

April 2011



Upper Darby Township  
Delaware County, Pennsylvania

# *Naylor's Run* **TRAIL** FEASIBILITY STUDY

Submitted By:

Urban Research & Development Corporation  
Bethlehem, Pennsylvania



**Upper Darby Township**  
Delaware County, Pennsylvania

April 2011



*Naylor's Run*  
**TRAIL**  
**FEASIBILITY STUDY**

Consultant:

Urban Research & Development Corporation  
Bethlehem, Pennsylvania  
[www.urdc.com](http://www.urdc.com)



*The Naylor's Run Trail Feasibility Study was funded in part by the PECO Green Region Grant.*





# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	<b>1</b>
<b>PURPOSE AND BACKGROUND</b> .....	<b>7</b>
Purpose	
Legal Feasibility	
Demand for Trail Use	
Physical Inventory and Assessment	
<b>TRAIL CONCEPT PLAN</b> .....	<b>11</b>
Trail Concept	
Maintenance and Security	
<b>RECOMMENDED ACTION PROGRAM</b> .....	<b>37</b>
<b>APPENDICES</b> .....	<b>A-1</b>





EXECUTIVE SUMMARY





## EXECUTIVE SUMMARY

The purpose of the Naylor's Run Trail Feasibility Study is to determine the best strategy for the planning, designing, building, and operating of a trail approximately 2.25 miles in length. The primary goal of the study is to locate the trail corridor on a former railroad bed currently owned by PECO, the energy company serving the Philadelphia metropolitan area. The trail, beginning at Manor Avenue, at the north, continues through Upper Darby Township to its ending at Baltimore Pike, to the south.

Planning for a pedestrian trail begins by selection of the best available corridor to provide a great experience for users of the path. The trail should be safe, ADA compliant, but does not have to be the shortest distance between the starting and ending points. The trail should encourage linkages to parks, schools and public facilities and encourage walking or biking from residential areas to commercial, community and other destinations.

The biggest obstacle facing the development of the Naylor's Run Trail is that the, PECO owned, former railroad bed, at some locations, is being used by adjacent property owners. Some of the users do have either license or lease agreements with PECO to use the right-of-way for specific purposes while others do not have official agreements for use of the PECO property. In some cases it appears feasible to arrange for shared use of the PECO right-of-way area with the licensee or lessee using the area. In other cases multiple adjacent owner encroachments combined with physical topographic conditions preclude the creation of a pedestrian trail for some of the areas.

A number of other areas are also fenced off and used for storage by adjacent residential owners. In some instances, this usage by adjacent residential properties has included the placement of storage sheds, parked cars, and other miscellaneous items on the PECO right-of-way.

Another major issue is creating safe pedestrian crossings of some major vehicular traffic corridors including South Cedar Lane, South State Road, Garrett Road, Marshall Road and Pembroke Avenue. Some of these roads are Pennsylvania State Highways and will require shared use agreements and highway occupancy permits for any pedestrian trail crossing of the highways.

In five (5) locations, the absence of former railroad bridge crossings of the Naylor's Run Creek renders the PECO right-of-way not usable without the major cost of multiple bridge rebuilding or total bridge replacement.

Another major physical barrier to development of the trail is the existence of a former grade separated railroad crossing at Marshall Road. At this location, where the former railroad bridge has been removed, the existing 10 foot high concrete bridge abutment precludes access from the adjacent road.

A secondary issue relates to the existence of a small area of man-made wetlands which have developed because of earth fill placement and/or poorly conceived regrading of the site to resolve runoff issues of adjacent property owners.



The anticipated route of the trail has been broken down from, north to south, into eight (8) segments each defined by the intersection of the trail with the existing major streets in the Township. The following priority for development of the trail is based on the consideration of the existing physical, topographical, legal ownership and present use of the entire trail.

Recommended Initial Alignment				
Trail Segment	Distance on PECO ROW	Distance outside of ROW	Total Length	Priority
1	1,560 linear feet	0 linear feet	1,560 linear feet	2
2	1,650 linear feet	0 linear feet	1,650 linear feet	2
3	870 linear feet	0 linear feet	870 linear feet	5
4A	1,425 linear feet	2,445 linear feet	3,870 linear feet	3
5A	795 linear feet	2,505 linear feet	3,300 linear feet	4
6	870 linear feet	345 linear feet	1,215 linear feet	4
7A	1,125 linear feet	660 linear feet	1,785 linear feet	1
8 to Chapman Park	885 linear feet	0 linear feet	885 linear feet	6
TOTAL	9,180 linear feet	5,955 linear feet	15,135 linear feet	

Upper Darby would need to complete a number of steps and/or tasks to make Naylor's Run Trail a reality for the Township. Some of the following may be implemented concurrently for each trail segment.

1. Meet with PECO to coordinate efforts and to make them aware of the recommended alignment and the obstacles which have been identified. Ask that no further encroachments be permitted within the desired trail route area.
2. Meet and coordinate with PennDOT regarding a shared use agreement and any permitting requirements that may be needed for any state road crossings.
3. Work out arrangements with adjacent property owners presently using the right-of way to obtain their cooperation in sharing use of the available corridor.
4. Complete the research and make application for a Wetlands encroachment permit for Segment #2 of the trail as a part of the maintenance of a man-made wetlands due to fill placement.
5. Develop preliminary and final design plans for the various trail segments for bidding purposes and for PennDOT permitting of roadway crossings and DEP wetland encroachment permit.
6. Prepare final cost estimates of each trail segment.
7. Coordinate the identified linkages of Naylor's Run trail to Upper Darby and Bonner/Prendergast High Schools and Delaware County Memorial Hospital for future access improvements to the trail.

8. Obtain, if necessary, legal easements for the passage of the trail on private property such as the Bonner/ Prendergast High School at Garrett Road.
9. Develop an operation, maintenance and emergency response plan for each trail segment prior to its opening for use.
10. Trail System Funding.

There are a number of potential funding sources that may be applicable to the trail system that would ultimately be proposed. Federal government, state and county governments, private organizations, and foundations provide a variety of opportunities for funding of the Township efforts. Nearly all of the sources for grant funding are highly competitive. However, once the Township has nearly finalized the desired trail alignment, Upper Darby should prepare applications for grant assistance. A listing of potential funding sources is found in the appendix of this feasibility study.















**PURPOSE AND BACKGROUND**





## PURPOSE AND BACKGROUND

The following chapter includes information that lays the foundation for the Naylor's Run Trail Feasibility Study. Topics include the study purpose, legal issues, demand for trail use, and a physical inventory and assessment.

### Purpose of the Study

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The Naylor's Run Trail Feasibility Study will determine the best methods for the planning, designing, building, and operating a trail approximately 2.25 miles in length. The primary goal of the study is to locate the trail corridor on a former railroad bed currently owned by PECO, the energy company serving the Philadelphia metropolitan area.

The potential trail route—from north to south—would generally pass through the following places:

- Segment #1: Beginning in the vicinity of Manor Avenue, thence along the PECO right-of-way and past the Upper Darby Township maintenance yard to Arlington Avenue
- Segment #2: Arlington Avenue to Cedar Lane
- Segment #3: Cedar Lane to Naylor's Run Park area / State Road
- Segment #4: State Road to Garrett Road
- Segment #5: Garrett Road to the Beverly Hills recreation area
- Segment #6: Beverly Hills recreation area to Marshall Road area
- Segment #7: Marshall Road Area to the Glenwood Avenue area north of Chapman Park
- Segment #8: Glenwood Avenue area to Baltimore Pike

The Naylor's Run Trail Feasibility Study will:

- Identify all major elements of trail feasibility, including ownership of land that may be appropriate for the trail development, potential trail usage, and an inventory and assessment of the current conditions along the right-of-way.
- Identify any by-pass routes that may be necessary due to encroachments and usage by others on the former railroad bed.
- Develop a concept plan, that may be necessary and appropriate for the trail, including a potential alignment and alternative by-pass trail routes.
- Present the advantages and disadvantages of the potential concept plan alignment.
- Describe issues associated with trail development, including maintenance, security, and cost implications.

## Physical Inventory and Assessment

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URDC, during the Spring and Summer of 2010, conducted extensive field walk-through searches and investigations of the PECO right-of-way to identify any ownership, occupancy or physical barriers to development of a Naylor's Run Trail on the old railroad bed alignment.

The biggest issue facing the development of the Naylor's Run Trail is that the former railroad bed, now owned by PECO, is being used by adjacent property owners. Some of the users do have either license or lease agreements with PECO to use the right-of-way for specific purposes while others do not have official agreements for use of the PECO property. In some cases it appears feasible to arrange for shared use of the subject PECO right-of-way area with the licensee or lessee of the area. In other cases, multiple adjacent owner encroachments combined with physical topographic conditions would preclude the addition of pedestrian trail use for some of the areas.

A number of other areas are also fenced off and used for storage by adjacent owners. In some instances, the usage by adjacent residential properties has included the placement of storage sheds, parked cars, and other miscellaneous items on the PECO right-of-way.

Another major issue is that of proposing safe pedestrian crossings of some major vehicular traffic corridors including South Cedar Lane, South State Road, Garrett Road, Marshall Road and Pembroke Avenue. Some of these roads are Pennsylvania State Highways and will require shared use agreements and highway occupancy permits for any trail crossing of the highways.



In five (5) locations, the absence of former railroad bridge crossings of the Naylor's Run Creek renders the PECO right-of-way not usable without a major cost of multiple bridge rebuilding or total bridge replacement.

Another major physical barrier to development of the trail is the existence of a former grade separated railroad crossing at Marshall Road, where the former railroad bridge has been removed and the existing 10 foot high concrete bridge abutment precludes access from the adjacent road.

A secondary issue relates to the existence of a small area of man-made wetlands which has developed because of earth fill placement and/or poorly conceived regrading of the site to resolve runoff issues of adjacent property owners.

Photographs  
(left to right):  
Residential  
encroachments;  
Garrett Road at  
Naylor's Run Park.



## Legal Feasibility

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The legal feasibility research is intended to determine the characteristics of the existing PECO right-of-way and the potential use and/or limitations for trail purposes:

PECO is unique, among Energy Providers, in that it typically owns, in fee, the rights-of-way through which it's transmission lines pass through the geographic area that it services rather than using easements across property of others.

Within Upper Darby Township, the PECO right-of-way is subject to some use encroachments by adjacent property owners. In some cases this encroachment is permitted by formal legal agreement and in other instances the adjacent property owners do not have official agreements for use of the PECO property.

Photographs (left to right): Potential wetlands north of Cedar Lane; Marshall Road railroad abutment wall.



PECO has notified Upper Darby Township that it would allow a trail on their right-of-way subject to an agreement between both parties. However PECO does have other existing formal agreements with other users, that take the form of either a License Agreement or a Lease Agreement.

Based on information provided by PECO, the License Agreement, "does not have a time expiration date" and continues without limit, is forever with no renewal and could only be modified by mutual agreement with the permitted licensed user entity. The licensed user would also have to agree to allow a trail within a portion of the area through mutual agreement between Upper Darby Township and the permitted licensed user.

