3% Per Year X Item 37 to 2019	YR	0		\$0.00
39	Total Construction Cost (2019)	Items 37 - 38				\$815,594.00

Notes

Item 24: Chester Valley Trail Access Point includes landscaping, bicycle rack, bench, and signage for a connection between the Warner Spur Trail and Chester Valley Trail.

Item 25: The estimated cost of the repairs to the existing culvert is based on a preliminary visual inspection. The cost estimates should be revised based on a full bridge inspection conducted during the design phase.

Item No.	Description	Comment	Unit	Quantity	Unit Cost	Cost
Standard Items						
1	Clearing and Grubbing		CY	956.00	\$ 65.00	\$62,140.00
2	Class 1 Excavation		CY	652.00	\$ 50.00	\$32,600.00
3	Class 1B Excavation		CY	0.00	\$ 75.00	\$0.00
4	Class 4 Excavation		CY	0.00	\$ 35.00	\$0.00
5	Foreign Borrow Excavation		CY	589.00	\$ 30.00	\$17,670.00
6	Asphalt Trail Pavement		SY	1956.00	\$ 50.00	\$97,800.00
7	Full Depth Pavement		SY	0.00	\$ 110.00	\$0.00
8	Cement Concrete Sidewalk		SY	0.00	\$ 140.00	\$0.00
9	PLCC Curb		LF	0.00	\$ 60.00	\$0.00
10	Infiltration Trench		LF	1925.00	\$ 64.00	\$123,200.00
11	Guide Rail		LF	0.00	\$ 25.00	\$0.00
12	Bridge Railing		LF	0.00	\$ 50.00	\$0.00
13	Privacy Trail Fence		LF	1090.00	\$ 50.00	\$54,500.00
14	Standard Trail Fence		LF	0.00	\$ 15.00	\$0.00
15	HD Trail Fence		LF	142.00	\$ 25.00	\$3,550.00
16	Topsoil Furnished and Placed		CY	209.00	\$ 70.00	\$14,630.00
17	Seeding and Soil Supplements - Formula L		LB	91.00	\$ 35.00	\$3,185.00
18	Mulching - Hay		TON	2.00	\$ 500.00	\$1,000.00
19	4" Pavement Markings		LF	0.00	\$ 1.00	\$0.00
20	Pavement Marking Legends		EA	0.00	\$ 250.00	\$0.00
21	Signage		SF	0.00	\$ 50.00	\$0.00
22	Boardwalk/Deck Structure		LF	0.00	\$1,000.00	\$0.00
23	Detectable Warning Surface		SF	0.00	\$ 50.00	\$0.00
Special Items						
24	Extend Noise Wall on NE Corner		LS	1	\$75,000.00	\$75,000.00
25	SR 0202 Bridge Trail Improvements		LS	1	\$30,000.00	\$30,000.00
26	Disposal of Contaminated Soils	10% of Clearing & Grubbing	CY	96	\$100.00	\$9,600.00
27	Subtotal Construction Cost	Items 1 - 26				\$524,875.00
28	Erosion and Sediment Control	5% of Item 27	%	5		\$26,200.00
29	Contingency	15% of Item 27	%	15		\$78,700.00
30	Mobilization	8% of Item 27	%	8		\$42,000.00
31	Maintenance and Protection of Traffic	5% of Item 27	%	5		\$26,200.00
32	Total Construction Cost (2019)	Items 27 - 31				\$697,975.00
33	Construction Inspection	10% of Item 32	%	10		\$69,800.00
34	Environmental Testing		LS	1	\$5,000.00	\$5,000.00
35	Bridge Inspection In Design		LS	1	\$6,000.00	\$6,000.00
36	Engineering and Permitting	25% of Item 32	%	25		\$174,500.00
37		Items 32-36				\$953,275.00
38	Inflation	3% Per Year X Item 37 to 2019	YR	0		\$0.00
39	Total Construction Cost (2019)	Items 37 - 38				\$953,275.00

Notes

Item 24: As part of preliminary engineering, further evaluate the constructability of extending the existing noisewalls and consider alternatives to mitigate noise from US 202. Possibly consider implementing separate from the Warner Spur Trail project and evaluate options for alternative funding sources for design and construction.

Item 25: The cost estimate assumes the installation of a simple two-rail fence similar to other sections of the trail. Special hardware and mounting methods may need to be utilized in order to retrofit the fence onto the existing steel structure. Other design treatments that can be considered during design include the installation of curb or a rub rail at the bridge deck surface, as well as a handlebar height rub rail. The use of single face concrete barrier was also considered. This alternative may require a detailed structural analysis due to the additional dead load.

Item No.	Description	Comment	Unit	Quantity	Unit Cost	Cost
Standard Items						
1	Clearing and Grubbing		CY	2397	\$ 65.00	\$155,805.00
2	Class 1 Excavation		CY	1876	\$ 50.00	\$93,800.00
3	Class 1B Excavation		CY	0	\$ 75.00	\$0.00
4	Class 4 Excavation		CY	0	\$ 35.00	\$0.00
5	Foreign Borrow Excavation		CY	467	\$ 30.00	\$14,010.00
6	Asphalt Trail Pavement		SY	4347	\$ 50.00	\$217,350.00
7	Full Depth Pavement		SY	0	\$ 110.00	\$0.00
8	Cement Concrete Sidewalk		SY	0	\$ 140.00	\$0.00
9	PLCC Curb		LF	0	\$ 60.00	\$0.00
10	Infiltration Trench		LF	4000	\$ 64.00	\$256,000.00
11	Guide Rail		LF	0	\$ 25.00	\$0.00
12	Bridge Railing		LF	0	\$ 50.00	\$0.00
13	Privacy Trail Fence		LF	1576	\$ 50.00	\$78,800.00
14	Standard Trail Fence		LF	466	\$ 15.00	\$6,990.00
15	HD Trail Fence		LF	930	\$ 25.00	\$23,250.00
16	Topsoil Furnished and Placed		CY	605	\$ 70.00	\$42,350.00
17	Seeding and Soil Supplements - Formula L		LB	264	\$ 35.00	\$9,240.00
18	Mulching - Hay		TON	4	\$ 500.00	\$2,000.00
19	4" Pavement Markings		LF	0	\$ 1.00	\$0.00
20	Pavement Marking Legends		EA	0	\$ 250.00	\$0.00
21	Signage		SF	0	\$ 50.00	\$0.00
22	Boardwalk/Deck Structure		LF	90	\$ 1,000.00	\$90,000.00
23	Detectable Warning Surface		SF	0	\$ 50.00	\$0.00
Special Items						
24	Pedestrian Bridge Over Swedesford Road		LS	1	\$600,000.00	\$600,000.00
25	Utility Relocations for Pedestrian Bridge		LS	1	\$50,000.00	\$50,000.00
26	Cool Valley Preserve Access Point		LS	1	\$5,000.00	\$5,000.00
27	Valley Creek Culvert Repair/Rehab		LS	1	\$200,000.00	\$200,000.00
28	Disposal of Contaminated Soils	10% of Clearing & Grubbing	CY	240	\$100.00	\$24,000.00
29	Subtotal Construction Cost	Items 1 - 28				\$1,868,595.00
30	Erosion and Sediment Control	5% of Item 29	%	5		\$93,400.00
31	Contingency	15% of Item 29	%	15		\$280,300.00
32	Mobilization	8% of Item 29	%	8		\$149,500.00
33	Maintenance and Protection of Traffic	5% of Item 29	%	5		\$93,400.00
34	Total Construction Cost (2019)	Items 29 - 33				\$2,485,195.00
35	Construction Inspection	10% of Item 34	%	10		\$248,500.00
36	Environmental Testing		LS	1	\$12,000.00	\$12,000.00
37	Bridge Inspection in Design		LS	1	\$4,000.00	\$4,000.00
38	Engineering and Permitting	25% of Item 34	%	25		\$621,300.00
39	Total Project Cost (2019)	Items 34-38				\$3,370,995.00
40	Inflation	3% Per Year X Item 39 to 2019	YR	0		\$0.00
41	Total Construction Cost (2019)	Items 39 - 40				\$3,370,995.00

