


CHAPTER 5 - THE TRAILS AND BICYCLE FACILITIES NETWORK

TYPES OF TRAILS AND BICYCLE FACILITIES

The Northampton Township trail and bicycle network will be comprised of several types of facilities:

TABLE 11 – TYPES OF TRAILS AND BICYCLE FACILITIES

	Trail Type	Description of Trail Type
	Sidewalk	A path with a hard surface on which people walk along one or both sides of a road. The intent is to provide a safe, two-way shared use area for pedestrians where a shared use path cannot be accommodated.
	Shared Use Trails	A trail that permits more than one user group including joggers, walkers, hikers, bicyclists, to occupy the trail at the same time. As the trail is designed to accommodate multiple users including wheeled traffic, these trails would most often be constructed of a hard paved or crushed stone surface. Provides the highest degree of safety for cyclists and pedestrians since these are completely separated from vehicular traffic.
	Floating Boardwalk	Floating Boardwalks are used to span water bodies. Typically used to cover short distances they help promote connectivity by traversing these disruptive barriers.
	Rail Trail Facilities	This type of trail facility consists of utilizing a railroad right-of-way as a pathway for a shared use trail. The rails and ties are removed and the pathway graded for bicyclist and pedestrians alike. User safety is on-par with other Shared Use Trails in that interaction with vehicles is very limited, with the exception of any required road crossings.
	On-Road Bicycle Sharrows	A shared right-of-way on roadways designated with appropriate signage and pavement markings to help encourage use and warn motorists that bicycles may be present in the roadway. Do not provide much safety for bicyclists since they are still in vehicular traffic lanes.
	Dedicated Bike Lane	A right-of-way fully dedicated to bicycle traffic. Dedicated bike lanes may have a permanent barrier or be a painted line that separates the cyclist from traffic and pedestrians. While providing increased safety over On-Road Bicycle Sharrows, are typically not used by younger and/or inexperienced riders.
	Neighborhood Bike Route	This is a simplest form bike facilities which is typically no more than a sign directing residents on the optimal route out of their neighborhood. Utilizes existing roads and is only appropriate for low volume residential roads.

TRAIL AND BICYCLE FACILITIES DESIGN STANDARDS

Given the different types of trails and bicycle facilities that will be part of the township trail and bicycle facilities network, and given the potential for different types of the same type of trail in terms of width, slope, etc., the township will need to consider adopting trail design standards for trails and pedestrian and bicycle facilities. These standards are designed to:

- Promote consistency of standards and guidelines across the township trail and bicycle facilities network.
- Increase user safety, comfort and convenience.
- Promote universal access, where possible, to users with a broad range of skill levels and abilities, including children, older adults and people with disabilities.
- Minimize impact to sensitive natural resources.
- Increase the ease of long-term trail and facility maintenance by recommending the use of materials and construction practices appropriate for the trail being developed.

The Northampton Township trail and bicycle facilities standards outlined in Table 9 were derived from multiple sources and are intended as a planning tool to allow for flexibility in design, appropriate to the location, site-specific environmental conditions, and expected users. However, the guidelines are not intended to be engineering specifications or replace existing mandatory or advisory state and federal standards including:

- American Association of State Highway and Transportation Officials (AASHTO) Guide for the Planning, Design, and Operation of Bicycle Facilities
- ADA Accessibility Guidelines for Buildings and Facilities (ADAAG)
- ADA Standards for Accessible Design
- Federal Access Board Accessibility Guidelines for Outdoor Developed Areas (AGODA)
- Public Right of Way Accessibility Guidelines (PROWAG)
- Manual on Uniform Traffic Control Devices (MUTCD)
- Pennsylvania Trail Design & Development Principles

TABLE 12 – RECOMMENDED TRAIL & BICYCLE FACILITIES STANDARDS

Facility	Minimum Width	Minimum Shoulder Width Each Side	Surface		Running Slope		Cross Slope		Minimum Vertical Clearance Each Side	Signage
			Desired	Acceptable	Minimum	Maximum	Minimum	Maximum		
Trails										
Shared Use Trail – Asphalt or Crushed Stone	10 feet	2 feet	Asphalt	Crushed Stone	1%	5%**	1%	2%	8 feet ***	Trailhead and Wayfinding Signage
Floating Boardwalk	10 feet	-	Wood/Synthetic	-	1%	5%	1%	2%	8 feet ***	3" edge protection for boardwalks 30" or less above grade / 42" handrails for 30"+ above grade
Rail Trail	12 feet	2 feet	Crushed Stone	-	1%	5%	1%	2%	8 feet ***	Trailhead and Wayfinding Signage
On-Road Bike Facilities										
On-Road / Bike Sharrows	-	-	Asphalt	Asphalt	-	-	-	-	8 feet	MUTCD: Shared Lane Markings and W6-101
Bike Lanes	5 feet	-	Asphalt	Asphalt	-	-	-	-	-	MUTCD: Bike Lane Sign R3 -17
Neighborhood Bike Routes	-	-	Asphalt	Asphalt	-	-	-	-	-	MUTCD: Signage in accordance with 9B-1

Anything less than 5 feet requires a passing space at intervals no less than 1,000 feet

*** Following variances are allowable: 8.3 percent maximum for distances up to 200 feet, 10 percent maximum for distances up to 30 feet / 12.5 percent maximum for up to 10 feet*

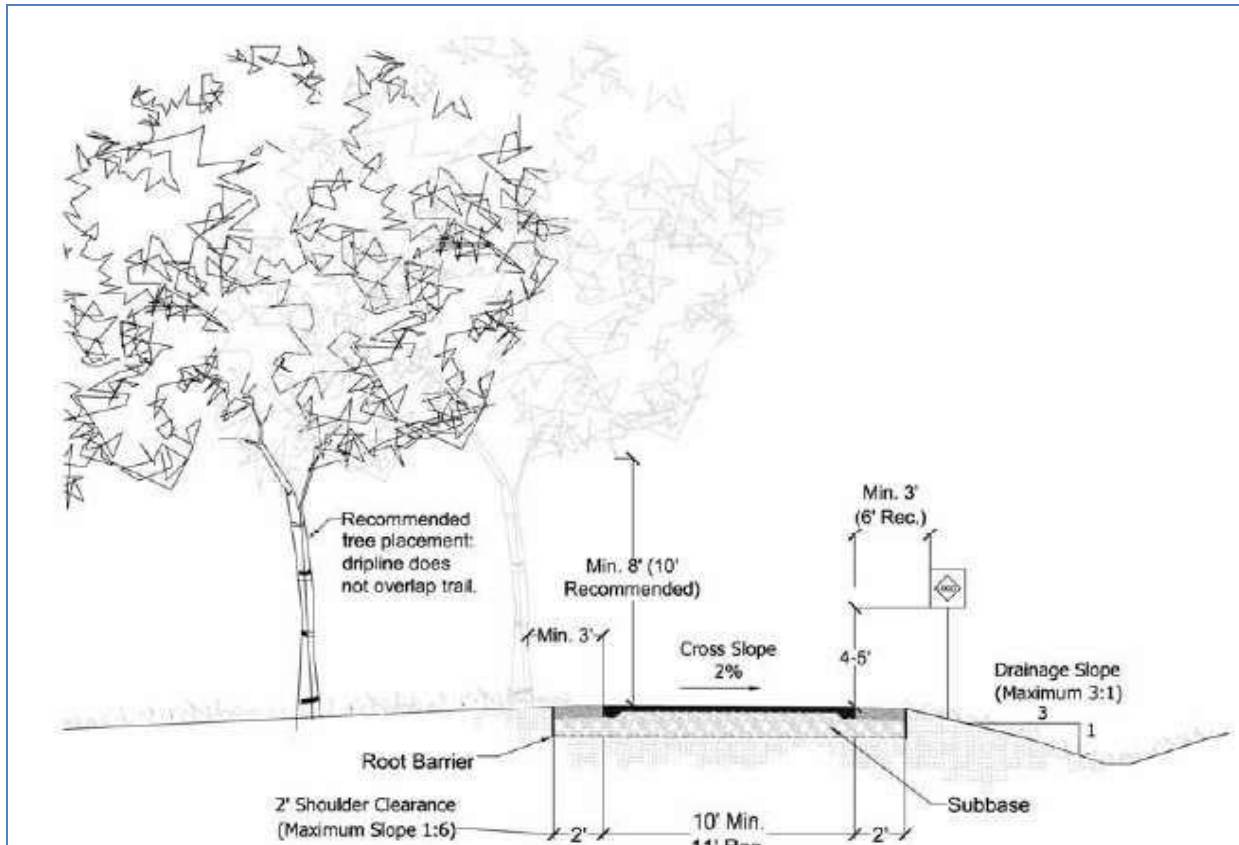
**** Minimum clearance overpasses: 10 feet*

TRAIL AND BICYCLE FACILITIES DESIGN ELEMENTS

Trail Surface, Width, Slope and Vertical Clearance

As shown in Table 9, trail widths, surfaces, slopes and vertical clearances for the trails as part of the Northampton Township trail and bicycle facilities network will vary dependent on the type of facility. These differences are driven by the type of users the trail is designed to accommodate. For a bike lane can be narrower and a directly parallel a street whereas with sharrows the bicycle rider would share the road with cars. In contrast, the recommended width for shared use trails is 10 feet with surfaces needed to accommodate wheelchairs, bicyclists and other user groups.

The recommended typical design cross-section for a shared use trail is shown below. This design would be modified to fit various environmental conditions that are encountered.



Trail Safety Signage

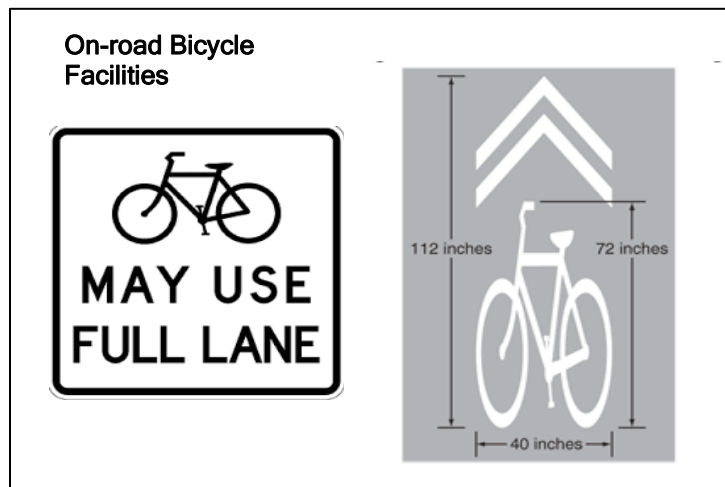
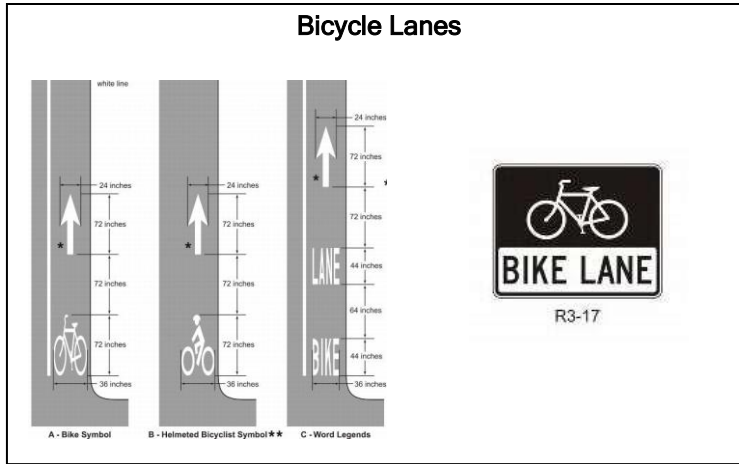
Although the trail and bicycle facilities network is designed to minimize the extent to which users will be on-road, there may be sections where the trail will need to utilize existing streets or roadways which carry low volumes of motor vehicle traffic. In these situations, the *Manual on Uniform Traffic Control Devices* recommends a combination of signage and on-road pavement markings to help improve pedestrian safety.

Bicyclists in Roadway: The regulations and signage requirement vary dependent upon the speed limit of the road:

- **Roads with a speed limit of greater than 35 miles per hour:** Section 9B.18 of the *Manual on Uniform Traffic Control Devices* specifies that Share the Road signs should be used on roadways with a speed limit above 35 mph where there is a need to warn motorists to watch for bicyclists traveling along the roadway.
- **Roads with a speed limit 35 miles per hour or less:** Section 9C.07 Shared Lane Marking specifies the parameters for the use of Shared Lane Markings, also known as Bicycle Sharrows. Specifically, Shared Lane Markings may be used to:
 - Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane;
 - Alert road users of the lateral location bicyclists are likely to occupy within the traveled way;
 - Encourage safe passing of bicyclists by motorists; and
 - Reduce the incidence of wrong-way bicycling.

Examples of the recommended pavement markings and signage are shown on the following page.

Manual on Uniform Traffic Control Devices - Pavement Markings and Signage



In addition to signage and pavement markings being used to alert motorists of the existence of trail users within or adjacent to the roadway, Rectangular Rapid Flashing Beacons and clearly marked crosswalks will be used anytime the trail crosses a roadway where the crosswalk approach is not controlled by a yield sign, stop sign, or traffic-control signal; or at a crosswalk at a roundabout.

Emergency Signage

To improve emergency response to trail incidents, it is recommended that as the Northampton Township trail and bicycle facilities network grows, consideration be given to incorporating an Emergency Locator System. This system would place signage markers with unique location identifiers at every eighth of a mile. These assigned geographic coordinates would allow the Bucks County Department of Emergency Communications, to easily determine the best route for reaching the emergency.



Parking Areas and Trailheads

Trailhead parking areas provide points of access for trail users. These access points will not only accommodate people from the immediate area, but those who have traveled farther to use the trail. It is anticipated that the majority of trail users will be local residents who will likely walk or bike to the trail from

their homes; however, there may be some trail users who will choose to drive. At this time, the intent is not to construct any specific trailhead parking areas, but instead to make use of existing parking lots available at township facilities, schools, and commercial centers. As each trail segment is developed, the design phase should determine the need for any additional trailheads and consider where these might be feasible.

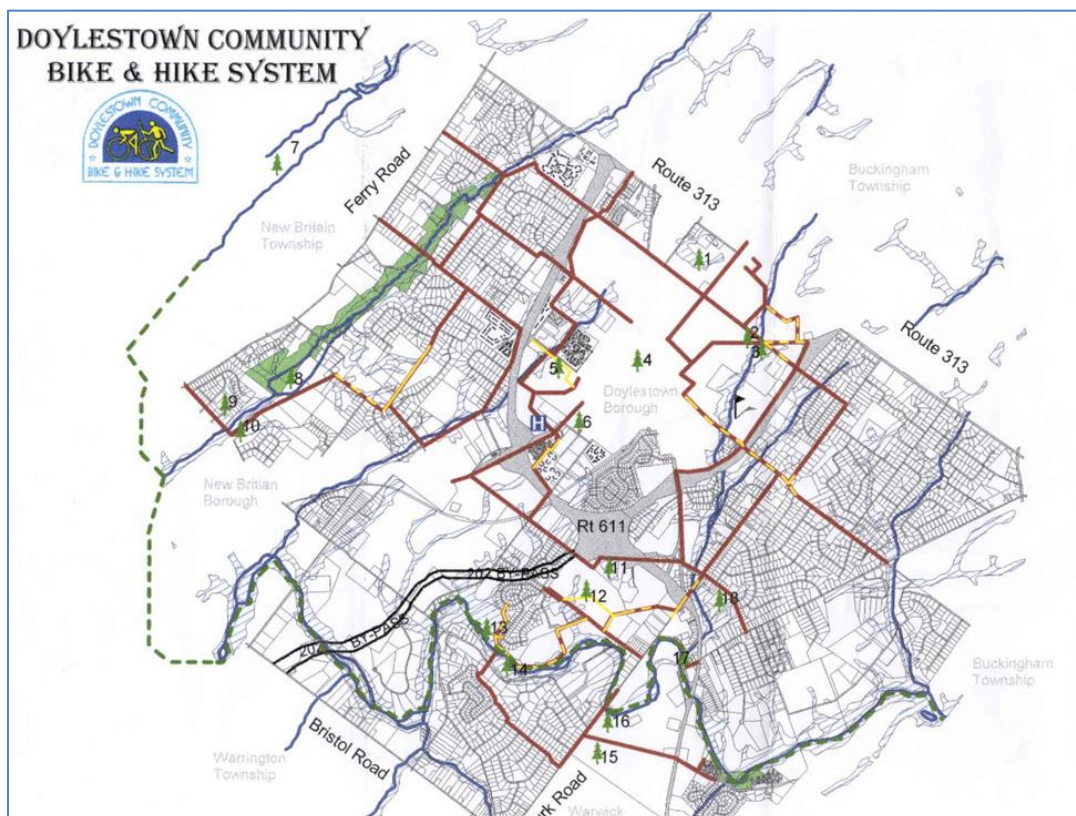
Physical Barriers

In certain areas, physical barriers such as wood rail fencing, dense shrubbery, or other type of physical barrier may need to be installed along the trail to prevent users from traversing the side slopes. Typically this barrier should be installed along the top of slope to protect trail users. In general, the greater the height of the drop-off, the greater the need for protection. According to AASHTO guidelines, the fence should be set at a height of 3.5 feet (42 inches). Rub-rails are recommended at a height of approximately 3-feet from grade to prevent snagging of handlebars. All fences should be smooth and free of protruding objects such as bolts.

EXAMPLE OF A SIMILAR TRAIL & BICYCLE FACILITIES NETWORK

The Doylestown Community Bike and Hike system is a similar trail network to what is proposed for Northampton Township. The Doylestown Community Bike and Hike Committee (DBHC) was established with the expressed goal of connecting principal population centers, places of work, schools, commercial areas, historical and cultural sites, park and recreation areas, mass transit and other intermodal connections in both Doylestown Township and Doylestown Borough. Over 26 miles of bicycle and hike paths have been established, contributing greatly to the health, safety and well-being of Doylestown residents. The rapid growth of Doylestown Township caused main roads and smaller roads to become very congested, with access to Doylestown becoming dangerous for pedestrians and bicyclists.

This trail system features a combination of both paved asphalt trails, natural surface and crushed stone surfaces and includes trails within the township’s park system, trails along the right-of-way of roads, trails behind private properties, and bicycle facilities such as the Route 202 Parkway bicycle lanes.



Doylestown Community Bike and Hike System



THE TRAILS & BICYCLE ROUTE NETWORK

The Trail and Bicycle Plan Map provided at the end of this chapter illustrates the proposed Northampton Township trail and bicycle network. Trails and bicycle routes traverse parkland, open space, private property, and include crushed stone trails, paved asphalt trails, boardwalks, and on-road bicycle facilities. Upon analysis of documents, mapping, site conditions, right-of-way, speed limits, and road widths, a total of 116 trails and bicycle facilities segments have been proposed. In addition, 53 Neighborhood Bike Routes are also identified throughout the township. In total, the network encompasses 101.5 miles as shown in Tables 13 and 14.

One of the goals was to provide connectivity throughout the township, as well as have trails be off-road to the extent possible. However, various barriers prevented full off-road connectivity. There are areas of the township that do not have trails suggested or where off-road trails are not possible. This is primarily a function of environmental constraints. A total of 65 Shared Use Trail segments encompassing 18.5 miles are proposed.

Many on-road bicycle facilities segments have been identified in the plan including dedicated bicycle lanes (11 segments/5.0 miles), roads with bicycle sharrows (29 segments/26.6 miles), and Neighborhood Bike Routes (53 segments/45.4 miles). These will be fairly inexpensive to implement as they primarily involve the installation of signage, avoiding the additional maintenance requirements of bicycle sharrows painted on the road. As with off-road trails, bicycle lanes were recommended over bicycle sharrows where possible due to the separation of motorists from bicyclists. However, in those instances where pavement widths or other constraints would not allow for dedicated bicycle lanes, on-road routes with bicycle sharrows were recommended. However, there were also instances where traffic volumes and/or speed limits would not allow for us to recommend bicycle sharrows.

In addition to trails and bicycle facilities, a total of 11 sidewalk segments have been proposed. These include 3 segments that are greater than 0.25 miles in length and will serve as trails in areas where conditions would not allow for a shared use trail. The remaining 8 sidewalk segments, noted in the plan as SW, are very short segments that primarily serve to fill in gaps in the system.

The remainder of the network is comprised of the proposed Newtown Rail Trail (8 segments/4.48 miles).

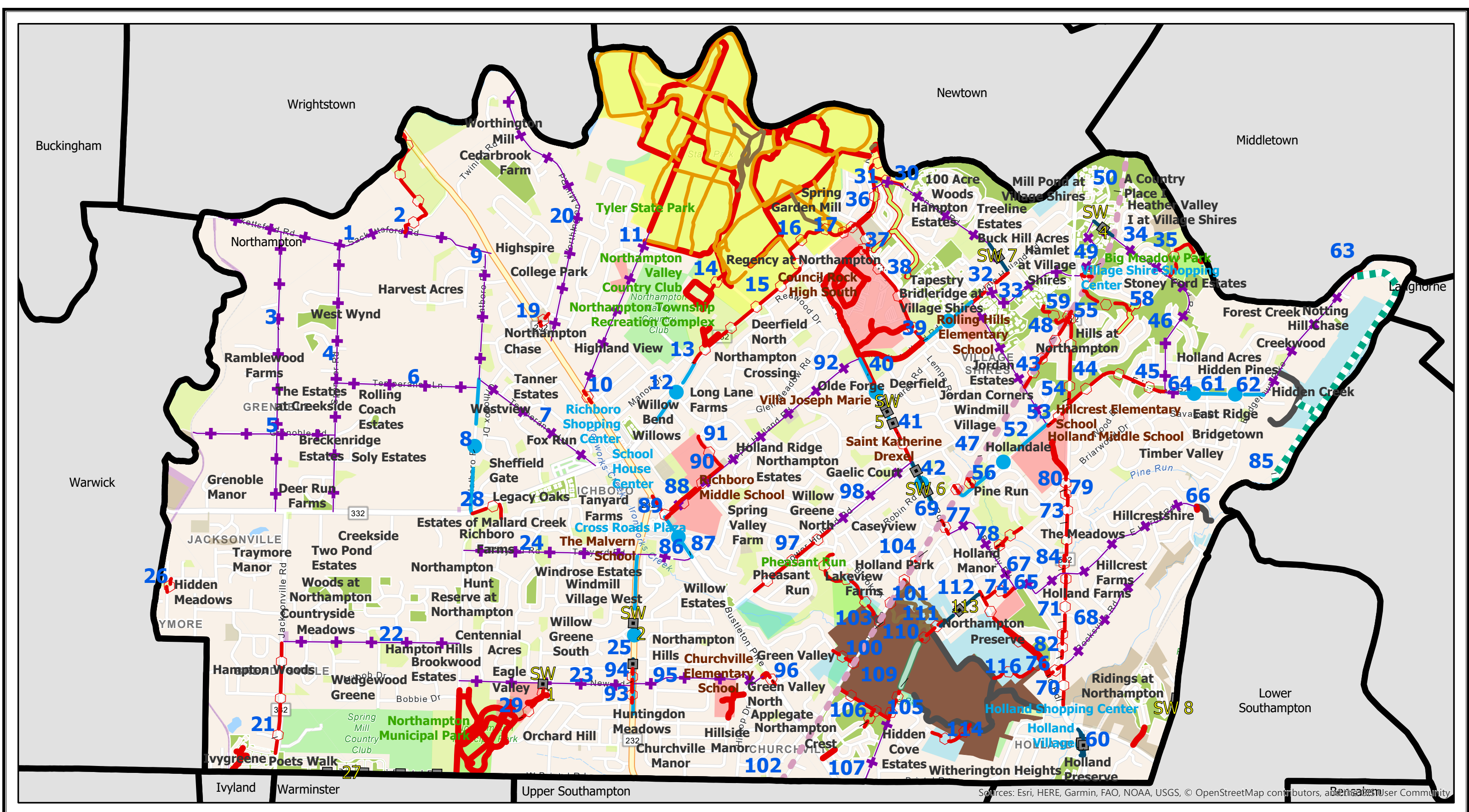
TABLE 13 – PROPOSED TRAIL & BICYCLE FACILITIES (SEGMENTS BY TYPE OF FACILITY BY PLANNING AREA)

Area	Shared Use Trails / Boardwalk	Newtown Rail Trail	Bike Lanes	Bike Sharrows	Sidewalks	Total Trails & Bike Facilities	Neighborhood Bike Routes	Total
1	9	-	2	9	-	20	3	23
2	4	-	1	3	4	12	14	26
3	17	4*	4	5	4	34*	7	41
4	15	1	3	6	2	27	11	38
5	20	3	1	6	1	31	18	49
Total	65	8*	11	29	11	124*	53	177

TABLE 14 – PROPOSED TRAIL & BICYCLE FACILITIES (MILEAGE BY TYPE OF FACILITY BY PLANNING AREA)

Area	Shared Use Trails / Boardwalk	Newtown Rail Trail	Bike Lanes	Bike Sharrows	Sidewalks	Total Trails & Bike Facilities	Neighborhood Bike Routes	Total
1	2.67	-	1.27	11.04	-	14.98	3.36	18.34
2	1.30	-	0.92	3.26	1.05	6.53	12.14	18.53
3	5.11	2.35*	1.84	4.01	0.64	13.95*	6.32	19.63
4	4.44	0.22	0.66	4.02	0.48	9.81	9.03	18.63
5	5.02	1.91	0.30	4.29	0.31	11.83	14.51	26.34
Total	18.54	4.48*	4.99	26.62	2.48	57.11*	45.36	101.48

* Segment 48 and 48A are counted once in the number of segments and mileage since they represent different alignments of the same length for the same trail corridor



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the Mapbox User Community

0 0.5 1 Miles

<p>Proposed Trails & Bike Facilities</p> <ul style="list-style-type: none"> ● Bike Lanes + Sharrows Floating Boardwalk Neshaminy Greenway Trail (NGT) - Proposed Newtown Rail Trail (NRT) - Proposed ⊕ Shared Use Trail 	<p>Existing Trails</p> <ul style="list-style-type: none"> Existing Access Road Existing Equestrian Trail Existing Hiking Trail Existing Shared-Use Trail 	<p>Existing Trails</p> <ul style="list-style-type: none"> Existing Private HOA Trail Aqua PA School District Property Municipal Open Space & Parkland County Open Space & Parkland State Parks & Historic Sites 	<p>HOA Property</p> <ul style="list-style-type: none"> Land Trust Property PECO Bucks Co Water & Sewer Authority Northampton Bucks Co Municipal Authority 	<p>Schools</p> <ul style="list-style-type: none"> Neighborhood Commercial Development Municipal Boundaries
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Northampton Township Proposed Trails and Bike Facilities

Map 3

TABLE 15 - PROPOSED TRAIL & BICYCLE FACILITIES BY TYPE

Shared Use Trails (Excludes Newtown Rail Trail)				
Segment	Location	Begin and End Points	Planning Area	Length (Miles)
2	Bryan's Farm (Neshaminy Greenway Trail)	Sackettsford Road to Neshaminy Creek	1	0.81
10	Second Street Pike	Highland Drive to Twining Ford Road	1	0.09
13	Newtown Richboro Road	Frontage of Northampton Township Recreation Complex	1	0.42
14	Tyler State Park	Northampton Township Recreation Complex to No. 1 Lane Trail	1	0.15
15	Newtown Richboro Road	Frontage of Tyler State Park	1	0.60
16	Tyler State Park	Portion of Cooper Trail	1	0.37
17	Tyler State Park	Copper Trail to Newtown Richboro Road	1	0.07
18	Newtown Richboro Road	Cooper Trail Connection to Spring Garden Mill Road	1	0.06
19	Advent Lutheran Church/Northampton Bucks County Municipal Authority	Second Street Pike to Anselm Drive	1	0.11
21	Jacksonville Road	Ashley Drive to Pulinski Road	2	0.69
26	Hidden Meadows Connector	Hill Road to Steam Whistle Drive	2	0.10
28	Richboro Farms Connector	Joshua Drive to intersection of Hatboro Road and Almshouse Road	2	0.27
29	New Road Trailhead & Maureen Welsh Elementary School Trail (In Design)	New Road to Northampton Municipal Park	2	0.24
30	Neshaminy Greenway Trail	Langhorne Players Theater/Spring Garden Mill to St. Leonards Road	3	0.41
32	Neshaminy Greenway Trail	St. Leonards Road to Rolling Hills Elementary School	3	0.29
35	Neshaminy Greenway Trail	Big Meadow Park	3	0.58
36	Newtown Richboro Road (PennDOT ROW)	Rock Way to St. Leonards Road	3	0.33
37	Council Rock High School South		3	0.07
38	Rock Way	Richboro Road to Middle Holland Road	3	0.86
41	Holland Road	Vandeerver Avenue to Rotterdam Road West	3	0.24
44	East Holland Road	Buck Road to Belmont Way	3	0.26
45	East Holland Road	Belmont Way to Stoneyford Road	3	0.41
51	East Holland Road (West side ROW)	Amsterdam Avenue to Sidewalk at Pine Run	3	0.10
53	East Holland Road	Old Jordan Road to Buck Road	3	0.17
54	Buck Road	East Holland Road to Newtown Rail Trail Bridge	3	0.61
55	Buck Road to Newtown Rail Trail	Newtown Rail Trail to Buck Road	3	0.08
56	Newtown Rail Trail Connector	East Holland Road to Newtown Rail Trail	3	0.06
57	Newtown Rail Trail Connector	East Village Road to Newtown Rail Trail	3	0.07
58	Newtown Rail Trail Connector - Hills of Northampton	Existing Trail to Newtown Rail Trail	3	0.34
59	Newtown Rail Trail Connector - Village Shires Neighborhood	Potters Place to Newtown Rail Trail	3	0.23
70	Buck Road	Crescent Drive to Holland Road	4	0.24
71	Buck Road	Mallard Road to Northampton Presbyterian Church	4	0.42
72	Buck Road	Northampton Presbyterian Church Frontage to E Heron Road	4	0.04
73	Buck Road	Pine Run Creek Bridge/Woodlake Drive to Kings Way Drive	4	0.36
74	Holland Road	Hope Road to Churchville Lane	4	0.28
75	Holland E.S./Lower Bucks Holland Outdoor Recreation	Crescent Drive to Holland Road	4	0.25
76	Rocksville Road	Holland Road to Buck Road	4	0.10
77	Holland Road	E Patricia Road to Newtown Rail Trail	4	0.09
78	Pine Run	Beverly Road/Mallard Road/Woodlake Drive	4	0.22
79	Buck Road	Kings Way Drive to start of sidewalk south of Forrest Drive	4	0.01
80	Buck Road	Pine Run Frontage at Forrest Drive	4	0.12
81	Buck Road	TMP 31-031-001 & 175' SW from Mallard Road	4	0.03
82	Buck Road	Rocksville Road to TMP 31-031-001	4	0.13
85	Neshaminy Greenway Trail (Proposed)	Bridgetown Pike to Playwicki Park	4	2.03
84	Buck Road	E Heron Road to Woodlake Drive	4	0.10
88	Upper Holland Road/Richboro Middle School	Bustleton Pike to just west of Torresdale Drive	5	0.28
89	Bustleton Pike & Upper Holland Road	Second Street Pike to Township Road	5	0.29
90	Upper Holland Road	Township Road to Richboro Elementary School Trail	5	0.32
91	Richboro Elementary School	Cedar Drive to Upper Holland Road	5	0.25
93	Second Street Pike	Cherry Blossom Drive to New Road	5	0.10
94	Second Street Pike	New Road to Heather Road	5	0.10
96	Bustleton Pike	Hilltop Drive to Green Valley Drive	5	0.09
97	Lower Holland Road	Chapel Drive to Lark Drive	5	0.70
99	Newtown Rail Trail Connector Trail	Pheasant Run Park to Elm Avenue	5	0.60
100	Newtown Rail Trail Connector Trail	Schan Drive to Newtown Rail Trail	5	0.15
101	Newtown Rail Trail Connector Trail	Brook Drive, Aqua Drive & Cameron Drive	5	0.01
105	Newtown Rail Trail Connector Trail	Churchville Lane to Newtown Rail Trail	5	0.37
106	Northampton Crest Connector Trail	Radcliffe Drive to Aqua PA Trail	5	0.12
108	Churchville Lane	Northampton Crest to Churchville Reservoir	5	0.22
109	Churchville Lane*	Floating Boardwalk	5	0.29
110	Churchville Lane	Churchville Reservoir to Churchville Nature Center	5	0.11
111	Churchville Lane	Churchville Nature Center	5	0.09
114	Bucks County - Churchville Reservoir Connector	Lake Drive to AQUA PA property	5	0.18
115	Churchville Reservoir Connector Trail	Bucks County (Lake Drive) to Churchville Access Road	5	0.12
116	Churchville Farm	Churchville Reservoir to Holland Road	5	0.64
* indicates floating boardwalk			Total Proposed Shared Use Trails	18.54

TABLE 15 – PROPOSED TRAIL & BICYCLE FACILITIES BY TYPE (CONTINUED)

Newtown Rail Trail				
Segment	Location	Begin and End Points	Planning Area	Length (Miles)
47	SEPTA owned right-of-way	East Holland Road to Old Jordan Road	3	0.77
48	SEPTA owned right-of-way	Old Jordan Road to Buck Road	3	0.56
48A	Newtown Rail Trail Alternate - Bucks County Roses'	Bucks County Roses	3	0.56
49	SEPTA owned right-of-way	Buck Road to Stoneyford Road	3	0.51
50	SEPTA owned right-of-way	Stoneyford Road to Neshaminy Creek	3	0.52
69	SEPTA owned right-of-way	Holland Road to East Holland Road	4	0.22
102	SEPTA owned right-of-way	Bristol Road to Bustleton Pike	5	0.32
103	SEPTA owned right-of-way	Bustleton Pike to Churchville Nature Center	5	1.00
104	SEPTA owned right-of-way	Churchville Nature Center to Holland Road	5	0.60
'mileage not included in final amount since alternative			Total Proposed Newtown Rail Trail	4.48

Bike Lanes				
Segment	Location	Begin and End Points	Planning Area	Length (Miles)
8	Hatboro Road	Almshouse Rd to Temperance Lane	1	0.84
12	Newtown Richboro Road	West Pickering Bend to Harmony Drive	1	0.43
25	Second Street Pike	Windsor Drive to Tanyard Road	2	0.92
39	Middle Holland Road	Rock Way to Old Jordan Road	3	0.38
40	Holland Road	Rotterdam Road West To Middle Holland Road/Upper Holland Road	3	0.46
42	Holland Road	East Holland Road to Lower Holland Road/Vanderveer Avenue	3	0.28
52	East Holland Road	Bend near Pine Run to Old Jordan Road	3	0.72
60	Holland Village - Buck Road	Elaine Drive to Holland Commons & Holland Village SC	4	0.15
61	E Holland Road	850' Frontage of East Ridge & Hidden Pines up to Pepperell Dr/ Stallion Cir	4	0.16
62	E Holland Road	Pepperell Dr/Stallion Cir to Bridgetown Pike	4	0.35
87	Bustleton Pike	Tanyard Road/Anthony Drive to Upper Holland Road	5	0.30
			Total Proposed Bicycle Lanes	4.99

Bike Sharrows				
Segment	Location	Begin and End Points	Planning Area	Length (Miles)
1	Sackettsford Road (Neshaminy Greenway Trail)	New Hope Ivyland RR to Second Street Pike	1	1.21
3	Old Jacksonville Road	Almshouse Road to Sackettsford Road	1	1.75
4	Spencer Road	Almshouse Road to Sackettsford Road	1	1.66
5	Grenoble Road	New Hope Ivyland RR to Spencer Road	1	0.89
6	Temperance Lane	Spencer Rd to Hatboro Rd	1	0.89
7	Temperance Lane	Hatboro Rd to Almshouse Rd	1	0.91
9	Hatboro Road	Temperance Lane to Sackettsford Road	1	0.78
11	Twining Ford Road	Second Street Pike to Tyler State Park	1	1.16
20	Worthington Road	Second Street Pike to Neshaminy Creek	1	1.79
22	Pulinski Road	Jacksonville Road to Hatboro Road	2	1.10
23	New Road	Hatboro Road to Second Street Pike	2	1.09
24	Tanyard Road	Hatboro Road to Second Street Pike	2	1.08
31	Neshaminy Greenway Trail	Richboro Road to Middle Holland Road	3	1.06
33	Neshaminy Greenway Trail	Middle Holland Road to Stoneyford Road	3	0.65
34	Neshaminy Greenway Trail	East & West Village Road to Big Meadow Park	3	0.59
43	Old Jordan Road	Middle Holland Road to East Holland Road	3	0.89
46	Stoneyford Road	Big Meadow Park to East Holland Road	3	0.82
63	Bridgetown Pike	East Holland Road to Newtown-Langhorne Road	4	1.10
64	E Holland Road	Stoneyford Road to widening of road 850' northwest of Pepperell Drive	4	0.10
65	Crescent Drive, Mallard Road & Heron Road	Holland Elementary School to Buck Road	4	0.41
66	E Heron Road	Buck Road to Bridgetown Pike	4	0.97
67	E Patricia Road/Beverly Road	Holland Road to Crescent Drive	4	0.67
68	Rocksville Road	Buck Road to Wooden Bridge Road	4	0.77
86	Tanyard Road	Second Street Pike to Bustleton Pike	5	0.34
92	Upper Holland Road	Bustleton Pike to Holland Road	5	1.57
95	New Road	Second Street Pike, Mehler Drive, Hilltop Drive to Bustleton Pike	5	0.88
98	Lower Holland Road	Lark Drive to Holland Road	5	0.66
107	Churchville Lane	Bristol Road to Hidden Cove Drive	5	0.51
112	Churchville Lane	Lakeside Drive to Holland Road	5	0.32
			Total Proposed Bike Routes/Sharrows	26.62

Sidewalks				
Segment	Location	Begin and End Points	Planning Area	Length (Miles)
27	Bristol Road	Wordsworth Drive to Hatboro Road	2	0.92
SW 1	New Road (In Design)	Township property adjacent to and southeast of Maureen Welsh School	2	0.03
SW 2	Second Street Pike	Merry Dell Drive to W Buttonwood Drive	2	0.05
SW 3	Second Street Pike	Heather Road to Locust Road	2	0.06
SW 4	Stoneyford Road	East Village Road to bridge over Newtown Rail Line	3	0.15
SW 5	Holland Road	Rotterdam Road West to Karen Road	3	0.10
SW 6	Holland Road	East Holland Road to Vanderveer Road	3	0.20
SW 7	St. Leonards Road	Treeline Drive to Middle Holland Road	3	0.20
83	Holland Village - Buck Road	Elaine Drive to Holland Commons & Holland Village SC	4	0.27
SW 8	Bridgetown Pike	Bellwood Drive to Vernasa Drive/Playwicki Farm Connection	4	0.21
113	Churchville Lane	Lakeside Drive to Holland Road	5	0.31
			Total Proposed Sidewalks	2.48

TABLE 15 – PROPOSED TRAIL & BICYCLE FACILITIES BY TYPE (CONTINUED)

Neighborhood Bike Routes (NBR)			
Segment	Neighborhood(s)	Planning Area	Length (Miles)
NBR 1	Sheffield Gate, Westview, Northampton Chase	1	1.26
NBR 2	Highland View, College Park	1	0.95
NBR 3	Tanner Estates, Highland Farms	1	1.15
NBR 4	Brookwood Estates	2	1.32
NBR 5	Woods at Northampton, Reserve at Northampton	2	1.31
NBR 6	Orchard Hill	2	1.47
NBR 7	Eagle Valley	2	0.79
NBR 8	Hampton Woods, Wedgewood Greene	2	0.43
NBR 9	Ivy Greene	2	0.14
NBR 10	Hidden Meadows	2	0.48
NBR 11	Traymore Manor	2	0.10
NBR 12	Estates of Mallard Creek, Legacy Oaks	2	1.50
NBR 13	Centennial Acres	2	0.70
NBR 14	Willow Greene South, Windmill Village West	2	1.50
NBR 15	Northampton Hunt	2	0.90
NBR 16	Estates of Mallard Creek, Richboro Farms	2	0.36
NBR 17	Northampton Township Business & Technology Center	2	1.14
NBR 18	Windmill Village	3	1.93
NBR 19	Buck Hill Acres	3	0.34
NBR 20	Treeline Estates	3	0.26
NBR 21	Hampton Estates	3	0.61
NBR 22	100 Acre Woods	3	0.63
NBR 23	Stoney Ford Estates	3	0.82
NBR 24	Hills at Northampton#	3	1.72
NBR 24	Hills at Northampton#	4	0.57
NBR 25	Hidden Pines	4	0.46
NBR 26	Holland Acres	4	0.71
NBR 27	East Ridge	4	0.61
NBR 28	Bridgetown	4	0.54
NBR 29	Briarwood Dr, Zelkova Dr, Wood Dr	4	0.87
NBR 30	Rolling Hills	4	0.44
NBR 31	Timber Valley	4	0.83
NBR 32	Pine Run	4	1.15
NBR 33	The Meadows	4	0.63
NBR 34	Hillcrestshire	4	1.65
NBR 35	Hillcrest Farms	4	0.58
NBR 36	Long Lane Farms	5	0.73
NBR 37	Deerfield North	5	1.20
NBR 38	Northampton Crossing	5	0.24
NBR 39	Northampton Estates	5	0.53
NBR 40	Holland Ridge	5	0.78
NBR 41	Spring Valley Farm	5	2.33
NBR 42	Willow Greene North	5	0.89
NBR 43	Northampton Hills	5	1.07
NBR 44	Pheasant Run	5	1.42
NBR 45	Caseyview/Estates at Holland	5	0.62
NBR 46	Churchville Manor	5	1.05
NBR 47	Hillside Manor	5	0.21
NBR 48	Green Valley North	5	0.29
NBR 49	Green Valley	5	1.21
NBR 50	Brook Drive	5	0.31
NBR 51	Lakeview Farms	5	0.47
NBR 52	Northampton Crest	5	0.36
NBR 53	Hidden Cove Estates	5	0.81
# Reflects neighborhood being divided between Planning Areas 3 & 4		Total Proposed Neighborhood Bike Routes	45.36

Following the discussion regarding the prioritization of trails, an overview of each Planning Area, including an inventory of land use, natural features and man-made features is provided. These Planning Area overviews also include descriptions of trail or bicycle route segment, including maps.

PRIORITY TRAILS & BICYCLE FACILITIES

Due to the complexity of the proposed trail and bicycle facilities network, as reflected by the both the various types of segments and number of trails being proposed, it was important to establish a set of priorities for trail development. To achieve this an evaluation and scoring process was developed to objectively evaluate the various facilities and be able to identify the priority trails and bicycle facilities.

Below is a description of the evaluation process used for prioritizing the trail segments. It should be recognized that the priorities will be dynamic. This is a function of many factors including development opportunities allowing for a lower scoring/ranked trail or bicycle facility to be built by a developer, the township having the ability to secure right-of-way for a lower-ranked trail project, a road resurfacing project taking place, the County taking the lead on a specific project, or the availability of funding. The township should review the priorities periodically to reflect shifting priorities and either add new trail segments that have been identified, or remove those that have been built or are no longer viable or a possibility.

Methodology

To identify the priority trails, the Bucks County Planning Commission identified and consolidated segments primarily based on proximity, i.e. segments that were part of the same corridor such as the Newtown Rail Trail, Buck Road, and Newtown Richboro Road corridors, or served as connectors between two or more destinations. The 8 connector trails to the Newtown Rail Trail, 8 small sidewalk segments (less than 0.25 miles), and 53 Neighborhood Bike Routes were excluded as no one connector trail or neighborhood was deemed more important than another, leaving a total of 108 segments. Consolidation of the 108 segments brought the total number of trails and bicycle facilities to review down to 53. Each of these consolidated trails/bicycle facilities were then scored against nine criteria in three categories as shown in Table 12 including Feasibility, Safety, and Connectivity.

TABLE 16 – EVALUATION CRITERIA

Feasibility	Connectivity
Ownership of right-of-way	Connectivity to Schools
Costs to the Township for constructing the trail/bicycle facility	Connectivity to Neighborhoods (Based on Housing counts)
Presence of environmental constraints and/or extent of engineering required	Connectivity to existing trails, parks, libraries and senior centers
Safety	Connectivity to Commercial Areas
Degree of safety that the proposed facility provides to trail/bicyclists users	Connectivity to other proposed trails and bicycle facilities

Every category, with the exception of user safety, was scored on scale of 0 to 3, with the ability to rate the feature at a 0.25 interval. Categories for the feasibility of a trail were judged on the strain a proposed trail would have on Northampton Township’s resources, be they financial, environmental, engineering, or acquisition. Trails that would cause a greater strain on township resources were given a lower score while those that caused less strain on township resources were given a higher score.

Example- A trail running on township owned land through a flat preserved open field would be given a 2.75 or 3. The township wouldn’t need to spend money on land acquisition, the engineering cost are low as trail is easily built, and there are no environmental constraints as its history as a preserved open space kept it free from environmental degradation. Compare that trail to a trail proposed on a privately owned wetland. The township would need to spend time and money acquiring the right to build the trail. The cost is then compounded by high engineering costs, a wetland construction would require extensive infrastructure to reduce impacts on the wetland itself, driving development cost. Lastly, a boardwalk style trail would likely need to be built to navigate the wetland, driving up construction and maintenance cost bringing its overall score down to a 0.75 or 0.5. Scoring trails for connectivity was much simpler. Categories regarding connectivity solely looked at the number of connections a proposed trail had to schools, homes, community assets, commercial areas, and/or other trails. A trail with a high number of connections to schools, homes,

and community assets, would score higher than a trail with a limited number of connections to schools, homes, and community assets.

User safety was scored on a 0.5 to 3 scale. The logic behind this was that any of the facilities identified in this plan were an improvement over no facilities, which would warrant a zero. Facilities that provide a high level of user safety, such as shared use trails, were given a higher score. In contrast, facilities such as sharrows were given a score 0.5 because bicyclists are provided some degree of safety. Additionally, as the consolidated segments were often comprised of different types of facilities, meaning a user would experience varying degrees of safety along the course of a trail. To adjust for this we divided the length of each segment by the total length of the trail to discover the percentage that trail type comprised of the overall trail. This percentage was then multiplied by the score given to that trail type, and each segment's score was then added together to get the final score for the trail.

Example - Two trails each a mile in length. The first trail is a complete shared use trail, thus it is given a 3 according to the rating system. The second trail is .5 miles of shared use trail and .5 miles of stand-alone bike sharrows. This trail would be assigned a value of 1.75 which is based on 3.0 points for the 0.5 mile shared use trail segment and 0.5 points for the by 0.5 of bicycle sharrows. Based on these scoring categories, the maximum number of points for any particular consolidated trail or bike facility was 27 points.

Additional details on the scoring and evaluation can be found in Table 13. Scoring and rankings for all 53 consolidated and trail and bicycle facilities can be found in Appendix C.

The remainder of this chapter consists of two parts.

1. **Priority Trails**

The first section contains information on each of the top 11 priority trail and bike facilities proposed including:

- Description of the proposed facility, including the segments comprising it, and associated alignment;
- Map showing its location;
- Detailed scoring evaluation information; and
- Photos along the proposed alignment.

2. **Trail & Bicycle Facility Segments by Planning Area**

The second section is devoted to an overview of each Planning Area and contains the following information:

- An overview of the Planning Area including information on land use, natural resource features, man-made features including commercial areas, schools, park and recreation areas, historic resources, the street network, and existing trails.
- A table detailing the proposed trail and bicycle facilities, organized by type, for that planning area;
- A map showing the proposed trails and bicycle facilities;
- A brief description of each segment and its connectivity to other trails and resource features; and
- A series of smaller maps, based on geographic proximity, designed to provide more detail regarding the location and alignment of the segments. The groupings represented on each of these maps is not intended to represent anything other than geographic proximity, meaning that they do not represent consolidated segments.

