

# Top Pedestrian Priority Segments



WILMAPCO Region



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WILMAPCO Council:

Joseph L. Fisona, Acting Chair Mayor of Elkton

James M. Baker Mayor of Wilmington

Shailen P. Bhatt Delaware Dept. of Transportation Secretary

Paul G. Clark New Castle County County Executive

Vance A. Funk III Mayor of Newark

Donald A. Halligan Maryland Dept. of Transportation Director, Office of Planning and Capital Programming

**Connie C. Holland** Delaware Office of State Planning Coordination, Director

John McGinnis Delaware Transit Corporation Acting Executive Director

James T. Mullin Cecil County Commissioner

WILMAPCO Executive Director Tigist Zegeye 850 Library Avenue, Suite 100 Newark, Delaware 19711 302-737-6205; Fax 302-737-9584 From Cecil County: 888-808-7088 e-mail: wilmapco@wilmapco.org web site: www.wilmapco.org

### RESOLUTION

#### BY THE WILMINGTON AREA PLANNING COUNCIL (WILMAPCO) APPROVING TOP PEDESTRIAN PRIORITY SEGMENTS: AN ANALYSIS OF THE WILMAPCO REGION

WHEREAS, the Wilmington Area Planning Council (WILMAPCO) has been designated the Metropolitan Planning Organization for Cecil County, Maryland and New Castle County, Delaware by the Governors of Maryland and Delaware, respectively; and

WHEREAS, prioritizing where limited transportation funding is expended has become increasingly important; and

WHEREAS, funding for non-motorized transportation projects is especially scarce; and

WHEREAS, Top Pedestrian Priority Segments: An Analysis of the WILMAPCO Region delineates the top pedestrian corridors in the region; and

WHEREAS, Top Pedestrian Priority Segments: An Analysis of the WILMAPCO Region recommends cost-effective, and often easily implementable, walkability improvements within those corridors; and

**WHEREAS**, Top Pedestrian Priority Segments: An Analysis of the WILMAPCO Region has undergone appropriate technical review;

**NOW, THEREFORE, BE IT RESOLVED** that the Wilmington Area Planning Council does hereby approve *Top Pedestrian Priority Segments: An Analysis of the WILMAPCO Region.* 

Date: Joseph L. Fisona, Acting Chairperson

Wilmington Area Planning Council



Partners with you in transportation planning

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## Who is WILMAPCO?

The Wilmington Area Planning Council (WILMAPCO) is the Metropolitan Planning Organization (MPO) for Cecil County, Maryland and New Castle County, Delaware. We are charged with planning and coordinating transportation investments for the Wilmington region.



The Wilmington region is home to nearly 640,000 residents, most of whom (84%) live in New Castle County. Wilmington, a financial hub supporting a population of more than 70,000, serves as the principal city. Urbanized development stretches outside of Wilmington along the I-95 corridor, from the Town of Elkton to the Pennsylvania border. Natural and rural landscapes, sprawling suburbs, and small towns blanket the rest of the region.

WILMAPCO's mission is to create the best transportation Plan for the region, one that meets all the requirements mandated by the Federal Clean Air Act and its Amendments (CAAA) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

## Chapter 1

## **Introduction**

#### Purpose

This study develops a process to more wisely spend our limited non-motorized funding. It demarcates the twenty top pedestrian corridors regionally, and identifies the chief walkability concerns in those places.

#### Background

WILMAPCO has long advocated for the development of an effective, efficient and meaningful non-motorized transportation system<sup>1</sup> in the Wilmington, Delaware region. Trends which emerged during the second half of the 20<sup>th</sup> Century have made this a challenge.

Following the Second World War, the construction of major highways such as I-95, SR 1 and SR 2 encouraged a housing boom in Wilmington's suburbs, one that continues to this day. The population of Wilmington sank as former city residents (and new migrants) flooded suburban areas. Continuing highway investments, coupled with expanding private car ownership, enabled the sharp and wide separation of land uses visible today outside our cities and towns.



Figure 1: Contemporary Sprawl Development

Sprawling development in Middletown. (Source: Bing Maps)

The long miles of paved highways that crisscross the WILMAPCO region provide for an unprecedented freedom of movement for those with the means. This car-centric society, however, presents environmental and social concerns. These include heightened greenhouse

<sup>&</sup>lt;sup>1</sup> Non-motorized transportation primarily includes walking and bicycling.

gas emissions (which speed global warming) more sedentary lifestyles (which contribute to health problems), and isolation for those without access to a car. Sprawl in Wilmington's suburbs also led to disinvestment in the city, an entrenchment of its urban poverty and unbalanced regional transportation investments.

#### Searching for a Path Forward

In our era of sprawl, transportation spending became—and remains—most influenced by land development and highway interests. The public transit system contracted, and few can today reasonably walk or bicycle to work, shops or play.

Roadway-only projects constitute the lion's share of capital transportation spending in our region. In the FY 2012 TIP<sup>2</sup>, only \$10.5 million was set aside for bicycle and pedestrian-only projects, a paltry sum compared to the \$1.4 billion slated for roadway-only work in FY 2012. And while pedestrian and bicycle projects are often wrapped into roadway projects, funding for multimodal projects too has faced sharp declines, as a percentage of total spending, since 2003.

As illustrated in Figure 2, roadway-only project funding has increased significantly in recent TIPs. In response to sprawl, major highway expansion projects—like the construction of a new US 301 expressway and capacity increases to our interstate system—have been funded. In fact, more than 39% of the FY 2012 TIP was dedicated to system *expansion*, the highest of any funding category. With an increasing amount dedicated to expansion projects (see figure 2) many preservation projects have been shelved. Considering projected transportation funding shortfalls on the horizon, and that ride quality on existing highways is already suffering, our system is overstretched.



Figure 2: Percentage of Capital Funding to Roadway-only & Expansion Projects in the TIP

<sup>&</sup>lt;sup>2</sup> The TIP is the Transportation Improvement Program, an annually-updated four-year listing of projects. See <u>www.wilmapco.org/tip</u>.

Despite this shortfall, progress has been made to realize an improved non-motorized transportation system in both Maryland and Delaware. WILMAPCO, DelDOT and MDOT have developed *complete street* policies to work towards incorporating all users, including pedestrians, bicyclists and people with disabilities, on existing and new roadways<sup>3</sup>. Where appropriate, reconstructed roadways may feature bicycle lanes painted next to car travel lanes, separated stretches of sidewalk next to the road and safer and more accessible pedestrian road crossings. Significant progress has also been made completing our region's proposed network of pedestrian and bicycle pathways. The most prominent of these, the East Coast Greenway, is over halfway finished in New Castle County. Innovative programs like Transportation Enhancements and Safe Routes to School also provide savvy communities, and schools, funding to rehabilitate and reshape their transportation infrastructure. While a good start, we have a very long way to go.



New Lindenhill Road in Pike Creek features travel paths for pedestrians, cyclists and cars.

Creating the conditions for higher and sustained increases in non-motorized spending requires major shifts in land use and financial policy. Residential and commercial sprawl should be checked, and then reversed, through meaningful and effective development incentive programs and/or restrictions. We should aim for increasing the densities of existing centers and the contraction of today's sprawl into small centers and open space. This more sustainable, livable and smarter growth pattern would foster a modal shift from today's heavy reliance on personal vehicles to a future where public transit, walking and bicycling begin to outpace car use.

Owing to this reliance on personal cars, current transportation revenues are supplied primarily via taxes on gasoline. Funding non-highway projects with gasoline revenues (especially in a time of scarce funding, when many highway projects exist only on diagrams) is counterintuitive. This strengthens today's link between transportation revenue and highway spending, and further perpetuates our typical transportation spending cycle. Coupled with changes in land use patterns, uncovering new transportation revenue streams will help break the cycle.

<sup>&</sup>lt;sup>3</sup> See the 2030 Regional Transportation Plan, <u>www.wilmapco.org/rtp</u>.

#### **Prioritizing Pedestrian Segments**

Providing more balanced transportation investments and curbing suburban sprawl has figured into WILMAPCO's planning objectives<sup>4</sup>. We pride ourselves on a multimodal approach to planning, to ensure that the non-motorized system is no less valued than the highway. A Non-motorized Transportation Working Group comprised of planners and pedestrian and bicycle advocates meets regularly at WILMAPCO, setting the course for non-motorized transportation planning work at the agency. We host Walkable Community Workshops<sup>5</sup>, identifying troublesome spots for pedestrians alongside community members, and provide guidance on implementing improvements. We have also taken the planning lead on several Safe Routes to School programs in New Castle County, bringing about pedestrian improvements and educational activities to encourage more of our youth to walk to school safely. Walkability was also an important component of our Transportation and Environmental Justice studies<sup>6</sup>. This report helps us make more informed infrastructure investment decisions.

