

Detailed Hotspot Performance Profiles and Screening

Synopsis:

This section contains an inventory of current conditions of each hotspot that were selected as part of the system-wide congestion assessment. Recognizing that the CMP is intended to address multimodal performance, this section provides insights into how multiple transportation modes operate within each of the identified hotspots. Each hotspot in the region presents its own unique mobility challenges, and this review will be taken into account when suggesting strategies that best fit the conditions, goals, and character of the area under consideration.

Hotspot Evaluation & Screening Criteria:

A screening effort designed to present a clearer picture of the current conditions along each of the identified hotspots was performed. Included are current operational and usage statistics that is available on multiple modes of transportation to help guide which of the congestion strategies would be appropriate for each location. The evaluation and screening pulls data and information from a wide assortment of available sources. The full list of criteria (including definition and sources) is available on Tables 1-3. The focus of the evaluation is to capture the these three main categories regarding each hotspot: Transportation Inventory, General Area Details and Journey to Work and Employment Characteristics

The main goal is to provide decision-makers with a performance-based mix of strategies to mitigate congestion and improve the mobility of people and goods traversing the transportation system. In addition, it should address other CMP objectives as applicable, such as improving safety, accessibility, security, and supporting principles developed in the WILMAPCO 2050 Regional Transportation Plan.

Evaluation & Screening Criteria

Category #1—Transportation Inventory:

- Roadway classifications and other FHWA program designations
- Current traffic volumes, speeds and delay conditions
- Current multi-modal infrastructure and operations
- Safety (Crash Frequency, severity and types)

Category #2—General Area Details:

- Socio– Economic conditions
- Relationship with Environmental Justice and Mobility– Challenged areas
- Relationship with WILMAPCO RTP Transportation Investment Areas (TIAs)

Category #3—Journey to Work and Employment Characteristics:

- Employment Concentrations and job types
- Journey to Work Mode Share
- Transit Investment Suitability Analysis

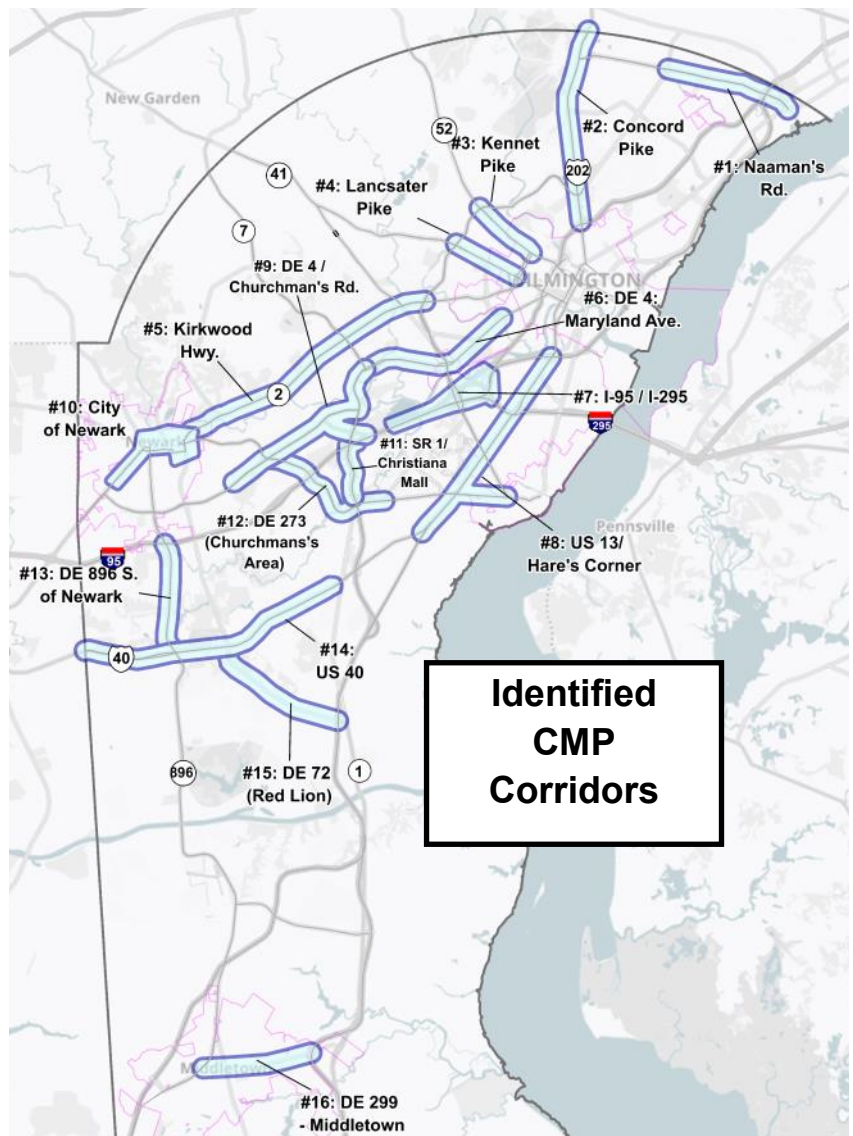


Table 1: Summary of Detailed Evaluation Criteria

Transportation Inventory	
Criteria	Definition/Source
Daily AADT Range	DelDOT Traffic Counts (2021)
Functional Classification	Based on FHWA Classification System (2015)
National Freight Highway Network (NHFN) designation	National Highway Freight Program (NHFP) in 23 U.S.C. 167
U.S. DOD's Strategic Highway Network (STRAHNET),	Public highways that provide access and emergency transportation of personnel and equipment for defense purposes.
Corridor within a Designated Truck Bottleneck (and Ranking)	DelDOT Truck Bottleneck Analysis (2018 & 2020)
Total Daily Hours of Person Delay (if available)	Performance metric from § 490.707—National performance management measures for traffic congestion. Measured in Total Person-Hours of Peak Hour Excessive Delay (PHED) measured along the NHS in Urbanized Areas within the hours of 6-10am and 3-7pm. Source: National Performance Management Research Data Set (NPMRDS)
Non-Motorized Facilities Coverage	Percentage of mileage (both directions) which have existing non-motorized facilities along main corridor roadway frontage. (2021) Source: WILMAPCO
Intersections in top 20% of Statewide Crash Rankings	Combines the use of three crash criteria: frequency, severity, and Manner of impact at each intersection. Analysis includes a 3-year average of crashes (2019-2021) at signalized and non-signalized intersections that average 10 or more crashes per year. Source: WILMAPCO, DelDOT
Average Bus trip frequency by Route (AM Peak/PM Peak)	Average number of trips on individual routes during the AM Peak (6-9am) and PM Peak (3-6pm). Source: Delaware Transit Corporation 2022
Number of Park and Rides and % Usage	Inventory of any designated Park & Ride/ Pool locations along corridor and their overall usage in 2022 Source: WILMAPCO, DelDOT
Last Signal Retiming (if applicable)	Year of last signalized corridor re-timing effort, if applicable

Other General Area Details

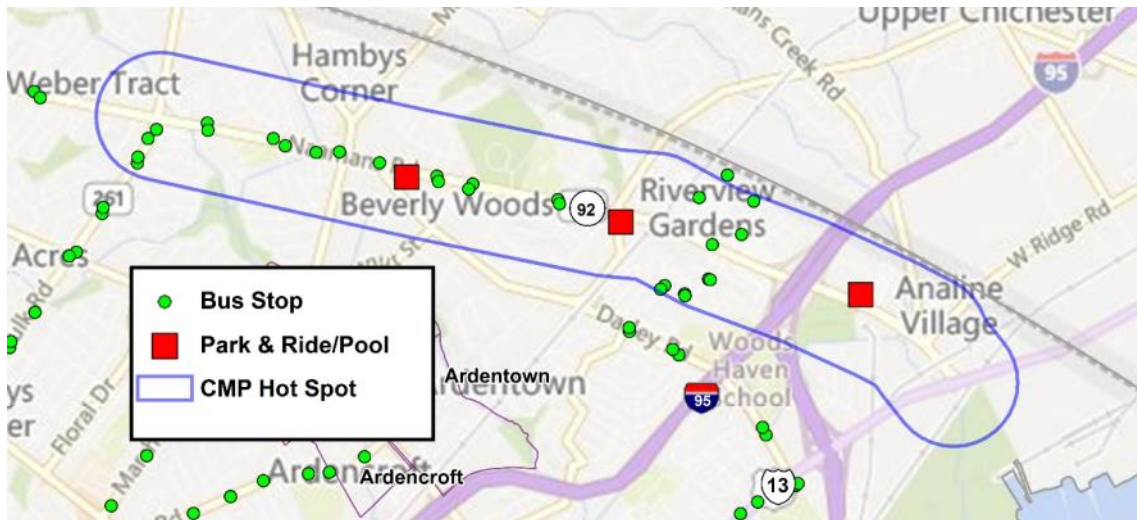
Criteria	Definition/Source
Population Along Corridor within Moderate & Significant Environmental Justice Areas	WILMAPCO Transportation Justice Plan (2019)
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	Data from EJScreen: Environmental Justice Screening and Mapping Tool. Developed by the EPA. 2019
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	WILMAPCO Transportation Justice Plan (2019)
WILMAPCO Transportation Investment Area(s)	WILMAPCO Regional Transportation Plan (2019)
Corridor inclusion in recent areawide studies	Any portion of corridor included in a recent Areawide / Subregional Master Plan or Study. Includes Transportation Improvement Districts (TIDs)

Table 2: Summary of Traffic and Travel Conditions Criteria

Criteria	Definition/Source
AM & PM Travel Time Reliability	<p>Road segments with deficient Travel Time Reliability (TTR) from DelDOT Traffic Operations Management Plan (TOMP) for AM peak (7-9am) and PM peak (4-6pm) and Summer Mid-Day (10am-6pm). Breakdowns are as follows:</p> <ul style="list-style-type: none"> - <u>Severe Recurring</u>: TTR (95th percentile/uncongested travel time) ≥ 2.5 and TTI (50th percentile/uncongested travel time) ≥ 1.5 - <u>Severe Non-recurring</u>: TTR ≥ 2.5 and TTI < 1.5 - Not Severe: TTR < 2.5 <p>Full report can be found at https://deldot.gov/Programs/itms/index.shtml?dc=tomp <i>* Note: Bluetooth data was not available for corridors #6 and #12. NPMRDS data was used in its place to assess travel time reliability (Fall 2021)</i></p>
Substandard Intersections	<p>Critical Movement Summation (CMS): A measurement which focuses on the raw intersection capacity and the ability for an intersection to process a given traffic demand (volume) with a given lane use configuration and given phase sequence. Level of Service (LOS) is determined by the peak hour volumes for the AM and PM periods. Breakdowns are as follows:</p> <ul style="list-style-type: none"> - LOS A: Less than 1,000 vehicles/hour - LOS B: 1,000 to 1,150 vehicles/hour - LOS C: 1,151 to 1,300 vehicles/hour - LOS D: 1,301 to 1,450 vehicles/hour - LOS E: 1,451 to 1,600 vehicles/hour - LOS F: More than 1,600 vehicles/hour <p>Year of data varies. Details on specific intersection locations can be found on the interactive map on the WILMAPCO CMP project homepage http://www.wilmapco.org/cms</p>
Hourly Travel Speeds	<p>Hourly travel speed averages are collected AM/PM weekday and Summer weekends using the following data timeframes:</p> <ul style="list-style-type: none"> - Weekdays: Mondays-Thursdays from 2nd Monday in September to 2nd Thursday in November 2021 - Weekends: Second Friday in June to Second Sunday in August. <p>Overnight average speed is a measurement of travel speeds during the hours of 11pm-5am</p> <p>Source: National Performance Management Research Data Set (NPMRDS)</p>

Table 3: Journey to Work and Employment Characteristics Criteria

Criteria	Definition/Source
Sub-Area Journey-to-Work Mode Splits	<p>Journey to Work mode share of communities near identified corridor. Local mode share compared against the Countywide average. Source: American Community Survey (2015-2019 5-year avg.) at the block group level.</p>
Corridor Employment by type and density	<p>Breakdown of employment grouped by NAICS supersectors. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO for use in the DelDOT Peninsula Model.</p>
Appropriateness of Transit Service Intensity/Investment	<p>Adaptation of analysis developed by the Delaware Valley Regional Planning Commission (DVRPC) titled "<u>Creating a Regional Transit Score Protocol</u>" which analyzes the relationship of land use, transit dependency and public transportation. Using gross densities of population, employment and zero-car households, it correlates transit service investments deemed appropriate based on the intensity of the variables used in developing a five category transit score. Full Report : https://www.dvrpc.org/reports/07005.pdf Source: Traffic Analysis Zone data developed by WILMAPCO for use in the DelDOT Peninsula Model (year 2020)</p>

Corridor #1 Profile and Screening: Naaman's Rd

Transportation Inventory	
Corridor Length (miles)	3.5
Daily AADT Range	14,600 - 24,600
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	MAP-21 NHS Route
Total Person-Hours of Peak Hour Excessive Delay	77,300
Non-Motorized Facilities Coverage along main corridor roadway frontage	85.6%
Intersections in top 20% of Statewide Crash Rankings	None
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 61 (6 trips / 6 trips)
	Route 13: Philadelphia Pike / DuPont Highway (15 trips / 15 trips)
Number of Park and Rides and % Usage	3 Locations - Usage less than 1% of Capacity
Last Signal Retiming (if applicable)	2018
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	No EJ Areas within corridor
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	Moderate Areas: 0 Significant Areas: 1,685
Corridor within a designated truck bottleneck (and Ranking)	No
WILMAPCO Transportation Investment Area(s)	Center/Core
Corridor inclusion in recent areawide studies	North Claymont Area Master Plan (2017)

Corridor #1, Naaman's Rd Traffic and Travel Conditions

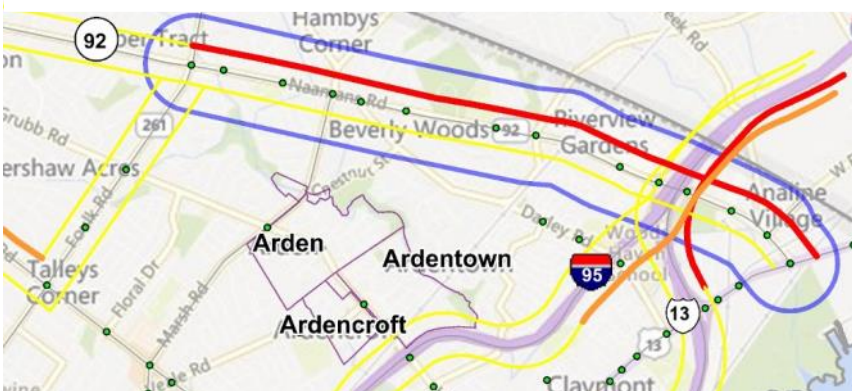
AM Peak Travel Conditions (7-9am)