Notes

Item 22: The proposed boardwalk/deck structure for a trail overlook is an optional design feature. Possibly consider implementing separate from the Warner Spur Trail project and evaluate options for alternative funding sources for both capital and ongoing maintenance costs.

Item 26: Cool Valley Preserve Access Point includes fencing, bicycle rack, bench, and signage for a connection between the Warner Spur Trail and existing trails within Cool Valley Preserve. Possibly consider implementing some of the features separate from the Warner Spur Trail project and evaluate options for alternative funding sources.

Item 27: The estimated cost of the repairs to the existing culvert is based on a preliminary visual inspection. The cost estimates should be revised based on a full bridge inspection conducted during the design phase.

Engineer's Conceptual Opinion of Cost for
 Warner Spur Trail
 Segment D - Valley Creek to Cedar Hollow Preserve
 Bridge Alternative

6/11/2019

LF

2600

Item No.	Description	Comment	Unit	Quantity	Unit Cost	Cost
Standard Items						
1	Clearing and Grubbing		CY	1688	\$ 65.00	\$109,720.00
2	Class 1 Excavation		CY	1386	\$ 50.00	\$69,300.00
3	Class 1B Excavation		CY	0	\$ 75.00	\$0.00
4	Class 4 Excavation		CY	0	\$ 35.00	\$0.00
5	Foreign Borrow Excavation		CY	2322	\$ 30.00	\$69,660.00
6	Asphalt Trail Pavement		SY	2772	\$ 50.00	\$138,600.00
7	Full Depth Pavement		SY	0	\$ 110.00	\$0.00
8	Cement Concrete Sidewalk		SY	0	\$ 140.00	\$0.00
9	PLCC Curb		LF	0	\$ 60.00	\$0.00
10	Infiltration Trench		LF	2600	\$ 64.00	\$166,400.00
11	Guide Rail		LF	0	\$ 25.00	\$0.00
12	Bridge Railing		LF	0	\$ 50.00	\$0.00
13	Privacy Trail Fence		LF	3230	\$ 50.00	\$161,500.00
14	Standard Trail Fence		LF	162	\$ 15.00	\$2,430.00
15	HD Trail Fence		LF	400	\$ 25.00	\$10,000.00
16	Topsoil Furnished and Placed		CY	463	\$ 70.00	\$32,410.00
17	Seeding and Soil Supplements - Formula L		LB	202	\$ 35.00	\$7,070.00
18	Mulching - Hay		TON	3	\$ 500.00	\$1,500.00
19	4" Pavement Markings		LF	0	\$ 1.00	\$0.00
20	Pavement Marking Legends		EA	0	\$ 250.00	\$0.00
21	Signage		SF	0	\$ 50.00	\$0.00
22	Boardwalk/Deck Structure		LF	0	\$ 1,000.00	\$0.00
23	Detectable Warning Surface		SF	0	\$ 50.00	\$0.00
Special Items						
24	Pedestrian Bridge		LS	1	\$600,000.00	\$600,000.00
25	Retaining Wall for Pedestrian Bridge	550 LF*6' Above +3' Below Ground	SF	4,950	\$50.00	\$247,500.00
26	Disposal of Contaminated Soils	10% of Clearing & Grubbing	CY	169	\$100.00	\$16,900.00
27	Subtotal Construction Cost	Items 1 - 26				\$1,632,990.00
28	Erosion and Sediment Control	5% of Item 27	%	5		\$81,600.00
29	Contingency	15% of Item 27	%	15		\$244,900.00
30	Mobilization	8% of Item 27	%	8		\$130,600.00
31	Maintenance and Protection of Traffic	5% of Item 27	%	5		\$81,600.00
32	Total Construction Cost (2019)	Items 27 - 31				\$2,171,690.00
33	Construction Inspection	10% of Item 32	%	10		\$217,200.00
34	Environmental Testing		LS	1	\$8,000.00	\$8,000.00
35	Engineering and Permitting	25% of Item 32	%	25		\$542,900.00
36	Total Project Cost (2019)	Items 32-35				\$2,939,790.00
37		3% Per Year X Item 36 to 2019	YR	0		\$0.00
38	Total Construction Cost (2019)	Items 36 - 37				\$2,939,790.00

Engineer's Conceptual Opinion of Cost for
 Warner Spur Trail
 Segment D - Valley Creek to Cedar Hollow Preserve
 At-Grade Alternative