Based on information provided by PECO, the Lease Agreement, "purportedly has a time limit, but is typically long term and the user has option rights to renew the Lease. Again any change in this Lease Agreement would have to be mutually agreeable to the Leasing party and Upper Darby Township.

The status of each license agreement, lease agreement and/or encroachment is reported on a segment by segment basis in this feasibility report.

## Demand for Trail Use

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During all field inspections, the areas around the potential Naylor's Run Trail have extensive pedestrian traffic, particularly before and after school. In fact, some of the identified by-pass routes are currently being traveled to access local schools and neighborhoods by pedestrian users.

Demand already exists due to the concentration of adjacent low and high density residential areas, schools, hospital, mixed commercial shopping and service uses and the Naylor's Run Park. The creation of Naylor's Run Trail will serve to expand demand for trail use because it will be a more enticing pedestrian and greenway linkage for the adjacent neighborhoods.

The U. S. Census Bureau estimates that the 2009 population of the three municipalities directly served by the trail (East Lansdowne, Lansdowne, and Upper Darby) was 92,139. Two factors indicate high potential usage of Naylor's Run Trail:

- Frequent trail users often live within 1/2-mile of a trail, and the population within 1/2-mile of the trail could be as much as 70–80 percent of all residents.
- The trail passes through or near many activity centers, including Upper Darby High School, Drexel Gardens Park, the Westview Play area, Naylor's Run Park, Beverly Hills Middle School, Beverly Hills Recreation Area and Little League, Bonner/Prendergast High School, and East Lansdowne Public School.

Given the high number of activity centers near the trail, the 70–80 percent estimate appears reasonable. Therefore, the trail can be expected to serve approximately 64,500–73,700 residents in the three affected municipalities. Many residents will likely make multiple trips on the trail, increasing the number of person-trips into the hundreds of thousands annually.

TRAIL CONCEPT PLAN







## TRAIL CONCEPT PLAN

### Trail Concept

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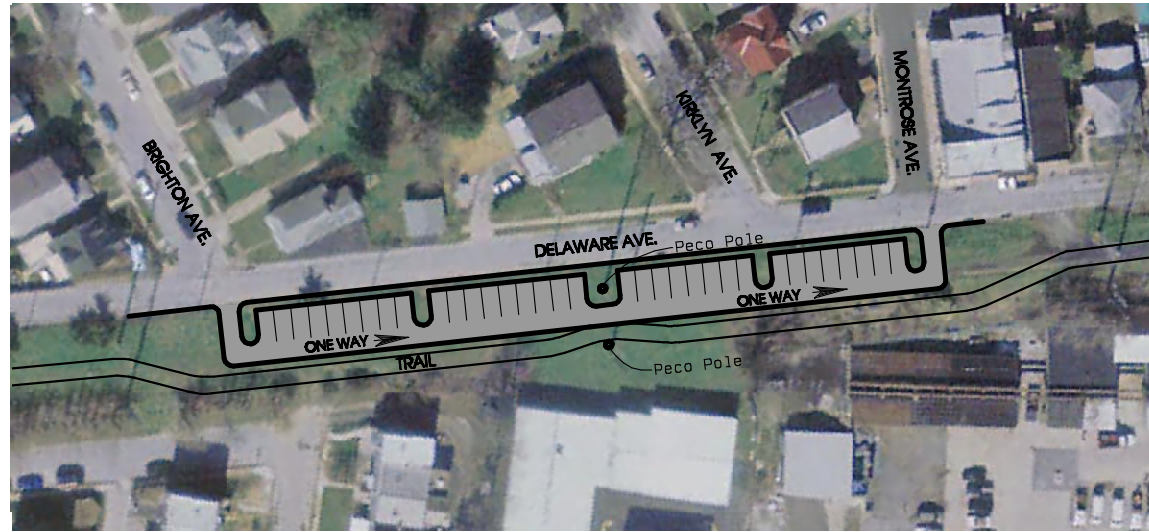
The proposed Naylor's Run Trail begins with a Concept Plan that may be used as a guide for future development. The Concept Plan is presented below, by individual segments, beginning at the north end located at Manor Avenue and proceeding southward to the terminus at an abandoned shopping center site on the north side of Baltimore Pike.

A generalized cost estimate has also been developed for each individual segment. It is based on the assumption that the entire Naylor's Run Trail would be a 10' wide paved surface.



Graphics (left to right): Trail Concept of Segment 7 looking south; Trail Concept of Segment 5A; Marshall Road Trail Concept of Segment 7A.





### Segment #1 - Manor Avenue to Montrose Avenue

Segment #1 is approximately 1,400 feet long consisting entirely of the existing PECO right-of-way that can easily be used as a trail. The segment would begin at Manor Avenue and end at Arlington Avenue. Segment #1 would require some shared use with adjacent properties, such as the Upper Darby Public Works facility (encroachment (a)) which has a license agreement to maintain an access road on the property and others that use this segment for vehicular access. This segment would also connect to the existing ballfield at Arlington Avenue. Within this segment, a parking lot for approximately 30 cars is proposed, between Brighton and Montrose Avenues, which will serve as both ballfield parking and a trail head for the proposed trail.

A generalized cost estimate for construction of Segment #1 would be in the range of \$170,000 to \$220,000.



Photographs taken along Segment #1 (left to right): Township Public Works; Potential Parking Area, Delaware Avenue Trail Head; PECO property along Delaware Avenue; View to south from Manor Avenue area.



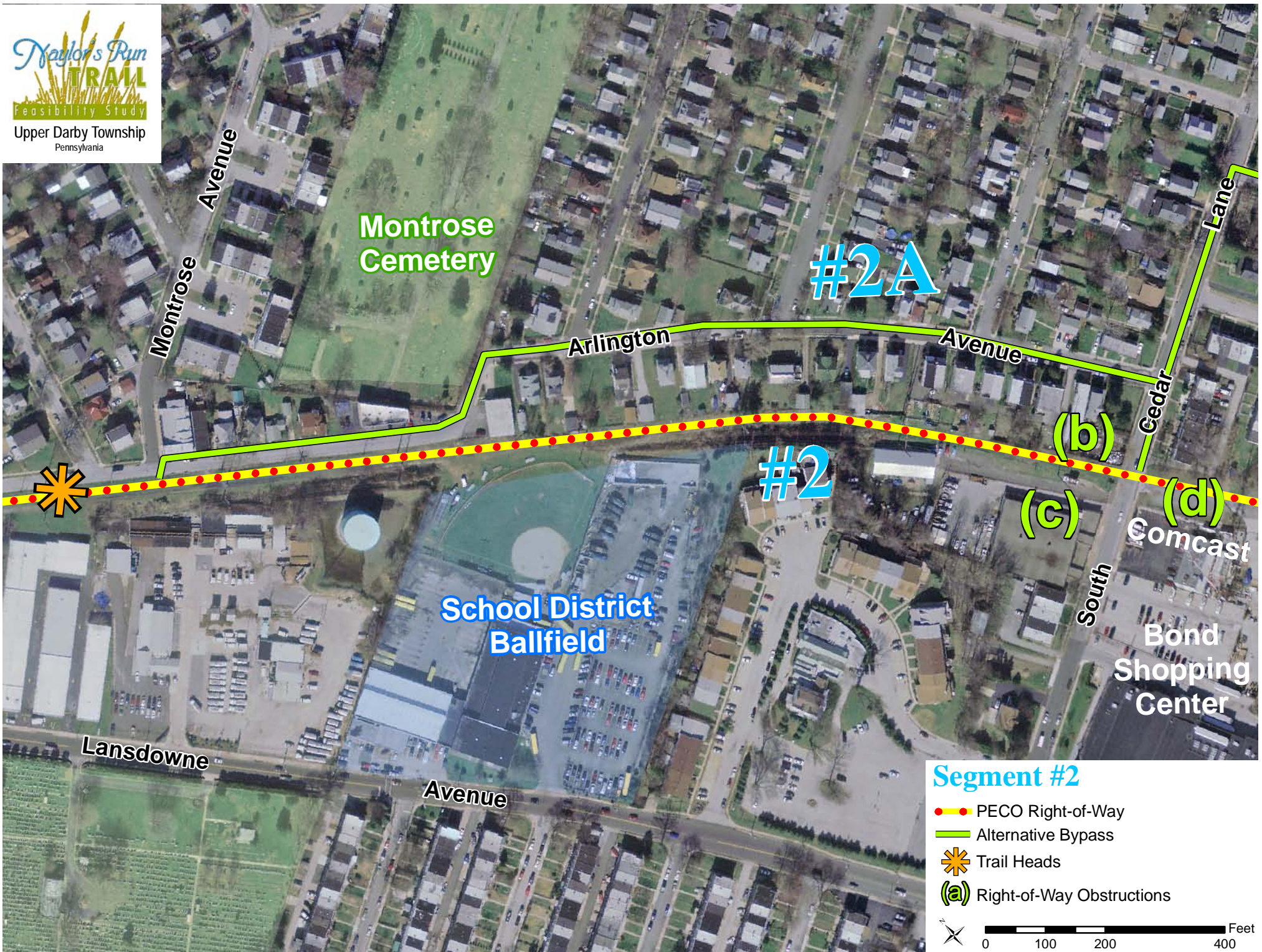


**Segment #1**

- ● PECO Right-of-Way
- Alternative Bypass
- ✱ Trail Heads
- (a) Right-of-Way Obstructions







Montrose Cemetery

#2A

#2

(b)

(c)

(d)

School District Ballfield

Comcast

Bond Shopping Center

**Segment #2**

- ● PECO Right-of-Way
- Alternative Bypass
- ✱ Trail Heads
- (a) Right-of-Way Obstructions







## Segment #2 - Montrose Avenue to South Cedar Lane

Segment #2 is approximately 1,500 feet long from Arlington Avenue to Cedar Lane. This segment is also open with the exception of some fill that has been placed midway along the corridor. The fill has resulted in the creation of a very small isolated area of man-made wetlands as confirmed by a field investigation by E. B. Walsh Associates. The disturbance of the wetlands would require a PA DEP General Permit GP-7 for minor Road Crossings. To accommodate the trail, the fill should be removed and the grade reduced at this point. In addition, positive drainage along the right-of-way connecting to the existing inlets on Cedar Lane must be created. This segment is also interrupted by two encroachments into the right-of-way. The Salvage Yard (encroachment (b)) that occurs just north of the intersection with Cedar Lane, is permitted by a license agreement with PECO, and is for the purpose of vehicle and equipment parking. The Verizon Facility (encroachment (c)) is allowed by a lease agreement with PECO to use the right-of-way area for parking of vehicles, however there is no evidence that the lease agreement is presently being used. It appears that provisions for shared use of the PECO right-of-way would be feasible for this segment thus making Segment #2 the strongly preferred route for the trail.

A generalized cost estimate for construction of Segment #2 would be in the range of \$132,000 to \$172,000.