TABLE 17 – EVALUATION CRITERIA AND SCORING SCALE

Category- Feasibility	Feature Value and Description
Cost to Northampton Township	0 - Very High Cost (Township trails where township builds & maintains and the trail includes expensive items such as retaining walls, bridges, boardwalks or requires lane realignment)
	1 - High Cost (Township trails which the township builds & maintains. Requires minimal engineering and has few, if any, bridges, boardwalks, retaining walls, etc.)
	2 - Moderate Cost (Township installs bike lanes requiring resurfacing of road and reconfiguration or narrowing of traffic lanes to accommodate inclusion of bike lanes / Twsp installs sidewalks)
	3 - Low Cost (County builds trail with Twsp maintaining / PennDOT resurfaces with Twsp maintaining / Twsp installs and maintains bike sharrows)
Ownership of right-of-way (ROW)	0 - Will require an easement(s)
	1 - Dependent upon PennDOT for resurfacing of state road
	2 - Will require ROW agreement from PennDOT / Lease from SEPTA / Easement from County or State agency
	3 - Township owns ROW
Presence of Natural Resource and Manmade Constraints	0 - Significant presence of wetlands and steep slopes (50% or more of the project area)
	1 - Moderate presence of wetlands and steep slopes (25% - 50% of the project area)
	2 - Limited presence of wetlands and/or steep slopes (Less than 25% of the project area) OR Speed limit will need to be reduced to 35 MPH to allow for Bike Sharrows
	3 - No environmental constraints (Would also apply to the majority of on-road bike facilities such as sharrows and/or bike lanes given that the road itself already exists)

Category- Safety	Feature Value and Description
User Safety	0.5 - Bike Sharrows Only / Bike Lanes Only / Sidewalk Only
	1 - Bike Sharrows & Sidewalks
	2 - Bike Lanes with Sidewalks
	3 - Dedicated Shared use Trail

Category- Connectivity	Feature Value and Description
Connectivity to Schools	0 - No school connectivity
	1 - Connectivity to one school
	2 - Connectivity to two schools
	3 - Connectivity to three schools
Connectivity to Commercial	0 - No commercial connectivity
	1 - Connectivity to one commercial area
	2 - Connectivity to two commercial areas
	3 - Connectivity to three commercial areas
Connectivity to Recreational Facilities such as Parks / Existing Trails / Libraries / Senior Centers	0 - No commercial connectivity
	1 - Connectivity to one recreational facility
	2 - Connectivity to two recreational facilities
	3 - Connectivity to three or more recreational facilities
Potential Future Connectivity	0 - 0 trail connections
	1 - 1 to 2 future proposed trail connections
	2 - 3 - 5 future proposed trail connections
	3 - 6+ trail future proposed trail connections
Connectivity to Neighborhoods	0 - Less than 100 housing units
	1 - 100 - 499 housing units
	2 - 500 - 999 housing units
	3 - 1000+ housing units

PRIORITY TRAILS AND BICYCLE FACILITIES RANKING

The following trails and bicycle facilities achieved the highest scores across the nine categories. These 11* trails and bicycle facilities should be given priority by the township as it implements the recommendations contained in this plan.

- 1 **Newtown Rail Trail** (20.50) - Continuous shared use trail contained fully within the SEPTA right-of-way of the former Fox Chase-Newtown train line from Bristol Road to the Neshaminy Creek
 - 2 **New Road** (18.61) - Spans the length of New Road from Hatboro Road to Bustleton Pike
 - 3 **Old Jordan Road** (17.75) - Will join East and Middle Holland roads to connect to the Newtown Rail Trail
 - 4 **Neshaminy Greenway Trail** (17.46) - Links the center of Village Shires to the County's proposed Neshaminy Greenway trail which would extend along the Neshaminy Creek from Chalfont to the Delaware River.
 - 5 **Upper Holland Road** (16.50) - Bike facilities would cover the length of Upper Holland Road from Second Street Pike to Holland Road
 - 6 **Middle Holland Road** (15.00) - Dedicated bike lanes would link Council Rock South to Old Jordan Road and the Newtown Rail Trail
 - 7 **Newtown Richboro Road** (14.81) - Extends from the commercial center of Richboro to the intersection of St. Leonards Road and Newtown Richboro Road. Would connect to the Northampton Township Recreation Complex and, via the proposed Neshaminy Greenway Trail, connectivity to Tyler State Park
 - 8 **Temperance Lane** (14.50) - Connects the northwestern portion of the township to the commercial center of Richboro
 - 9A **Buck Road** (14.00) - Links the Village of Holland to Holland Middle School, spanning Buck Road from the intersection of Holland and Buck roads, and East Holland Road, via the existing pathway on the Hillcrest Elementary and Holland Middle School property
 - 9B **Stoneyford Road** (14.00) - Links the neighborhoods along Stoneyford Road, and those near the intersection of Stoneyford Road and East Holland Road, to Big Meadow Park and the Neshaminy Greenway Trail at Big Meadow Park
 - 9C **Tanyard Road** (14.00) - Running from Jacksonville Road to Bustleton Pike this segment would provide easy access to Richboro
- * The last three segments all scored and ranked equally resulting in a total of 11 high-ranking trails

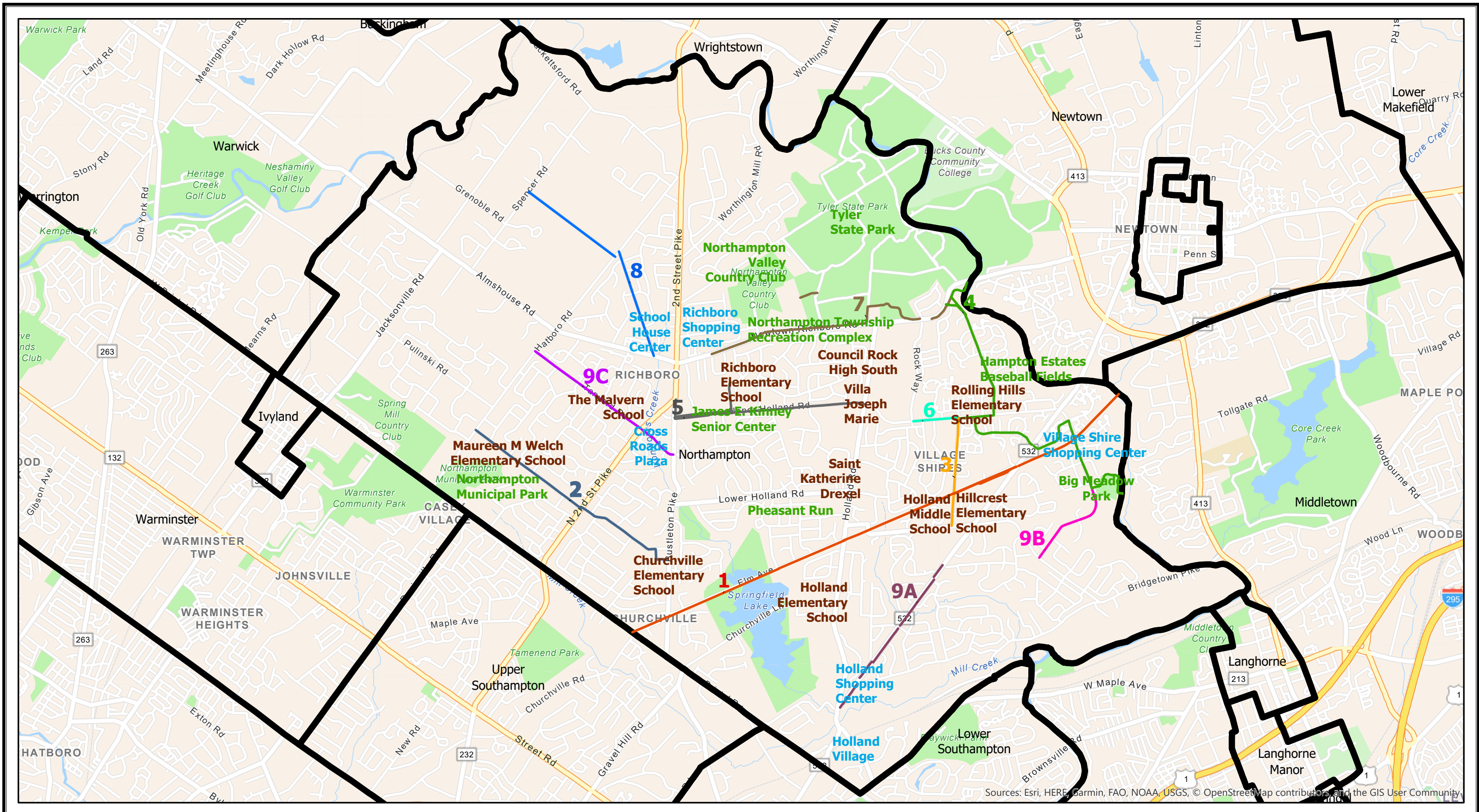
It should be noted that these priority trails encompass the entire township meaning that each Planning Area and area of the township are represented.

TABLE 18 - TABULATION OF SCORES FOR TOP PRIORITY TRAILS AND BICYCLE FACILITIES

Area	Trail No	Trail Name	Begin and End Points	Trail Type	Trail Sponsor	Mileage	Cost to Northampton Township to Construct	ROW Ownership	Presence of Natural Resource and Manmade Constraints	Connectivity to Neighborhoods	Connectivity to Schools	Connectivity to Commercial	Connectivity to Parks / Existing Trails / Libraries / Senior Centers	Potential Future Connectivity	User Safety	Total Score (27 Points Maximum)	FINAL RANK OUT OF 53
3, 4 & 5	47 - 50 / 69 / 102 - 104	Newtown Rail Trail	Bristol Road to Neshaminy Creek (Shared Use Trail within SEPTA Right-of-Way)	Shared Use Trail	County	4.48	3.0	2.0	2.5	3.0	0.0	2.0	3.0	3.0	3.0	21.5	1
2 & 5	23 / 95	New Road	Hatboro Road to Bustleton Pike via Mehler & Hilltop	Bike Sharrows - Existing Sidewalks (0.45 miles) / No Sidewalk (1.52 miles)	Township	1.97	3.0	3.0	3.0	3.0	2.0	0.0	1.0	3.0	0.6	18.6	2
3	43	Old Jordan Road	Middle Holland Road to East Holland Road	Bike Sharrows - Existing Sidewalks (0.45 miles) / No Sidewalk (0.45 miles)	Township	0.89	3.0	3.0	3.0	3.0	3.0	0.0	0.0	2.0	0.8	17.8	3
3	30 - 35	Neshaminy Greenway Trail	Tyler State Park/Langhorne Players to Big Meadow Park	Shared Use Trail & Bike Sharrows	County	3.58	3.0	1.8	0.0	3.0	1.0	1.0	3.0	3.0	1.7	17.5	4
5	88 - 92	Upper Holland Road	Bustleton Pike to Holland Road	Bike Sharrows - Existing Sidewalks & Shared Use Trail	Township	2.71	1.8	1.0	2.5	2.0	2.0	2.0	3.0	1.0	1.3	16.5	5
3	39	Middle Holland Road	Rock Way to Old Jordan Road	Bike Lanes - Existing Sidewalk	Township	0.38	3.0	1.0	3.0	2.0	1.0	0.0	1.0	2.0	2.0	15.0	6
1 & 3	12 - 18 / 36	Newtown Richboro Road	West Pickering Road to St. Leonards	Bike Lanes - Existing Sidewalks & Shared-Use Trail	Township	2.27	1.0	1.5	1.5	2.0	1.0	0.0	3.0	2.0	2.8	14.8	7
1	6 - 7	Temperance Lane	Spencer Road to Almshouse Road	Bike Sharrows - No Sidewalks	Township	1.80	3.0	3.0	3.0	1.0	0.0	2.0	0.0	2.0	0.5	14.5	8
4	70 - 73 / 79 - 82 / 84	Buck Road	Holland Road to Schools	Shared Use Trail	Township	1.47	0.0	0.0	1.0	3.0	2.0	1.0	1.0	3.0	3.0	14.0	9A
3	46	Stoneyford Road	Big Meadow Park to East Holland Road	Bike Sharrows - Existing Sidewalks	Township	0.82	3.0	3.0	3.0	1.0	0.0	0.0	1.0	2.0	1.0	14.0	9B
2 & 5	24 / 86	Tanyard Road	Hatboro Road to Bustleton Pike	Bike Sharrows - Existing Sidewalks	Township	1.42	3.0	3.0	3.0	2.0	0.0	1.0	0.0	1.0	1.0	14.0	9C

Master Trail & Bicycle Facilities Plan

Area	Trail No	Trail Name	Trail Type	Trail Sponsor	Mileage	ROW OWNERSHIP	NUMBER OF HOUSING UNITS CONNECTED	SCHOOLS	COMMERCIAL AREAS	PARKS, EXISTING TRAILS, LIBRARIES, SENIOR CENTERS	CONNECTING TRAIL NUMBERS												TOTAL NUMBER OF CONNECTIONS TO OTHER PROPOSED TRAILS	FINAL RANK OUT OF 53					
											100	101	105	99	77	51	56	54/55	43	57	58	34							
3, 4 & 5	47 - 50 / 69 / 102 - 104	Newtown Rail Trail	Shared Use Trail	County	4.48	SEPTA ROW	2,109		Village Shires Shopping Center	Churchville Dell / Churchville	Newtown Rail Trail (Under Construction)	Churchville Nature Center	Churchville Historic District	Churchville Reservoir	100	101	105	99	77	51	56	54/55	43	57	58	34	12	1	
2 & 5	23 / 95	New Road	Bike Sharrows - Existing Sidewalks (0.45 miles) / No Sidewalk (1.52 miles)	Township	1.97	Northampton Township	1,093	Maureen Welsh E.S. Churchville E.S.			Northampton Municipal Park				29	93	94	96	25	22							6	2	
3	43	Old Jordan Road	Bike Sharrows - Existing Sidewalks (0.45 miles) / No Sidewalk (0.45 miles)	Township	0.89	Northampton Township	1,388	Rolling Hills E.S. Hillcrest E.S. Holland M.S.							32	39	47/48	52	53								5	3	
3	30 - 35	Neshaminy Greenway Trail	Shared Use Trail & Bike Sharrows	County	3.58	Northampton Twsp/Village Shires/PennDOT	3,255	Rolling Hills E.S.	Village Shires Shopping Center		Tyler State Park	Big Meadow Park	Tyler State Park Trail	Hampton Estates Ball Fields	36	39	43	57	49	50	46							7	4
5	88 - 92	Upper Holland Road	Bike Sharrows - Existing Sidewalks & Shared Use Trail	Township	2.71	Npton Bucks Muni Auth / CR School District / Twsp / Various	579	Richboro E.S. Future Sloane School	Addisville Commons	Cross Roads Plaza	James Kinney Senior Center	Northampton Free Library	Existing trails along Middle Holland & Holland Rd		87	40												2	5
3	39	Middle Holland Road	Bike Lanes - Existing Sidewalk	Township	0.38	PennDOT	998	Rolling Hills E.S.			Existing trail / wide sidewalk along Middle Holland Rd				32	38	43										3	6	
1 & 3	12 - 18 / 36	Newtown Richboro Road	Bike Lanes - Existing Sidewalks & Shared-Use Trail	Township	2.27	Township/PennDOT/Tyler State Park	949	Council Rock South H.S.			Tyler State Park	Northampton Recreation Complex	Tyler State Park Existing Trails	Existing Trail along Newtown-Richboro Rd	30	31	38											3	7
1	6 - 7	Temperance Lane	Bike Sharrows - No Sidewalks	Township	1.80	Northampton Township	423		School House Center	Village of Richboro					4	8	9										3	8	
4	70 - 73 / 79 - 82 / 84	Buck Road	Shared Use Trail	Township	1.47	PennDOT/Private/Heritage Conservancy	1,118	Holland M.S. Hillcrest E.S.	Phessant Valley Center		Existing trail on school property				68	76	65	66	74	75								6	9A
3	46	Stoneyford Road	Bike Sharrows - Existing Sidewalks	Township	0.82	Northampton Township	483				Big Meadow Park				34	35	45	64									3	9B	
2 & 5	24 / 86	Tanyard Road	Bike Sharrows - Existing Sidewalks	Township	1.42	Northampton Township	988		Cross Roads Plaza						25	87											2	9C	



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

BCPC
Bucks County Planning Commission

0 0.5 1 Miles

Priority Trails	4 Neshaminy Greenway Trail	8 Temperance Lane	Parks
1 Newtown Rail Trail	5 Upper Holland Road	9A Buck Road	Schools
2 New Road	6 Middle Holland Road	9B Stoneyford Road	Commercial Development
3 Old Jordan Road	7 Newtown Richboro Road	9C Tanyard Road	

PRIORITY 1 - NEWTOWN RAIL TRAIL

Bristol Road to the Neshaminy Creek via the SEPTA-owned Newtown Rail Line right-of-way - 4.5 miles

The proposed alignment of the Newtown Rail Trail presents Northampton Township with a rare opportunity to provide its residents with the critical foundation for a township wide trails network that links it to assets from across the region at minimal cost to the Township itself. With design and construction funded by the County, Northampton Township residents would have an alternative method of transportation to traverse the township and access the region's broader trail network to places outside the township. Below is a brief narrative describing the proposed alignment.

- The trail would start at the intersection of Bristol Road and Knowles Avenue picking up where the Upper Southampton portion of the trail ends. Continuing northeasterly within the SEPTA right-of-way, the trail would run parallel to Knowles Avenue to its intersection with Bustleton Pike at the historic Churchville Train Station (Segment 102). Once serving as the passenger station for the rail line the station area could be repurposed to accommodate parking for trail users as well as include a "parkette". In addition, the trail could help spur economic development in this area as the Churchville Deli, and other new business, could supply needed goods and services for trail users.
- The trail would then cross over Bustleton Pike running alongside Elm Avenue on its southeasterly side to Holland Road (Segments 103 and 104). It is on this portion that the trail would make connections to existing pathways within the Churchville Nature Center.
- Upon reaching Holland Road, the trail would continue through a wooded area and run behind Sundance Kennel (Segment 69).
- The trail would then proceed across East Holland Road and continue behind the neighborhoods of Windmill Village and Hollandale to Old Jordan Road (Segment 47).
- Crossing over Old Jordan Road the trail would continue within the SEPTA right-of-way between the Jordan Corners and Jordan Estates neighborhoods, and eventually alongside Spring Avenue (Segment 48).
- As the trail parallels Spring Avenue it begins to rise above the grade of the road, to create a bridge over Buck Road. Continuing with the SEPTA right-of-way, the trail would run between the Village Shires, Hills at Northampton and Stoney Ford Estates neighborhood before reaching the underpass at Stoneyford Road. (Segment 49). This segment would provide access to residents of the Village Shires neighborhood via the overflow parking lot currently located along side of the SEPTA right-of-way and provide trail users with access to the Village Shires shopping center.
- After traveling under Stoneyford Road, the trail would continue through various Village Shires neighborhoods on both side before crossing the Neshaminy Creek via a newly restored trestle bridge and into Middletown Township (Segment 50).

From Old Jordan Road forward, the trail does not intersect with any until road until it reaches South State Street in Newtown Borough, providing for an uninterrupted trail ride of 2.5 miles.

Newtown Rail Trail segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
3	47	Newtown Rail Trail (Proposed)	East Holland Road to Old Jordan Road	Rail Trail	0.77
3	48	Newtown Rail Trail (Proposed)	Old Jordan Road to Buck Road	Rail Trail	0.56
3	48A	Newtown Rail Trail (Proposed) - Bucks County Roses Alignment#	Bucks County Roses	Rail Trail	0.56
3	49	Newtown Rail Trail (Proposed)	Buck Road to Stoneyford Road	Rail Trail	0.51
3	50	Newtown Rail Trail (Proposed)	Stoneyford Road to Neshaminy Creek	Rail Trail	0.52
4	69	Newtown Rail Trail (Proposed)	Holland Road to East Holland Road	Rail Trail	0.22
5	102	Newtown Rail Trail (Proposed)	Bristol Road to Bustleton Pike	Rail Trail	0.32
5	103	Newtown Rail Trail (Proposed)	Bustleton Pike to Churchville Nature Center	Rail Trail	1.00
5	104	Newtown Rail Trail (Proposed)	Churchville Nature Center to Holland Road	Rail Trail	0.60

Mileage excluded from Total Mileage since it is an alternate to Segment 48

The Newtown Rail Trail is the highest ranking trail among the 53 consolidated segments due to a combination of factors including:

- The highest level of user safety since this is a completely off-road facility with limited road crossings;
- Having to secure a lease or easement from only one property owner, SEPTA, who has already shown a great willingness to reuse these underutilized rail corridors for trail purposes;
- A very high degree of connectivity to households, existing recreational facilities, and other proposed trails and bicycle facilities both within the township, as well as part of a greater regional network; and
- Low cost to the township since the County would fund the design and construction;

Newtown Rail Trail scoring evaluation:

Priority 1 Newtown Rail Trail - 4.5 miles Segments - 47, 48, 49, 50, 69, 102, 103, 104 Shared Use Rail Trail in SEPTA right-of-way	Points	Rationale
Cost to Northampton Township	3.00	Cost would be limited to long-term maintenance of the trail since the County would fund the construction of the trail
ROW Ownership	2.00	Although the right-of-way is owned and controlled by SEPTA, they are willing to provide a 30-year lease, subject to one or both of two, 10 year extensions. Upon termination of the lease, the lease holder will be responsible for restoring the premises to the condition that existed at the beginning of the lease agreement, without requiring restoration of the rail materials. To date, SEPTA has not terminated any existing lease agreements they've granted for trail projects.
Presence of Natural Resource and Manmade Constraints	2.50	Will require some design and engineering work associated with the various road crossings, some adjacent slope issues, etc.
Connectivity to Neighborhoods	3.00	Connects to over 2,100 housing units located in the Churchville district; Northampton Crest; along Elm Avenue and adjacent neighborhoods including Applegate, Casey View, Lakeview Farms and Holland Park; Hollandale; Windmill Village; Jordan Estates & Jordan Corners; Village Shires; Hills at Northampton; and Stoney Ford Estates
Connectivity to Schools	0.00	Although in close proximity to Rolling Hills Elementary School, and indirectly connected to Hillcrest Elementary School and Holland Middle School via sidewalks, the trail is not immediately adjacent to these schools
Connectivity to Commercial	2.00	Connects to Village Shires Shopping Center and Churchville Deli and other commercial businesses in Churchville
Connectivity to Parks / Existing Trails / Libraries / Senior Centers	3.00	Connects to Newtown Rail Trail (Upper Southampton Township), Churchville Nature Center & Reservoir, and Churchville Historic District
Potential Future Connectivity	3.00	Given that this trail spans the township, it would connect to 12 other proposed trails and bicycle facilities along its route
User Safety	3.00	This would be an entirely off-road, continuous shared use trail with limited road crossings which translates to a high degree of trail user safety since interactions with vehicles would be limited
Total Score (27 Points Maximum)	21.50	

Although this is the highest ranking trail, the township did request that we explore all potential alignment options for a continuous, uninterrupted shared use trail, particularly in the area between Holland Road and Buck Road. Our analysis can be found below.

Spring Avenue

Recognizing that the trail within the SEPTA right-of-way would be in close proximity to Spring Avenue as the trail approaches the bridge over Buck Road, and that the Bucks County Roses property may be redeveloped, as an alternative, the township could attempt to secure an easement on the property running adjacent to the SEPTA right-of-way which would allow for placement of the trail away from the six homes located along Spring Avenue, while still fulfilling the primary objective of providing a continuous shared use trail. However, it should be noted that development of the trail in this area is not dependent upon securing an easement with the owner of Bucks County Roses. Instead, it is just presented as an alternative.

East Holland Road and Buck Road

Similarly, recognizing that the trail between East Holland Road and Old Jordan Road will pass behind or adjacent to a total of 58 homes between East Holland Road and in the area of Old Jordan Road, the township requested that the plan explore other alignment options in this area while still meeting the goal of providing a continuous, uninterrupted shared use trail.

Street	Neighborhood	Number of Homes adjacent to SEPTA railroad right-of-way
Amsterdam Avenue	Windmill Village	4
Rotterdam Road East	Windmill Village	19
Windmill Drive	Windmill Village	7
Old Jordan Road	Intersection with Rail Trail	6
Jefferson Court	Hollandale	5
Grant Drive	Hollandale	13
Penn Circle	Hollandale	4
Total		58

First it is necessary to understand the requirements associated with placing a trail within the right-of-way of a road versus those associated with a railroad right-of-way. More specifically, the minimum right-of-way width required for a continuous shared use trail adjacent to a roadway, commonly referred to as a sidepath trail, is typically 55 to 60 feet, assuming that the road is centered in that right-of-way area. This is based upon approximately 28 feet being needed for the travel lanes, buffer, trail and shoulder combined:

- 11 foot wide travel lane
- 5 foot wide buffer required between the trail and travel lane
- 10 foot wide trail
- 1-2 foot wide shoulder on non-buffered side of trail

Even if the trail width is reduced to 8 feet, which would eliminate several funding sources which typically require 10 foot wide trails, the overall right-of-way width needed is only reduced to 52 feet. It is essential to understand these dimensional requirements as they are one of the factors that determine the feasibility of establishing a continuous shared use trail.

Recognizing that the road right-of-way width might not be able to accommodate a continuous shared use trail, the analysis also examined options for securing the right-of-way needed by securing easements from adjacent property owners, as well as determining if there was existing publically-held land owned by the township or county that could be used.

East Holland Road - Amsterdam Avenue to Old Jordan Road

Road Ownership - PennDOT

Right-of-way

Section	Right-of-Way Width	Length (Miles)	Continuous Shared Use Trail possible within right-of-way	Publically held lands adjacent to this segment	Other land owners that could be approached for an easement
Amsterdam Avenue to bend in road	60 feet	0.11	Yes	Northampton Township	Private individuals
Bend in road to Tax Parcel 31-048-060	50 feet	0.20	No	Northampton Township	Private individuals
Tax Parcel 31-048-060 through Tax Parcel 31-048-062 (Frontage along Pine Run neighborhood)	40 feet	0.11	No	No	Private individuals
Tax Parcel 31-048-062 to Tax Parcel 31-064-197 (Frontage along entrance to Hollandale neighborhood at Grant Drive). Accommodates acceleration and deceleration lanes into neighborhood	65 feet	0.09	Yes	No	Private individuals
Tax Parcel 31-064-07 to Old Jordan Road	50 feet	0.31	No	Northampton Township	Council Rock School District & Private Individuals
Total		0.82			

Conclusion:

The varying right-of-way widths along East Holland Road would prevent the establishment of a continuous shared use trail solely within the right-of-way.

It would be possible to develop a fragmented, but not continuous, shared use trail along a portion of the East Holland Road corridor including:

- Township-owned parcels bounded by the rail corridor to the north, the Hollandale neighborhood to the east, and East Holland Road to the south and west (Tax Map Parcels 31-048-059 and 31-048-058);
- Township-owned open space along the north side between the two Grant Drive entrances into the Hollandale neighborhood (Tax Map Parcel 31-064-197); and
- Council Rock School District property along the south side of East Holland Road from Old Jordan Road to Buck Road. This assumes that the school district would provide an easement for the trail.

However, there are other constraints that would prevent the establishment of a continuous shared use trail along the remaining portions of East Holland Road including:

- Challenges associated with providing a safe crossing of East Holland Road to connect the segments identified above which would be possible to construct;

- Limited right-of-way width;
- Presence of buildings and structures close to the existing roadway (often 30 feet or less); and
- Slopes/utility poles along the south side of East Holland Road in front of Holland Elementary School.

Due to these constraints, a continuous shared use trail along East Holland Road from Amsterdam Avenue to Old Jordan Road is not feasible. However, recognizing that the pavement width along this this portion varies from 32 feet to 40 feet, there is the potential for establishing bike lanes from the bend in East Holland Road to Old Jordan Road, supplemented by a trail in the right-of-way of East Holland Road from Amsterdam Avenue to the bend in the road. Although the bike lanes, combined with various street intersections and crossings, do not allow for family biking and walking, they would benefit experienced bicyclists. Because of this, these two segments are included in the plan as Segments 51 and 52. More details about these can be found in the Planning Area overview.

Segment	Location	Segment End Points	Distance (Miles)
51	East Holland Road (West side ROW)	Amsterdam Avenue to Existing sidewalk at Pine Run	0.10
52	East Holland Road	Bend near Pine Run to Old Jordan Road	0.72

East Holland Road -Old Jordan Road to Buck Road

Road Ownership - PennDOT

Right-of-way

Section	Right-of-Way Width	Length (Miles)	Continuous Shared Use Trail possible within right-of-way	Publically held lands adjacent to this segment	Other land owners that could be approached for an easement
Old Jordan Road to Buck Road	50 feet	0.17	No	Yes	Council Rock School District

Conclusion:

Although a continuous shared use trail cannot be established within the right-of-way of East Holland Road for this portion, a continuous shared use trail could be established along the frontage of the Council Rock School District property in front of Hillcrest Elementary and on the township-owned parcel at the southwest corner of the intersection of East Holland Road and Buck Road. As there are trail and bicycle facilities proposed along East Holland Road east of its intersection with Buck Road, this trail has been included in the plan as Segment 53 as it would fill a missing link between the bike lanes proposed along East Holland Road and the facilities to the east of Buck Road.

Segment	Location	Segment End Points	Distance (Miles)
53	East Holland Road	Old Jordan Road to Buck Road	0.17

Buck Road - East Holland Road to SEPTA Railroad Bridge

Road Ownership - PennDOT

Right-of-way

Section	Right-of-Way Width	Length (Miles)	Continuous Shared Use Trail possible within right-of-way	Publicly held lands adjacent to this segment	Other land owners that could be approached for an easement
East Holland Road to Tax Parcel 31-064-226 (Jordan Corners HOA Property)	60	0.04	No due to placement of lanes and turn lane off of westbound East Holland onto northbound Buck Rd	No	Hills at Northampton HOA
Frontage along Tax Parcel 31-064-226 (Jordan Corners HOA Property) to Tax Parcel 31-035-007-002	70	0.12	Yes along the northwest side of the right-of-way	No	Jordan Corners HOA and Hills at Northampton HOA
Tax Parcel 31-035-007-002 through Tax Parcel 31-035-007-005 (Start of Bucks County Roses property - Tax Parcel 31-035-007-006)	50	0.20	No	No	Hills at Northampton HOA and private property holders
Tax Parcel 31-035-007-006 (Bucks County Roses property to SEPTA Railroad Bridge)	50	0.22	No	Northampton Township	Bucks County Roses and Hills at Northampton HOA
Total		0.58			

Conclusion:

The varying right-of-way widths along Buck Road, which vary from 50 feet to 60 feet, with the majority being 50 feet, would prevent the establishment of a continuous shared use trail solely within the right-of-way along Buck Road between East Holland Road and the SEPTA Railroad Bridge.

It would be feasible to establish a continuous shared use trail along the southeast right-of-way of Buck Road by acquiring the required right-of-way via a combination of making use of the existing emergency breakdown/turning lane in front of the Hills at Northampton neighborhood, and by securing an easement from the Hills at Northampton HOA. However, it would not be possible to transition back to the SEPTA railroad right-of-way on that side of Buck Road due the presence of steep slopes associated with the unnamed tributary to the Neshaminy Creek that passes under Buck Road in that vicinity.

Alternatively, it would be possible, assuming a significant degree of cooperation from PennDOT, and the completion of a traffic impact study, to establish a continuous shared use trail along the northwest side of Buck Road from East Holland Road to the SEPTA railroad right-of-way. However, this would involve:

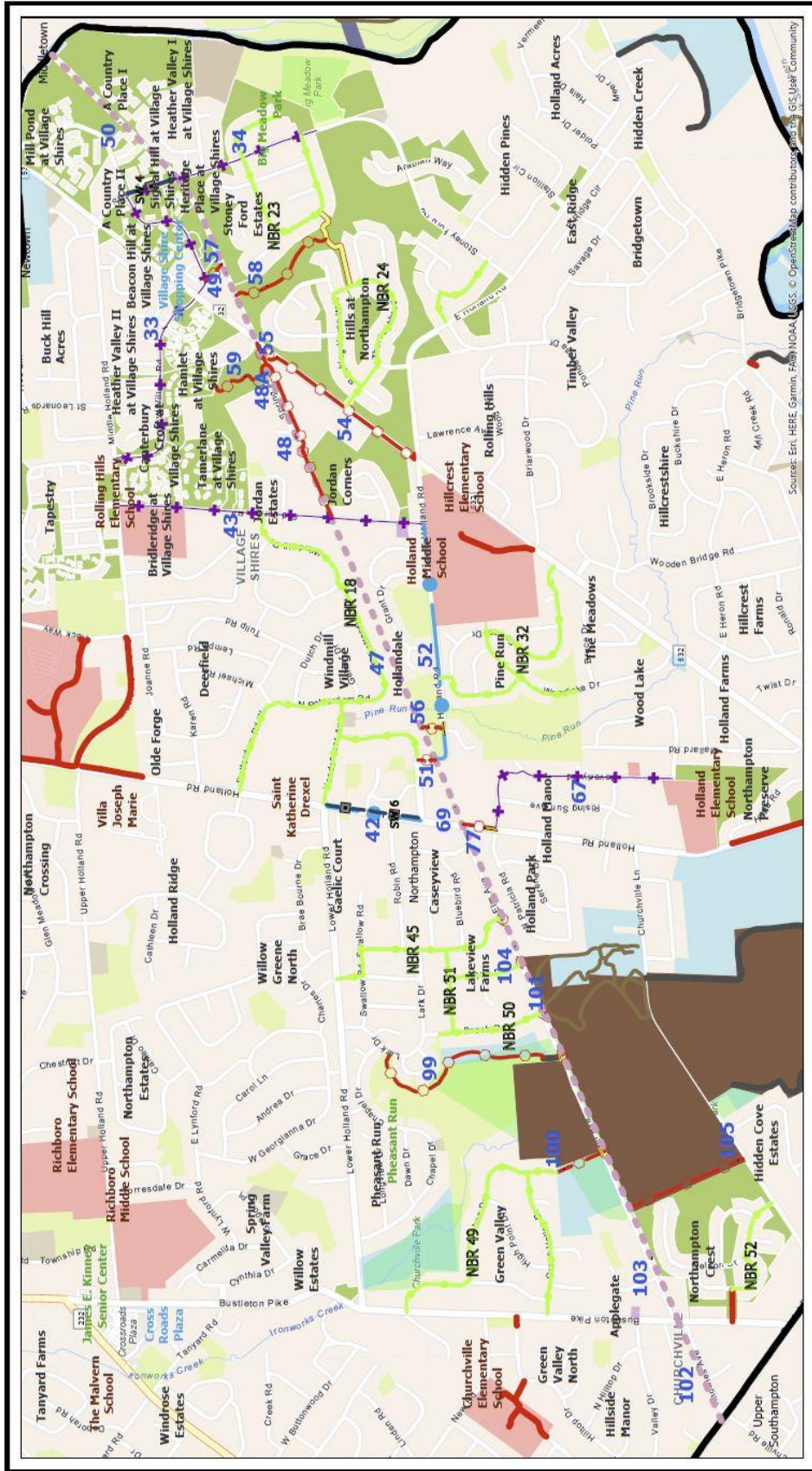
1. Realignment of the existing travel lanes and emergency breakdown/turning lane. More specifically, the existing emergency breakdown/turning lane would become the northbound travel lane; the current northbound travel lane would become the new southbound travel lane; and the existing southbound travel lane would be the space in which the new continuous shared use trail is constructed. This realignment would be challenging at the existing railroad bridge and at the intersection with East Holland Road.
2. This proposed alignment would also require that the trail switch back and forth upon itself, and require retaining walls, to transition from Buck Road up to the SEPTA right-of-way on the township-owned parcel bordered by the SEPTA right-of-way on the north, Buck Road on the southeast, and Bucks County Roses to the west (Tax Map Parcel 31-035-008-001).

However, as there are proposed trail facilities planned along Buck Road from the Holland Elementary School and Hillcrest Middle School property extending down to the Village of Holland, this segment could serve as a link for trail users wanting to exit the Newtown Rail Trail to travel to the Village of Holland. Similarly, this segment would also serve as a connector to the proposed trails and bicycle facilities proposed along East Holland Road. Because of this, these proposed facilities have been included in the plan and are identified as follows:

Segment	Location	Segment End Points	Distance (Miles)
54	Buck Road	East Holland Road to Newtown Rail Trail Bridge	0.61
55	Buck Road to Newtown Rail Trail	Newtown Rail Trail to Buck Road	0.08

Key Points/Findings:

- The development of a continuous and uninterrupted shared use trail with the SEPTA-owned Fox Chase Newtown rail corridor has the potential to serve as the primary spine of the proposed Northampton Township Trails and Bicycle Facilities Network given that it spans the majority of the township; has numerous opportunities for connecting trails; connects to over 2,100 households; connects to recreational and commercial destinations both within and outside the township; and would be a fairly low cost for the township, limited to minor maintenance, as the County would fund the design and construction of the trail.
- The proposed alignment within the SEPTA railroad right-of-way is the safest and least expensive option for providing a continuous shared use trail, particularly as it relates to the segment between Holland Road and Buck Road.
- There is recognition that the trail will pass behind or adjacent to approximately 60 homes and 1 business located between Holland Road and Buck Road, and that there are some concerns regarding privacy. As is being planned for the portion of the rail trail within Upper Southampton Township, the County would provide landscape buffering, fencing and signage to minimize the impact to adjacent residences.
- An analysis of other potential alignments for a continuous shared use trail in this segment resulted in a fragmented system that would require users to make use of on road bicycle lanes and sidewalks for certain segments. As this did not meet the goal of providing the highest level of user safety, particularly among inexperienced cyclists and families with children who would be uncomfortable riding along the roadways, these alignments were determined to not be as viable as the continuous shared use trail proposed within the SEPTA right-of-way. However, the plan recognizes that there are complimentary facilities such as bike lanes and some short segments of shared use trails that could be developed in addition to the Newtown Rail Trail to serve residents in these neighborhoods.
- Although it might be possible to establish a continuous shared use sidepath trail along the northwest right-of-way of Buck Road, it will be very costly and would require coordination and further study given that it involves the realignment of existing traffic lanes.



Newtown Rail Trail
Segments 47, 48, 49, 50, 69, 102, 103, 104

Map 5

BCPC
Bucks County Planning Commission

Scale: 0, 0.25, 0.5 Miles

Legend:

- Newtown Rail Trail Proposed/Adjacent: Trails & Bike Facilities
- Bike Lanes
- Shared Use Trail
- Stairways
- Crosswalk
- Neighborhood Bike Route (NBR)
- Newtown Rail Trail (NRT) - Proposed
- Shared Use Trail
- Sidewalk
- Existing Trails
- Existing Access Road
- Existing Hiking Trail
- Existing Shared-Use Trail
- Existing Private HOA Trail
- Asap PA
- School District Property
- Municipal Open Space & Parkland
- County Open Space & Parkland
- HOA Property
- Land Trust Property
- PECO
- Bucks Co Water & Sewer Authority
- Northampton Bucks Co Municipal Authority
- Park
- Schools
- Neighborhood

Source: Esri, HERE, Garmin, Esri/NOAA, USGS, © OpenStreetMap contributors, Bing, © GIS User Community



Railroad corridor between Bristol Road and Bustleton Pike



Crossing of Bustleton Pike with Churchville Station in distance



Backyards of homes on Nelson Drive as viewed from railroad corridor

Master Trail and Bicycle Plan



Railroad corridor between Bustleton Pike and Churchville Reservoir



View from railroad corridor with Elm Avenue to the left and Churchville Reservoir to the right



Existing pathway from railroad corridor to Churchville Reservoir



Backyards of homes along West Patricia Road



Intersection of Elm Avenue and Holland Road

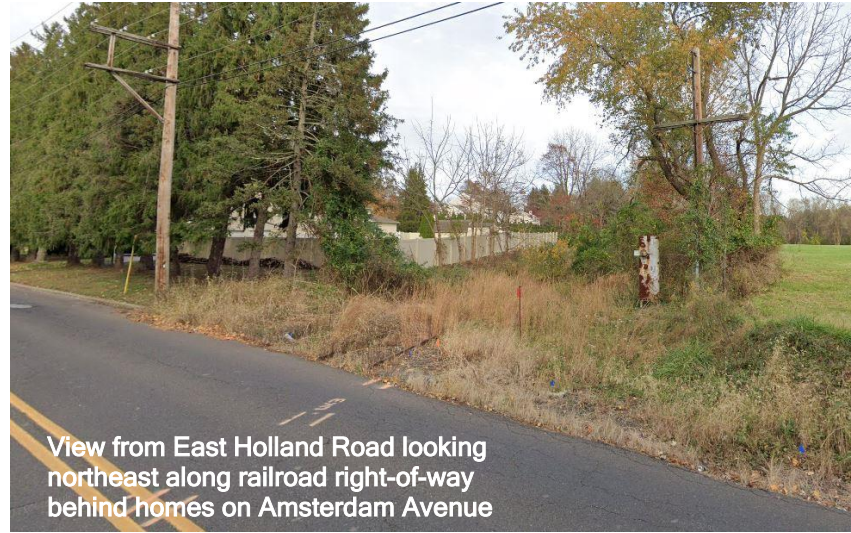


View of railroad corridor looking northeast from intersection of Elm Avenue and Holland Road (Railroad corridor behind Sundance Kennels)



View of railroad corridor looking southwest from East Holland Road (Railroad corridor behind Sundance Kennels)

Master Trail and Bicycle Plan



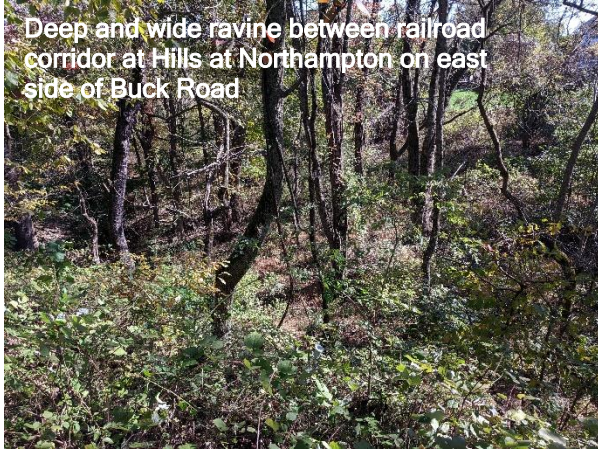
View from East Holland Road looking northeast along railroad right-of-way behind homes on Amsterdam Avenue



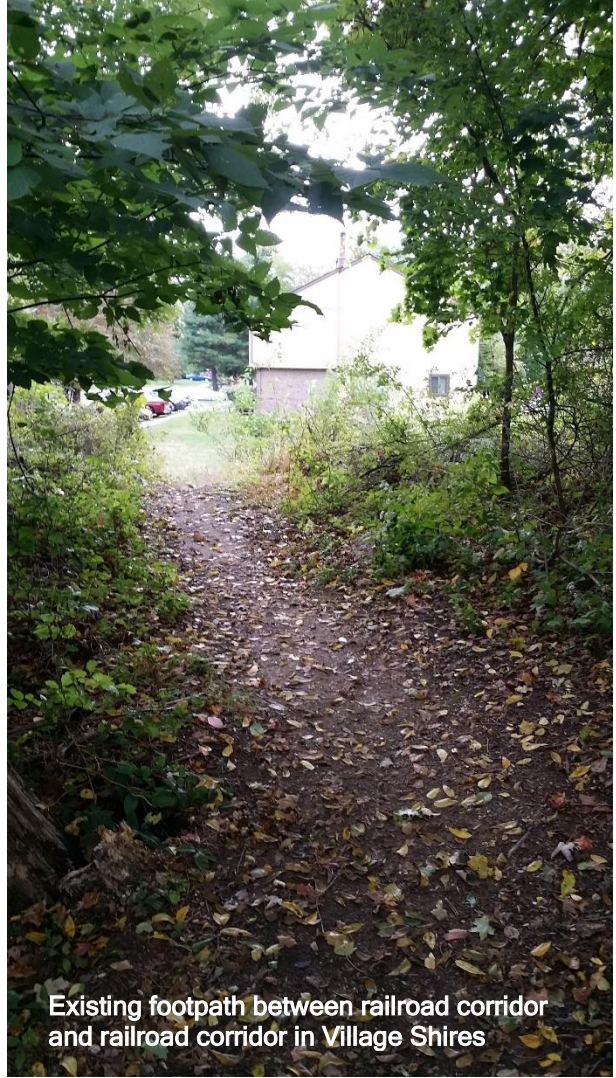
View of railroad corridor looking southwest from Old Jordan Road



Railroad bridge over Buck Road looking southwest



Deep and wide ravine between railroad corridor at Hills at Northampton on east side of Buck Road



Existing footpath between railroad corridor and railroad corridor in Village Shires



Railroad corridor under Stonyford Road bridge



View of Neshaminy Creek taken from former bridge over the creek

PRIORITY 2 - NEW ROAD

Hatboro Road to Bustleton Pike via Mehler & Hilltop- 1.97 miles

The proposed trail/bicycle facility along New Road would be in the form of bicycle sharrows extending approximately 2.0 miles from Hatboro Road to Bustleton Pike. At the southeast end, the trail/bike facility would not continue direct on New Road to Holland Road. Instead, southbound users would turn right onto Mehler Drive, then left onto Hilltop Drive to connect to the existing trail/pathway leading out to Bustleton Pike. This pathway would need to be upgraded/widened. This route serves a critical role of providing connectivity to the proposed Newtown Rail Trail for all of the neighborhoods located along New Road.

New Road segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
2	23	New Road	Hatboro Road to Second Street Pike	Bike Route/Sharrows	1.09
5	95	New Road	Second Street Pike, Mehler Drive, Hilltop Drive to Bustleton Pike	Bike Route/Sharrows	0.88

New Road scoring evaluation:

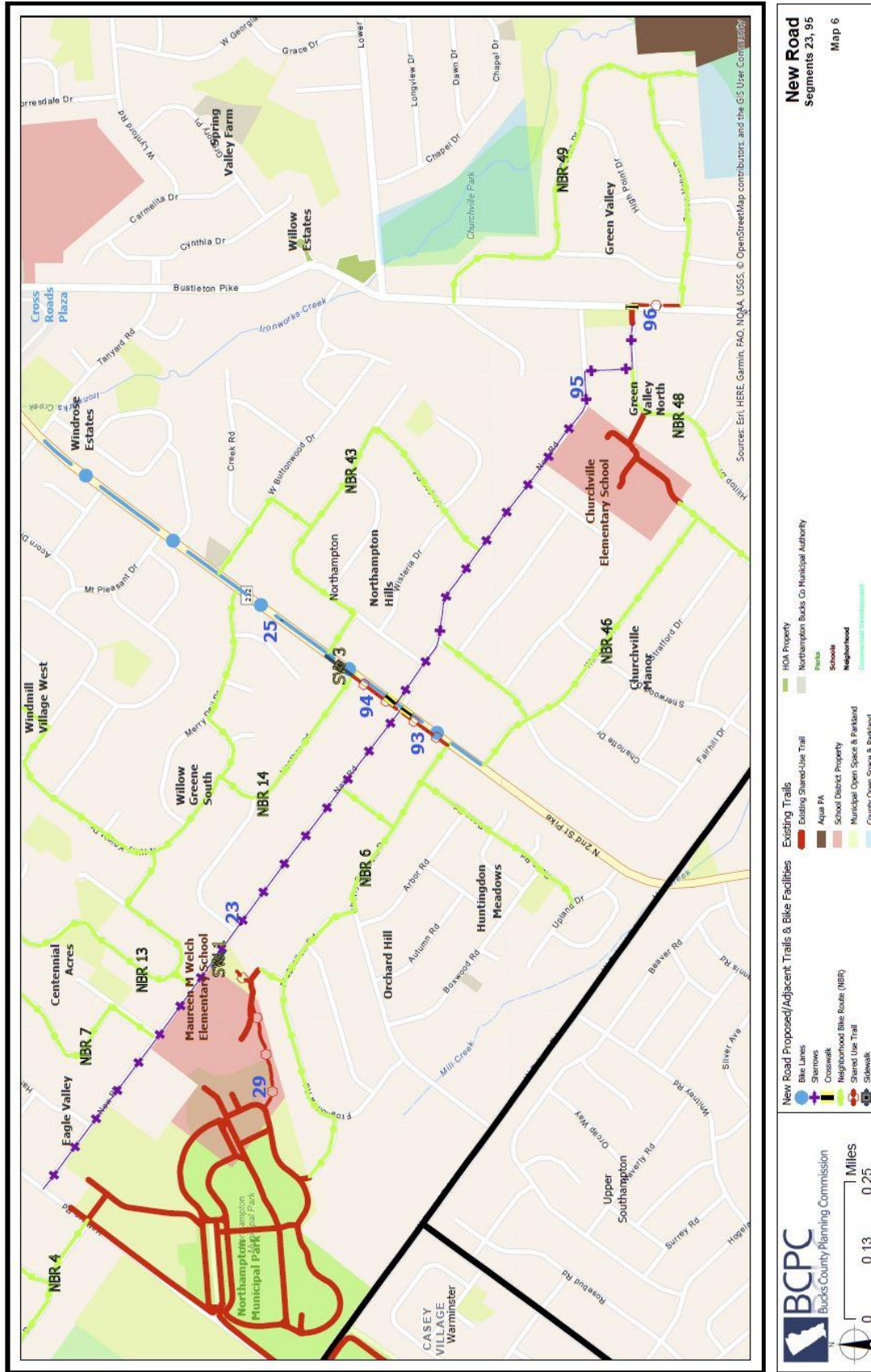
	Points	Rationale
Priority 2 New Road - 2.0 miles Segments - 23, 95 Bike Sharrows - Existing Sidewalks (0.45 miles) / No Sidewalk (1.52 miles)		
Cost to Northampton Township	3.00	The installation of bicycle sharrows is low cost due to it only involving paint and the stencil/template. Because of this, this trail receives a favorable score relative to the cost to the township.
ROW Ownership	3.00	New Road is a township owned /maintained road meaning that it can install the sharrows at any time without having to gain cooperation or depend upon the PennDOT resurfacing schedule
Presence of Natural Resource and Manmade Constraints	3.00	No resources constraints or obstacles to be addressed since bicycle sharrows get incorporated into existing roadways
Connectivity to Neighborhoods	3.00	Connects to almost 1,100 housing units located in Hampton Hills, Eagle Valley, Centennial Acres, Willow Greene South, Orchard Hill, Churchville Manor, Northampton Hills, and Green Valley North
Connectivity to Schools	2.00	Would provide a connection to Maureen Welch and Churchville Elementary schools
Connectivity to Commercial	0.00	Does not provide any connectivity to commercial areas
Connectivity to Parks /Existing Trails /Libraries / Senior Centers	1.00	Connects to Northampton Township Municipal Park
Potential Future Connectivity	3.00	Assuming full completion of the network outlined in this plan, this trail would connect to 6 other trail and bicycle facilities in the network
User Safety	0.61	As bicycle sharrows do not do anything to separate vehicles and bicyclists, they are scored very low. This is particularly the situation when there are no adjacent sidewalks for other users as they are forced onto the shoulder of the road.
Total Score (27 Points Maximum)	18.61	

Key Points

- The New Road facility is the second highest priority trail due to:
 - Very low cost since it is exclusively bicycle sharrows;
 - Township controls to the right-of-way so no easements or cooperation from PennDOT is required;
 - No resource constraints or features to be overcome;
 - Connectivity to Northampton Township Municipal Park;
 - Connectivity to Maureen Welch and Churchville Elementary schools;
 - Connectivity to approximately 1,100 housing units;

- Connectivity to the greater proposed Northampton Township network.
- Unfortunately, given the lack of sidewalks along much of the corridor, user safety received a low score. The township should attempt to complete the sidewalk network to improve safety for pedestrians.
- Although a short sections of the corridor has a 60' wide right-of-way, the majority of the right-of-way is only 50 feet wide, preventing the installation of a shared use trail.
- Another opportunity to improve user safety would be to widen the pavement width to approximately 32 feet to allow for the installation of dedicated bicycle lanes instead of bicycle sharrows. Currently, pavement widths vary, although some portions are closer to 31 feet.