Map Legend

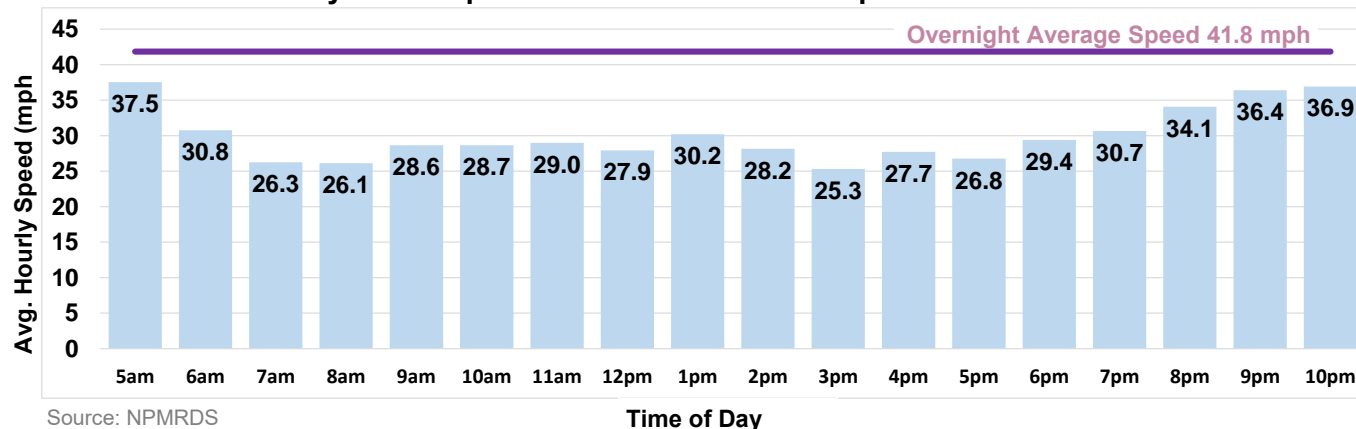
Intersection Level of Service (Critical Movement Summation)	
●	LOS C+ less than 1,300 vehicles/hr.
●	LOS D: 1,301 to 1,450 vehicles/hour
●	LOS E: 1,451 to 1,600 vehicles/hour
●	LOS F: Over 1,600 vehicles/hour
Travel Time Reliability	
■	Areas with no Significant recurring or non-recurring congestion
■	Areas with significant non-recurring congestion
■	Areas with significant recurring congestion
■	CMP Hot Spot

PM Peak Travel Conditions (4-6pm)



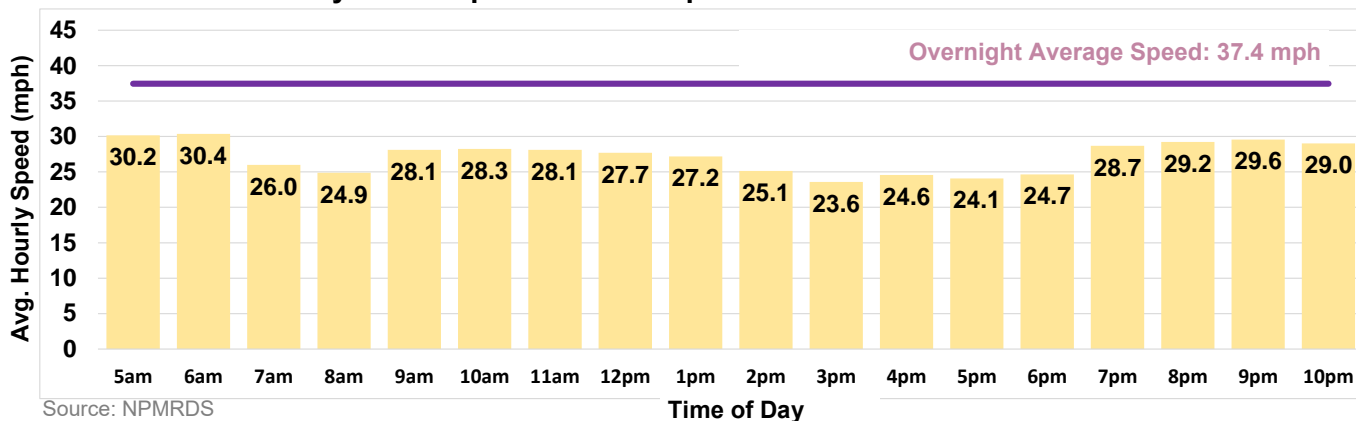
Source: DelDOT TOMP

EASTBOUND Hourly Travel Speeds: Foulk Rd. to Philadelphia Pike



Source: NPMRDS

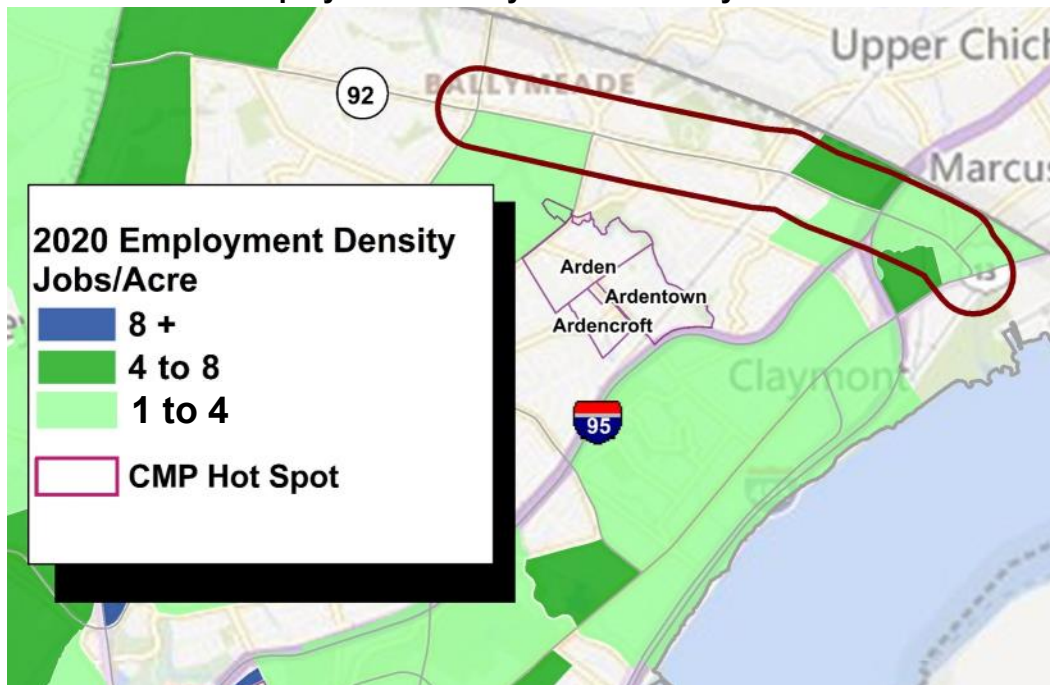
WESTBOUND Hourly Travel Speeds: Philadelphia Pike to Foulk Rd.



Source: NPMRDS

Corridor #1, Naaman's Road: Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	18%	11%
Wholesale / Retail / Transp. & Utilities	24%	18%
Finance / Information	9%	11%
Prof. & Business Services	7%	14%
Health & Education	19%	24%
Leisure & Hospitality	15%	10%
Other Service & Public Admin.	8%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

Mode	Corridor Avg.	County Avg.
SOV	80.4%	79.8%
Carpool	7.0%	8.5%
Transit/Taxi	6.1%	3.8%
Walk/Bike	1.3%	2.8%
Other	0.6%	0.6%
Work at Home	4.6%	4.5%

Source: American Community Survey: 2015-19 5-year data.

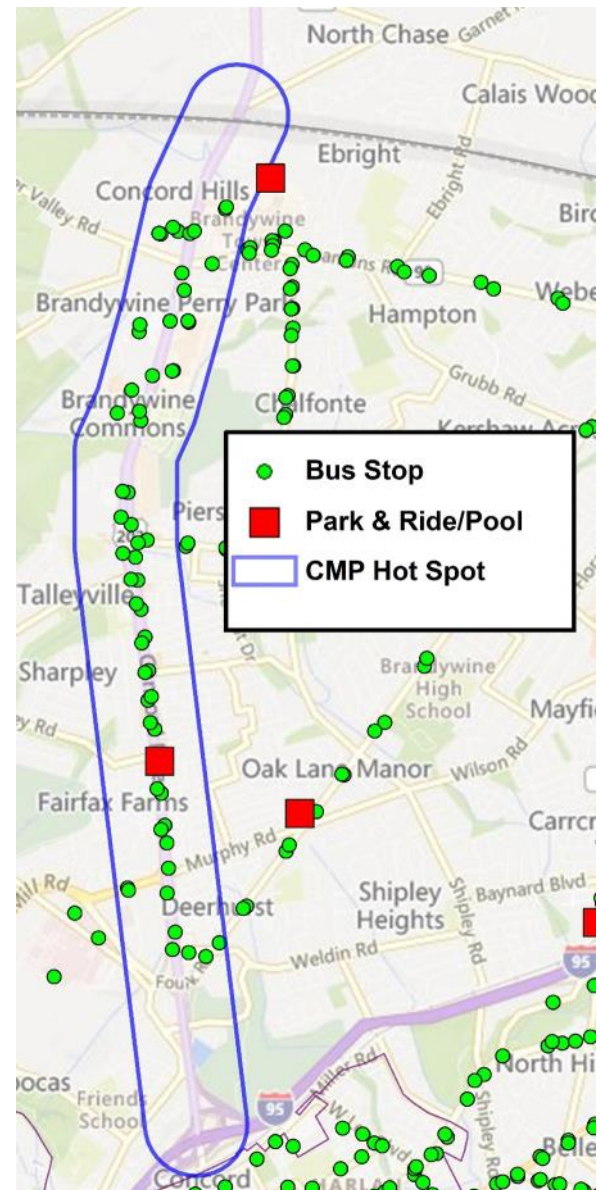
Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

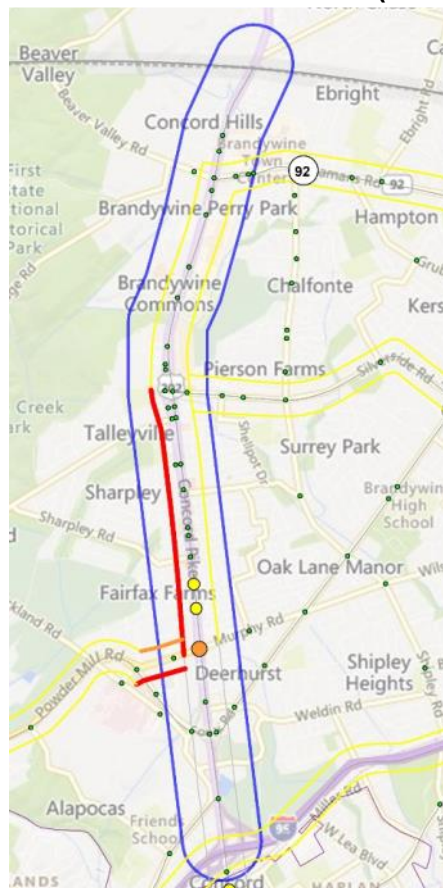
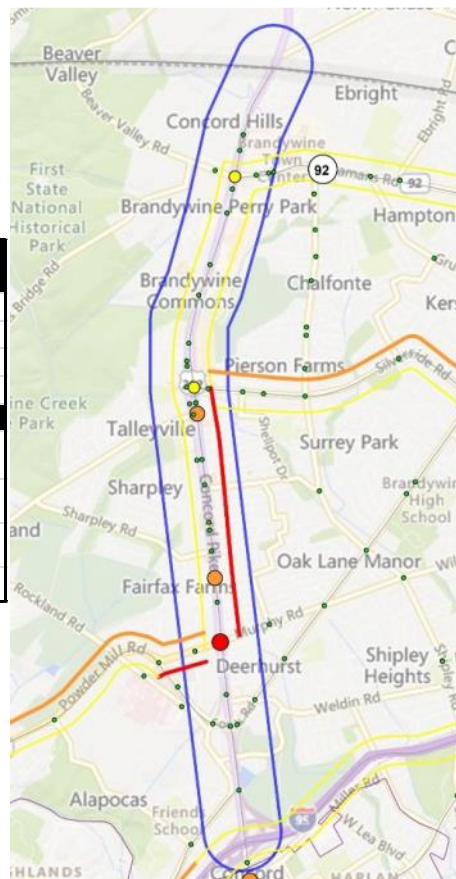
Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Not Appropriate
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Adaptation of analysis developed by the DVRPC titled *"Creating a Regional Transit Score Protocol"* which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Corridor #2: Concord Pike Profile and Screening