## Segment #2A Alternative Bypass - Arlington Avenue to Cedar Lane

Segment #2A is an alternative bypass route for Segment #2 between Arlington Avenue and Cedar Lane. The segment is approximately 1,500 feet long and would follow Arlington Avenue to Cedar Lane using the street surface and/or adjacent sidewalk. Upon arrival at Cedar Lane, this segment would either turn East on Cedar Lane to continue via segment #3A or turn West on Cedar Lane to return to the PECO right-of-way to continue via segment #3. This option would be less desirable than using the PECO right-of-way because of the slope conditions encountered when leaving the PECO right-of-way, the absence of sidewalks and the requirement to use the existing street in a residential neighborhood.



Photographs (left to right): Wetlands along Segment #2; Segment #2 Encroachment (c), The Verizon Facility.

### Segment #3 - Cedar Lane to State Road



Segment #3 is approximately 1,000 feet long. The right-of-way in this area is being occupied by three adjacent users. On the south side of Cedar Lane, Comcast (encroachment (d)) has fenced in and gated the right-of-way with chain link fencing. There is no record of any license and /or lease agreement for this property. This area is also used for truck storage. Adjacent to this area Moving Company (encroachment (e)) uses an area for parking. There is no record of any license and /or lease agreement for this property. On the north side of State Road at the south end of the segment, Beatty Lumber (encroachment (f)) uses the right-of-way as a material storage area. There is an existing license agreement for vehicle parking and storage on the right-of way. It appears that provisions for shared use of the PECO right-of-way would be feasible for this segment. The path, through property occupied by Comcast, the Lumber Company and the Moving Company could be divided by fencing to maintain security for the businesses while allowing pedestrian access through a 12 foot wide trail access area thus making Segment #3 the preferred route for the trail.

A generalized cost estimate for construction of Segment #3 would be in the range of \$117,000 to \$152,000.



### Segment #3A Alternative Bypass - Cedar Lane to Westview Ave. to South Carol Blvd. to State Road

If the existing encroachments prevent use of the right-of-way on Segment #3, a viable alternative is to use Cedar Lane to Westview Avenue, crossing Westview Play Area to South Carol Boulevard, then continuing along Westview Avenue to State Road and then turning East on State Road to the Beverly Road intersection with State Road. This alternative also connects neighborhoods and the Westview Play Area and is conducive for pedestrian use.



Photographs (left to right): Cedar Lane looking east; Segment #3 Encroachment (d), Comcast; Segment #3 Encroachment (e), Moving Company; Segment #3A, the West View Play Area.





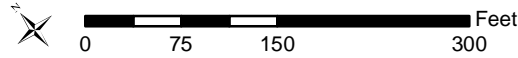
#3A

Westview  
Play  
Area

#3

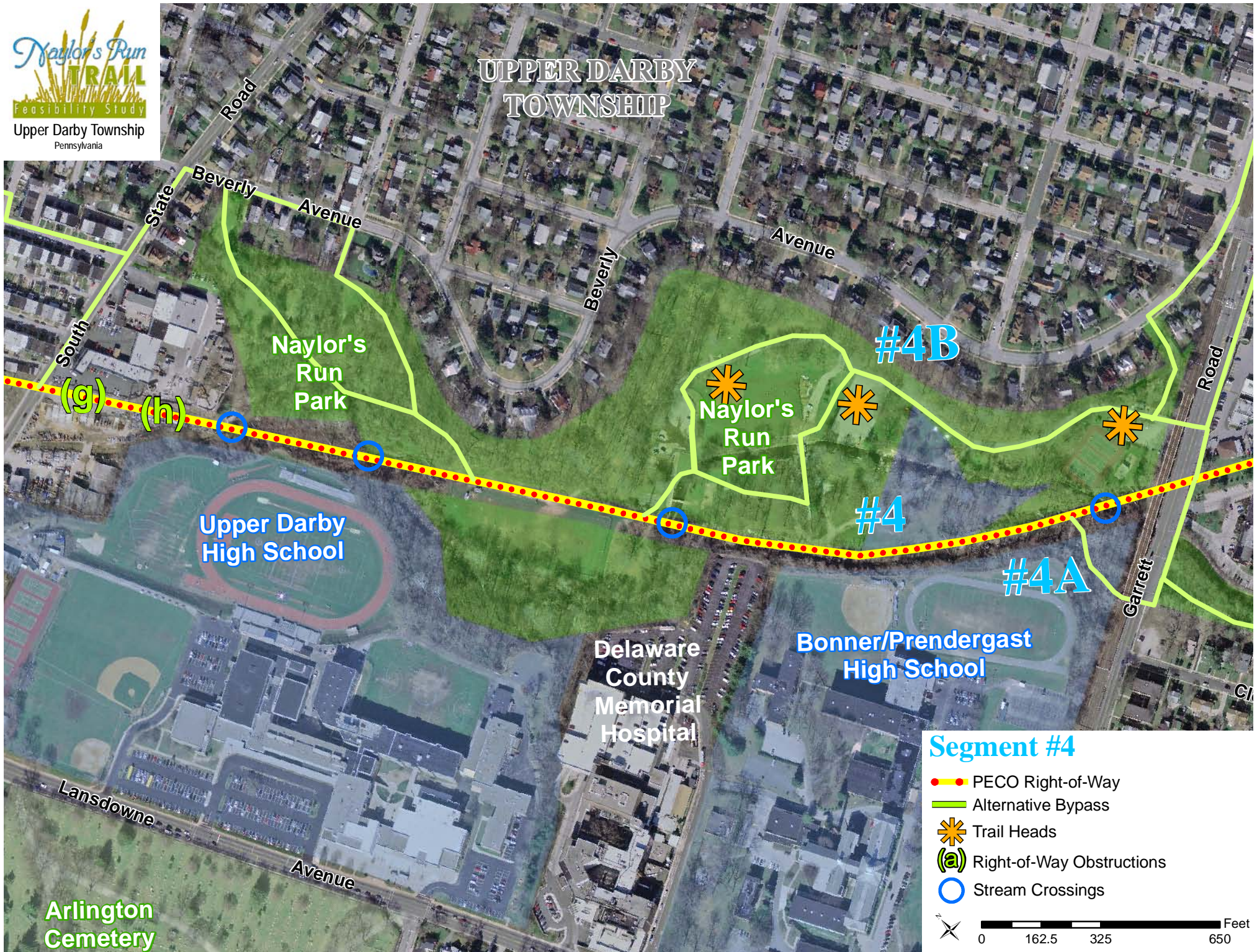
**Segment #3**

- ● PECO Right-of-Way
- Alternative Bypass
- ✱ Trail Heads
- a Right-of-Way Obstructions



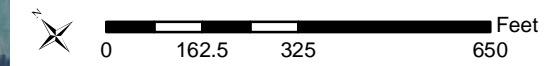


UPPER DARBY  
 TOWNSHIP



**Segment #4**

- ● PECO Right-of-Way
- Alternative Bypass
- ✱ Trail Heads
- (a) Right-of-Way Obstructions
- Stream Crossings







### Segment #4 - State Road to Garrett Road

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Segment #4 of the PECO right-of-way is approximately 3,000 feet in length. The entrance to Segment 4 is blocked at State Road by (2) encroachments. Builder's Supply (encroachment (g)) is permitted under a lease agreement for the purpose of vehicle parking and equipment storage. MJP-LP (encroachment (h)) has a lease agreement for vehicle parking and storage behind Upper Darby High School. This segment would require decking the existing railroad bridges over Naylor's Run Creek at 4 locations, and is again blocked at Garrett Road by a SEPTA facility. If the PECO right-of-way were followed in Segment 4, installation of pedestrian and/or vehicle bridges at four (4) locations where none presently exist—at a significant cost of \$120,000–\$175,000 per bridge depending upon the length of bridge span and condition of existing abutments, or a total cost of \$480,000 to \$700,000—would be required.

### Segment #4A Alternative Bypass - State Road to Garrett Road via Naylor's Run Park

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Photographs (left to right): A stream crossing within Naylor's Run Park; Segment #4 Encroachment (g); Segment #4A Park entrance on Beverly Avenue.

This segment begins at either the crossing of the PECO right-of-way and State Road if following Segment #3 or at the intersection of Westview Avenue and State Road if following Segment #3A. The #4A trail runs east along State Road to Beverly Avenue where it turns south and provides potential access to Naylor's Run Park at two existing locations along Beverly Avenue. The northern entrance to Naylor's Run Park at Beverly Avenue provides a much more pleasant and scenic trail route than following the PECO right-of-way from State Road to Garrett Road. The alternate segment not only links the adjacent residential neighborhoods to Naylor's Run Park but also can use the parking facilities within the park as trail heads. The trail, within the





park, could utilize existing pedestrian paths, at the northern end of the park, to bypass the two (2) missing bridge crossings in the PECO right-of-way. The trail can then reconnect to a 500 foot long usable section of the PECO right-of-way and then leave the PECO right-of-way to connect to an existing pedestrian bridge located about 60 feet east of the PECO property. The trail can then swing west returning to the PECO right-of-way and continue another 1000 feet along the PECO right-of-way. At this point the #4A trail leaves the PECO property and continues at the base of an embankment below the Bonner Prendergast High School track and field area to its termination under the railroad bridge adjacent to Garrett Road. This termination of Trail alternate #4A is favorably aligned with the existing narrowing of Garrett Road, allowing pedestrians to cross the road at it's most narrow point and linking almost directly to trail segment #5A through Beverly Hills Recreation Area via the existing municipal service access road.



A generalized cost estimate for the construction of Segment #4A would be in the range of \$225,000 to \$293,000.

The completion of this segment of the trail whether by alignment #4, #4A or #4B provides connections with Upper Darby and Bonner/Pendergast High Schools as well as Delaware County Memorial Hospital. This connection is made possible by an existing pedestrian bridge across the Naylor's Run Creek located between the Delaware County Hospital and Upper Darby High School which connects to existing pedestrian paths between the creek and the adjacent properties.



Photographs (clockwise):  
 Segment #4A  
 Access to Park from Beverly Boulevard;  
 Naylor's Run Park;  
 Segment #4A  
 Existing trail system within park.





### Segment #4B Alternative Bypass - State Road to Garrett Road via Naylor's Run Park ending on Beverly Boulevard Crossing of Garrett Road for Continuation on Trail #5B

This segment begins at either the crossing of the PECO right-of-way and State Road if following Segment #3 or at the intersection of Westview Avenue and State Road if following Segment #3A. The trail, like Segment #4A, runs east along State Road to Beverly Avenue where it turns south and provides potential access to Naylor's Run Park at two existing locations along Beverly Avenue. The northern entrance to Naylor's Run Park at Beverly Avenue provides a much more pleasant and scenic trail route than following the PECO right-of-way from State Road to Garrett Road. The alternate segment not only links the adjacent residential neighborhoods to Naylor's Run Park but also can use the parking facilities within the park as trail heads. The trail, within the park, could utilize existing pedestrian paths, at the northern end of the park, to bypass the two (2) missing bridge crossings in the PECO right-of-way. The trail can then reconnect to a usable, 500 foot long, section of the PECO right-of-way and then leave the PECO right-of-way to connect to existing paved trails within Naylor's Run Park to a linkage to Beverly Avenue, just short of Garrett Road. The existing mid-block crossing of Garrett Road should be eliminated since it is a very unsafe point at which to cross the road because it is at the middle of the intersection of the park entrance road and it is at its widest point and at a point where traffic is traveling at a significant speed. The #4B trail then heads along Beverly Avenue to its crossing of Garrett Road at the designated pedestrian crossing with light, opposite Beverly Boulevard for continuation along trail segment #5B.