The prioritization of projects was a cornerstone of our 2030 Regional Transportation Plan (RTP). With transportation funding allocations projected to fall during the decade ahead, wisely investing available capital is critical. The Plan developed a transparent, data-driven project prioritization process, providing a technical score for planned projects. Also featured in the Plan was a map of our Pedestrian Priority Areas and prioritization of individual roadways segments within them.

Pedestrian Priority Areas (see Map 1 below) are defined as those areas within a municipality, one-mile of a school<sup>7</sup> and one-quarter mile of a bus stop. While we believe the entirety of our region may be appropriate for pedestrian facilities, Pedestrian Priority Areas help us focus pedestrian facility studies and investments. Given their own wide coverage, however, it was recognized in developing the 2030 RTP a more finely-tuned pedestrian prioritization process was warranted.

To do this we scored our region's 33,000 individual roadway segments on an index. Aimed at ascertaining the segment's ability to generate pedestrian activity and its need for pedestrian safety enhancements, the index considered measures such as surrounding population and employment density, the pedestrian crash rate, and proximity to shops, libraries and community centers. The resulting Prioritized Pedestrian Network (PPN) has been used as a tool by WILMAPCO planners in the years since. Notably, it helped prioritize pedestrian improvements in the Southbridge section of Wilmington<sup>8</sup>.

<sup>&</sup>lt;sup>4</sup> See our 2030 Regional Transportation Plan, <u>www.wilmapco.org/rtp</u>.

<sup>&</sup>lt;sup>5</sup> See our Walkable Community Workshops, <u>www.wilmapco.org/walkable</u>.

<sup>&</sup>lt;sup>6</sup> See our Transportation and Environmental Justice work, <u>www.wilmapco.org/ej</u>

<sup>&</sup>lt;sup>7</sup> This excludes schools in Rural Transportation Investment Areas in Cecil County.

<sup>&</sup>lt;sup>8</sup> See our Southbridge work, <u>www.wilmapco.org/southbridge</u>



Map 1: Pedestrian Priority Areas



The Prioritized Pedestrian Network helped residents prioritize pedestrian upgrades in Southbridge.

The present study takes our PPN to the next level. Beyond updating the network with new data, it takes a closer look at our region's 20 highest-scoring corridors. Walkability assessments were conducted in each of these top pedestrian priority segments, to identify poor infrastructure and broken pedestrian connections. In a final chapter, appropriate funding streams are discussed to address these issues.

This study is a small but important step towards achieving a more robust non-motorized transportation system in the WILMAPCO region. We will continue to press for the necessary long-term overhaul of land use and transportation policy described above. In the short-term, this study delineates the corridors where limited non-motorized funding would best be spent, along with which projects in those corridors most need attention.

## Chapter 2

## Prioritized Pedestrian Network

As noted in the previous chapter, our Prioritized Pedestrian Network (PPN) was developed with our 2030 RTP to offer a transparent scheme to prioritize pedestrian improvements. High-scoring network segments are concurrently where heavy pedestrian activity may be generated and where solid pedestrian infrastructure is most needed. This chapter outlines the criteria and method of our PPN.

#### Index Criteria

Our PPN uses Geographic Information Systems (GIS) to prioritize and map roadway segments for pedestrian improvements. Centerline roadway data for New Castle and Cecil Counties serve as the base networks. Together, these files comprise 33,202 individual links of varying length. Each of these links was scored using an index developed by the Non-motorized Transportation Working Group, illustrated in Table 1. The scores for each measure were summed, giving each segment a final score. Links on interstates and expressways, where walking is prohibited, always received a score of zero. Each of the 13 measures featured in the index will be discussed in detail below.

No.	Criteria Measure Notes		Notes	Points		
1.	Bus Stop	within .25 mile	Point Buffer	1		
2.	Commercial Property	within .25 mile	Parcel/point Buffer	1		
3.	Community Center	within .25 mile	Point Buffer			
4.	Greenway	within .5 mile	Line Buffer	1		
5.	Hometown Overlay Zone	within	Polygon (only NCC)			
6.	Library	within .25 mile	Point Buffer	1		
7.	Municipality	within	Polygon			
8.	Park	within .25 mile	Polygon Buffer			
9.	Safety Improvement Target	within	Crash index in NCC/Pedestrian Facility Needs in Cecil			
10.	School	within 1 mile	Point Buffer			
11.	Significant EJ Neighborhood	within	Polygon Buffer			
12.	Significant TJ Neighborhoood	within	Polygon Buffer			
13.	Traffic Analysis Zone Density	within	Polygon			

#### Table 1: Prioritized Pedestrian Network Criteria and Measures

#### (1.) Bus Stop

Bus stops are focal points for pedestrian activity, and should be surrounded by adequate walking infrastructure. In our index, bus stop locations were gathered from the Delaware Transit Corporation in New Castle County and WILMAPCO field surveys in Cecil County. Using GIS, a ¼ mile buffer was applied to the bus stops, representing a rough gauge of acceptable walking distance. Segments in our base network which fell within this buffer were awarded one point.

#### (2.) Commercial Property

Shops should be accessible to pedestrians. Commercial property data were collected from both county land use departments. As with the bus stops, a <sup>1</sup>/<sub>4</sub> buffer was applied to these features to represent walking distance. Base network links within these buffers were given one point.



Pedestrians and restaurants mix one afternoon in downtown Wilmington.

#### (3.) Community Center

Like shops, community centers should be easily reached by pedestrians. Gathered from a variety of sources, a ¼ mile buffer was applied to community center locations. Network segments within that buffer were awarded one point.

#### (4.) Greenway

Segments of existing and proposed bicycle and pedestrian pathways should link into local parks and pedestrian infrastructure. A ½ mile buffer was applied to New Castle County's Greenway Plan and pathway data from WILMAPCO's base network in Cecil County. Base network links within these buffers were given a point.

#### (5.) Hometown Overlay Zone

Areas in New Castle County identified as "hometown overlay zones" were also considered in our analysis. These non-incorporated regions, such as Claymont, offer limited local regulation regarding design standards. Segments within hometown overlays were awarded a point.

#### (6.) Library

Libraries are focal points for community activity, and should boast good pedestrian connectivity. Segments within a <sup>1</sup>/<sub>4</sub> mile buffer of a library received one point.

#### (7.) Municipality

The 22 municipalities in our region often boast existing density and a commitment to smart growth. Our transportation planning process works to support these communities. Like hometown overlay zones, network links within municipalities were given one point.



Pedestrians and a cyclist cross the busy Main Street in Newark.

#### (8.) Park

Parks should be easily accessible by pedestrians from surrounding neighborhoods. Network segments within 1/4 mile of parks obtained a point.

#### (9.) Safety Improvement Target

Safety is both the most important and most complex measurement in our index. In New Castle County, we measured safety with pedestrian crash data (from 2006-8). Roadway segments with many pedestrian crashes tell us that the road is frequented by pedestrians and that safety issues are present. We developed a simple crash index, based on the raw number of crashes and the crash rate against the segment's vehicle miles traveled, to distribute one to four points for safety on network links. Segments with a moderate crash total received one point, as well as segments with a moderate crash rate. Links with a significant crash total received two points, along with segments showing a significant crash rate.

Due to the unavailability of good crash data in Cecil County a different approach was taken for network segments there. Links falling upon a safety improvement target road, based on MDOT's Bicycle and Pedestrian Inventory, received four points.

#### (10.) School

Our schools should have solid pedestrian connections to surrounding communities. Network segments within 1 mile of schools, acceptable walking distance for most children, received one point.



Children arrive at Claymont Elementary School one chilly April morning.

#### (11.) Significant EJ Neighborhood

Low-income and minority communities do not receive their fair share of transportation spending, and carry more than their fair share of the transportation system's burden. They also boast higher-than average walking rates, and are more likely to suffer pedestrian crashes. Network segments within heavily-concentrated low-income and minority areas, known as Significant Environmental Justice (EJ) Neighborhoods<sup>9</sup>, received a point on our index.



The Hilltop section of Wilmington is one of our identified EJ neighborhoods.

#### (12.) Significant TJ Neighborhood

Senior, disabled and zero-car household communities risk isolation from society without transportation alternatives. Solid pedestrian connections within these communities, known as Transportation Justice (TJ) Neighborhoods<sup>10</sup>, provide residents with an alternative to the private car. Links within Significant TJ Neighborhoods received one point.

