

WILMAPCO Pedestrian and Bicycle Planning

JANUARY 23, 2020



Community Outreach
ongoing

**Unified
Planning
Work
Program**

*1 year plan
updated annually*

**Regional
Transportation
Plan**

*20 year plan
updated every 4 yrs*

**Transportation
Improvement
Program**

*4 year program
updated biennially*

**Congestion
Management
Process**

updated annually



Who is WILMAPCO?

PUBLIC



Subcommittees and Working Groups

Nonmotorized Transportation	Congestion Management	Data & Demographics	Transportation Justice	Freight	Air Quality
------------------------------------	-----------------------	---------------------	------------------------	---------	-------------

The Council

- ▶ Maryland Governor Appointee
- ▶ Cecil County
- ▶ Cecil County Municipalities

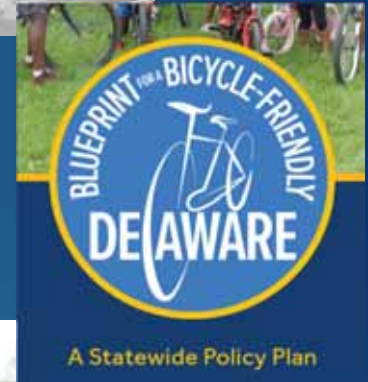


- Delaware Governor Appointee
- Delaware Department of Transportation
- Delaware Transit Corporation
- City of Wilmington
- New Castle County
- New Castle County Municipalities

Nonmotorized Transportation Working Group

- ▶ Membership open to any organizations working on bicycle and pedestrian planning issues:
 - ▶ State DOTs
 - ▶ Municipal/County Planners
 - ▶ Bicycle and Pedestrian Advocacy
 - ▶ Health, Environmental, Civic Associations, etc.
- ▶ Meets every two months
- ▶ Advises WILMAPCO on pedestrian and bicycle planning
- ▶ Forum for pedestrian and bicycle coordination

Bike/Ped Partnerships



Regional transportation plan (RTP)



- ▶ Updated every four years, with extensive outreach and technical analysis
- ▶ Extends 20+ years
- ▶ Identifies long-term trends, challenges, vision and goals
- ▶ Details objectives, actions, and projects to achieve vision
- ▶ Shows performance measures for monitoring progress

▶ Goals



RTP Pedestrian/Bicycle Actions

GOAL - IMPROVE QUALITY OF LIFE		
OBJECTIVE	ACTION	PERFORMANCE MEASURES
Protect public health and safety	Promote safer transportation network design and travel for all modes	• Crash data
	Improve safety for people walking	• Pedestrian crash data
	Seek to improve multimodal access and connectivity to healthy and affordable food, employment and services in all WILMAPCO studies	• connectivity analysis
Promote active transportation	Fund transportation choices	• TIP funding trends • Percentage of non-SOV trips
	Apply a Complete Streets Policy in all WILMAPCO studies and in the TIP	• Review of studies and projects
	Fund TAP investments within areas of greatest need	• Prioritization versus actual funding
	Develop and implement SRTS Programs	• Qualitative review
Preserve resources	Establish a better relationship between transportation and tourism	• Greenway progress

RTP Pedestrian/Bicycle Actions

GOAL - EFFICIENTLY TRANSPORT PEOPLE		
OBJECTIVE	ACTION	PERFORMANCE MEASURE
Promote accessibility and connectivity	Improve access to public transportation	• Housing/jobs w/in walking distance to bus stops
	Develop a complete, low-stress nonmotorized transportation network	• Bike/ped/multimodal projects vs. pedestrian priorities • Trail Counts • % of commutes by walking/biking

Pedestrian and Bicycle Planning

REGIONAL PLANS:

- Pedestrian Priority Network
- Nonmotorized Inventory
- Connectivity Analysis
- East Coast Greenway
- Walkable Community Workshops
- Safe Routes to Schools