Photographs (clockwise): Foot bridge to High School from Park; Segment #4B Access to Beverly Boulevard; Park Foot Bridge.



The completion of this segment of the trail can provide connections with Upper Darby and Bonner/Pendergast High Schools as well as Delaware County Memorial Hospital. This connection is made possible by an existing pedestrian bridge across the Naylor's Run Creek located between the Delaware County Hospital and Upper Darby High School which connects to existing pedestrian paths between the creek and the adjacent properties.



## Segment #5 - Garrett Road to Beverly Hills Recreation Area

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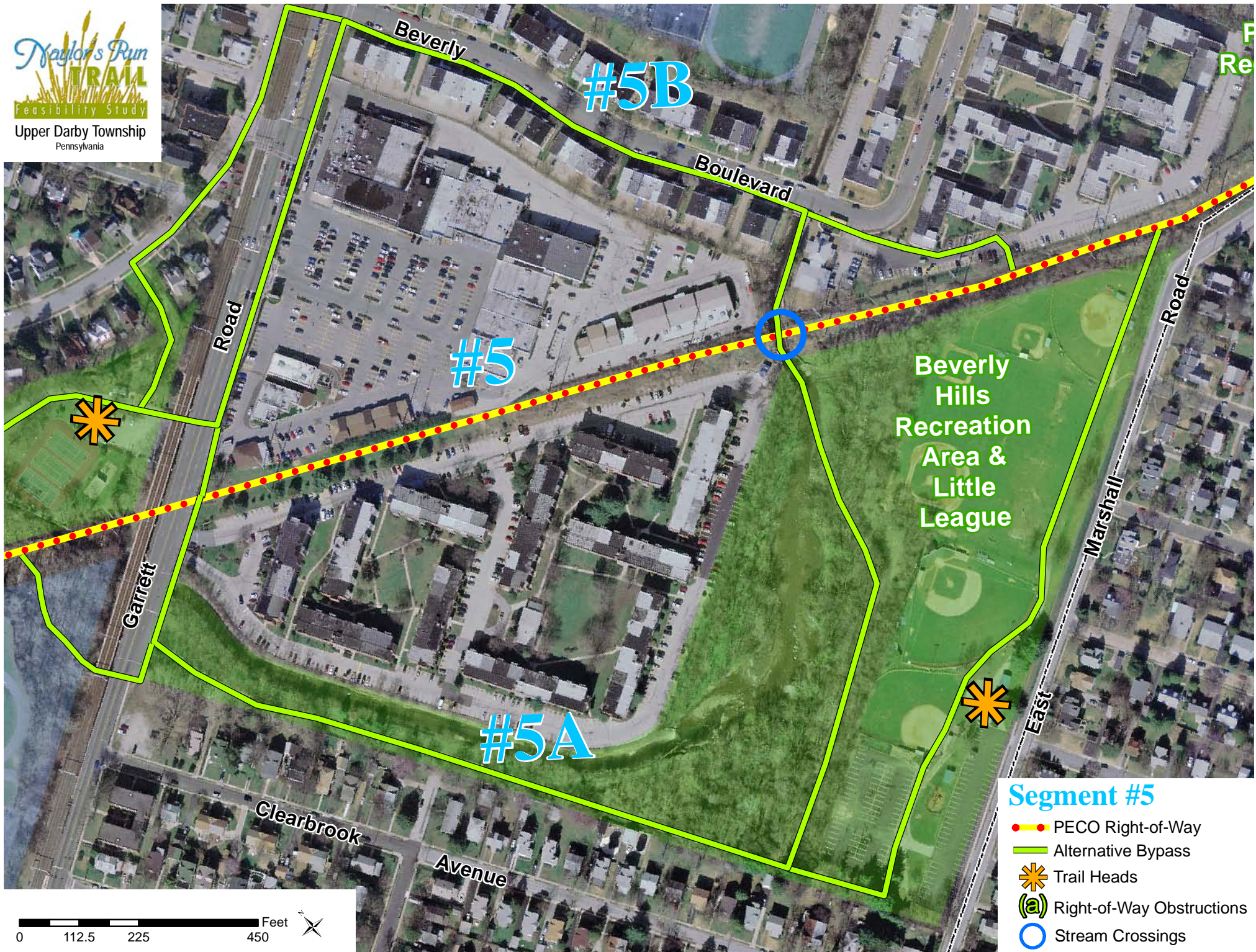
Segment 5 follows the existing PECO right-of-way from Garrett Road to the former railroad bridge area at the south end of the Barclay Square apartment complex. The route would require the installation of a pedestrian bridge placed on the existing former railroad bridge abutments to reach the right-of-way continuation on the south side of the Naylor's Run. The pedestrian /vehicular bridge is estimated to cost approximately \$120,000 to \$175,000.

Segment #5 has at least two (2) potential alternatives. The selection of one alternative route over the other would depend upon which alternative route is chosen for segment 4, either #4A or #4B. Route #5A is the logical extension of #4A and route #5B is the logical extension of #4B. A pedestrian bridge is attached to the south side of the former railroad bridge over Naylor's Run allows access between the Beverly Boulevard neighborhood and the Beverly Hills Recreation Area. This bridge is an necessary component of segment #5B and would function as an additional trail link to the Beverly Hills neighborhood with trail route #5A. This pedestrian bridge however contains several obstacles to ADA accessibility including existing steps that would have to be replaced with ADA compliant ramps.



Photographs (counter clockwise): Segment #5, PECO Right-Of-Way south of Garrett Road; Segment #5B, Catwalk on bridge abutment; and access to Beverly Boulevard.





**Segment #5**

- PECO Right-of-Way
- Alternative Bypass
- ★ Trail Heads
- (a) Right-of-Way Obstructions
- Stream Crossings





## Segment #5A Alternative Bypass - Garrett Road to Informal Trail to the Beverly Hills Recreation Area

Alternative #5A would cross Garrett Road beneath the elevated railroad 350 feet west of the PECO right-of-way. It would cross Garrett Road at its narrowest point, with a pedestrian activated crossing signal light, thus facilitating a quicker and more safe pedestrian crossing of the heavily traveled road. On the south side of Garrett Road the trail would follow the sidewalk east for a short distance and then go south following the existing informal trail that parallels Clear Brook Avenue to the east. The route can readily be converted into a formal trail, is very scenic, parallels Naylor's Run, and connects the adjacent neighborhood to the Beverly Hills Recreation Area. This route can also have an additional link to a trail along Marshall Road which would tie into an existing parking lot in Beverly Hills Recreation Area and Little League Park for use as a trail head and also provides a bypass for a 600 foot long portion of segment #6.

A generalized cost estimate for the construction of Segment #5A would in the range of \$285,000 to \$370,000.



Photographs (left to right): Segment #5A Garrett Road crossing; Segment #4A Trail Concepts of Pedestrian Crossing at Garrett Road (2 graphics).



Photographs  
(clockwise):  
Segment #5A  
Beverly Hills  
Recreation Area;  
Segment #5A Trial  
Concept; Segment  
#5A Existing  
Township Service  
Road.

### Segment #5B Alternative Bypass - Garrett Road to Beverly Boulevard to the Existing Pedestrian Bridge along Naylor's Run to the Beverly Hills Recreation Area

Alternative 5B route would cross Garrett Road at an existing signalized crossing at Beverly Boulevard and then follow Beverly Boulevard to the pathway that leads to the pedestrian bridge attached to the former railroad bridge abutment that leads to the PECO right-of-way. The trail then follows the existing PECO right-of-way and the south-east corner of the Beverly Hills Recreation Area at East Marshall Road.





Sherbrook Boulevard

West Supply

Private Recreation

#6

Beverly Hills Recreation Area & Little League

(i)

Segment #6

- PECO Right-of-Way
- Alternative Bypass
- Trail Heads
- Right-of-Way Obstructions

0 75 150 300 Feet



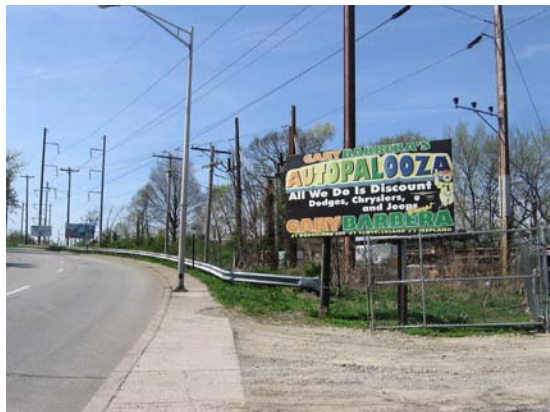


### Segment #6 - Beverly Hills Recreation Area to Marshall Road Area

Segment #6 is approximately 1,200 feet long and would begin at the PECO right-of-way at the northeast corner of the Beverly Hills Recreation Area. The segment would follow the right-of-way to West Supply Co. located at the intersection of Marshall Road and continue on the Green Hill sidewalk area to the intersection at Sherbrook Boulevard. The trail is impacted by West Supply Co. (encroachment (i)) which has an existing license agreement for the purpose of storing non-combustible materials and maintaining open space. Pedestrians should cross Marshall Road at the existing signalized intersection and crosswalk on the east side of the PECO right-of-way at Sherbrook Boulevard.

A generalized cost estimate of the construction of Segment #6 would be in the range of \$65,000 to \$85,000.

Photographs (clockwise): Segment #6, View from PECO towards Beverly Hills Recreation Area; Segment #6, Marshall Road and East Plumstead Avenue; Encroachment (i), Encroachment at Marshall Road (2 images).

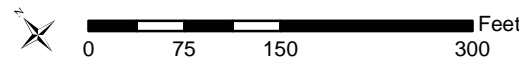






**Segment #7**

- ● PECO Right-of-Way
- Alternative Bypass
- ✱ Trail Heads
- (a) Right-of-Way Obstructions





## Segment #7 - Marshall Road Area to the Glenwood Avenue Area to a point north of Chapman Park

Segment 7 has two bypass alternatives that are necessary because the south side of Marshall Road has a high concrete bridge abutment that would be costly to remove and also potentially have an adverse affect the properties and structures abutting the right-of-way on both sides.