#### (13.) Traffic Analysis Zone Density

Traffic Analysis Zones (TAZs) home to heavy concentrations of population and employment should also be home to good pedestrian infrastructure. Network segments within such TAZs were awarded one point in our index.

 <sup>&</sup>lt;sup>9</sup> Significant EJ neighborhoods are as defined in the 2009 Transportation Equity Report (<u>www.wilmapco.org/ei</u>).
<sup>10</sup> Significant TJ neighborhoods are as defined in the 2007 Accessibility and Mobility Report (<u>www.wilmapco.org/ei</u>).

#### Example

Below is a brief illustration of one network segment, and the scores it generated using the criteria described above. Considered is a high-scoring link along SR 2 (west of SR 41/62) shown in yellow below. The link is part of Segment 10, one of our top pedestrian priority segments, profiled in the following chapter.



#### Figure 3: PPN Scoring Example

This segment of Kirkwood Highway received high points in our index. (Source: Bing Maps)

This busy roadway segment near Prices Corner received a total of eleven points in nine of our 13 possible criteria. It received two points for bus stops and commercial properties, which line the highway. Within walking distance of a community center, pathway, park, and school the segment picked up four additional points. This section of SR 2 also scored high on our pedestrian crash index: it received three of a possible four points there. Nestled inside a TJ area and densely-settled TAZ, the segment netted two additional points.

#### Mapping the Network

After tallying scores for the more than 33,000 roadway segments (and zeroing-out scores for segments along expressways) we mapped the prioritized network. Because it is more urbanized and has an additional index measure (hometown overlay zones), segments in New Castle County scored higher (mean of 4.7) than segments in Cecil County (mean of 2.1). Map 2 normalizes this discrepancy by assigning roughly the same percentage breaks to each color category. For example, about 4% of segments in New Castle County scored between 10 and 16 (its highest score), earning them the deep red distinction. In Cecil County 4% of segments scored between 7 and 12 (its highest score), earning them the same coloring.





The highest-scoring segments are generally found in communities along the I-95/US 40 belt in the north of our region. Wilmington (mean of 8.2) is home to the heaviest concentration of high-scoring segments, especially the Central Business District and adjoining neighborhoods. Stretches of highway (namely SR 2, SR 4, US 40 and US 13) and nearby communities and towns (Elsmere and Newport) also do well on our index in New Castle County, as do downtown Newark, New Castle and Middletown.

High scoring segments in the more rural Cecil County are mostly concentrated within municipalities. Elkton (mean of 5.6) leads the way, with other towns (Rising Sun, Perryville, North East, Chesapeake City, and Cecilton) also boasting high scoring segments. Flechwood Road, north of Elkton, also scores well on our index.



Road segments within Elkton scored highest on our PPN in Cecil County.

## Chapter 3

## Top Priority Segments & Field Surveys

This chapter identifies and explores the 20 highest-scoring segments. Field visits were made to each of these top segments to assess their walkability, and identify potential improvements.

Common threads woven across the top priority segments are: the conflicts and safety concerns vehicles present within these popular pedestrian corridors, infrastructure decay, and gaps in safe non-motorized connections. More than 360 practical, cost-efficient and often easily-implementable pedestrian upgrades are identified in this chapter, totaling about \$6.1 million.

#### **Top Priority Pedestrian Segments**

Map 3 shows our region's top 20 priority pedestrian segments. Sixteen are found in either Wilmington or Elkton (eight each). These include stretches of Washington, Walnut and 4<sup>th</sup> Street in Wilmington (# 1-8) and SR 213, 268, 279 and Main Street in Elkton (#'s 13-20). Of the remaining four segments, two (# 11 and 12) are in Newark (the eastern leg of Delaware Avenue and a portion of SR 72). Another top segment (# 9) lies on SR 48 just outside Wilmington's western boundary and another (#10) in Marshallton along SR 2.



Pedestrian conditions were assessed along our 20 highest-scoring segments.





#### **Field Surveys**

Walkability recommendations for these twenty segments are found in the maps below. Each segment has its own separate map of pedestrian recommendations<sup>11</sup>, along with a pair of photographs to illustrate conditions. The surveys were completed from May through July 2011.

Cost estimates were developed for the vast majority of identified improvements. These are based on estimates found in the City of Albermarle's (North Carolina) Comprehensive Pedestrian Plan and from USDOT (both in 2007), and the website WalkingInfo.org (2011). Costs from 2007 were adjusted for a few years of inflation. The cost figures are based on rough averages and should be consider for planning purposes only. Detailed cost estimates will be developed as individual projects move forward into design. A handful of field ideas (identified as "other improvements" and colored purple on the maps) are not included in the cost estimates.

Table 2 below is a summary of the number of potential projects identified in each segment, its average pedestrian priority score, pedestrian crashes<sup>12</sup> and a cost estimate.

Segment	Area	# of Ped Crashes	# of Projects	Cost Est.	Median PPN Score
1	Wilmington (Brandywine Village)	8	32	\$514,000	11
2	Wilmington (Harlan)	22	60	\$427,000	12
3	Wilmington (Upper East Side)	5	9	\$200,000	12
4	Wilmington (East Side)	12	20	\$324,000	12
5	Wilmington (Quaker Hill)	11	18	\$261,000	13
6	Wilmington (West Center City)	15	24	\$578,000	12
7	Wilmington (East Hilltop)	29	50	\$1,060,000	12
8	Wilmington (West Hilltop)	15	31	\$875,000	12
9	Chestnut Run	1	13	\$126,000	11
10	Marshallton	1	8	\$205,000	11
11	Newark (Delaware Ave)	6	18	\$59,000	11
12	Newark (Library Ave.)	6	7	\$60,000	12
13	West Elkton (SR 279)	N/A	3	\$243,000	10
14	Elkton (SR 213 North)	N/A	11	\$251,000	10
15	Elkton (SR 213 North-Central)	N/A	12	\$166,000	11
16	Elkton (SR 213 Central)	N/A	11	\$436,000	10
17	Elkton (SR 213 South)	N/A	8	\$258,000	10
18	Downtown Elkton (North St.)	N/A	10	\$30,000	11
19	Downtown Elkton (Main St.)	N/A	8	\$26,000	12
20	Downtown Elkton (East Main St.)	N/A	7	\$36,000	11

#### Table 2: Summary of Segment Statistics

<sup>&</sup>lt;sup>11</sup> The same recommendation sometimes appears on more than one map, as identified segments are often next to one another. In our database, however, each recommendation is assigned to only one segment, along with its cost estimate. The summary table above and the summary tables on each map reflect the database, and not what may be shown on the maps.

<sup>&</sup>lt;sup>12</sup> Note that the pedestrian crashes cited in this table, and on all maps in this section are from 2008-2010. These data were unavailable when the Prioritized Pedestrian Network was updated for this analysis. Figures from 2006-2008 were used for that update. Clean crash data for the Elkton segments are unavailable, and are not shown.





Segment 1, Wilmington (Brandywine Village)



While Market Street's sidewalks are in good repair along this stretch, its crossings could be enhanced.



Pedestrians may have difficulty reaching this bus stop on Washington Street at 40<sup>th</sup> Street. Marking crosswalks, adding Americans with Disability Act (ADA) compliant curb-cuts, and introducing pedestrian signals would be a start.





Segment 2, Wilmington (Harlan)



The busy intersection of Market Street at 30<sup>th</sup> Street was the site of two recent pedestrian crashes.



A tree near Market Street at 26<sup>th</sup> Street has destroyed this piece of sidewalk. Poor sidewalk conditions abound along Washington Street and Market Street in Segment 2.



Map 6: Segment 3, Wilmington (Upper East Side)

Segment 3, Wilmington (Upper East Side)



Walkability along this stretch of Walnut Street is good. An intersection treatment at 13<sup>th</sup> Street is shown above.



Some Walnut Street crossings could be improved with additional markings, like this one at 10<sup>th</sup> Street.



#### Map 7: Segment 4, Wilmington (East Side)

Segment 4, Wilmington (East Side)



Safe crossings along Walnut Street are sometimes far apart. These curb-cuts seem to indicate a midblock crossing, but no crosswalk markings or signage exists.



A line of street trees along 5<sup>th</sup> Street's approach to the Downtown would make conditions more comfortable for pedestrians, and may encourage more to walk.





Segment 5, Wilmington (Quaker Hill)



The Lower Market Street section of Wilmington boasts a mix of uses and transportation choices.



Bulbouts on Market Street at 4<sup>th</sup> Street reduce the crossing distance for these pedestrians.