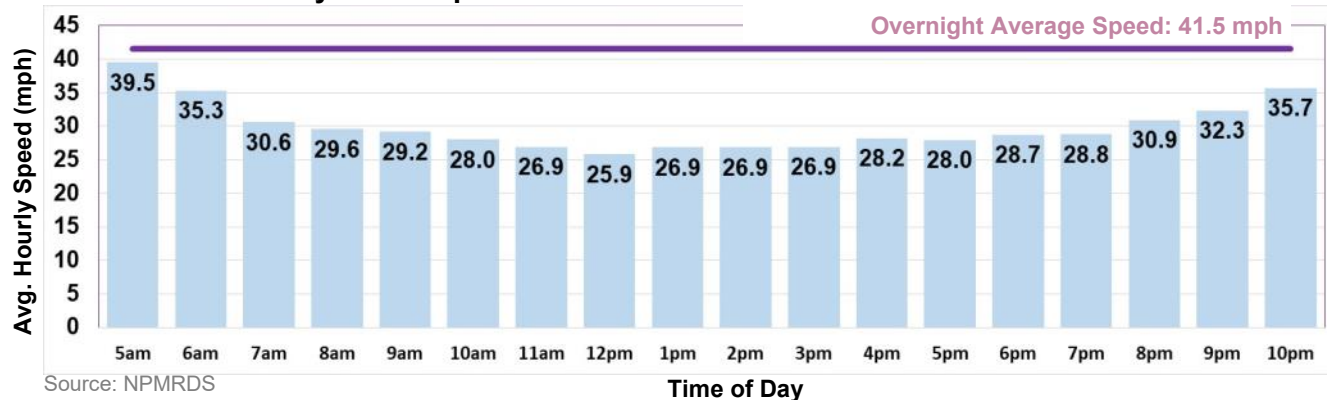
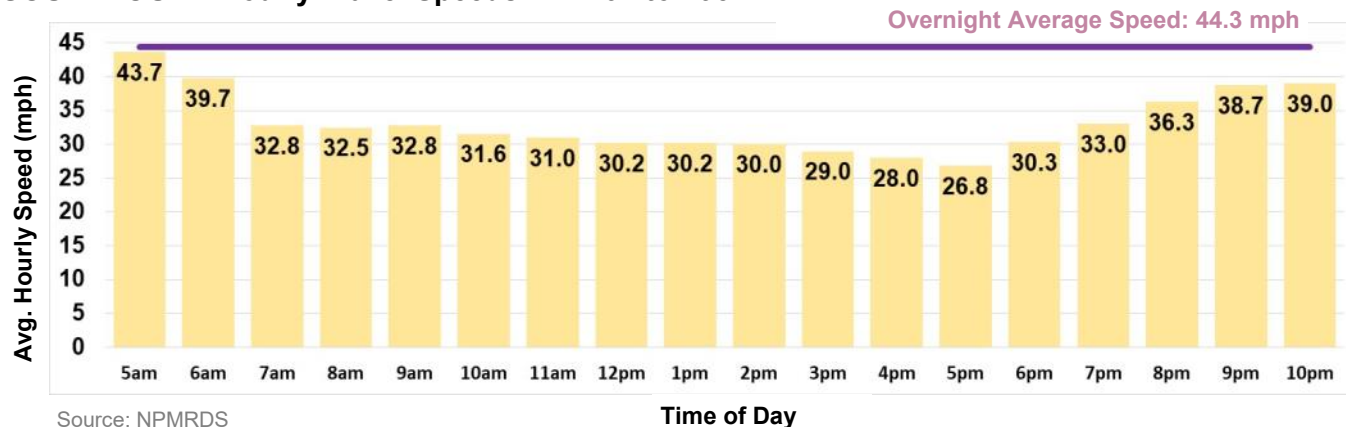
Transportation Inventory	
Corridor Length (miles)	5.1
Daily AADT Range	8,100 - 54,100
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	Critical Urban Freight Corridor (CUFC)
Total Person-Hours of Peak Hour Excessive Delay (PHED)	169,332
Non-Motorized Facilities Coverage along main corridor roadway frontage	61.1%
Intersections in top 20% of Statewide Crash Rankings	US 202 @ Murphy Rd. (#48)
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 35 Brandywine Town Center / Shipley Rd (2 trips / 2 trips)
	Route 2 Concord Pike (15 trips / 18 trips)
Number of Park and Rides and % Usage	2 Locations - 5% Usage
Last Signal Retiming (if applicable)	2019
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	No EJ Areas within corridor
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	No MC Areas within corridor
WILMAPCO Transportation Investment Area(s)	Core
Corridor within a designated truck bottleneck (and Ranking)	No
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	0
Corridor inclusion in recent area-wide studies	Concord Pike Master Plan (2021)

Corridor #2: Concord Pike

Corridor #2: Concord Pike Traffic and Travel Conditions**AM Peak Travel Conditions (7-9am)****PM Peak Travel Conditions (4-6pm)****Map Legend**

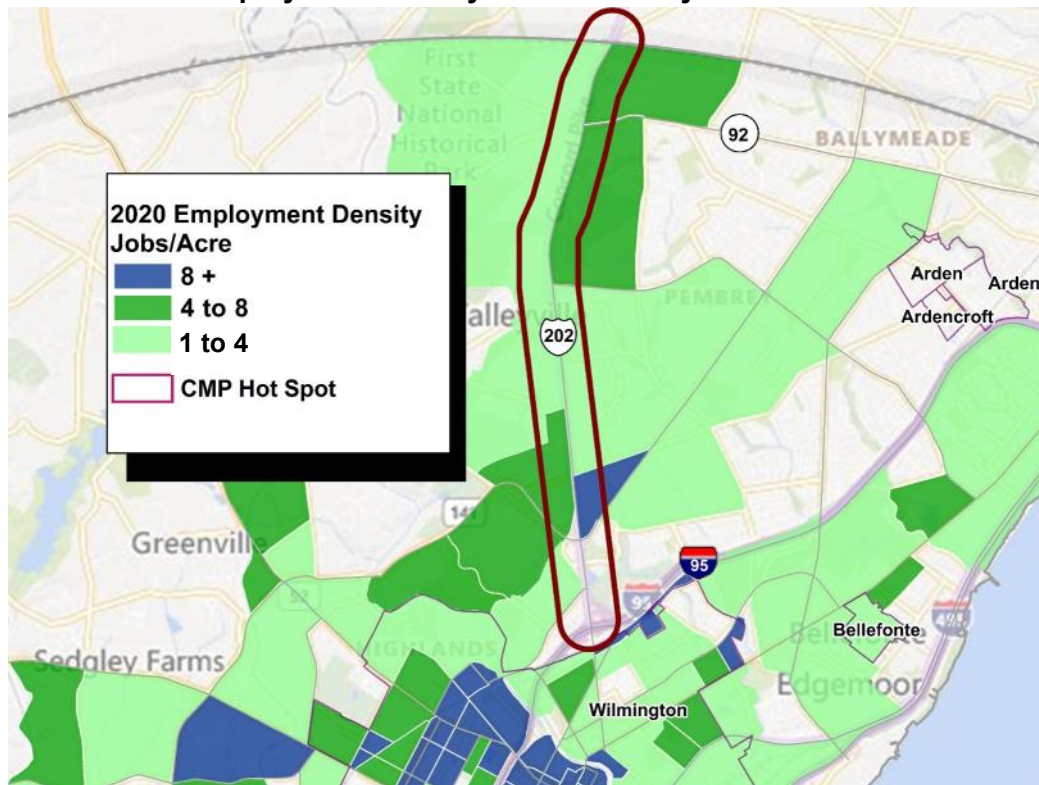
Intersection Level of Service (Critical Movement Summation)	
●	LOS C+ less than 1,300 vehicles/hr.
●	LOS D: 1,301 to 1,450 vehicles/hour
●	LOS E: 1,451 to 1,600 vehicles/hour
●	LOS F: Over 1,600 vehicles/hour
Travel Time Reliability	
—	Areas with no Significant recurring or non-recurring congestion
—	Areas with significant non-recurring congestion
—	Areas with significant recurring congestion
—	CMP Hot Spot

Source: DelDOT TOMP

NORTHBOUND Hourly Travel Speeds: I-95 to PA-491**SOUTHBOUND Hourly Travel Speeds: PA-491 to I-95**

Corridor #2: Concord Pike Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	15%	11%
Wholesale/Retail/Transp. & Utilities	22%	18%
Finance / Information	12%	11%
Prof. & Business Services	6%	14%
Health & Education	27%	24%
Leisure & Hospitality	12%	10%
Other Service & Public Admin.	5%	12%

Source: WILMAPCO Traffic Analysis Zones

Adaptation of analysis developed by the DVRPC titled *“Creating a Regional Transit Score Protocol”* which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

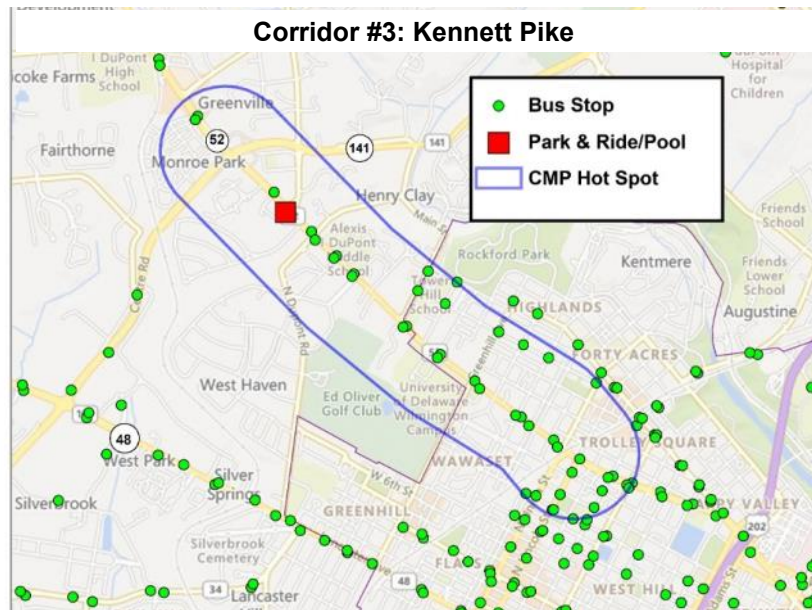
Mode Share: ACS Journey to Work

Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	79.3%	79.8%
Carpool	7.8%	8.5%
Transit/Taxi	3.9%	3.8%
Walk/Bike	1.2%	2.8%
Other	0.4%	0.6%
Work at Home	7.4%	4.5%

Source: American Community Survey: 2015-19 5-year data.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

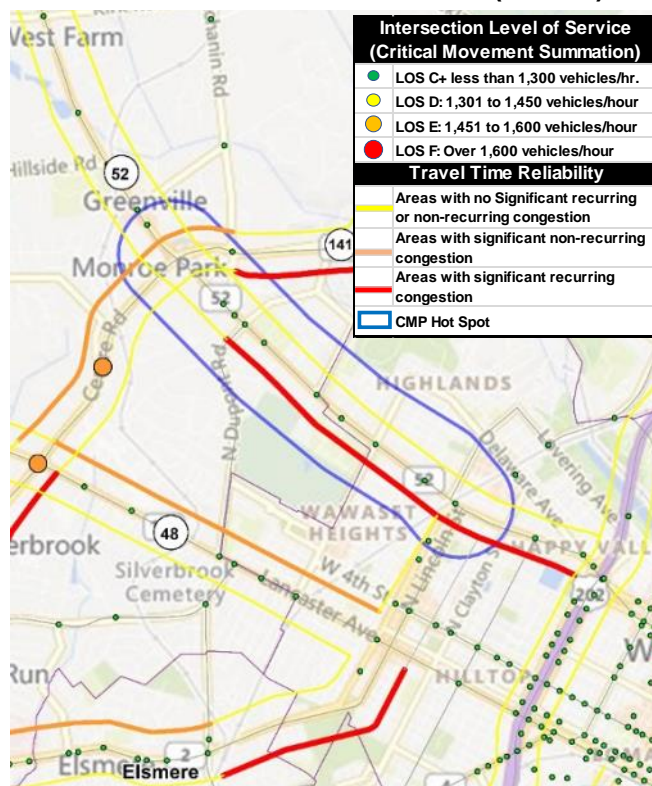
Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Possible
Bus Lane Expansion	Appropriate
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Corridor #3: Kennett Pike Profile & Screening

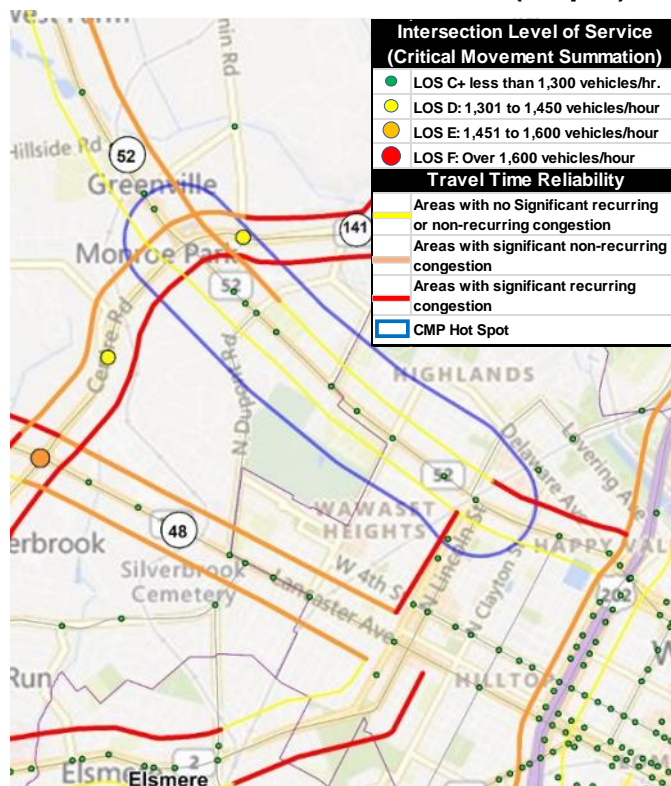
Transportation Inventory	
Corridor Length (miles)	2.2
Daily AADT Range	14,300 - 19,100
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	MAP-21 NHS Route
Total Person-Hours of Peak Hour Excessive Delay (PHED)	85,096
Non-Motorized Facilities Coverage along main corridor roadway frontage	99.8%
Intersections in top 20% of Statewide Crash Rankings	None
Average Total Transit Trips by Route (AM Peak Trips / PM Peak Trips)	Route 52 Centreville / Greenville / Kennett Pike (5 trips / 5 trips)
	Route 10 Wilmington / Univ Plz / Newark (9 trips / 8 trips)
	Route 20 Lancaster Pike / Hockessin (5 trips / 5 trips)
Number of Park and Rides and % Usage	1 Location 13%
Last Signal Retiming (if applicable)	2018 (partial)
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	Moderate Areas: 1,035 Significant Areas: 0
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	1,774
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	Moderate Areas: 862 Significant Areas: 0
Corridor within a designated truck bottleneck (and Ranking)	No
WILMAPCO Transportation Investment Area(s)	Center/Core
Corridor inclusion in recent areawide studies	Wilmington Comprehensive Plan (2021)

Corridor #3: Kennett Pike Traffic and Travel Conditions

AM Peak Travel Conditions (7-9am)