Elkton Bike Plan
Elkton Pedestrian Plan
Locust Ln Sidewalk Study

Cecil Co
Bicycle Plan

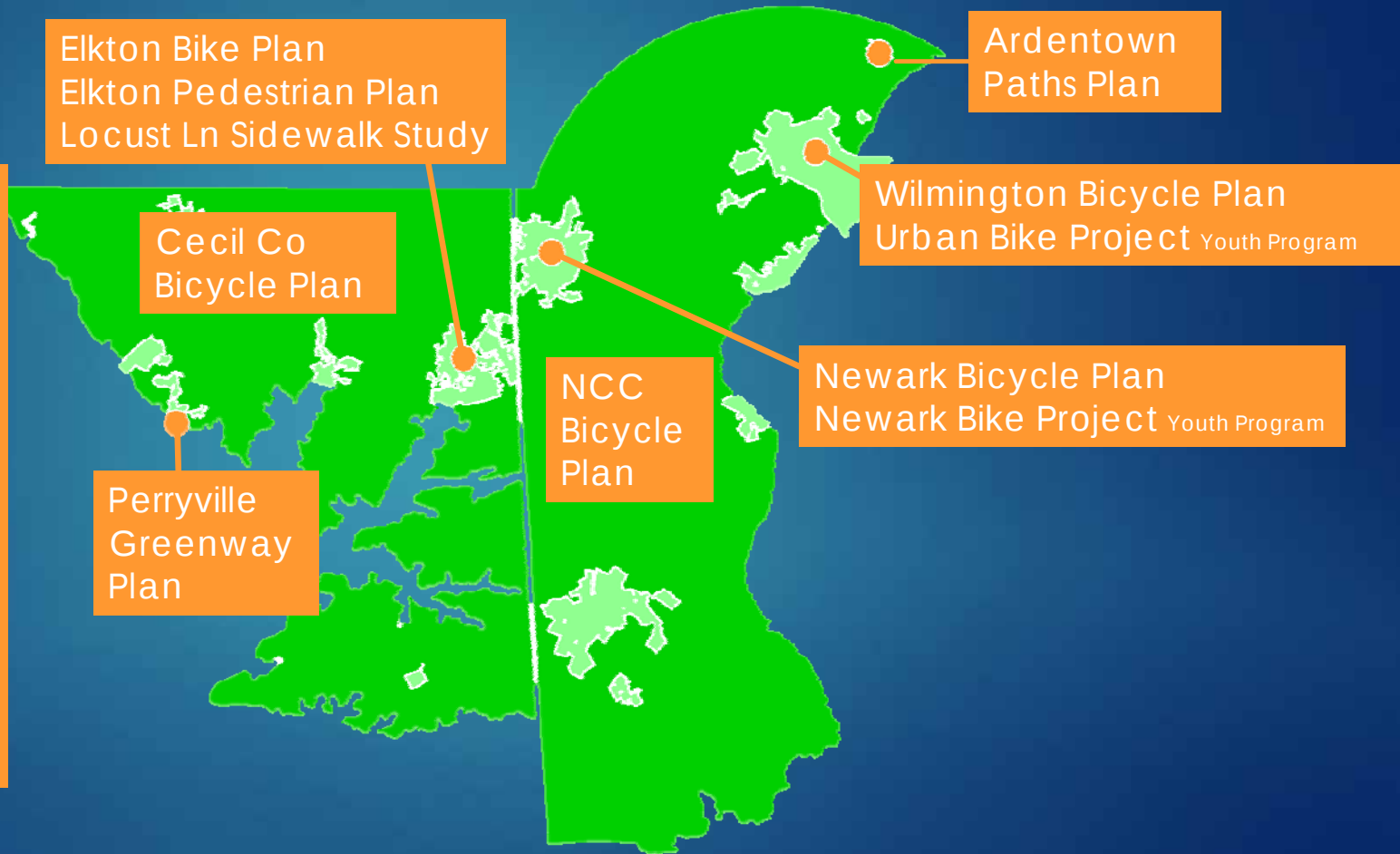
Perryville
Greenway
Plan

NCC
Bicycle
Plan

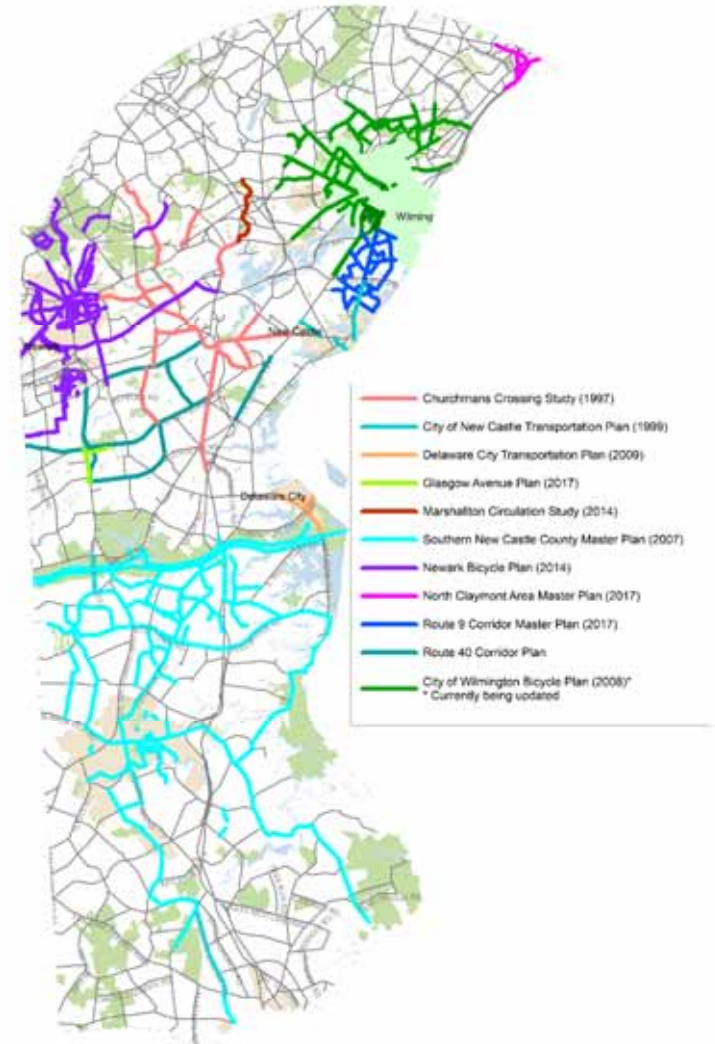
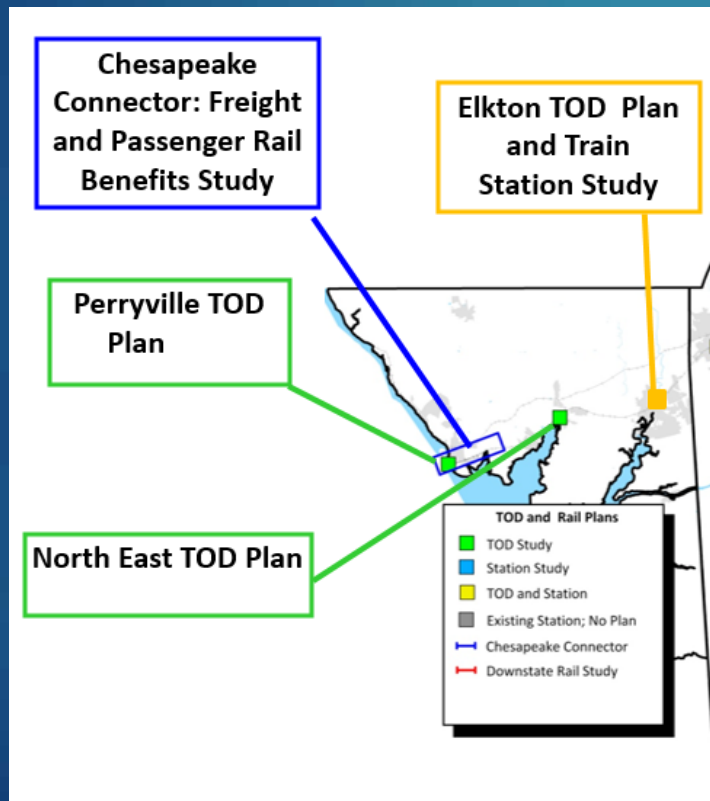
Ardentown
Paths Plan

Wilmington Bicycle Plan
Urban Bike Project Youth Program

Newark Bicycle Plan
Newark Bike Project Youth Program



Subregional Planning



Pedestrian Priority Areas

WILMAPCO Region

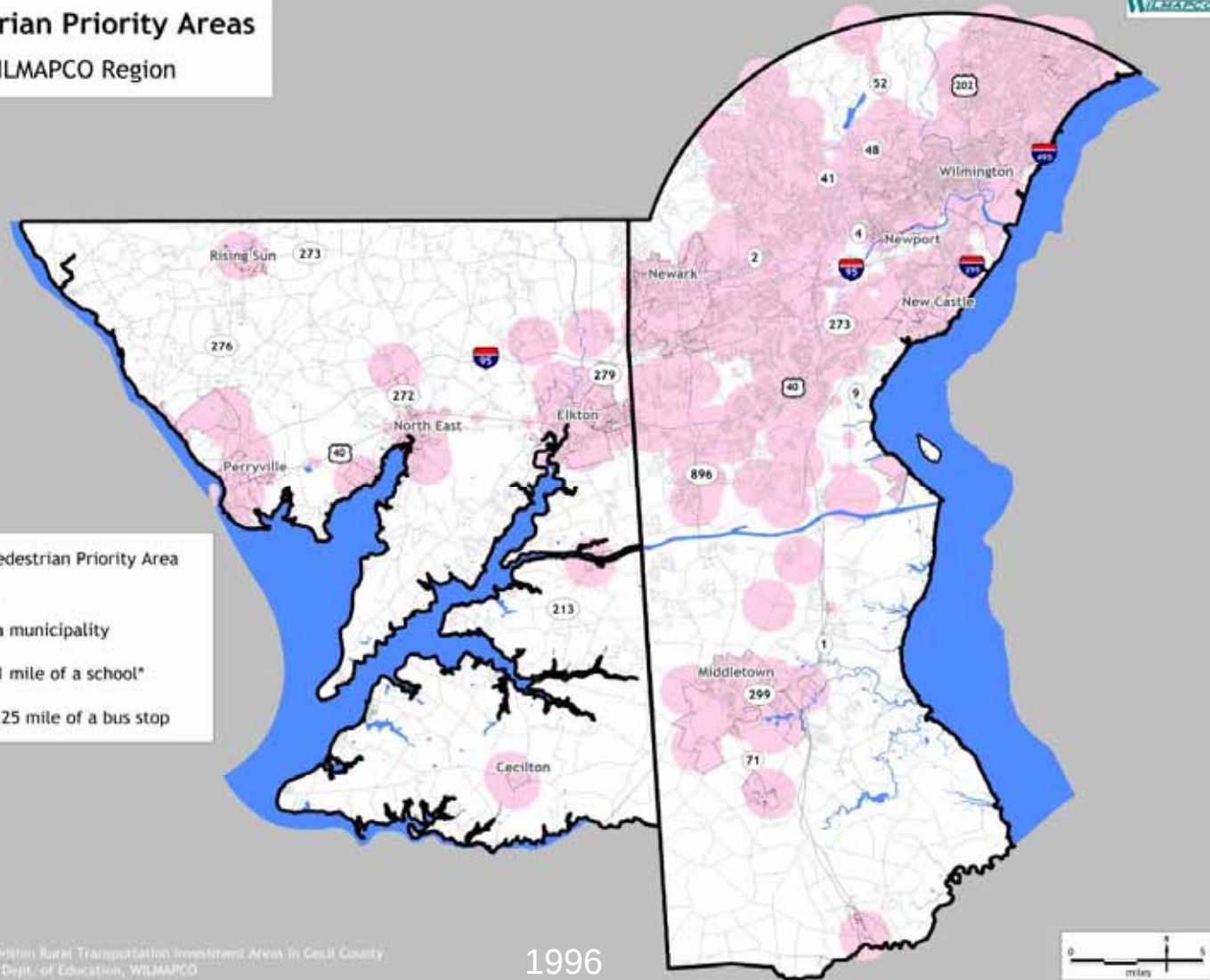
 Pedestrian Priority Area

Criteria

- Within a municipality
- Within 1 mile of a school*
- Within .25 mile of a bus stop

*Excludes schools within Rural Transportation Investment Areas in Cecil County
Sources: DART, DE Dept. of Education, WILMAPCO