Map 9: Segment 6, Wilmington (West Center City)

#### Segment 6, Wilmington (West Center City)



With its intense mixture of homes, shops and pedestrian and vehicular traffic, 4<sup>th</sup> Street is the most dangerous roadway for pedestrians in our region. Introducing a landscaped median to serve as a refuge for pedestrians, and bulbouts to lessen crossing distances at key intersections, should reduce pedestrian crashes.



This goat path underneath I-95 on 2<sup>nd</sup> Street should be formalized to improve connectivity.




Segment 7, Wilmington (East Hilltop)



Major pedestrian upgrades are warranted for the busy intersection of 4<sup>th</sup> Street at Jackson Street.



Like 4<sup>th</sup> Street, Lancaster Avenue's heavy car traffic and parking conflict with pedestrian movements.



Map 11: Segment 8, Wilmington (West Hilltop)

#### Segment 8, Wilmington (West Hilltop)



Marked crosswalks, compliant curb-cuts and a pedestrian signal should be considered at the intersection of Lancaster Avenue and Clayton Street.



Additional pedestrian treatments and high-visibility signage would help address pedestrian safety on 4<sup>th</sup> Street at Lincoln Street.





#### Segment 9, Chestnut Run



Crossing SR 48 to reach a local supermarket or westbound bus stops is risky for residents of the Lancaster Court Apartments. The wall shown above prohibits access to a signalized crossing.



Most pedestrians chose to cross mid-block across the busy highway, and use an informal pathway to access the market.



Map 13: Segment 10, Marshallton

#### Segment 10, Marshallton



This six lane stretch of SR 2 is among our most unwelcoming segments for pedestrians. Adding a landscaped median, and sidewalk buffers, would help calm traffic and provide a refuge for walkers.



Poor crossing opportunities at SR 2 and SR 41 discourage people from reaching bus stops, Greenbank Park and the Prices Corner Shopping Center on foot.





Segment 11, Newark (Delaware Avenue)



An unused travel lane along Delaware Avenue presents an opportunity to add a separated bicycle lane (cycle track), a sidewalk buffer, or both.



Solid pedestrian infrastructure and crossings are in largely in place for walkers and skateboarders alike on Segment 11.





Segment 12, Newark (Library Avenue)



Jaywalking is common along this stretch of SR 72. Widening the median would improve safety for those keen on shortening their trip to/from the bus stop or market.



Efficient pedestrian connectivity between the bus stop (shown in the top photo) to the market (brick building) is absent, so many transit patrons opt to travel through a parking lot.



Map 16: Segment 13, West Elkton (SR 279)

Segment 13, West Elkton (SR 279)



A shared-use pathway would be appropriate for this stretch of SR 279.



The western leg of the SR 213 at SR 279 intersection has a marked, signalized crossing with a pedestrian refuge. No sidewalk is in place, however, isolating residents to the north.





Segment 14, Elkton (SR 213 North)



Sidewalk is absent along this segment of SR 213, while a goat path here indicates non-motorized use.



Portions of sidewalk along SR 279 are crumbling.





Segment 15, Elkton (SR 213 North-Central)



Sloping sidewalk is pictured here along SR 213 at Railroad Avenue.



US 40 can be a challenging highway to negotiate as a pedestrian. Clustering shops, adding sidewalk, and enhancing pedestrian amenities at intersections would improve safety.



#### Map 19: Segment 16, Elkton (SR 213 Central)

#### Segment 16, Elkton (SR 213 Central)



Segment 16 is the least pedestrian-friendly corridor we identified in Elkton. Broken chunks of sidewalk are pictured here along SR 213, which function mainly to control vehicle flow to/from parking lots.



Crossing US 40 at the SR 213 intersection is a harrowing experience for a pedestrian.



Map 20: Segment 17, Elkton (SR 213 South)

Segment 17, Elkton (SR 213 South)



Missing sidewalk along the SR 213 corridor and pedestrian unfriendly intersections like here at Whitehall Road isolate those without access to a car.



Due to a gap in Whitehall Road's sidewalk network, this disabled pedestrian travels in the shoulder.





Segment 18, Downtown Elkton (North Street)



A sloping portion of sidewalk along SR 268 is shown here.



The winding railroad bridge on SR 268 provides solid pedestrian access into Downtown from the north.



Map 22: Segment 19, Downtown Elkton (Main Street)



Segment 19, Downtown Elkton (Main Street)

A view of Elkton's downtown is shown above, at the intersection of SR 268 and Main Street.



Slow vehicle speeds, street trees, pedestrian-scaled lighting, decorative sidewalk buffers and bulbouts combine to make Downtown Elkton one of the most walkable places in our region.







Segment 20, Downtown Elkton (East Main Street)



The intersection of Delaware Avenue at Howard Street could use pedestrian upgrades. Further, access to Hatchery Park is difficult for walkers due to lack of sidewalk, especially at the bridge over Big Elk Creek.



Main Street's sidewalk ends just east of Hermitage Drive. Adding sidewalk to connect this segment to Elkton's sprawling eastern subdivisions could be a long-term consideration.

# Chapter 4

# Path Forward

### **Funding Options**

Projected transportation funding shortfalls in Delaware and Maryland, and legal wrangling in the City of Wilmington over responsibility of sidewalk maintenance, beg for the exploration of alternative methods to fund the recommendations from the previous chapter.

The identification of a dedicated and well-funded pool(s) for non-motorized projects is a key in the long-term. Until this is realized a few options exist. One is private and local government support to complete projects. Two federally-funded programs also offer promise for non-motorized projects: The Transportation Enhancements (TE) Program and the Safe Routes to School (SRTS) Program.

The TE Program provides funding to support projects within the cultural, aesthetic, and environmental realm of the transportation network. All federal TE projects must relate to surface transportation and be dedicated to public use. Further, TE projects must fit into one of the twelve activities listed in Table 3.



A worker repaves a curb in Wilmington.

Activity	Examples
	New or reconstructed sidewalks, walkways, or curb ramps;
	wide paved shoulders for nonmotorized use, bike lane
	striping, bike parking, and bus racks; construction or major
Provision of facilities for pedestrians and bicycles.	rehabilitation of off-road shared use paths (nonmotorized
	transportation trails); trailside and trailhead facilities for
	shared use paths; bridges and underpasses for pedestrians
	and bicyclists and for trails.
Provision of safety and educational activities for	Educational activities to encourage safe walking and
pedestrians and bicyclists.	bicycling.
	Acquisition of scenic land easements, vistas, and
Acquisition of scenic easements and scenic or	
historic sites (including historic battlefields).	landscapes; acquisition of buildings in historic districts or
	historic properties, including historic battlefields.
	For projects related to scenic or historic highway programs:
Scenic or historic highway programs (including the	Construction of turnouts, overlooks, and viewing areas;
provision of tourist and welcome center facilities).	construction of visitor and welcome centers; designation
	signs and markers.
	Landscaping, street furniture, lighting, public art, and
	gateways along highways, streets, historic highways, trails,
Landscaping and other scenic beautification.	and waterfronts. Landscaping recommendation: see FHWA's
	Roadside Vegetation Management website.
	Preservation of buildings in historic districts; restoration
Historic preservation.	and reuse of historic buildings for transportation-related
	purposes.
	Restoration of historic railroad depots, bus stations, ferry
Rehabilitation and operation of historic	
transportation buildings, structures, or facilities	terminals and piers, and lighthouses; rehabilitation of rail
(including historic railroad facilities and canals).	trestles, tunnels, and bridges; restoration of historic canals
	canal towpaths, and historic canal bridges.
Preservation of abandoned railway corridors	Acquiring railroad rights-of-way; planning, designing, and
(including the conversion and use of the corridors	constructing multiuse trails; developing rail-with-trail
for pedestrian or bicycle trails).	projects.
	Billboard inventories and removal of illegal and
	nonconforming billboards. Inventory control may include, but
Inventory, control, and removal of outdoor	not be limited to, data collection, acquisition and
	maintenance of digital aerial photography, video logging,
advertising.	scanning and imaging of data, developing and maintaining
	an inventory and control database, and hiring of outside
	legal counsel.
	Research, preservation planning, and interpretation of
	archaeological artifacts; curation for artifacts related to
Archaeological planning and research.	surface transportation and artifacts recovered from
	locations within or along surface transportation corridors.
Environmental mitigation	For existing highway runoff: soil erosion controls, detention
(i) to address water pollution due to highway	and sediment basins, and river clean-ups. Wildlife
runoff; or	underpasses or other measures to reduce vehicle caused
(ii) reduce vehicle-caused wildlife mortality while	wildlife mortality and/or to maintain wildlfe habitat
maintaining habitat connectivity.	connectivity.
	Construction of new transportation museums; additions to
Establishment of transportation museums.	existing museums for a transportation section; conversion
establishment of transportation muscums.	of railroad stations or historic properties to museums with

# Table 3: Activities Eligible for TE Funding

TE project candidates are reviewed for consistency by Delaware and Maryland DOTs, who administer project development. Individual TE projects can reach a maximum of \$1 million per phase, with a maximum of a 20% local match required. Local matches are often derived from elected officials, businesses and interest groups.