## Segment #7A Alternative Bypass - Marshall Road Area via Walk within PennDOT right-of-way

Alternative #7A is approximately 1,800 feet long and would cross Marshall Road at the Sherbrook Boulevard intersection and then loop back west to Coverly Road and proceed along the back side, or south side, of the existing concrete railroad bridge abutment within the Road right-of-way to tie into the PECO right-of-way line behind the corner residential property. There is an existing minor encroachment issue with the existing corner residential lot where the homeowner has occupied some portion of the existing PennDOT Road right-of-way. This alignment alternative would take advantage of a largely green and unobstructed segment of the PECO right-of-way. As with the other Segment #7 alternative, Segment 7A would traverse the PECO right-of-way after bypassing the railroad bridge abutment and then continue to the Glenwood Avenue intersection with the PECO right-of-way.

A generalized cost estimate for the construction of Segment #7A would be a range of \$101,000 to \$131,000.



## Segment #7B Alternative Bypass - Marshall Road Area via Springton Road

Alternative 7B would cross Marshall Road at the Sherbrook Boulevard intersection and then loop back west and follow Springton Road to its end and then connect with the PECO right-of-way and continue on the right-of-way to Glenwood Avenue. As with the other Segment 7 alternative, Segment 7B would traverse the PECO right-of-way after bypassing the railroad bridge abutment via Springton Road and then continue to link to a proposed new tot-lot area and then continue to the Glenwood Avenue intersection with the PECO right-of-way.

Photographs  
(clockwise):  
Segment #7A,  
Marshall Road  
Trail Concept;  
Marshall Road.



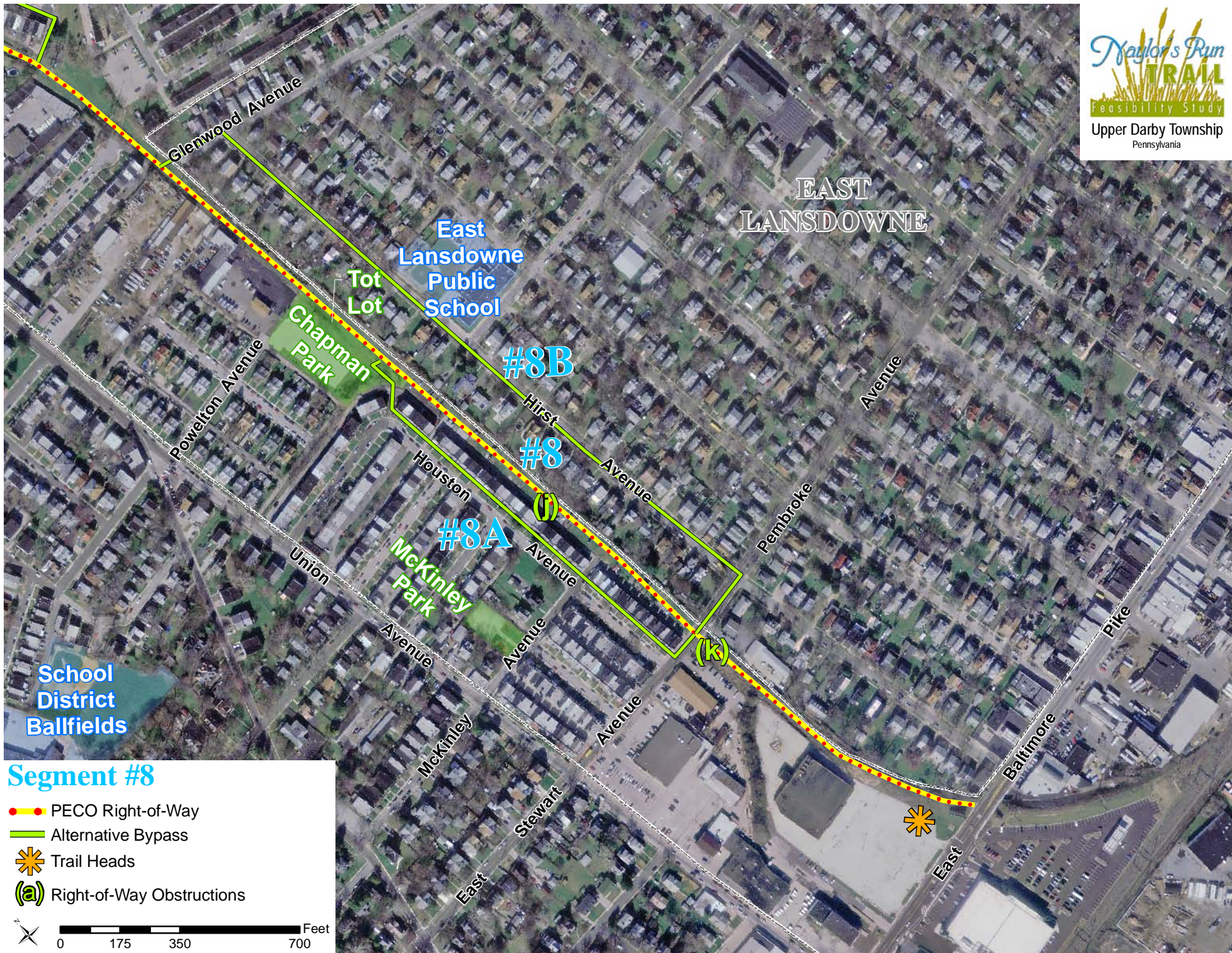


With either Segment #7A or #7B, the proposed new tot-lot area could be accommodated in any of the three different locations, depending upon PECO's ability to share its right-of-way area with a neighborhood child play area. The simplest solution to the location of the tot-lot would be to add the facility within the existing Chapman Park located approximately 700 feet further west along the trail. Access to Chapman Park will be improved by the construction of the trail so a walk to the tot-lot will be facilitated. A second possibility would be to construct a tot-lot within a small area of PECO right-of-way that occurs at the intersection of the north-south corridor and an east-west corridor that runs along Ruskin Lane. There is a small parcel of land which is not directly beneath either set of overhead high-tension power lines. Another possibility would be to complete a land swap wherein a portion of the adjacent parking lot, located on Guilford Road, would be acquired or swapped for some small area of the existing PECO right-of-way, thus allowing the tot-lot to be some distance from the overhead power lines.

Photograph:  
Segment #7A with  
tot-lot

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EAST  
 LANSDOWNE

East  
 Lansdowne  
 Public School

Chapman  
 Park

#8B





#8

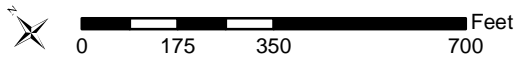
#8A

McKinley  
 Park

School  
 District  
 Ballfields

**Segment #8**

-  PECO Right-of-Way
-  Alternative Bypass
-  Trail Heads
-  Right-of-Way Obstructions







### Segment #8 - Glenwood Avenue Area to Baltimore Pike

Segment #8 is approximately 3,200 feet in length. The first 500 feet of the PECO right-of-way are unobstructed to Chapman Park. It is the recommendation of this study that the Naylor's Run Trail terminate at Chapman Park. Beyond this point many sheds and outbuildings have been placed on the PECO right-of-way. These obstructions (encroachment (j) and (k)) between Chapman Park and Pembroke Avenue, have no license or lease agreements with PECO for any use of the right-of-way. The obstructions within the segment, require a bypass route for the trail in northern end of this segment. The PECO right-of-way can be used from Pembroke Avenue to Baltimore Pike. The two alternatives from Glenwood Avenue or Chapman Park to Pembroke Avenue are described below.

A generalized cost estimate for construction to Chapman Park of Segment #8 would be a range of \$160,000 to \$208,000. The cost estimate does include the construction of the tot lot at Chapman Park.



Photographs  
(clockwise):  
Segment #8, end  
of study area at  
Baltimore Pike  
looking north;  
Chapman Park;  
Segment #8  
Encroachment  
(i), residential  
encroachments;  
View of Baltimore  
Pike looking east.



### Segment #8A Alternative Bypass – Glenwood Avenue Area following PECO right-of-way to Chapman Park, then along Houston Avenue to East Stewart Avenue, then on the PECO right-of-way



Segment #8A would continue on the right-of-way trail to Chapman Park then connect to Houston Avenue road surface and/or sidewalk and continue to East Stewart Avenue. The trail would then continue east along East Stewart Avenue to reconnect to the PECO right-of-way and then follow the right-of-way to the vacant commercial / shopping center lot on the north side of Baltimore Pike. This alignment has the advantage of linkage to the existing McKinley Park on McKinley Avenue, just off of Houston Avenue. As with Alternative #8B, a portion of the parking area next to Baltimore Pike could potentially also be used as a trail head parking area if arrangements were made with the property owner. This bypass alternative is less desirable than utilization of the PECO right-of-way to Chapman Park, because it requires sharing the road in a densely populated residential neighborhood.

### Segment #8B Alternative Bypass – Hirst Avenue to Pembroke Avenue then on the PECO right-of-way

Bypass alternative #8B would leave Upper Darby at Glenwood Avenue and pass into East Lansdowne Borough connecting the right-of-way trail by following the Hirst Avenue road surface and/or sidewalk to Pembroke Avenue. At this point, the trail would turn west on Pembroke Avenue and return to the PECO right-of-way and then follow the right-of-way to the vacant commercial / shopping center lot on the north side of Baltimore Pike. This alternative 8B would therefore require cooperation with East Lansdowne Borough. Returning to the PECO right-of-way on Pembroke Avenue, a portion of the parking area next to Baltimore Pike could potentially also be used as a trail head parking area if arrangements were made with the property owner. This bypass alternative is less desirable than utilization of the PECO right-of-way to Chapman Park, because of having to share the road in a densely populated residential neighborhood.

## Maintenance and Security

Maintenance is critical to a successful trail effort. Once any segment of the trail has been constructed, the Township will have to include a schedule of regular maintenance and budget for that expense. Short-term savings achieved by not keeping the trail in top condition will cause lack of respect for the trail and invite vandalism, which will inevitably erode support for the facility.

Maintenance should be the responsibility of the Township. Primary attention should be given to the following maintenance items:

- Trash Pick-up – Place signs along the trail to “carry-in/carry-out.” Trash pick-up details will need to be undertaken once a month and can be done by volunteers.
- Tree Blow-downs – Remove unwanted trees from the trail as soon as possible.
- Vegetation Trimming – Trees and shrubs should be trimmed to allow proper clearance on the trail. Trimming should occur in early fall.
- Grass Mowing – Mowing of the trail shoulders and other grassy areas along the trail should be performed on a monthly basis from May through September.
- Emergency Conditions – The trail will need to be monitored twice a week in order to detect any conditions that may limit use of the trail or be a safety risk to users. Limiting or hazardous conditions should be addressed as soon as possible.
- Long-term Maintenance – Trail surfaces, bridges, and other trail structures need to be inspected on a regular basis – at least once a year in the first five years and every six months thereafter. Funding must be budgeted for repairs and replacement.

Estimated Annual Maintenance, Labor Costs for Proposed Naylor’s Run Trail					
Item	Person - Hour Per Mile Per Year	Miles	Person - Hour Per Year	Person-Hour Cost	Total Cost Per Year
Administration	5	2.9	8.75	\$45	\$700
Trash Pick-Up	10	2.9	17.5	\$30	\$900
Tree Blow-Downs	5	2.9	8.75	\$30	\$400
Vegetation Trimming	20	2.9	35	\$30	\$1,700
Grass Mowing	32	2.9	56	\$30	\$2,800
Emergency Condition Monitoring	5	2.9	8.75	\$30	\$400
Miscellaneous Repair	10	2.9	17.5	\$30	\$900
<b>TOTAL</b>					<b>\$7,800</b>

Source: URDC

Note: Good, commercial grade equipment will be needed to perform the needed maintenance tasks in the times noted above.