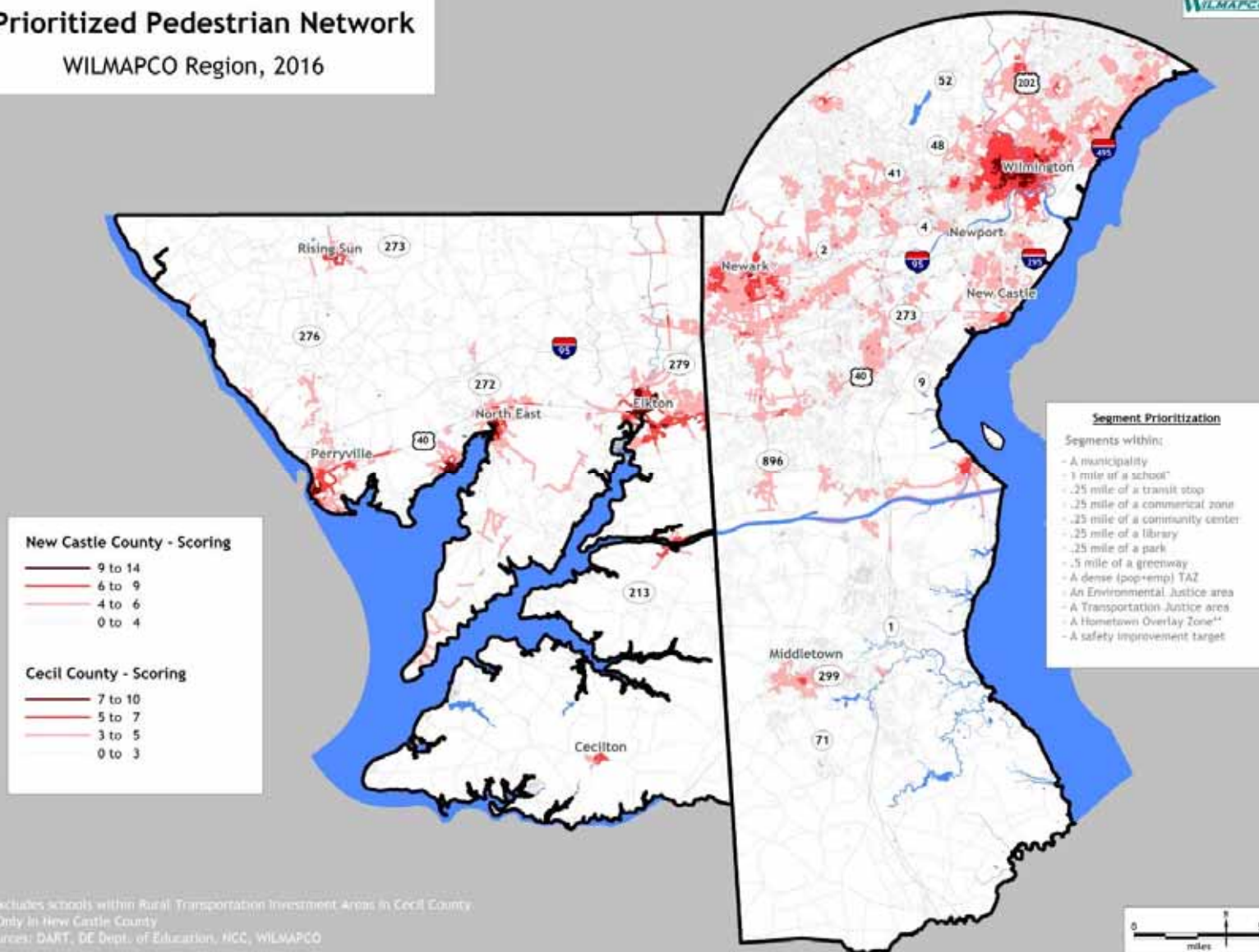
1996



Prioritized Pedestrian Network

WILMAPCO Region, 2016

WILMAPCO

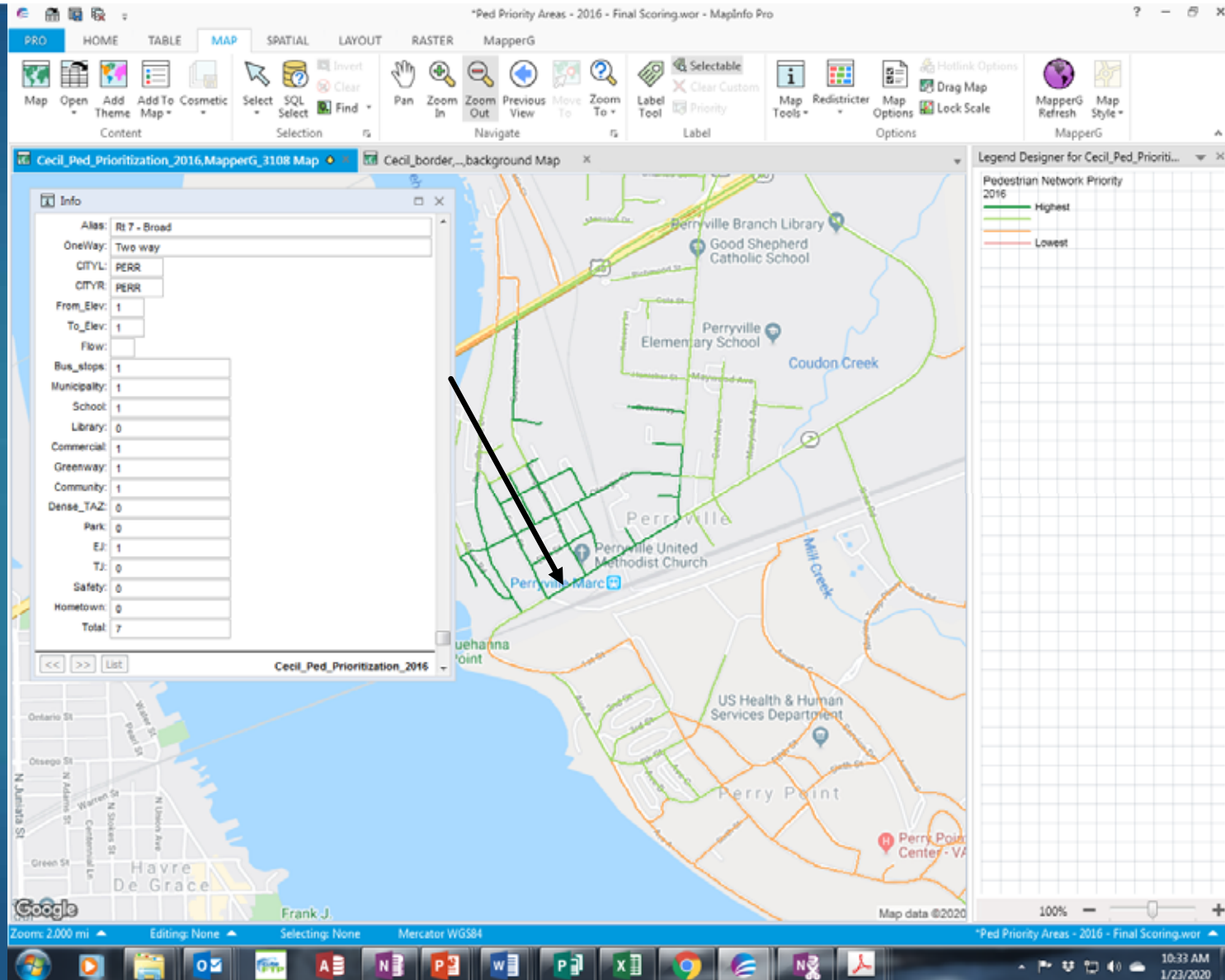


Pedestrian Priority Network Scoring

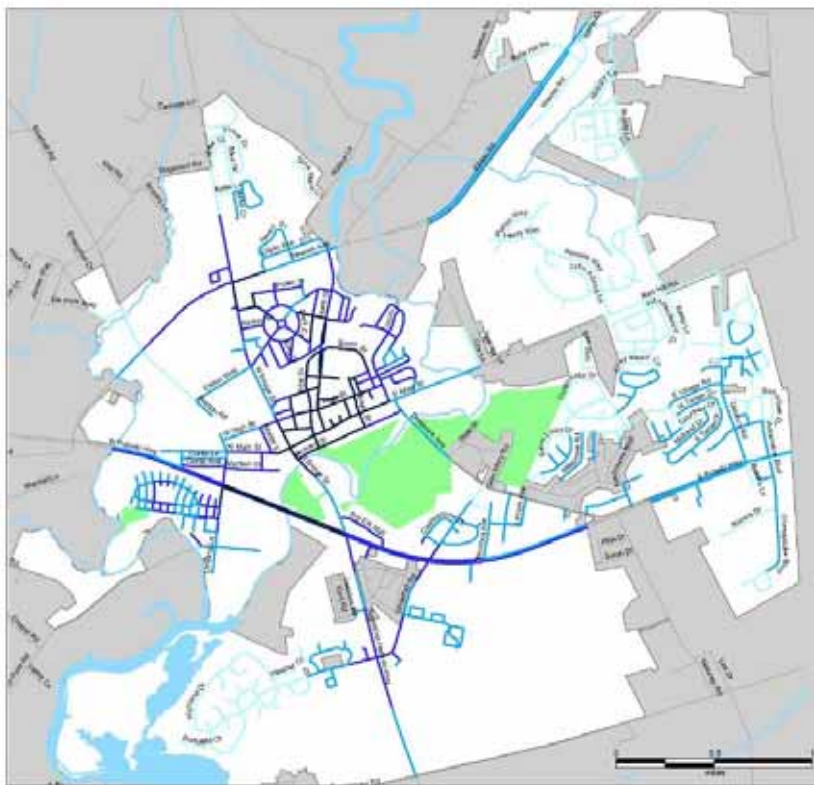
Points are awarded based on:

- ▶ **Land use factors:**
 - ▶ Municipality or Hometown Overlay Zone
 - ▶ Trip generators: schools, commercial & community centers, libraries, parks
- ▶ **Transportation factors**
 - ▶ Pedestrian crashes (1-4 points)
 - ▶ Transit stop
 - ▶ Multi-use pathways
- ▶ **Demographics**
 - ▶ Population and Jobs Density
 - ▶ Special populations: Environmental Justice /Transportation Justice areas