WILMAPCO has helped plan many TE projects, and several are currently underway in the City of Wilmington. The vast majority of these projects are outside our high-scoring pedestrian priority corridors, however, and outside the city's core neighborhoods. We should work with elected officials, DelDOT/DTC, the City of Wilmington, and others within *Wilmington Initiatives*, to select projects within our top priority segments.

Another federal initiative, the SRTS Program, makes funds available to projects that encourage and/or enable children to walk or bike to school. More than half of U.S. children arrive at school each day in private automobiles. This has contributed to greater roadway congestion, diminished local air quality, less safe pedestrian conditions around schools, and adverse health effects, including obesity.

Through the SRTS Program, a wide variety of projects are eligible for funding. These include the addition of better-marked crosswalks at intersections and the replacement of crumbling sidewalks at nearby schools. While not comprehensive, the table below from the Federal Highway Administration lists potential infrastructure projects that support the goals and objectives of the SRTS Program.



Thomas Edison's Safe Routes to School planning team discuss potential projects.

Activity	Examples
Sidewalk improvements	New sidewalks, sidewalk widening, sidewalk gap closures, sidewalk repairs, curbs, gutters, and curb ramps
Traffic calming and speed reduction improvements	Roundabouts, bulb-outs, speed humps, raised crossings, raised intersections, median refuges, narrowed traffic lanes, lane reductions, full- or half- street closures, automated speed enforcement, and variable speed limits
Pedestrian and bicycle crossing improvements	Crossings, median refuges, raised crossings, raised intersections, traffic control devices (including new or upgraded traffic signals, pavement markings, traffic stripes, in-roadway crossing lights, flashing beacons, bicycle-sensitive signal actuation devices, pedestrian countdown signals, vehicle speed feedback signs, and pedestrian activated signal upgrades), and sight distance improvements
On-street bicycle facilities	New or upgraded bicycle lanes, widened outside lanes or roadway shoulders, geometric improvements, turning lanes, channelization and roadway realignment, traffic signs, and pavement markings
Off-street bicycle and pedestrian facilities	Exclusive multi-use bicycle and pedestrian trails and pathways that are separated from a roadway
Secure bicycle parking facilities	Bicycle parking racks, bicycle lockers, designated areas with safety lighting, and covered bicycle shelters
Traffic diversion improvements	Separation of pedestrians and bicycles from vehicular traffic adjacent to school facilities, and traffic diversion away from school zones or designated routes to a school

## Table 4: Activities Eligible for SRTS Funding

#### Source: FHWA

Planning, design, and engineering expenses associated with projects are also eligible to receive infrastructure funds. Like the TE Program, the SRTS programs are channeled through the Delaware and Maryland DOTs in the WILMAPCO region. And, also like the TE program, WILMAPCO has helped plan a number of SRTS projects.

Many elementary and middle schools, all eligible for SRTS funding, lie within close proximity to our top priority segments. Table 5 lists these schools.

Segment	Schools within Walking Distance
1	PS Dupont, Harlan, Delaware Preparatory, DE Education Reclamation
2	Shortlidge, Delaware Preparatory, Sharon Temple Junior Academy, Wilmington Forward Christian
3	Stubbs, Bancroft, Charles Drew, Kuumba Academy
4	Bancroft, Charles Drew, Kuumba Academy
5	Kuumba Academy, St. Peter's Cathedral
6	Kuumba Academy, St. Hedwig's, St. Paul's, St. Peter's Cathedral
7	Lewis, Bayard, St. Hedwig's, St. Paul's, Nativity Prepatory
8	Bayard, Odyssey Charter, St. Hedwig's, St. Thomas the Apostle, Nativity Prepatory
9	Odyssey Charter
10	Mote Elementary
11	n/a
12	n/a
13	Gilpin Manor Elementary, Elkton Middle, Immaculate Conception
14	Gilpin Manor Elementary, Elkton Middle School
15	n/a
16	n/a
17	Holly Hall Elementary
18	Gilpin Manor Elementary, Elkton Middle, Immaculate Conception
19	Immaculate Conception
20	n/a

## Table 5: SRTS-eligible Schools nearby Top Priority Segments

#### **Study Recommendations**

- 1. Promote dense, livable, sustainable mixed-income and use communities which support walking as a mode of transportation.
- 2. Encourage efforts to identify a sustained funding pool for non-motorized transportation projects.
- 3. Ensure our "maintenance first" policy is followed with available capital. The existing non-motorized system should receive any necessary maintenance and upgrades prior to any expansion.
- 4. Update the present study every two to three years with fresh data and walkability surveys.
- 5. Make field survey recommendations available as an interactive map on this study's webpage: <a href="https://www.wilmapco.org/ped-priority">www.wilmapco.org/ped-priority</a>.

- 6. Share the study's webpage with decision-makers, implementing agencies and the general public.
- 7. Work with elected officials and our *Wilmington Initiatives* partners to support projects within identified top priority pedestrian segments.
- 8. Engage schools and civic groups within close proximity to our top priority segments. These schools are listed in Table 5.

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	-	MCW, ADA	0	30th at Washington	11
	-	Repair/Add Sidewalk	98	Washington (b/t 30 and 31)	11
	-	MCW; ADA	0	Washington at 31st	11
	-	Repair/Add Sidewalk	69	Washington btwn 31 and 32	11
	-	MCW; ADA	0	Washington at 32nd	11
	-	MCW; ADA	0	Washington at 33rd	11
	-	MCW; ADA	0	Washington at 34th	11
	-	MCW; ADA	0	Washington at 35th	11
	-	MCW; ADA	0	Washington at 36th	11
	-	MCW; ADA	0	Washington at Barrett	11
	-	Repair/Add Sidewalk	50	Washington btwn 32 and 33	11
	-	Repair/Add Sidewalk	64	Washington btwn 32 and 33	11
	-	Repair/Add Sidewalk	51	35th just N. of Washington	11
	-	Repair/Add Sidewalk	68	Washington btwn 35 and 36	11
	-	Repair/Add Sidewalk	67	Washington btwn 35 and 36	11
	-	Repair/Add Sidewalk	75	36th just S. of Washington	11
	-	Repair/Add Sidewalk	72	36th just S. of Washington	11
	-	Repair/Add Sidewalk	74	Barrett just N. of Washington	11
	-	MCW; ADA	0	Washington at 37th	11
	-	MCW; ADA	0	Washington at 38th	11
	-	MCW; ADA	0	Washington at 39th	11
	-	MCW; ADA; Signals	0	Washington at 40th Circle	11
	-	Add/Repair Sidewalk	116	Washington btwn 37 and 38	11
	-	Add/Repair Sidewalk	115	Washington btwn 37 and 38	11
	-	Add/Repair Sidewalk	89	Washington E. of 38th	11
	-	MCW; ADA	0	Market at 37th	13
	-	Repair/Add Sidewalk	0	Market at 38th	13
	-	MCW; ADA; Signals	0	Market at Pine	14
	-	Align and Mark Crosswalks	136	Market btwn Danby and Pine	14
	-	MCW; ADA; Signals	0	Market at Eastlawn	14
	-	MCW	0	Market at 35th	14
	-	MCW; ADA	0	Market at 36th	14
	2	ADA	0	Concord at Market	11
	2	Repair/Add Sidewalk	154	Vandever S. of Market	11
	2	Repair/Add Sidewalk	26	Vandever S. of Market	11
	2	Repair/Add Sidewalk	82	Hudson S. of Market	11
	2	Repair/Add Sidewalk	0	Concord at Tatnall	11
	2	MCW; ADA	0	22nd at Tatnall	11