PRIORITY 3 - OLD JORDAN ROAD

Middle Holland Road to East Holland Road - 0.89 miles

This trail/bicycle facility would consist of bicycle sharrows along Old Jordan Road between Middle Holland Road and East Holland Road. It would provide a connection to the proposed Newtown Rail Trail for residents in Tapestry, Windmill Village, Jordan Estates, Wyncoop Court/Old Jordan Woods, and Tamerlane and Bridleridge at Village Shires neighborhood, as well as serve as connector to the facilities proposed along East Holland and Middle Holland roads.

Old Jordan Road segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
3	43	Old Jordan Road	Middle Holland Road to East Holland Road	Bike Route/Sharrows	0.89

Old Jordan Road scoring evaluation:

Category	Points	Rationale
Priority 3 Old Jordan Road - 0.9 miles Segment - 43 Bike Sharrows - Existing Sidewalks (0.45 miles) / No Sidewalk (0.45 miles)		
Cost to Northampton Township	3.00	The installation of bicycle sharrows is low cost due to it only involving paint and the stencil/template. Because of this, this trail receives a favorable score relative to the cost to the township.
ROW Ownership	3.00	Old Jordan Road is a township owned / maintained road meaning that it can install the sharrows at any time without having to gain cooperation or depend upon the PennDOT resurfacing schedule
Presence of Natural Resource and Manmade Constraints	3.00	No resource constraints or obstacles to be addressed since bicycle sharrows get incorporated into existing roadways
Connectivity to Neighborhoods	3.00	Although less than one mile in length, given its location in a high-density residential area, this trail facility will provide connections to almost 1,400 housing units in Tapestry, Village Shires, Wyncoop Court/Old Jordan Woods, Jordan Estates, Windmill Village and Jordan Corners
Connectivity to Schools	3.00	Provides a direct connection to Rolling Hills and Hillcrest Elementary schools and Holland Middle School
Connectivity to Commercial	0.00	Does not provide any connectivity to commercial areas
Connectivity to Parks / Existing Trails / Libraries / Senior Centers	0.00	Does not connect to any existing recreational facilities
Potential Future Connectivity	2.00	Will connect to five other Trail & bike facility segments in the network
User Safety	0.75	Fairly low score relative to user safety due to cyclists still being in the roadway with vehicular traffic
Total Score (27 Points Maximum)	17.75	

Key Points

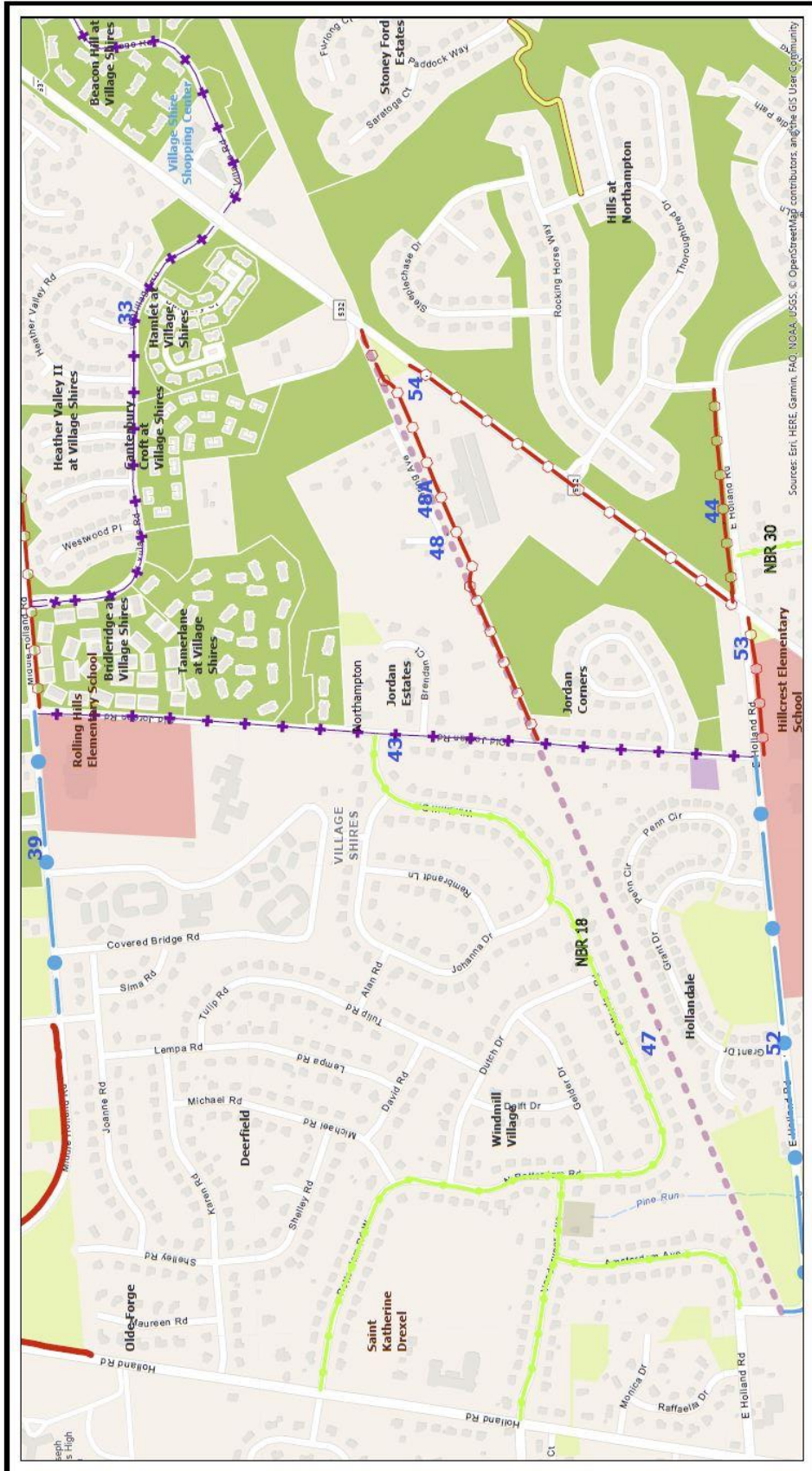
- The Old Jordan Road facility is the third highest ranked priority trail due to:
 - Very low cost given that it consists of easy-to-implement bicycle sharrows;
 - Right-of-way along Old Jordan Road is under the control of Northampton Township eliminating the need for cooperation from PennDOT;
 - No resource constraints to be addressed;
 - Connectivity to Rolling Hills and Hillcrest Elementary schools and Holland Middle School;
 - Given its location in a higher density residential area, would provide connectivity to almost 1,400 housing units;

Master Trail and Bicycle Plan

- In addition to providing a connection to the proposed Newtown Rail Trail, this also serves as a connector to the facilities proposed along East Holland and Middle Holland roads.
- Although receiving a relatively low score in terms of user safety given that facility is in the form of bicycle sharrows, user safety could be improved by:
 - Completing the sidewalk network along Old Jordan Road;
 - Considering widening the pavement width to allow for the installation of dedicated bicycle lanes as an alternative to bicycle sharrows.
 - Longer-term, consider acquiring the right-of-way needed to facilitate the installation of a shared use trail particularly along the segment between Middle Holland Road and the proposed Newtown Rail Trail.







Old Jordan Road Segment 43
Map 7

BCPC
Bucks County Planning Commission

Scale: 0 0.05 0.1 Miles

Old Jordan Road Proposed/Adjacent Trails & Bicycle Facilities

- Bike Lanes
- Stencils
- Neighborhood Bicycle Route (NBR)
- Newtown Trail (NRT) - Proposed
- Shared Use Trail

Existing Trails

- Existing Shared-Use Trail
- Existing Private HMA Trail
- School District Property
- Municipal Open Space & Parkland

Legend

- HMA Property
- PECO
- Northampton Bucks Co Municipal Authority
- Schools
- Neighborhood

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

PRIORITY 4 NESHAMINY GREENWAY TRAIL

Tyler State Park/Langhorne Players to Big Meadow Park - 3.58 miles

This trail/bike facility, part of the much larger Neshaminy Greenway Trail running from Chalfont/New Britain to Neshaminy High School in Middletown Township, would begin at the Langhorne Players Theater/Spring Garden Mill in the form of a shared use trail, and would connect to the existing trail under Richboro Road connecting into Tyler State Park. The trail would traverse up the hill using the former right-of-way of Newtown Richboro Road before reaching St. Leonards Road. As the trail approaches St. Leonards Road it would turn left and follow the existing powerline, eventually ending at the intersection of St. Leonards Road and Indian Summer Drive.

From this intersection, this proposed trail/bike facility becomes bicycle sharrows running southeast along the length of St. Leonards Road between Newtown Richboro Road and Middle Holland Road. At the intersection of St. Leonards and Middle Holland roads, the trail would cross Middle Holland Road and become a shared use trail along the south side of Middle Holland Road extending approximately 0.3 miles west to the intersection of Middle Holland and Old Jordan roads. At this intersection the trail would connect proposed bike sharrows along Old Jordan Road and bike lanes along Middle Holland Road.

At the intersection of Middle Holland Road and West Village Road, the trail/bike facility becomes bicycle sharrows again, extending along West Village Road, crossing Buck Road onto East Village Road, and following East Village Road to its intersection with Stoneyford Road. After crossing Buck Road onto East Village Road, the trail would connect to the proposed Newtown Rail Trail.

At Stoneyford Road, the trail turns right and heads southeast onto Stoneyford Road in the form of bike sharrows, continuing to the entrance to Big Meadow Park. Upon reaching Big Meadow Park, the alignment continues in the form of a shared use trail within the park before connecting to a proposed trail over the Neshaminy Creek as part of the continuation of the Neshaminy Greenway Trail.

Neshaminy Greenway Trail segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
3	30	Neshaminy Greenway Trail	Langhorne Players Theater/Spring Garden Mill to St. Leonards Road	Shared Use Trail	0.41
3	31	Neshaminy Greenway Trail	Richboro Road to Middle Holland Road	Bike Route/Sharrows	1.06
3	32	Neshaminy Greenway Trail	St. Leonards Road to Rolling Hills Elementary School	Shared Use Trail	0.29
3	33	Neshaminy Greenway Trail	Middle Holland Road to Stoneyford Road	Bike Route/Sharrows	0.65
3	34	Neshaminy Greenway Trail	Stoneyford Road to Big Meadow Park	Bike Route/Sharrows	0.59
3	35	Neshaminy Greenway Trail	Big Meadow Park	Shared Use Trail	0.58

Neshaminy Greenway Trail scoring evaluation:

Priority 4 Neshaminy Greenway Trail - 3.6 miles Segments - 30, 31, 32, 33, 34, 35 Shared Use Trail & Bike Sharrows	Points	Rationale
Cost to Northampton Township	3.00	The installation of bicycle sharrows is low cost due to it only involving paint and the stencil/template. Because of this, this trail receives a favorable score relative to the cost to the township. The cost of constructing the shared use trail components is hard to define specifically at this time as it may be funded by PA DCNR, the county, the township or some combination of the three.
ROW Ownership	1.75	The right-of-way required for this trail is controlled by four different entities. 1 - PA Department of Conservation and Natural Resources (PA DCNR) owns the land at the end point of the trail at Spring Garden Mill/Langhorne Players Theater. 2 - PennDOT owns the right-of-way between the PA DCNR property and St. Leonards Road as well the right-of-way along Middle Holland Road 3 - Village Shires HOA owns the right-of-way/property needed along the south side of Middle Holland Road between St. Leonards Road and Old Jordan Road 4 - Northampton Township owns the right-of-way for St. Leonards Road, West Village Road, and Stoneyford Road as well as Big Meadow Park However, as all of these, with the exception of the Village Shires HOA, are public entities, obtaining control of the right-of-way needed for the trail does not present a significant obstacle
Presence of Natural Resource and Manmade Constraints	0.00	Although much of this consolidated trail/bike facility is in the form of easy to implement bicycle sharrows, the shared use trail segments at the begin/end points will prove to be challenging due to the presence of steep slopes at the northern end, and the presence of wetlands in Big Meadow Park, and the need to align the trail so as not to interfere with the existing athletic fields in the park.
Connectivity to Neighborhoods	3.00	This trail would service over 3,200 households in the Regency at Northampton, Hampton Estates, 100 Acre Woods, Timber Ridge, Treeline Estates, Buck Hill Acres, Doris Avenue, Tapestry, Village Shires, and Stoney Ford Estates neighborhoods
Connectivity to Schools	1.00	Would provide a connection to Rolling Hills Elementary School
Connectivity to Commercial	1.00	Provides a connection to the Village Shires Shopping Center
Connectivity to Parks / Existing Trails / Libraries / Senior Centers	3.00	This trail would provide significant connectivity to several recreational facilities including Tyler State Park, the trails within Tyler State Park, Big Meadow Park, and Hampton Estates Ball Fields
Potential Future Connectivity	3.00	Given its length and location, this facility will connect to seven other Trail & bike facility segments in the network
User Safety	1.71	While some segments of this trail facility are in the form of a highly safe shared use trail, the majority of the trail is in the form of bicycle sharrows which is resulting in a lower score for this criteria
Total Score (27 Points Maximum)	17.46	

Key Points

- The Neshaminy Greenway Trail ranked as the fourth highest priority trail due to:
 - Relatively low cost based on it primarily being in the form of bicycle sharrows, as well as being a county-sponsored project;
 - Connectivity to several existing trails and park and recreation facilities including Tyler State Park, Big Meadow Park and Hampton Estates Ball Fields;
 - Connectivity to over 3,200 housing units;
 - Connectivity to the township proposed trail network, as well as larger county trails, including the rest of the Neshaminy Greenway Trail; and
 - Some connectivity to schools and commercial areas.
- User safety scores are relatively lower given that much of this trail/bike facility is in the form of on road bicycle sharrows. Although there is the potential to increase user safety in the future by considering widening the pavement width along East Village and West Village roads, and Stoneyford Road to accommodate dedicated bicycle lanes, widening the pavement along St. Leonards Road would prove challenging.



Start of trail at Spring Garden Mill showing connection to existing trail under Richboro Road and connection to Tyler State Park



View from former Newtown Richboro Road right-of-way alignment toward Spring Garden Mill



View from Spring Garden Mill looking toward St. Leonards Road. Former right-of-way of Newtown Richboro Road



Proposed right-of-way for trail adjacent to St. Leonards Road looking from St. Leonards Road to former right-of-way of Newtown Richboro Road



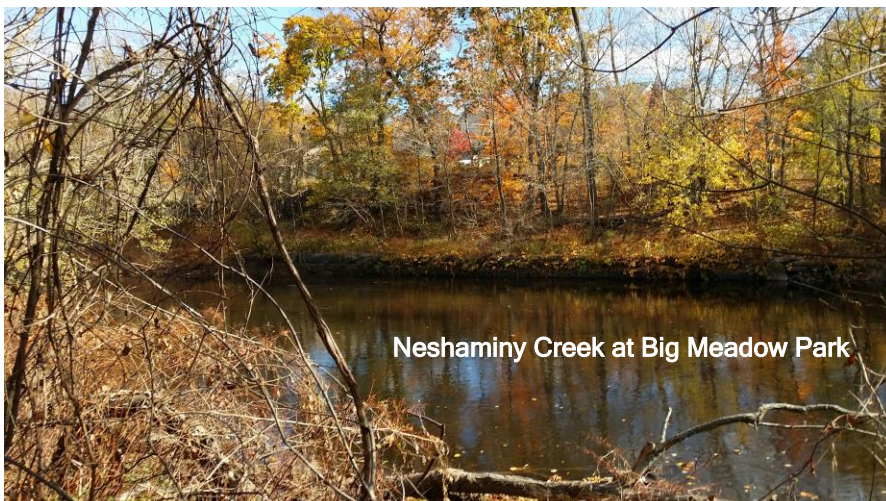
St. Leonards Road in front of Hampton Estates baseball fields



Right-of-way along south side of Middle Holland Road looking east toward St. Leonards Road from West Village Road



Crossing from West Village Road to East Village Road at Buck Road



PRIORITY 5 - UPPER HOLLAND ROAD/BUSTLETON PIKE

Intersection of Second Street Pike and Bustleton Pike to Upper Holland Road to Holland Road - 2.71 miles

This would begin in the form of a shared use trail running along the east side of Bustleton Pike, spanning from Second Street Pike to Upper Holland Road. To minimize the impact to parking as part of the Richboro Center shopping center, the trail could alternatively be located on Township property along Township Road. Upon reaching Upper Holland Road, the existing sidewalk along the north side of Upper Holland Road running in front of the library, senior center and Richboro Elementary School would be replaced by a shared use trail. An additional shared use trail would be constructed on the south side on the former site of Richboro Middle School. In addition to these shared use trail segments, Bicycle sharrows would extend the full length of Upper Holland Road between Bustleton Pike and Holland Road.

Upper Holland Road segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
5	88	Upper Holland Road/Richboro Middle School	Bustleton Pike to just west of Torresdale Drive	Shared Use Trail	0.28
5	89	Bustleton Pike & Upper Holland Road	Second Street Pike to Township Road	Shared Use Trail	0.29
5	90	Upper Holland Road	Township Road to Richboro Elementary School Trail	Shared Use Trail	0.32
5	91	Richboro Elementary School	Cedar Drive to Upper Holland Road	Shared Use Trail	0.25
5	92	Upper Holland Road	Bustleton Pike to Holland Road	Bike Route/Sharrows	1.57

Upper Holland Road scoring evaluation:

Priority Trail 5 Upper Holland Road - 2.7 miles Segments - 88, 89, 90, 91, 92		
Bike Sharrows - Existing Sidewalks & Shared Use Trail	Points	Rationale
Cost to Northampton Township	1.75	Fairly high costs driven by 1.2 miles of off-road shared use trail construction
ROW Ownership	1.00	Lower score due to need to acquire ROW/easements from Council Rock School District and Municipal Authority for off-road trail segments. Will also require coordination with PennDOT regarding installation of bicycle sharrows since Upper Holland is a PennDOT road.
Presence of Natural Resource and Manmade Constraints	2.50	Will require a fair amount of engineering, particularly given the slopes along the south side of Upper Holland Road on the Council Rock school district property, former Richboro Middle School/future home of Sloane School.
Connectivity to Neighborhoods	2.00	Connects to almost 600 housing units located in Long Lane Farms (150), Northampton Estates (132), Holland Ridge (89), and Northampton Crest (175)
Connectivity to Schools	2.00	Connects to Richboro Elementary School and future Sloane School, and Villa Joseph Marie
Connectivity to Commercial	2.00	Connects to Bustleton Pike and Addisville Commons, Crossroads Plaza
Connectivity to Parks / Existing Trails / Libraries / Senior Centers	3.00	Connects to Northampton Township Library, Senior Center and existing trails as part of Council Rock South High School
Potential Future Connectivity	1.00	Holland Road Bike Lanes and proposed connector trail into Long Lane Farms which serves as a connection to Newtown Richboro Road
User Safety	1.25	Majority of this consolidated segment is in the form of on-road bicycle sharrows offering a lower degree of user safety
Total Score (27 Points Maximum)	16.50	

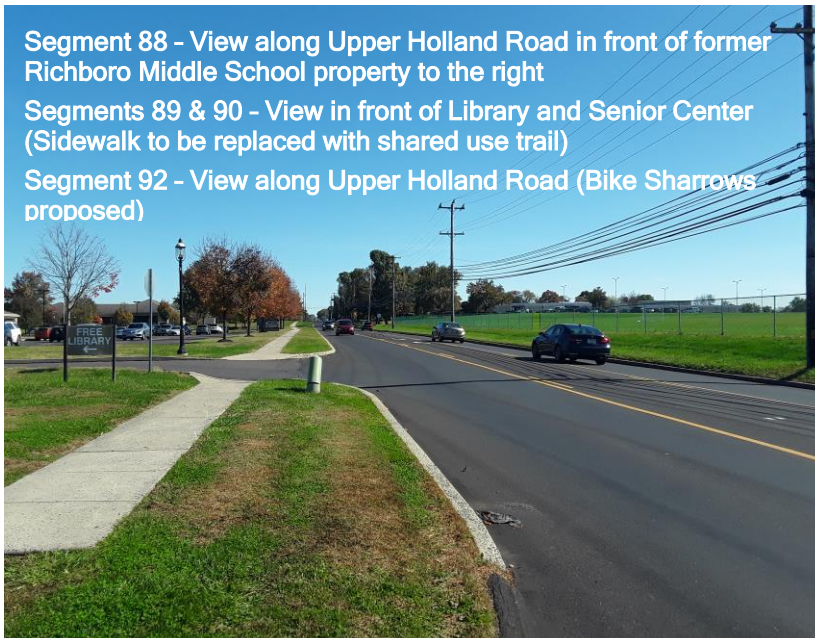
Key Points

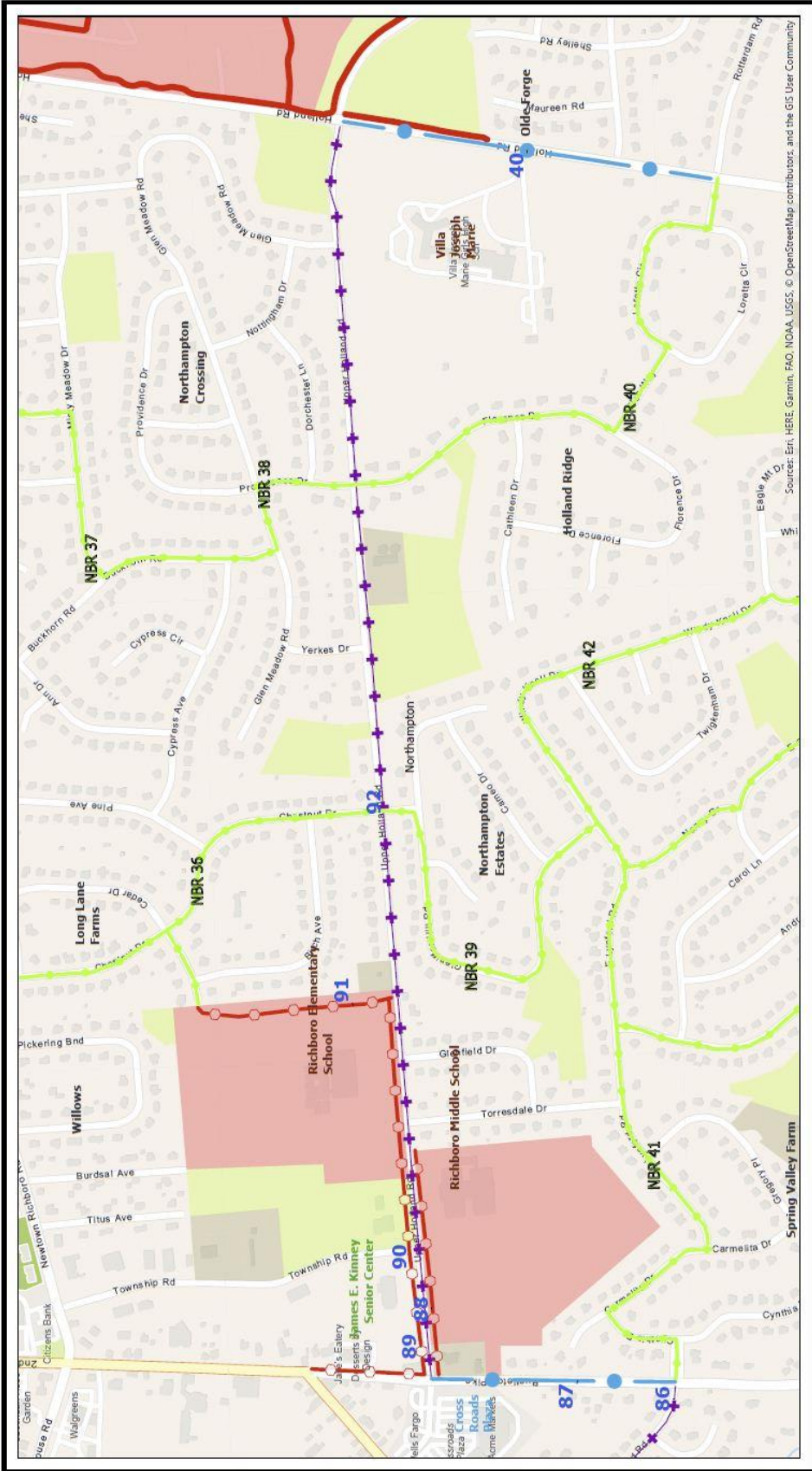
- The Upper Holland Road facility is the fifth highest priority trail due to:
 - Connectivity to recreational facilities such as the Northampton Township Library and Senior Center;
 - Connectivity to commercial areas and schools; and
 - Connectivity to over 600 housing units.
- Although receiving a relatively low score in terms of user safety given that much of this trail facility is in the form of bicycle sharrows, user safety could be improved by considering removing the fairly recently installed turn lane extending from Carlisle Drive east to Holland Road and installing dedicated bike lanes instead of bicycle sharrows.
- As future redevelopment occurs at the intersection of Upper Holland Road and Bustleton Pike and surrounding areas, the township should ensure that any proposed trails are incorporated into future land development plans.



Segment 89 - View along Upper Holland Road from Township Road to Bustleton Pike

Master Trail and Bicycle Plan





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Upper Holland Road Proposed/Adjacent Trail & Bike Facilities

- Bike Lanes
- Sharrows
- Neighborhood Bike Route (NBR)
- Shared Use Trail

Existing Trails

- Existing Shared-Use Trail
- School District Property
- Municipal Open Space & Parkland
- HOA Property

Other Features:

- Parks
- Schools
- Neighborhood
- Greenways and Active Routes

Scale: 0 0.05 0.1 Miles

Map 9
Segments 88, 89, 90, 91, 92

Source: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

PRIORITY 6 - MIDDLE HOLLAND ROAD/BUSTLETON PIKE

Intersection of Second Street Pike and Bustleton Pike to Upper Holland Road to Holland Road - 0.38 miles

This is a very short segment that would consist of bike lanes on Middle Holland Road between Rock Way and Old Jordan Road. At the west end at Rock Way, the bike lanes would connect to the trail proposed along the north side of Middle Holland Road continuing to Holland Road, as well as the upgraded trail running along Rock Way up to Newtown Richboro Road. At the east end, the bike lanes would connect to the proposed bicycle sharrows on Old Jordan Road, as well as the trail proposed along the south side of Middle Holland Road between Old Jordan Road and St. Leonards Road.

Middle Holland Road Segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
3	39	Middle Holland Road	Rock Way to Old Jordan Road	Bike Lanes	0.38

Middle Holland Road scoring evaluation:

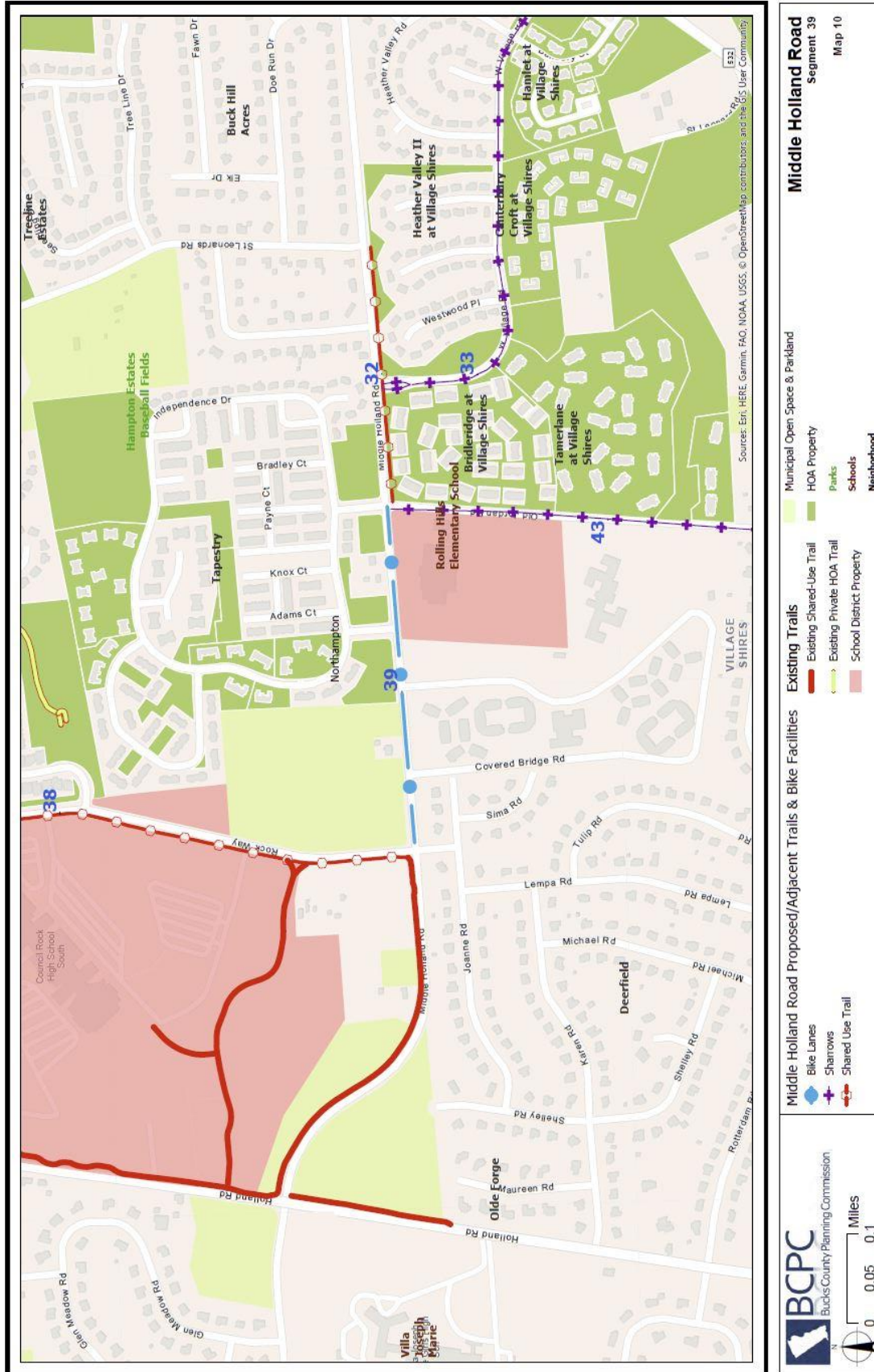
Priority 6 Middle Holland Road - 0.4 miles Segment - 39 Bike Lanes - Existing Sidewalk	Points	Rationale
Cost to Northampton Township	3.00	As this is a PennDOT road, the cost for installing the bicycle lanes would most likely be included in the next resurfacing of this road. However, PennDOT typically requires the municipality to maintain the bike lanes. However, this is a relatively small cost resulting in a favorable score for this trail.
ROW Ownership	1.00	Middle Holland Road is a PennDOT owned and maintained road meaning that the installation of bike lanes will be subject to their approval and dependent upon their resurfacing schedule
Presence of Natural Resource and Manmade Constraints	3.00	Other than potential constraints associated with terminating the bike lanes at the begin and end points, there are few constraints to be addressed
Connectivity to Neighborhoods	2.00	This trail, although less than one-half mile in length, would provide connections to nearly 1,000 housing units located in the Tapestry and Deerfield neighborhoods
Connectivity to Schools	1.00	Would provide a connection to Rolling Hills Elementary School
Connectivity to Commercial	0.00	Does not provide any connectivity to commercial areas
Connectivity to Parks / Existing Trails / Libraries / Senior Centers	1.00	Would connect to the existing trail located along the north side of Middle Holland Road between Holland Road and Rock Way
Potential Future Connectivity	2.00	Will connect to three other trail segments in the network
User Safety	2.00	Although bike lanes are an upgrade in safety from bike sharrows, they are less safe than shared use trails, resulting in the lower score.
Total Score (27 Points Maximum)	15.00	

Key Points

- The Middle Holland Road bike lanes ranked sixth in the ranking of trails and bicycle facilities due to:
 - Low cost since they would be done as part of a future resurfacing project by PennDOT since Middle Holland Road is a PennDOT road;
 - No constraints to be addressed;
 - Connectivity to over 1,000 housing units;
 - Connectivity to Rolling Hills Elementary School; and
 - Connectivity to the overall proposed Northampton Township Trails & Bike Facilities Network



Middle Holland Road looking west
from Old Jordan Road



PRIORITY 7 - NEWTOWN RICHBORO ROAD

West Pickering Road to St. Leonards Road - 2.27 miles (Excluding Segment 14 within the parks)

This trail and bicycle facility would extend from the Village of Richboro (West Pickering Bend) to St. Leonards Road. The initial segment of the trail will be in the form of dedicated bike lanes along both sides of Newtown Richboro Road extending from West Pickering Bend to Harmony Drive and would be supported by the existing sidewalks along the north side of this section of Newtown Richboro Road.

At Harmony Drive, the bike lanes would connect to a new shared use trail to be built along the north side of Newtown Richboro Road. The initial segment would span the frontage of the Northampton Township Recreation Complex, then continue along the frontage of Tyler Park Center for the Arts. Two additional projects associated with the development of the trail and bicycle facility in the vicinity of the Northampton Township Recreation Complex and Tyler State Park/Tyler Park Center for the Arts include:

- The addition of a crosswalk at the western entrance to the Northampton Township Recreation Complex to connect to the sidewalks along the south side of Newtown Richboro Road; and
- Upgrading the existing mown grass trail connecting the shared use trails in the Northampton Township Recreation Complex to the Number 1 Lane Trail in Tyler State Park (Segment 14).

Upon reaching the private driveway, located approximately 350 feet west of the intersection with Holland Road, the trail would run parallel to the driveway on Tyler State Park property, wrapping around the various properties in this location, before connecting to the existing Cooper Trail in Tyler State Park. As the existing Cooper Trail is not a paved trail, and is designated for equestrian use, cooperation will be required from Tyler State Park to upgrade the trail and allow for bicyclist use. As the Cooper Trail turns to the northeast to connect to the Stable Mill Trail within the park, a new shared use trail would be constructed headed southeast toward the intersection of Newtown Richboro Road and Rock Way/Spring Garden Mill Drive. At this intersection, the trail will cross Newtown Richboro Road to connect to the existing trail located on property owned by the Northampton Bucks County Municipal Authority at the southeast corner of the intersection. This trail currently continues to the east to connect to a privately-owned trail as part of the Regency at Northampton neighborhood. As this is a private trail, the Newtown Richboro Road trail will need to continue within the PennDOT-owned right-of-way along Newtown Richboro Road to connect to the proposed trail and bike facilities along St. Leonards Road and new trail proposed connecting to the Langhorne Players Theater/Spring Garden Mill. This will also require excavating the hillside and other improvements at the intersection with St. Leonards Road to accommodate the proposed trail.

Newtown Richboro Road segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
1	12	Newtown Richboro Road	West Pickering Bend to Harmony Drive	Bike Lanes	0.43
1	13	Newtown Richboro Road	Frontage of Northampton Township Recreation Complex	Shared Use Trail	0.42
1	14	Tyler State Park	Northampton Township Recreation Complex to No. 1 Lane Trail	Shared Use Trail	0.15
1	15	Newtown Richboro Road	Frontage of Tyler State Park	Shared Use Trail	0.60
1	16	Tyler State Park	Portion of Cooper Trail	Shared Use Trail	0.37
1	17	Tyler State Park	Copper Trail to Newtown Richboro Road	Shared Use Trail	0.07
1	18	Newtown Richboro Road	Cooper Trail Connection to Spring Garden Mill Road	Shared Use Trail	0.06
3	36	Newtown Richboro Road (PennDOT ROW)	Rock Way to St. Leonards Road	Shared Use Trail	0.33

Newtown Richboro Road scoring evaluation:

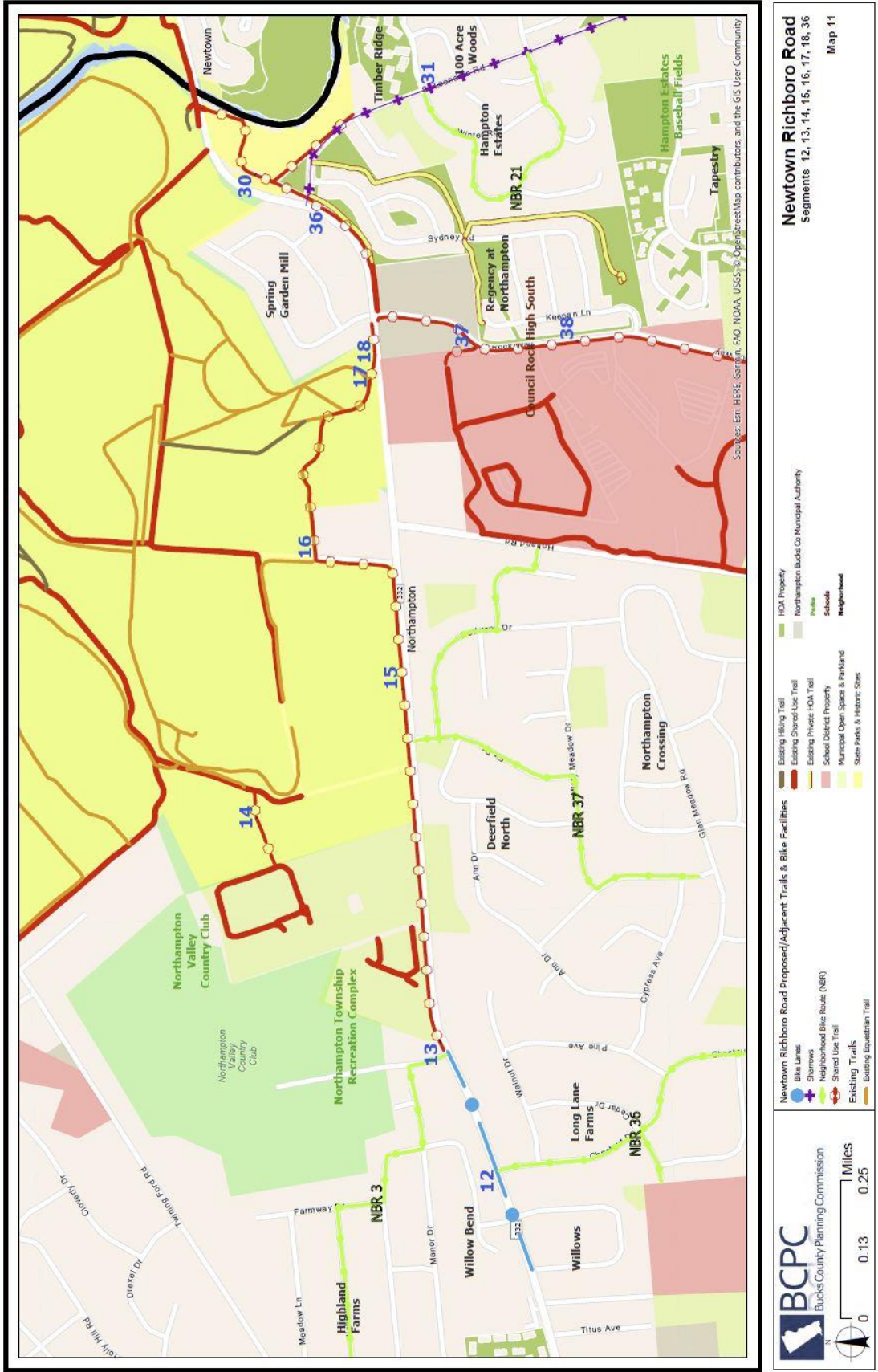
Priority 7 Newtown Richboro Road - 2.3 miles Segments -12, 13, 14, 15, 16, 17, 18, 36 Bike Lanes - Existing Sidewalks & Shared-Use Trail	Points	Rationale
Cost to Northampton Township	1.00	This will be a fairly expensive trail to construct. Although some segments such as the bicycle lanes would be included as part of the next resurfacing of Newtown Richboro Road, other segments, primarily the shared use trails, will be expensive to both engineer and construct.
ROW Ownership	1.50	Similar to the Neshaminy Greenway Trail, the right-of-way for this proposed trail is owned by multiple entities including: 1 - PennDOT owns/maintains the right-of-way along the entire length of Newtown Richboro Road. This means that the installation of the bike lanes proposed between W. Pickering Bend and Harmony Drive will be dependent upon their approval and repaving schedule. Similarly, PennDOT owns the right-of-way between Rock Way and St. Leonards Road where a shared use trail is proposed. 2 - PA Department of Conservation and Natural Resources (PA DCNFR) owns the land within Tyler State Park where new trails, and upgrades to existing trails, are proposed. 3 - As part of the Northampton Township Recreation Complex, the township owns the land between Harmony Drive and Tyler State Park Although all of these are public entities, the bike lanes on, and shared use trail within the right-of-way along Newtown Richboro Road will require a significant level of cooperation and negotiation with PennDOT which resulted in the lower score
Presence of Natural Resource and Manmade Constraints	1.50	Although most of the proposed alignment for the bike lanes and trail along Newtown Richboro Road is in areas without any major constraints to be addressed, the easterly end from Rock Way to St. Leonards Road presents significant constraints associated primarily with the steep slopes along the south side of the right-of-way approaching St. Leonards Road. Although there is an existing trail at the top of the embankment, this trail is private and posted as such. Construction of the trail within the right-of-way is the only feasible alignment but will require engineering associated with the steep slopes. The presence of these steep slopes is the driving factor behind the lower score.
Connectivity to Neighborhoods	2.00	Over 900 households in the Willow Bend, Willows, Highland Farms, Long Lane Farms, Deerfield North, Spring Garden Mill and Regency at Northampton would have access to this trail
Connectivity to Schools	1.00	Provides a connection to Council Rock South High School
Connectivity to Commercial	0.00	Does not provide any connectivity to commercial areas
Connectivity to Parks /Existing Trails /Libraries / Senior Centers	3.00	This trail would provide significant connectivity to several recreational facilities including Tyler State Park, the trails within Tyler State Park, the existing trail along the south side of Newtown Richboro Road at Rock Way, and the Northampton Township Recreation Complex
Potential Future Connectivity	2.00	Will connect to three other trail segments including the Tyler State Park trails, and the Neshaminy Greenway Trail
User Safety	2.81	Although the majority of this trail facility is in the form of a shared use trail which offers the highest level of user safety, the less than perfect score is due to the small segment with bicycle lanes and sidewalks. Although the bike lanes are an upgrade in safety from bike sharrows, they are less safe than shared use trails, resulting in the lower score.
Total Score (27 Points Maximum)	14.81	

Key Points

- The Newtown Richboro Road trail and bicycle facility is the seventh highest priority trail due to:
 - Connectivity to recreational facilities such as the Northampton Township Recreation Complex and Tyler State Park;
 - Connectivity to the overall proposed Northampton Township Trail and Bicycle network;
 - High level of user safety given that the majority of the trail will be an off-road shared use trail. The segment that isn't a shared use trail is dedicated bicycle lanes accompanied by existing sidewalks;
 - Right-of-way required for trail being held by either the township, PA DCNR, and PennDOT;
 - Connectivity to Council Rock South High School; and
 - Connectivity to over 900 housing units.
- Although providing significant connectivity, this will be an expensive trail and bicycle facility to develop given its overall length, it being a paved shared use trail, and engineering challenges, particularly at the intersection of Newtown Richboro Road and St. Leonards Road.







PRIORITY 8 - TEMPERANCE LANE

Intersection of Second Street Pike and Bustleton Pike to Upper Holland Road to Holland Road - 1.8 miles

On road bicycle sharrows are proposed for the two segments of Temperance Lane. The first segment extends from Spencer Road to Hatboro Road and the second segment from Hatboro Road to Almshouse Road.