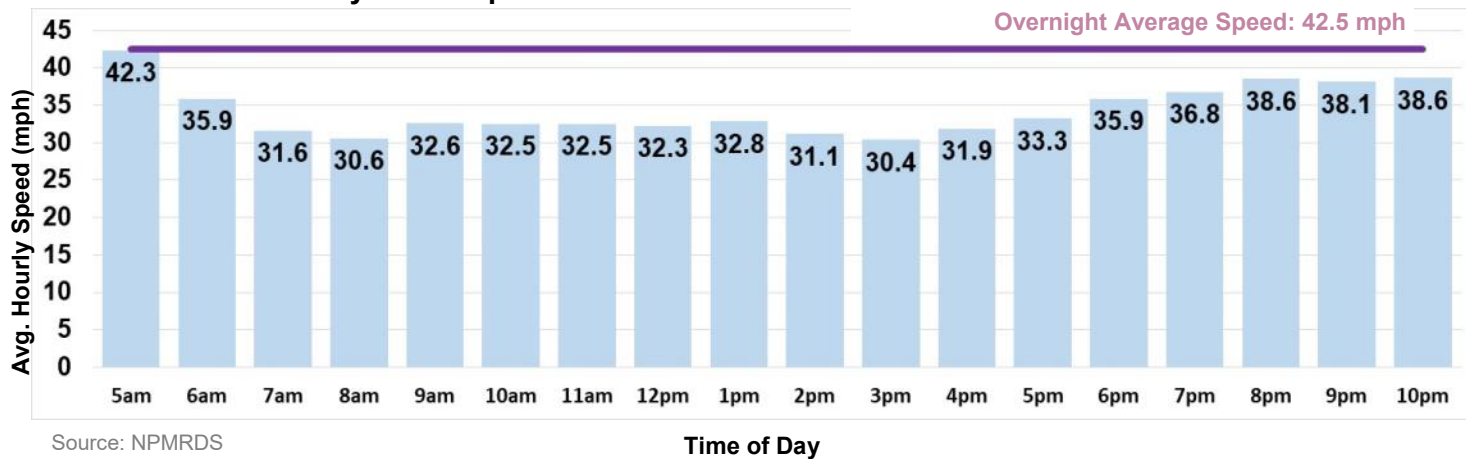


PM Peak Travel Conditions (4-6pm)

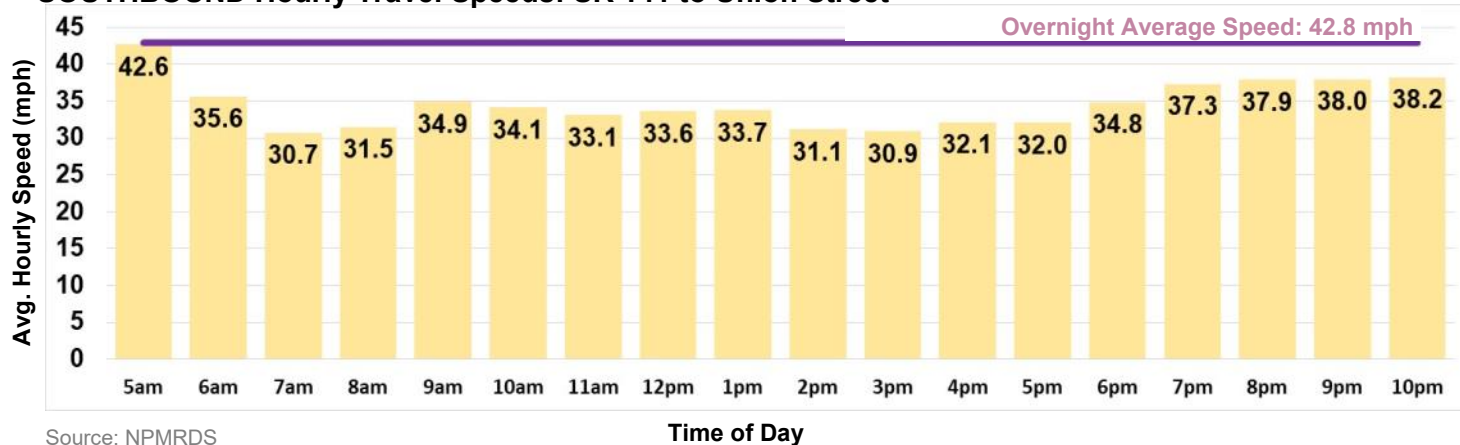


Source: DelDOT TOMP

NORTHBOUND Hourly Travel Speeds: Union Street to SR 141

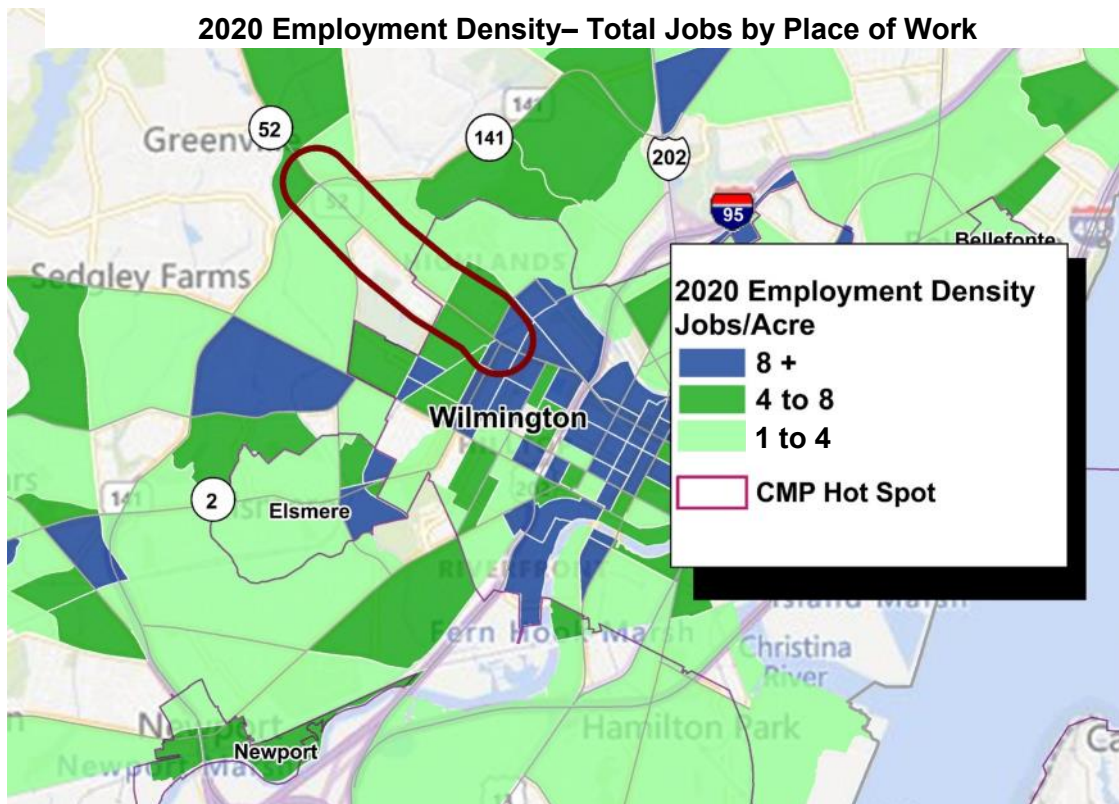


SOUTHBOUND Hourly Travel Speeds: SR 141 to Union Street



Corridor #3: Kennett Pike Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	6%	11%
Wholesale/Retail/ Transp. & Utilities	21%	18%
Finance / Information	17%	11%
Prof. & Business Services	11%	14%
Health & Education	26%	24%
Leisure & Hospitality	10%	10%
Other Service & Public Admin.	9%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

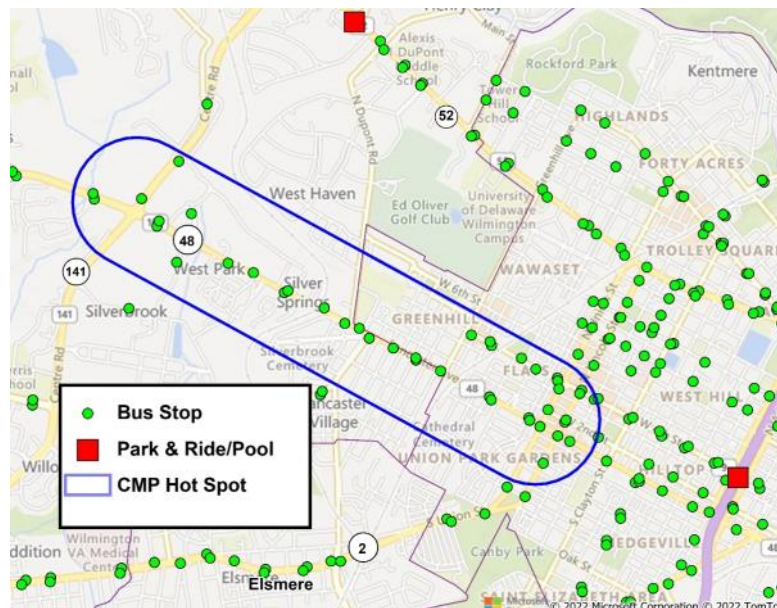
Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	78.0%	79.8%
Carpool	5.2%	8.5%
Transit/Taxi	6.1%	3.8%
Walk/Bike	2.4%	2.8%
Other	0.6%	0.6%
Work at Home	7.7%	4.5%

Source: American Community Survey: 2015-19 5-year data.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Possible
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

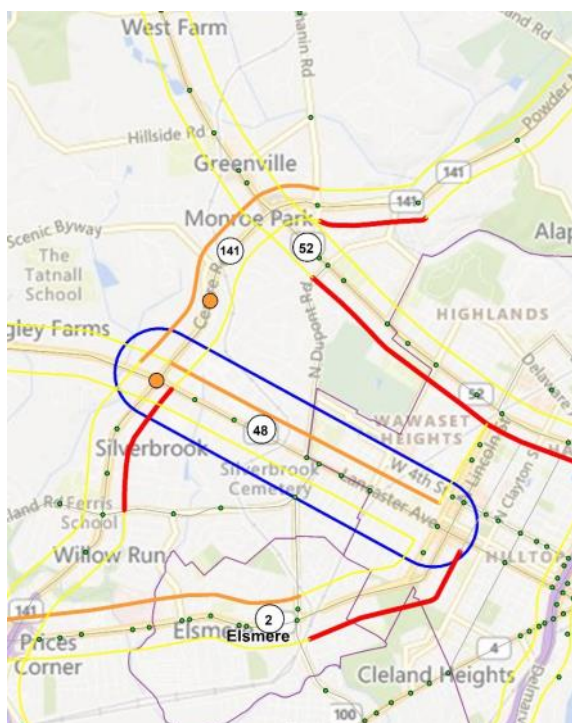
Adaptation of analysis developed by the DVRPC titled "Creating a Regional Transit Score Protocol" which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Corridor #4: Lancaster Pike: Profile and Screening

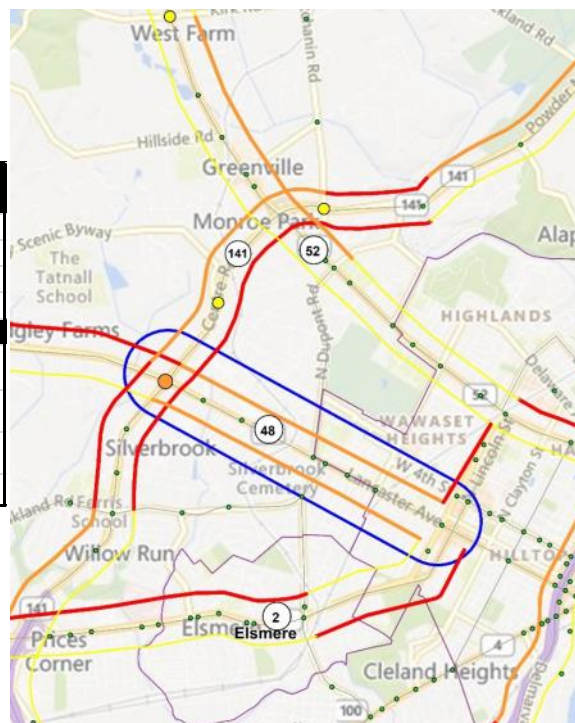
Transportation Inventory	
Corridor Length (miles)	2.0
Daily AADT Range	15,200 - 25,600
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	MAP-21 NHS Route
Total Person-Hours of Peak Hour Excessive Delay (PHED)	53,789
Non-Motorized Facilities Coverage along main corridor roadway frontage	65.8%
Intersections in top 20% of Statewide Crash Rankings	None
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 18 Pike Creek Valley / Wilm / Foulk Rd (8 trips / 8 trips)
	Route 4 W 4th Street / Governor Printz Blvd (20 trips / 19 trips)
Number of Park and Rides and % Usage	None
Last Signal Retiming (if applicable)	None
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	Moderate Areas: 4,239 Significant Areas: 2,220
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	1,771
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	Moderate Areas: 2,770 Significant Areas: 2,220
Corridor within a designated truck bottleneck (and Ranking)	No
WILMAPCO Transportation Investment Area(s)	Center/Core
Corridor inclusion in recent areawide studies	Wilmington Comprehensive Plan (2021)

Corridor #4: Lancaster Pike Traffic and Travel Conditions

AM Peak Travel Conditions (7-9am)

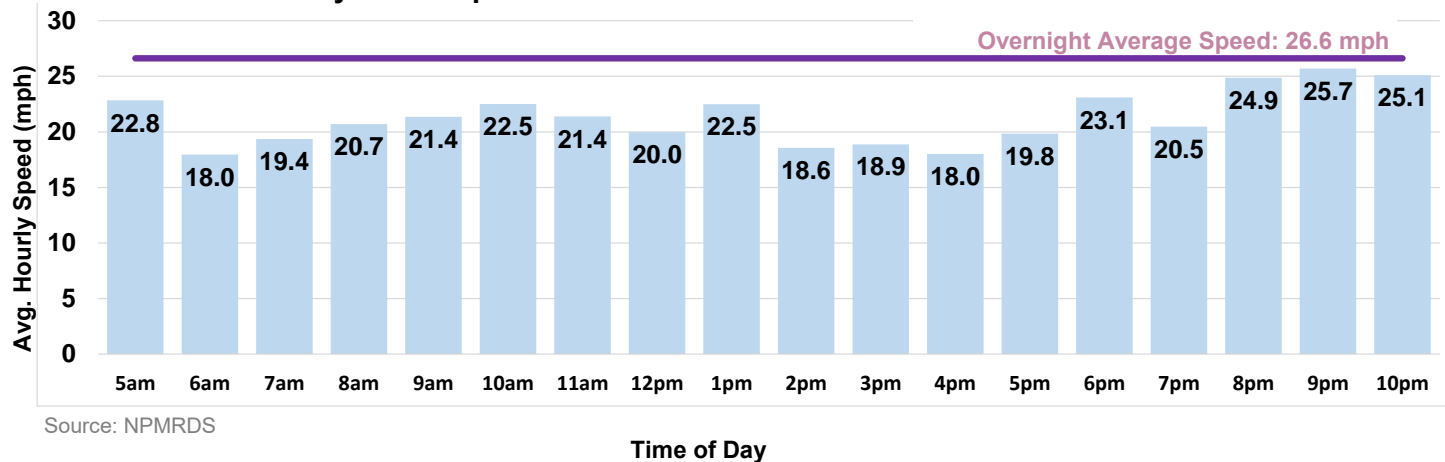


PM Peak Travel Conditions (4-6pm)