# Appendix

# Listing of Field Survey Recommendations

₽	Geo ID	Segment		PISCALLER 1 C.	LUCALIUI	NULES	
40	78	2	MCW; Ped Signage	0	Concord at West St.		11
4	84	2	MCW; ADA	0	Washington at 26th		1
42	85	2	Repair / Add Sidewalk	0	Washington at 27th		1
43	90	2	Repair/Add Sidewalk	80	Wahington btwn 26 and 27		1
44	91	2	Repair/Add Sidewalk	82	Washington btwn 27 and 28		11
45	92	2	Repair/Add Sidewalk	67	Washington btwn 27 and 28		11
46	60	2	Repair / Add Sidewalk	0	Market at 22nd		12
47	61	2	Repair/Add Sidewalk	0	Market at Vandever		12
48	63	2	Repair/Add Sidewalk	0	Hudson at Market		12
49	66	2	Repair/Add Sidewalk	114	Hudson S. of Market		12
50	68	2	MCW; ADA	43	Market btwn 22nd and Gordon		12
51	69	2	MCW; ADA	49	Market btwn 22nd and Gordon		12
52	70	2	MCW; ADA	63	Market btwn 22nd and Gordon		12
53	71	2	Repair/Add Sidewalk	66	Market btwn Gordon and 23rd		12
54	72	2	Repair/Add Sidewalk	66	Market btwn Gordon and 23rd		12
55	73	2	Repair/Add Sidewalk	66	22nd N. of Market		12
56	74	2	Repair/Add Sidewalk	66	22nd N. of Market		12
57	79	2	Repair/Add Sidewalk	0	Concord at Washington		12
58	80	2	Repair/Add Sidewalk	0	Washington at 23rd		12
59	81	2	Repair/Add Sidewalk	0	Washington at 24th		12
60	82	2	Improve CW/Add Ped Signage	0	Washington at 25th		12
61	83	2	Add signalized CW	84	24th N. of Washington		12
62	86	2	Repaint CW	77	25th S. of Washington		12
63	87	2	MCW	52	Washington btwn 25 and 26		12
64	88	2	Repair/Add Sidewalk	55	Washington btwn 25 and 26		12
65	89	2	Repair/Add Sidewalk	66	Washington btwn 25 and 26		12
66	36	2	Repair/Add Sidewalk	60	Market btwn 29 and 30		13
67	37	2	Repair/Add Sidewalk	59	Market btwn 29 and 30		13
68	38	2	Repair/Add Sidewalk	0	Market at 29th		13
69	39	2	Repair/Add Sidewalk	0	Market at 28th		13
70	40	2	Repair/Add Sidewalk	0	Market at 27th		13
71	41	2	Repair/Add Sidewalk	0	Market at 26th		13
72	42	2	Repair/Add Sidewalk	137	Market btwn 28 and 29		13
73	43	2	Repair/Add Sidewalk	82	Market btwn 28 and 29		13
74	44	2	Repair/Add Sidewalk	36	Market btwn 27 and 28		13
75	45	2	MCW; ADA	46	Market btwn 27 and 28		13
76	46	2	MCW; ADA	06	Market btwn 26 and 27		13
77	47	2	MCW; ADA	48	Market btwn 26 and 27		13
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	49 2	MCW; ADA; Align	52	Market btwn 26 and 27		13
	50 2	MCW; ADA	0	Market at 25th		13
	51 2	MCW; ADA	0	Market at 24th		13
	52 2	WCW	0	Market at 23rd		13
	53 2	Repair/Add Sidewalk	142	Market btwn 25 and 26		13
	54 2	MCW; ADA	63	Market btwn 25 and 26		13
	55 2	MCW; ADA	71	Market btwn 24 and 25		13
	56 2	Repair/Add Sidewalk	75	Market btwn 24 and 25		13
	57 2	Repair/Add Sidewalk	91	Market btwn 24 and 25		13
	58 2	Repair/Add Sidewalk	63	Market btwn 23 and 24		13
	59 2	Repair/Add Sidewalk	63	Market btwn 23 and 24		13
	33 2	Repair/Add Sidewalk	0	Market at 30th		14
	34 2	Repair/Add Sidewalk	81	Danby S. of Market		14
	35 2	Repair/Add Sidewalk	88	30th S. of Market		14
	93 3	WCW	0	Walnut at 12th		12
	94 3	MCW	0	Walnut at 10th		12
	95 3	MCW; Ped Signal; Consider Bulbouts	bouts 0	Walnut at 9th		12
	96 3	ADA issue	0	Walnut btwn 8th and 9th		12
	97 3	MCW on side street	0	Walnut at 8th		12
	98 3	Repair/Add Sidewalk	55	Walnut S. of 11th		12
	99 3	Repair/Add Sidewalk	87	Walnut btwn 9th and 10th		12
	100 3	Repair/Add Sidewalk	89	Walnut btwn 8th and 9th		12
	101 3	Repair/Add Sidewalk	92	Walnut N. of 8th		12
	114 4	Add mid-block crossing; MCW; ADA	ADA 91	Lombard btwn 5th and 6th		11
	115 4	MCW MCW	75	Lombard at 6th		11
	116 4	I ADA	116	Lombard btwn 6th and 7th		1
	117 4	Add enhanced ped signage	0	Lombard at 5th		1
	118 4	MCW MCW	0	Lombard at 6th		1
	120 4	t Add mid-block CW	683	5th btwn Lombard and Walnut		1
	102 4	MCW; ADA; Ped Signal	0	Walnut at 7th		12
	103 4	Repair/Add Sidewalk	0	Walnut at 6th	mid-block location	12
	104 4	Repair/Add Sidewalk	0	Walnut at 6th	mid-block location	12
	105 4	Repair/Add Sidewalk	0	Walnut at 5th		12
	119 4	Repair/Add Sidewalk	60	4th at Walnut		12
	106 4	Repair/Add Sidewalk	0	4th at Poplar		13
	107 4	Repair Sidewalk	0	4th at Pine		13
	108 4	Repair Sidewalk	0	4th at Spruce		13
	109 4	Add Sidewalk	74	Spruce btwn 4th and 5th		13
	1	mon	ç	1.		4

118 1	111 4	MCW; ADA	176	4th btwn Pine and Lombard	13
119 1	112 4	Address SW Slope	69	4th btwn Pine and Lombard	13
120 1	113 4	Add Trees	77	4th W. of Lombard	13
121 1	121 4	Add landscaped median or bulbouts	0	4th St. to the east of Walnut	13
122 1	126 5	MCW; ADA; Consider Bulbouts	0	Tatnall at 3rd	1
123 1	132 5	Repaint CW	108	Tatnall N. of 2nd	1
124 1	133 5	MCW	74	3rd W. of Tatnall	11
125 1	134 5	MCW	80	West S. of 3rd	11
126 1	137 5	MCW	46	Washington S. of 4th	13
127 1	122 5	MCW; Ped Signals on sidestreets	0	4th at King	14
128 1	123 5	Add landscaped median and/or bulbouts	0	4th at Shipley	14
129 1	124 5	Repair/Add Sidewalk	0	4th at Tatnall	14
130 1	125 5	Repair/Add Sidewalk	0	4th at West	14
131 1	127 5	Repair/Add Sidewalk	0	4th at Washington	14
132 1	128 5	Repair/Add Sidewalk	0	Along 4th St.	14
133 1	129 5	Repair/Add Sidewalk	52	Shipley N. of 4th	14
134 1	130 5	Repair/Add Sidewalk	46	Tatnall N. of 4th	14
135 1	131 5	Repair/Add Sidewalk	47	Tatnall N. of 4th	14
136 1	135 5	Repair/Add Sidewalk	56	West N. of 4th	14
137 1	136 5	Repair/Add Sidewalk	38	West N. of 4th	14
138 1	138 5	Repair/Add Sidewalk	58	Washington N. of 4th	14
139 1	139 5	Repair/Add Sidewalk	67	Washington N. of 4th	14
140 1	146 6	Ped Signals on sides treets	0	Adams at 3rd	1
141 1	147 6	MCW; Ped Signals on sidestreets	0	Monroe at 3rd	1
142 1.	148 6	MCW; Ped Signals on sides treets	0	Adams near Lancaster	1
143 1.	149 6	MCW	0	Adams at Lancaster	1
144 1	150 6	ADA	131	Lancaster btwn Adams and Monroe	11
145 1	151 6	ADA	138	2nd btwn Jackson and Adams	11
146 1	152 6	MCW; ADA	61	Adams btwn 2nd and 3rd	11
147 1	153 6	MCW; ADA	61	Adams btwn 2nd and 3rd	11
148 1	154 6	ADA	61	Adams btwn 2nd and 3rd	11
149 1	155 6	MCW; ADA; Ped Signals	70	3rd btwn Adams and Jackson	11
150 1.	140 6	Address Sidewalk Slope	0	4th at Jefferson	13
151 1	141 6	Formalize Goat Path	0	4th at Madison	13
152 1	159 6	Repair/Add Sidewalk	38	4th btwn Madison and Jefferson	13
	160 6	Repair/Add Sidewalk	43	4th btwn Madison and Jefferson	13
154 1	161 6	Repair/Add Sidewalk	53	Jefferson btwn 4th and 5th	13
155 1	162 6	Repair/Add Sidewalk	52	Jefferson btwn 4th and 5th	13
156					