6/11/2019

LF

2600

Item No.	Description	Comment	Unit	Quantity	Unit Cost	Cost
Standard Items						
1	Clearing and Grubbing		CY	1499	\$ 65.00	\$97,435.00
2	Class 1 Excavation		CY	2567	\$ 50.00	\$128,350.00
3	Class 1B Excavation		CY	0	\$ 75.00	\$0.00
4	Class 4 Excavation		CY	0	\$ 35.00	\$0.00
5	Foreign Borrow Excavation		CY	0	\$ 30.00	\$0.00
6	Asphalt Trail Pavement		SY	2772	\$ 50.00	\$138,600.00
7	Full Depth Pavement		SY	0	\$ 110.00	\$0.00
8	Cement Concrete Sidewalk		SY	0	\$ 140.00	\$0.00
9	PLCC Curb		LF	0	\$ 60.00	\$0.00
10	Infiltration Trench		LF	2600	\$ 64.00	\$166,400.00
11	Guide Rail		LF	0	\$ 25.00	\$0.00
12	Bridge Railing		LF	0	\$ 50.00	\$0.00
13	Privacy Trail Fence		LF	3230	\$ 50.00	\$161,500.00
14	Standard Trail Fence		LF	0	\$ 15.00	\$0.00
15	HD Trail Fence		LF	400	\$ 25.00	\$10,000.00
16	Topsoil Furnished and Placed		CY	370	\$ 70.00	\$25,900.00
17	Seeding and Soil Supplements - Formula L		LB	162	\$ 35.00	\$5,670.00
18	Mulching - Hay		TON	3	\$ 500.00	\$1,500.00
19	4" Pavement Markings		LF	30	\$ 1.00	\$30.00
20	Pavement Marking Legends		EA	6	\$ 250.00	\$1,500.00
21	Signage		SF	49	\$ 50.00	\$2,450.00
22	Boardwalk/Deck Structure		LF	0	\$1,000.00	\$0.00
23	Detectable Warning Surface		SF	0	\$ 50.00	\$0.00
Special Items						
24	Drainage Improvements at Indian Run Road		LS	1	\$90,000.00	\$90,000.00
25	Disposal of Contaminated Soils	10% of Clearing & Grubbing	CY	150	\$100.00	\$15,000.00
26	Subtotal Construction Cost	Items 1 - 25				\$844,335.00
27	Erosion and Sediment Control	5% of Item 26	%	5		\$42,200.00
28	Contingency	15% of Item 26	%	15		\$126,700.00
29	Mobilization	8% of Item 26	%	8		\$67,500.00
30	Maintenance and Protection of Traffic	5% of Item 26	%	5		\$42,200.00
31	Total Construction Cost (2019)	Items 26 - 30				\$1,122,935.00
32	Construction Inspection	10% of Item 31	%	10		\$112,300.00
33	Environmental Testing		LS	1	\$8,000.00	\$8,000.00
34	Engineering and Permitting	25% of Item 31	%	25		\$280,700.00
35	Total Project Cost (2019)	Items 31-34				\$1,523,935.00
36	Inflation	3% Per Year X Item 35 to 2019	YR	0		\$0.00
37		Items 35 - 36				\$1,523,935.00

Engineer's Conceptual Opinion of Cost for
 Warner Spur Trail
 Segment E - Cedar Hollow Preserve to Church Road