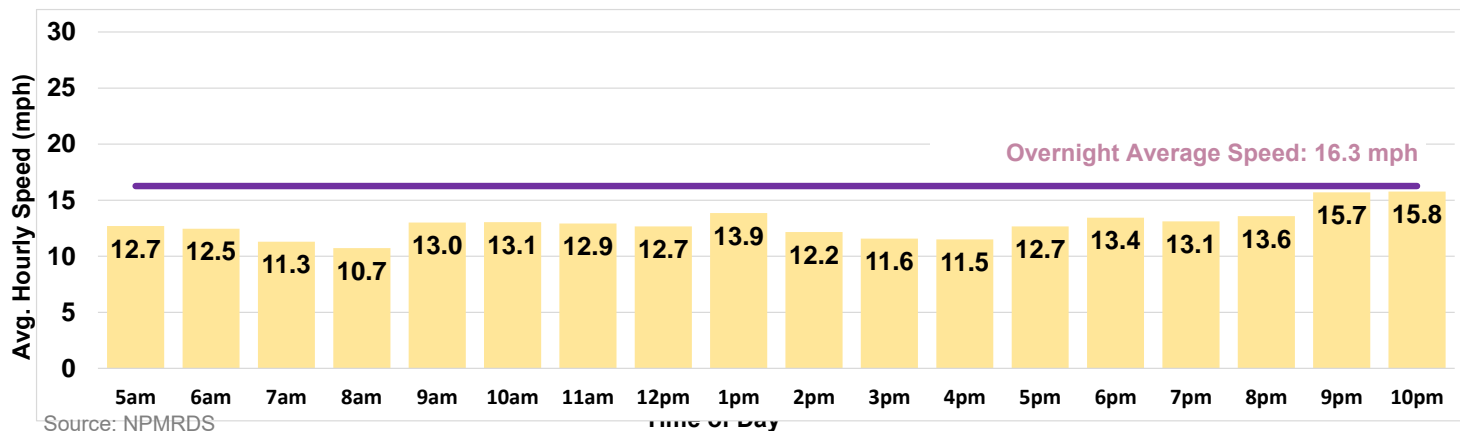


Source: DelDOT TOMP

NORTHBOUND Hourly Travel Speeds: Union Street to SR 141

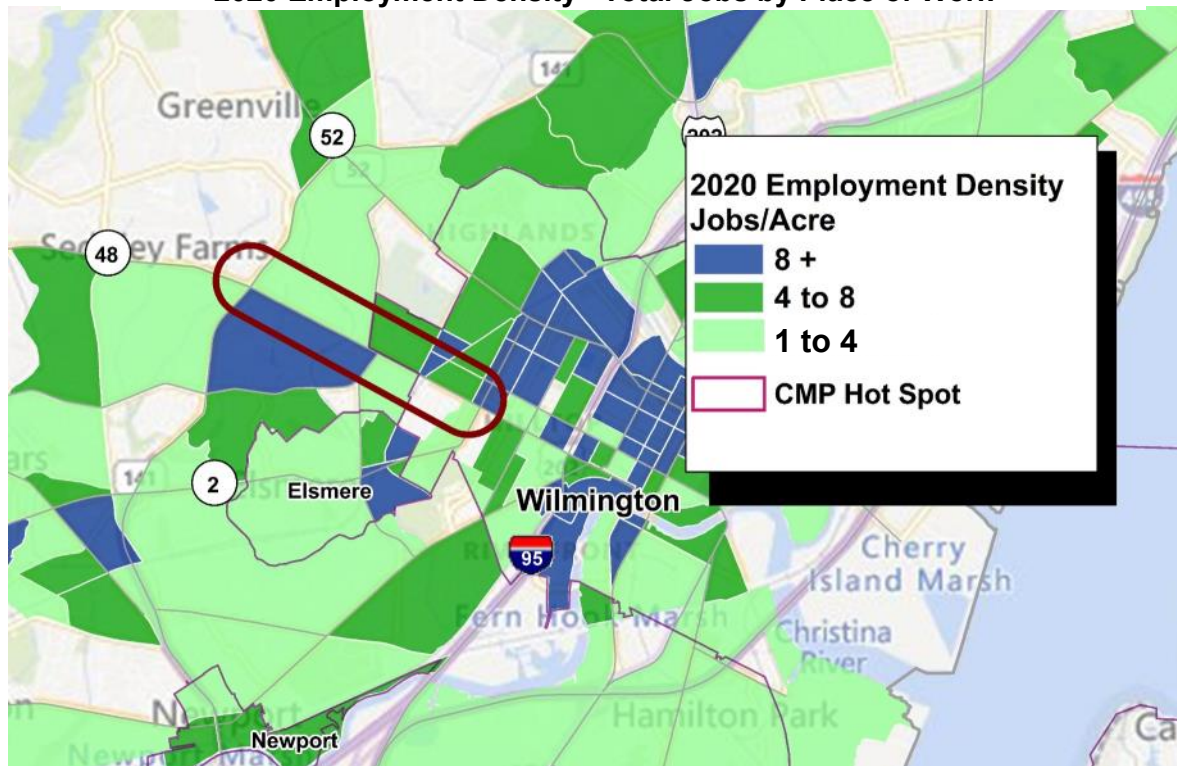


SOUTHBOUND Hourly Travel Speeds: SR 141 to Union Street



Corridor #4: Lancaster Pike Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	40%	11%
Wholesale/Retail/Transp. & Utilities	6%	18%
Finance / Information	10%	11%
Prof. & Business Services	10%	14%
Health & Education	19%	24%
Leisure & Hospitality	4%	10%
Other Service & Public Admin.	11%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

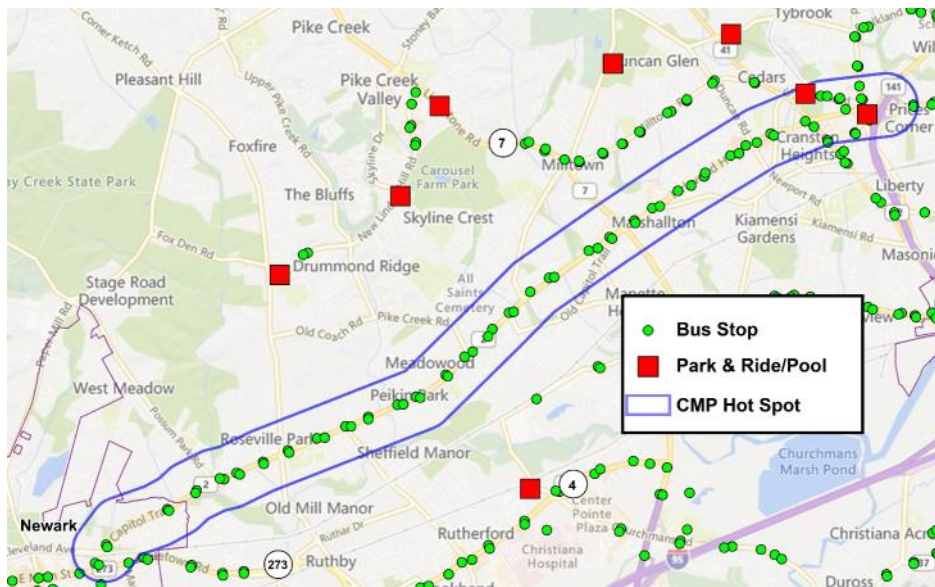
Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	71.2%	79.8%
Carpool	12.2%	8.5%
Transit/Taxi	6.0%	3.8%
Walk/Bike	4.8%	2.8%
Other	0.1%	0.6%
Work at Home	5.7%	4.5%

Source: American Community Survey: 2015-19 5-year data.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

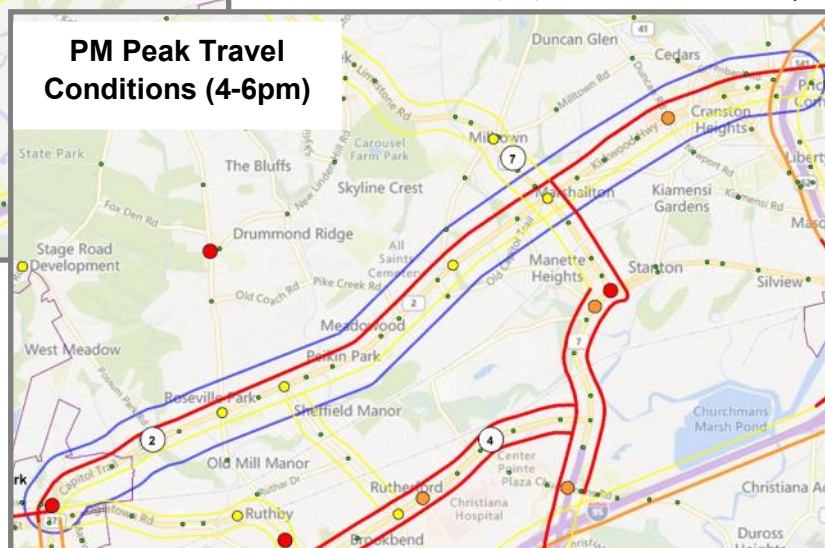
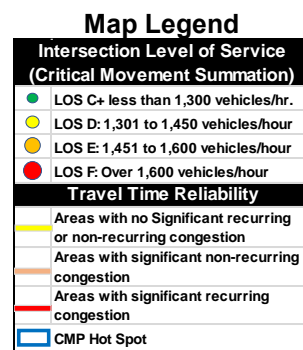
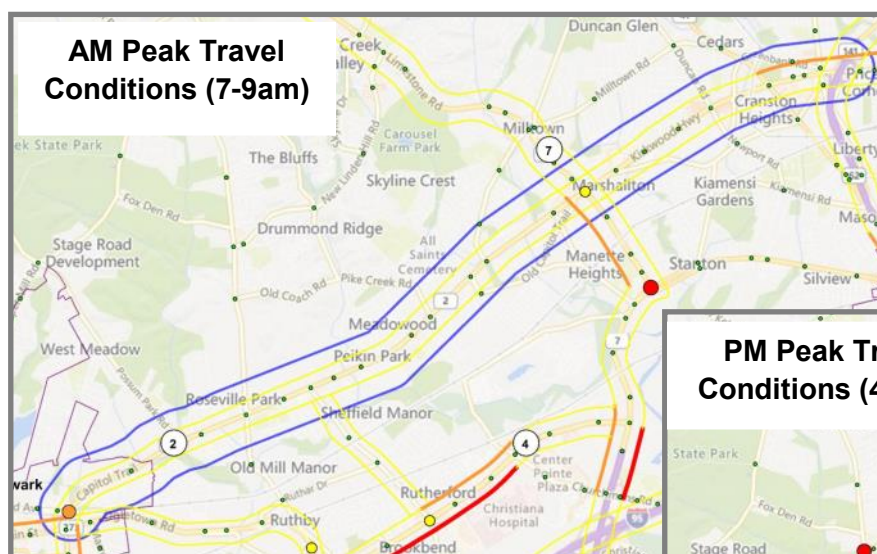
Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Possible
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Adaptation of analysis developed by the DVRPC titled *“Creating a Regional Transit Score Protocol”* which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Corridor #5: Kirkwood Highway Profile and Screening

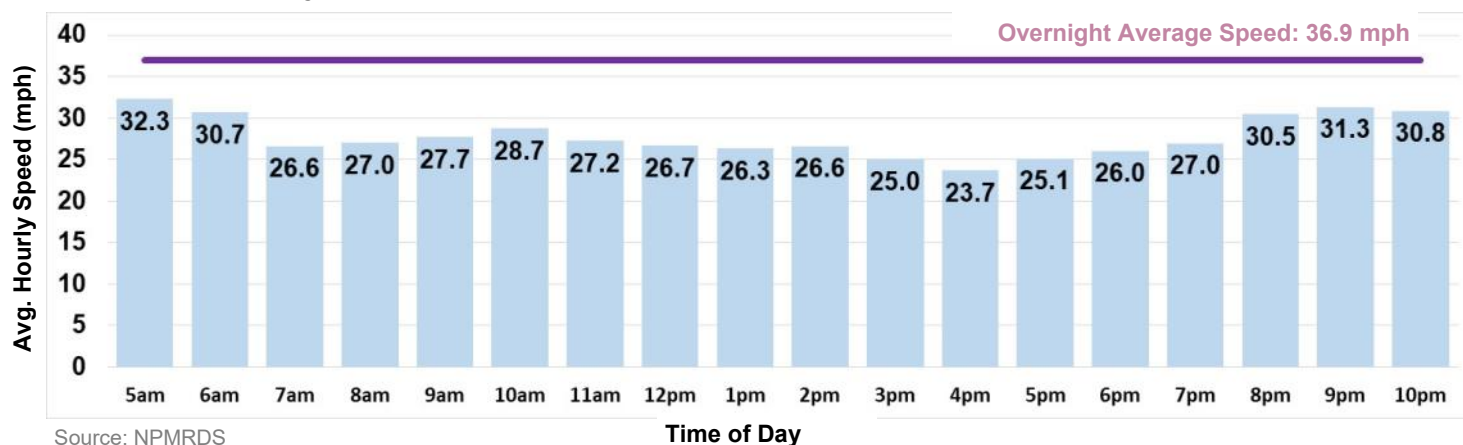
Transportation Inventory	
Corridor Length (miles)	7.6
Daily AADT Range	24,900 - 48,400
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	MAP-21 NHS Route
Total Person-Hours of Peak Hour Excessive Delay (PHED)	303,306
Non-Motorized Facilities Coverage along main corridor roadway frontage	85.5%
Intersections in top 20% of Statewide Crash Rankings	SR 2 & Hawthorne Avenue (#54)
	DE 2 & Red Mill Rd. (#11)
	DE 2 & DE 7 (#4)
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 6 Kirkwood Highway (16 trips / 19 trips)
Number of Park and Rides and % Usage	2 locations 3% usage
Last Signal Retiming (if applicable)	2017
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	Moderate: 6,959 Significant Areas: 0
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	4,885
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	Moderate Areas: 1,699 Significant Areas: 0
Corridor within a designated truck bottleneck (and Ranking)	Yes (High)
WILMAPCO Transportation Investment Area(s)	Core
Corridor inclusion in recent areawide studies	Churchman's Crossing Plan Update (2022), Churchman's Crossing TID (2023)