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157 1	142 6	Repair/Add Sidewalk	0	4th at Monroe	14
158 1	143 6	Repair/Add Sidewalk	0	4th at Adams	14
159 1	144 6	Repair/Add Sidewalk	0	Adams at Carpenter	14
160 1	145 6	Repair/Add Sidewalk	0	Monroe at Carpenter	14
161 1	156 6	Repair/Add Sidewalk	09	4th btwn Adams and Jackson	14
162 1	157 6	Repair/Add Sidewalk	55	4th btwn Adams and Jackson	14
163 1	158 6	Formalize Goat Path	32	Monroe btwn 4th and 5th	14
164 1	165 7	Add landscaped median and/or bulbouts	bulbouts 0	Along Lancaster Ave.	11
165 1	174 7	Add lands caped median and/or bulbouts	bulbouts 0	Van Buren at 6th	1
166 1	175 7	MCW; ADA; Ped Signal; Consider median refuge	edian refuge 0	Jackson at 6th	11
167 1	176 7		0	Jackson at 7th	1
168 1	177 7	Repaint CW	58	Jackson btwn 6th and 7th	11
169 1	178 7	MCW; Ped Signal	74	Van Buren btwn 5th and 6th	1
170 1	192 7	MCW; Ped Signal	0	Lancaster at Franklin	11
171 1	193 7	MCW; ADA	0	Lancaster at Connell	11
172 1	194 7	MCW	0	Lancaster at Broom	1
173 1	195 7	MCW	0	Lancaster at Fulton	1
174 1	196 7	MCW	0	Lancaster at Rodney	1
175 1	198 7	MCW	75	Lancaster btwn Delamore and Rodney	11
176 1	199 7	MCW; Ped Signal	58	Rodney btwn Lancaster and 2nd	11
177 2	200 7	Repair/Add Sidewalk	95	Rodney btwn Lancaster and 2nd	1
178 2	201 7	Repair/Add Sidewalk	62	Lancaster btwn Broom and Rodney	11
179 2	202 7	TE Project	17	Lancaster btwn Broom and Connell	1
180 2	203 7	Traffic Calming; Ped Crossing	sing 45	Connell btwn Lancaster and 2nd	1
181 2	204 7	Repair/Add Sidewalk	61	Connell btwn Lancaster and 2nd	11
182 2	205 7	Repair/Add Sidewalk	06	Lancaster btwn Franklin and Harrison	11
183 2	206 7	Repair/Add Sidewalk	06	Lancaster btwn Franklin and Harrison	1
184 2	207 7	Repair/Add Sidewalk	62	Lancaster btwn Franklin and Harrison	1
185 2	208 7	Repair/Add Sidewalk	06	Lancaster btwn Franklin and Harrison	11
186 1	188 7	Repair/Add Sidewalk	0	Lancaster at Jackson	12
187 1	189 7	Repair/Add Sidewalk	0	Jackson at Pleasant	12
188 1	190 7	MCW; ADA; Consider Bulbouts	outs 0	Lancaster at Van Buren	12
189 1	191 7	ADA	0	Lancaster at Harrison	12
190 2	209 7	MCW; ADA	62	Harrison btwn Lancaster and 2nd	12
191 2	210 7	MCW; ADA	46	Harrison btwn Lancaster and 2nd	12
192 2	211 7	MCW; ADA; Consider Bulbouts	outs 63	Harrison btwn Lancaster and Read	12
193 2	212 7	MCW	34	Van Buren S. of Lancaster	12
194 2	213 7	MCW; ADA; Consider Bulbouts	outs 58	Lancaster btwn Van Buren and Jackson	12
105 3			ſ		

Geo ID					10003	
196 170	2 0,	MCW; ADA	0	4th at Broom		13
197 171	1 7	MCW; ADA; Ped Signal	0	4th btwn Fanklin and Broom		13
198 185	5 7	Repair/Add Sidewalk	52	4th btwn Franklin and Broom		13
199 186	6 7	Repair / Add Sidewalk	51	4th btwn Franklin and Broom		13
200 187	7 7	Repair/Add Sidewalk	76	4th btwn Franklin and Broom		13
201 164	4 7	Repair/Add Sidewalk	0	Along 4th St.		4
202 166	6 7	Repair/Add Sidewalk	0	4th at Jackson		4
203 167	7 7	Repair/Add Sidewalk	0	4th at Van Buren		14
204 168	8 7	Repair/Add Sidewalk	0	4th at Harrison		14
205 169	6 7	Repair/Add Sidewalk	0	4th at Franklin		14
206 172	2 7	Repair / Add Sidewalk	0	Jackson at 5th		4
207 173	3 7	Repair / Add Sidewalk	0	Van Buren at 5th		4
208 179	2 6.	Repair/Add Sidewalk	286	Carpenter btwn Jackson and Van Buren		4
209 180	0 7	Repair/Add Sidewalk	0	Carpenter at Van Buren	part of TE project (?)	14
210 181	1 7	Repair/Add Sidewalk	60	Jackson btwn 3rd and 4th		14
211 182	2 7	Repair/Add Sidewalk	82	Harrison S. of 4th		14
212 183	3 7	Add/Repair Sidewalk	68	4th btwn Harrison and Franklin		14
213 184	4 7	Add/Repair Sidewalk	51	Franklin N. of 4th		4
214 197	7 8	Add/Repair Sidewalk	0	Lancaster at Delamore	Mid-Block Crossing	11
215 234	8	MCW; ADA	0	Union at Tulip		1
216 235	5 8	MCW; ADA	0	Lancaster at Lincoln		11
217 236	8	MCW; ADA	0	Lancaster at Scott		11
218 237	7 8	MCW; ADA	0	Lancaster at Dupont		11
219 238	8	Repair/Add Sidewalk	0	Lancaster at Clayton		1
220 239	8	Address Sidewalk Slope	63	Lancaster btwn Clayton and Dupont		5
221 240	8	Repair/Add Sidewalk	50	Lancaster btwn Dupont and Scott		5
222 241	8	Repair / Add Sidewalk	57	Scott S. of Lancaster		11
223 242	2 8	Repair/Add Sidewalk	57	Lincoln btwn Lancaster and Tulip		5
224 243	8 8	Repair/Add Sidewalk	57	Lancaster btwn Lincoln and Union		1
225 244	8	Repair / Add Sidewalk	49	Lincoln btwn Lancaster and 2nd		11
	5 8	Repair / Add Sidewalk	0	4th at Rodney		13
227 216	6 8	MCW; ADA; Ped Signal	0	4th at Delamore		13
228 217	7 8	ADA; Ped Signal; Ped Signage	0	4th at Clayton		13
229 218	8 8	MCW; ADA	0	4th at Dupont		13
230 219	9 8	Repair/Add Sidewalk	65	4th btwn Rodney and Delamore		13
	8 0	Repair/Add Sidewalk	57	Delamore S. of 4th		13
232 221	8	Repair / Add Sidewalk	73	Rodney btwn 4th and 5th		13
233 222	2 8	Repair/Add Sidewalk	49	Clayton btwn 4th and 3rd		13