6/11/2019

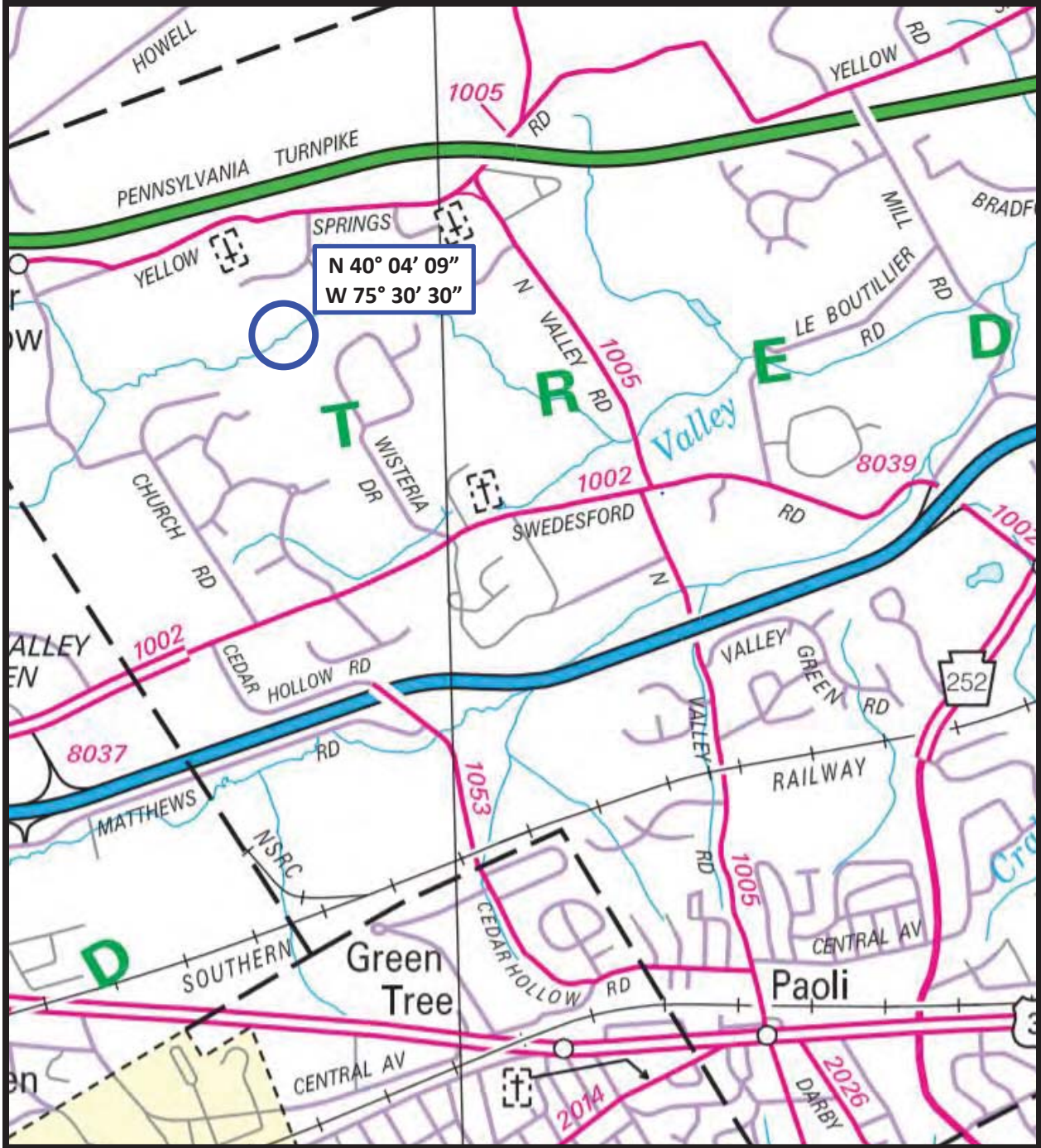
LF

1000

Item No.	Description	Comment	Unit	Quantity	Unit Cost	Cost
Standard Items						
1	Clearing and Grubbing		CY	606	\$ 65.00	\$39,390.00
2	Class 1 Excavation		CY	453	\$ 50.00	\$22,650.00
3	Class 1B Excavation		CY	0	\$ 75.00	\$0.00
4	Class 4 Excavation		CY	0	\$ 35.00	\$0.00
5	Foreign Borrow Excavation		CY	143	\$ 30.00	\$4,290.00
6	Asphalt Trail Pavement	Including St. John's Road Access Point	SY	1084	\$ 50.00	\$54,200.00
7	Full Depth Pavement		SY	0	\$ 110.00	\$0.00
8	Cement Concrete Sidewalk		SY	0	\$ 140.00	\$0.00
9	PLCC Curb		LF	0	\$ 60.00	\$0.00
10	Infiltration Trench		LF	600	\$ 64.00	\$38,400.00
11	Guide Rail		LF	0	\$ 25.00	\$0.00
12	Bridge Railing		LF	0	\$ 50.00	\$0.00
13	Privacy Trail Fence		LF	0	\$ 50.00	\$0.00
14	Standard Trail Fence		LF	335	\$ 15.00	\$5,025.00
15	HD Trail Fence		LF	0	\$ 25.00	\$0.00
16	Topsoil Furnished and Placed		CY	165	\$ 70.00	\$11,550.00
17	Seeding and Soil Supplements - Formula L		LB	72	\$ 35.00	\$2,520.00
18	Mulching - Hay		TON	1	\$ 500.00	\$500.00
19	4" Pavement Markings		LF	701	\$ 1.00	\$701.00
20	Pavement Marking Legends		EA	20	\$ 250.00	\$5,000.00
21	Signage		SF	112	\$ 50.00	\$5,600.00
22	Boardwalk/Deck Structure		LF	0	\$1,000.00	\$0.00
23	Detectable Warning Surface		SF	0	\$ 50.00	\$0.00
Special Items						
24	St. John's Road / Cedar Hollow Preserve Access Point		LS	1	\$10,000.00	\$10,000.00
25	Disposal of Contaminated Soils	10% of Clearing & Grubbing	CY	61	\$100.00	\$6,100.00
26	Subtotal Construction Cost	Items 1 - 25				\$205,926.00
27	Erosion and Sediment Control	5% of Item 26	%	5		\$10,300.00
28	Contingency	15% of Item 26	%	15		\$30,900.00
29	Mobilization	8% of Item 26	%	8		\$16,500.00
30	Maintenance and Protection of Traffic	15% of Item 26	%	15		\$30,900.00
31	Total Construction Cost (2019)	Items 26 - 30				\$294,526.00
32	Construction Inspection	10% of Item 31	%	10		\$29,500.00
33	Environmental Testing		LS	1	\$3,000.00	\$3,000.00
34	Engineering and Permitting	25% of Item 31	%	25		\$73,600.00
35	Total Project Cost (2019)	Items 31-34				\$400,626.00
36	Inflation	3% Per Year X Item 35 to 2019	YR	0		\$0.00
37		Items 35 - 36				\$400,626.00

Notes

Item 26: Cedar Hollow Preserve Access Point includes fencing, bicycle rack, bench, and signage for a connection between the Warner Spur Trail and existing trails within Cedar Hollow Preserve. Possibly consider implementing some of the features separate from the Warner Spur Trail project and evaluate options for alternative funding sources.



LOCATION MAP

WARNER SPUR RAILBED BRIDGE OVER VALLEY CREEK

Tredyffrin Township
Chester County, Pennsylvania

Warner Spur Railbed Bridge over Valley Creek

An initial field view evaluating the existing abandoned railroad bridge over Valley Creek located near Cool Valley Preserve within Tredyffrin Township was completed by McMahon Associates Inc. on January 15, 2019. The purpose of this preliminary evaluation was to identify potential structural repairs that may be necessary if the railbed is transformed into a multi-use trail for walking and biking.

This single span concrete encased steel I-beam bridge is in overall fair condition and is controlled by the superstructure and substructure condition ratings. Due to the depth of water the evaluation did not include inspection of the substructure units below the waterline.

The existing railbed surface is comprised of compacted fill material and loose aggregate. There is no hand rail system to provide public safety along the existing Warner Spur Railbed bridge over Valley Creek.

The superstructure consists of steel I-beams encased within a concrete slab. The upstream (west) and downstream (east) fascias are spalled full length exposing the top and bottom flanges of the steel-beams. There is intermittent full-length hairline cracking with minor efflorescence at the upstream and downstream ends. There are several additional isolated spalls with exposed steel I-beam bottom flanges throughout the underside.

The substructure consists of concrete abutments with integral wingwalls. There is typical hairline to slightly open vertical and horizontal cracking with minor efflorescence throughout. In addition, there are areas of moderate scaling and spalling with exposed aggregate throughout. The near left (southwest), near right (southeast) and far left (northwest) wingwalls exhibit open cracks with displacement due to settlement.

The upstream (west) channel is straight and flow enters the structure on good alignment parallel to the substructure units. The flow exits the structure straight downstream (east) and meanders into a series of s-curves. The upstream embankments are generally low with heavy vegetation growth and minor erosion while the downstream embankments are generally higher and steep with moderate to heavy erosion with exposed and undermined tree roots. Contraction scour exists beneath the structure measuring full length and full width.

Considerations for future design and construction of the Warner Spur Multi-Use Trail:

A complete NBIS inspection including a detailed inspection report will need to be conducted as part of the preliminary engineering for the multi-use trail. In addition, the scope should include an underwater inspection due to the water depth at the bridge. Priority codes 3 and 4, along with any additional maintenance recommendations identified during the in-depth inspection, should be completed as part of the construction of the trail.

Warner Spur Railbed Bridge over Valley Creek

MAINTENANCE RECOMMENDATIONS:

Priority Code 0 – Immediate Action Required (within 7 days):

- None at this time.

Priority Code 1 – As Soon As Work Can be Scheduled (within 6 months):

- None at this time.

Priority Code 2 – Adjust Schedule As Needed (within 2 years):

- None at this time.

Priority Code 3 – Add To Scheduled Work:

- *6-D744303* – Repair the spalled fascias as well as the additional isolated spalls throughout the underside.
- *25-A744602* – Repair or replace the exposed and deteriorated stringers at the upstream (west) and downstream (east) ends.
- *28-B744802* – Repair the deteriorated abutment elements as needed throughout.
- *15-C744802* – Repair the deteriorated wingwall elements as needed throughout. In addition, repair the near left (southwest) buttress wall.
- *13-B745301* – Install rock protection in front of each substructure unit.
- *11-C745301* – Backfill the contraction scour beneath the bridge.

Priority Code 4 – Add To Programmed Work:

- *57-A743201* – Clean and spot paint the exposed steel I-beams at the upstream (west) and downstream (east) ends.

Priority Code 5 – As Per Existing Maintenance Schedule:

- None at this time.

Warner Spur Railbed Bridge over Valley Creek



1: Near (South) Approach



2: Near (South) Approach Trail, Looking South

Warner Spur Railbed Bridge over Valley Creek



3: Far (North) Approach



4: Far (North) Approach Trail, Looking North

Warner Spur Railbed Bridge over Valley Creek



5: Upstream (West) Elevation



6: Downstream (East) Elevation

Warner Spur Railbed Bridge over Valley Creek



7: Upstream (West) Channel



8: Downstream (East) Channel

Warner Spur Railbed Bridge over Valley Creek



9: General View of the Superstructure Underside, Looking Downstream (East)



10: Close-Up View of the Superstructure Underside
Note – There several spalls with exposed I-beam bottom flanges near mid-span.