Corridor #5: Kirkwood Highway Traffic and Travel Conditions

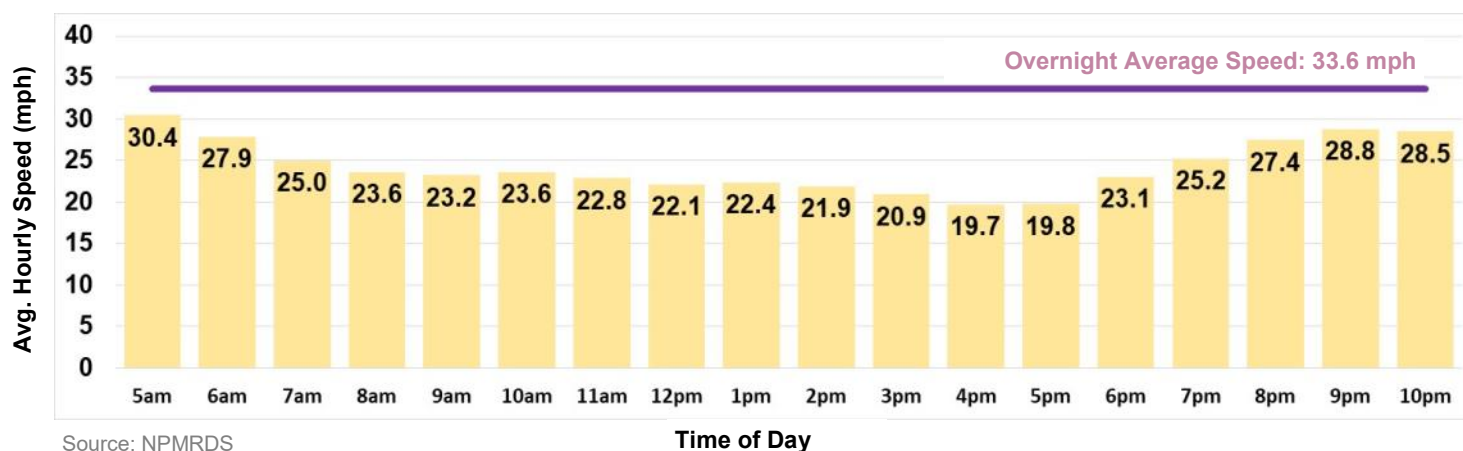


Source: DelDOT TOMP

EASTBOUND Hourly Travel Speeds: Cleveland Ave. to SR 141

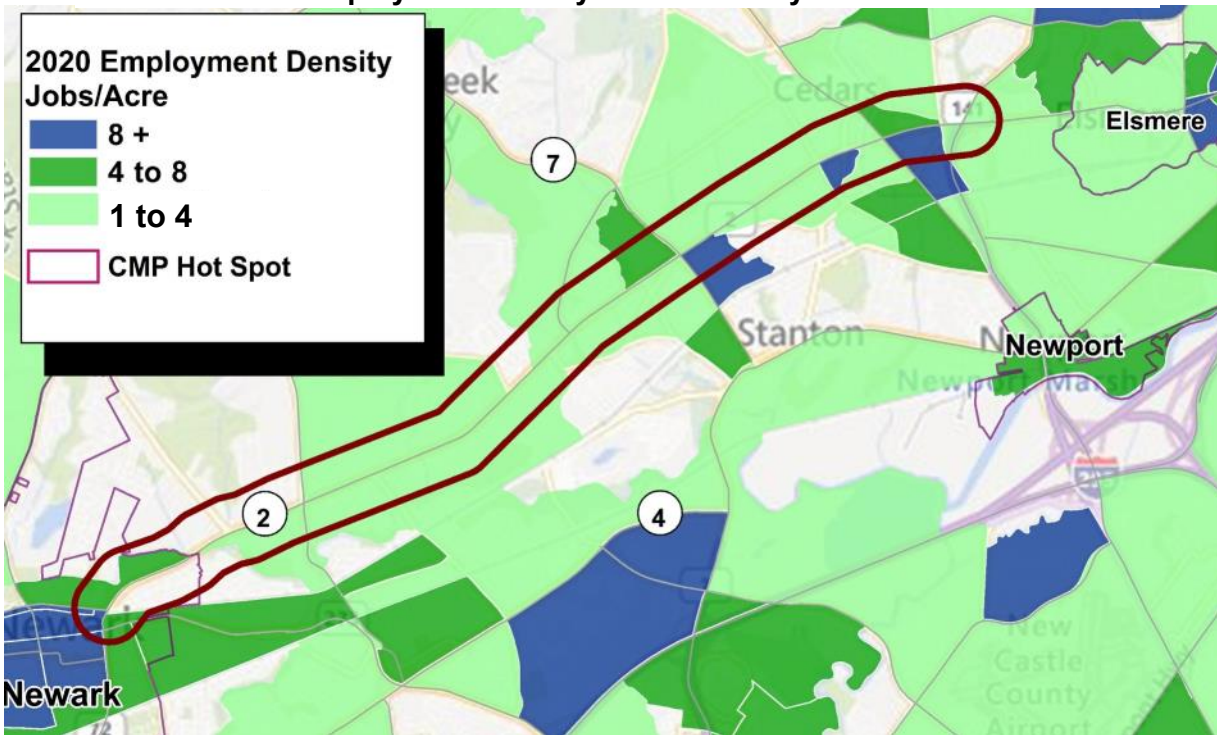


WESTBOUND Hourly Travel Speeds: SR 141 to Cleveland Ave.



Corridor #5: Kirkwood Highway Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	7%	11%
Wholesale/Retail/Transp. & Utilities	26%	18%
Finance / Information	8%	11%
Prof. & Business Services	8%	14%
Health & Education	27%	24%
Leisure & Hospitality	13%	10%
Other Service & Public Admin.	10%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

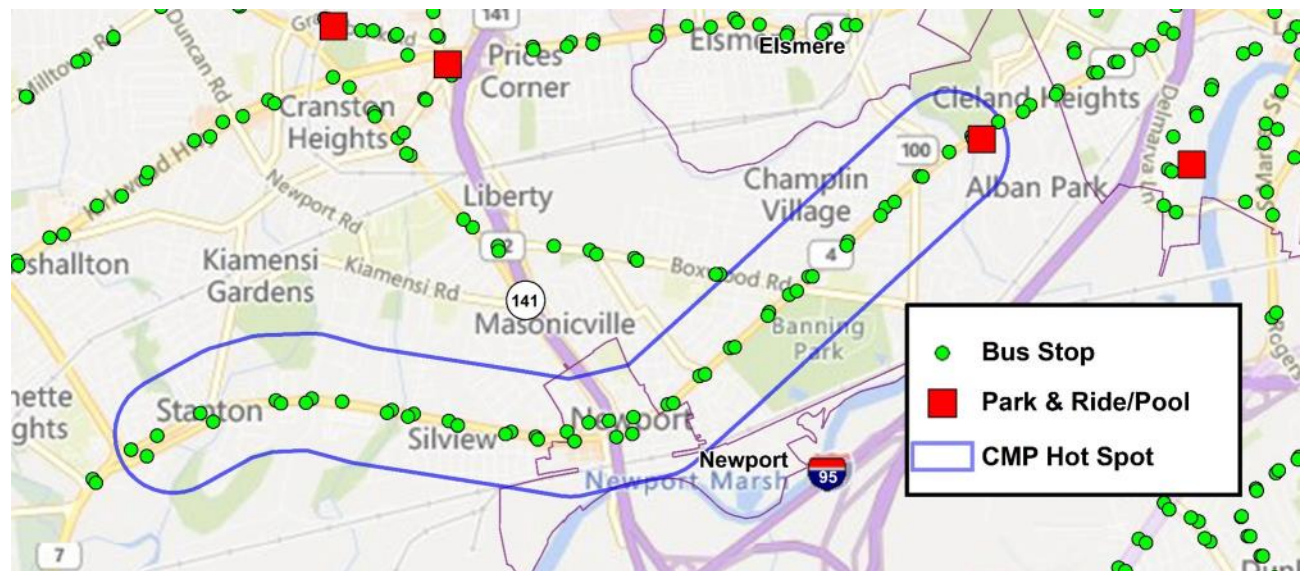
Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	91.2%	79.8%
Carpool	0.9%	8.5%
Transit/Taxi	1.2%	3.8%
Walk/Bike	2.3%	2.8%
Other	0.5%	0.6%
Work at Home	4.0%	4.5%

Source: American Community Survey: 2015-19 5-year data.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Possible
Bus Lane Expansion	Appropriate
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

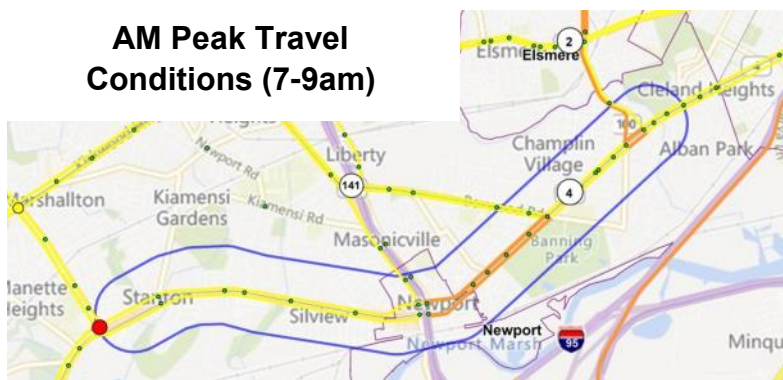
Adaptation of analysis developed by the DVRPC titled *"Creating a Regional Transit Score Protocol"* which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Corridor #6: DE 4 (Maryland Ave) Profile and Screening: Naaman's Rd

Transportation Inventory	
Corridor Length (miles)	4.2
Daily AADT Range	18,700 - 34,700
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	MAP-21 NHS Route
Total Person-Hours of Peak Hour Excessive Delay (PHED)	134,955
Non-Motorized Facilities Coverage along main corridor roadway frontage	90.8%
Intersections in top 20% of Statewide Crash Rankings	None
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 5 Maryland Ave / Christiana Mall (18 trips / 18 trips)
	Route 9 Boxwood Rd / Broom St / Vandever Ave (12 trips / 11 trips)
Number of Park and Rides and % Usage	None
Last Signal Retiming (if applicable)	2018
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	Moderate Areas: 4,324 Significant Areas: 979
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	6,046
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	Moderate Areas: 6,072 Significant Areas: 0
Corridor within a designated truck bottleneck (and Ranking)	None
WILMAPCO Transportation Investment Area(s)	Center/Core
Corridor inclusion in recent areawide studies	Newport Transportation Plan (2021)

Corridor #6: DE 4 (Maryland Ave.) Traffic and Travel Conditions

AM Peak Travel Conditions (7-9am)



Map Legend

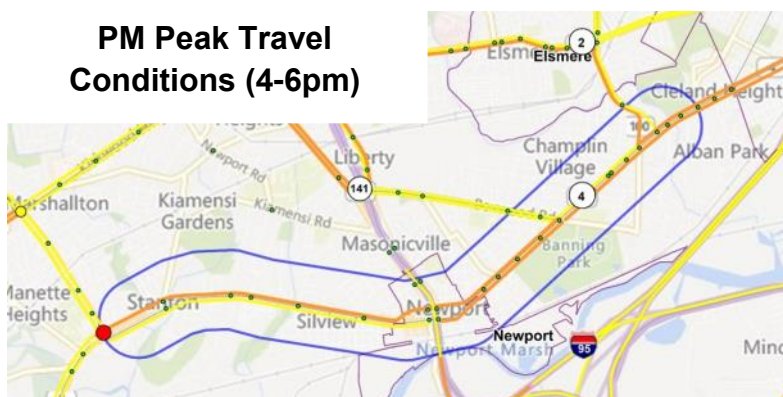
Intersection Level of Service
(Critical Movement Summation)

●	LOS C+ less than 1,300 vehicles/hr.
●	LOS D: 1,301 to 1,450 vehicles/hour
●	LOS E: 1,451 to 1,600 vehicles/hour
●	LOS F: Over 1,600 vehicles/hour

Travel Time Reliability

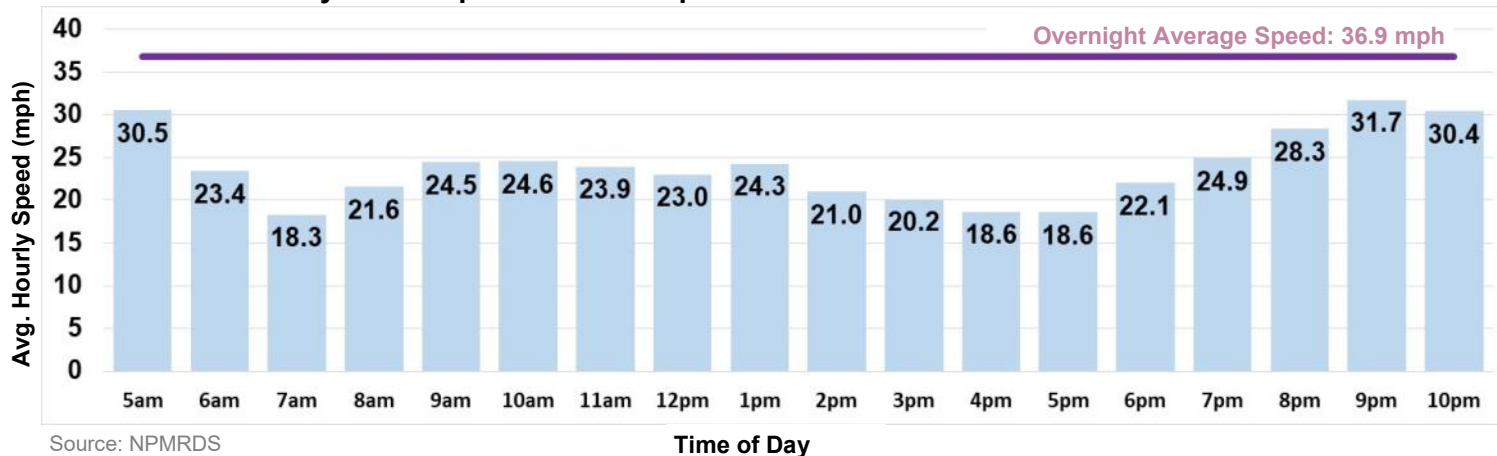
■	Areas with no Significant recurring or non-recurring congestion
■	Areas with moderate recurring congestion
■	Areas with significant recurring congestion
■	CMP Hot Spot

PM Peak Travel Conditions (4-6pm)