Temperance Lane segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
1	6	Temperance Lane	Spencer Rd to Hatboro Rd	Bike Route/Sharrows	0.89
1	7	Temperance Lane	Hatboro Rd to Almshouse Rd	Bike Route/Sharrows	0.91

Temperance Lane scoring evaluation:

Priority 8 Temperance Lane - 1.8 miles Segments - 6, 7 Bike Sharrows - No Sidewalks			Points	Rationale
Cost to Northampton Township	3.00	The installation of bicycle sharrows is low cost due to it only involving paint and the stencil/template. Because of this, this trail receives a favorable score relative to the cost to the township.		
ROW Ownership	3.00	Temperance Lane is a township owned / maintained road meaning that it can install the sharrows at any time without having to gain cooperation or depend upon the PennDOT resurfacing schedule		
Presence of Natural Resource and Manmade Constraints	3.00	No resources constraints or obstacles to be addressed since bicycle sharrows get incorporated into existing roadways		
Connectivity to Neighborhoods	1.00	This trail would serve over 400 households in the Northampton Chase, Sheffield Gate, Fox Run and Westview neighborhoods		
Connectivity to Schools	0.00	Does not provide any connectivity to any schools		
Connectivity to Commercial	2.00	Would provide connectivity to School House Center and the Village of Richboro		
Connectivity to Parks / Existing Trails / Libraries / Senior Centers	0.00	Does not connect to any existing recreational facilities		
Potential Future Connectivity	2.00	Will connect to three other trail segments in the network		
User Safety	0.50	Low score against this criteria is based upon the lack of sidewalks for non-cyclists and the use of bicycle sharrows offering no separation between cyclists and vehicles.		
Total Score (27 Points Maximum)	14.50			

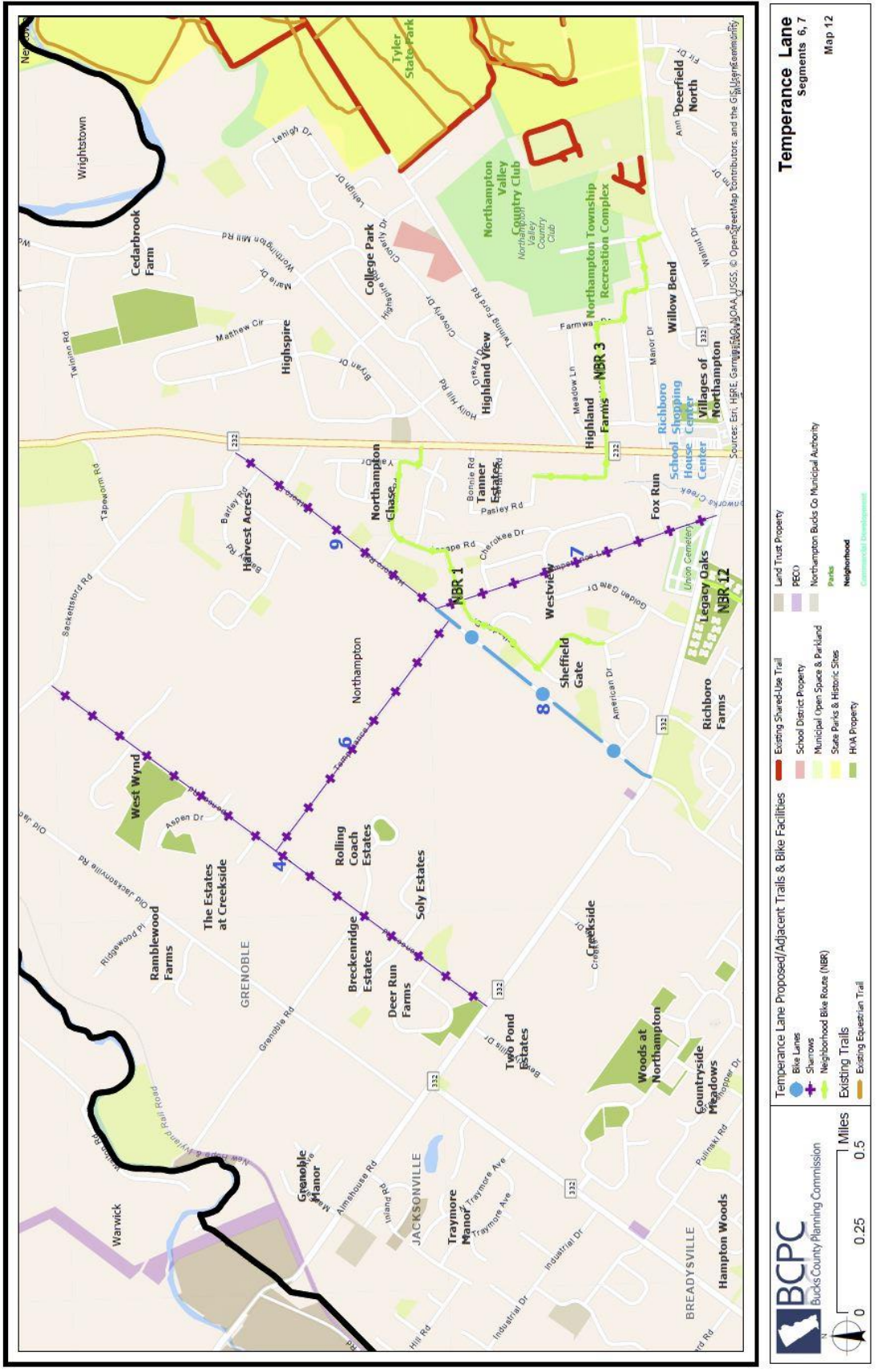
Key Points

- The Temperance Road bicycle sharrows evaluated relatively high due to:
 - Minimal cost to the township given that bicycle sharrows are the least expensive type of trail/bike facility to implement;
 - No right-of-way or other constraints to have to be addressed since these are on road facilities;
 - Connectivity to commercial areas; and
 - Connectivity to over 400 housing units.
- Although existing paved cartway widths are fairly wide in the segment between Hatboro Road and Almshouse Road, the width is not wide enough to accommodate dedicated bicycle lanes. However, to

improve user safety in the future, the township may wish to consider widening the cartway to the width needed to allow for the installation of bicycle lanes along this segment.



Temperance Lane looking south from intersection with Cherokee Road



PRIORITY 9A - BUCK ROAD

Intersection of Holland Road and Buck Road to intersection of Buck Road and Briarwood Drive - 1.47 miles

This 1.5 mile facility would be an entirely off-road shared use trail along Buck Road extending from the intersection of Buck Road and Holland Road at its southern end, to the intersection of Briarwood Drive and Buck Road at its northern end where it would connect to the existing trail located on the grounds of Holland Middle School and Hillcrest Elementary School. The only segment which would not be a shared use trail would be a 250-foot segment just north of Rocksville Road where natural resource constraints limit the facility to the existing sidewalks.

The trail would begin at the intersection of Holland Road and Buck Road and head northeast along the southeast side of Buck Road on property owned by Heritage Conservancy. The primary challenge for this initial segment are some steep slopes along the right-of-way that will need to be addressed. The trail would then continue onto property as part of the Pheasant Valley Center before reaching Rocksville Road (Segment 70). At Rocksville Road, the trail crosses Buck Road to the northwest side of the road. The initial 250 feet of the trail to the northeast of Rocksville Road will be a sidewalk but will become a shared use trail the rest of the way leading up to Mallard Road (Segment 82). An easement will be required from the property at the southwest corner of Buck Road and Mallard Road (Segment 81).

Upon reaching Mallard Road, the trail will cross to the southwest side of Buck Road and continue to the intersection of Buck Road and East Heron Road (Segment 71). The portion of the trail just prior to East Heron Road will require an easement from the Northampton Presbyterian Church (Segment 72). At the intersection of Buck Road and East Heron Road, the trail will cross to the northwest side of Buck Road, crossing over Pine Run on a new bridge installed just for the trail, before reaching Woodlake Drive (Segment 84). Two easements will be needed from the two property owners on the northwest side of Buck Road located to the northeast of the East Heron Road intersection (TMP# 31-031-045 and 31-031-046). After crossing Woodlake Drive, the trail will once again cross Buck Road back to the southeast side and continue in the right-of-way of Buck Road before reaching Kings Way Drive (Segment 73). At the intersection of Kings Way Drive, the trail will cross over Buck Road again to the northwest side. An easement will be required from TMP# 31-026-031-001. The trail will then continue in the right-of-way along the northwest side of Buck Road to Forrest Drive, cross Forrest Drive to connect to the existing pathway located on the grounds of Holland Middle School and Hillcrest Elementary School (Segments 79 & 80). The various road crossings of Buck Road are required due to the presence of older homes located adjacent to the road, as well as natural resource constraints.

Buck Road segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
4	70	Buck Road	Holland Road to Rocksville Road	Shared Use Trail	0.24
4	82	Buck Road	Rocksville Road to TMP 31-031-001	Shared Use Trail	0.13
4	81	Buck Road	TMP 31-031-001 to Mallard Road	Shared Use Trail	0.03
4	71	Buck Road	Mallard Road to Northampton Presbyterian Church	Shared Use Trail	0.42
4	72	Buck Road	Northampton Presbyterian Church Frontage to E Heron Road	Shared Use Trail	0.04
4	84	Buck Road	E Heron Road to Woodlake Drive	Shared Use Trail & Bridge	0.10
4	73	Buck Road	Pine Run Creek Bridge/Woodlake Drive to Kings Way Drive	Shared Use Trail	0.36
4	79	Buck Road	Kings Way Drive to start of sidewalk south of Forrest Drive	Shared Use Trail	0.01
4	80	Buck Road	Pine Run Frontage at Forrest Drive	Shared Use Trail	0.12

Buck Road scoring evaluation:

Priority 9A Buck Road - 1.47 miles Segments - 70, 71, 72, 73, 79, 80, 81, 82, 84 Shared Use Trail	Points	Rationale
Cost to Northampton Township	0.00	The Buck Road Trail receives a very low score as this will be an expensive trail to design and engineer, as well as construct. In addition to the cost of the trail itself, completion of this trail will also require a bridge over Pine Run which will also add to the cost. To make the cost more manageable, the township may wish to consider phasing the various segments over time.
ROW Ownership	0.00	Buck Road is a PennDOT road. However, there are areas of the proposed trail which will require a total of 7 easements including four private homeowners, a church, a land conservancy, and a shopping center owner. As these can sometimes be very difficult, or require several years to obtain, this particular trail received a low score for right-of-way ownership.
Presence of Natural Resource and Manmade Constraints	1.00	Ass the proposed trail would cross Buck Road twice, as part of trying to minimize the need for private easements, this will receive additional scrutiny from PennDOT. Additionally, a separate trail bridge will need to be constructed across Pine Run. Finally, in the segment between Holland Road and the Pheasant Valley Center, there are steep slopes that will need to be addressed.
Connectivity to Neighborhoods	3.00	This trail would have connectivity to over 1,100 households located in the Northampton Preserve, Holland Farms, Hillcrest Farms, Lakeview Drive, The Meadows, Hillcrestshire, Wood Lake, and Pine Run neighborhoods
Connectivity to Schools	2.00	Would connect to Holland Middle School and Hillcrest Elementary School. This was one of the primary objectives for this trail
Connectivity to Commercial	1.00	Would provide a connection to Pheasant Valley Center
Connectivity to Parks / Existing Trails / Libraries / Senior Centers	1.00	Connects to the existing trail / pathway located on the grounds of Holland Middle School and Hillcrest Elementary School
Potential Future Connectivity	3.00	This trail provides connectivity to 13 trail and bike facility segments resulting in its high score for this evaluation criteria
User Safety	3.00	As this is a proposed shared use trail completely separated from vehicular traffic, it offers the highest level of safety for all trail users.
Total Score (27 Points Maximum)	14.00	

Key Points

- The Buck Road shared use trail is the seventh highest priority trail due to a combination of:
 - High degree of user safety since this is an off-road shared use trail separated from vehicular traffic;
 - Extensive connectivity within the overall Northampton Township Trail & Bike Network;
 - Connectivity to commercial areas and schools; and
 - Connectivity to over 1,100 housing units.
- This trail would have potentially rated higher. However, its overall score was brought down primarily driven by right-of-way issues associated with the need for various easements, and high costs associated with the need for a separate bridge over Pine Run, as well as the need to address steep slopes between Pheasant Valley Center and Holland Road.



Right-of-way along southeast side of Buck Road in front of Pheasant Valley Center looking southwest showing proposed area for shared use trail



Existing sidewalk along northwest side of Buck Road north of its intersection with Rockville Road



Right-of-way along southeast side of Buck Road looking northeast from intersection with Lakeview Drive

Master Trail and Bicycle Plan



Right-of-way along southeast side of Buck Road looking southwest from intersection with East Heron Road

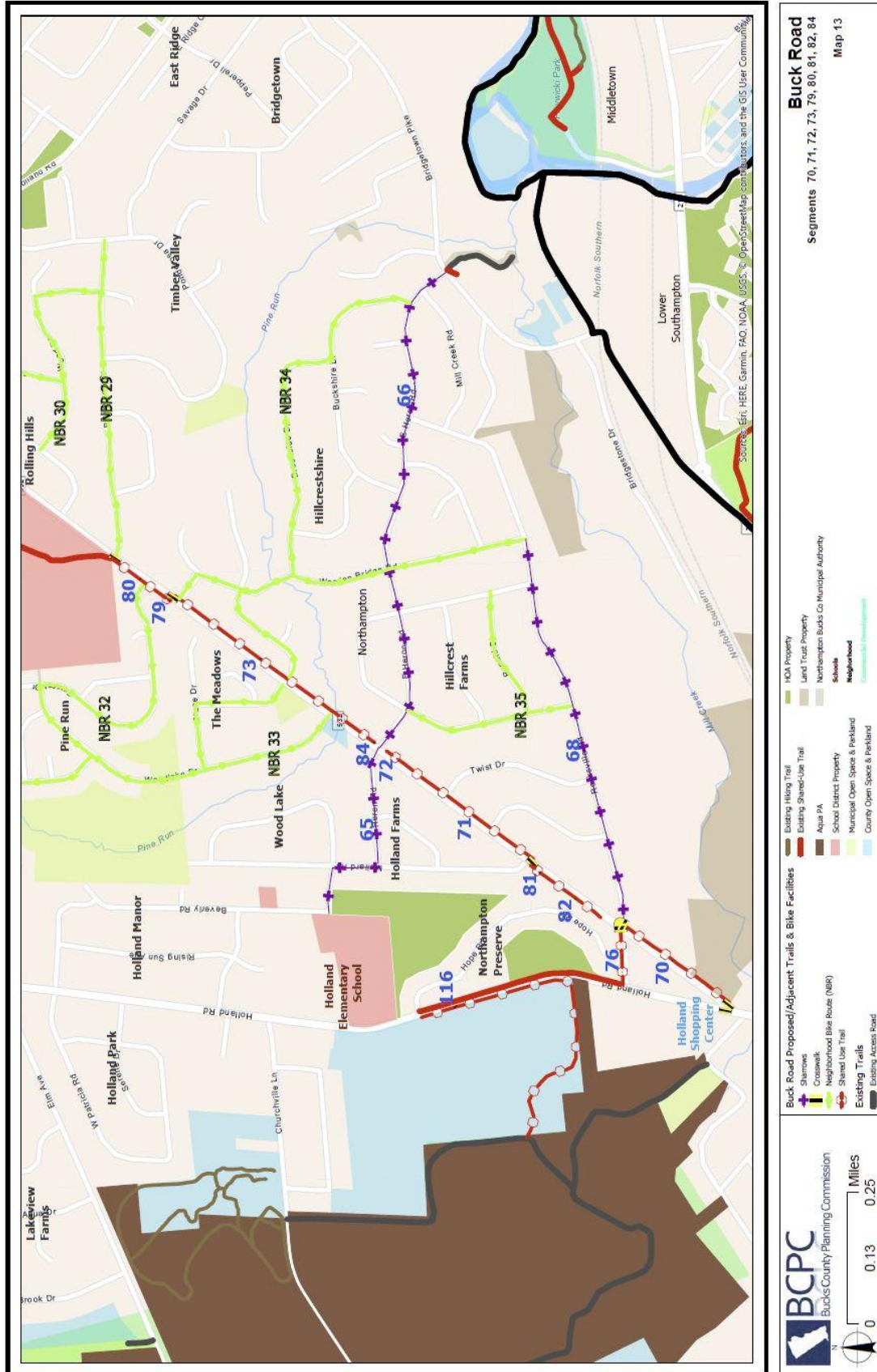


Existing bridge over Pine Run. A new trail bridge would be built in the area to the right.



Right-of-way along southeast side of Buck Road looking southwest toward intersection with Pine Run Drive





PRIORITY 9B - STONEYFORD ROAD

Big Meadow Park to East Holland Road - 0.82 miles

Bicycle sharrows are proposed along this portion of Stoneyford Road to connect Big Meadow Park and the Neshaminy Greenway Trail to neighborhoods located to the south including East Ridge, Bridgetown, Hidden Pines, Hidden Creek and Holland Acres.

Stoneyford Road segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
3	46	Stoneyford Road	Big Meadow Park to East Holland Road	Bike Route/Sharrows	0.82

Stoneyford Road scoring evaluation:

Priority 9B Stoneyford Road Segment - 46 Bike Sharrows - Existing Sidewalks	Points	Rationale
Cost to Northampton Township	3.00	The installation of bicycle sharrows is low cost due to it only involving paint and the stencil/template. Because of this, this trail receives a favorable score relative to the cost to the township.
ROW Ownership	3.00	Stoneyford Road is a township owned / maintained road meaning that it can install the sharrows at any time without having to gain cooperation or depend upon the PennDOT resurfacing schedule
Presence of Natural Resource and Manmade Constraints	3.00	No resources constraints or obstacles to be addressed since bicycle sharrows get incorporated into existing roadways
Connectivity to Neighborhoods	1.00	Provides connection to over 450 homes located in Stoney Ford Estates, East Ridge, Bridgetown, Hidden Pines, Hidden Creek and Holland Acres
Connectivity to Schools	0.00	Does not provide any connectivity to any schools
Connectivity to Commercial	0.00	Does not provide any connectivity to commercial areas
Connectivity to Parks / Existing Trails / Libraries / Senior Centers	1.00	Would serve as a connection to Big Meadow Park
Potential Future Connectivity	2.00	This trail will connect to three trail and bike facility segments in the network
User Safety	1.00	Low score against this criteria is based upon bicycle sharrows offering no separation between cyclists and vehicles.
Total Score (27 Points Maximum)	14.00	

Key Points

- The inclusion of the proposed bicycle sharrows on Stoneyford Road between Big Meadow Park and East Holland Road in the Top 10 priority trails and bicycle facilities for the township was based on:
 - Low cost of implementation and no resource constraints to be addressed;
 - Connectivity to Big Meadow Park;
 - Connectivity to over 450 housing units; and
 - Connection to three other trail and bicycle facilities proposed as part of the township-wide network.
- As with several other proposed bicycle sharrow facilities as part of the township network, current paved cartway/road widths do not provide enough width to allow for both vehicular traffic and dedicated bicycle lanes. However, as recommended previously, the township could upgrade many of these bicycle sharrows to safer bicycle lanes by widening the road/cartway during future resurfacing projects.



PRIORITY 9C - TANYARD ROAD

Hatboro Road to Bustleton Pike - 1.42 miles

Bicycle sharrows are proposed along Tanyard Road extending from Hatboro Road to Bustleton Pike and will serve as an east-west alternative to Almshouse Road for pedestrians and bicyclists.

Tanyard Road segments:

Planning Area	Segment Number	Name	Begin and End Points	Type	Length (Miles)
2	24	Tanyard Road	Hatboro Road to Second Street Pike	Bike Route/Sharrows	1.08
5	86	Tanyard Road	Second Street Pike to Bustleton Pike	Bike Route/Sharrows	0.34

Tanyard Road scoring evaluation:

Priority 9C Tanyard Road - 1.4 miles Segments - 24, 86 Bike Sharrows - Existing Sidewalks	Points	Rationale
Cost to Northampton Township	3.00	The installation of bicycle sharrows is low cost due to it only involving paint and the stencil/template. Because of this, this trail receives a favorable score relative to the cost to the township.
ROW Ownership	3.00	Tanyard Road is a township owned / maintained road meaning that it can install the sharrows at any time without having to gain cooperation or depend upon the PennDOT resurfacing schedule
Presence of Natural Resource and Manmade Constraints	3.00	No resources constraints or obstacles to be addressed since bicycle sharrows get incorporated into existing roadways
Connectivity to Neighborhoods	2.00	Connects to almost 1,000 homes located in Richboro Farms, Estates of Mallard Creek, Tanyard Farms, Northampton Hunt, Windmill Village West, Windrose Estates, and Spring Valley Farm
Connectivity to Schools	0.00	Does not provide any connectivity to any schools
Connectivity to Commercial	1.00	Would provide a connection to Cross Roads Plaza
Connectivity to Parks / Existing Trails / Libraries / Senior Centers	0.00	Does not connect to any existing recreational facilities
Potential Future Connectivity	1.00	Although connecting to two other trail segments, the connectivity offered by this trail facility is lower relative to other facilities
User Safety	1.00	Low score against this criteria is based upon bicycle sharrows offering no separation between cyclists and vehicles.
Total Score (27 Points Maximum)	14.00	

Key Points

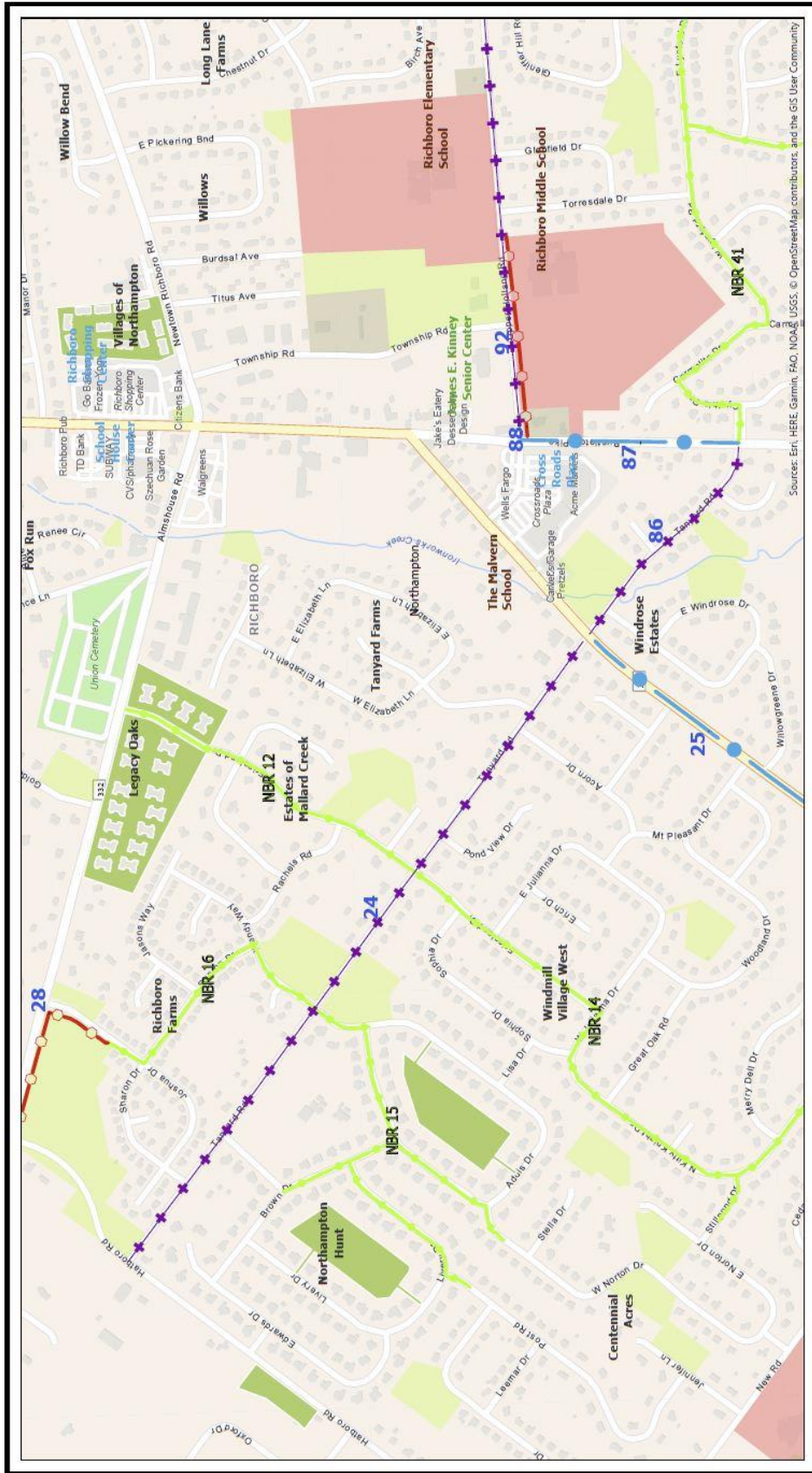
- The Tanyard Road bicycle sharrows ranked in the top ten trail and bike facilities based on:
 - Very low costs and few barriers/constraints associated with the development of bicycle sharrows;
 - Connectivity to Cross Roads Plaza; and
- Connectivity to almost 1,000 housing units



View along Tanyard Road looking northwest toward its intersection with Bend View Drive



Tanyard Road between Bustleton Pike and Second Street Pike looking northwest toward Second Street Pike



BCPC
Bucks County Planning Commission

0 0.13 0.25 Miles

Tanyard Road Proposed/Adjacent Trails & Bike Facilities

- Bike Lanes
- + Sharrows
- Neighborhood Bike Route (NBR)
- Shared Use Trail

Tanyard Road Proposed/Adjacent Trails & Bike Facilities

- School District Property
- Municipal Open Space & Parkland
- HOA Property
- Northampton Bucks Co Municipal Authority

Tanyard Road Segments 24, 86

Map 15

Parks

Schools

Neighborhood

— Commercial Development

Source: Esri, HERE, Garmin, FHO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

PLANNING AREA 1

This planning area, located in the northwest corner of the township, is bounded by Almshouse-Richboro Road (Route 332) to the south, the Neshaminy Creek to the north and east, and the Little Neshaminy Creek and the township boundary with Warwick Township to the west. The area borders Warwick Township to the west, and Wrightstown and Newtown townships to the north. The features of this area are described below:

Land Use

Land use in this planning area is a diverse mix of:

- Single Family Residential, including rural residential, which represents the largest land use in this planning area;
- Agricultural in the area bounded by Almshouse Road, Hatboro Road, Sackettsford Road, and Old Jacksonville Road;
- Parks and Open Space found along Almshouse Road associated with the Northampton Township Recreation Complex and Tyler State Park;
- Commercial (Village of Richboro); and
- Intermittent utilities uses.

Natural Features

Topography

- Similar to the majority of the township which can be described as gently rolling hills. A noticeable change in topography occurs along the steep slopes along the Neshaminy Creek, and along the border of Northampton and Warwick townships.

Water resources

- The area is part of the Neshaminy Creek watershed with the primary secondary watershed in this area being the Little Neshaminy Creek watershed, with a small portion, primarily around the Village of Richboro, draining to the Iron Works Creek watershed.

Woodlands and Natural Areas

- The primary wooded areas in this area include the riparian corridors along the Neshaminy and Little Neshaminy creeks; areas within Tyler State Park; a wooded area along the south side of Twining Road, between Second Street Pike to the west and Worthington Mill Road to the east.

Man-Made Features

Commercial Areas

- Richboro Plaza
- School House Plaza

Parks and Recreation Areas

- Northampton Township Recreation Complex
- Tyler State Park
- Northampton County Club

Historic Resources

- Richboro Schoolhouse
- John Thompson House
- Twining Ford Covered Bridge
- Hampton Hill

Principal Arterial Roadways

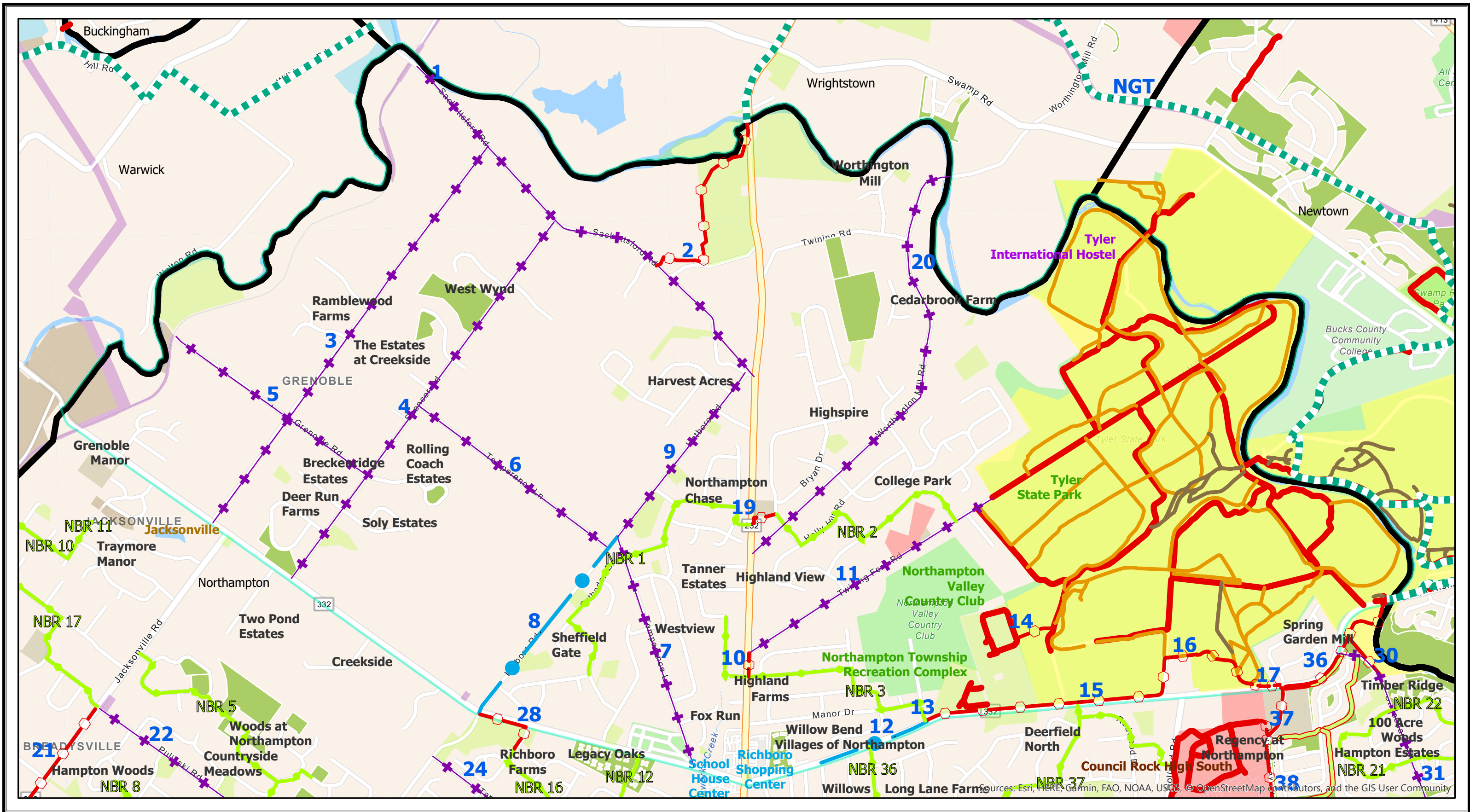
- Almshouse Road (Route 332) from Jacksonville Road to Newtown Township

Major Collector Roadways

- Sackettsford Road
- Worthington Mill Road
- Hatboro Road
- Almshouse Road (Route 332) from Warwick Township to Jacksonville Road

Existing Trails

Area	Existing Trail	Type of Trail	Mileage
1	Tyler State Park Equestrian Trails	Equestrian	12.57
1	Northampton Recreation Center Site	Shared Use	0.78
1	Tyler Park Nature Trail	Hiking Trail	1.14
1	Cooper Trail/Mill Trail Cut Off	Hiking Trail	0.28
1	Fisherman's Parking Lot Trail	Hiking Trail	0.05
1	Stable Mill Trail	Shared Use	1.24
1	Red Oak Trail	Shared Use	0.63
1	Mill Dairy Trail	Shared Use	0.95
1	Wood Field Trail	Shared Use	0.53
1	Number 1 Lane Trail	Shared Use	1.22
1	College Park Trail	Shared Use	0.48
1	Dairy Hill Trail	Shared Use	1.90
1	White Pine Trail	Shared Use	0.52
1	Bridge Trail	Shared Use	0.37
Total Area 1			22.66



0 0.25 0.5 Miles

Proposed Trails & Bike Facilities	Existing Trails	Existing Private HOA Trail	State Parks & Historic Sites	Planning Area 1
Bike Lanes	Existing Access Road	Existing Private HOA Trail	State Parks & Historic Sites	Planning Area 1
Sharrows	Existing Equestrian Trail	Municipal Boundaries	HOA Property	Parks
Neighborhood Bike Route (NBR)	Existing Hiking Trail	School District Property	Land Trust Property	Schools
Neshaminy Greenway Trail (NGT) - Proposed	Existing Shared-Use Trail	Municipal Open Space & Parkland	PECO	Neighborhood
Shared Use Trail	County Open Space & Parkland	Northampton Bucks Co Municipal Authority		Commercial Development

Planning Area 1 Map 16

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

TABLE 19 – PROPOSED TRAILS & BICYCLE FACILITIES – PLANNING AREA 1

Segment	Dedicated Bike Lane Segments	Segment End Points	Length (Miles)
8	Hatboro Road	Almshouse Rd to Temperance Lane	0.84
12	Newtown Richboro Road	West Pickering Bend to Harmony Drive	0.43
Total Proposed Bicycle Lanes			1.27

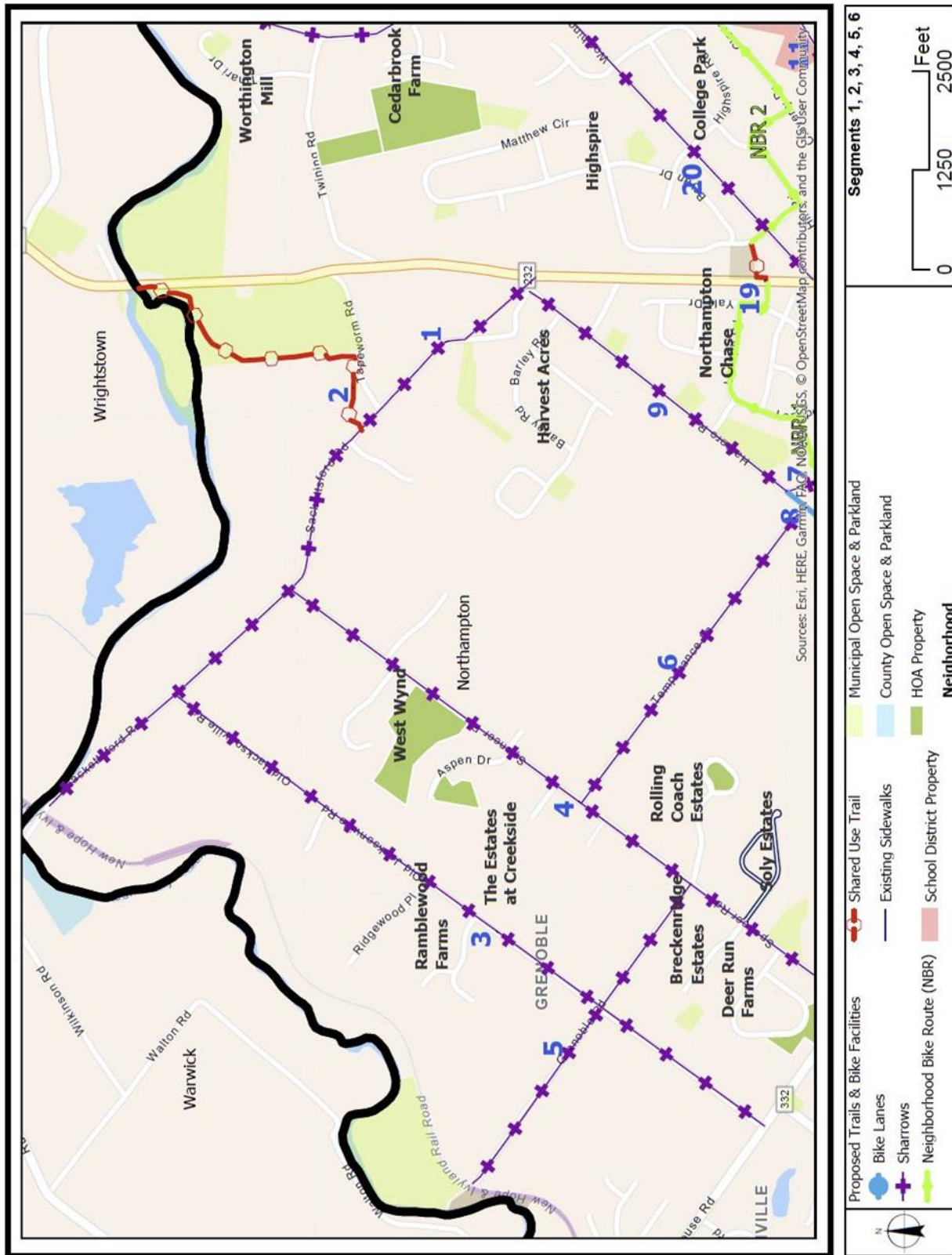
Segment	Sharrows	Segment End Points	Length (Miles)
1	Sackettsford Road (Neshaminy Greenway Trail)	New Hope Ivyland RR to Second Street Pike	1.21
3	Old Jacksonville Road	Almshouse Road to Sackettsford Road	1.75
4	Spencer Road	Almshouse Road to Sackettsford Road	1.66
5	Grenoble Road	New Hope Ivyland RR to Spencer Road	0.89
6	Temperance Lane	Spencer Rd to Hatboro Rd	0.89
7	Temperance Lane	Hatboro Rd to Almshouse Rd	0.91
9	Hatboro Road	Temperance Lane to Sackettsford Road	0.78
11	Twining Ford Road	Second Street Pike to Tyler State Park	1.16
20	Worthington Road	Second Street Pike to Neshaminy Creek	1.79
Total Proposed Sharrows			11.04

Segment	Shared Use Trails	Segment End Points	Length (Miles)
2	Bryan's Farm (Neshaminy Greenway Trail)	Sackettsford Road to Neshaminy Creek	0.81
10	Second Street Pike	Highland Drive to Twining Ford Road	0.09
13	Newtown Richboro Road	Frontage of Northampton Township Recreation Complex	0.42
14	Tyler State Park	Northampton Township Recreation Complex to No. 1 Lane Trail	0.15
15	Newtown Richboro Road	Frontage of Tyler State Park	0.60
16	Tyler State Park	Portion of Cooper Trail	0.37
17	Tyler State Park	Copper Trail to Newtown Richboro Road	0.07
18	Newtown Richboro Road	Cooper Trail Connection to Spring Garden Mill Road	0.06
19	Advent Lutheran Church/Northampton Bucks County Municipal Authority	Second Street Pike to Anselm Drive	0.11
Total Proposed Shared Use Trails			2.67

Segment	Neighborhood Bike Route (NBR)	Segment End Points	Length (Miles)
NBR 1	Neighborhood Bike Route	Sheffield Gate, Westview, Northampton Chase	1.26
NBR 2	Neighborhood Bike Route	Highland View, College Park	0.95
NBR 3	Neighborhood Bike Route	Tanner Estates, Highland Farms	1.15
Total Proposed Neighborhood Bike Routes			3.36

Total Proposed Mileage			18.34
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FIGURE 1 – SEGMENTS 1, 2, 3, 4, 5, 6



1 - Sackettsford Road (Neshaminy Greenway Trail) New Hope Ivyland Railroad to Second Street Pike

1 - Sackettsford Road (Neshaminy Greenway Trail) New Hope Ivyland Railroad to Second Street Pike

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.21 miles

Summary:

- Part of the County’s expansive Neshaminy Greenway trail, which would parallel the Neshaminy Creek from Chalfont all the way to Croydon.
- Would connect to four additional proposed trail and bicycle facilities including:
 - 2 - Bryan’s Farm (Neshaminy Greenway Trail) Shared Use Trail
 - 3 - Old Jacksonville Road Bicycle Sharrows
 - 4 - Spencer Road Bicycle Sharrows
 - 9 - Hatboro Road Bicycle Sharrows

2 - Bryan's Farm (Neshaminy Greenway Trail) - Sackettsford Road to Neshaminy Creek

2 - Bryan’s Farm (Neshaminy Greenway Trail) - Sackettsford Road to the Neshaminy Creek

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.81 miles

Summary:

- Provides a direct and dedicated shared use trail from Sackettsford Road to the Neshaminy Creek
- Contributes to the completion of the Neshaminy Creek Greenway Trail.
- Would require easements to pass through privately owned property. Additionally, although Bryan’s Farm is located on property owned by Northampton Township, alignment of the trail on Bryan’s Farm will require coordination with the owners.
- Would connect to 1 - Sackettsford Road Bicycle Sharrows.

3 - Old Jacksonville Road - Almshouse Road to Sackettsford Road

3 - Old Jacksonville Road- Almshouse Road to Sackettsford Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.75 miles

Summary:

- Connects Almshouse Road to 1 - Sackettsford Road Bicycle Sharrows, providing an alternative North-South route to proposed bicycle facilities 4 - Spencer Road Bicycle Sharrows, 8 - Hatboro Road Bicycle Lanes and 9 - Hatboro Road Bicycle Sharrows.
- Would also connect to 5 - Grenoble Road Bicycle Sharrows.

4 - Spencer Road - Almshouse Road to Sackettsford Road

4 - Spencer Road - Almshouse Road to Sackettsford Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.66 miles

Summary:

- Connects Almshouse Road to Sackettsford Road, providing an alternative North-South connection to bicycle facilities **3 - Old Jacksonville Road Bicycle Sharrows**, **8 - Hatboro Road Bicycle Lanes** and **9 - Hatboro Road Bicycle Sharrows**.
- In addition to connecting to **1 - Sackettsford Road Bicycle Sharrows**, this would also connect to **5 - Grenoble Road Bicycle Sharrows**.

5 - Grenoble Road - New Hope Ivyland Railroad to Spencer Road

5 - Grenoble Road - New Hope Ivyland Railroad to Spencer Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.89 miles

Summary:

- In combination with **6 - Temperance Lane Bicycle Sharrows**, provides an alternative East-West connection to traveling along **1 - Sackettsford Road Bicycle Sharrows**.
- Would connect to **3 - Old Jacksonville Road Bicycle Sharrows** and **4 - Spencer Road Bicycle Sharrows**.

6 - Temperance Lane - Spencer Road to Hatboro Road

6 - Temperance Lane - Spencer Road to Hatboro Road

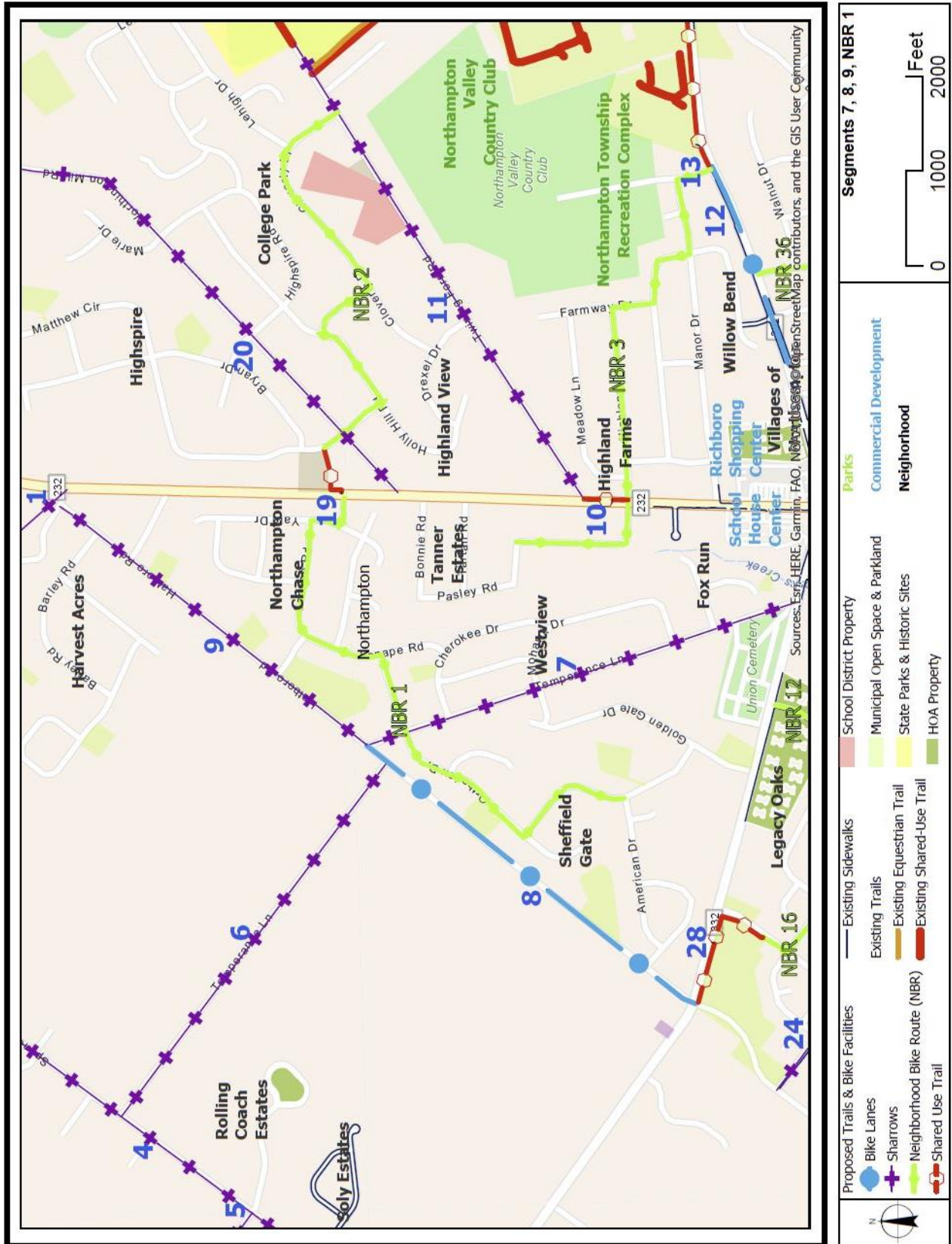
Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.89 miles

Summary:

- In combination with **5 - Grenoble Road**, provides an alternative East-West connection to traveling along **1 - Sackettsford Road**.
- Would connect to four additional proposed trail and bicycle facilities including:
 - 4 - Spencer Road Bicycle Sharrows**
 - 7- Temperance Lane Bicycle Sharrows (Hatboro Road to Almshouse Road)**
 - 8 - Hatboro Road Bicycle Lanes (Almshouse Road to Temperance Lane)**
 - 9 - Hatboro Road Bicycle Sharrows**.

FIGURE 2 – SEGMENTS 7, 8, 9, NBR1



7 - Temperance Lane -Hatboro Road to Almshouse Road

7 - Temperance Lane - Hatboro Road to Almshouse Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.91 miles

Summary:

- Serves as the primary link between the northwestern portion of the township and Richboro.
- When combined with **5 - Grenoble Road Bicycle Sharrows** and **6 - Temperance Lane Bicycle Sharrows** serves as a route running roughly parallel to Almshouse Road which was unsuitable for any trails or bicycle facilities.

8 - Hatboro Road - Almshouse Road to Temperance Lane

8 - Hatboro Road - Almshouse Road to Temperance Lane

Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.84 miles

Summary:

- Would provide a dedicated bicycle lane between Almshouse Road and Temperance Lane
- Along with bicycle sharrows proposed for **9 - Hatboro Road Bicycle Sharrows** between Temperance Lane and Sackettsford Road/Second Street Pike, would facilitate a connection to the Neshaminy Greenway Trail (**1 - Sackettsford Road**) and to Wrightstown Township when combined with the trail proposed for **2 - Bryan's Farm Shared Use Trail**.
- Connects to Tanner Brothers Dairy.
- Will require a slight widening of the pavement to accommodate the proposed 5' wide bicycle lanes.
- Would connect to bicycle sharrows as part of **6 & 7 - Temperance Lane Bicycle Sharrows** and **9 - Hatboro Road Bicycle Sharrows (Temperance Lane to Sackettsford Road/Second Street Pike)**.