Safety and Security issues of the Naylor's Run Trail will be similar to any other public park area. Rules and regulations for use of the trail should be determined by the Township and posted at trailheads and various other locations long the trail. Rules typically would include the hours of usage, typically closed from dusk till dawn and prohibition of motorized vehicles and the use of alcoholic beverages and drugs. Locational information such as mile markers and intersecting street names can be posted and will aid users in reporting accidents or inappropriate activities.

Trail use would typically prohibit the use of the trail by riders of motorized vehicles yet the trail needs to accommodate the continued use by legally authorized lease or license holder adjacent properties and by PECO for access to their pole sites and overhead lines. Control of vehicle access is best handled by the installation of removable bollards at each intersecting road and at trailhead parking areas. Removable bollards are typically placed about 5 feet apart to block cars and trucks while allowing pedestrians and bicycle riders to access the trail.

Where the PECO ROW will be shared by both the trail and an adjacent property owner having a lease or license agreement with PECO, security of the private property should be maintained by the erection of security chain link fencing between the trail and any private storage or vehicle parking area. In some cases, as pointed out in the text of this report, existing fences will have to be relocated to allow the trail to pass through the private property while maintaining the closed perimeter fencing of the private property.

**RECOMMENDED ACTION PROGRAM**







## RECOMMENDED ACTION PROGRAM

Upper Darby would need to complete a number of tasks to make Naylor's Run Trail a reality for the Borough.

1. Meet with PECO to coordinate efforts and to make them aware of the recommended alignment and the obstacles which have been identified. Ask that no further encroachments be permitted within the desired trail area.
2. Coordinate with PennDOT regarding any permitting that may be required for sharing the road or road crossings.
3. Approach the adjacent property owners which are using the right-of way to ask for cooperation in sharing the available corridor.
4. Apply for a Wetlands encroachment permit for Segment #2 of the trail.
5. Develop design plans for the various trail segments for bidding purposes and for PennDOT permitting of roadway crossings and DEP wetland encroachment permit.
6. Prepare final cost estimates of each trail segment.
7. Coordinate with Upper Darby and Bonner/Prendergast High Schools and Delaware County Memorial Hospital with regard to linkage to the trail.
8. Obtain legal easements for the passage of the trail on private property such as the Bonner/ Prendergast High School at Garrett Road, Naylor's Run Park and Beverly Hills Recreation Area.
9. Trail System Funding.

There are a number of potential funding sources that may be applicable to the trail system that would ultimately be proposed. The federal government, state government, county government, private organizations, and foundations provide a variety of opportunities for funding of the Borough efforts. Nearly all of the sources for grant funding are highly competitive. However, once the Borough has nearly finalized the desired trail alignment, Upper Darby should prepare applications for grant assistance. A listing of potential funding sources is found in the appendix of this feasibility study.

Recommended Initial Alignment				
Trail Segment	Distance on PECO ROW	Distance outside of ROW	Total Length	Priority
1	1,560 linear feet	0 linear feet	1,560 linear feet	2
2	1,650 linear feet	0 linear feet	1,650 linear feet	2
3	870 linear feet	0 linear feet	870 linear feet	5
4A	1,425 linear feet	2,445 linear feet	3,870 linear feet	3
5A	795 linear feet	2,505 linear feet	3,300 linear feet	4
6	870 linear feet	345 linear feet	1,215 linear feet	4
7A	1,125 linear feet	660 linear feet	1,785 linear feet	1
8 to Chapman Park	885 linear feet	0 linear feet	885 linear feet	6
TOTAL	9,180 linear feet	5,955 linear feet	15,135 linear feet	

APPENDICES

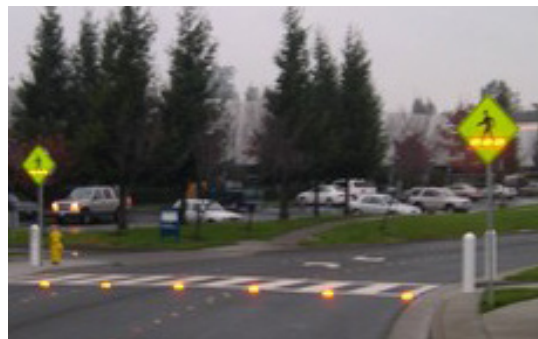






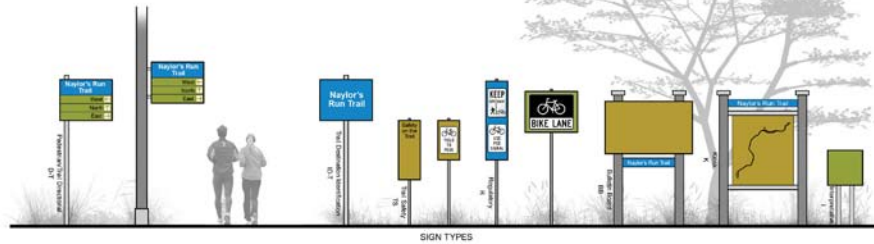
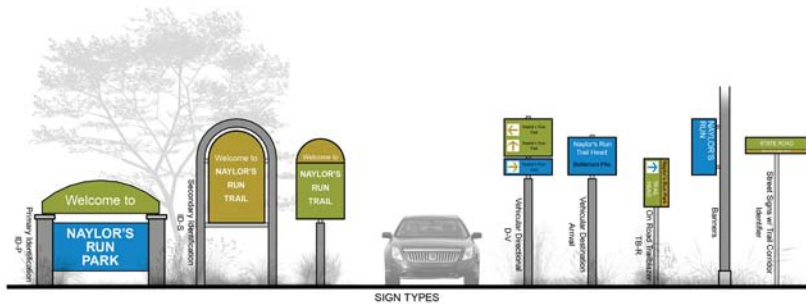
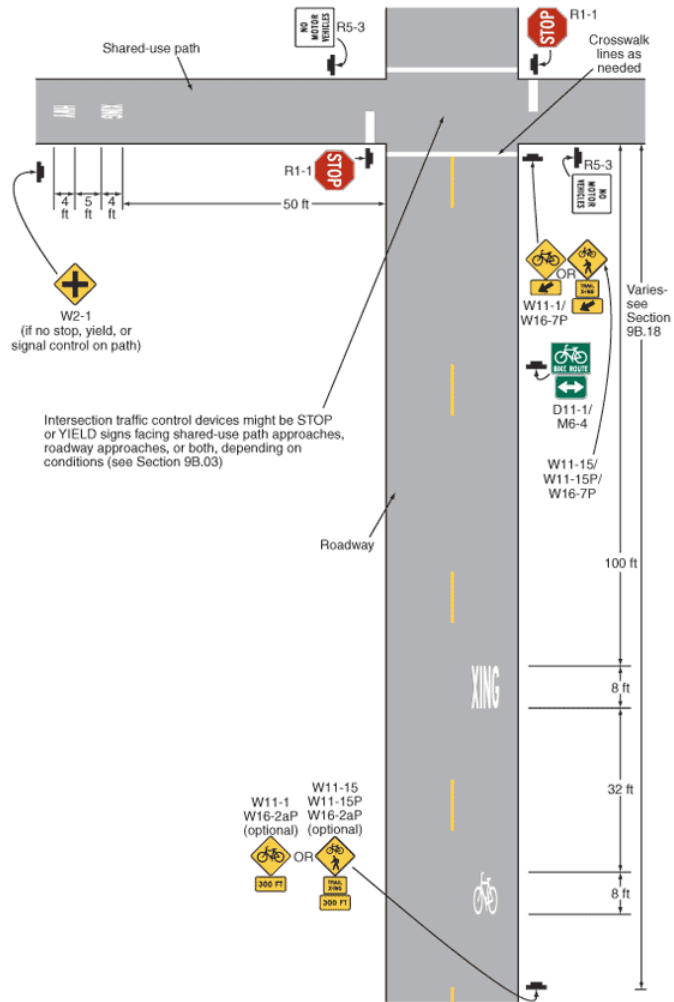
# APPENDICES

## APPENDIX A - Trail Crossing Enhancement Examples



Photographs:  
Examples of trail  
crossings and  
linkages.

Figure 9B-7. Examples of Signing and Markings for a Shared-Use Path Crossing



Graphic: Examples of signing and markings for a shared-use path crossing; Source: U.S. Department of Transportation: Federal Highway Administration. Manual for Uniform Traffic Devices ([http://mutcd.fhwa.dot.gov/him/2009/part9/fig9b\\_07\\_longdesc.htm](http://mutcd.fhwa.dot.gov/him/2009/part9/fig9b_07_longdesc.htm)). December 7, 2010



## APPENDIX B - Summary of PennDOT Requirements and Guidelines

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The following is a summary of the requirements and guidelines of PennDOT. This summary is not meant to be all inclusive, but a brief synopsis of their requirements and guidelines.

### Trail Crossing Agreements

1. All at-grade trail crossings of State Highways require PennDOT approval before they can be installed or modified.
2. This consists of the following two items:
  - A crossing agreement between the Trail Owner and PennDOT.
  - PennDOT approval of the trail crossing plans.
3. Prior to 2008 this was accomplished via a Highway Occupancy Agreement (HOA). This procedure is no longer used for Trail Crossings.

### Two Main Types of Crossing Agreements

1. Footpath Crossing Agreement
  - Pedestrians only
  - Hikers, joggers, walkers, etc.
  - Does not include Appalachian Trail or DCNR Trails
2. Shared Use Path (SUP) Crossing Agreement
  - Multi-use trail
  - Pedestrians, joggers, bicycles, equestrian, roller bladers, etc.
  - No motor vehicles

### When to use a SUP Agreement

1. An organization, municipality, or group responsible for a trail approaches PennDOT with the intent of establishing a new, or modifying an existing, at-grade trail crossing of a state-maintained highway.
2. Execution of the SUP Crossing Agreement is mandatory and a necessary first step that must be completed before the trail owner can submit individual crossing plans for approval for each new or modified at-grade trail crossing.
3. All SUP agreements will be issued on a District-wide basis only (i.e. District 5) for the same trail.
4. Existing crossings are considered “grand fathered,” however alterations or improvements to these crossings will require a SUP Crossing Agreement be created or one already be in place with the trail owner.