Warner Spur Railbed Bridge over Valley Creek



11: General View of the Upstream (West) Fascia

Note – The fascia is spalled full length by full height exposing the top and bottom flanges of the fascia beam.



12: General View of the Downstream (East) Fascia

Note – The fascia is spalled full length exposing the top and bottom flanges of the fascia beam.

Warner Spur Railbed Bridge over Valley Creek



13: General View of the Near (South) Abutment, Looking Downstream



14: General View of the Near Left (Southwest) Wingwall

Warner Spur Railbed Bridge over Valley Creek



15: General View of the Near Right (Southeast) Wingwall



16: General View of the Far (North) Abutment, Looking Downstream

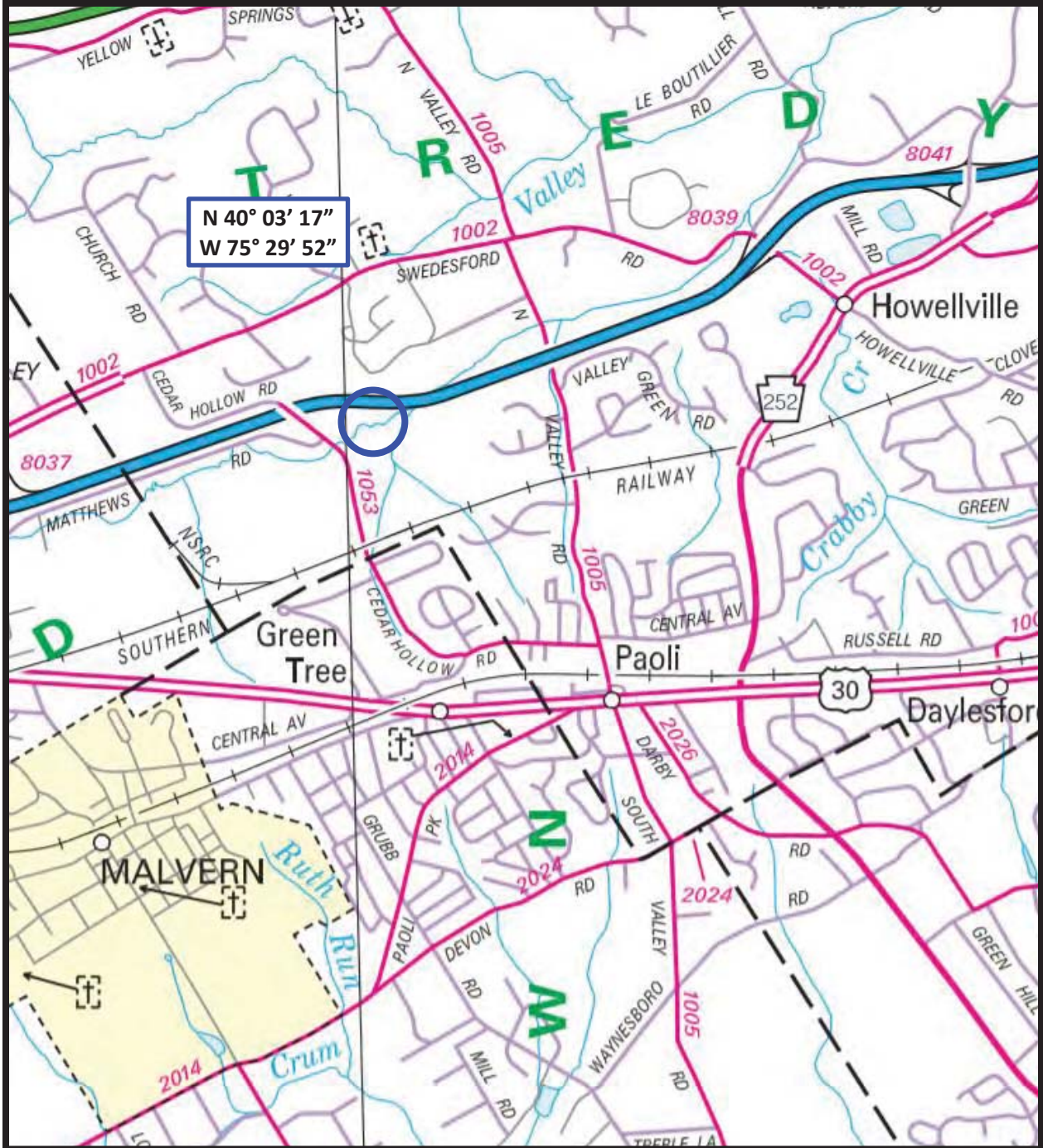
Warner Spur Railbed Bridge over Valley Creek



17: General View of the Far Left (Northwest) Wingwall



18: General View of the Far Right (Northeast) Wingwall



LOCATION MAP

WARNER SPUR RAILBED BRIDGE OVER LITTLE VALLEY CREEK

Tredyffrin Township
 Chester County, Pennsylvania

Warner Spur Railbed Bridge over Little Valley Creek

An initial field view evaluating the existing abandoned railroad bridge over Little Valley Creek located near Cedar Hollow Park within Tredyffrin Township was completed by McMahon Associates Inc. on January 15, 2019. The purpose of this preliminary evaluation was to identify potential structural repairs that may be necessary if the railbed is transformed into a multi-use trail for walking and biking.

This single span stone masonry closed spandrel arch bridge is in overall poor condition and is controlled by the superstructure and substructure condition ratings.

The existing railbed surface is comprised of compacted fill material. There is no railing system to provide public safety along the existing Warner Spur Railbed bridge over Little Valley Creek.

The superstructure is comprised of an intrados (barrel) and spandrel walls. The intrados exhibits a few short hairline transverse and longitudinal cracks along the mortar joints and through random stones. There is additional 1/8" to 1/4" wide longitudinal cracking along the arch ring and intrados interface. Substantial seepage accompanied by stone and mortar loss exists throughout. There are random locations of missing stone and mortar, specifically, an area measuring 3' diameter by 1' deep at the near end of the ¾-point. The spandrel walls appear vertical and plumb. There is random hairline cracking along the mortar joints and through random stones. There is minor mortar loss in random areas including between several upstream ring stones and along the arch ring and spandrel wall interface. In addition, the upstream spandrel wall exhibits vegetation growth protruding from the mortar joints with surrounding bulging.

The substructure consists of stone masonry abutments with integral wingwalls and buttress wall at the near left (southwest) corner. There is typical hairline cracking along the mortar joints and through random stones. In addition, there are areas with loose, deteriorated and missing stones and mortar throughout. The near (south) abutment exhibits a 2' wide by 2' high by 1' deep void at the upstream end due to stone and mortar loss.