2	Geo ID	Segment	Kecommendations	Distance Ft.	Location	Notes	Ped score
235	224	8	MCW; ADA; Ped Signal	90	4th btwn Clayton and Dupont		13
236	225	8	MCW; ADA; Ped Signal	63	4th btwn Clayton and Dupont		13
237	226	8	MCW; ADA; Ped Signal	89	Dupont btwn 4th and 3rd		13
238	227	8	MCW; ADA; Ped Signal	0	4th at Scott		13
239	228	8	Repair/Add Sidewalk	0	4th at Lincoln		13
240	229	8	Add/Repair Sidewalk	0	4th at Union		13
241	230	80	Repair/Add Sidewalk	82	4th btwn Dupont and Scott		13
242	231	80	Repair/Add Sidewalk	75	Scott btwn 4th and 3rd		13
243	232	80	Repair/Add Sidewalk	86	4th btwn Lincoln and Union		13
244	233	80	Repair/Add Sidewalk	80	Union btwn 4th and 3rd		13
245	245	6	MCW	0	Lancaster at Court Dr.		11
246	246	6	Improve ped access to signalized crossing	0	Lancaster Ave. at Pathmark		11
247	247	6	Add mid-block crossing signage	0	Lancaster Ave. at apartment complex		11
248	248	6	MCW	0	Lancaster ave. at apartment complex		11
249	249	6	Add/Repair Sidewalk	292	Lancaster Ave. E. of apartments		1
250	250	6	Add/Repair Sidewalk	547	Lancaster Ave. in front of Pathmark	Awkward frontage road/raised sidewalk	7
251	251	6	Add/Repair Sidewalk	40	Lancaster Ave. at apartments		=
252	252	6	Add/Repair Sidewalk	38	Lancaster Ave. at apartments		1
253	253	6	Add/Repair Sidewalk	53	Lancaster ave. at apartments		11
254	254	6	Add/Repair Sidewalk	297	Lancaster Ave. at Pathmark		11
255	255	6	Add Sidewalk; Formalize Goat Path	71	Lancaster Ave. access to Pathmark		1
256	256	6	Add Sidewalk	910	Lancaster Ave. W. of Pathmark		7
257	257	6	Add Sidewalks	865	Lancaster Ave. W. of Pathmark		1
258	258	10	Add landscaped median	0	SR2		7
259	259	10	ADA; Ped Signal	0	SR2 at Newport Gap Pike		11
260	260	10	MCW; ADA; Ped Signage	0	SR2 at Greenbank	Mid-block crossing	11
261	261	10	MCW; ADA	0	SR2 at Greenbank	sidestreet	11
262	262	10	MCW; ADA	0	SR2 at Greenbank	sidestreet	11
263	358	10	Add ADA ramps	105	Rt. 2		11
264	359	10	ADA	76	Rt. 2		11
265	360	10	ADA	153	Rt. 2		11
266	362	10	ADA	0	SR2 E. of Greenbank Rd.		11
267	263	11	ADA	0	Delaware Ave at Haines		11
268	264	11	Address Sidewalk Slop	0	Delaware E. of Chapel		11
269	265	11	Formalize Goat Path	0	Delaware E. of Chapel		11
270	266	11	Formalize Goat Path	0	Delaware E. of Chapel		11
271	267	11	Address Sidewalk Slope	0	Delaware E. of Chapel		11
272	268	1	Address Sidewalk Slope	68	Delaware E. of Haines		7
272	0.0	77		70	Delawares by Uninee and Chanel		;

⊇		0					
274	270	11	MCW; ADA	80	Delaware at Chapel		11
275	271	11	MCW; ADA	55	Delaware W. of Tyre		1
276	272	11	ADA; Ped Signage	78	Delaware W. of Tyre		1
277	363	11	ADA; Ped Signage	0	Delaware Ave		1
278	273	11	Address Sidewalk Slope	0	Delaware at Tyre		12
279	274	11	Address Sidewalk Slope	0	Delaware E. of Tyre		12
280	275	11	Formalize Goat Path	0	Delaware E. of Tyre		12
281	276	11	Improve ped crossing opportunities	0	Delaware E. of Tyre	Larger yield signs	12
282	277	11	Formalize Goat Path	0	Delaware E. of Tyre	Larger yield signs	12
283	278	11	Improve connectivity to supermarket from bus stop	124	Delaware E. of Tyre		12
284	279	11	ADA	126	Delaware E. of Tyre		12
285	280	11	ADA	82	Delaware approaching Library Ave.		12
286	281	12	ADA	89	Entrance to College Sq.		12
287	282	12	Add median refuge	101	Library Ave. into College Sq.		12
288	283	12	ADA; Replace Ped Signal	0	Library Ave. at DART stop		12
289	284	12 E	Explore Ped Improvements; Add Sharrows for Bicycles	0	Library Ave. at supermarket		12
290	285	12	MCW; ADA; Ped Signal	0	Library Ave. S. of 273		12
291	286	12	Shared-use pathway	0	Library Ave. at 273		12
292	287	12	ADA	234	Library Ave. btwn 273 and Delaware		12
293	288	13	Add mid-block CW	0	Rt. 279 at Rt. 213		10
294	289	13	MCW	0	Rt. 279 at Rt. 545		10
295	290	13	MCW; ADA; Ped Signal	0	Rt. 279 at Rt. 40		10
296	291	13	Repair/Add Sidewalk	4340	Rt. 279		10
297	292	14	Repair/Add Sidewalk	0	Rt. 279 E. of Rt. 213		10
298	293	14	Repair/Add Sidewalk	0	213 at Maryland		10
299	294	14	Add Sidewalk	0	213 at Wesley		10
300	295	14	Add Sidewalk	0	213 at Elkton Blvd.		10
301	296	14	Bike Lane/Sharrows	127	213 at 279		10
302	297	14	Formalize Goat Path	108	279 at 213		10
303	298	14	MCW	137	279 E. of 213		10
304	299	14	ADA	1068	213 S. of 279		10
305	300	14	ADA	877	213 N. of Elkton Blvd.		10
306	301	14	Address sidewalk slop	1570	Elkton Blvd		10
307	302	14	Address sidewalk slope	161	Corner of 279 and 213		10
308	303	15	Address sidewalk slope	0	213 at Railroad Ave.		10
309	306	15	Utility Pole	124	213 approaching RR Ave.		10
310	310	15	ADA	0	Landing at Curtis		10
311	311	15	ADA	0	Landing S. of Curtis		10
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	Repair/Add Sidewalk	149	Rt. 40 W. of Landing	10
	Repair / Add Sidewalk	133	Rt. 40 W. of Landing	10
	MCW; ADA; Ped Signals	0	213 at McQuilken	12
	ADA	0	213 at High St.	12
	ADA	142	213 N. of Cathedral	12
	Repair/Add Sidewalk	104	213 N. of Cathedral	12
	Address sidewalk slope	0	213 N. of High	12
	Add sidewalk	0	213 at Howard	10
	ADA	0	213 S. of Howard	10
16	Repair/Add Sidewalk	0	213 S. of Howard	10
16	Repair/Add Sidewalk	139	213 at Howard	10
16	MCW; ADA; Ped Signals; Ped Refuge	663	213 N. of 40	10
16	Mid-block CW	671	213 N. of 40	10
16	Add Sidewalk	0	213 N. of 40	10
16	Add Sidewalk	104	213 at 40	10
16	ADA	972	213 S. of 40	11
16	ADA	0	213 at 40	1
16	ADA	0	213 at Walter Boulden	11
17	MCW; ADA; Ped Signal	2292	213 S. of Walter Boulden	10
17	ADA	1881	213 S. of Walter Boulden	10
17	ADA	0	213 at Renee Carr	10
17	MCW; ADA	0	213 N. of Whitehall	10
17	Repair/Add Sidewalk	0	213 at Whitehall	10
17	Repair/Add Sidewalk	0	213 at Manor	10
17	ADA	164	Whitehall Rd at 213	10
17	Repair/Add Sidewalk	0	213 at Walter Bouldin	11
18	Repair/Add Sidewalk	0	268 at Elkton Blvd.	10
18	Address sidewalk slope	0	268 at Parkway	10
18	Repair/Add Sidewalk	80	268 S. of Elkton	10
18	Repair/Add Sidewalk	67	268 N. of Parkway	10
18	ADA; Ped Signal	0	268 at Stockton	11
18	ADA	95	268 N. of Stockton	11
18	ADA	71	268 N. of Stockton	11
18	Driveway issue	132	268 N. of Stockton	11
18	Driveway issue	116	268 N. of Stockton	11
18	MCW; ADA	170	268 S. of Stockton	1
19	ADA	66	213 S. of Main	11
19	ADA	94	213 S. of Main	1

≙	Geo ID	Geo ID Segment	Recommendations	Distance Ft.	Location	Notes	Ped Score
352	344	19	MCW; ADA	0	Main E. of 213		12
353	345	19	MCW; ADA	0	Main E. of 213		12
354	348	19	ADA	0	Main at Courthouse Plaza		12
355	349	19	Repair/Add Sidewalk	0	Main at Church		12
356	350	19	Repair/Add Sidewalk	0	Main at South		12
357	351	20	Repair/Add Sidewalk	0	Main at Locust		11
358	352	20	Add/Repair Sidewalk	0	Main at Delaware		11
359	353	20	Add/Repair Sidewalk	0	Delaware at Howard		11
360	354	20	Address sidewalk slope	0	Main at Hermitage		1
361	355	20	Add/Repair Sidewalk	265	Delaware S. of Main		11
362	364	20	Add Sidewalk Buffers	0	SR281		11
363	356	20	Consider Cycle Track	186	Main W. of Locust		12
364	357	20	Consider Extending Sidewalk East	291	Main E. of South		12

# For more information regarding the *Top Pedestrian Priority Segments* contact:

# Bill Swiatek, AICP

Senior Planner Wilmington Area Planning Council bswiatek@wilmapco.org 302-737-6205

wilmapco.org/ped-priority

Wilmington Area Planning Council 850 Library Avenue, Suite 100 Newark, Delaware 19711

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