9 - Hatboro Road - Temperance Lane to Sackettsford Road/Second Street Pike

9 - Hatboro Road - Temperance Lane to Sackettsford Road/Second Street Pike

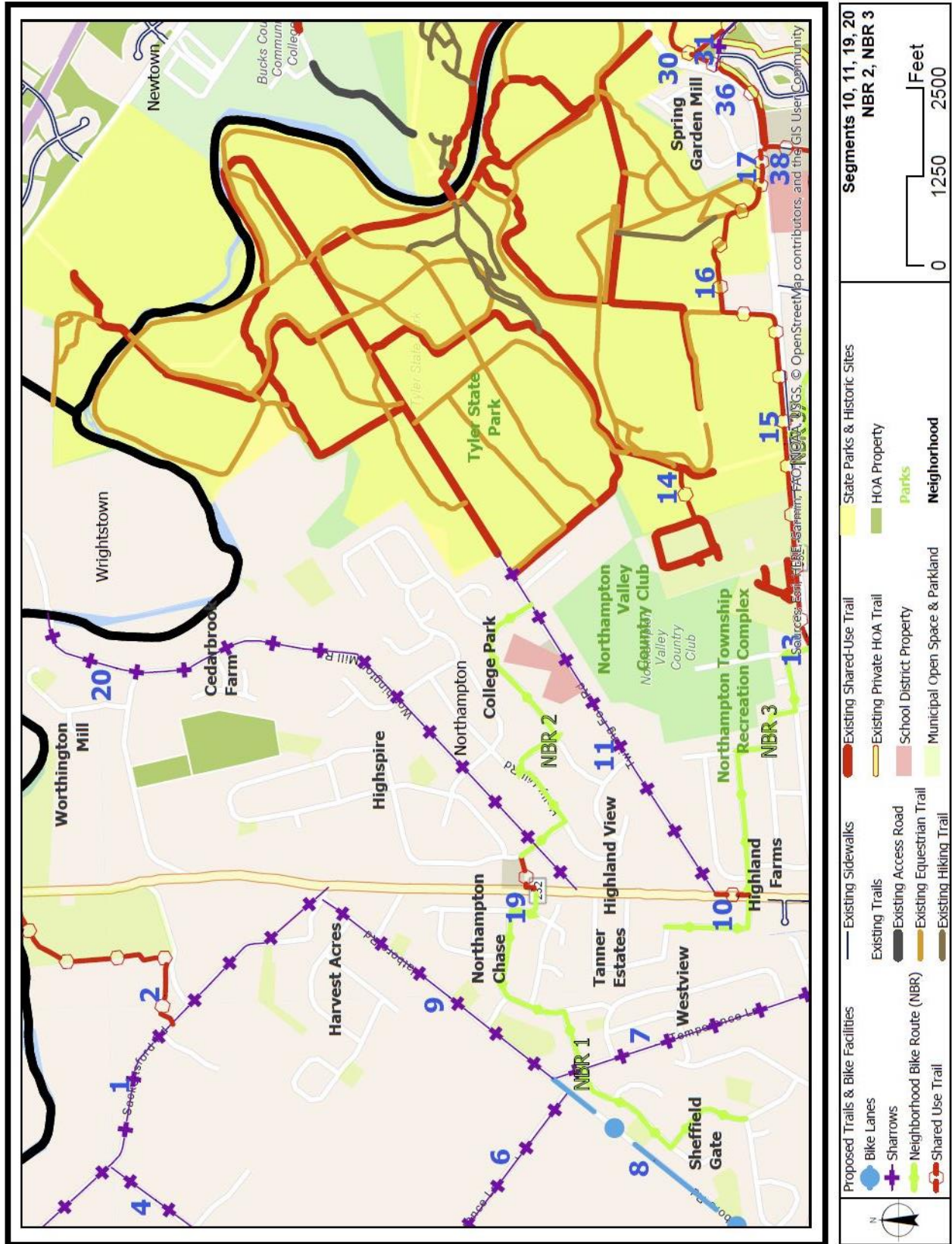
Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.78 miles

Summary:

- Would connect Richboro to the Neshaminy Greenway Trail by connecting to **1 - Sackettsford Road Bicycle Sharrows** and **2 - Bryan's Farm Shared Use Trail**.
- Will require lowering the speed limit from 45 to 35 mph.
- Would connect to bicycle sharrows as part of **6 & 7 - Temperance Lane Bicycle Sharrows** and to **8 - Hatboro Road Bicycle Lanes (Almshouse Road to Temperance Lane)**.

FIGURE 3 – SEGMENTS 10, 11, 19, 20, NBR 2, NBR 3



10 - Second Street Pike - Highland Drive to Twining Ford Road

10 - Second Street Pike - Highland Drive to Twining Ford Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.09 miles

Summary:

- Serves as a key connection between the Tanner Estates neighborhood and the recreational facilities of Tyler State Park and Northampton Township Recreation Complex by providing a sidepath trail between Glasgow. Road/Highland Drive and the bicycle sharrows proposed as part of **11 - Twining Ford Road Bicycle Sharrows**.
- The trail would be located along the east side of Second Street Pike and within the 70' wide PennDOT right-of-way in this area.

11 - Twining Ford Road - Second Street Pike into Tyler State Park

11 - Twining Ford Road - Second Street Pike into Tyler State Park

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.16 miles

Summary:

- Provides a direct route into Tyler State Park, providing access to the entirety of the park's existing trail system and Bucks County Community College
- Connects to Tyler State park via Twining Ford Road through to Dairy Hill Trail.
- Posted speed limit is 25 mph so no modifications are required.

19 - Advent Lutheran Church/Northampton Bucks County Municipal Authority - Second Street Pike to Anselm Drive

19 - Advent Lutheran Church/Northampton Bucks County Municipal Authority - Second Street Pike to Anselm Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.11 miles

Summary:

- Provides a connection to **20 - Worthington Mill Road Bicycle Sharrows** for neighborhoods to the west of Second Street Pike including Sheffield Gate and Northampton Chase.
- Will require an easement agreement with Advent Lutheran Church or Bucks County Municipal Authority.

20 - Worthington Mill Road- Second Street Pike to Neshaminy Creek

20 - Worthington Mill Road - Second Street Pike to Neshaminy Creek

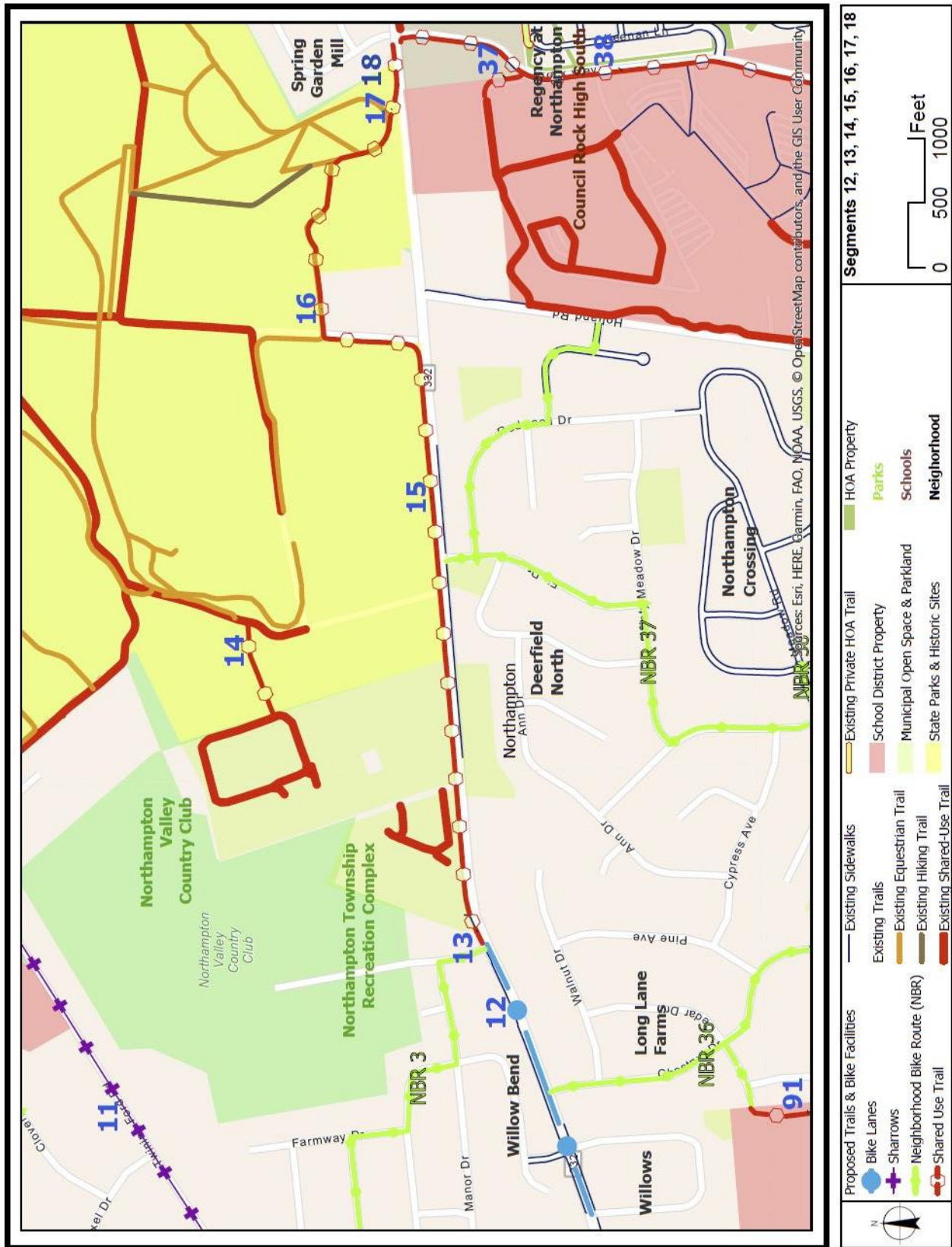
Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.79 miles

Summary:

- Provides a direct connection to the Neshaminy Creek, with potential to connect to the Neshaminy Greenway Trail.
- Will require speed limit to be lowered to 35 mph from the current posted speed of 40 mph.
- As Worthington Mill Road is a PennDOT maintained road, the installation of bicycle sharrows will be dependent on the repaving schedule for Worthington Mill Road and the township's willingness to maintain the proposed sharrows.
- Provides connectivity to the rest of the proposed township trail and bicycle facilities network to residents of the Cedarbrook Farm and Highspire neighborhoods.

FIGURE 4 – SEGMENTS 12, 13, 14, 15, 16, 17, 18



12 - Newtown Richboro Road - West Pickering Bend to Harmony Drive

12 - Newtown Richboro Road - West Pickering Bend to Harmony Drive

Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.43 miles

Summary:

- Provides a dedicated bicycle lane that would serve bicycle traffic between the commercial center of Richboro and Northampton Township Recreation Complex.
- Is a part of an overall trail along Newtown-Richboro Road extending from Richboro to Tyler State Park.
- Connects to **Neighborhood Bike Routes 3 - Highland Farms/Willow Bend** and **36 - Long Lane Farms**.

13 - Newtown Richboro Road - Frontage of Northampton Township Recreation Complex

13 - Newtown Richboro Road - Frontage of Northampton Township Recreation Complex

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.42 miles

Summary:

- Connects the Northampton Township Recreation Complex and Tyler State Park with a shared use trail.
- Completes the final segment to provide multi-modal access to the Northampton Township Recreation Complex from the Richboro commercial center.
- Via **Neighborhood Bike Routes 36 - Long Lane Farms** and **37 - Deerfield North**, provides access to Tyler State Park for residents in those neighborhoods.

14 - Tyler State Park - Northampton Township Recreation Complex to No. 1 Lane Trail

14 - Tyler State Park - Northampton Township Recreation Complex to No. 1 Lane Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.15 miles

Summary:

- Connects the interior section of the Northampton Township Recreation Complex to interior trails of Tyler State Park with a shared use trail.
- An easement would be required from the Pennsylvania Department of Conservation and Natural Resources since the trail would be located on their property.

15 - Newtown Richboro Road - Frontage of Northampton Township Recreation Complex

15 - Newtown Richboro Road - Frontage of Tyler State Park

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.60 miles

Summary:

- Connects the Northampton Township Recreation Complex and Tyler State Park with a shared use trail along the frontage of Newtown-Richboro Road
- Provides access to Tyler State Park to residents living in Deerfield North via a connection to **Neighborhood Bike Route 37 - Deerfield North**.
- Extends to Stable Mill Trail and into the existing trails in Tyler State Park.
- An easement would be required from the Pennsylvania Department of Conservation and Natural Resources (PA DCNR) since the trail would be located on their property.

16 - Tyler State Park - Portion of Cooper Trail

16 - Tyler State Park - Portion of Cooper Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.37 miles

Summary:

- Will transform an existing dirt pathway into a paved shared use trail.
- In conjunction with **17 - Tyler State Park Shared Use Trail**, assists in connecting the Spring Garden Mill community to the Tyler State Park trail network.
- As bicycles are currently not permitted on this pathway, representatives from PA DCNR/Tyler State Park would have to change this designation.

17 - Tyler State Park - Cooper Trail to Newtown Richboro Road

17 - Tyler State Park - Cooper Trail to Newtown Richboro Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.07 miles

Summary:

- In conjunction with **18 - Newtown Richboro Road Shared Use Trail**, assists in connecting the Spring Garden Mill community to the Tyler State Park Trail network.
- Would require an easement from Tyler State Park/PA DCNR.

18- Newtown Richboro Road - Cooper Trail Connection to Spring Garden Mill Road

18 - Newtown Richboro Road - Cooper Trail Connection to Spring Garden Mill Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.06 miles

Summary:

- In conjunction with **17 - Tyler State Park Shared Use Trail**, assists in connecting the Spring Garden Mill community to the Tyler State Park Trail network.
- Will require coordination with PennDOT since the trail would be located in the right of way along the north side of Newtown Richboro Road, a PennDOT maintained road.
- Council Rock High School South would be accessible via a crosswalk at the end of this trail at the signalized intersection of Newtown Richboro Road and Rock Way.
- This trail would also connect to the existing trail along the south side of Newtown Richboro Road beginning at the southeast corner of Newtown Richboro Road and Rock Way. This exiting trail, in conjunction with **38 - Newtown Richboro Road Shared Use Trail** extending to St. Leonards Road, will provide access to Tyler State Park for residents in neighborhoods along St. Leonards Road, while also providing access to Tyler State Park for neighborhoods to the west of Rock Way.

Neighborhood Bike Routes (NBR) - 1, 2 and 3

Neighborhood Bike Routes - 1, 2 and 3

Trail/Bicycle Facility Type and Length:

NBR 1- Neighborhood Bike Route Signage	1.26 miles
NBR 2- Neighborhood Bike Route Signage	0.95 miles
NBR 3- Neighborhood Bike Route Signage	1.16 miles

Summary:

- **NBR 1 - Sheffield Gate, Westview, Northampton Chase**
Would provide connections to **6 & 7 - Temperance Lane Bicycle Sharrows** and Anselm Drive
- **NBR 2 - Highland View, College Park**
Provides a connection from Worthington Mill Road to Twining Ford to Tyler State Park
- **NBR 3 - Tanner Estates, Highland Farms**
Provides access to the Northampton Township Recreation Complex and Tyler State Park via Twining Ford Road

PLANNING AREA 2

This planning area is bounded by Almshouse road to the north, Bristol Road to the south, Second Street Pike (Route 232) to the East, and the municipal boundary with Warwick Township to the west

Land Use

Land use in this planning area is a diverse mix of:

- Primarily Single Family & Residential Rural Residential with some multifamily residential locations;
- Industrial Uses at the Northampton Township Business and Technology Center between Jacksonville Road and the municipal boundary with Warwick Township
- Commercial found at the far eastern edge along PA Route 232 at Addisville Commons and the Village of Richboro; and
- Institutional in the form of Maureen Welch Elementary School

Natural Features

Topography

- Primarily gently rolling hills with some steep slopes along the Little Neshaminy Creek, Spring Mill and Ironworks Creek stream valleys.

Water resources

- There are two primary watersheds in this planning area. The section east of Hatboro Road drains into the Ironworks Creek watershed while the portion west of Hatboro Road drains into the Little Neshaminy Creek Watershed. Both of these secondary watersheds eventually drain into the Neshaminy creek and into the Delaware River.

Natural Areas

- Wetlands can be found running north from Bobbie Road to Jacksonville Road traversing the Two Pond Estates, Countryside Meadows, Woods at Northampton and Brookwood Estates neighborhoods.

Woodlands and Natural Areas

- Primarily located along stream valleys with the greatest expanse of woodlands being located on the border between the Woods at Northampton and Creekside neighborhoods and Traymore Manor neighborhoods.

Man-Made Features

Commercial Areas

- Village of Richboro
- Addisville Commons

Schools

- Maureen Welch Elementary

Parks and Recreation Areas

- Northampton Municipal Park Complex
- Spring Mill Golf Course

Historic Resources

- Spread Eagle Inn

Principal Arterial Roadways

- Almshouse Road
- Second Street Pike (Route 232)
- Jacksonville Road

Major Collector Roadways

- Hatboro Road

Existing Trails

Area	Existing Trail	Type of Trail	Mileage
2	Northampton Municipal Park Complex	Shared Use	3.30
2	Ivy Greene Run	Shared Use	0.23
Total Area 2			3.53

Master Trail and Bicycle Plan

TABLE 20 – PROPOSED TRAILS & BICYCLE FACILITIES – PLANNING AREA 2

Segment	Dedicated Bike Lane Segments	Segment End Points	Length (Miles)
25	Second Street Pike	Windsor Drive to Tanyard Road	0.92
Total Proposed Bicycle Lanes			0.92

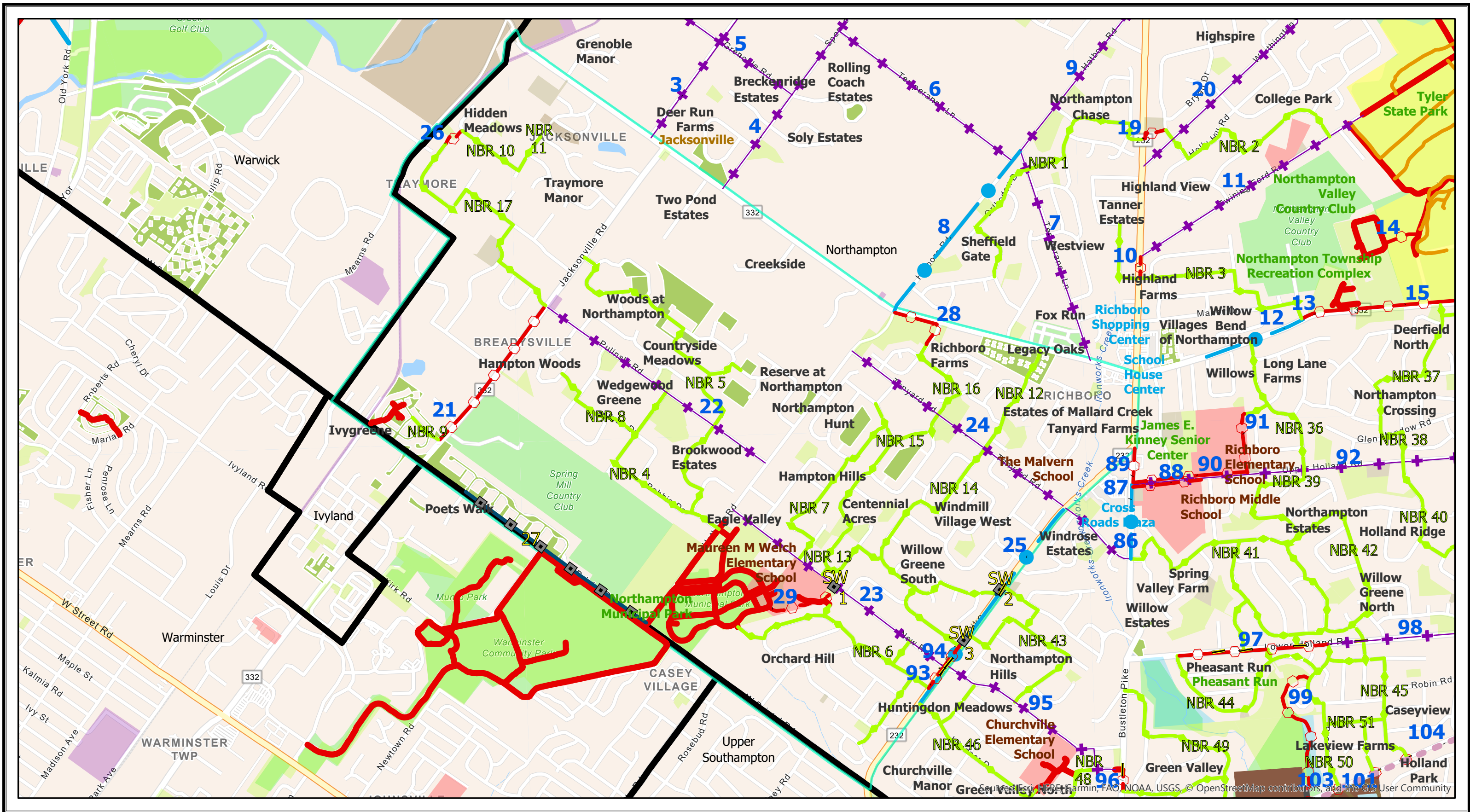
Segment	Sharrows	Segment End Points	Length (Miles)
22	Pulinski Road	Jacksonville Road to Hatboro Road	1.10
23	New Road	Hatboro Road to Second Street Pike	1.09
24	Tanyard Road	Hatboro Road to Second Street Pike	1.08
Total Proposed Sharrows			3.26

Segment	Shared Use Trails	Segment End Points	Length (Miles)
21	Jacksonville Road	Ashley Drive to Pulinski Road	0.69
26	Hidden Meadows Connector	Hill Road to Steam Whistle Drive	0.10
28	Richboro Farms Connector	Joshua Drive to intersection of Hatboro Road and Almshouse Road	0.27
29	New Road Trailhead & Maureen Welsh Elementary School Trail (In Design)	New Road to Northampton Municipal Park	0.24
Total Proposed Shared Use Trails			1.30

Segment	Sidewalk	Segment End Points	Length (Miles)
27	Bristol Road	Wordsworth Drive to Hatboro Road	0.92
SW 1	New Road (In Design)	Township property adjacent to and southeast of Maureen Welsh School	0.03
SW 2	Second Street Pike	Merry Dell Drive to W Buttonwood Drive	0.05
SW 3	Second Street Pike	Heather Road to Locust Road	0.06
Total Proposed Sidewalks			1.05

Segment	Neighborhood Bike Route (NBR)	Segment End Points	Length (Miles)
NBR 4	Neighborhood Bike Route	Brookwood Estates	1.32
NBR 5	Neighborhood Bike Route	Woods at Northampton, Reserve at Northampton	1.31
NBR 6	Neighborhood Bike Route	Orchard Hill	1.47
NBR 7	Neighborhood Bike Route	Eagle Valley	0.79
NBR 8	Neighborhood Bike Route	Hampton Woods, Wedgewood Greene	0.43
NBR 9	Neighborhood Bike Route	Ivy Greene	0.14
NBR 10	Neighborhood Bike Route	Hidden Meadows	0.48
NBR 11	Neighborhood Bike Route	Traymore Manor	0.10
NBR 12	Neighborhood Bike Route	Estates of Mallard Creek, Legacy Oaks	1.50
NBR 13	Neighborhood Bike Route	Centennial Acres	0.70
NBR 14	Neighborhood Bike Route	Willow Greene South, Windmill Village West	1.50
NBR 15	Neighborhood Bike Route	Northampton Hunt	0.90
NBR 16	Neighborhood Bike Route	Estates of Mallard Creek, Richboro Farms	0.36
NBR 17	Neighborhood Bike Route	Northampton Township Business & Technology Center	1.14
Total Proposed Neighborhood Bike Routes			12.14

Total Proposed Mileage			18.67
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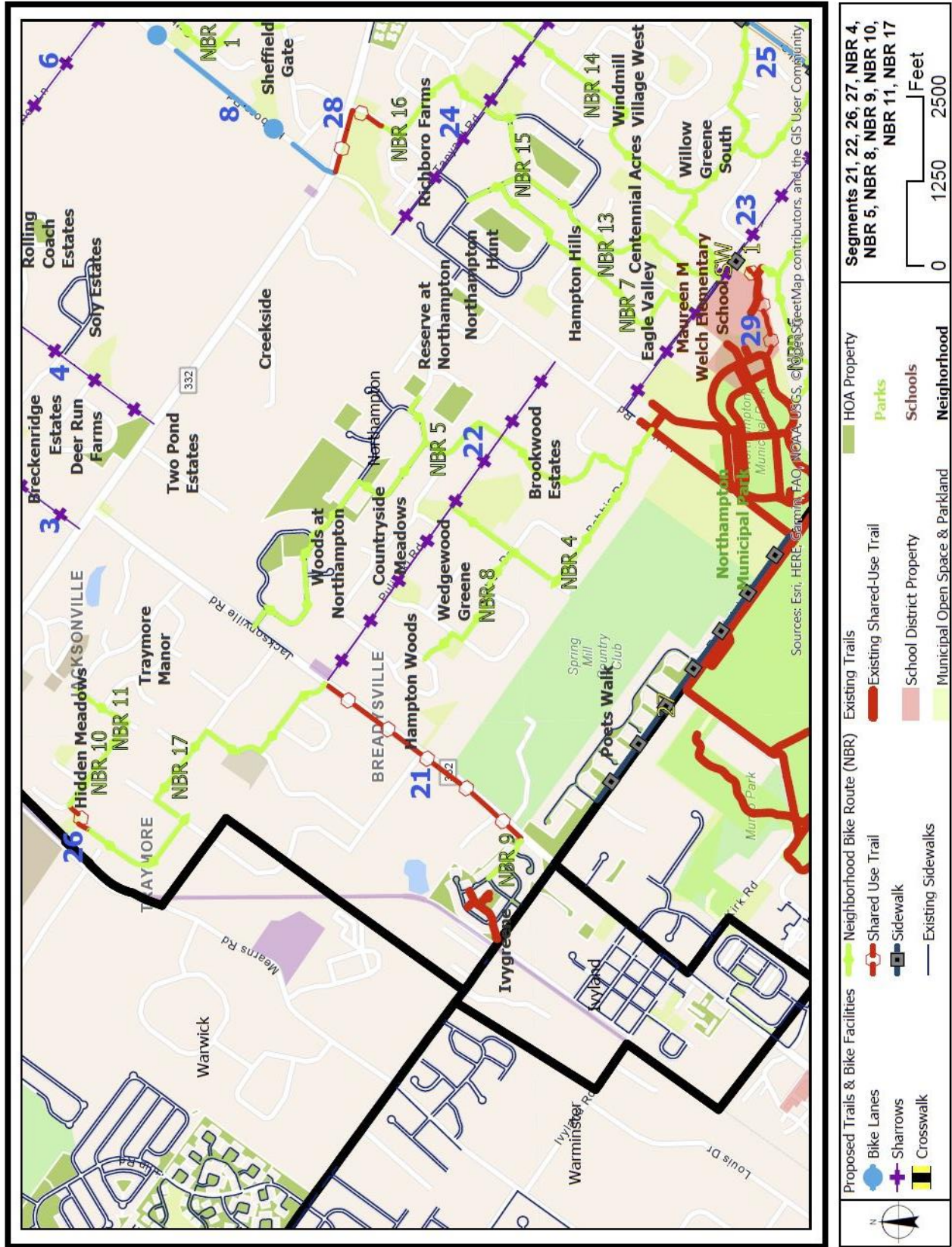


BCPC
Bucks County Planning Commission

Proposed Trails & Bike Facilities		Existing Trails		Existing Shared-Use Trail		County Open Space & Parkland		Planning Area 2	
	Bike Lanes		Existing Access Road		Municipal Boundaries		County Open Space & Parkland		Planning Area 2
	Sharrows		Existing Bike Lane		Aqua PA		State Parks & Historic Sites		Parks
	Crosswalk		Existing Equestrian Trail		School District Property		HOA Property		Schools
	Neighborhood Bike Route (NBR)		Existing Hiking Trail		Municipal Open Space & Parkland		Land Trust Property		Neighborhood
	Newtown Rail Trail (NRT) - Proposed						PECO		Commercial Development
	Shared Use Trail						Northampton Bucks Co Municipal Authority		

**Planning Area 2
Map 17**

FIGURE 5 – SEGMENTS 21, 22, 26, 27, NBR 9, NBR 10, NBR 11, NBR 17



21 - Jacksonville Road - Ashley Drive to Pulinski Road

21 - Jacksonville Road - Ashley Drive to Pulinski Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.69 miles

Summary:

- Provides a connection between Ivygreene Community and Northampton Township Business and Technology Center.
- Although the right-of-way along Jacksonville Road in this area averages 60' wide, easements may be required in some areas. Coordination with PennDOT will be required since this is a PennDOT road.
- Connects with **22 - Pulinski Road Bicycle Sharrows**.

22 - Pulinski Road - Jacksonville Road to Hatboro Road

22 - Pulinski Road - Jacksonville Road to Hatboro Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.10 miles

Summary:

- Provides Hampton Hills, Reserve at Northampton, Countryside Meadows, Hampton Woods and Woods at Northampton communities with connection to **21 - Jacksonville Road Trail**.
- Township maintained road so should be easy to implement given that no PennDOT coordination is required.

26 - Hidden Meadows Connector - Hill Road to Steam Whistle Drive

26 - Hidden Meadows Connector - Hill Road to Steam Whistle Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.10 miles

Summary:

- Provides connection between Hidden Meadows and Traymore neighborhoods and Northampton Township Business and Technology Center.
- Via on-road connections through the Business and Technology Center, facilitates connectivity to the trails and bicycle facilities network.

27 - Bristol Road - Wordsworth Drive to Hatboro Road

27 - Bristol Road - Wordsworth Drive to Hatboro Road

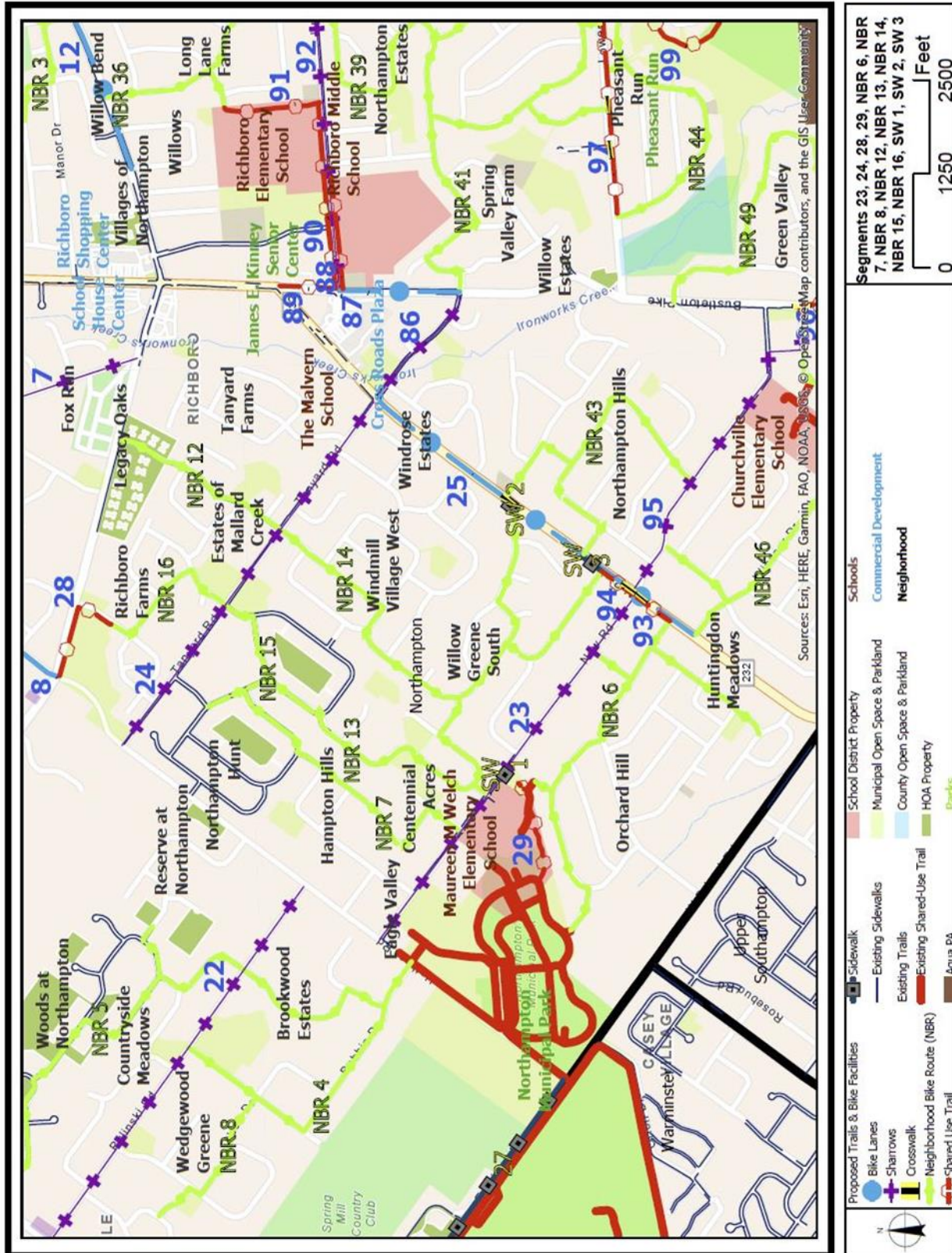
Trail/Bicycle Facility Type and Length:

Sidewalk: 0.92 miles

Summary:

- Provides connection between the Poets Walk neighborhood and Northampton Municipal Park, Maureen Welch Elementary School, as well as to Warminster Township Community Park.

FIGURE 6 – SEGMENTS 23, 24, 28, 29, NBR 6, NBR 7, NBR 8, NBR 12, NBR 13, NBR 14, NBR 15, NBR 16, SW 1, SW 2, SW3



23 - New Road - Hatboro Road to Second Street Pike

23 - New Road

Hatboro Road to Second Street Pike

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.09 miles

Summary:

- Provides Eagle Valley, Centennial Acres, Willow Greene South and Huntingdon Meadows communities with connection to Maureen M. Welch Elementary School and ultimately Northampton Municipal Park.
- Connects to **25 - Second Street Pike Bicycle Lanes**, **93 & 94 - Second Street Pike Shared Use Trails** and **95 - New Road Bicycle Sharrows**.

29 - New Road Trailhead & Maureen Welsh Elementary School Trail (In Design) - New Road to Northampton Municipal Park

29 - New Road Trailhead & Maureen Welsh Elementary School Trail (In Design)

New Road to Northampton Municipal Park

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.24 miles

Summary:

- Provides connection between Maureen Welsh Elementary School and Northampton Municipal Park.
- Will provide a connection between **27 - Bristol Road Sidewalk** and **23 - New Road Bicycle Sharrows**.

24 - Tanyard Road - Hatboro Road to Second Street Pike

24 - Tanyard Road

Hatboro Road to Second Street Pike

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.09 miles

Summary:

- Provides Richboro Farms, Estates of Mallard Creek, Tanyard Farms, Northampton Hunt, and Windmill Village West neighborhoods, via connecting trails, access to the Village of Richboro, Northampton Township Library, and the senior center at the eastern end, and to Tanner Brothers at the western end.
- Connects to **25 - Second Street Pike Bicycle Lanes**, **28 - Richboro Farms Connector Shared Use Trail**, and **86 - Tanyard Road Bicycle Sharrows**.

25 - Second Street Pike - Windsor Drive to Tanyard Road

25 - Second Street Pike Windsor Drive to Tanyard Road

Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.92 miles

Summary:

- Provides Huntington Meadows, Northampton Hills, Willow Greene South and Windrose Estate communities with a connection to commercial areas of Richboro.
- Might be possible to extend to Bristol Road with some slight pavement widening. However, as all neighborhoods along Second Street Pike in this vicinity still have access to the bicycle lanes, it may not be needed.
- As this is a PennDOT road, installation of the sharrows will be subject to their review and will be part of their resurfacing schedule.
- Connects to **23 & 95 - New Road Bicycle Sharrows** and **24 & 86 - Tanyard Road Bicycle Sharrows**.

28 - Richboro Farms Connector - Joshua Drive to intersection of Hatboro Road and Almshouse Road

28 - Richboro Farms Connector Joshua Drive to intersection of Hatboro Road and Almshouse Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.27 miles

Summary:

- Provides connection between Richboro Farms and Tanner's Dairy Farm and **8 - Hatboro Road Bicycle Lanes**.
- Via **NBR 16 - Richboro Farms**, provides connectivity to **24 - Tanyard Road Bicycle Sharrows**.

Sidewalks (SW) 1, 2 and 3

Sidewalks - 1, 2 and 3

Trail/Bicycle Facility Type and Length:

SW 1	Sidewalk	0.03 miles
SW 2	Sidewalk	0.05 miles
SW 3	Sidewalk	0.06 miles

Summary:

- **SW 1 - New Road (In Design) - Township Property Adjacent to and southeast of Maureen Welsh School**
Extends existing sidewalk on School Property along Township Park Property
- **SW 2 - Second Street Pike - Merry Dell Drive to W. Buttonwood Drive**
Provides connection for Willow Greene South to allow crossing of Second Street Pike at Buttonwood Drive
- **SW 3 - Second Street Pike - Heather Road to Locust Road**
Provides connection for Willow Greene South to cross Second Street Pike at Locust Road.

Neighborhood Bike Routes (NBR) 4 through 17

Neighborhood Bike Routes (NBR) 4 through 17

Trail/Bicycle Facility Type and Length:

NBR 4	Neighborhood Bike Route	1.32 miles
NBR 5	Neighborhood Bike Route	1.31 miles
NBR 6	Neighborhood Bike Route	1.47 miles
NBR 7	Neighborhood Bike Route	0.79 miles
NBR 8	Neighborhood Bike Route	0.43 miles
NBR 9	Neighborhood Bike Route	0.14 miles
NBR 10	Neighborhood Bike Route	0.48 miles
NBR 11	Neighborhood Bike Route	0.10 miles
NBR 12	Neighborhood Bike Route	1.50 miles
NBR 13	Neighborhood Bike Route	0.70 miles
NBR 14	Neighborhood Bike Route	1.50 miles
NBR 15	Neighborhood Bike Route	0.90 miles
NBR 16	Neighborhood Bike Route	0.36 miles
NBR 17	Neighborhood Bike Route	1.14 miles

Summary:

- **NBR 4 - Brookwood Estates**
Provides connection to **22 - Pulinski Road Bicycle Sharrows**, Wedgewood Greene and Northampton Municipal Park
- **NBR 5 - Woods at Northampton, Reserve at Northampton**
Provides connection to **22 - Pulinski Road Bicycle Sharrows**, Woods at Northampton and Countryside Meadows
- **NBR 6 - Orchard Hill**
Provides connection to **25 - Second Street Bicycle Lanes**, **23 - New Road Bicycle Sharrows** and Huntingdon Meadows
- **NBR 7 - Eagle Valley**
Provides connection to **23 - New Road Bicycle Sharrows**, Eagle Valley and Northampton Hunt
- **NBR 8 - Hampton Woods, Wedgewood Greene**
Provides connection to **22 - Pulinski Road Bicycle Sharrows**, Wedgewood Greene and Hampton Woods
- **NBR 9 - Ivy Greene**
Provides connection to **21 - Jacksonville Road Shared Use Trail** and Ivy Greene
- **NBR 10 - Hidden Meadows**
Provides connection to **26 - Hidden Meadows Connector Shared Use Trail** and Hidden Meadows
- **NBR 11 - Traymore Manor**
Provides connection between Traymore Manor and Hidden Meadows
- **NBR 12 - Estates of Mallard Creek, Legacy Oaks**
Provides connection between Estates at Mallard Creek and Legacy Oaks
- **NBR 13 - Centennial Acres**
Provides connection to **23 - New Road Bicycle Sharrows**, Centennial Acres, Willow Greene South and Northampton Hunt
- **NBR 14 - Willow Greene South, Windmill Village West**
Provides connection between Willow Greene South, Windmill Village West and Centennial Acres
- **NBR 15 - Northampton Hunt**
Provides connection between Northampton Hunt and Centennial Acres
- **NBR 16 - Estates of Mallard Creek, Richboro Farms**
Provides connection to **28 - Richboro Farms Connector Shared Use Trail**, Richboro Farms and **24 - Tanyard Road Bicycle Sharrows**
- **NBR 17 - Northampton Township Business & Technology Center**
Provides connection to **26 - Hidden Meadows Connector**, Traymore, Northampton Township Business and Technology Center, **21 - Jacksonville Shared Use Trail** and **22 - Pulinski Road Bicycle Sharrows**

PLANNING AREA 3

This planning area is located south of Newtown-Richboro Road, north of East Holland and Stoney Ford Roads, east of Holland Road, and west of the Neshaminy Creek. The features of this area are described below:

Land Use

Land use in this planning area is a diverse mix of:

- Residential uses, including single family, rural, and high density multi-unit residential in the Village Shires and Tapestry neighborhoods.
- Institutional uses including the educational institutions of Council Rock High School South, Rolling Hills Elementary School and St. Bede the Venerable School as well as Twining Village, a senior living community;
- Limited Commercial use associated primarily with the Village Shires Shopping Center; and
- Parks and open space owned by the township (Big Meadow Park and Hampton Estates Baseball Fields), the state (banks of Neshaminy Creek south of Newtown Richboro Road) and homeowners associations including Village Shires, Hills at Northampton, Jordan Corners and Legacy at Northampton among others.

Natural Features

Topography

- Similar to the majority of the township which can be classified as gently rolling. Very steep slopes reside along the Neshaminy Creek particularly along the boundary of Northampton and Newtown Townships between Newtown Richboro Road and Buck Road.

Water resources

- This Planning Area drains into the Neshaminy Creek Watershed including the Neshaminy and Pine Run subwatersheds.

Woodlands and Natural Areas

- Multiple acres of wetlands exist along Neshaminy Creek in the area of Big Meadow Park.
- A mixed Woodland and Wetland area runs the length of a tertiary stream in the Neshaminy Creek watershed. The mix spans the distance between Buck Road and Stoney Ford Road.
- Woodlands can also be found along the banks of the Neshaminy Creek and along Newtown Richboro Road between Holland Road and Rock Way on properties owned by the Council Rock School District, the Northampton Bucks County Municipal Authority and a private owner.

Man-Made Features

Commercial Areas

- Village Shires Shopping Center

Parks and Recreation Areas

- Big Meadow Park
- Hampton Estates Baseball Fields

Schools

- Council Rock High School South
- Rolling Hills Elementary School
- Saint Catherine Drexel Regional Catholic School

Historic Resources

- Spring Garden Mills

Principal Arterial Roadways

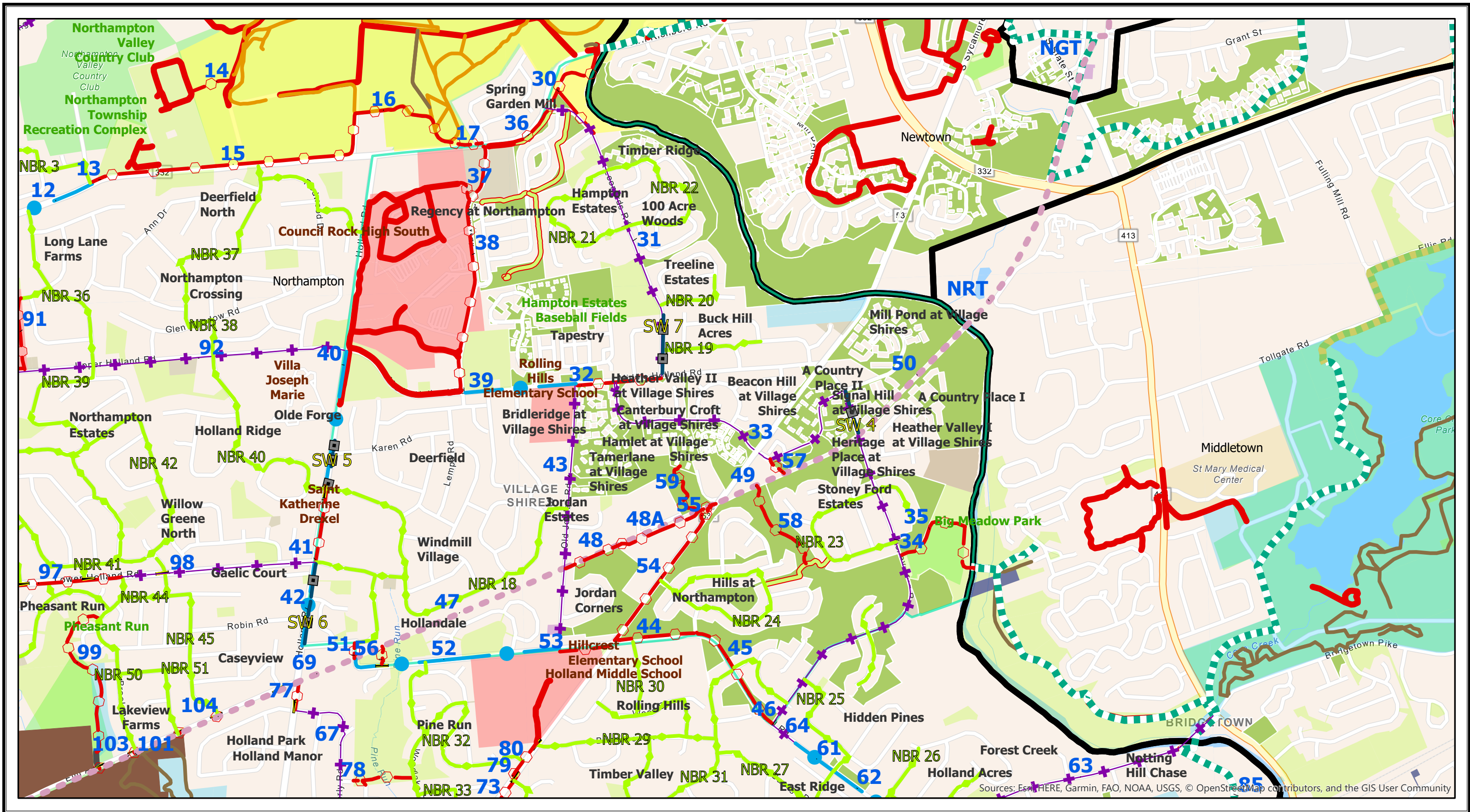
- Newtown Richboro Road (Route 332)
- Buck Road (Route 532)

Major Collector Roadways

- Holland Road
- Middle Holland Road
- East Holland Road

Existing Trails

Area	Existing Trail	Type of Trail	Mileage
3	Council Rock South Complex	Shared Use	2.49
3	Rock Way Towards Newtown	Shared Use	0.08
Total Area 3			2.57



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

BCPC
Bucks County Planning Commission

Miles
0 0.25 0.5

Proposed Trails & Bike Facilities		Existing Trails		County Open Space & Parkland		Northampton Bucks Co Municipal Authority	
	Bike Lanes		Existing Shared-Use Trail		County Open Space & Parkland		Northampton Bucks Co Municipal Authority
	Sharrows		Shared Use Trail		State Parks & Historic Sites		Planning Area 3
	Crosswalk		Sidewalk		HOA Property		Parks
	Neighborhood Bike Route (NBR)		Existing Access Road		Land Trust Property		Schools
	Neshaminy Greenway Trail (NGT) - In Development		Existing Equestrian Trail		PECO		Neighborhood
	Neshaminy Greenway Trail (NGT) - Proposed		Existing Hiking Trail		Bucks Co Water & Sewer Authority		Commercial Development

Planning Area 3 Map 18

TABLE 21 – PROPOSED TRAILS & BICYCLE FACILITIES – PLANNING AREA 3

Segment	Dedicated Bike Lane	Segment End Points	Length (Miles)
39	Middle Holland Road	Rock Way to Old Jordan Road	0.38
40	Holland Road	Rotterdam Road West To Middle Holland Road/Upper Holland Road	0.46
42	Holland Road	East Holland Road to Lower Holland Road/Vanderveer Avenue	0.28
52	East Holland Road	Bend near Pine Run to Old Jordan Road	0.72
Total Proposed Bicycle Lanes			1.84

Segment	Sharrows	Segment End Points	Length (Miles)
31	Neshaminy Greenway Trail	Richboro Road to Middle Holland Road	1.06
33	Neshaminy Greenway Trail	Middle Holland Road to Stoneyford Road	0.65
34	Neshaminy Greenway Trail	East & West Village Road to Big Meadow Park	0.59
43	Old Jordan Road	Middle Holland Road to East Holland Road	0.89
46	Stoneyford Road	Big Meadow Park to East Holland Road	0.82
Total Proposed Sharrows			4.01

Segment	Shared Use Trails	Planning Area	Length (Miles)
30	Neshaminy Greenway Trail	Langhome Players Theater/Spring Garden Mill to St. Leonards Road	0.41
32	Neshaminy Greenway Trail	St. Leonards Road to Rolling Hills Elementary School	0.29
35	Neshaminy Greenway Trail	Big Meadow Park	0.58
36	Newtown Richboro Road (PennDOT ROW)	Rock Way to St. Leonards Road	0.33
37	Council Rock High School South		0.07
38	Rock Way	Richboro Road to Middle Holland Road	0.86
41	Holland Road	Vanderveer Avenue to Rotterdam Road West	0.24
44	East Holland Road	Buck Road to Belmont Way	0.26
45	East Holland Road	Belmont Way to Stoneyford Road	0.41
51	East Holland Road (West side ROW)	Amsterdam Avenue to Existing sidewalk at Pine Run	0.10
53	East Holland Road	Old Jordan Road to Buck Road	0.17
54	Buck Road	East Holland Road to Northampton Twsp Parcel (TMP #31-035-008-001)	0.61
55	Northampton Township Property (TMP #31-035-008-001) at Newtown Rail Trail	Buck Road to Newtown Rail Trail	0.08
56	Newtown Rail Trail Connector	East Holland Road to Newtown Rail Trail	0.06
57	Newtown Rail Trail Connector	East Village Road to Newtown Rail Trail	0.07
58	Newtown Rail Trail Connector - Hills of Northampton	Existing Trail to Newtown Rail Trail	0.34
59	Newtown Rail Trail Connector - Village Shires Neighborhood	Potters Place to Newtown Rail Trail	0.23
Total Proposed Shared Use Trails			5.11

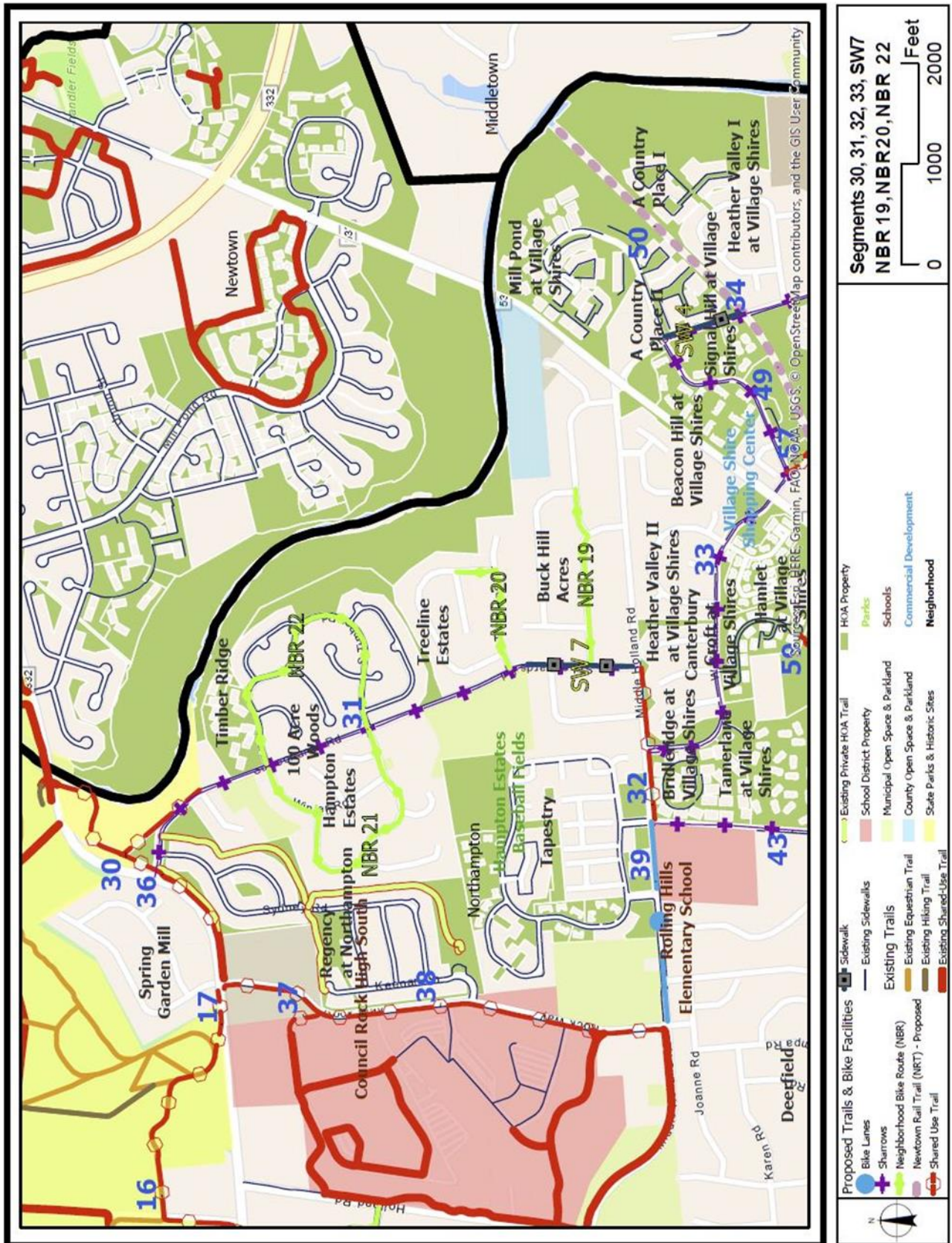
Segment	Newtown Rail Trail (Proposed)	Planning Area	Length (Miles)
47	East Holland Road to Old Jordan Road	East Holland Road to Old Jordan Road	0.77
48	Old Jordan Road to Buck Road	Old Jordan Road to Buck Road	0.56
48A	Newtown Rail Trail Alternate - Bucks County Roses'	Bucks County Roses	0.56
49	Buck Road to Stoneyford Road	Buck Road to Stoneyford Road	0.51
50	Stoneyford Road to Neshaminy Creek	Stoneyford Road to Neshaminy Creek	0.52
Total Proposed Newtown Rail Trail			2.35
*mileage not included in final amount since alternative			

Segment	Sidewalks	Segment End Points	Length (Miles)
SW 4	Stoneyford Road	East Village Road to bridge over Newtown Rail Line	0.15
SW 5	Holland Road	Rotterdam Road West to Karen Road	0.10
SW 6	Holland Road	East Holland Road to Vanderveer Road	0.20
SW 7	St. Leonards Road	Treeline Drive to Middle Holland Road	0.20
Total Proposed Sidewalks			0.64

Segment	Neighborhood Bike Route (NBR)	Segment End Points	Length (Miles)
NBR 18	Neighborhood Bike Route	Windmill Village	1.93
NBR 19	Neighborhood Bike Route	Buck Hill Acres	0.34
NBR 20	Neighborhood Bike Route	Treeline Estates	0.26
NBR 21	Neighborhood Bike Route	Hampton Estates	0.61
NBR 22	Neighborhood Bike Route	100 Acre Woods	0.63
NBR 23	Neighborhood Bike Route	Stoney Ford Estates	0.82
NBR 24	Neighborhood Bike Route	Hills at Northampton	1.72
Total Proposed Neighborhood Bike Routes			6.31

Total Proposed Mileage			20.26
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FIGURE 7 – SEGMENTS 30, 31, 32, 33, SW 7, NBR 19, NBR 20, NBR 22



30 - Neshaminy Greenway Trail Langhorne Players Theater/Spring Garden Mill to St. Leonards Road

30 - Neshaminy Greenway Trail Langhorne Players Theater/Spring Garden Mill to St. Leonards Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.41 miles

Summary:

- Provides a shared use trail along Newtown Richboro Road.
- Provides a connection to Tyler State Park.
- Will make use of the former right-of-way of Newtown Richboro Road.
- Will require easements from PA DCNR and coordination with PennDOT.
- Would connect to **31 - Neshaminy Greenway Trail Bicycle Sharrows** and **36 - Newtown Richboro Road Shared Use Trail**.