The channel flows from east to west with good alignment through the bridge. The upstream embankments are generally low with heavy vegetation growth while the downstream embankments are generally high and steep with moderate to severe bank scour with exposed and undermined tree roots. Large fallen trees with accumulated flood debris exists in the downstream (west) channel. There is localized advanced scour at the upstream corner of the far (north) abutment apron measuring 3' deep by 2' high. Additional pockets measuring up to 1' deep exist along the concrete apron. Contraction scour measuring greater than 8' exists at the upstream opening.

Considerations for future design and construction of the Warner Spur Multi-Use Trail:

A complete NBIS inspection including a detailed inspection report will need to be conducted as part of the preliminary engineering for the multi-use trail. Priority codes 2 and 3, along with any additional maintenance recommendations identified during the in-depth inspection, should be completed as part of the construction of the trail.

Warner Spur Railbed Bridge over Little Valley Creek

MAINTENANCE RECOMMENDATIONS:

Priority Code 0 – Immediate Action Required (within 7 days):

- None at this time.

Priority Code 1 – As Soon As Work Can be Scheduled (within 6 months):

- None at this time.

Priority Code 2 – Adjust Schedule As Needed (within 2 years):

- *28-B744802* – Repair the deteriorated abutment elements as needed throughout.
- *15-C744802* – Repair the deteriorated wingwall elements as needed throughout. In addition, repair the near left (southwest) buttress wall.
- *22-E744803* – Underpin the undermined far (north) abutment apron at the upstream corner.
- *48-C745203* – Repair the deteriorated areas throughout the intrados underside.

Priority Code 3 – Add To Scheduled Work:

- *19-F744804* – Repoint the stone masonry elements as needed throughout.
- *30-A745301* – Reconstruct the deteriorated streambed paving at the upstream opening.
- *13-B745301* – Install rock protection in front of each substructure unit.
- *11-C745301* – Backfill the localized scour at the upstream corner of the far (north) abutment as well as the contraction scour throughout the upstream channel.
- *3-ECREMG* – Remove the fallen trees and debris accumulation throughout the downstream channel. In addition, remove the vegetation growth protruding from the mortar joints at the upstream (east) spandrel wall.

Priority Code 4 – Add To Programmed Work:

- None at this time.

Priority Code 5 – As Per Existing Maintenance Schedule:

- None at this time.

Warner Spur Railbed Bridge over Little Valley Creek



1: Near (South) Approach



2: Near (South) Approach Trail, Looking South

Warner Spur Railbed Bridge over Little Valley Creek



3: Far (North) Approach



4: Far (North) Approach Trail, Looking North

Warner Spur Railbed Bridge over Little Valley Creek



5: Upstream (East) Elevation



6: Downstream (West) Elevation

Warner Spur Railbed Bridge over Little Valley Creek



7: Upstream (East) Channel



8: Downstream (West) Channel

Warner Spur Railbed Bridge over Little Valley Creek



9: General View of the Superstructure Underside, Looking Upstream (East)



10: Close-Up View of the Superstructure Underside

Note – There is a 3' diameter x 1' deep are of missing stone and mortar at the near end of the $\frac{3}{4}$ -point.

Warner Spur Railbed Bridge over Little Valley Creek



11: General View of the Upstream (East) Arch Ring Underside, Looking Back

Note – There is 1/8" to 1/4" partial length longitudinal outboard cracking along the arch ring and intrados interface.



12: General View of the Downstream (West) Arch Ring Underside, Looking Back

Note – There is 1/8" to 1/4" partial length longitudinal outboard cracking along the arch ring and intrados interface.

Warner Spur Railbed Bridge over Little Valley Creek



13: General View of the Upstream (East) Spandrel Wall



14: General View of the Downstream (West) Spandrel Wall

Warner Spur Railbed Bridge over Little Valley Creek



15: General View of the Near (South) Abutment, Looking Upstream



16: Close-Up View of the Near (South) Abutment at the Upstream Corner
Note – There is a 2' W x 2' H x 1' D area of stone and mortar loss.

Warner Spur Railbed Bridge over Little Valley Creek



17: General View of the Near Left (Southwest) Wingwall
Note – The buttress wall exhibits numerous areas of missing stone and mortar.



18: General View of the Near Right (Southeast) Wingwall

Warner Spur Railbed Bridge over Little Valley Creek



19: General View of the Far (North) Abutment, Looking Upstream



20: General View Far (North) Abutment Apron, Looking Upstream

Warner Spur Railbed Bridge over Little Valley Creek



21: Close-Up View of the Far (North) Abutment Apron at the Upstream Corner
Note – The concrete apron exhibits moderate to heavy abrasion along the waterline with several pockets of undermining measuring up to 1' D lateral penetration.



22: Close-Up View of the Far (North) Abutment Apron at the Upstream Corner
Note – The apron is undermined 3' D x 2' H at the upstream corner.

Warner Spur Railbed Bridge over Little Valley Creek



23: General View of the Far Left (Northwest) Wingwall



24: General View of the Far Right (Northeast) Wingwall

Project: Warner Spur Trail							
Inspection Date: 1/15/2019							
Feature carried: Warner Spur Railbed over Valley Creek							
Feature intersected: Little Valley Creek							
TABLE 1.0 – Overall Superstructure Rating							
						CONDITION RATING	
SPAN							
						1	
						2	
						3	
						4	
INTRADOS	1*	*** Changes Since Last Inspection				8	
	2*	Bulge				6	
	3*	Cracks - Transverse				5	
	4*	Cracks – Longitudinal & Skewed	Interior		5		
			Outboard		5		
	5*	Missing Stones				4	
	6	Missing Mortar				4	
	7	Seepage				4	
	8	Delaminations				6	
	Intrados Rating					4	
SPANRELWALL / RINGSTONE	1*	Changes Since Last Inspection				8	
	2*	Loss of Fill				8	
	3*	Misalignment				7	
	4*	Out of Plumb				7	
	5*	Bulge				6	
	6*	Missing Stones				8	
	7	Cracks				6	
	8	Missing Mortar				6	
	Spandrel Wall / Ringstone Rating					5	
** OVERALL SPAN RATING					4		

Overall Superstructure Rating	4
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* If any condition with an asterisk has a condition rating ≤ 4 , the associated overall rating for Intrados and Spandrel Wall/Ringstone cannot be higher than the lowest rating among these items.

** Overall Span Rating is the Lower Rating of the Intrados and Spandrel Wall/Ringstone

*** When Changes Since the Last Inspection is coded ≤ 4 , the item that has changed shall be coded no higher than the changes code.

Project: Warner Spur Trail
Inspection Date: 1/15/2019
Feature carried: Warner Spur Railbed over Valley Creek
Feature intersected: Little Valley Creek

Span 1

Intrados

Code

8

Changes: No changes were observed throughout the intrados during the initial preliminary evaluation.

6

Bulge: No significant bulging or geometric distortion was observed throughout the intrados.