Pedestrian Priority Network Scoring



Pedestrian Priority Network Scoring



Elkton Pedestrian Plan Pedestrian Prioritization June 2017

Pedestrian Prioritization Score

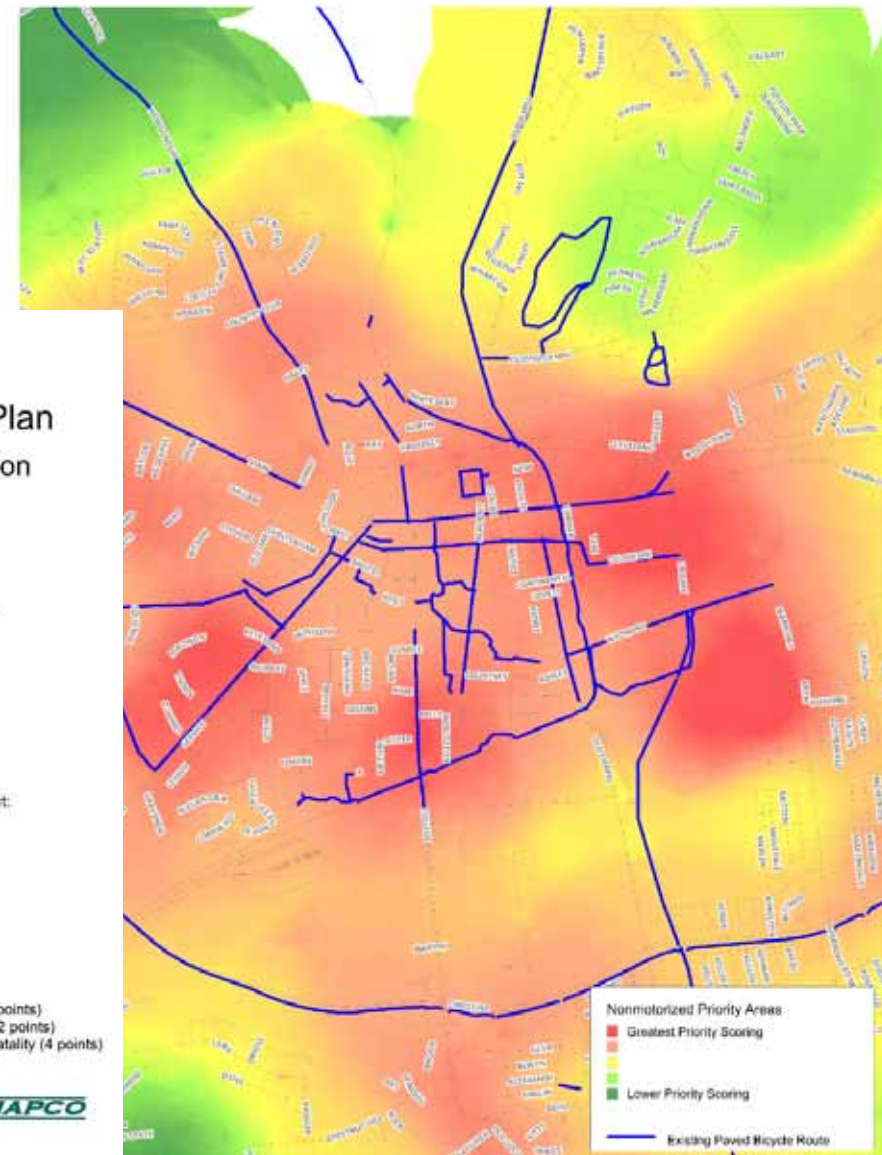
- Very high (9-11 points)
- Medium (8-8 points)
- Low (3-5 points)
- Very low (0-2 points)

Segment Prioritization

Segments within the following received 1 point:

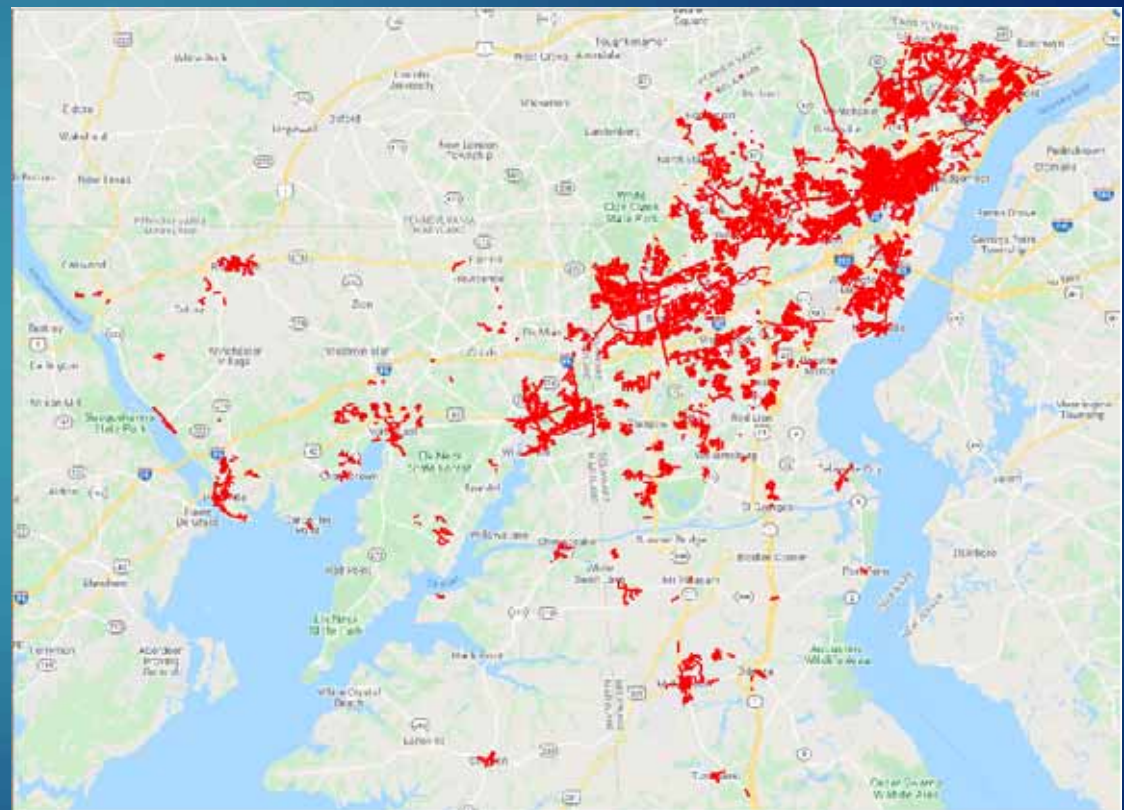
- 1/4 mile of the planned train station
- 1/4 mile of a bus stop
- 1/10 mile of a bus stop (2 points)
- 1/4 mile of a commercial building
- 1/4 mile of a park
- 1/4 mile of a library
- 1/2 mile of a school
- 1/4 mile of a school (2 points)
- 1/10 mile of a greenway
- A dense TAZ - over 8 people+jobs/acre
- A dense TAZ - over 10 people+jobs/acre (2 points)
- 1/10 mile of a crash involving a pedestrian (2 points)
- 1/10 mile of a crash involving a pedestrian fatality (4 points)

Date Sources:
 Cecil County, Maryland State Highway Admin.,
 Maryland Dept. of Aging, WILMAPCO



Nonmotorized Inventory

- ▶ 2005 regional sidewalk inventory
- ▶ New Castle County inventory being updated
 - ▶ All sidewalks, crosswalks, and trails
 - ▶ Locations, width and material



Nonmotorized Inventory

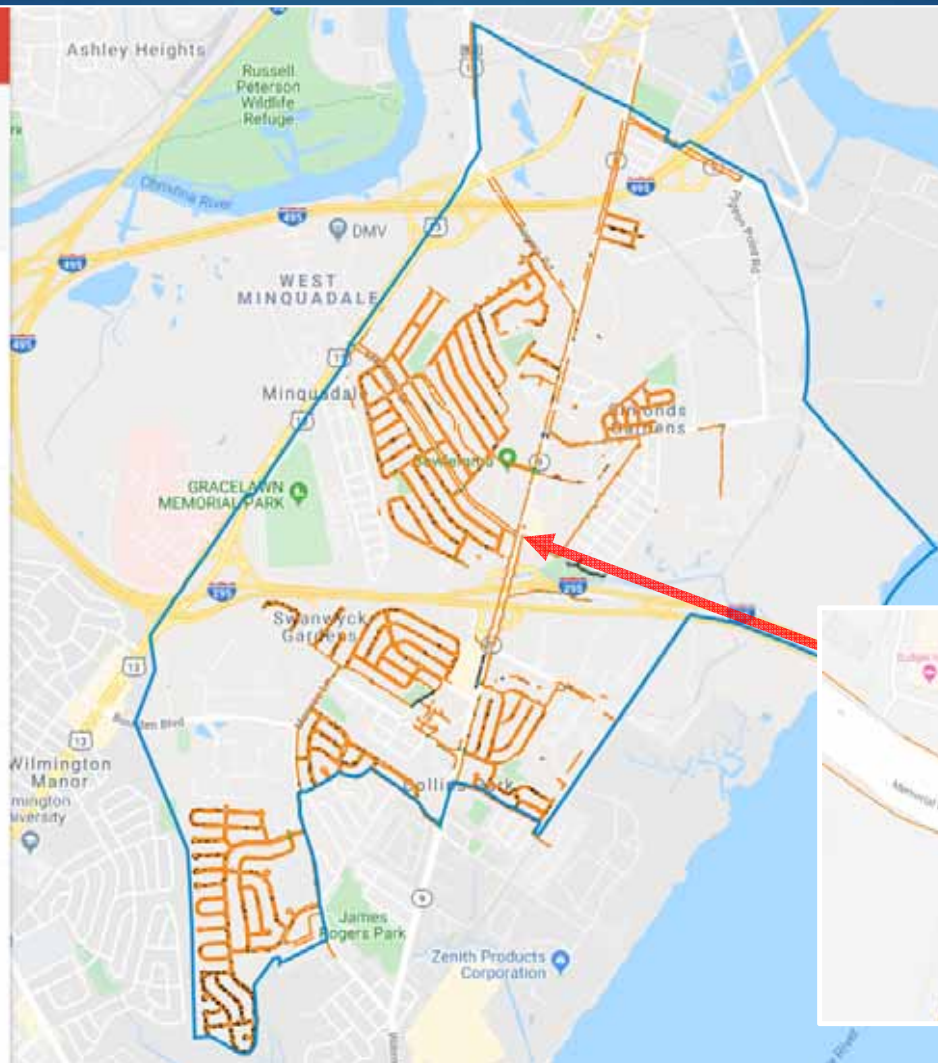
- ▶ Data collected using LIDAR (light detecting and ranging)
 - ▶ Collected by DeIDOT in 2018
 - ▶ Vehicle with LIDAR sensors and high-resolution GPS
- ▶ LIDAR data was converted into GIS shapefiles
- ▶ WILMAPCO: editing linework in New Castle County
 - ▶ Matching LIDAR data with aerial imagery
 - ▶ Ensure linework accurately represents what's on the ground



Route 9 Sidewalks and ...