31 - Neshaminy Greenway Trail - St. Leonards Road Richboro Road to Middle Holland Road

31 - Neshaminy Greenway Trail - St. Leonards Road St. Leonards Road (Richboro Road to Middle Holland Road)

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.06 miles

Summary:

- Provides bicycle sharrows along St. Leonards Road.
- Provides connection to Tyler State Park and Hampton Estates Baseball Fields.
- Would connect to **30 - Neshaminy Greenway Shared Use Trail**, **32 - Neshaminy Greenway Shared Use Trail** and **36 - Newtown Richboro Road Shared Use Trail**.

32 - Neshaminy Greenway Trail - Middle Holland Road St. Leonards Road to Rolling Hills Elementary School

32 - Neshaminy Greenway Trail - Middle Holland Road St. Leonards Road to Rolling Hills Elementary School

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.29 miles

Summary:

- Provides a shared use trail along Middle Holland Road.
- Provides a connection to Rolling Hills Elementary School.
- Easements would need to be obtained from Village Shires HOA.
- Would connect to **31 - Neshaminy Greenway Trail Bicycle Sharrows**, **33 - Neshaminy Greenway Trail Bicycle Sharrows** and **43 - Old Jordan Road Bicycle Sharrows**.

33 - Neshaminy Greenway Trail - West Village Road and East Village Road Middle Holland Road to Stoneyford Road

33 - Neshaminy Greenway Trail - West Village Road and East Village Road Middle Holland Road to Stoneyford Road

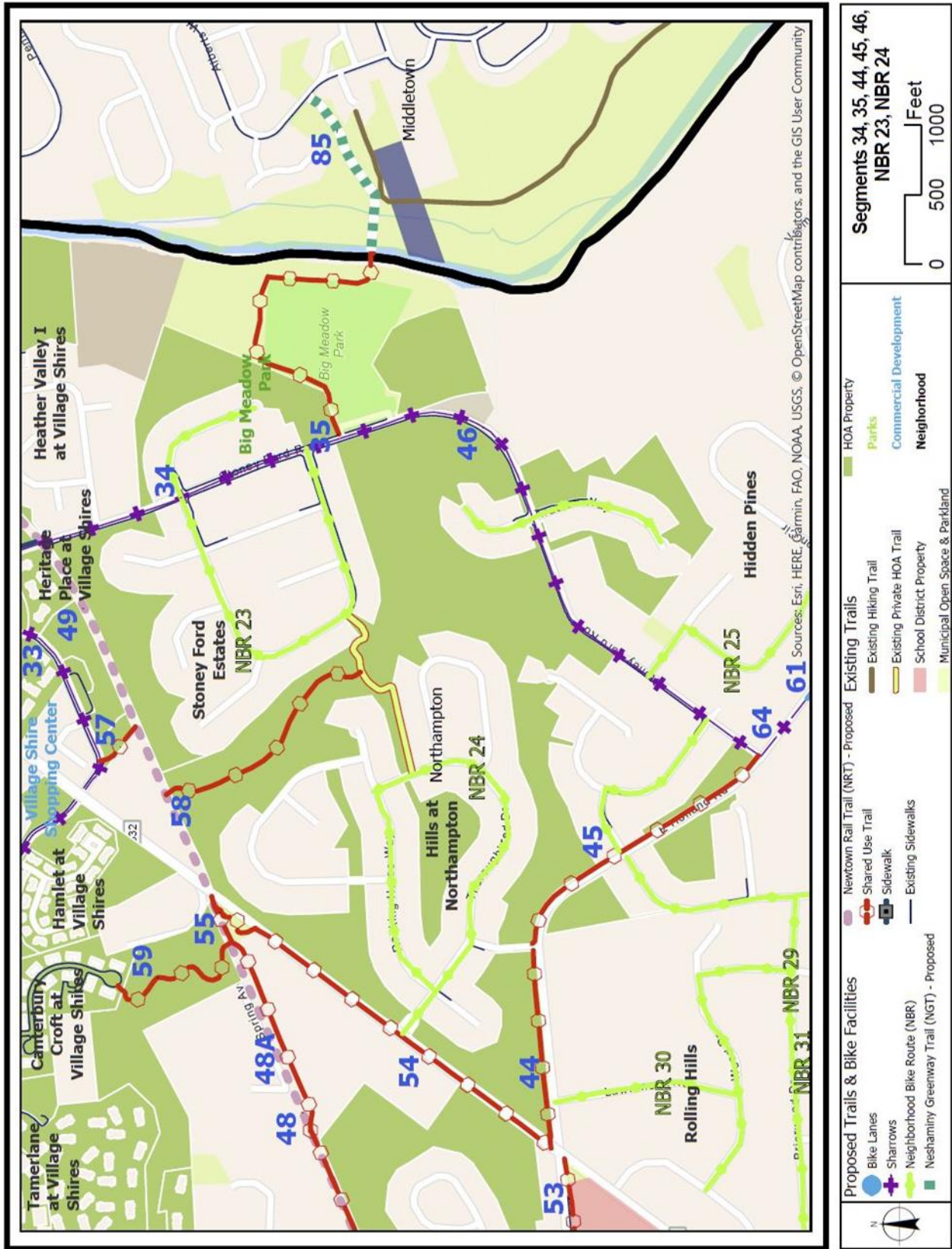
Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.65 miles

Summary:

- Provides bicycle sharrows along East and West Village Roads.
- Provides connection to Village Shires neighborhoods and Village Shire Shopping Center.
- Would connect to **32 - Neshaminy Greenway Shared Use Trail** and **34 - Neshaminy Greenway Trail Bicycle Sharrows**.

FIGURE 8 – SEGMENTS 34, 35, 44, 45, 46, NBR 23, NBR 24



34 - Neshaminy Greenway Trail - Stoneyford Road East and West Village Road to Big Meadow Park

34 - Neshaminy Greenway Trail East & West Village Road to Big Meadow Park

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.59 miles

Summary:

- Provides bicycle sharrows along Stoneyford Road.
- Provides connection between Big Meadow Park and **Newtown Rail Trail**.
- Would connect to **33 - Neshaminy Greenway Trail Bicycle Sharrows**, **35 - Big Meadow Park Shared Use Trail**, **46 - Stoneyford Road Bicycle Sharrows**, and **49 - Newtown Rail Shared Use Trail**.

35 - Neshaminy Greenway Trail - Big Meadow Park

35 - Neshaminy Greenway Trail Big Meadow Park

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.58 miles

Summary:

- Provides a shared use trail in Big Meadow Park.
- Provides a connection to Middletown Township and serves as a key link in the Neshaminy Greenway Trail.
- Would connect to **34 - East Holland Road Bicycle Sharrows** and **46 - Stoneyford Road Bicycle Sharrows**.

46 - Stoneyford Road - Big Meadow Park to East Holland Road

46 - Stoneyford Road Big Meadow Park to East Holland Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.82 miles

Summary:

- Provides bicycle sharrows along Stoneyford Road.
- Provides a connection to Big Meadow Park and the Neshaminy Greenway Trail.
- Would connect to **34 - East Holland Road Bicycle Sharrows**, **35 - Big Meadow Park Shared Use Trail**, **45 - East Holland Shared Use Trail**, and **64 - East Holland Road Bicycle Sharrows**.

45 - East Holland Road - Belmont Way to Stoneyford Road

45 - East Holland Road Belmont Way to Stoneyford Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.41 miles

Summary:

- Provides a shared use trail along East Holland Road.
- Provides connectivity to several neighborhoods.
- Right-of-way along this portion of East Holland Road is 80' wide meaning that the trail can be built without the need for easements, just cooperation from PennDOT since this is a state road.
- Would connect to **44 - East Holland Road Shared Use Trail** and **46 - Stoneyford Road Bicycle Sharrows**.

44 - East Holland Road - Buck Road to Belmont Way

44 - East Holland Road Buck Road to Belmont Way

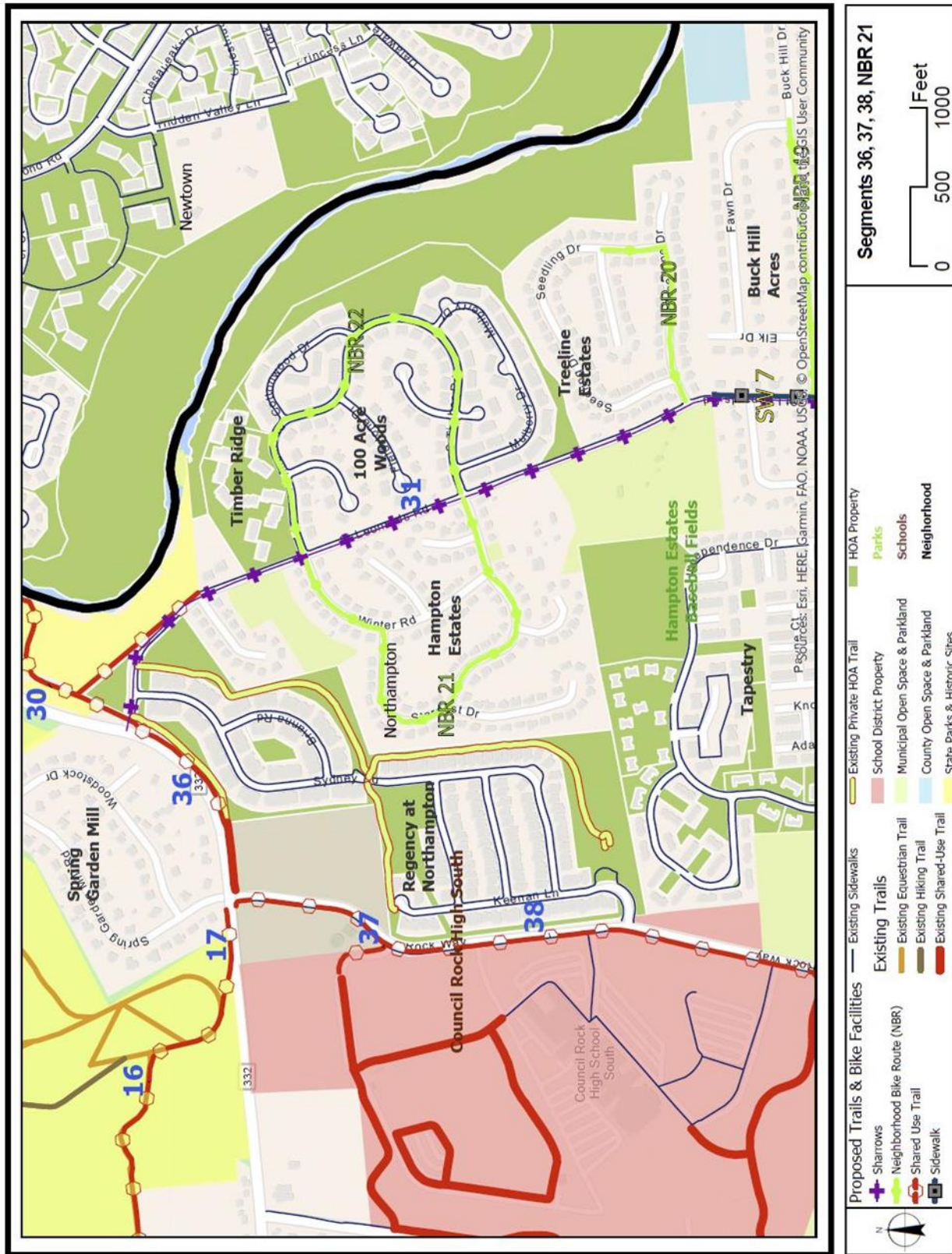
Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.26 miles

Summary:

- Provides a shared use trail along East Holland Road.
- Provides a connection to Hillcrest Elementary School and Holland Middle School.
- Will require an easement from the Hills at Northampton HOA.
- Would connect to **45 - East Holland Road Shared Use Trail**, **53 - East Holland Road Shared Use Trail** and **54 - Buck Road Shared Use Trail**.

FIGURE 9 – SEGMENTS 36, 37, 38, NBR 21



36 - Newtown Richboro Road (PennDOT ROW) - Rock Way to St. Leonards Road

36 - Newtown Richboro Road (PennDOT ROW) Rock Way to St. Leonards Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.33 miles

Summary:

- Provides a shared use trail along Newtown Richboro Road.
- Provides connection to Council Rock High School South.
- Will require significant engineering to address steep slope issues along this segment.
- Would connect to **30 - Neshaminy Greenway Shared Use Trail**, **31 - Neshaminy Greenway Trail Bicycle Sharrows** and **37 - Council Rock High School South Shared Use Trail**.

37 - Council Rock High School South

37 - Council Rock High School South

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.07 miles

Summary:

- Provides a shared use trail at Council Rock High School South and completes a loop sidewalk/trail network on the campus.
- Provides a connection to existing sidewalk along Rock Way.
- Would connect to **38 - Neshaminy Greenway Shared Use Trail** as well as existing sidewalks and planned upgrade to trail for current sidewalks along Rock Way.

38 - Rock Way - Richboro Road to Middle Holland Road

38 - Rock Way Richboro Road to Middle Holland Road

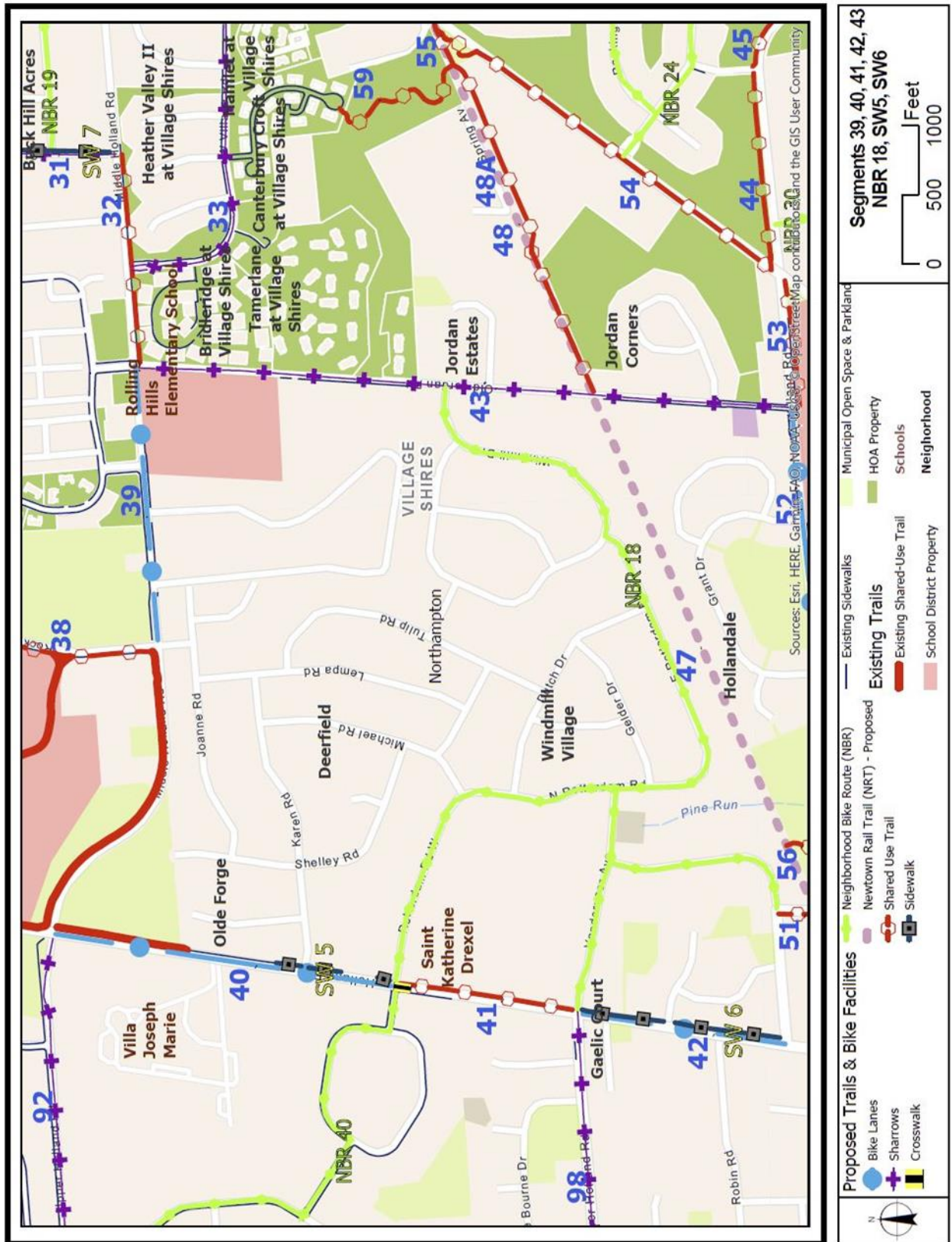
Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.89 miles

Summary:

- Provides a shared use trail along Rock Way by upgrading the existing sidewalk.
- Provides a connection to Council Rock High School South.
- Would connect to **37 - Council Rock High School South Shared Use Trail**, **39 - Middle Holland Road Bicycle Lanes**, proposed **Newtown Richboro Road Shared Use Trail**.

FIGURE 10 – SEGMENTS 39, 40, 41, 42, 43, NBR 18, SW 5, SW 6



39 - Middle Holland Road - Rock Way to Old Jordan Road

39 - Middle Holland Road Rock Way to Old Jordan Road

Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.38 miles

Summary:

- Provides dedicated bicycle lanes along Middle Holland Road.
- Serves as a critical connection between **38 - Rock Way Shared Use Trail** and **33 - Neshaminy Greenway Shared Use Trail (Middle Holland Road)** and **34 - Neshaminy Greenway Bicycle Sharrows** along West Village and East Village Roads.
- Provides connection to Council Rock High School South, Hampton Estates and Rolling Hills Elementary School.
- Will require cooperation from PennDOT and be dependent on their resurfacing schedule since Middle Holland Road is a PennDOT maintained road.
- Would connect to **38 - Rock Way Shared Use Trail**, **32 - Neshaminy Greenway Trail**, **33 - Neshaminy Greenway Trail**, and **43 - Old Jordan Road**.

43 - Old Jordan Road - Middle Holland Road to East Holland Road

43 - Old Jordan Road Middle Holland Road to East Holland Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.89 miles

Summary:

- Provides bicycle sharrows along Old Jordan Road.
- Provides connection to Rolling Hills Elementary School, **Newtown Rail Trail** and Holland Middle School.
- Would connect to **32 - Neshaminy Greenway Shared Use Trail**, **47 - Newtown Rail Shared Use Trail**, **48 - Newtown Rail Shared Use Trail**, **52 - East Holland Road Bicycle Sharrows** and **53 - East Holland Road Shared Use Trail**.
- Narrow pavement width and 50' right-of-way width limit the potential for bicycle lanes and/or a shared use trail within the right-of-way. However, via easements from Council Rock School District, Twining Village, and several private property owners along Old Jordan Road, it might be possible in the future to establish a shared use trail along the east side to provide safer bicycle connectivity in this area.

40 - Holland Road - Rotterdam Road West to Middle Holland Road/Upper Holland Road

40 - Holland Road

Rotterdam Road West to Middle Holland Road/Upper Holland Road

Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.46 miles

Summary:

- Provides dedicated bicycle lanes along Holland Road.
- Will require cooperation from PennDOT and be dependent on their resurfacing schedule since Holland Road is a PennDOT maintained road.
- Provides connection to Council Rock High School South and Villa Joseph Marie High School.
- Would connect to **41 - Holland Road Shared Use Trail** and **92 - Upper Holland Road**.

41 - Holland Road - Vanderveer Avenue to Rotterdam Road West

41 - Holland Road

Vanderveer Avenue to Rotterdam Road West

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.24 miles

Summary:

- Provides a shared use trail along Holland Road.
- Provides connection to Katherine Drexel Regional Catholic School.
- Will require three easements including one from the Archdiocese of Philadelphia.
- Would connect to **40 & 42 - Holland Road Bicycle Lanes**.

42 - Holland Road - East Holland Road to Lower Holland Road/Vanderveer Avenue

42 - Holland Road

East Holland Road to Lower Holland Road/Vanderveer Avenue

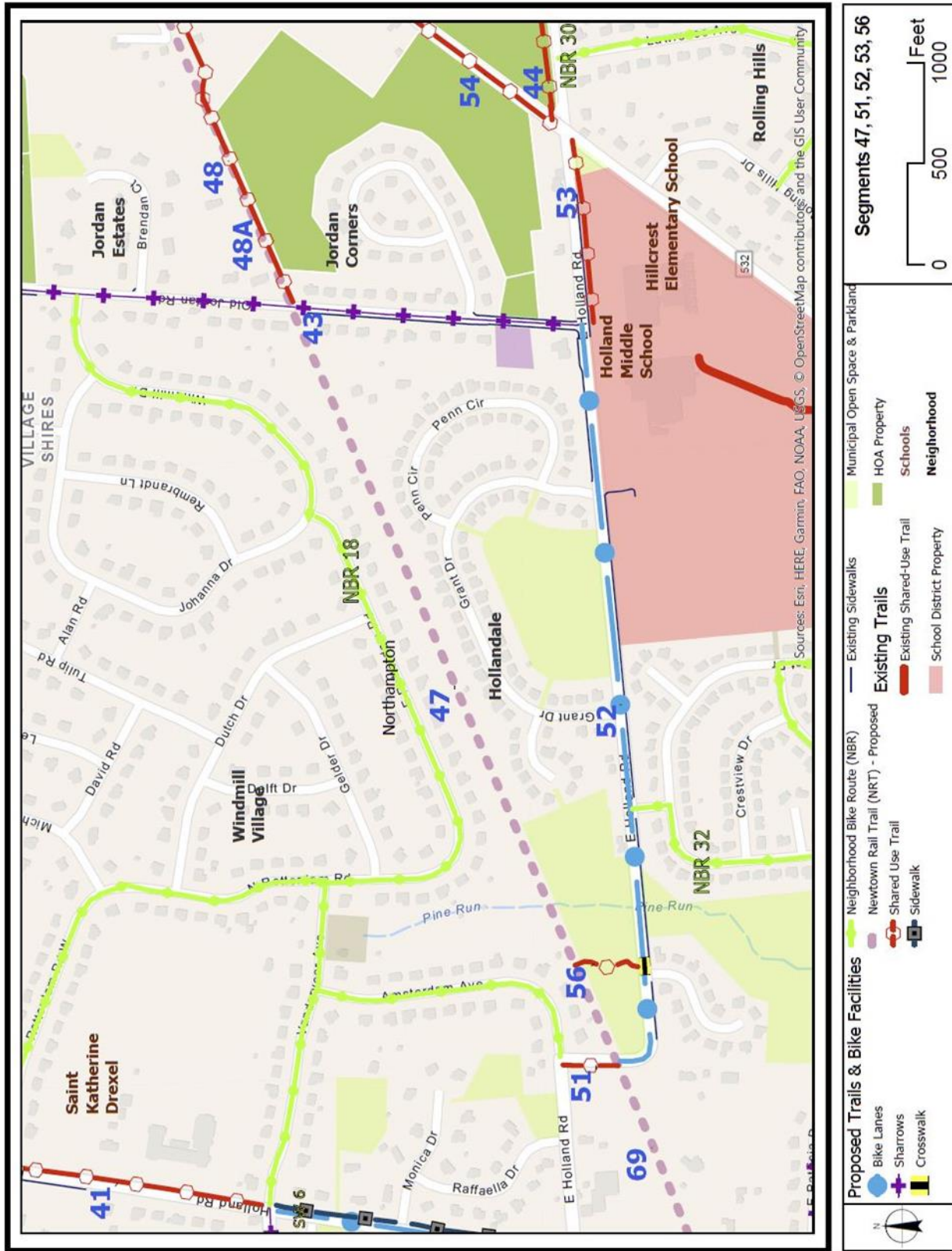
Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.28 miles

Summary:

- Provides dedicated bicycle lanes along Holland Road.
- Provides connection to Katherine Drexel Regional Catholic School.
- Via a combination of Monica Drive, Raffaella Drive, and East Holland Road, provides a connection to the **Newtown Rail Trail**.
- Would connect to **41 - Holland Road Shared Use Trail**.

FIGURE 11 – SEGMENTS 47, 51, 52, 53, 56



47 - Newtown Rail Trail - East Holland Road to Old Jordan Road

47 - Newtown Rail Trail East Holland Road to Old Jordan Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.77 miles

Summary:

- Provides connection to **43 - Old Jordan Road Bicycle Sharrows**, **51 - East Holland Road Shared Use Trail**, and **56 - Newtown Rail Trail Shared Use Trail Connector**.
- Provides the safest route between East Holland Road and Old Jordan Road for users of all abilities.
- Landscape buffering, fencing and signage would be provided to minimize any potential impacts to adjacent property owners.

51 - East Holland Road (West side ROW) Amsterdam Avenue to existing sidewalk at Pine Run

51 - East Holland Road (West side ROW) Amsterdam Avenue to Existing sidewalk at Pine Run

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.05 miles

Summary:

- Provides a shared use trail along East Holland Road.
- Provides connection to **Newtown Rail Trail** for neighborhoods north of the **Newtown Rail Trail** and east of Holland Road.
- Would connect to **52 - East Holland Road Bicycle Lanes** and **56 - Newtown Rail Shared Use Trail**.

52 - East Holland Road - Bend near Pine Run to Buck Road

52 - East Holland Road Bend near Pine Run to Buck Road

Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.72 miles

Summary:

- Provides dedicated bicycle lanes along East Holland Road.
- Provides connection between Holland Middle School and **47 - Newtown Rail Shared Use Trail**.
- Would connect to **43 - Old Jordan Road**, **47 - Newtown Rail Shared Use Trail**, **51 - East Holland Road (West Side ROW)**, and **53 - East Holland Road Trail**.
- Although a dedicated bicycle lane versus bicycle sharrows, this route would primarily be used by experienced bicyclists as it is not as safe for inexperienced and younger bicyclists.

53 - East Holland Road - Old Jordan Road to Buck Road

53 - East Holland Road Old Jordan Road to Buck Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.17 miles

Summary:

- Provides a shared use trail along the south side of East Holland Road.
- Provides connection to Holland Middle School and Hillcrest Elementary School.
- Will require an easement from Council Rock School District.
- Will require some engineering to address slope issues along the frontage of the school properties.
- Would connect to **43 - Old Jordan Road Bicycle Sharrows, 44 - East Holland Road Shared Use Trail, 52 - East Holland Road Bicycle Lanes** and **54 - Buck Road Shared Use Trail**.

56 - Newtown Rail Trail Connector - East Holland Road to Newtown Rail Trail

56 - Newtown Rail Trail Connector East Holland Road to Newtown Rail Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.07 miles

Summary:

- Provides a shared use connector trail between Larch Circle and Pine Run neighborhoods to the **Newtown Rail Trail**.
- Would connect to **47 - Newtown Rail Shared Use Trail** and **52 - East Holland Road Bicycle Lanes**.

FIGURE 12 – SEGMENTS 48, 48A, 54, 55, 59



48 - Newtown Rail Trail - Old Jordan Road to Buck Road

48 - Newtown Rail Trail Old Jordan Road to Buck Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.56 miles

Summary:

- Provides the safest route between Old Jordan Road and Buck Road via a shared use trail within the SEPTA right-of-way.
- Few environmental and engineering constraints since the trail would be located within the relatively level railroad corridor.
- Landscape buffering, fencing and signage would be provided to minimize any potential impacts to adjacent property owners.
- Provides connection to **43 - Old Jordan Road Bicycle Sharrows**, **55 - Buck Road to Newtown Rail Shared Use Trail**, and **59 - Newtown Rail Shared Use Trail Connector - Village Shires Neighborhood**.

48A - Newtown Rail Trail Alternate - Bucks County Roses

48A - Newtown Rail Trail Alternate Bucks County Roses

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.29 miles

Summary:

- Provides a shared use trail along Bucks County Roses Property as an alternative to remaining within the SEPTA railroad corridor.
- Provides trail separation from nearby homes on Spring Avenue.
- Would connect to **48 - Newtown Rail Shared Use Trail**, **59 - Newtown Rail Shared Use Trail Connector - Village Shires Neighborhood**.

54 - Buck Road - East Holland Road to Northampton Twsp Parcel (TMP #31-035-008-001)

54 - Buck Road

East Holland Road to Northampton Twsp Parcel (TMP #31-035-008-001)

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.61 miles

Summary:

- Provides a shared use trail along Buck Road.
- Would require significant coordination and approval from PennDOT given that Buck Road is a PennDOT maintained road.
- Extensive engineering and a traffic impact study would be required due to realignment of traffic lanes.
- Would connect to **44 - East Holland Road Shared Use Trail**, **53 - East Holland Road Shared Use Trail**, and via **55 - Buck Road/Newtown Rail Trail Shared Use Trail Connector**, and the **Newtown Rail Trail**.

55 - Northampton Township Property (TMP #31-035-008-001) at Newtown Rail Trail Buck Road to Newtown Rail Trail

55 - Northampton Township Property (TMP #31-035-008-001) at Newtown Rail Trail Buck Road to Newtown Rail Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.08 miles

Summary:

- Provides a shared use trail on Township Property.
- Provides connection to **Newtown Rail Trail**.
- Would connect to **54 - Buck Road Shared Use Trail** and **48 - Newtown Rail Shared Use Trail**.
- Given the slope conditions on this site, the trail would require a fair amount of engineering and the use of a switchback trail with retaining walls to traverse the slope between the **Newtown Rail Trail** and **54 - Buck Road Shared Use Trail**.

59 - Newtown Rail Trail Connector - Village Shires Neighborhood Potters Place to Newtown Rail Trail

59 - Newtown Rail Trail Connector - Village Shires Neighborhood Potters Place to Newtown Rail Trail

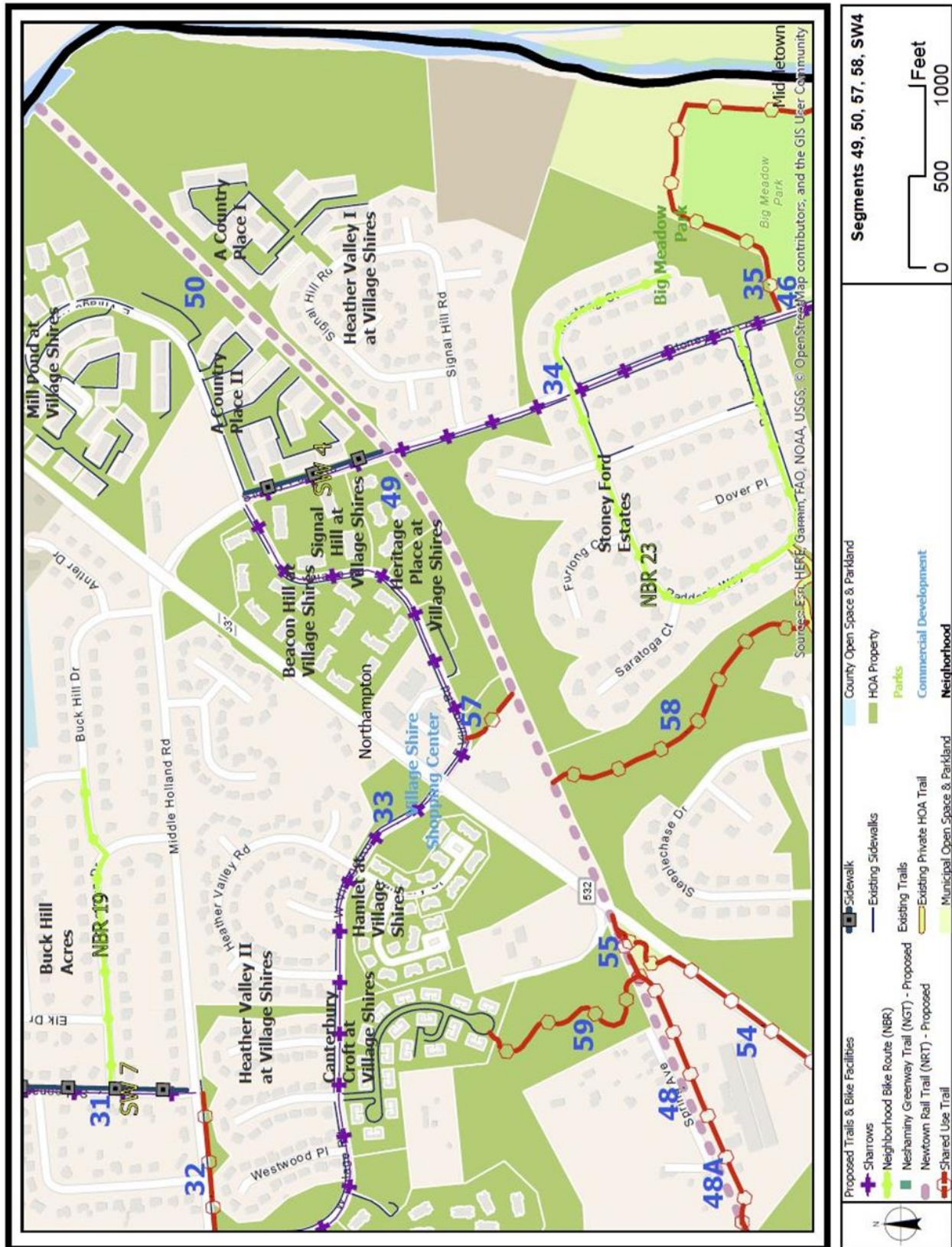
Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.23 miles

Summary:

- Provides a shared use trail between several Village Shires neighborhoods and the **Newtown Rail Trail**.
- Will require an easement from the Village Shires HOA since the trail would be located on their property.
- Design and development of the trail would require some engineering due to the presence of steep slopes along the proposed alignment.
- Would connect to **48 - Newtown Rail Shared Use Trail**.

FIGURE 13 – SEGMENTS 49, 50, 57, 58, SW 4



49 - Newtown Rail Trail - Buck Road to Stoneyford Road

49 - Newtown Rail Trail Buck Road to Stoneyford Road

Trail/Bicycle Facility Type and Length:

49 - Shared Use Trail: 0.51 miles

Summary:

- **49 - Buck Road to Stoneyford Road**
Provides connection to **34 - Neshaminy Greenway Trail Bicycle Sharrows**, **55 - Buck Road to Newtown Rail Shared Use Trail**, **57 - Newtown Rail Shared Use Trail Connector**, and **50 - Newtown Rail Shared Use Trail**.
- Serves as the primary access points to the **Newtown Rail Trail** for the Village Shires neighborhoods located south of Buck Road and west of Stoneyford Road, as well as Hills at Northampton and Stoney Ford Estates.

50 - Newtown Rail Trail - Stoneyford Road to Neshaminy Creek

50 - Newtown Rail Trail Stoneyford Road to Neshaminy Creek

Trail/Bicycle Facility Type and Length:

50 - Shared Use Trail: 0.52 miles

Summary:

- **50 - Stoneyford Road to Neshaminy Creek**
Provides connection to **34 - Stoneyford Road Bicycle Sharrows** and **49 - Newtown Rail Shared Use Trail** to Middletown Township.
- Facilitates continuation of the **Newtown Rail Trail** over the Neshaminy Creek and into Middletown and Newtown Townships and Newtown Borough.

57 - Newtown Rail Trail Connector - East Village Road to Newtown Rail Trail

57 - Newtown Rail Trail Connector East Village Road to Newtown Rail Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.06 miles

Summary:

- Provides a shared use trail connection to **Newtown Rail Trail** and Village Shires Shopping Center.
- Would require an easement from Village Shires HOA, or potential acquisition of this parcel which was originally the proposed location for a station in Village Shires for the former train line. Regardless, the site serves as an ideal trailhead location given its proximity to several residential neighborhoods within walking distance, while also providing parking spaces for those traveling to the trail.
- Would connect to **33 - Neshaminy Greenway Trail Bicycle Sharrows** and **49 - Newtown Rail Shared Use Trail**.

58 - Newtown Rail Trail Connector - Hills of Northampton - Existing Trail to Newtown Rail Trail

58 - Newtown Rail Trail Connector - Hills of Northampton Existing Trail to Newtown Rail Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.34 miles

Summary:

- Provides a shared use trail from the existing trail running between Hills at Northampton and Stoney Ford Estates connecting to the **Newtown Rail Trail**.
- Provides connection to several neighborhoods and enhance access to the Village Shires Shopping Center for those living in the Hills at Northampton and Stoney Ford Estates neighborhoods who would be able to walk.
- Would connect to **49 - Newtown Rail Shared Use Trail**.

Sidewalks - Segments SW 4 through SW 7

Sidewalks

Trail/Bicycle Facility Type and Length:

SW 4	Sidewalk	0.15 miles
SW 5	Sidewalk	0.10 miles
SW 6	Sidewalk	0.26 miles
SW 7	Sidewalk	0.20 miles

Summary:

- **SW 4 - Stoneyford Road - East Village Road to bridge over Newtown Rail Trail**
Provides pedestrian connection along East Village Road
- **SW 5 - Holland Road - Rotterdam Road West to Karen Road**
Continues existing sidewalk along East Holland Road
- **SW 6 - Holland Road - East Holland Road to Vanderveer Avenue**
Provides pedestrian connection along Holland Road
- **SW 7 - St. Leonards Road - Treeline Drive to Middle Holland Road**
Continues existing sidewalk along St Leonards Road to Middle Holland Road

Neighborhood Bike Routes (NBR) 18 through 24

Neighborhood Bike Routes (NBR) 18 through 24

Trail/Bicycle Facility Type and Length:

NBR 18 Neighborhood Bike Route	1.93 miles
NBR 19 Neighborhood Bike Route	0.34 miles
NBR 20 Neighborhood Bike Route	0.26 miles
NBR 21 Neighborhood Bike Route	0.61 miles
NBR 22 Neighborhood Bike Route	0.63 miles
NBR 23 Neighborhood Bike Route	0.82 miles
NBR 24 Neighborhood Bike Route	1.72 miles

Summary

- **NBR 18 - Windmill Village**
Provides connection to **40 - Holland Road Bicycle Lanes, 41 - Holland Road Shared Use Trail, 42 - Holland Road Bicycle Lanes, 43 - Old Jordan Road Bicycle Sharrows, 51 - East Holland Road (West Side ROW) Shared Use Trail,** and Katherine Drexel Regional Catholic School
- **NBR 19 - Buck Hill Acres**
Provides connection to **31 - Neshaminy Greenway Trail Bicycle Sharrows**
- **NBR 20 - Treeline Estates**
Provides connection to **31 - Neshaminy Greenway Trail Bicycle Sharrows**
- **NBR 21 - Hampton Estates**
Provides connection to **31 - Neshaminy Greenway Trail Bicycle Sharrows**
- **NBR 22 - 100 Acre Woods**
Provides connection to **31 - Neshaminy Greenway Trail Bicycle Sharrows**
- **NBR 23 - Stoney Ford Estates**
Provides connection to **31 - Neshaminy Greenway Trail Bicycle Sharrows** and Hills at Northampton
- **NBR 24 - Hills at Northampton**
Provides connection to **31 - Neshaminy Greenway Trail Bicycle Sharrows, 45 - East Holland Road Shared Use Trail** and Stoney Ford Estates.

PLANNING AREA 4

This planning area, located in the southeast corner of the township, is bounded by East Holland and Stoneyford Roads to the north, the Neshaminy Creek to the east, Bridgetown Pike (Route 213) and the Neshaminy Creek to the south, and the Lower Southampton Township municipal boundary, and Holland Road to the west. The features of this area are described below:

Land Use

Land use in this planning area is comprised of:

- Single Family Residential, which represents the largest land use in this planning area, and Rural Residential;
- Educational/Institutional uses in the form of Holland Elementary School, Holland Middle School and Hillcrest Elementary School;
- Parks and Open Space including county-owned property along the Neshaminy Creek, Langhorne Rod & Gun Club, and Pine Run Creek open space area; and
- Commercial (Village of Holland).

Natural Features

Topography

- Marked changes in topography occur along the Mill Creek corridor, running south of Rocksville Road and north of Bridgetown Pike, from the intersection of Buck and Holland roads to the intersection of E. Heron Road and Bridgetown Pike. Additional areas with steep slopes include the open space areas located between Bridgetown Pike to the north and the Neshaminy Creek to the south behind the Hidden Creek, Creekwood and Nottinghill Chase neighborhoods; along the western slopes of the Neshaminy Creek valley between the Langhorne Rod & Gun club to Bridgetown Pike; and along the Pine Run creek corridor particularly in the Timber Valley and Hillcrestshire neighborhoods.

Water resources

- The area is part of the Neshaminy Creek watershed with the primary secondary watersheds in this area being the Ironworks Creek, Mill Creek, Core Creek and Pine Run watersheds.

Wetlands

- The two largest wetland areas in this planning area include the Pine Run riparian corridor particularly in the Pine Run, Holland Manor, Wood Lake and The Meadows neighborhoods and behind the Hidden Creek and Creekwood neighborhoods off of Bridgetown Pike.

Woodlands and Natural Areas

- The primary wooded areas in this area include the riparian corridors along the Neshaminy, Pine Run and Mill Creek.