5

Crack-Tran: There are few isolated short hairline transverse cracks along the mortar joints and through random stones.

5

Crack Interior: A few short hairline longitudinal cracks along the mortar joints as well as through random stones.

5

Crack Outboard: Intermittent 1/8" to 1/4" wide longitudinal cracking extend along the barrel and arch ring interfaces.

4

Missing Stones: There is a 3' diameter x 1' deep area of missing stone and mortar located at the near end of the 3/4-point.

4

Missing Mort: Numerous isolated areas of missing mortar throughout. There is a 3' diameter x 1' deep area of missing stone and mortar located at the near end of the 3/4-point.

4

Seepage: Substantial seepage accompanied by stone and mortar loss, specifically at the near end of the 3/4-point. Numerous areas of active infiltration observed throughout due to icicle formation.

6

Delam: A few random minor stone delaminations observed throughout.

Additional Notes: None.

SRID: Warner Spur Trail
Inspection Date: 1/15/2019
Feature carried: Warner Spur Railbed over Valley Creek
Feature intersected: Little Valley Creek

Span 1

Spandrel
Wall/
Ringstone

Code

8

Changes: No changes were observed throughout the intrados during the initial preliminary evaluation.

8

Loss of Fill: No loss of fill material observed.

7

Misalignment: No visible misalignment of ringstone curvature.

7

Out of Plumb: The spandrel walls appear vertical and plumb.

6

Bulge: There is a minor bulged area located above the arch ring and adjacent to the WFR.

8

Missing Stones: No missing stones observed.

6

Cracks: Random hairline cracking along the mortar joints and through isolated stones.

6

Missing Mort: Minor mortar loss in random areas including between few US (RT) ringstones and along the arch ring and spandrel wall interface.

Additional Notes: There is minor vegetation growth protruding from the mortar joints at near and far ends of the US (RT) spandrel wall.

TABLE 2.0 – Intrados Condition Rating Summary

		INTRADOS							
RATING	1	2	3	4	5	6	7	8	
	CHANGES	BULGE	TRANSV. CRACKS(4)	LONG. CRACKS (3) OUTBOARD, INTERIOR, SKEWED	MISSING STONES	MISSING MORTAR	SEEPAGE	DELAMINATION	
LIGHT	9	None	None	None (1)	None (1)	Joints repointed	None	None (1)	
	8	None	None	None (1)	None (1)	Joints repointed	None	None (1)	
	7	None	None	None	None	None	None	None	
MODERATE	6	None	Short \leq length of 1 stone	Few fine cracks	Random small stones	Minor losses	Minor	Minor	
	5	Minor crack extension or additional small missing stones	Short/ Isolated	Few medium width	A few small stones	Substantial losses of moderate depth	Substantial seepage with some mortar deterioration	Substantial volume loss to several stones	
SEVERE	4	* Mod crack widening, additional isolated missing stones	Mod to long crack	Few wide, minor loosening of stones	Moderate opening in intrados	Deep losses over significant area/stones loosened	Seepage has resulted in some loosening of stones	Loosening stones due to delamination	
	3	* New significant bulging, transverse or long. Crack	Mod to long with minor bulge	Wide w/adjacent loose or missing stones	Significant opening, further losses imminent	Mortar loss related to significant number of loose stones	Significant stone loss associated with seepage	Severe delam affecting load capacity	
CRITICAL	2***	* Significant changes; possible need to close bridge	Wide with significant bulge	Significant with losses of stones	Significant losses possibly affecting structural capacity	Missing mortar results in serious stone loss	Serious losses associated with seepage	Structural capacity seriously affected by delaminations	
	1**	*Imminent intrados failure	Imminent intrados failure	Imminent intrados failure	Imminent intrados failure	Imminent failure due to loss of stones	Imminent failure due to loss of stones	Imminent failure due to loss of stones	
0	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	

* When changes code is \leq 4 then item that has changed can be coded no higher than the changes code

** Condition Code 1 indicates the bridge is closed

*** Condition Code 2 indicates advanced deterioration and may require closure of bridge until repairs are made

(1) Repaired or rehabilitated

(2) Structure failed

(3) Longitudinal cracks are parallel to centerline roadway

(4) Transverse cracks are perpendicular to centerline roadway

TABLE 3.0 – Spandrel Wall /Ringstone Condition Ratings

SPANDREL WALL / RINGSTONE								
RATING	1	2	3	4	5	6	7	8
	CHANGES	LOSS OF FILL	OUT OF PLUMB	MISALIGNMENT	BULGE	MISSING STONES	CRACKS	MISSING MORTAR
LIGHT	9 None	None	None (1)	None(1)	None (1)	None	None (1)	None (1)
	8 None	None	None (1)	None(1)	None (1)	None	None (1)	None (1)
	7 None	None	None	None	None	None	None	None
MODERATE	6 None	None	Slight	Slight	Random small	None	Few fine	Minor
	5 Minor crack or small missing stones	None	Minor, wall still stable	Minor , no spandrel wall problems	A few stones, visibly bulged	A few small missing stones	Few medium width	Substantial losses of moderate depth
SEVERE	4 * New minor movement, missing stones, moderate cracks	Small area of fill visible, no losses	Measurable movement, possible associated cracks	Some misalignment with some associated span. Wall movement	Measurable movement, possible associated cracks	Moderate opening, no associated bulge	Wide cracks, some associated movement	Deep losses over significant area/stones loosened
	3 * Significant new movement or stone losses	Substantial visible fill, appears stable	Significant movement, wall stability affected	Significant ringstone misalignment	Significant movement affecting stability	Wall stability being affected by missing stones	Wide cracks with movement or missing stones	Mortar loss related to significant number of loose stones
CRITICAL	2 * New movement or loss of stones threatens wall stability	Exposed fill appears unstable	Potential collapse due to movement	Ringstone movement associated with serious movement of spandrel wall	Substantial movement, possible wall collapse	Wall stability seriously threatened. May be loss of fill	Wide cracks with significant movement or significant number of missing stones	Missing mortar results in serious stone loss
	1** * Imminent spandrel wall failure and loss of fill	Serious loss of fill material	Imminent spandrel wall failure and loss of fill	Imminent spandrel wall failure associated with ringstone losses	Imminent spandrel wall failure and loss of fill	Imminent spandrel wall failure and loss of fill	Imminent spandrel wall failure and loss of fill	Imminent failure due to loss of stones
	0 (2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

* When changes code is \leq 4 then item that has changed can be coded no higher than the changes code