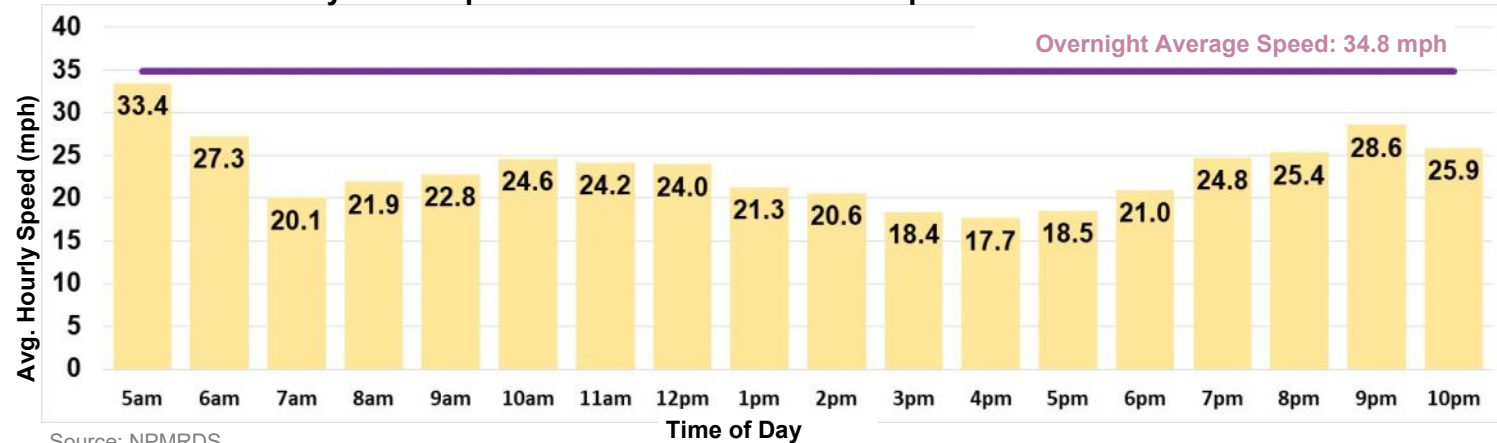
Source: NPMRDS

EASTBOUND Hourly Travel Speeds: SR 4/7 Split to Beech Street



Source: NPMRDS

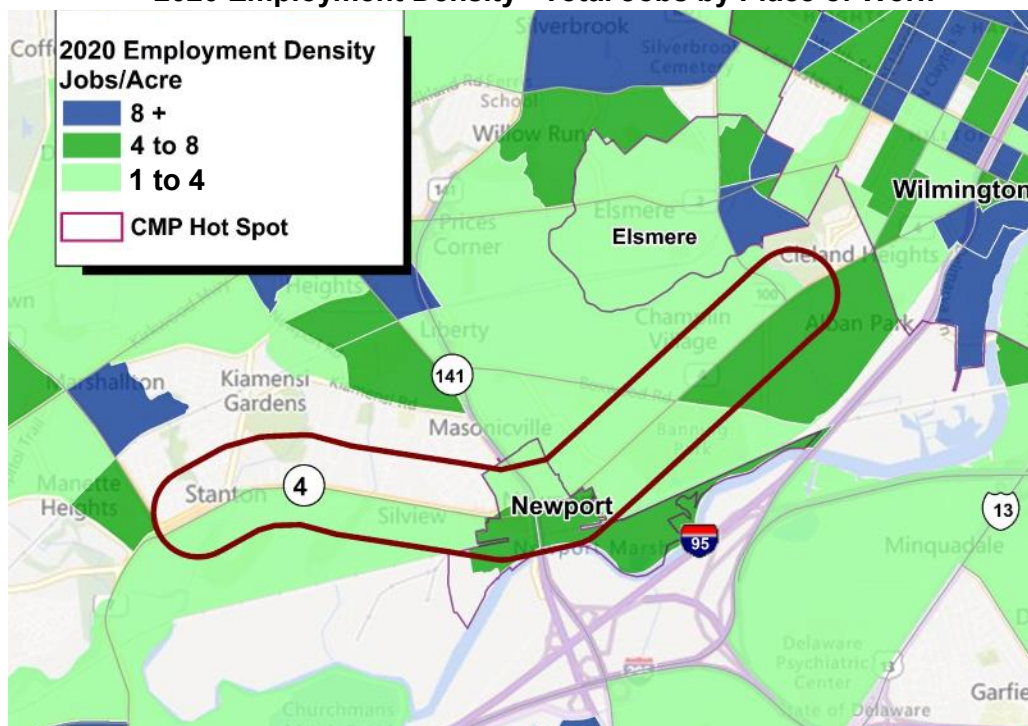
WESTBOUND Hourly Travel Speeds: Beech Street to SR 4/7 Split



Source: NPMRDS

Corridor #6: DE 4 (Maryland Ave) Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	35%	11%
Wholesale/Retail/Transp. & Utilities	20%	18%
Finance / Information	6%	11%
Prof. & Business Services	13%	14%
Health & Education	10%	24%
Leisure & Hospitality	6%	10%
Other Service & Public Admin.	11%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

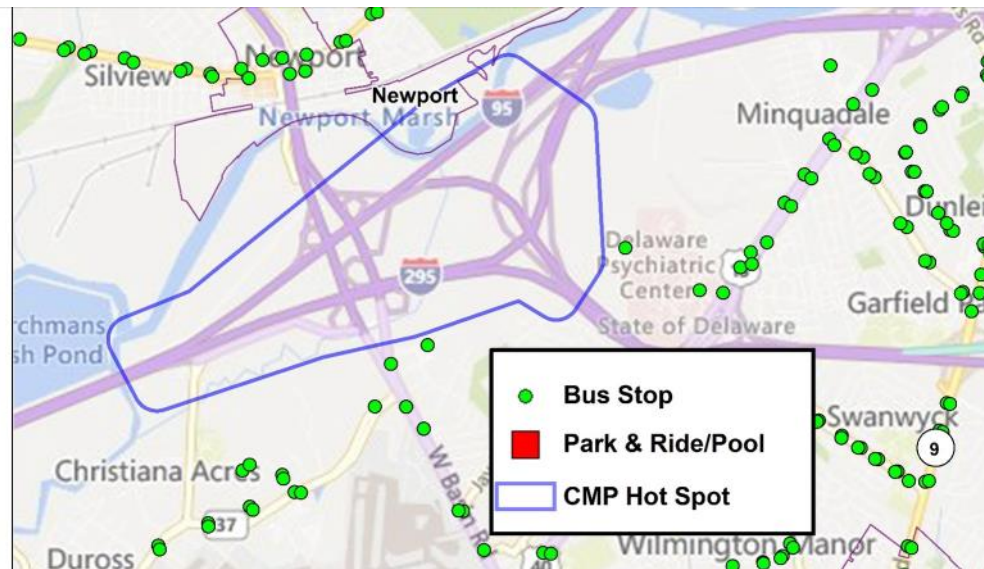
Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	85.9%	79.8%
Carpool	8.9%	8.5%
Transit/Taxi	2.3%	3.8%
Walk/Bike	0.3%	2.8%
Other	0.2%	0.6%
Work at Home	2.4%	4.5%

Source: American Community Survey: 2015-19 5-year data.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Possible
Bus Rapid Transit	Possible
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

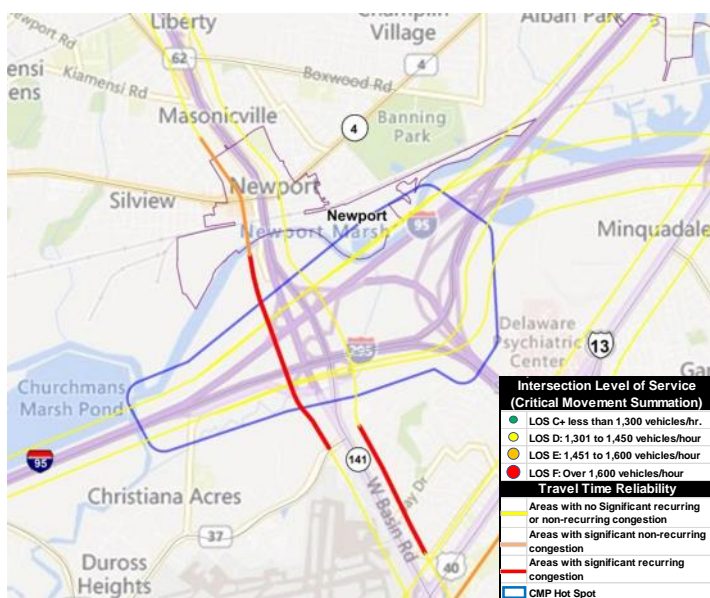
Adaptation of analysis developed by the DVRPC titled *“Creating a Regional Transit Score Protocol”* which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Corridor #7: I-95 / I-295 Profile and Screening

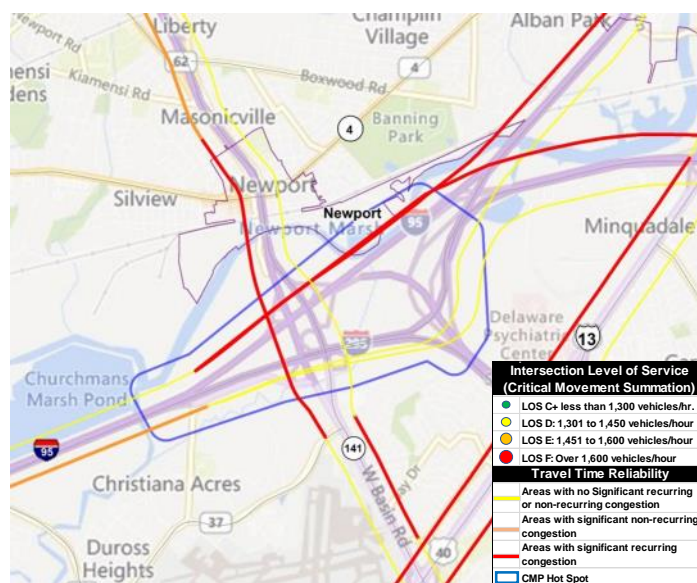
Transportation Inventory	
Corridor Length (miles)	6.9
Daily AADT Range	95,900 - 205,900
Functional Classification	Interstate
National Freight Highway Network (NHFN)	Primary Freight Network (PFN)
Total Person-Hours of Peak Hour Excessive Delay (PHED)	140,330
Non-Motorized Facilities Coverage along main corridor roadway frontage	N/A
Intersections in top 20% of Statewide Crash Rankings	N/A
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 301 Intercounty Wilmington / Dover (8 trips / 8 trips)
	Route 33 Christiana Mall / Newark (12 trips / 12 trips)
	Route 37 Wilmington/Christiana Mall/ Amazon (4 trips / 5 trips)
	Route 42 Glasgow / Newark Express (7 trips / 7 trips)
Number of Park and Rides and % Usage	N/A
Last Signal Retiming (if applicable)	N/A
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	N/A
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	N/A
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	Yes
Corridor within a designated truck bottleneck (and Ranking)	Yes (Low)
WILMAPCO Transportation Investment Area(s)	Core
Corridor inclusion in recent areawide studies	

Corridor #7: I-95 / I-295 Traffic and Travel Conditions

AM Peak Travel Conditions (7-9am)

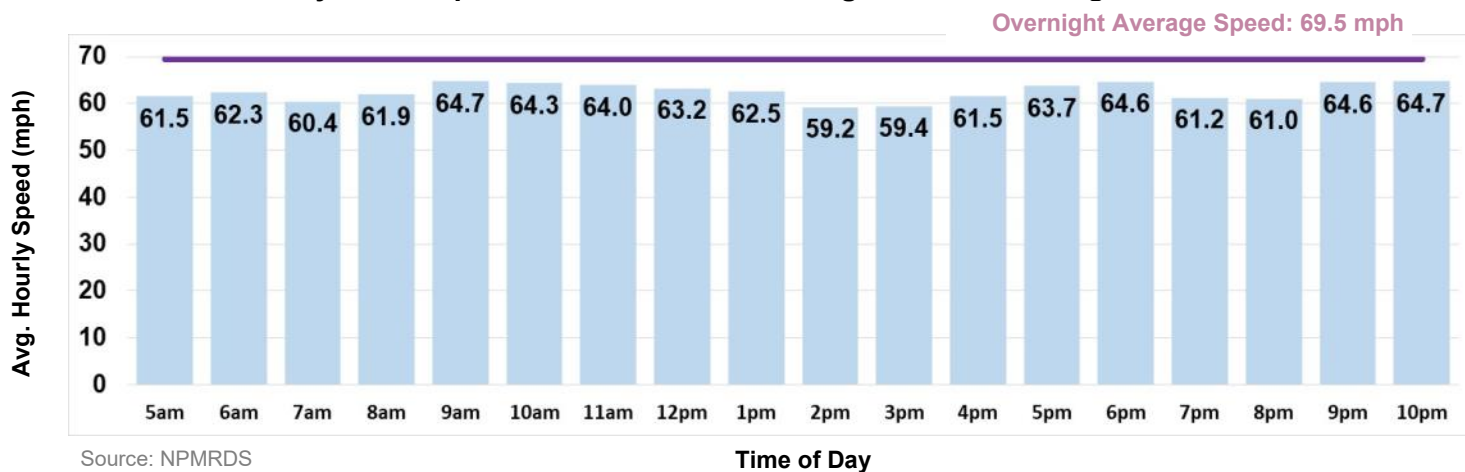


PM Peak Travel Conditions (4-6pm)