Man-Made Features

Commercial Areas

- Village of Holland
- Pheasant Valley Center
- Holland Shopping Center

Parks and Recreation Areas

- Breezy Point Day Camp
- Lower Bucks Family YMCA - Holland Outdoor Center

Schools

- Holland Middle School
- Hillcrest Elementary School
- Holland Elementary School

Principal Arterial Roadways

- Buck Road (Route 532)

Major Collector Roadways

- Holland Road
- Bridgetown Pike
- East Holland Road
- Old Bristol Road

Existing Trails

Area	Existing Trail	Type of Trail	Mileage
4	Rocksville Road to Hope Road	Shared Use	0.39
4	Bellwood Drive	Shared Use	0.13
4	Bridgetown Pike to the Neshaminy Creek	Hiking Trail	0.51
4	Holland Middle School Complex	Shared Use	0.22
Total Area 4			1.25

Master Trail and Bicycle Plan

TABLE 22 – PROPOSED TRAILS & BICYCLE FACILITIES – PLANNING AREA 4

Segment	Dedicated Bike Lane Segments	Segment End Points	Length (Miles)
60	Holland Village - Buck Road	Elaine Drive to Holland Commons & Holland Village SC	0.15
61	E Holland Road	850' Frontage of East Ridge & Hidden Pines up to Pepperell Dr/ Stallion Cir	0.16
62	E Holland Road	Pepperell Dr/Stallion Cir to Bridgetown Pike	0.35
Total Proposed Bike Lanes			0.66

Segment	Sharrows Segments	Segment End Points	Length (Miles)
63	Bridgetown Pike	East Holland Road to Newtown-Langhorne Road	1.10
64	E Holland Road	Stoneyford Road to widening of road 850' northwest of Pepperell Drive	0.10
65	Crescent Drive, Mallard Road & Heron Road	Holland Elementary School to Buck Road	0.41
66	E Heron Road	Buck Road to Bridgetown Pike	0.97
67	E Patricia Road/Beverly Road	Holland Road to Crescent Drive	0.67
68	Rocksville Road	Buck Road to Wooden Bridge Road	0.77
Total Proposed Sharrows			4.02

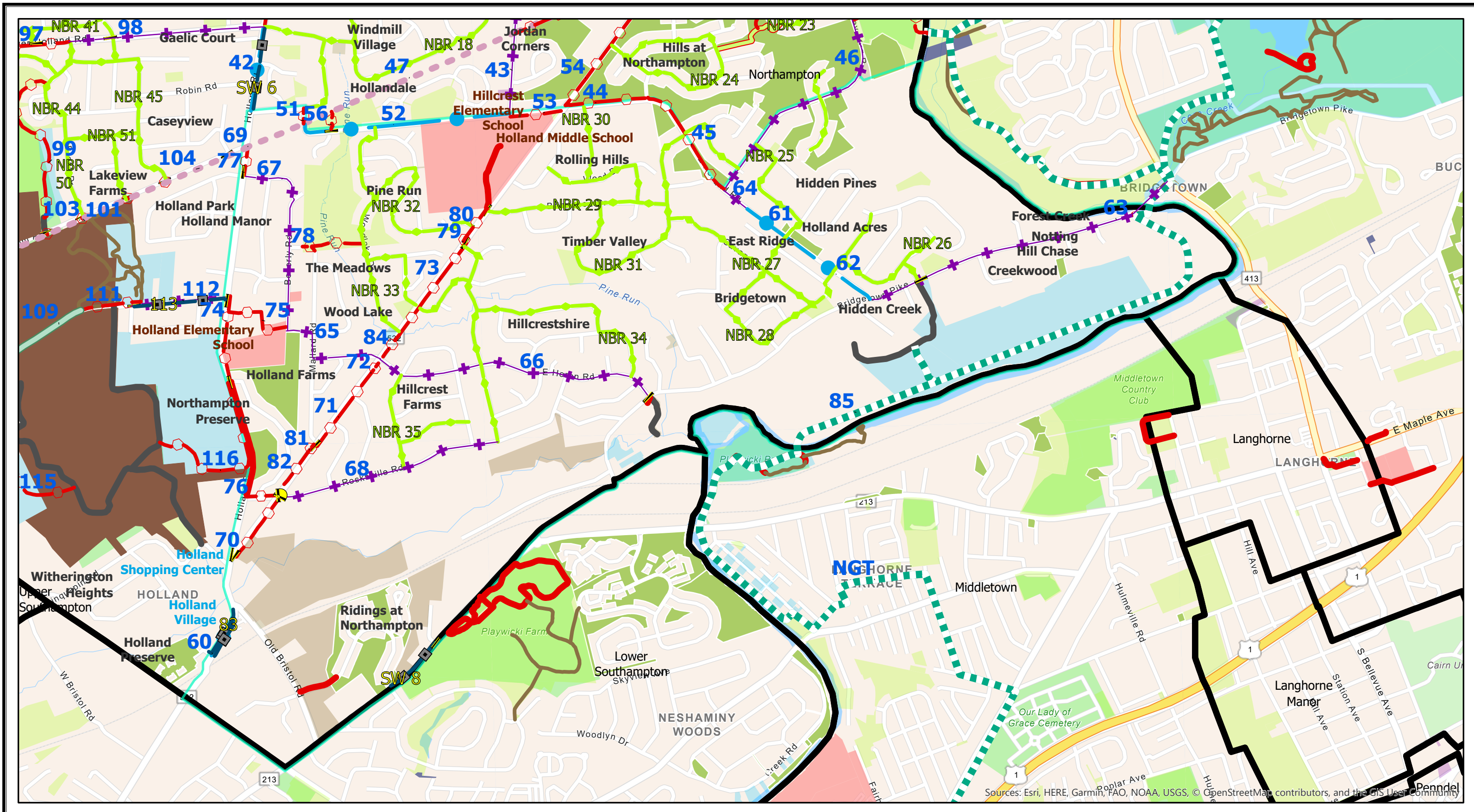
Segment	Shared Use Trails	Segment End Points	Length (Miles)
70	Buck Road	Crescent Drive to Holland Road	0.24
71	Buck Road	Mallard Road to Northampton Presbyterian Church	0.42
72	Buck Road	Northampton Presbyterian Church Frontage to E Heron Road	0.04
73	Buck Road	Pine Run Creek Bridge/Woodlake Drive to Kings Way Drive	0.36
74	Holland Road	Hope Road to Churchville Lane	0.28
75	Holland E.S./Lower Bucks Holland Outdoor Recreation	Crescent Drive to Holland Road	0.25
76	Rocksville Road	Holland Road to Buck Road	0.10
77	Holland Road	E Patricia Road to Newtown Rail Trail	0.09
78	Pine Run	Beverly Road/Mallard Road/Woodlake Drive	0.22
79	Buck Road	Kings Way Drive to start of sidewalk south of Forrest Drive	0.01
80	Buck Road	Pine Run Frontage at Forrest Drive	0.12
81	Buck Road	TMP 31-031-001 & 175' SW from Mallard Road	0.03
82	Buck Road	Rocksville Road to TMP 31-031-001	0.13
85	Neshaminy Greenway Trail (Proposed)	Bridgetown Pike to Playwicki Park	2.03
84	Buck Road	E Heron Road to Woodlake Drive	0.10
Total Proposed Shared Use Trails			4.44

Segment	Newtown Rail Trail (Proposed)	Segment End Points	Length (Miles)
69	Newtown Rail Trail	Holland Road to East Holland Road	0.22
Total Proposed Newtown Rail Trail			0.22

Segment	Sidewalks	Segment End Points	Length (Miles)
83	Holland Village - Buck Road	Elaine Drive to Holland Commons & Holland Village SC	0.27
SW 8	Bridgetown Pike	Bellwood Drive to Vernasa Drive/Playwicki Farm Connection	0.21
Total Proposed Sidewalks			0.48

Segment	Neighborhood Bike Route (NBR)	Segment End Points	Length (Miles)
NBR 24	Neighborhood Bike Route	Hills at Northampton#	0.57
NBR 25	Neighborhood Bike Route	Hidden Pines	0.46
NBR 26	Neighborhood Bike Route	Holland Acres	0.71
NBR 27	Neighborhood Bike Route	East Ridge	0.61
NBR 28	Neighborhood Bike Route	Bridgetown	0.54
NBR 29	Neighborhood Bike Route	Briarwood Dr, Zelkova Dr, Wood Dr	0.87
NBR 30	Neighborhood Bike Route	Rolling Hills	0.44
NBR 31	Neighborhood Bike Route	Timber Valley	0.83
NBR 32	Neighborhood Bike Route	Pine Run	1.15
NBR 33	Neighborhood Bike Route	The Meadows	0.63
NBR 34	Neighborhood Bike Route	Hillcrestshire	1.65
NBR 35	Neighborhood Bike Route	Hillcrest Farms	0.58
Total Proposed Neighborhood Bike Routes			9.03

Total Proposed Mileage			18.85
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Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

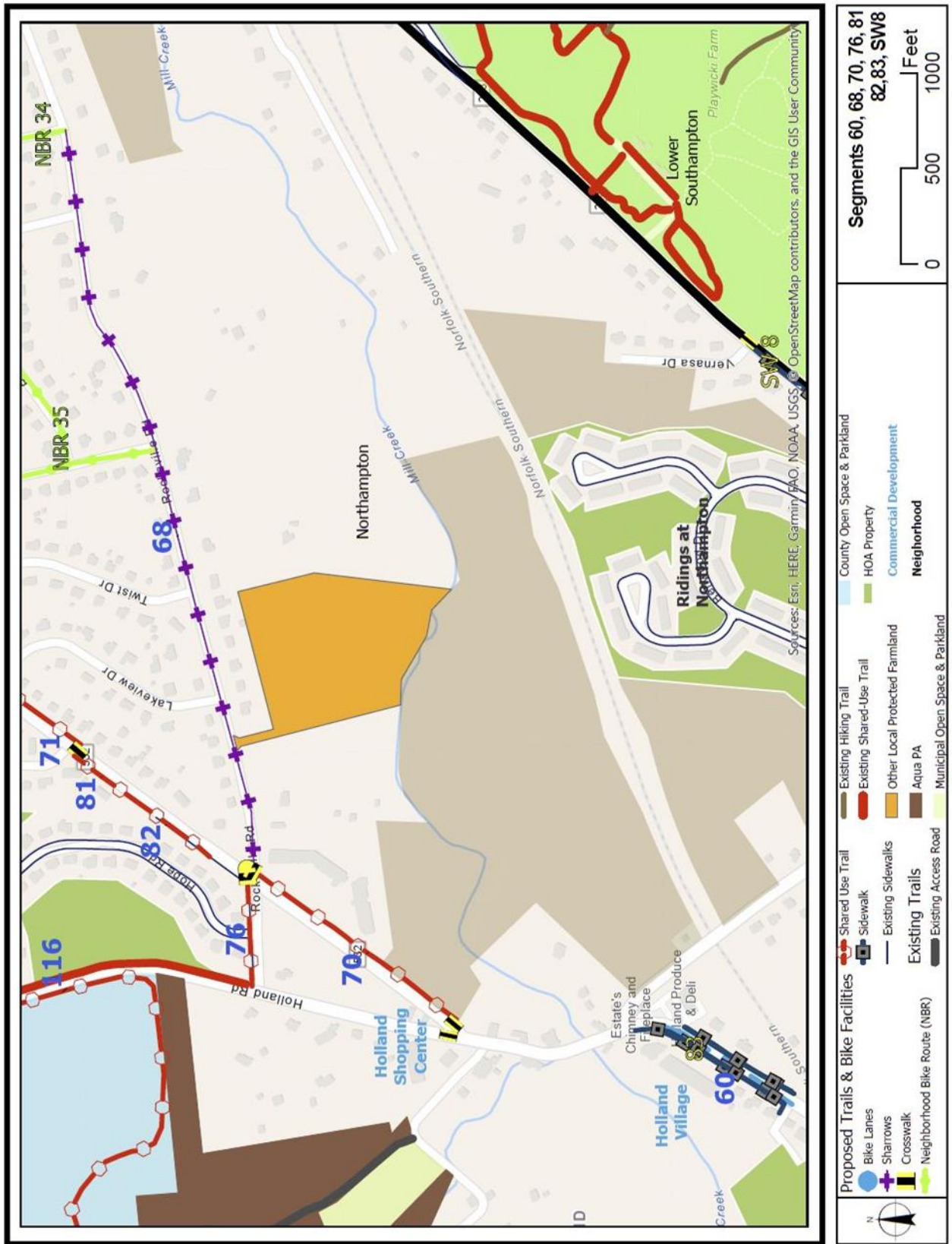
BCPC
Bucks County Planning Commission

0 0.25 0.5 Miles

Proposed Trails & Bike Facilities		Existing Trails		Municipal Open Space & Parkland		Bucks Co Water & Sewer Authority	
	Bike Lanes		Neshaminy Greenway Trail (NGT) - Proposed		Municipal Open Space & Parkland		Bucks Co Water & Sewer Authority
	Sharrows		Newtown Rail Trail (NRT) - Proposed		County Open Space & Parkland		Northampton Bucks Co Municipal Authority
	Crosswalk		Shared Use Trail		HOA Property		Planning Area 4
	Floating Boardwalk		Sidewalk		Land Trust Property		Schools
	Neighborhood Bike Route (NBR)		Existing Access Road		PECO		Neighborhood
			Existing Hiking Trail		PECO		Commercial Development
			Existing Shared-Use Trail				
			Existing Private HOA Trail				
			Municipal Boundaries				
			Aqua PA				
			School District Property				

Planning Area 4 Map 19

FIGURE 14 – SEGMENTS 60, 68, 70, 76, 81, 82, 83, SW 8



60 & 83- Holland Village - Buck Road - Elaine Drive to Holland Commons & Holland Village Shopping Center

60 & 83 - Holland Village - Buck Road Elaine Drive to Holland Commons & Holland Village Shopping Center

Trail/Bicycle Facility Type and Length:

60 - Bicycle Lanes: 0.15 miles

83 - Sidewalk: 0.15 miles

Summary:

- Provides bicycle and sidewalk facilities for Holland Village.
- Buildings close to the road combined, with the narrowness of the existing bridge over Ironworks/Mill Creek, constrain the ability to extend the bicycle lanes north to connect to the **Buck Road Shared Use Trail**.
- Bicycle lanes would be supplemented by the installation of sidewalks within Holland Village to increase pedestrian friendliness and provide residents of Holland Preserve a safer way to access Holland Village.

68 - Rocksville Road - Buck Road to Wooden Bridge Road

68 - Rocksville Road Buck Road to Wooden Bridge Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.77 miles

Summary:

- Serves Hillcrestshire and Hillcrest Farms neighborhoods.
- Connects to **70 & 82- Buck Road Shared Use Trail** and **76 - Rocksville Road Shared Use Trail**.
- Provides a bicycle facility as an alternative to a trail running along the Mill Creek corridor given the environmental and right-of-way ownership constraints associated with that corridor which prevent the establishment of a bicycle friendly trail adjacent to the creek.

76 - Rocksville Road - Holland Road to Buck Road

76 - Rocksville Road Holland Road to Buck Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.15 miles

Summary:

- Provides connection to Pheasant Valley Center.
- Connects to **70 & 82 - Buck Road Shared Use Trail**.
- Would also connect to the existing shared use trail on Holland Road providing access to Holland Elementary School and Holland Outdoor Recreation Center.

70 - Buck Road - Crescent Drive to Holland Road

70 - Buck Road Crescent Drive to Holland Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.24 miles

Summary:

- Serves as a key connection between the Holland Village area and Pheasant Valley Shopping Center.
- Would be the southern leg of an overall trail along Buck Road extending from its intersection with Holland Road to the existing pathway on the grounds of Holland Middle School and Hillcrest Elementary School.
- Will require easements from Heritage Conservancy and the Pheasant Valley Center.
- Sidewalks are proposed to cross both Buck Road and Holland Road at the split.
- Engineering will be required to address the steep slopes along the southeast side of Buck Road between Holland Road and Pheasant Valley Center.
- Connects to **68 - Rocksville Road Bicycle Sharrows**, **82 - Buck Road Shared Use Trail** and **76 - Rocksville Road Shared Use Trail**.

82 - Buck Road - Rocksville Road to TMP 31-031-001

82 - Buck Road Rocksville Road to TMP 31-031-001

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.13 miles

Summary:

- The initial 250' portion of this segment of the **Buck Road Shared Use Trail**, starting at the intersection of Rocksville Road, will be limited to the existing sidewalk along the northwest side of Buck Road. This is due to the right-of-way in Buck Road only being 50' resulting in insufficient room for a shared use trail.
- After the initial 250' the trail would be located in right-of-way along the northwest side of Buck Road as the right-of-way widens to 60' then 80' then narrows to 50' again as it approaches the intersection with Mallard Road.
- Upon reaching TMP 31-031-001, as the trail approaches Mallard Road, an easement will be required as part of segment **81 - Buck Road Shared Use Trail**.
- Connects to **70 & 81 - Buck Road Shared Use Trail**.

81 - Buck Road - TMP 31-031-001 (175' SW from Mallard Road)

81 - Buck Road

TMP 31-031-001 (175' SW from Mallard Road)

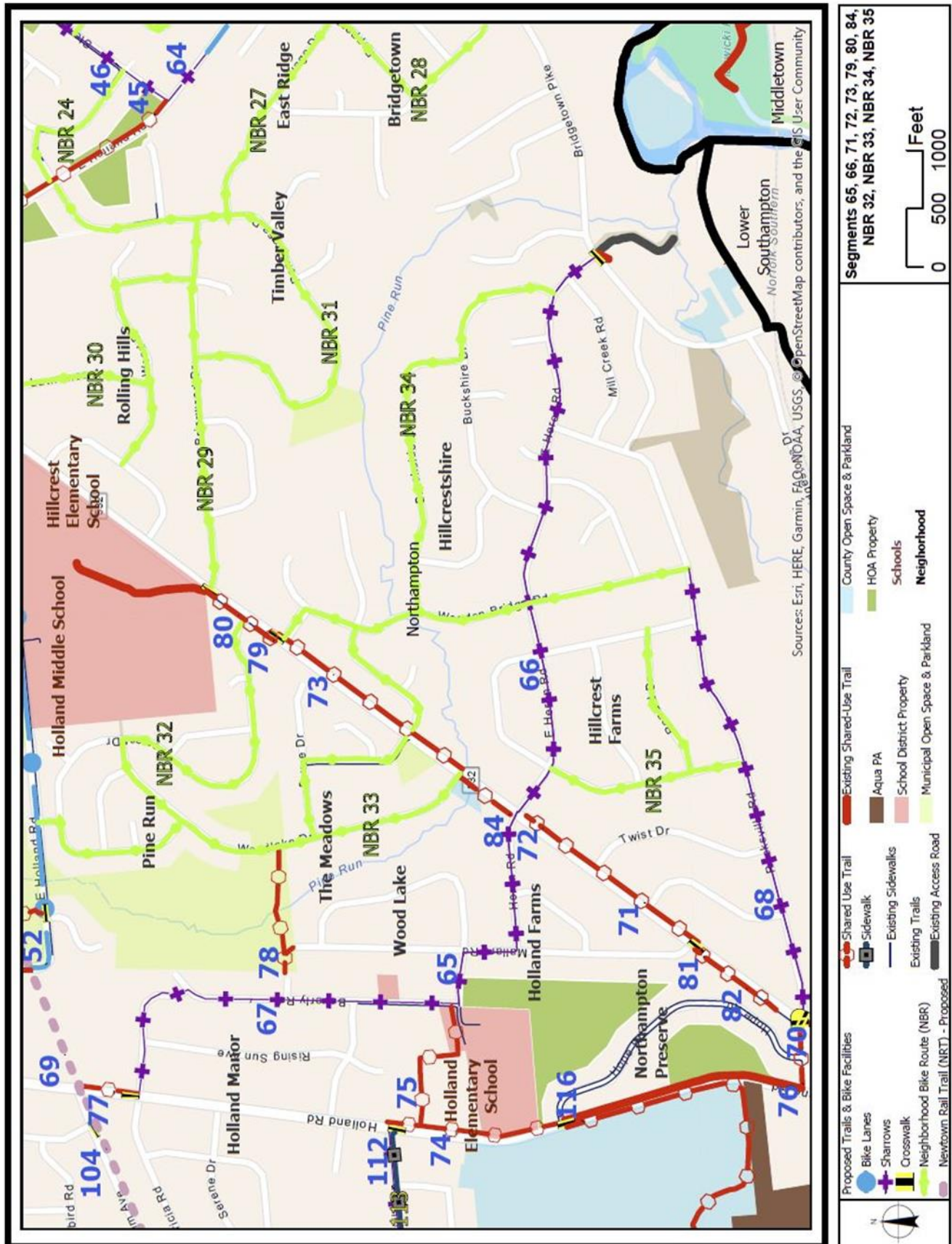
Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.03 miles

Summary:

- Connects to **71 - Buck Road Shared Use Trail** and **82 - Buck Road Shared Use Trail** as part of a shared use trail along the extent of Buck Road from Holland Road to Briarwood Drive.
- Will require an easement from the property owner of TMP 31-031-001 since the right-of-way along Buck Road narrows to 65' wide in this area.
- At the intersection of Mallard Road and Buck Road, the trail would cross to the southeast right-of-way of Buck Road to connect with segment **71 - Buck Road Shared Use Trail**.

FIGURE 15 – SEGMENTS 65, 66, 71, 72, 73, 79, 80, 84, NBR 32, NBR 33, NBR 34, NBR 35



71 - Buck Road - Mallard Road to Northampton Presbyterian Church

71 - Buck Road

Mallard Road to Northampton Presbyterian Church

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.42 miles

Summary:

- Continues the **Buck Road Shared Use Trail** in the right-of-way along the southeast side of Buck Road from Mallard Road to TMP 31-031-105 at Northampton Presbyterian Church where the right-of-way narrows from 75' down to 50'.
- Provides a connection between the Pheasant Valley Shopping Center and Northampton Presbyterian Church and residential developments off of Buck Road.
- Connects to **72 & 81/82 Buck Road Shared Use Trail**.

72 - Buck Road - Northampton Presbyterian Church Frontage to East Heron Road

72 - Buck Road

Northampton Presbyterian Church Frontage to East Heron Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.04 miles

Summary:

- Will require an easement from Northampton Presbyterian Church.
- Part of the overall **Buck Road Shared Use Trail**.
- Connects to **65 - Crescent Drive, Mallard Road & Heron Road Bicycle Sharrows**, **66 - East Heron Road Bicycle Sharrows**, **71 - Buck Road Shared Use Trail** and **84 - Buck Road Shared Use Trail**.
- Upon reaching East Heron Road, the trail will cross Buck Road to facilitate crossing Pine Run as part of segment **84 - Buck Road Shared Use Trail**.

84 - Buck Road - East Heron Road to Woodlake Drive

84 - Buck Road

East Heron Road to Woodlake Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.10 miles

Summary:

- Continues the **Buck Road Shared Use Trail** in the right-of-way along the northwest side of Buck Road.
- Will require a separate bridge running parallel and adjacent to Buck Road to cross Pine Run.
- Will require easements on TMP# 31-031-045 and 31-031-046.
- After crossing Woodlake Drive, the trail will cross Buck Road to the southeast side to connect with **73 - Buck Road Shared Use Trail**.
- Connects to **65 - Crescent Drive, Mallard Road & Heron Road Bicycle Sharrows**, **72 - Buck Road Shared Use Trail** and **73 - Buck Road Shared Use Trail**.

73 - Buck Road - Woodlake Drive to Kings Way Drive

73 - Buck Road

Pine Run Creek Bridge/Woodlake Drive to Kings Way Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.36 miles

Summary:

- Continues the **Buck Road Shared Use Trail** in the right-of-way along the southeast side of Buck Road from Woodlake Drive to Kings Way Drive.
- The right-of-way width for Buck Road in this stretch varies from 65' to 95' wide, with the majority being 95' so no easements from private property owners should be needed.
- Provides a connection for The Meadows and Hillcrestshire neighborhoods.

79 - Buck Road - Kings Way Drive to start of sidewalk south of Forrest Drive

79 - Buck Road

Kings Way Drive to start of sidewalk south of Forrest Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.01 miles

Summary:

- After crossing the Kings Way Drive entrance to the Hillcrestshire neighborhood, the trail will cross Buck Road onto the northwest side.
- This segment reflects the length of approximately 100 feet needed from the owner of TMP# 31-026-031-001 as the right-of-way in this area is only 60'.
- Connects to **73 - Buck Road Shared Use Trail** and **80 - Buck Road Shared Use Trail**.

80 - Buck Road - Pine Run Frontage at Forrest Drive

80 - Buck Road

Pine Run Frontage at Forrest Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.12 miles

Summary:

- After TMP# 31-026-031-001, as the trail approaches the entrance to the Pine Run neighborhood at Forrest Drive, the right-of-way widens to 75' allowing room for the trail within the right-of-way.
- The end of this trail would connect into the existing pathway as part of the Holland Middle School / Hillcrest Elementary School campus.
- A sidewalk crossing is planned at the intersection of Buck Road and Briarwood Drive to provide safe passage to the trail from the neighborhoods south of East Holland Road and east of Buck Road including Briarwood Drive, Wood Drive, and Ponderosa Drive.
- Connects to **79 - Buck Road Shared Use Trail**.

66 - East Heron Road - Buck Road to Bridgetown Pike

66 - East Heron Road Buck Road to Bridgetown Pike

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.97 miles

Summary:

- These bicycle sharrows serve as an extension of the **Buck Road Shared Use Trail** and are intended to provide access to that trail for the Hillcrest Farms and Hillcrestshire neighborhoods.
- As the bicycle sharrows are proposed to continue across Buck Road in the form of **65 - Crescent Drive, Mallard Road & Heron Road**, this route will also provide connectivity to Churchville Nature Center and the Newtown Rail Trail.
- Connects to **71, 72, & 84 - Buck Road Shared Use Trail** and **65 - Crescent Drive, Mallard Road, and Heron Road Bicycle Sharrows**.

65 - Crescent Drive, Mallard Road & Heron Road - Holland Elementary School to Buck Road

65 - Crescent Drive, Mallard Road & Heron Road Holland Elementary School to Buck Road

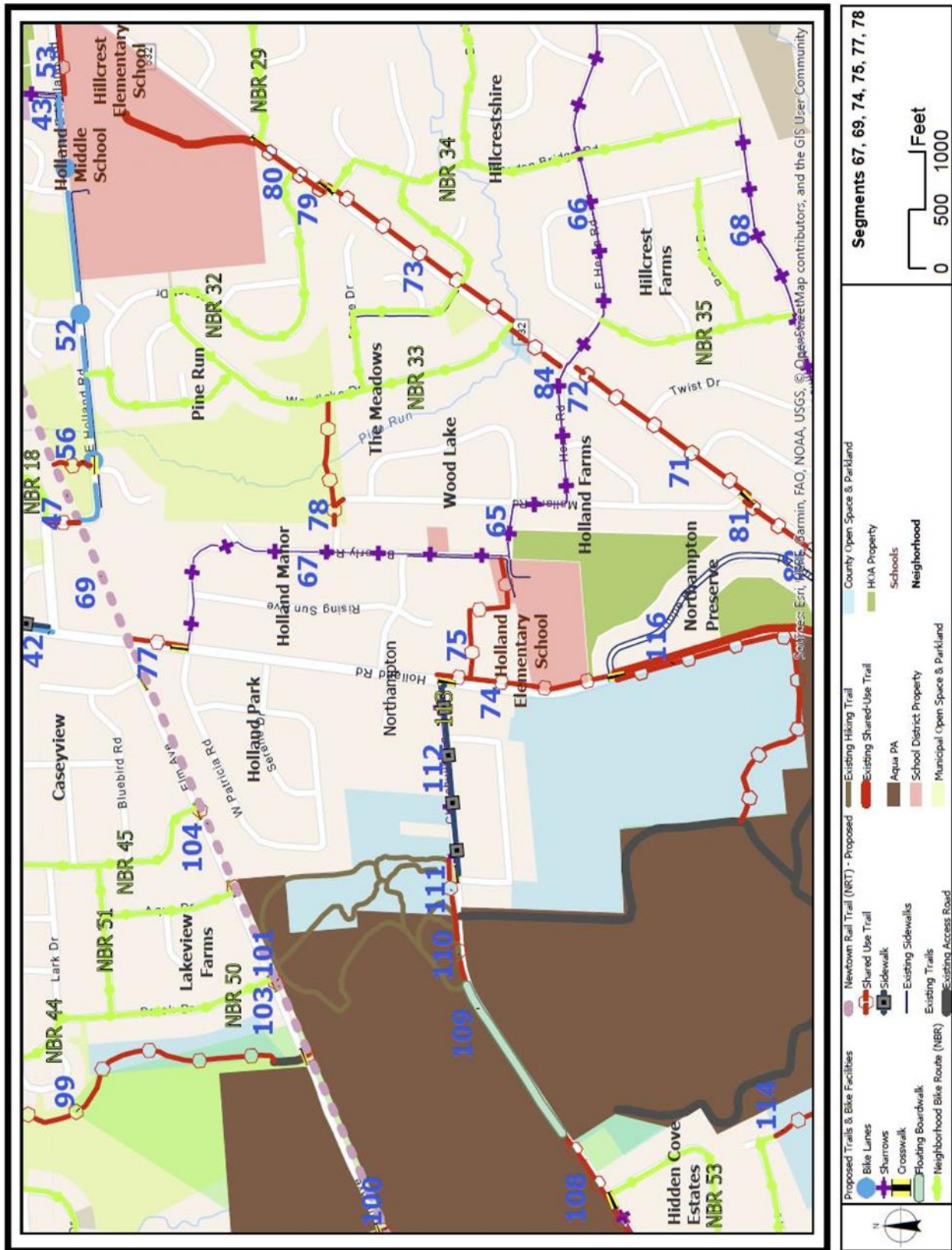
Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.41 miles

Summary:

- Provides a connection between Holland Elementary School and neighborhoods to the east of Buck Road including Hillcrestshire and Hillcrest Farms.
- Also serves as part of the primary route between the **Buck Road Shared Use Trail**, the trail and bicycle facilities proposed along **Churchville Road**, and the **Newtown Rail Trail**.
- Connects to **72 - Buck Road Shared Use Trail**, **66 - East Heron Road Bicycle Sharrows**, **67 - East Patricia/Beverly Road Bicycle Sharrows**, **75 - Holland E.S./Lower Bucks Holland Outdoor Recreation Shared Use Trail** and **84 - Buck Road Shared Use Trail**.

FIGURE 16 – SEGMENTS 67, 69, 74, 75, 77, 78



75 - Holland E.S./Lower Bucks Holland Outdoor Recreation - Crescent Drive to Holland Road

75 - Holland E.S./Lower Bucks Holland Outdoor Recreation Crescent Drive to Holland Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.25 miles

Summary:

- Provides a connection between Holland Road and Crescent Drive via the Holland Elementary School and Lower Bucks Holland Outdoor Recreation properties.
- Will require easements from both the YMCA and Council Rock School District.
- At its eastern end, this trail would connect to **65 - Crescent Drive, Mallard Road, and Heron Road Bicycle Sharrows** and **67 - East Patricia Road/Beverly Road Bicycle Sharrows**, and **74 - Holland Road Shared Use Trail** at its western end. The connection along **East Patricia Road/Beverly Road** serves as a primary linkage to the **Newtown Rail Trail**.

74 - Holland Road - Hope Road to Churchville Lane

74 - Holland Road Hope Road to Churchville Lane

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.28 miles

Summary:

- Extends the existing shared use trail along Holland Road (Between Hope Road and Rocksville Road), north to Churchville Lane.
- The extension of this trail along Holland Road will require a total of four easements. These include Northampton Preserve HOA, Council Rock School District/Holland Elementary School, the YMCA/Lower Bucks Holland Outdoor Recreation Center, and the owner of TMP# 31-028-177.
- Connects to **75 - Holland E.S./Lower Bucks Holland Outdoor Recreation Shared Use Trail**, **112 - Churchville Lane Bicycle Sharrows**, **113 - Churchville Lane Sidewalks** and **116 - Churchville Farm Shared Use Trail**.

67 - East Patricia Road/Beverly Road - Holland Road to Crescent Drive

67 - East Patricia Road/Beverly Road Holland Road to Crescent Drive

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.67 miles

Summary:

- In conjunction with **77 - Holland Road Shared Use Trail**, provides access to the **Newtown Rail Trail**.
- Connects to **65 - Crescent Drive, Mallard Road & Heron Road Bicycle Sharrows**, **75 - Holland E.S./Lower Bucks Holland Outdoor Recreation Shared Use Trail**, **77 - Holland Road Shared Use Trail** and **78 - Pine Run Shared Use Trail**.

77 - Holland Road - East Patricia Road to Newtown Rail Trail

77 - Holland Road East Patricia Road to Newtown Rail Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.09 miles

Summary:

- Provides a connection to the **Newtown Rail Trail**.
- Connects to **67 - East Patricia Road/Beverly Road Bicycle Sharrows** and **69 - Newtown Rail Shared Use Trail**.
- Will require easements from two private property owners, TMPs# 31-015-150-001 and 31-015-151, for the frontage along Holland Road.

78 - Pine Run - Beverly Road/Mallard Road/Woodlake Drive

78 - Pine Run Beverly Road/Mallard Road/Woodlake Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.22 miles

Summary:

- Provides connections between the Pine Run, Woodlake, The Meadows, and Holland Manor neighborhoods via the township-owned wooded area along the Pine Run stream corridor.
- There are wetlands that would need to be addressed as part of the design and construction of the trail.
- Connects to **67 - East Patricia Road/Beverly Road Bicycle Sharrows**.

69 - Newtown Rail Trail - Holland Road to East Holland Road

69 - Newtown Rail Trail Holland Road to East Holland Road

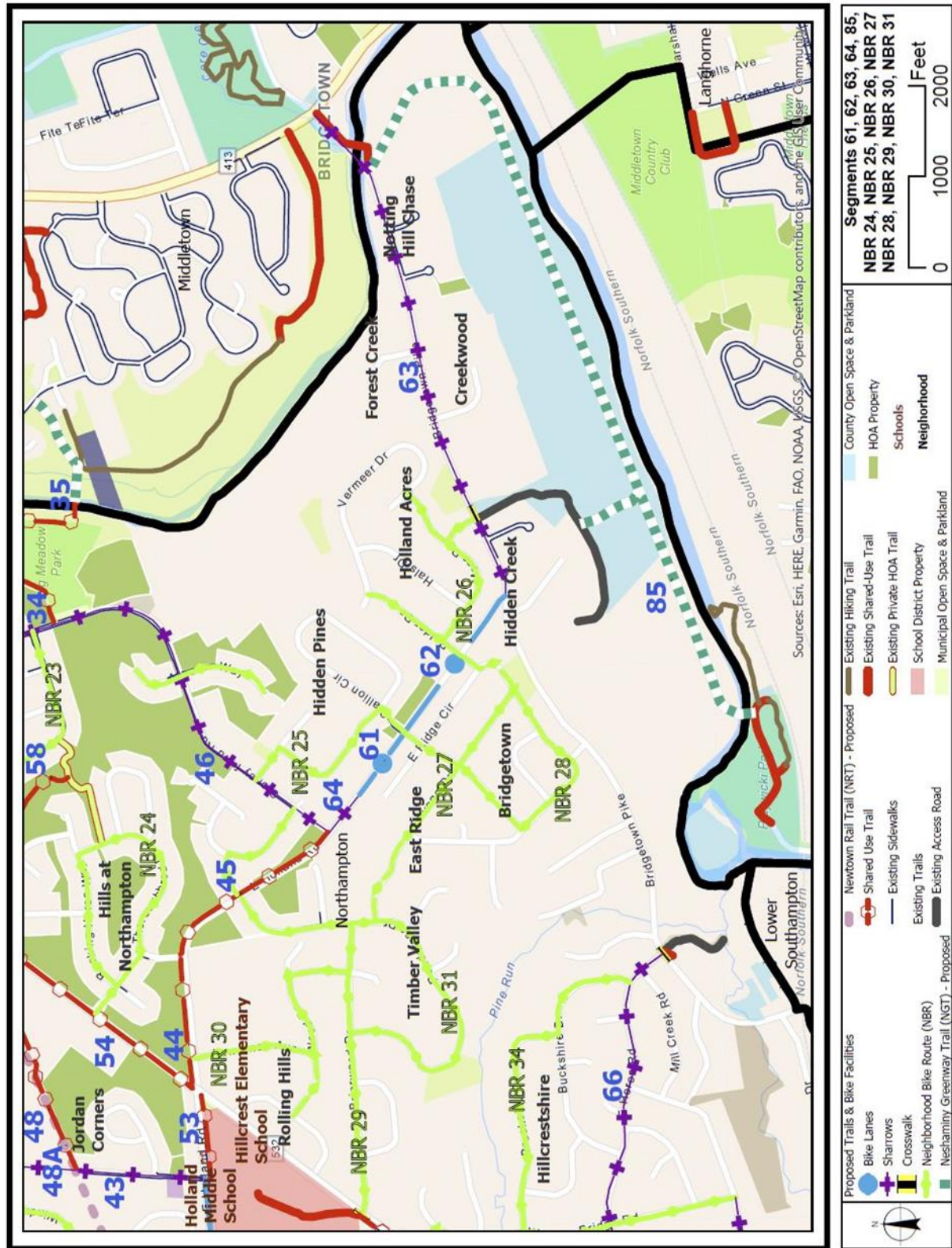
Trail/Bicycle Facility Type and Length:

69 - Shared Use Trail: 0.22 miles

Summary

- Serves as a critical section of the **Newtown Rail Trail** running between Holland Road and East Holland Road.
- As the trail would run behind Sundance Kennels and adjacent to a couple of residential properties, landscaping and fencing would be provided as buffering.
- Provides connection to **51 - East Holland Road Shared Use Trail**, **47 & 104 - Newtown Rail Shared Use Trail**, and **77 - Holland Road Shared Use Trail**.

FIGURE 17 – SEGMENTS 61, 62, 63, 64, 85, NBR 24, NBR 25, NBR 26, NBR 27, NBR 28, NBR 29, NBR 30, NBR 31



64 - East Holland Road - Stoneyford Road to d 850' northwest of Pepperell Drive

64 - East Holland Road

Stoneyford Road to widening of road 850' northwest of Pepperell Drive

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.10 miles

Summary:

- Continues the proposed trail and bicycle facilities along East Holland Road.
- Due to the limited right-of-way in this area, associated with the presence of the farm house located close to the road, this segment will be bicycle sharrows.
- At its northwest end, provides a connection to **45 - East Holland Road Shared Use Trail** and **46 - Stoneyford Road Bicycle Sharrows**, while connecting to **61 - East Holland Road Bicycle Lanes** at its southeastern end.

61 - East Holland Road - 850' Frontage of East Ridge & Hidden Pines up to Pepperell Drive/Stallion Circle

61 - East Holland Road

850' Frontage of East Ridge & Hidden Pines up to Pepperell Drive/Stallion Circle

Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.16 miles

Summary:

- This segment, in the form of dedicated bicycle lanes, extends 850' southeast along East Holland Road up to its intersection with Pepperell Drive and Stallion Circle.
- Provides access to Hidden Pines, Holland Acres and East Ridge neighborhoods.
- Connects to **62 - East Holland Road Bicycle Lanes**, and **64 - East Holland Bicycle Sharrows**.

62 - East Holland Road - Pepperell Drive/Stallion Circle to Bridgetown Pike

62 - East Holland Road

Pepperell Dr/Stallion Cir to Bridgetown Pike

Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.35 miles

Summary:

- Extends the proposed trail and bicycle facilities proposed along East Holland Road to Bridgetown Pike in the form of dedicated bicycle lanes.
- Provides access to Hidden Pines, Holland Acres, Bridgetown and East Ridge neighborhoods.
- Provides connection to **61 - East Holland Road Bicycle Lanes** and **63 - Bridgetown Pike Bicycle Sharrows**.

63 - Bridgetown Pike - East Holland Road to Newtown-Langhorne Road

63 - Bridgetown Pike East Holland Road to Newtown-Langhorne Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.10 miles

Summary:

- Connects East Holland Road to Middletown Township and Core Creek Park.
- Provides connection to 62 - East Holland Road Bicycle Sharrows and 85 - Neshaminy Greenway Trail.

85 - Neshaminy Greenway Trail - Bridgetown Pike to Playwicki Park

85 - Neshaminy Greenway Trail (Proposed) Bridgetown Pike to Playwicki Park

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 2.03 miles

Summary:

- Provides shared use trail along Neshaminy Creek as part of the much larger Neshaminy Greenway Trail.
- Connects to Breezy Point Day Camp, Middletown Township and Core Creek Park.
- Connects to 63 - Bridgetown Pike Bicycle Sharrows and existing shared use trail into Middletown Township.
- Although the majority of the land adjacent to the creek is owned by Bucks County, construction of the trail will require at least four easements from property owners.

Sidewalks - Segments 83 and SW 8

Sidewalks

Trail/Bicycle Facility Type and Length:

83 Sidewalk 0.27 miles

SW 8 Sidewalk 0.35 miles

Summary:

- **83 - Holland Village - Buck Road - Elaine Drive to Holland Commons & Holland Village SC**
Provides pedestrian facility along Buck Road in Holland Village
- **SW 8 - Bridgetown Pike - Bellwood Drive to Playwicki Farm**
Provides sidewalk along Playwicki Farm and Bridgetown Pike

Neighborhood Bike Routes (NBR) 24 through 35

Neighborhood Bike Routes - 24 through 35

Trail/Bike Facility Type and Length:

NBR 24 - Neighborhood Bike Route Signage	0.57 miles
NBR 25 - Neighborhood Bike Route Signage	0.46 miles
NBR 26 - Neighborhood Bike Route Signage	0.71 miles
NBR 27 - Neighborhood Bike Route Signage	0.61 miles
NBR 28 - Neighborhood Bike Route Signage	0.54 miles
NBR 29 - Neighborhood Bike Route Signage	0.87 miles
NBR 30 - Neighborhood Bike Route Signage	0.44 miles
NBR 31 - Neighborhood Bike Route Signage	0.83 miles
NBR 32 - Neighborhood Bike Route Signage	1.15 miles
NBR 33 - Neighborhood Bike Route Signage	0.63 miles
NBR 34 - Neighborhood Bike Route Signage	1.65 miles
NBR 35 - Neighborhood Bike Route Signage	0.58 miles

Summary:

- **NBR 24 - Hills at Northampton**
Provides connection to **64 - East Holland Road Bicycle Sharrows**
- **NBR 25 - Hidden Pines**
Provides connection to East Ridge neighborhood, **62 - East Holland Road Bicycle Lanes** and **64 - East Holland Road Bicycle Sharrows**
- **NBR 26 - Holland Acres**
Provides connection to Bridgetown neighborhood, **61 - East Holland Road Bicycle Lanes** and **63 - Bridgetown Pike Bicycle Sharrows**
- **NBR 27 - East Ridge**
Provides connection to Bridgetown neighborhood, **61 - East Holland Road Bicycle Lanes** and **62 - East Holland Road Bicycle Lanes**
- **NBR 28 - Bridgetown**
Provides connection East Ridge neighborhood and to **62 - East Holland Road Bicycle Lanes**
- **NBR 29 - Briarwood Dr., Zelvova Dr., Wood Dr.**
Provides connection to Rolling Hills and Timber Valley neighborhoods
- **NBR 30 - Rolling Hills**
Provide connections to Briarwood Dr., Zelvova Dr., Wood Dr. neighborhoods, **44 - East Holland Road Shared Use Trail**
- **NBR 31 - Timber Valley**
Provides connection to Briarwood Dr., Zelvova Dr., Wood Dr. and East Ridge neighborhoods
- **NBR 32 - Pine Run**
Provides connection to Holland Middle School, The Meadows neighborhoods, **78 - Pine Run Shared Use Trail**, **79 - Buck Road Shared Use Trail** and **80 - Buck Road Shared Use Trail**
- **NBR 33 - The Meadows**
Provides connection to **73 - Buck Road Shared Use Trail**, **78 - Pine Run Shared Use Trail** and **84 - Buck Road Shared Use Trail**
- **NBR 34 - Hillcrestshire**
Provides connection to **66 - East Heron Road Bicycle Sharrows**, **68 - Rocksville Road Bicycle Sharrows**, **73 - Buck Road Shared Use Trail** and **79 - Buck Road Shared Use Trail**
- **NBR 35 - Hillcrest Farms**
Provides access to Northampton Presbyterian Church, **66 - East Heron Road Bicycle Sharrows** and **68 - Rocksville Road Bicycle Sharrows**.

PLANNING AREA 5

This planning area, located in the south central portion of the township, is bounded by Newtown Richboro Road to the north, Holland Road to the east, Bristol Road to the south, and Second Street Pike to the west. The features of this area are described below:

Land Use

Land use in this planning area is a diverse mix of:

- Single Family Residential;
- Utilities in the form of the AQUA PA-owned Churchville Reservoir;
- Government and Institutional associated with the government facilities in the Village of Richboro;
- Parks and Open Space found along Almshouse Road associated with the Churchville Nature Center, Churchville Farm and Pheasant Run Park; and
- Commercial (Villages of Richboro and Holland).

Natural Features

Topography

- The majority of this planning area can be described as gently rolling hills, although areas with steep slopes can be found in several locations. Marked changes in topography occur in the Village of Holland and in the vicinity of Chinquapin Road and Witherington Heights neighborhood; along the Ironworks Creek stream valley in the neighborhoods of Northampton Estates, Spring Valley Farm, Willow Estates, Pheasant Run and Green Valley; and along a ridge running through the neighborhoods of Churchville Manor, Hillside, Green Valley, Green Valley North and Applegate.

Water resources

- The area is part of the Neshaminy Creek watershed with the primary subwatersheds in this area being the Pine Run, Ironworks Creek and Mill Creek watersheds.

Wetlands

- There are two principal wetland areas in this planning area. The first is along the Mill Creek corridor running between the Holland Preserve and Witherington Heights neighborhoods. The second and larger wetland area is along the Ironworks Creek corridor extending south from Tanyard Road to the confluence of Mill Creek and Ironworks Creek in the Village of Holland. Aside from the reservoir itself, there is a large expanse of wetlands on Bucks County property between the Pheasant Run and Green Valley neighborhoods associated with a small pond in that area.

Woodlands and Natural Areas

- The primary wooded areas in this planning area include the riparian corridor along Ironworks Creek and the wooded areas surrounding Churchville Reservoir.