## What's the Purpose of an SUP Agreement

1. A Shared Use Path Crossing Agreement addresses the responsibilities of the trail owner and PennDOT for the crossing locations and includes:
  - notification procedures
  - signing and pavement markings
  - sight distances issues
  - traffic safety studies
  - drainage concerns
  - clearing of vegetation
  - liability
  - other similar issues
2. The execution of the SUP crossing agreement, in of itself, does not authorize the creation or modification of any crossing. It merely allows the trail owner to submit crossing plans for review and approval.
3. The SUP Crossing Agreement is not a trail or crossing specific document. **All trail crossings on any trail maintained by the trail group within a District are covered by this one agreement including new or existing crossings.**

## SUP Limitations

1. No Shared Use Path may cross a limited access highway at-grade.
2. No Shared Use Path will cross a divided highway, except at places where existing non-motorized traffic cross the median.
3. No parking or trail head area will be allowed at a State Highway crossing without the issuance of a separate Highway Occupancy Permit (HOP) by PennDOT.
4. The installation of flashing warning devices associated with any trail crossing required a separate "Flashing Signal Permit" be filed and approved with the District Traffic Signals Unit.

## Other Trail Agreement Types

1. Above grade and below grade trail crossings of State highways (bridges and tunnels) are covered separately under a "Trail Structure Agreement" (successor to the HOA) on a case by case basis.
2. On-road segments of a trail using a State highway are handled by a "Right-of-Entry Agreement" and generally involve the installation of customized trail directional signage.

## Key Points to Remember

1. An executed SUP agreement must exist:
  - Prior to construction of a new SUP trail crossing of a State Highway.
  - Prior to making alterations to an existing SUP trail crossing of a State Highway.



2. Shared Use Path (SUP) Crossing Agreements are PennDOT District office specific. Separate agreements are needed with other Districts for the same trail.
3. The SUP agreement is not a crossing specific document. All SUP trail crossings (new or existing) operated by the signer of the agreement are covered within a District.
4. The SUP agreement is not a trail specific document. All SUP trails (new or existing) operated by the signer of the document are covered within a District (multiple trails).

### **After the Agreement is Executed**

1. Trail crossing plans may now be submitted to the PennDOT District Office for review, modification and approval.
2. When it approves a crossing plan, PennDOT will provide the Shared Use Path Owner with written notification and authorize the creation of the crossing consistent with the provisions of the SUP agreement and the crossing plans.
3. The Shared Use Path Owner will notify PennDOT when construction of the trail crossing will start and when it is completed.

### **What does the law say about Crosswalks?**

Title 75 Vehicle Code Chapter 35 – Operation of Pedalcycles

Signalized Intersections:

- Pedestrians cross according to traffic signals or Pedestrian signals.

Un-Signalized Intersections:

- The driver of a vehicle shall yield the right-of-way to a pedestrian crossing the roadway within any marked or within any unmarked crosswalk (painted or unpainted) at an intersection.

Mid-Block (Non-Intersection) (includes most trail crossings):

- Every pedestrian crossing a roadway at any point other than within a marked crosswalk shall yield the right-of-way to all vehicles upon the roadway.

Therefore:

- At marked (painted crosswalks) pedestrians have the right-of-way.
- At unmarked crosswalks vehicles have the right-of-way.
- A painted mid-block crosswalk clearly defines for drivers where the pedestrians will cross and provides a reference point for stopping their vehicles.

### **Bicycles at Trail Crossings**

Title 75 Vehicle Code Chapter 35 - Operation of Pedalcycles

Dismounted Bicyclist:

1. A dismounted cyclist using a trail crossing of a State highway shall be treated the same as a pedestrian.
  - At marked (painted crosswalks) the dismounted bicyclist has the right-of-way.
  - At unmarked crosswalks vehicles have the right-of-way. Mounted Bicyclist.

1. A bicyclist who does not dismount his/her bicycle and rides across a trail crossing shall be treated the same as a vehicle at an un-signalized intersection. Title 75 § 3505 (a) General Rule of traffic laws to bicycles.
  - Therefore it's important to install stop signs on Shared Use Path trails before the highway crossing.

## Crossing Sight Distance Issues

Two important measurements need to be made at every trail crossing:

1. Trail Crossing sight distance – The distance required by a trail user to determine if it is safe to proceed to cross the travel lanes of the highway at a crossing.
2. Stopping sight distance – The distance required by a driver at a given speed to stop the vehicle after an object on the roadway (bike/ped) becomes visible to the driver.

## Sight Distances

Sight distances can be affected by many things:

- Trees, shrubs, hedges, seasonal farm crops (i.e. corn, wheat), or other foliage.
- Permanent fixed objects, buildings, sheds, fences, walls, utility poles, guide rail, bridge parapets, etc.
- Other objects such as traffic signs, mailboxes, parked cars, etc.
- Vertical curves, dips or humps in the highway.
- Horizontal curves in the roadway before the crossing.
- Driving speed.

## Elements of a Safe Trail Crossing

1. The trail crossing is highly visible to the vehicles on the highway No surprises!
2. Vehicles are given sufficient advance warning of the trail crossing.
3. Trail users stop and look before crossing the highway.
4. Trail users have adequate sight distance; drivers have adequate stopping distance.
5. The trail crossing is inspected and maintained at least once a year.

## Summary

1. The Shared Use Path owner is responsible for maintenance of the shared use path and shared use path signs and markings as depicted on the approved Crossing Plan.
  - With rare exceptions, PennDOT **will not install or maintain** the signs or pavement markings associated with a trail crossing.
  - However, if a State highway containing a “permitted” trail crossing is paved by PennDOT, PennDOT will replace in-kind all crosswalk and advance pavement markings but not maintain them.
2. Signs placed within crossings will be of a breakaway construction in conformance with PennDOT's TC-8700 Signing Standards.
3. In the event PennDOT determines an existing trail crossing may be dangerous based upon traffic accident history or lack of adequate sight distance, PennDOT may require modified crossing plans be submitted and approved to correct the deficiencies.



4. FHA Best Practices Design Guide Chapter 14 on Shared Use Path Design recommends a minimum 10 foot wide trail and 2 foot graded areas on either side.

## **Environmental Clearance for Transportation Enhancements (TE) Projects**

Projects using federal aid / funds and/or required federal approval / permits for any phase of a project must comply with the regulations set forth in the National Environmental Policy Act (NEPA) of 1969 and its associated implementing regulations. The TE program is no exception. In addition, state funded projects must comply with the PA State History Code (PA Act 120).

## **Federal Actions under NEPA**

NEPA mandates that the level of documentation for federal actions be determined by the potential impacts the project may have on the surrounding natural, cultural and social environment. There are 3 classes of actions under NEPA, each with its own set of requirements. The classes are:

1. IS (Environmental Impact Statement)
2. SEE (Categorical Exclusion Evaluation)
3. EA (Environmental Assessment)

\* In order to determine the level of environmental documentation, either a Kick-Off meeting or a Scooping Field View meeting is held with the appropriate personnel that may include but not limited to Painted, FHA, TE Sponsors, Consultants, and Municipal Officials.

## **PennDOT Criteria: CEE**

1. TE projects will require a SEE.
2. PennDOT District Staff are available to provide guidance and must eventually review and approve the SEE.
3. Processing a SEE for TE can take anywhere from a few weeks to a few months, depending on the complexity of the project and circumstances involved.
4. Proper documentation and early coordination with PennDOT and other natural / cultural resource agencies is key to insure timely processing of the SEE.
5. It is the SPONSOR'S RESPONSIBILITY to obtain qualified personnel to prepare the SEE.
6. A detailed project description is always necessary and some projects require both the starting and stopping points for the project (known as "logical termini").

## **Actions Qualifying as a CEE are those that DO NOT:**

1. Induce significant impacts to planned growth or land use for the area;
2. Require the relocation of significant numbers of people or businesses;
3. Have a significant impact on natural, cultural, recreational, historic, or other resource;
4. Involve significant air, noise, or water quality impacts;
5. Involve substantial controversy on environmental grounds;
6. Involve any inconsistencies with any Federal, State, or Local law, requirement, or administrative determination relating to the environmental aspects of the action;
7. Individually or cumulatively have a significant environmental effect; and
8. Require the preparation of an Environmental Impact Statement (IS) or an Environmental Assessment (EA).

## Transportation Enhancement (TE) Environmental Review

All Projects using Federal dollars must conform to the National Policy Act (NEPA) of 1969 and other applicable federal laws. If the application is successful, the project must have environmental clearance before federal funds become available. All applicants must complete the Environmental Review. This information is not environmental clearance.

### Checklist for Environmental Clearance of TE Projects

1. Stream Involvement / E&S Controls / NPDES (May need a permit)
2. Wetlands Present (May need a wetland identification study and delineation)
3. Agriculture Present / Nearby
4. Threatened / Endangered Species (PNDI)
5. Cultural Resources Involvement (Historic Structures / Archaeology)
6. Parks / Recreational Facilities Adjacent – Section 4(f) or Section 6(f)
7. Hazardous / Residual Waste Sites (May need to do a Phase I SEA at a minimum)
8. Air / Noise Impacts
9. Social Economic Resources / Public Controversy
10. Right-of-Way Issues



APPENDIX C - Funding Sources

Name of Program	General Description of Program	Administering Agency
C2P2 - Community Grants	<ul style="list-style-type: none"> <li>• Planning                             <ul style="list-style-type: none"> <li>- Comprehensive Recreation, Park, and Open Space Plan</li> <li>- Conservation Plan</li> <li>- Feasibility Study</li> <li>- County/Municipal Greenway/Open Space Network Plan</li> <li>- Specific Greenway, Trail, or Rails-to-Trails Plan</li> <li>- Snowmobile/All-Terrain Vehicle Plan</li> <li>- Master Site Plan</li> <li>- Rivers Conservation Plan</li> </ul> </li> <li>• Technical Assistance                             <ul style="list-style-type: none"> <li>- Education, Training, Implementation</li> <li>- Peer-to-Peer Technical Assistance</li> <li>- Circuit Rider</li> </ul> </li> <li>• Acquisition                             <ul style="list-style-type: none"> <li>- Park and Recreation Areas</li> <li>- Greenways/Trails/Rivers Conservation</li> <li>- Rails-to-Trails</li> <li>- Snowmobile/All-Terrain Vehicle</li> <li>- Natural and Critical Habitat Areas</li> </ul> </li> <li>• Development                             <ul style="list-style-type: none"> <li>- Park and Recreation Areas</li> <li>- Greenways and Trails</li> <li>- Rails-to-Trails</li> <li>- Snowmobile/All-Terrain Vehicle</li> <li>- Rivers Conservation</li> </ul> </li> <li>• Pennsylvania Recreational Trails</li> <li>• Land and Water Conservation Fund (LWCF)</li> </ul>	PA DCNR
Community Development Block Grant (CDBG)	Offers grants for a wide variety of activities, provided the applicant proves by survey or census that the project will benefit 51% low and moderate income persons or handicapped persons or eliminate "blighted" conditions in officially designated areas. For example, funds can be used for water and sewage improvements, storm drainage, handicapped accessibility, parks / recreation / greenways, street and sidewalk improvements, planning, and historic rehabilitation.	County Departments of Community and Economic Development & PA DCED
Community Revitalization Program	Very broad grant program. Officially intended to promote community stability, increase tax bases and improve quality of life. Applications may be made by municipalities, authorities, economic development organizations, and nonprofit corporations. Public/non-profit/profit partnerships are encouraged. Generally can be used for infrastructure, community revitalization, building rehabilitation, demolition of blighted structures, public safety, and park and greenways projects.	PA DCED & Governor's Office
PA Conservation Corps	Provides funding for work crews for community projects, such as trail improvements.	PA DCNR
Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP)	The U.S. Department of Agriculture, through its Farm Service Agency, provides payments to farm operators to plant long-term, stabilizing and filtering vegetation on highly erodible or environmentally sensitive landscapes (such as riparian areas). Contract duration is 10- 15 years. The participant, in return for annual payments during the contract, agrees to implement a conservation plan approved by the local conservation district. Eligible land must be in cropland or pasture land, have an erosion index of 8 or higher, and may include field margins.	Natural Resource Conservation Service (U.S. Department of Agriculture)