This is an inventory of all existing sidewalks and crosswalks within the Route 9 study area, which consists of 10 block groups
24 views
SHARE EDIT

- ☒ Sidewalks
 - Concrete
 - Asphalt
 - Brick
- ☒ Crosswalks
 - Driveway
 - Unmarked
 - Piano key
 - Two parallel lines
- ☒ Study Area
 - Study area boundary



- ▶ Example: Route 9 corridor
- ▶ Interactive map of sidewalks and crosswalks in the study area
- ▶ Can be updated as improvements are made

bit.ly/route9sidewalks

Connectivity Analysis

- Calculated housing connections by mode to destinations for by regional block groups



Libraries

Community
centers



Urgent care



Low-wage
job centers



Senior centers



Medical
centers



Grocery stores



State Service
Centers



Pharmacies

Connectivity Analysis



10 minute accessible walking trip



10 minute accessible biking trip



15 minute accessible car trip

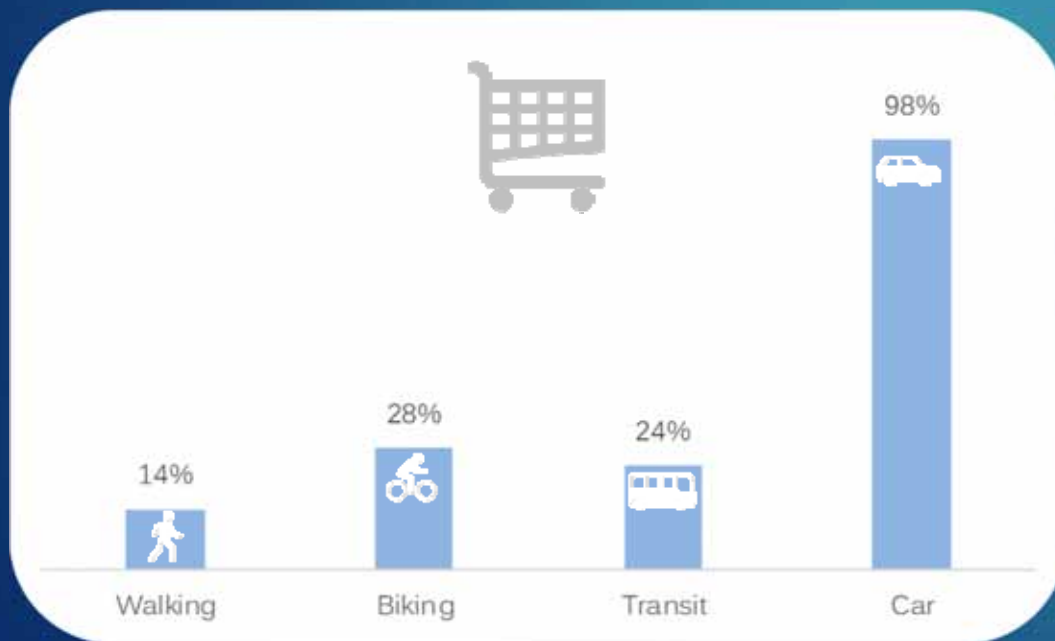


30 minute accessible, one-way bus trip
(including no more than 10 mins walking, total)

Connectivity Analysis

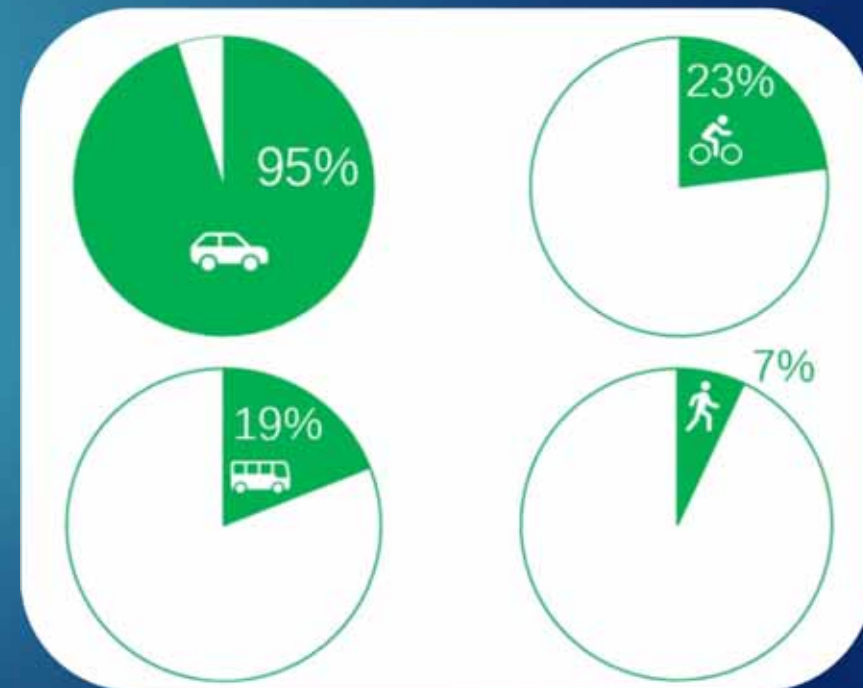
Homes with Connections to
Supermarkets

WILMAPCO Region



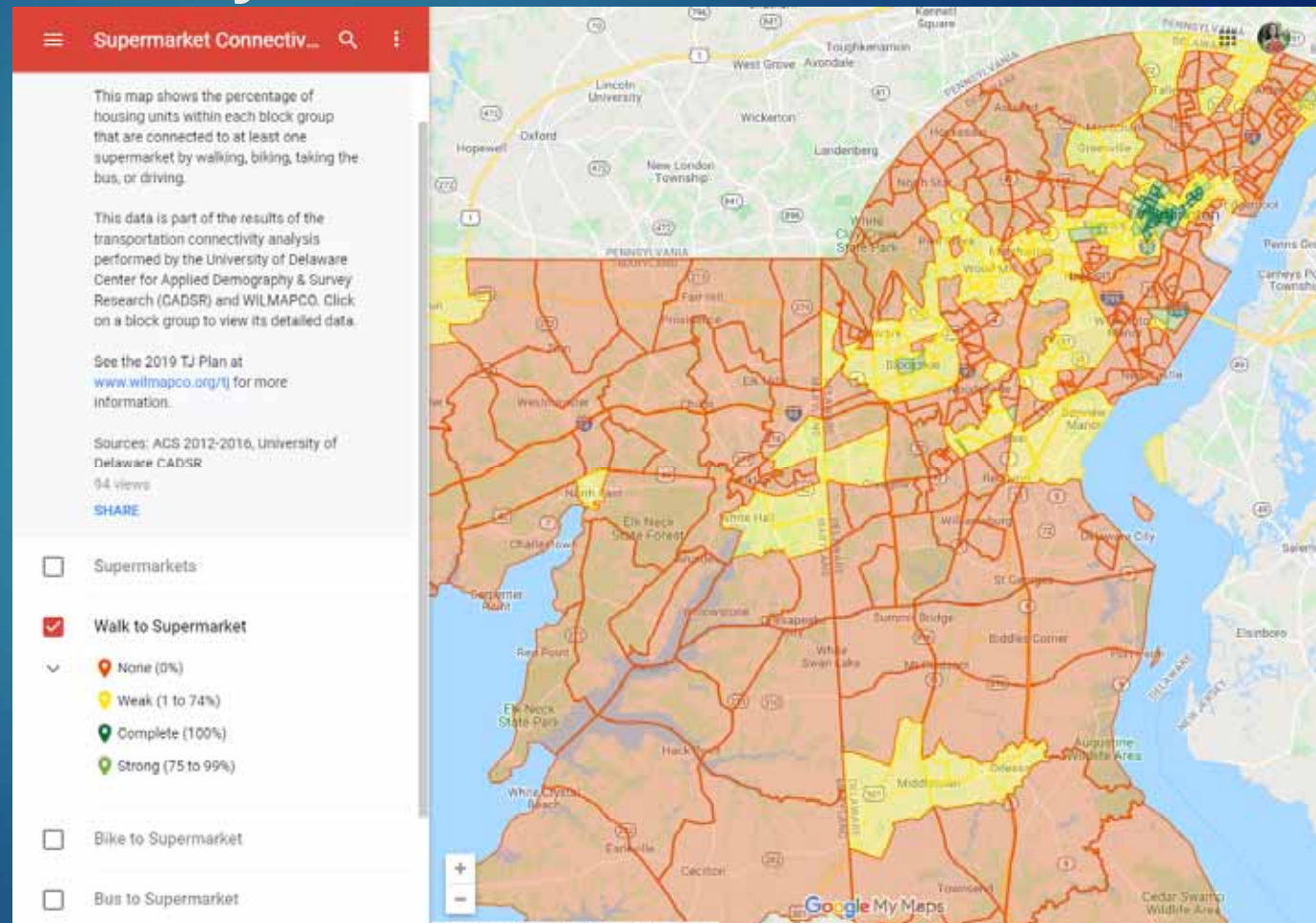
Average Combined Connectivity
to Destinations, by Mode