Man-Made Features

Commercial Areas

- Village of Holland/Holland Shopping Center
- Pheasant Valley Center
- Crossroads Plaza
- Richboro Center

Parks and Recreation Areas

- Churchville Nature Center
- Churchville Reservoir
- Churchville Farm
- Pheasant Run Park
- James Michener Senior Center
- Free Library of Northampton Township

Schools

- Richboro Elementary School
- Churchville Elementary School

Historic Resources

- Twin Trees Farm
- Villa Joseph Marie School

Principal Arterial Roadways

- Newtown Richboro Road (Route 332)
- Buck Road (Route 532)
- Second Street Pike (Route 232)

Major Collector Roadways

- Holland Road
- Upper Holland Road
- Lower Holland Road
- Churchville Lane
- Bristol Road

Existing Trails

Area	Existing Trail	Type of Trail	Mileage
5	Churchville Elementary Complex	Shared Use	0.30
5	Bustleton Pike to Hilltop Drive	Shared Use	0.02
5	Churchville Nature Center	Hiking Trail	1.70
Total Area 5			2.02

Master Trail and Bicycle Plan

TABLE 23 – PROPOSED TRAILS & BICYCLE FACILITIES – PLANNING AREA 5

Segment	Dedicated Bike Lane Segments	Segment End Points	Length (Miles)
87	Bustleton Pike	Tanyard Road/Anthony Drive to Upper Holland Road	0.30
Total Proposed Bicycle Lanes			0.30

Segment	Sharrow	Segment End Points	Length (Miles)
86	Tanyard Road	Second Street Pike to Bustleton Pike	0.34
92	Upper Holland Road	Bustleton Pike to Holland Road	1.57
95	New Road	Second Street Pike, Mehler Drive, Hilltop Drive to Bustleton Pike	0.88
98	Lower Holland Road	Lark Drive to Holland Road	0.66
107	Churchville Lane	Bristol Road to Hidden Cove Drive	0.51
112	Churchville Lane	Lakeside Drive to Holland Road	0.32
Total Proposed Sharrow			4.28

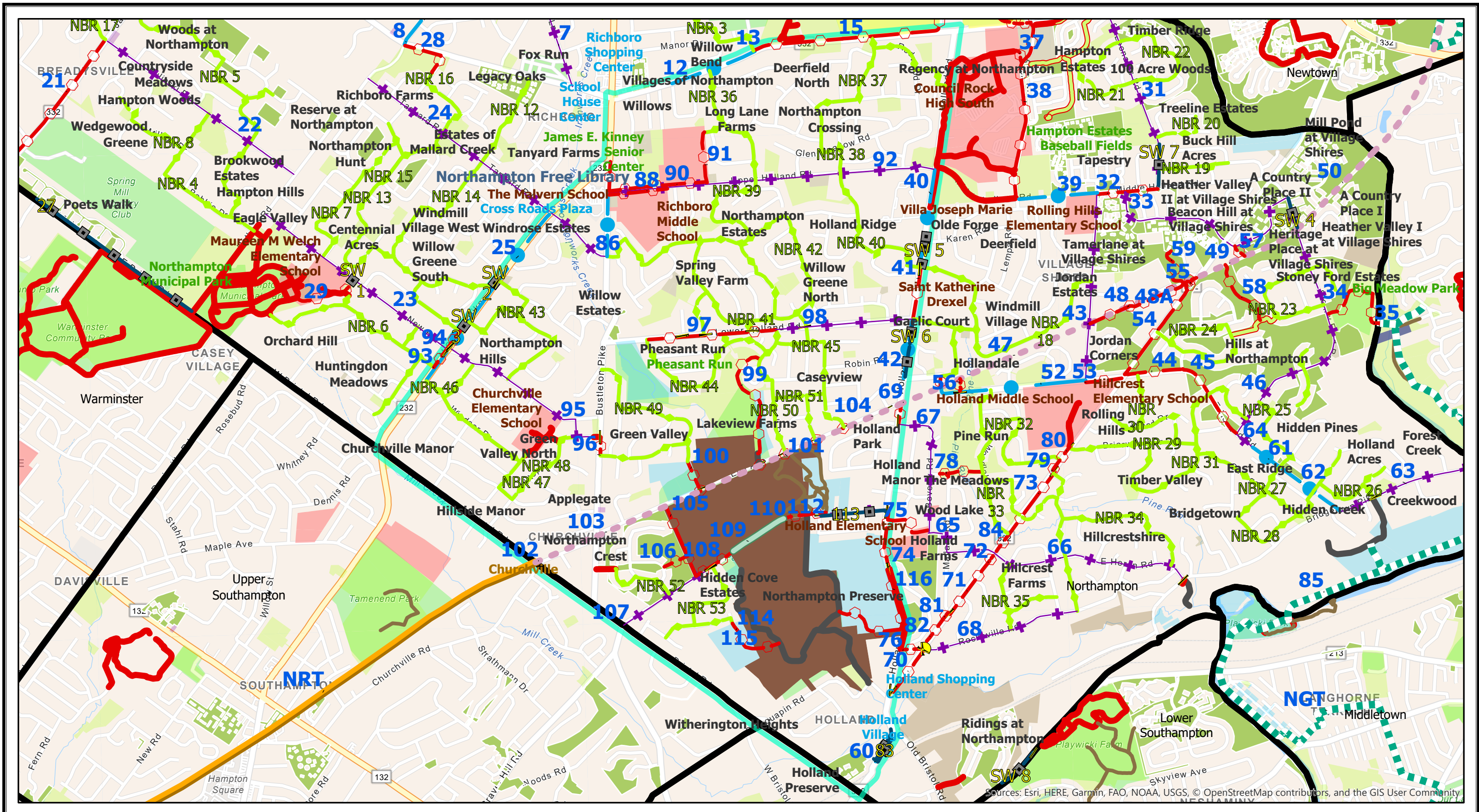
Segment	Shared Use Trails	Segment End Points	Length (Miles)
88	Upper Holland Road/Richboro Middle School	Bustleton Pike to just west of Torresdale Drive	0.28
89	Bustleton Pike & Upper Holland Road	Second Street Pike to Township Road	0.29
90	Upper Holland Road	Township Road to Richboro Elementary School Trail	0.32
91	Richboro Elementary School	Cedar Drive to Upper Holland Road	0.25
93	Second Street Pike	Cherry Blossom Drive to New Road	0.10
94	Second Street Pike	New Road to Heather Road	0.10
96	Bustleton Pike	Hilltop Drive to Green Valley Drive	0.09
97	Lower Holland Road	Chapel Drive to Lark Drive	0.70
99	Newtown Rail Trail Connector Trail	Pheasant Run Park to Elm Avenue	0.60
100	Newtown Rail Trail Connector Trail	Schan Drive to Newtown Rail Trail	0.15
101	Newtown Rail Trail Connector Trail	Brook Drive, Aqua Drive & Cameron Drive	0.01
105	Newtown Rail Trail Connector Trail	Churchville Lane to Newtown Rail Trail	0.37
106	Northampton Crest Connector Trail	Radcliffe Drive to Aqua PA Trail	0.12
108	Churchville Lane	Northampton Crest to Churchville Reservoir	0.22
109	Churchville Lane	Floating Boardwalk on Churchville Reservoir	0.29
110	Churchville Lane	Churchville Reservoir to Churchville Nature Center	0.11
111	Churchville Lane	Churchville Nature Center	0.09
114	Bucks County - Churchville Reservoir Connector	Lake Drive to AQUA PA property	0.18
115	Churchville Reservoir Connector Trail	Bucks County (Lake Drive) to Churchville Access Road	0.12
116	Churchville Farm	Churchville Reservoir to Holland Road	0.64
Total Proposed Shared Use Trails			5.02

Segment	Shared Use Trails	Segment End Points	Length (Miles)
102	Newtown Rail Trail (Proposed)	Bristol Road to Bustleton Pike	0.32
103	Newtown Rail Trail (Proposed)	Bustleton Pike to Churchville Nature Center	1.00
104	Newtown Rail Trail (Proposed)	Churchville Nature Center to Holland Road	0.60
Total Proposed Rail Trail			1.91

Segment	Sidewalks	Segment End Points	Length (Miles)
113	Churchville Lane	Lakeside Drive to Holland Road	0.31
Total Proposed Sidewalks			0.31

Segment	Neighborhood Bike Route (NBR)	Segment End Points	Length (Miles)
NBR 36	Neighborhood Bike Route	Long Lane Farms	0.73
NBR 37	Neighborhood Bike Route	Deerfield North	1.20
NBR 38	Neighborhood Bike Route	Northampton Crossing	0.24
NBR 39	Neighborhood Bike Route	Northampton Estates	0.53
NBR 40	Neighborhood Bike Route	Holland Ridge	0.78
NBR 41	Neighborhood Bike Route	Spring Valley Farm	2.33
NBR 42	Neighborhood Bike Route	Willow Greene North	0.89
NBR 43	Neighborhood Bike Route	Northampton Hills	1.07
NBR 44	Neighborhood Bike Route	Pheasant Run	1.42
NBR 45	Neighborhood Bike Route	Caseyview/Estates at Holland	0.62
NBR 46	Neighborhood Bike Route	Churchville Manor	1.05
NBR 47	Neighborhood Bike Route	Hillside Manor	0.21
NBR 48	Neighborhood Bike Route	Green Valley North	0.29
NBR 49	Neighborhood Bike Route	Green Valley	1.21
NBR 50	Neighborhood Bike Route	Brook Drive	0.31
NBR 51	Neighborhood Bike Route	Lakeview Farms	0.47
NBR 52	Neighborhood Bike Route	Northampton Crest	0.36
NBR 53	Neighborhood Bike Route	Hidden Cove Estates	0.81
Total Proposed Neighborhood Bike Routes			14.51

Total Proposed Mileage			26.33
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Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

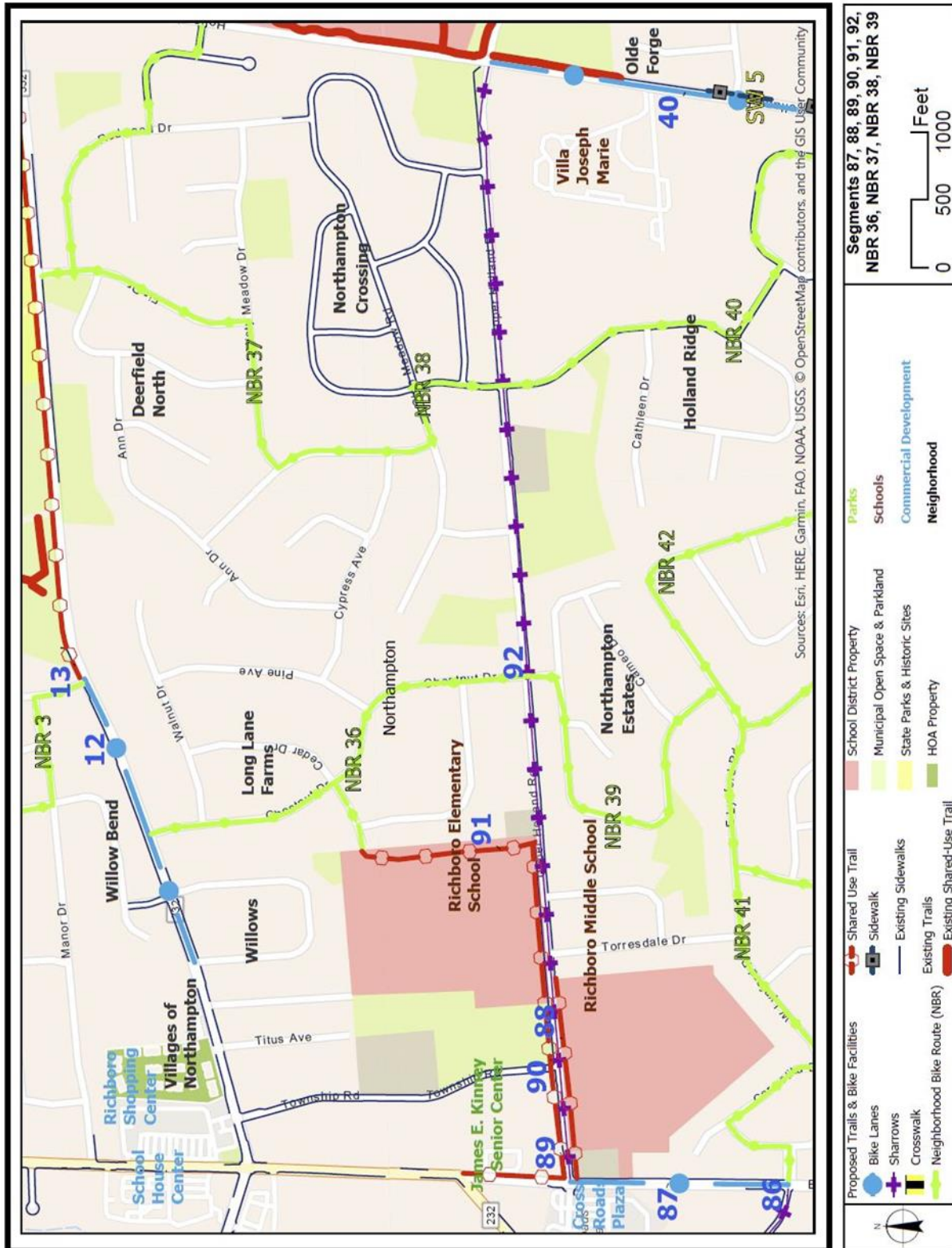
BCPC
Bucks County Planning Commission

Miles
0 0.25 0.5

Proposed Trails & Bike Facilities		Existing Trails		Municipal Open Space & Parkland		Bucks Co Water & Sewer Authority	
	Bike Lanes		Existing Hiking Trail		Municipal Open Space & Parkland		Bucks Co Water & Sewer Authority
	Sharrows		Existing Shared-Use Trail		County Open Space & Parkland		Northampton Bucks Co Municipal Authority
	Crosswalk		Shared Use Trail		State Parks & Historic Sites		Planning Area 5
	Floating Boardwalk		Sidewalk		HOA Property		Parks
	Neighborhood Bike Route (NBR)		Existing Access Road		Land Trust Property		Schools
	Neshaminy Greenway Trail (NGT) - Proposed		Existing Equestrian Trail		PECO		Neighborhood
							Commercial Development

Planning Area 5 Map 20

FIGURE 18 – SEGMENTS 87, 88, 89, 90, 91, 92, NBR 36, NBR 37, NBR 38, NBR 39



87 - Bustleton Pike - Tanyard Road/Anthony Drive to Upper Holland Road

87 - Bustleton Pike

Tanyard Road/Anthony Drive to Upper Holland Road

Trail/Bicycle Facility Type and Length:

Bicycle Lanes: 0.30 miles

Summary:

- Connects neighborhoods south of Tanyard Road and neighborhoods along Bustleton Pike to Richboro Middle School site and Free Library of Northampton.
- Provides connections to **86 - Tanyard Bicycle Sharrows**, **88 - Upper Holland Road/Richboro Middle School site Shared Use Trail**, **89 - Bustleton Pike & Upper Holland Road Shared Use Trail**, and **92 - Upper Holland Road Bicycle Sharrows**.
- Will require approval and coordination with PennDOT given that Bustleton Pike is a state road.

88 - Upper Holland Road/Richboro Middle School site - Bustleton Pike to just west of Torresdale Drive

88 - Upper Holland Road/Richboro Middle School site Bustleton Pike to just west of Torresdale Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.28 miles

Summary:

- Connects Richboro Elementary School, Richboro Middle School site, James E. Kinney Senior Center and Free Library of Northampton while increasing overall walkability and bicycle friendliness in the Richboro area.
- Provides connections to **87 - Bustleton Pike Bicycle Lanes**, **89 - Bustleton Pike & Upper Holland Road Shared Use Trail**, **90 - Upper Holland Road Shared Use Trail** and **92 - Upper Holland Road Bicycle Sharrows**.

89 - Bustleton Pike & Second Street Pike to Upper Holland Road & Township Road

89 - Bustleton Pike & Second Street Pike to Upper Holland Road & Township Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.29 miles

Summary:

- Connects to Richboro Center, Free Library of Northampton and Crossroads Plaza.
- Installation of this trail should be implemented as part of any future redevelopment plans in this area as this trail will potentially require easements.
- Provides connections to **87 - Bustleton Pike Bicycle Lanes**, **88 - Upper Holland Road/ Richboro Middle School site Shared Use Trail**, **90 - Upper Holland Road Shared Use Trail**, and **92 - Upper Holland Road Bicycle Sharrows**.

90 - Upper Holland Road - Township Road to Richboro Elementary School Trail

90 - Upper Holland Road Township Road to Richboro Elementary School Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.32 miles

Summary:

- Connects Richboro Elementary School, Free Library of Northampton, and James E. Kinney Senior Center.
- Will require an easement from Council Rock School District for frontage along Upper Holland Road.
- Provides connections to **88 - Upper Holland Road/Richboro Middle School site Shared Use Trail**, **91 - Richboro Elementary Shared Use Trail** and **92 - Upper Holland Road Bicycle Sharrows**.

91 - Richboro Elementary School - Cedar Drive to Upper Holland Road

91 - Richboro Elementary School Cedar Drive to Upper Holland Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.25 miles

Summary:

- Connects Richboro Elementary School to the Long Lane Farms, Deerfield North, and Northampton Crossing neighborhoods, and via **90 - Upper Holland Road Shared Use Trail**, to Richboro.
- Provides connections to **90 - Upper Holland Road Shared Use Trail** and **92 - Upper Holland Road Bicycle Sharrows**.

92 - Upper Holland Road - Bustleton Pike to Holland Road

92 - Upper Holland Road Bustleton Pike to Holland Road

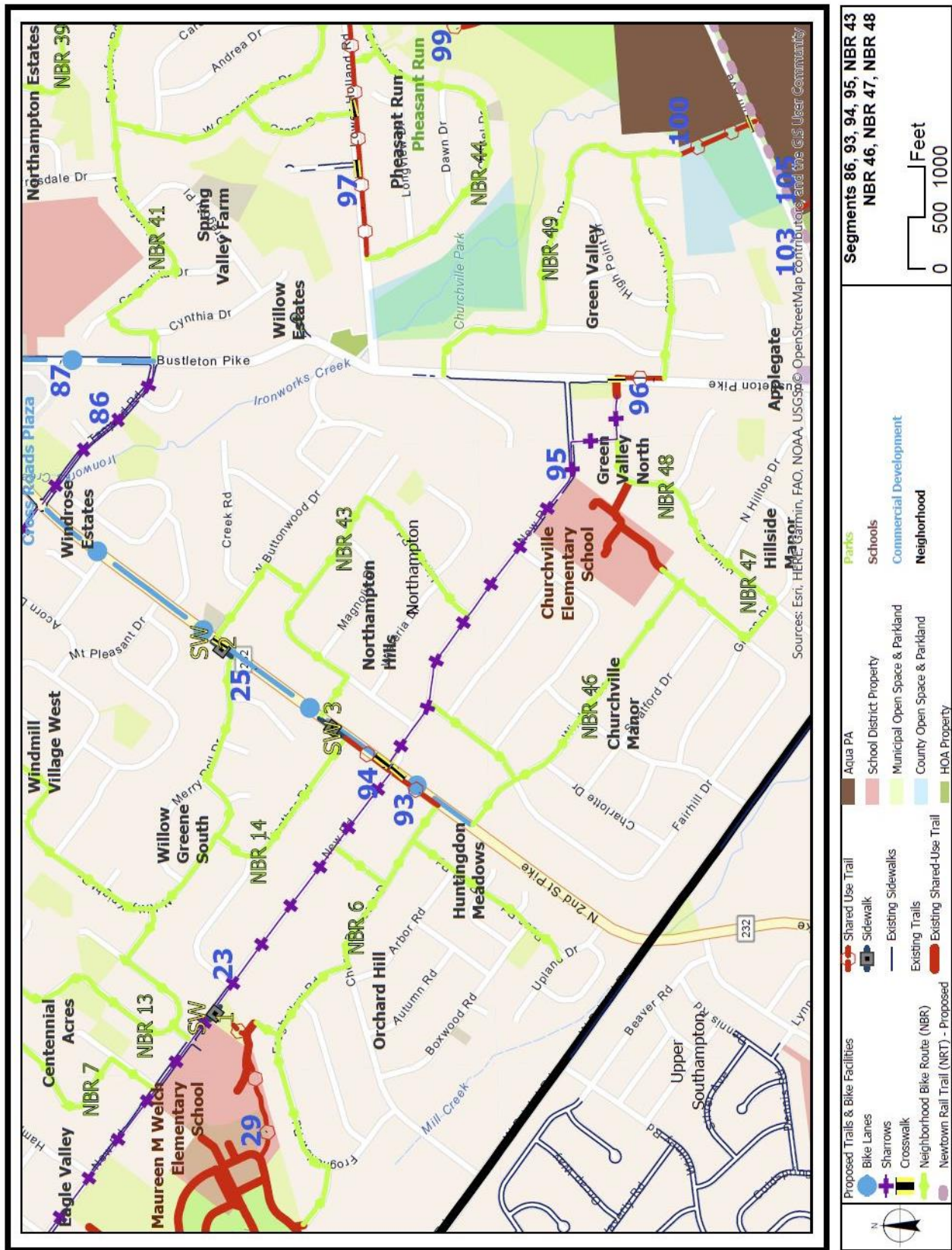
Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 1.57 miles

Summary:

- Connects to Northampton Estates, Long Lane Farms, Holland Ridge and Northampton Crossing neighborhoods.
- Connects to Villa Joseph Marie, Richboro Elementary School, Richboro Middle School site, James E. Kinney Senior Center and Free Library of Northampton.
- Provides connections to **40 - Holland Road Bicycle Lanes**, **87 - Bustleton Pike Bicycle Lanes**, **88 - Upper Holland Road/Richboro Middle School site Shared Use Trail**, **90 - Upper Holland Road Shared Use Trail** and **91 - Richboro Elementary School Shared Use Trail**.

FIGURE 19 – SEGMENTS 86, 93, 94, 95, NBR 46, NBR 47, NBR 48



86 - Tanyard Road - Second Street Pike to Bustleton Pike

86 - Tanyard Road Second Street Pike to Bustleton Pike

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.34 miles

Summary:

- Continues the **24 - Tanyard Road Bicycle Sharrows** to connect to Bustleton Pike.
- Connects to the Windrose neighborhood.
- Provides connections to **24 - Tanyard Road Bicycle Sharrows**, **25 - Second Street Pike Bicycle Sharrows** and **87 - Bustleton Pike Bicycle Lanes**.

93 - Second Street Pike - Cherry Blossom Drive to New Road

93 - Second Street Pike Cherry Blossom Drive to New Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.10 miles

Summary:

- Facilitates a safe connection for residents of Orchard Hill and Huntingdon Meadows to the **23 & 95 - New Road Bicycle Sharrows** via a shared use trail connecting Cherry Blossom Drive to New Road.
- Provides connections to **23 & 95 - New Road Bicycle Sharrows**, **25 - Second Street Pike Bicycle Lanes**, and **94 - Second Street Pike Shared Use Trail to Heather Road**.

94 - Second Street Pike - New Road to Heather Road

94 - Second Street Pike New Road to Heather Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.10 miles

Summary:

- Facilitates a safe connection for residents of Willow Greene South to the **23 & 95 - New Road Bicycle Sharrows** via a shared use trail connecting Heather Road to New Road.
- Provides connections to **23 & 95 - New Road Bicycle Sharrows**, **25 - Second Street Pike Bicycle Lanes**, **93 - Second Street Pike Shared Use Trail to Cherry Blossom Drive**.

95 - New Road - Second Street Pike, Mehler Drive, Hilltop Drive to Bustleton Pike

95 - New Road

Second Street Pike, Mehler Drive, Hilltop Drive to Bustleton Pike

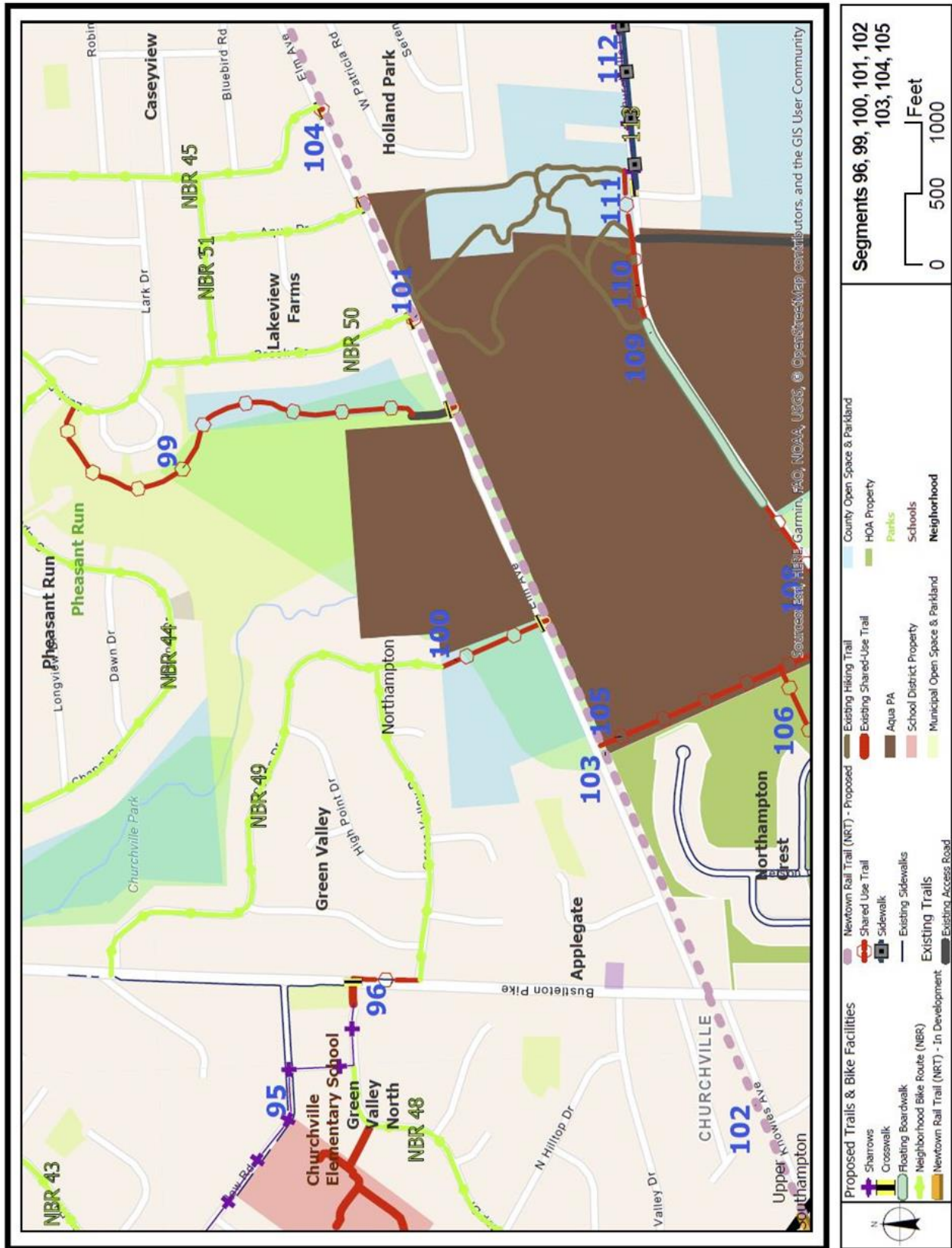
Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.88 miles

Summary:

- Serves as a key east-west link to connect the neighborhoods along New Road to the Newtown Rail Trail.
- This segment follows New Road from Second Street Pike, turns right onto Mehler Drive, then left onto Hilltop Drive. At the end of the cul-de-sac on Hilltop Drive, the bicycle sharrows will connect to an upgraded version of the existing shared use trail leading out to Bustleton Pike.
- Connects Churchville Manor, Northampton Hills and Green Valley North neighborhoods with Churchville Elementary School.
- Provides connections to **23 - New Road Bicycle Sharrows, 93 & 94 - Second Street Pike Shared Use Trails, 25 - Second Street Pike Bicycle Lanes, and 96 - Bustleton Pike Shared Use Trail.**

FIGURE 20 – SEGMENTS 96, 99, 100, 101, 102, 103, 104, 105



102 - Newtown Rail Trail - Bristol Road to Bustleton Pike

102 - Newtown Rail Trail Bristol Road to Bustleton Pike

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.32 miles

Summary:

- This is the initial segment of the **Newtown Rail Trail** within Northampton Township.
- Connects Bristol Road to Bustleton Pike within the SEPTA-owned right-of-way.
- Connects to **103 - Newtown Rail Shared Use Trail**.
- Connection to Upper Southampton Township's portion of the rail trail, linking the trail to Montgomery County and points south.

103 - Newtown Rail Trail - Bustleton Pike to the Churchville Nature Center

103 - Newtown Rail Trail Bustleton Pike to the Churchville Nature Center

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 1.00 miles

Summary:

- Continues the **Newtown Rail Trail** within the SEPTA right-of-way running parallel and adjacent to Elm Avenue, to the Churchville Reservoir where the trail would connect to the existing pathways within Churchville Nature Center.
- Connects residents within Northampton Township, and Upper Southampton Township, to the Churchville Nature Center.
- Provides connections to **104 - Newtown Rail Trail**, **105 - Newtown Rail Shared Use Trail Connector** to Churchville Lane, and **100 - Newtown Rail Shared Use Trail Connector** to the Green Valley neighborhood.

104 - Newtown Rail Trail - Churchville Nature Center to Holland Road

104 - Newtown Rail Trail Churchville Nature Center to Holland Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.60 miles

Summary:

- Continues the **Newtown Rail Trail to Holland Road**.
- Connects the Churchville Nature Center to Holland Road.
- Provides connections to **69 & 103 - Newtown Rail Shared Use Trail**, **99 - Newtown Rail Shared Use Trail Connector** to the Pheasant Run neighborhood, **101 - Newtown Rail Shared Use Trail Connector** to Brook Drive, Aqua Drive, and Cameron Drive, and **77 - Holland Road Shared Use Trail**.

100 - Newtown Rail Trail Connector Trail - Schan Drive to Newtown Rail Trail

100 - Newtown Rail Trail Connector Trail Schan Drive to Newtown Rail Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.15 miles

Summary:

- Connects the Green Valley neighborhood to **Newtown Rail Trail**.
- Trail would be located on property owned by Bucks County.
- Provides connections to **103 - Newtown Rail Shared Use Trail**.

101 - Newtown Rail Trail Connector Trail - Brook Drive, Aqua Drive & Cameron Drive

101 - Newtown Rail Trail Connector Trail Brook Drive, Aqua Drive & Cameron Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.01 miles

Summary:

- Three crosswalk connections across Elm Avenue at Brook Drive, Aqua Drive and Cameron Drive to connect Pheasant Run, Lakeview Farms, and Caseyview to the **Newtown Rail Trail**.
- Provides connections to **104 - Newtown Rail Shared Use Trail**.

99 - Newtown Rail Trail Connector Trail - Pheasant Run Park to Elm Avenue

99 - Newtown Rail Trail Connector Trail Pheasant Run Park to Elm Avenue

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.60 miles

Summary:

- Connects the Pheasant Run neighborhood with the **Newtown Rail Trail**.
- Trail would be located on properties owned by Northampton Township and Bucks County.
- Provides connections to **101 - Newtown Rail Trail Connector Shared Use Trail**.

105 - Newtown Rail Trail Connector Trail - Churchville Lane to Newtown Rail Trail

105 - Newtown Rail Trail Connector Trail Churchville Lane to Newtown Rail Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.37 miles

Summary:

- Connects the **Newtown Rail Trail** to the Northampton Crest neighborhood and **107 & 108 - Churchville Lane**.
- Will require an easement from AQUA PA who has been resistant in the past to allowing public access on their property.
- Also connects to **103 - Newtown Rail Shared Use Trail** and **106 - Northampton Crest Connector Shared Use Trail**.

96 - Bustleton Pike - Hilltop Drive to Green Valley Drive

96 - Bustleton Pike Hilltop Drive to Green Valley Drive

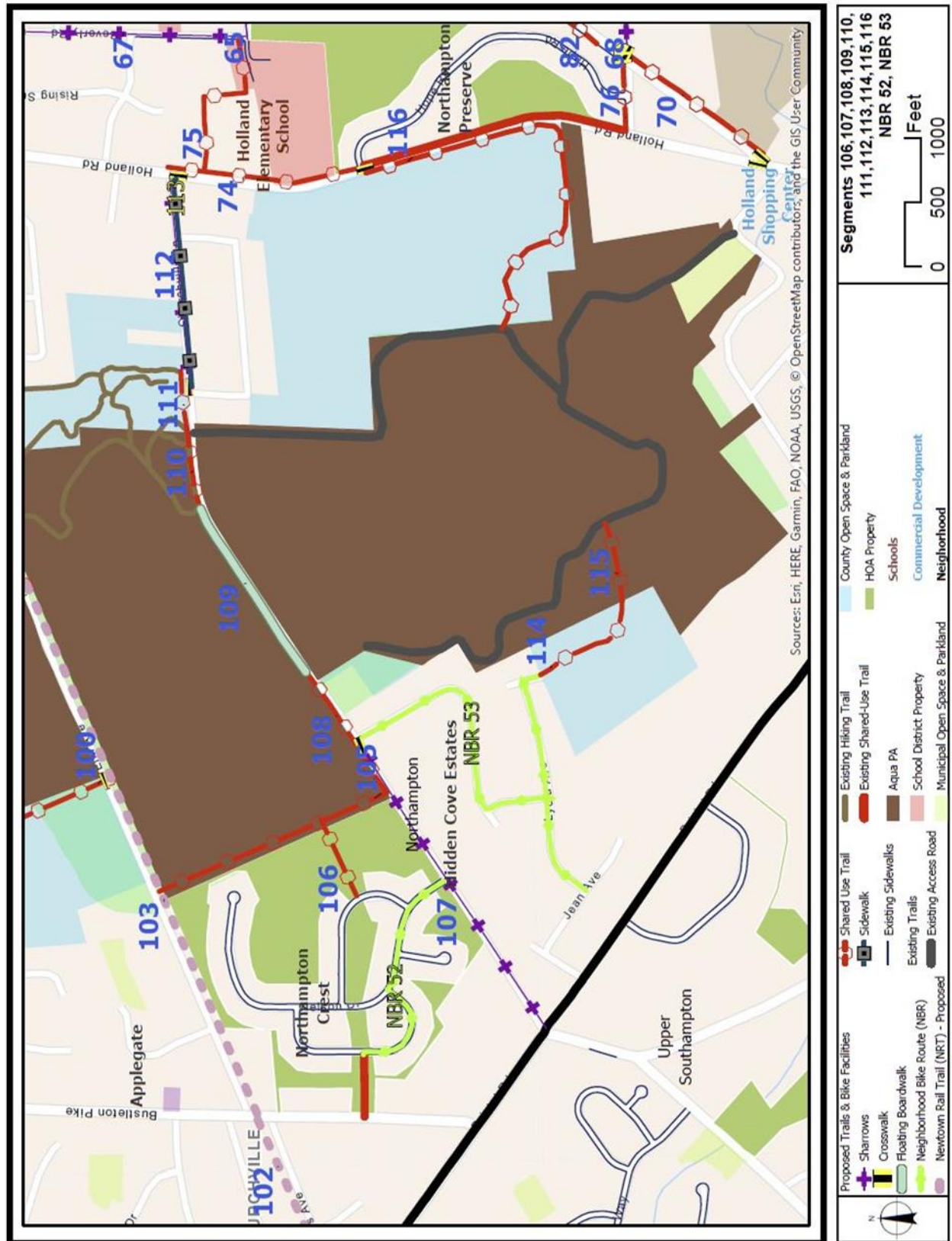
Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.09 miles

Summary:

- Serves as a key connection to the **Newtown Rail Trail** for neighborhoods along the New Road corridor.
- The trail would easements from three private property owners between Hilltop Drive and Green Valley Drive as the right-of-way along Bustleton Pike in this area is only 40' wide.
- Provides connection to **95 - New Road Bicycle Sharrows**, and via **NBR 49 - Green Valley**, a connection to **100 - Newtown Rail Shared Use Trail Connector**.

FIGURE 21 – SEGMENTS 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, NBR 52, NBR 53



106 - Northampton Crest Connector Trail - Radcliffe Drive to Aqua PA Trail

106 - Northampton Crest Connector Trail Radcliffe Drive to Aqua PA Trail

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.12 miles

Summary:

- Connects the Northampton Crest neighborhood to the **Newtown Rail Trail** and to **107 & 108 - Churchville Lane**.
- Will require an easement from the Northampton Crest HOA.
- Provides connections to **105 - Newtown Rail Trail Connector Shared Use Trail**.

107 - Churchville Lane - Bristol Road to Hidden Cove Drive

107 - Churchville Lane Bristol Road to Hidden Cove Drive

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.51 miles

Summary:

- Connects the Churchville Inn with neighborhoods located along Churchville Lane.
- Will require a reduction in the speed limit from 40 mph to 35 mph.
- Will also require the cooperation and approval of PennDOT since Churchville Lane is a state-owned road.
- Provides connections to **105 - Newtown Rail Trail Connector Shared Use Trail** and **108 - Churchville Lane Shared Use Trail**.

108 - Churchville Lane - Northampton Crest to Churchville Reservoir

108 - Churchville Lane Northampton Crest to Churchville Reservoir

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.22 miles

Summary:

- Connects Northampton Crest and other neighborhoods along Churchville Lane to Churchville Reservoir.
- Will require an easement from AQUA PA as the trail would be located on their property due to the limited right-of-way width of Churchville Lane in this area.
- Provides connections to **105 - Newtown Rail Trail Connector Shared Use Trail**, **107 - Churchville Lane Bicycle Sharrows** and **109 - Churchville Lane Floating Boardwalk**.
- Via NBR 53 through Hidden Cove Estates, also connects to **114 & 115 - Churchville Reservoir Connector Trail**.

109 - Churchville Lane - Floating Boardwalk on Churchville Reservoir

109 - Churchville Lane Floating Boardwalk on Churchville Reservoir

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.29 miles

Summary:

- Provides a unique shared use trail experience spanning the Churchville Reservoir.
- Will require an easement from AQUA PA.
- Facilitates connection to Churchville Nature Center.
- Provides connections to **108 & 110 - Churchville Lane Shared Use Trails.**

110 - Churchville Lane - Churchville Reservoir to Churchville Nature Center

110 - Churchville Lane Churchville Reservoir to Churchville Nature Center

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.11 miles

Summary:

- Connects Churchville Nature Center to Churchville Reservoir.
- Provides connections to **109 - Churchville Lane Floating Boardwalk** and **111 - Churchville Lane Shared Use Trail.**
- Will require an easement from AQUA PA.

111 - Churchville Lane - Churchville Nature Center

111 - Churchville Lane Churchville Nature Center

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.06 miles

Summary:

- Connects Churchville Nature Center to Churchville Reservoir.
- Also connects neighborhoods to the east along Churchville Lane and beyond, to the Churchville Nature Center.
- Provides connections to **110 - Churchville Lane Shared Use Trail** and **112 & 113 - Churchville Lane Bicycle Sharrows and Sidewalks.**

112 & 113 - Churchville Lane - Lakeside Drive to Holland Road

112 & 113 - Churchville Lane Lakeside Drive to Holland Road

Trail/Bicycle Facility Type and Length:

112 - Bicycle Sharrows:	0.32 miles
113 - Sidewalks:	0.32 miles

Summary:

- Connects Northampton Crest and Hidden Cove Estates neighborhoods with Churchville Reservoir.
- Will require that the speed limit along Churchville Lane be reduced from 40 mph down to 35 mph.
- Will also require the cooperation and approval of PennDOT since Churchville Lane is a state-owned road.
- Provides connections to 74 - Holland E.S./Lower Bucks Holland Outdoor Recreation Shared Use Trail and 111 - Churchville Lane Shared Use Trail.

114 - Bucks County - Churchville Reservoir Connector - Lake Drive to AQUA PA property

114 - Bucks County - Churchville Reservoir Connector Lake Drive to AQUA PA property

Trail/Bicycle Facility Type and Length:

Shared Use Trail:	0.18 miles
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Summary:

- Connects the Hidden Cove Estates neighborhood to Churchville Reservoir.
- This trail would be located on property owned by Bucks County.
- Provides connection to 115 - Churchville Reservoir Connector Shared Use Trail.

115 - Churchville Reservoir Connector Trail - Bucks County (Lake Drive) to Churchville Access Road

115 - Churchville Reservoir Connector Trail Bucks County (Lake Drive) to Churchville Access Road

Trail/Bicycle Facility Type and Length:

Shared Use Trail:	0.12 miles
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Summary:

- In conjunction with 114 - Bucks County - Churchville Reservoir Connector Shared Use Trail, connects the Hidden Cove Estates neighborhood to the existing access roads and pathways as part of Churchville Reservoir.
- An easement would be required from AQUA PA for this trail. It should be noted that they have historically been reluctant to provide public access to the reservoir property.

116 - Churchville Farm - Churchville Reservoir to Holland Road

116 - Churchville Farm Churchville Reservoir to Holland Road

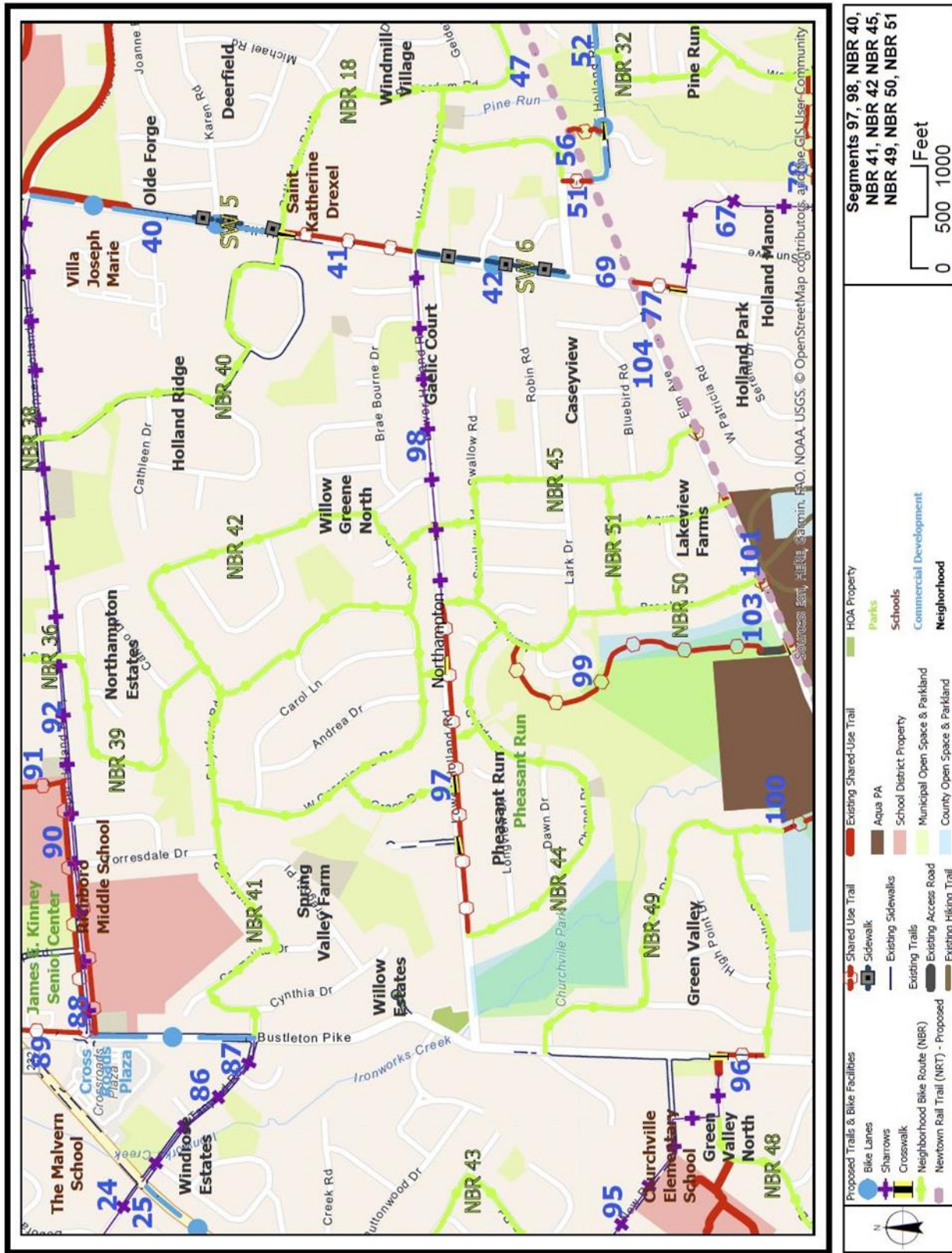
Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.64 miles

Summary:

- Would help complete a trail system around the Churchville Reservoir while connecting out to Holland Road.
- The trail would be located on property owned by Bucks County but operated by a private entity as an equestrian facility known as Churchville Farm. Because of this, an agreement will need to be reached with the operators of the equestrian facility.
- At the intersection of Holland Road and Hope Road, the trail would connect to **74 - Holland Road Shared Use Trail** and the existing shared use trail along Holland Road extending to Rocksville Road.
- These trails then connect to several other proposed trails and bicycle facilities to the east of Holland Road and also connect to the **Buck Road Shared Use Trail**.

FIGURE 22 – SEGMENTS 97, 98, NBR 40, NBR 41, NBR 42, NBR 45, NBR 49, NBR 50, NBR 51



97 - Lower Holland Road - Chapel Drive to Lark Drive

97 - Lower Holland Road Chapel Drive to Lark Drive

Trail/Bicycle Facility Type and Length:

Shared Use Trail: 0.62 miles

Summary:

- This is part of a 1.3 mile trail and bicycle facility extending from Chapel Drive to Holland Road.
- This initial segment would consist of a shared use trail along the south side of Lower Holland Road from Chapel Drive to Lark Drive. The right-of-way for most of this distance is 60'. However, the initial 650' spanning six properties, may require easements from the individual homeowners.
- Provides connection to **98 - Lower Holland Road Bicycle Sharrows**.

98 - Lower Holland Road - Lark Drive to Holland Road

98 - Lower Holland Road Lark Drive to Holland Road

Trail/Bicycle Facility Type and Length:

Bicycle Sharrows: 0.66 miles

Summary:

- Continues the trail and bicycle facility along Lower Holland Road in the form of bicycle sharrows out to Holland Road.
- The transition from shared use trails to bicycle sharrows after Lark Drive is due to a narrowing of the right-of-way and a farmhouse sitting close to the road.
- In addition to **97 - Lower Holland Road Shared Use Trail**, this would also connect to **42 & 43 Holland Road Bicycle Lanes & Shared Use Trail**. The bicycle lanes headed south along Holland Road from Lower Holland Road would provide a connection to the **Newtown Rail Trail** for experienced cyclists comfortable with riding in close proximity to vehicles.

Neighborhood Bike Routes (NBR) 36 through 45

Neighborhood Bike Routes - 36 through 45

Trail/Bike Facility Type and Length:

NBR 36 - Neighborhood Bike Route Signage	0.73 miles
NBR 37 - Neighborhood Bike Route Signage	1.20 miles
NBR 38 - Neighborhood Bike Route Signage	0.24 miles
NBR 39 - Neighborhood Bike Route Signage	0.53 miles
NBR 40 - Neighborhood Bike Route Signage	0.78 miles
NBR 41 - Neighborhood Bike Route Signage	2.33 miles
NBR 42 - Neighborhood Bike Route Signage	0.89 miles
NBR 43 - Neighborhood Bike Route Signage	1.07 miles
NBR 44 - Neighborhood Bike Route Signage	1.42 miles
NBR 45 - Neighborhood Bike Route Signage	0.62 miles

Summary:

- **NBR 36 - Long Lane Farms**
Provides connection to Northampton Crossing neighborhood, Richboro Elementary School, **12 - Newtown Richboro Road Bicycle Lanes** and **92 - Upper Holland Road Bicycle Sharrows**
- **NBR 37 - Deerfield North**
Provides connection to Northampton Crossing neighborhood, Council Rock High School South, **15 - Newtown Richboro Road Shared Use Trail** and **92 - Upper Holland Road Bicycle Sharrows**
- **NBR 38 - Northampton Crossing**
Provides connection to Deerfield North neighborhood and **92 - Upper Holland Road Bicycle Lanes**
- **NBR 39 - Northampton Estates**
Provides connection to Holland Ridge and Spring Valley Farm neighborhoods and **92 - Upper Holland Road Bicycle Lanes**
- **NBR 40 - Holland Ridge**
Provides connection Northampton Estates, Spring Valley Farm and Willow Greene North neighborhoods
- **NBR 41 - Spring Valley Farm**
Provides connection to Holland Ridge, Willow Greene North neighborhoods and **97 - Lower Holland Road Shared Use Trail**
- **NBR 42 - Willow Greene North**
Provide connections to Holland Ridge, Spring Valley Farm neighborhoods and **98 - Lower Holland Road Shared Use Trail**
- **NBR 43 - Northampton Hills**
Provides connection to **25 - Second Street Pike Bicycle Lanes** and **95 - New Road Bicycle Sharrows**
- **NBR 44 - Pheasant Run**
Provides connection to Caseyview/Estates at Holland, Brook Drive, Lake View neighborhoods and **97 - Lower Holland Road Shared Use Trail**
- **NBR 45 - Caseyview/Estates at Holland**
Provides connection to Pheasant Run, Brook Drive, Lake View neighborhoods, **98 - Lower Holland Road Shared Use Trail**, **101 - Newtown Rail Trail Connector Trail** and **104 - Newtown Rail Shared Use Trail**.

Neighborhood Bike Routes (NBR) 46 through 53

Neighborhood Bike Routes - 46 through 53

Trail/Bicycle Facility Type and Length:

NBR 46 - Neighborhood Bike Route Signage	1.05 miles
NBR 47 - Neighborhood Bike Route Signage	0.21 miles
NBR 48 - Neighborhood Bike Route Signage	0.29 miles
NBR 49 - Neighborhood Bike Route Signage	1.21 miles
NBR 50 - Neighborhood Bike Route Signage	0.31 miles
NBR 51 - Neighborhood Bike Route Signage	0.47 miles
NBR 52 - Neighborhood Bike Route Signage	0.36 miles
NBR 53 - Neighborhood Bike Route Signage	0.81 miles

Summary:

- NBR 46 - Churchville Manor**
 Provides connection to Hillside Manor neighborhood, Churchville Elementary School, **25 - Second Street Pike Bicycle Lanes** and **95 - New Road Bicycle Sharrows**
- NBR 47 - Hillside Manor**
 Provides connection to Churchville Manor and Green Valley North neighborhoods
- NBR 48 - Green Valley North**
 Provides connection to Hillside Manor neighborhood, Churchville Elementary School, and **95 - New Road Bicycle Sharrows**
- NBR 49 - Green Valley**
 Provides connection to Churchville Reservoir, **96 - Bustleton Pike Shared Use Trail** and **100 - Newtown Rail Trail Connector Shared Use Trail**
- NBR 50 - Brook Drive**
 Provides connection to Lakeview Farms, Caseyview/Estates at Holland neighborhoods, **101 - Newtown Rail Trail Connector Shared Use Trail**, **104 - Newtown Rail Shared Use Trail**
- NBR 51 - Lakeview Farms**
 Provides connection to Brook Drive, Caseyview/Estates at Holland neighborhoods, **101 - Newtown Rail Trail Connector Shared Use Trail**, **104 - Newtown Rail Shared Use Trail**
- NBR 52 - Northampton Crest**
 Provides connection to Brook Drive, Caseyview/Estates at Holland neighborhoods, and **106 - Northampton Crest Connector Shared Use Trail**
- NBR 53 - Hidden Cove Estates**
 Provides connection to Brook Drive, Caseyview/Estates at Holland neighborhoods, **107 - Churchville Lane Bicycle Sharrows**, **108 - Churchville Lane Shared Use Trail** and **114 - Bucks County - Churchville Reservoir Connector**.