Naylor's Run Trail Feasibility Study

Name of Program	General Description of Program	Administering Agency
Environmental Protection Agency (EPA) Watershed Initiative's	The Environmental Protection Agency (EPA) provides large Watershed Initiative grants ranging in size from approximately \$300,000 to \$1.3 million. Twenty grants are given out each year. The program is very competitive and requires state endorsement of the proposed project(s).	U.S. EPA (Philadelphia)
EPA - Water Quality	Grants for improving water quality are available for the U.S. EPA	U.S. EPA (Philadelphia)
EPA - Brownfields Program	Grants for a very limited number of pilot demonstration projects for cleanup of contaminated underused industrial sites.	U.S. EPA (Philadelphia)
Flood Control - Army Corps of Engineers (CoE)	Various types of projects to manage flooding. Typically, the CoE is involved in larger watersheds, while NRCS has primary responsibility for smaller watersheds (see Small Watershed Program).	U.S. Army CoE
Flood Hazard Mitigation Grant Program	Provides 75% funding to relieve imminent hazards from flooding, such as voluntary buy-outs and demolitions of highly flood-prone properties.	Federal Emergency Management Agency
Flood Protection Program, PA	Offers design and construction of flood protection projects. The project must be deemed economically justifiable under the state capital budget process.	PA DEP - Bureau of Waterways Engineering
Forest Legacy Program	The Forest Legacy Program (FLP), a federal program in partnership with the state, supports state efforts to protect environmentally sensitive forest lands. The FLP directly supports property acquisition and also supports efforts to acquire donated conservation easements. Participation in the FLP is limited to private forest landowners.	USDA Forest Service in cooperation with state foresters
County Funds	Delaware County may establish a fund to encourage park planning with multimunicipal and private partnerships, provide needed public parkland and facilities, and preserve open space.	Delaware County
Growing Greener Program	As part of Pennsylvania's Growing Greener Program, PA DEP offers various grants that can be used for greenway related projects, including watershed grants, technical assistance grants, and new/innovative technology grants.	PA DEP
Home Town Streets and Safe Routes to School	The Home Town Streets Program provides funding for a variety of streetscape improvements that are aimed at reestablishing downtown and commercial centers. The Safe Routes to School Program provides grants and is designed to work with both school districts and pedestrian and bicycle safety advocates to make physical improvements that promote safe walking and biking passages to schools. Both programs require a 20% local match.	PennDOT
Historic Preservation Tax Credits	Offers federal income tax credits for a percentage of the qualified capital costs to rehabilitate a certified historic buildings, provided the exterior is restored. The program is generally limited to income-producing properties.	National Park Service
Historic Preservation - Certified Local Government Grants	Provides modest-sized matching grants to provide technical assistance to municipalities that have official historic districts and meet other criteria to be "certified."	Federal, administered by PA Historical and Museum Commission (PHMC)
Historic Preservation Survey and Planning Grants	Matching grants for historic surveys, historic preservation planning and National Register nominations. Available to municipalities and nonprofit organizations. Cannot be used for construction.	Federal, administered by PHMC
Heritage Parks Program	Provides grants up to 75% of costs for projects within state-designated "Heritage Parks" to preserve and interpret the significant contribution that certain areas made upon the industrial heritage of the state and nation. Funds four types of projects: <ul style="list-style-type: none"> <li>• Feasibility studies</li> <li>• Special purpose studies</li> <li>• Management Action Plan</li> <li>• Implementation projects.</li> </ul> Projects are intended to conserve natural, historic and recreational resources relating to industrial heritage to stimulate regional tourism.	PA DCNR
Industrial Sites Reuse Program, PA ("Brownfields")	Provides grants of up to 75% and low-interest loans for assessment of environmental contamination and remediation work at former industrial sites. Available to private companies, nonprofit economic development agencies, or authorities that own the land. Targeted to cities. Financing is not available to the company that caused the contamination.	PA DCED in cooperation with PA DEP
Intermunicipal Projects Grants	Promotes cooperation between neighboring municipalities so as to foster increased efficiency and effectiveness in the delivery of municipal services at the local level.	PA DCED



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Keystone Historic Preservation Funds	Provides 50% matching grants to fund analysis, acquisition, or rehabilitation of historic sites. The site must be on the National Register of Historic Places or officially determined to be eligible for listing. The site must be accessible to the public after funding. Grants can be made to public agencies or nonprofit organizations.	PHMC
Land Use Planning and Technical Assistance Program (LUPTAP)	Provides grant funds for the preparation of community comprehensive plans and the ordinances to implement them. It promotes cooperation between municipalities in making sound land use decisions that follow or adhere to the Governor's Executive Order on Land Use. Priority is given to any county government acting on behalf of its municipalities, any group of two or more municipalities, or a body authorized to act on behalf of two or more municipalities. Applicants are to provide a minimum of 50% match consisting of cash or in-kind services. There are no minimum or maximum amounts.	PA DCED
Land & Water Conservation Fund	The Land & Water Conservation Fund (LWCF) provides matching grants to state and local governments for the acquisition and development of public outdoor recreation areas and facilities.	National Park Service in cooperation with PA DCNR
Local Government Capital Projects Loan Program	Provides low-interest loans to municipalities with populations of 12,000 or less for the purchase of equipment and the purchase, construction, renovation or rehabilitation of municipal facilities. Priorities are given to projects that are necessary for public health and safety or involve intergovernmental cooperation.	PA DCED
Municipalities Financial Recovery Act, PA	Provides technical advice and grants for special purposes (such as studies to improve service efficiency) within municipalities that have been officially designated as "financially distressed." After application and designation, the municipality must follow a financial recovery plan.	PA DCED
National Recreational Trails Funding (Symms NRTA)	Provides grants for the acquisition and development of recreation trails (which may include trails for motorized vehicles). A 20% local match is required. Applications may be made by federal, state or local government agencies, and some for-profit entities.	Federal, administered by PA DCNR
PA Infrastructure Investment Authority (PennVest)	Offers low-interest loans for construction and improvement of drinking water and wastewater systems. 100% grants may be available for highly-distressed communities. Mainly intended for public systems, but some private systems may be approved. Water projects are funded through the Drinking Water Revolving Loan Fund. Sewage projects are funded through the Clean Water Revolving Fund. PennVest is also authorized to provide loans for projects to control existing stormwater problems, such as separating stormwater from sanitary sewage. The "Advance Funding Program" provides low-interest loans for feasibility studies and engineering of systems if the utility cannot fund such work itself.	PennVest PA DEP (Bureau of Water Supply Management) - Involves both U.S. EPA and state funds
Rails to Trails, PA	Provides grants for feasibility studies, master site plans, acquisition, and improvement of former railroad lines for recreation trails. A 50% local match is required. Open to municipalities, authorities, and non-profit agencies.	DCNR
Recycling Grants (Act 101 of 1988)	Grants for up to 90% of municipal costs to develop and implement recycling programs, such as the purchase of recycling bins and composting equipment. Grants are also available to counties for a recycling coordinator, waste management plans, and pollution prevention education.	PA DEP, Bureau of Land Recycling and Waste Management
Recycling Market Development Loan Fund	Provides low-interest loans to businesses to purchase recycling source-separating equipment.	PA DEP, Bureau of Land Recycling and Waste Management
Rivers Conservation Program, PA	Offers 50% grants to conserve and enhance river resources. Typically, funding is first provided for a conservation plan for a waterway. Grants are available to implement an approved plan. Available to municipalities, authorities, and non-profit.	PA DCNR
Rivers, Trails, and Conservation Assistance Program	The National Parks service operates this program aimed at conserving land and water resources for communities. Eligible projects include conservation plans for protecting these resources, trail development, and greenway development.	National Park Service

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Shared Municipal Services	Provides modest-sized 50/50 matching grants to promote cooperation among municipalities, in order to increase the efficiency of public services. Two or more municipalities may apply, or a council of governments.	PA DCED
Sewage Facility Planning Grants	Grants to pay up to 50% of the costs to prepare a new sewage facilities plan or update an existing plan, under State Act 537 of 1966.	PA DEP
Small Watershed Program (Public Law 566)	Provides technical and financial assistance in carrying out projects which aim to protect water resources, provide water-related recreation, or protect against flooding. Eligible watersheds must be smaller than 250,000 acres (390 square miles). The program provides up to 100% funding for flood prevention projects, and up to 50% matching for agricultural water management, public recreation, and fish/wildlife purposes. Each year, a state will receive an average of \$650,000 for allocation under P.L. 566.	Natural Resource Conservation Service (U.S. Department of Agriculture)
Stormwater Management Grants (PA Act 167 of 1978)	Grants for cooperative efforts at the watershed level among municipalities for stormwater planning and ordinances. Grants are typically made to counties, but may be made to municipalities.	PA DEP, Bureau of Watershed Conservation
Stream Improvement Program	Provides design and construction assistance to eliminate imminent threats to flooding and streambank erosion.	PA DEP, Bureau of Waterways Engineering
TEA-21 Transportation Enhancements Program (part of federal Transportation Efficiency Act)	Provides grants of up to 80% for: pedestrian and bicycle facilities (including trails), acquisition of scenic easements at scenic or historic sites, development of scenic or historic route programs, landscaping and other scenic beautification along highways, restoration of historic transportation facilities (such as canals), preservation of rail corridors (particularly for multiple-use trails), control and removal of outdoor advertising, archeological research, and mitigation of water pollution due to highway runoff. All projects must have a direct correlation with transportation.	U.S. DOT funds administered by PennDOT
Urban Forestry Grants	Provides grants for tree planting projects. Is also a Federal "America the Beautiful" grant program for tree planting.	PA DCNR
Water Supply Plan & Wellhead Protection Grants	Provides grants to counties to plan for water supplies at the county level and to implement programs to protect the wellheads of public wells.	PA DEP, Bureau of Water Supply
Wetlands Reserve Program	The U.S. Department of Agriculture also provides direct payments to private landowners who agree to place sensitive wetlands under permanent easements. The program can be used to fund the protection of open space and greenways within riparian corridors.	U.S. Department of Agriculture (USDA)

Sources: Publications and internet sites of various agencies; Pennsylvania magazine; PA DCED Resource Directory  
PA DCNR and PA Growing Greener websites, URDC