WILMAPCO Region

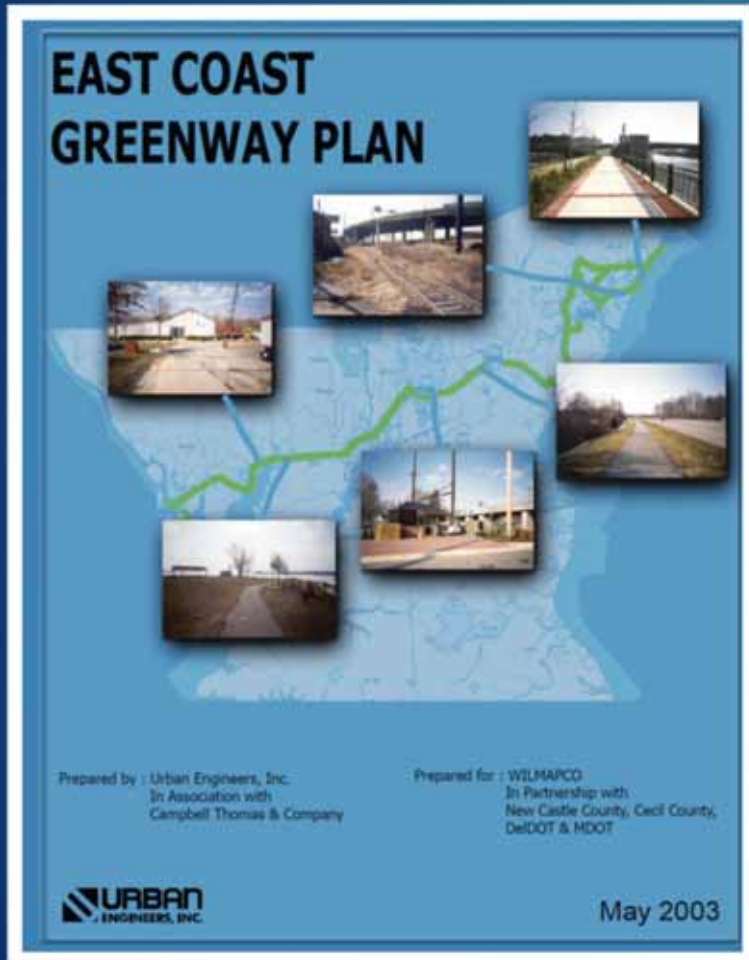


Connectivity Analysis

- ▶ EJ and Mobility Challenged neighborhoods had better multimodal access overall
- ▶ Interactive maps at www.wilmapco.org/tj



East Coast Greenway



- ▶ 3,000 miles linking towns and cities from Calais, ME to Key West, FL
- ▶ 64 miles through WILMAPCO region
- ▶ 67% complete in New Castle County
- ▶ 0% complete in Cecil County
- ▶ 100% route signed through region

East Coast Greenway

- ▶ Keys to New Castle County's Success:
 - ▶ Stayed true to original plan
 - ▶ Consensus of route by state and local partners
 - ▶ Elected leadership
 - ▶ Developer implemented sections through County oversight
 - ▶ DeIDOT implemented sections through Complete Streets policy
 - ▶ Local government enthusiasm
 - ▶ Economic development tie-in
 - ▶ Strong advocacy by bike, greenway, health, tourism, etc.



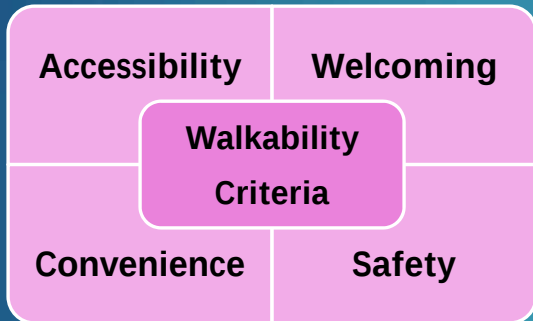
Walkable Community Workshops

- ▶ 2005 National Center for Bicycling and Walking Boot Camp
- ▶ 2008 NCBW Train the Trainer



Walkable Community Workshops

➞ the toolbox



➞ the walk



➞ mapping exercise



➞ report

➞ follow-up

Walkable Community Workshops

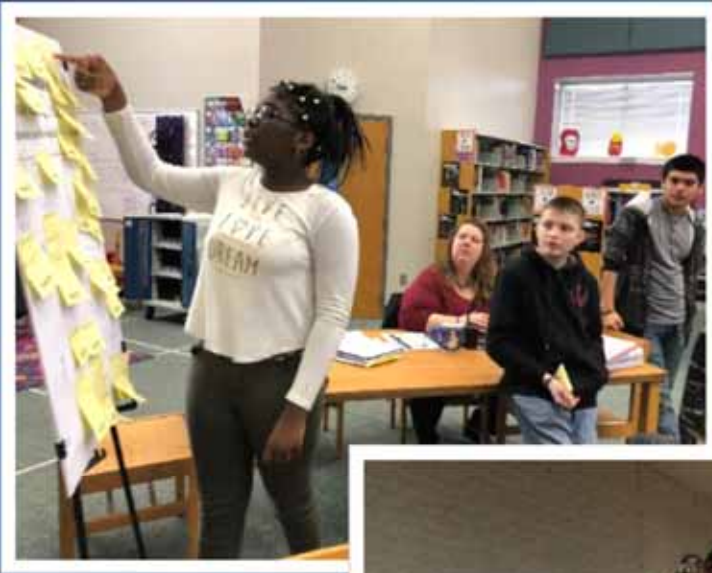
Part of all Safe Routes to Schools Programs



Safe Routes to Schools



Elkton Pedestrian Plan



Elkton Pedestrian Plan Infrastructure Recommendations Proposed By Survey Respondents

July-November 2017

High Priority

1. Complete sidewalks and add bike lanes along Bridge Street (9)
2. Add sidewalks or mixed-use path along Howard Street (9)
3. Add sidewalks or mixed-use path along Delaware Ave bridge (9)
4. Improve pedestrian access to and through Meadow Park (9)
5. Complete sidewalks or add mixed-use path along Route 40 (9)
- C1. Bridge Street and Howard Street (9)
- C2. Route 40 and Bridge Street (9)
- C3. Route 40 and Whitehall Road (7)

Medium Priority

7. Add sidewalks in Elkton Heights (6)
8. Add sidewalks or mixed-use path along Delaware Avenue (5)
- C4. Bridge Street and Railroad Avenue (5)
- C5. Route 40 and Delaware Avenue (5)
- C6. Route 40 and Maloney Road (5)
- C7. Route 40 and Melbourne Boulevard (5)
9. Add sidewalks on Elkton Road from North Street to Appleton Road (4)

Low Priority

10. Add sidewalks on Red Hill Road (3)
11. Add sidewalks on Delancy Road (3)
- C8. Route 40 and Delancy Road (3)
- C9. Route 40 and Automotive Boulevard (2)
12. Add sidewalks on Muddy Lane (1)

Priority is based on pedestrian prioritization scores (in parentheses), a technical scoring process that determines which areas are likely to have greater pedestrian activity based on factors such as proximity to businesses, schools, parks, and other destinations.

"C" indicates improvements to crossings.