** A condition code 1 indicates the bridge is closed

(1) Repaired or rehabilitated

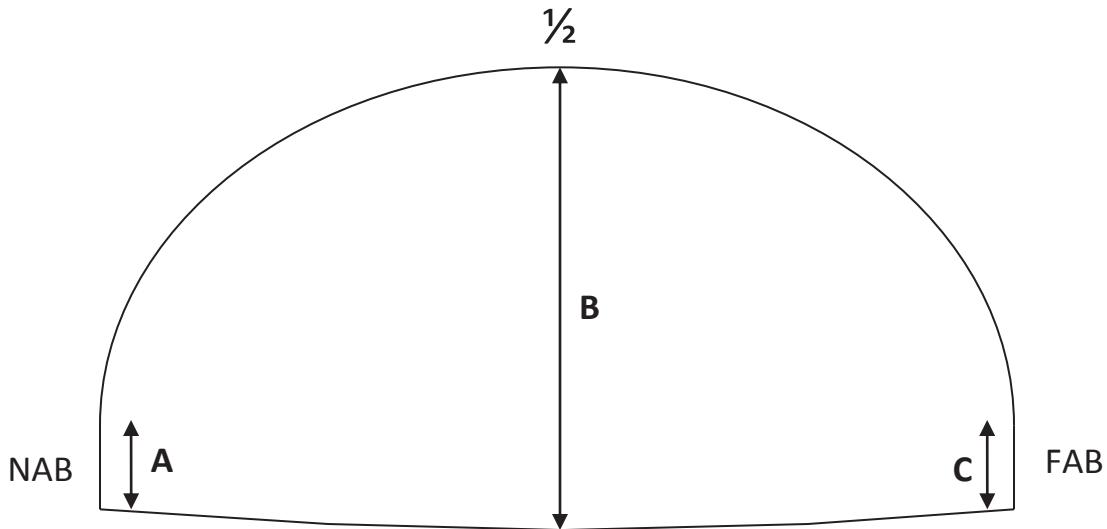
(2) Structure failed

Project: Warner Spur Trail
 Description: Warner Spur Railbed Bridge over Little Valley Creek

Team Leader: MMK
 Team Member: -

Sheet: 1 OF 1
 Date: 1/15/18

CHANNEL CROSS SECTION



CHANNEL CROSS SECTION

SCALE: N.T.S.

UPSTREAM (RIGHT) FASCIA			
DATE	A	B	C
1/15/19	8.8'*	14.4'	8.7'*
WATER DEPTH	1.5'	2.0'	1.7'

DOWNSTREAM (LEFT) FASCIA			
DATE	A	B	C
1/15/19	7.0'*	13.1'	7.0'
WATER DEPTH	0.0'	0.9'	0.0'

* indicates measurements were taken to springline.



Warner Spur Trail Frequently Asked Questions

1. What is the Warner Spur?

The Warner Spur is a 1.95 mile former rail spur line in Tredyffrin Township that connects the Chester Valley Trail (to the south) and the Atwater Community (to the north). The purpose of this study is to determine what improvements would be necessary to develop this corridor into a multi-use trail, and to estimate the costs associated with these improvements. The proposed trail could provide connections between residential areas, the regional trail network, and other nearby destinations:

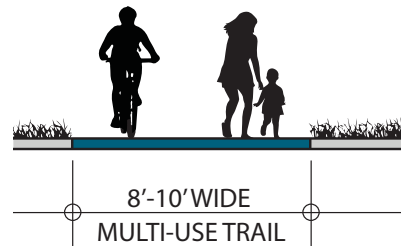
- Chester Valley Trail
- Cedar Hollow Park
- Cool Valley Preserve
- Cedar Hollow Preserve
- Atwater Community & Trails
- Proposed Devault Trail

2. What is a multi-use trail?

Multiuse trails are:

- a minimum of 8' wide and preferably 10' wide or greater;
- paved or hard surfaced paths;
- used by both pedestrians and cyclists; and
- are ADA-accessible.

The Chester Valley Trail is an example of a multi-use trail.



3. Will the trail impact my property value or ability to sell my property?

Few real estate features are universally appealing or undesirable. However, many people view trails as desirable amenities- similar to living near a park or open space. In fact, real estate listings for homes along a trail often highlight the trail's proximity as a selling point. A study currently underway called *Return on Environment - The Economic Value of Protected Open Space in Chester County* found that homes within ¼ mile of the Chester Valley Trail saw an average increase of \$11,263 as a direct result of their proximity to the trail.

4. Where will I be able to access the trail?

This master plan will identify potential trail access points where trail users can enter or exit the trail corridor. These points will most likely correlate with points of interest along the trail, such as the adjacent nature preserves, and intersections with roads and other trails, including the Atwater trail system and Chester Valley Trail. Providing well-marked access points deters trail users from entering and exiting the trail through private property.

5. How much will this trail cost to build, and who will maintain it?

This study's scope intends to identify necessary improvements to develop the Warner Spur into a multi-use trail and will provide an understanding of costs associated with these improvements. If determined to be feasible, there are many grants through private organizations as well as state and federal entities that could provide significant funding for the trail's design and development. Tredyffrin Township, Chester County, or a non-profit entity are all possible owners/operators of the potential trail. This study may identify community preferences for management of the trail, though development, operation and maintenance responsibilities will be determined after the study is complete.

6. Will the trail impact my privacy, security and/or liability?

The Warner Spur corridor varies in elevation in relation to adjacent residences, creating differing levels of visibility toward nearby homes. The study will identify locations where landscaping and fencing may be appropriate to provide a buffer between the trail and adjacent residences. The Project Team will continue to work with property owners to develop recommendations for the design, implementation, and maintenance of appropriate buffering.

The nearby Chester Valley Trail is patrolled by both Chester County park rangers and Tredyffrin Community Policing Unit. Crime on the trail has reportedly been minimal, and there has been no more incidence of crime on the trail than in the rest of the surrounding community. In some cases, development of an abandoned corridor such as the Warner Spur can reduce crime by enhancing visibility and opening it to the public.

The proposed trail is located predominantly on property owned by Tredyffrin Township. After further right-of-way and property owner research, this study will identify whether the proposed trail alignment would require obtaining any easements, and if so, responsibilities for liability would be identified within the easement language. Concerns are that more foot traffic on the corridor could increase the likelihood of trespassing onto adjacent properties. This issue has not been observed on the nearby Chester Valley Trail, though trespassing could be deterred through posting “no trespassing” signs at the property line and by installing fencing and/or vegetation. If the trail were developed, these improvements would be identified and further developed during the design phase of the project.

7. How will stormwater runoff from the proposed trail be managed?

When the Warner Spur was an active rail corridor it had drainage ditches that prevented the track from flooding. These ditches filled in over time, and as a result, some areas of the Warner Spur corridor are currently poorly drained. If the Warner Spur became a paved trail it may not generate significantly more runoff than it currently does: the ground is heavily compacted from years of railroad activity and already functions as an impervious surface. This study will identify locations with poor drainage, as well as locations where additional stormwater management will be required if the trail were paved, though exact design, size and location of stormwater management elements would be determined during the design phase of the project. Permits required to build the trail will require stormwater runoff to be managed on site to ensure adjacent properties are not impacted.