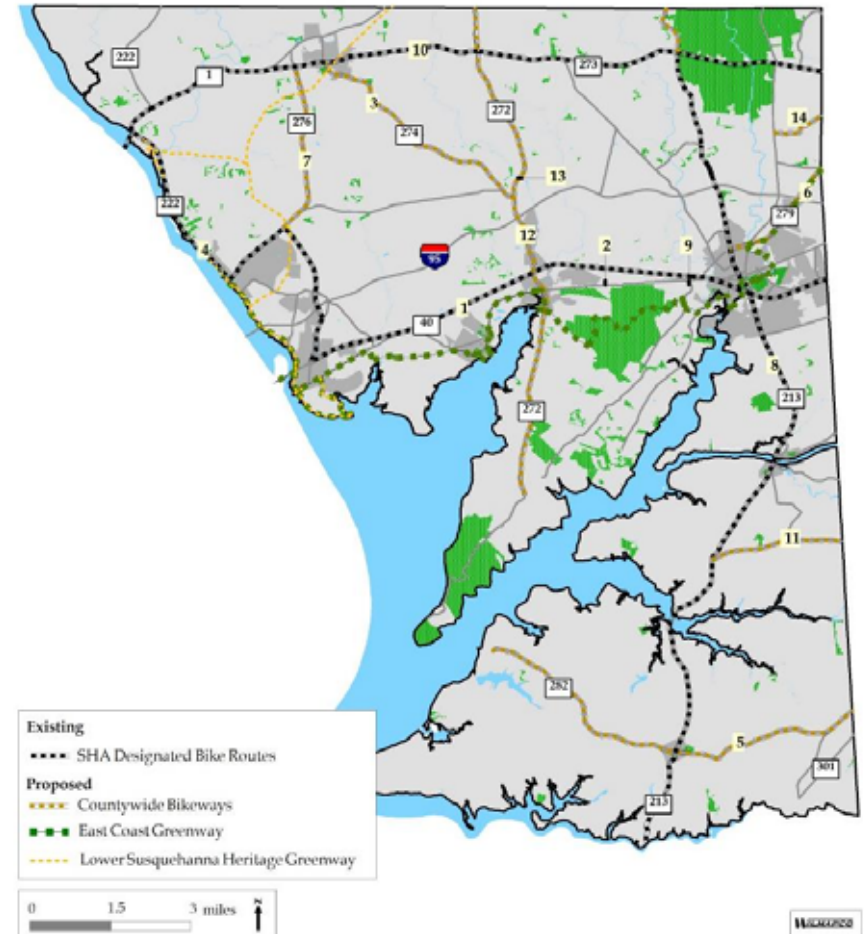
WILMAPCO

Perryville Greenway Plan



Cecil County Bicycle Plan

- ▶ Adopted in 2013
- ▶ Contains countywide routes and municipal recommendations
- ▶ Minor improvements funded through 2014 MD Bikeways Grant



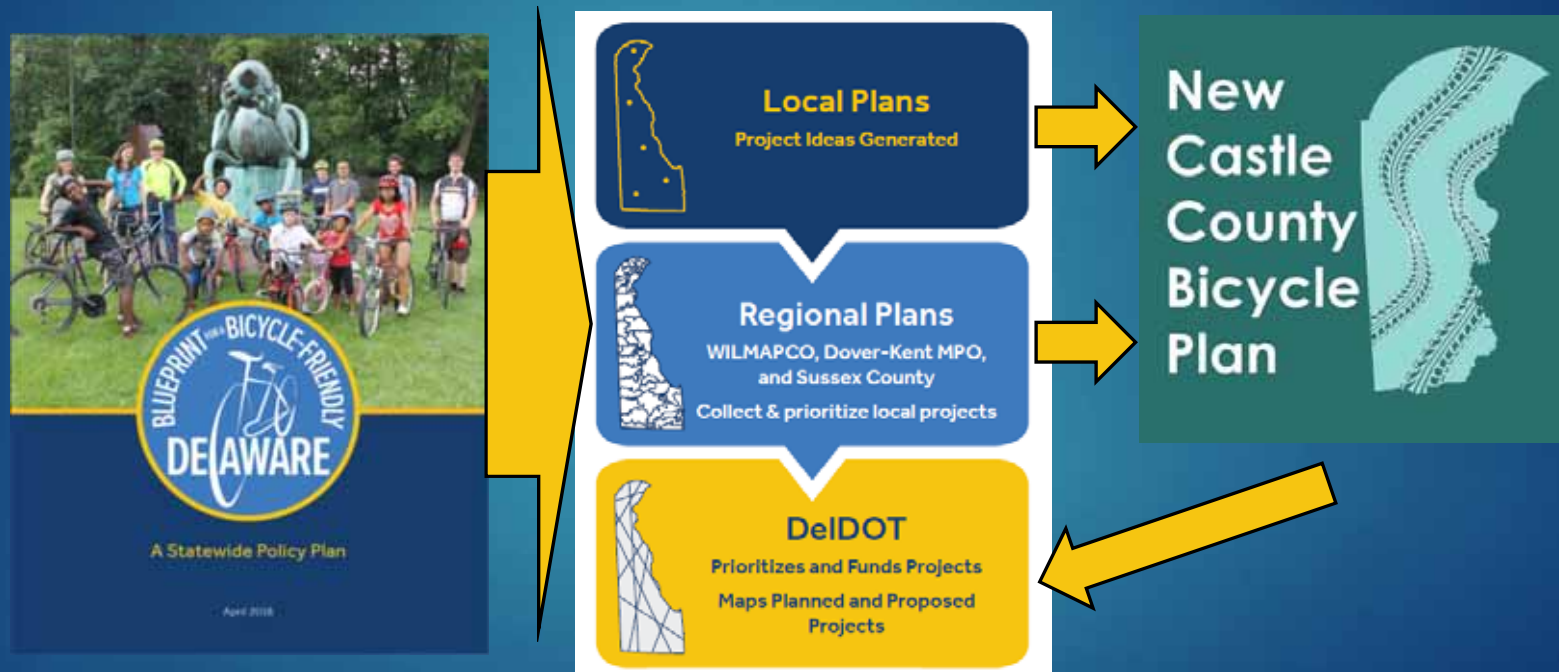
Newark Bicycle Planning



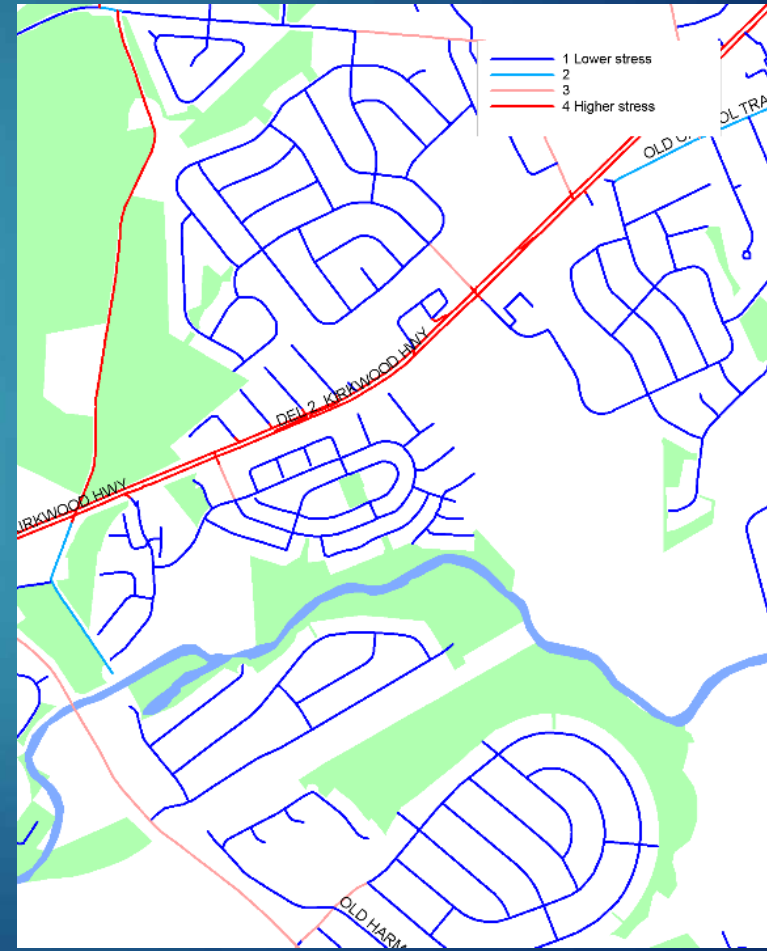
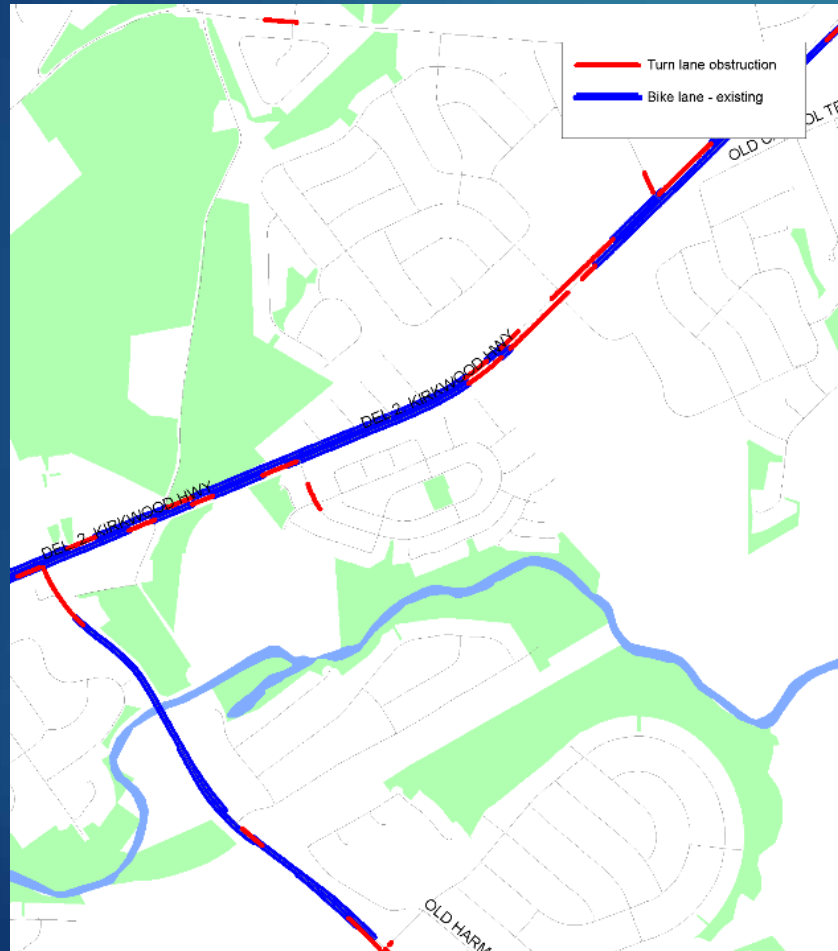
Bike Project Youth Programs



New Castle County Bicycle Plan



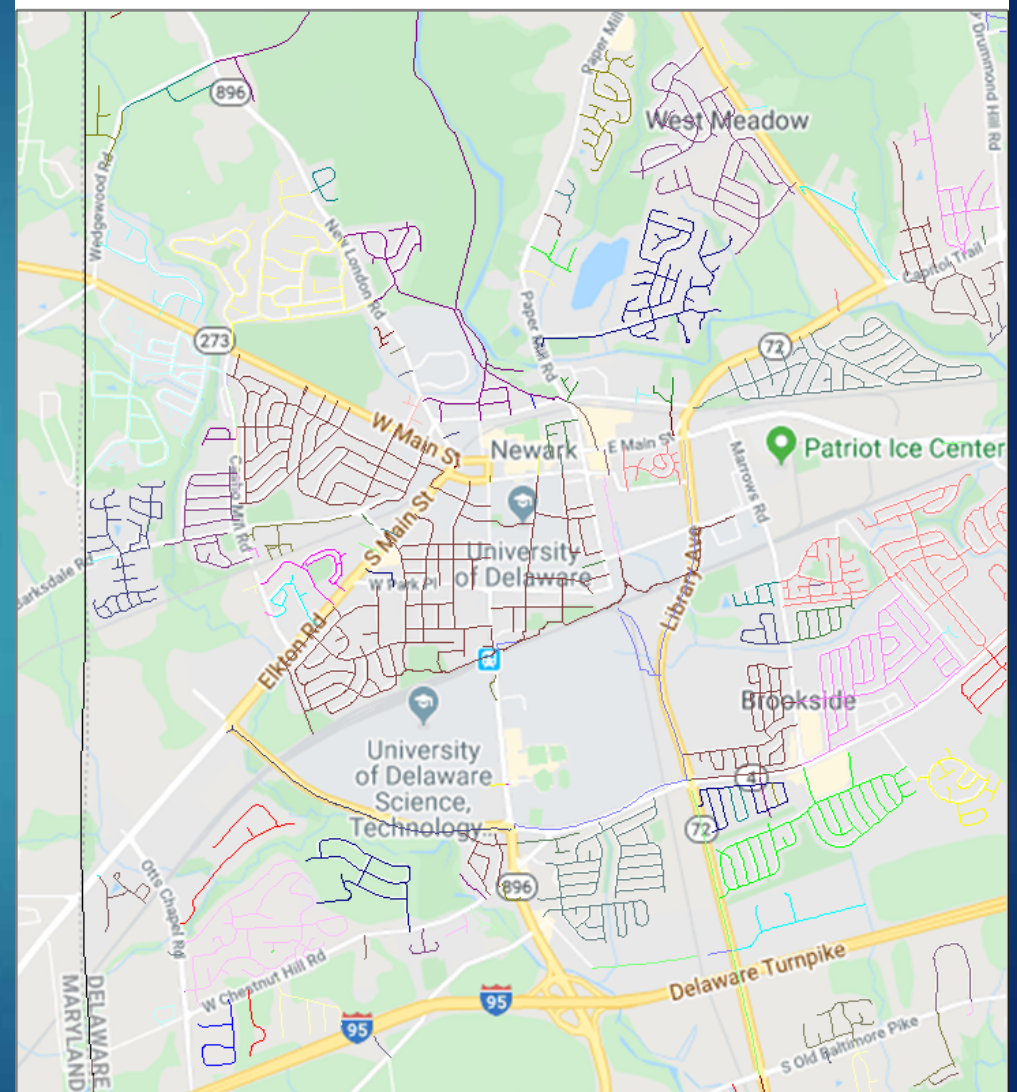
New Castle County Bicycle Plan



New Castle County Bicycle Plan

- Bicycle level of traffic stress analysis with DeIDOT

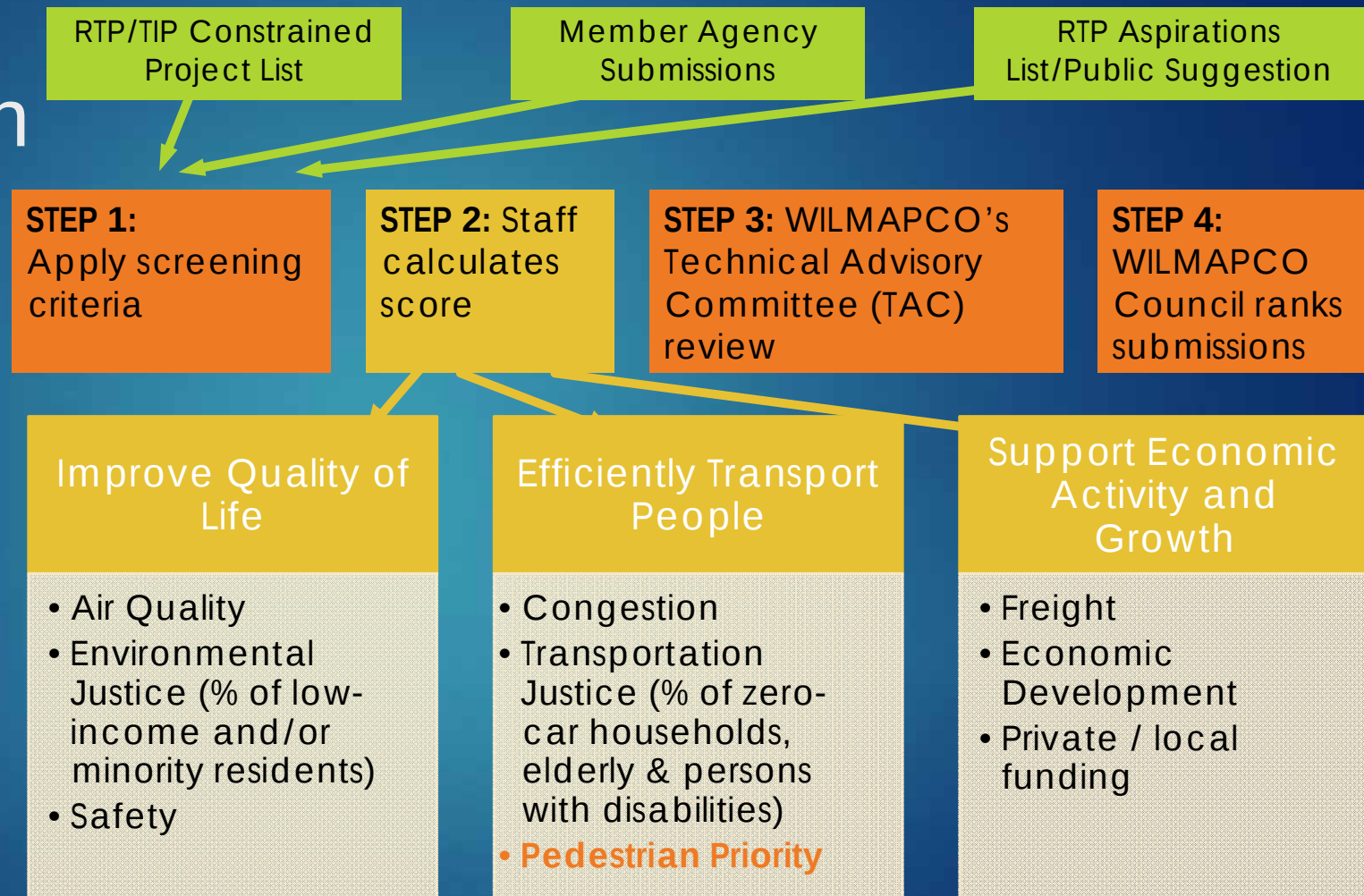
Low Level of Traffic Stress Islands



New Castle County Bicycle Plan



Project Prioritization



Transportation Alternatives Program

► TAP Prioritization

Criteria	Measure	Pts
Land use		
Community Center	within .25/.5 mile	1-2
Library	within .25/.5 mile	1-2
Municipality/Hometown Overlay	within	1
Park	alongside	2
School	within .5/1 mile	1-2
EJ Neighborhood	within	1-2
TJ Neighborhood	within	1-2
Density	within	1
Historic element	qualitative	1
Transportation		
Bus Stop	within .125/.25 mile	1-2
High load bus stop	within .125/.25 mile	1-2
Greenway	within .25/.5 mile	1-2
Bike route	alongside	2
Safety	within	1-5
Abandoned railroad corridor	qualitative	1
Gap Analysis	qualitative	4

Questions

Heather Dunigan

Principal Planner

WILMAPCO

hdunigan@wilmapco.org

302-737-6206 ext 118

www.wilmapco.org