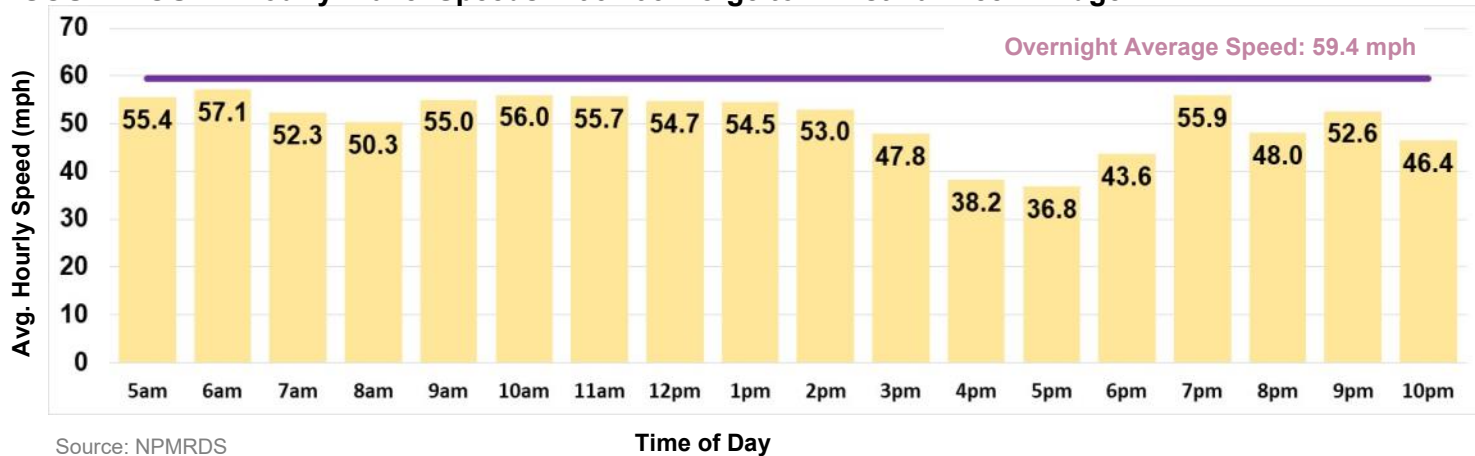


Source: DelDOT TOMP

NORTHBOUND Hourly Travel Speeds: Christina Creek Bridge to I-95/495 Merge

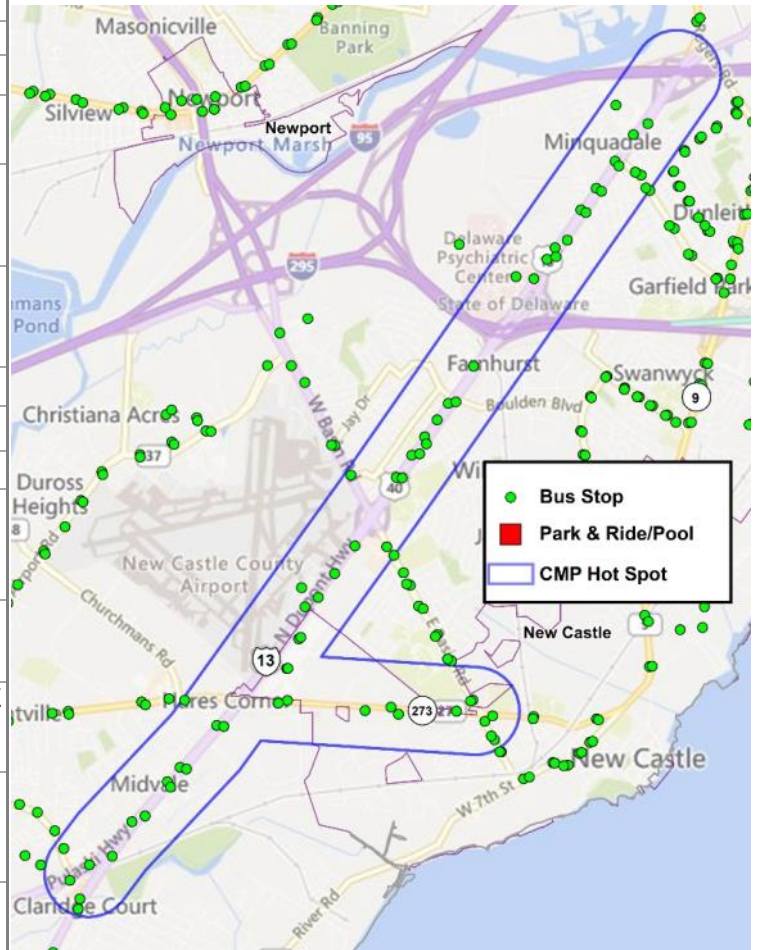


SOUTHBOUND Hourly Travel Speeds: I-95/495 Merge to Christina Creek Bridge

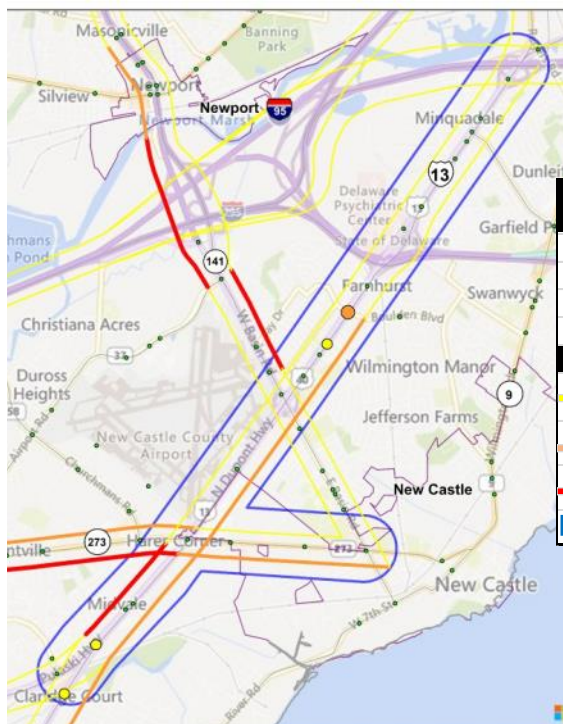
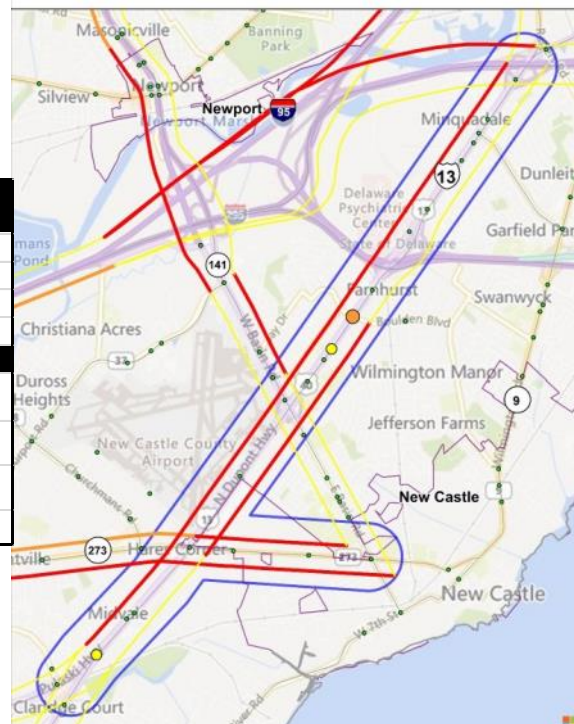


Corridor #8: US 13/Hare's Corner Profile and Screening

Transportation Inventory	
Corridor Length (miles)	7.3
Daily AADT Range	29,500 - 76,200
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	Critical Urban Freight Corridor (CUFC)
Total Person-Hours of Peak Hour Excessive Delay (PHED)	195,068
Non-Motorized Facilities Coverage along main corridor roadway frontage	44.1%
Intersections in top 20% of Statewide Crash Rankings	US 13 & DE 273 (#2)
	US 13 & Boulden Blvd. (#3)
	US 13 & Memorial Dr. (#41)
Average Total Transit Trips by Route (AM Peak Trips / PM Peak Trips)	Route 47 Wilmington / Llangollen / Amazon (2 trips / 2 trips)
	Route 40 Glasgow / Wilmington (12 trips / 12 trips)
	Route 51 New Castle Ave / DE 273 / Ch Mall (6 trips / 6 trips)
	Route 13 Philadelphia Pike / DuPont Highway (15 trips / 15 trips)
	Route 25 Wrangle Hill / Miller Road Shop Ctr (10 trips / 13 trips)
Number of Park and Rides and % Usage	None
Last Signal Retiming (if applicable)	2018 (Southern portion) & 2020 (Northern portion)



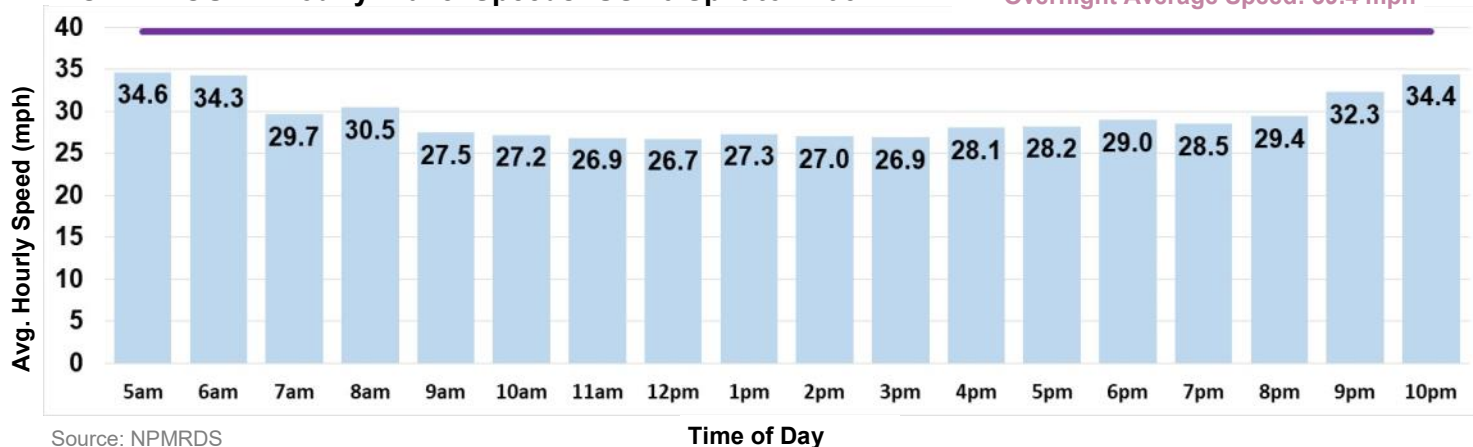
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	Moderate Areas: 1,544 Significant Areas 3,901
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	11,856
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	Moderate Areas: 1,542 Significant Areas: 0
Corridor within a designated truck bottleneck (and Ranking)	Yes (High)
WILMAPCO Transportation Investment Area(s)	Core
Corridor inclusion in recent areawide studies	Route 9 Corridor Master Plan (2018), New Castle Master Plan (2022)

Corridor #8: US 13/Hare's Corner Traffic and Travel Conditions**AM Peak Travel Conditions (7-9am)****PM Peak Travel Conditions (4-6pm)**

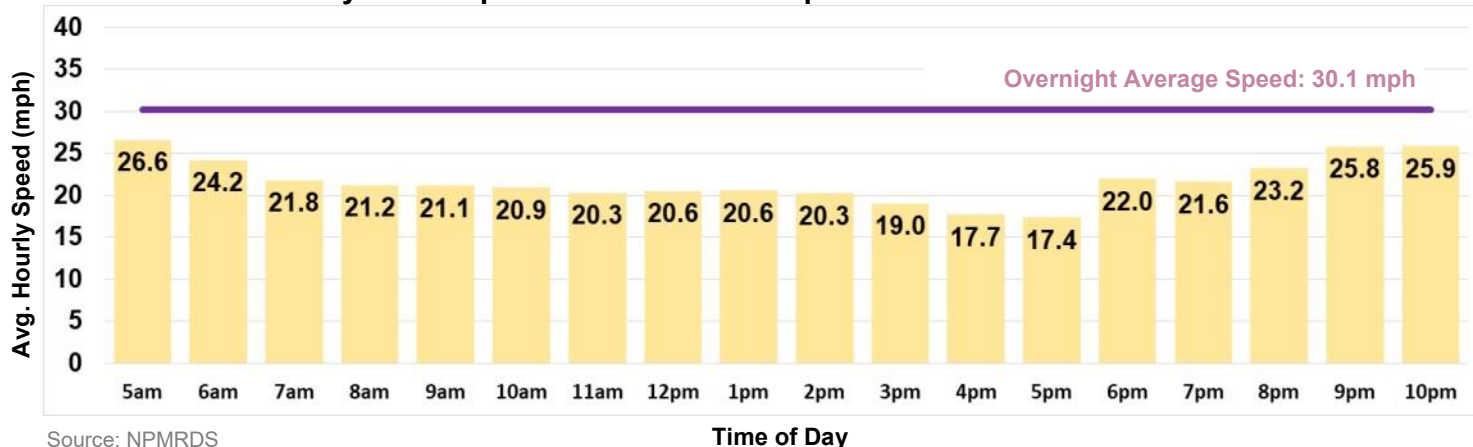
Source: DelDOT TOMP

NORTHBOUND Hourly Travel Speeds: US 40 Split to I-495

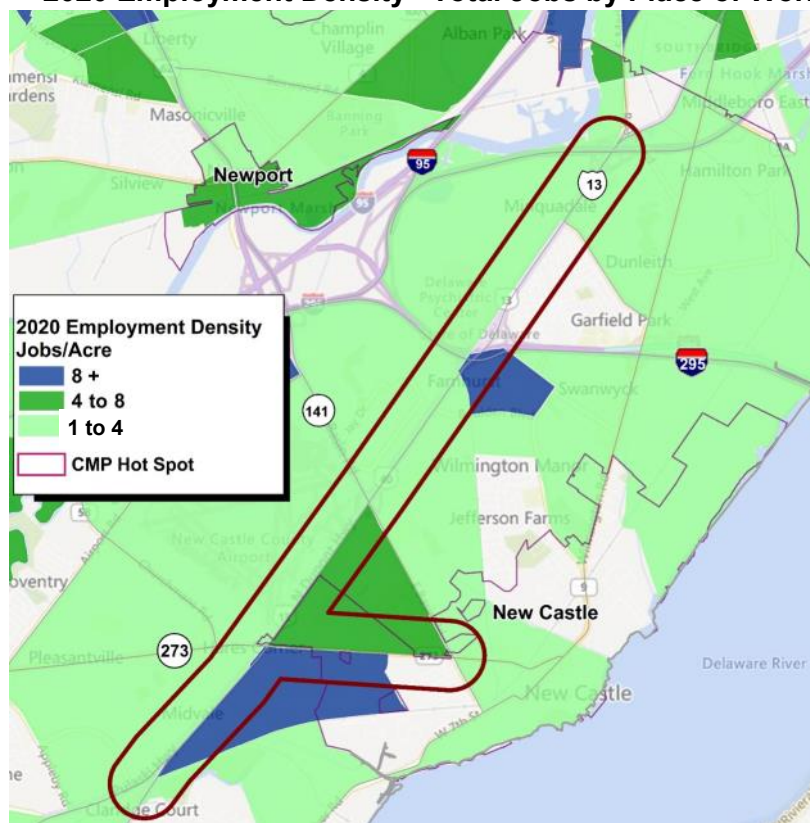
Overnight Average Speed: 39.4 mph

**SOUTHBOUND Hourly Travel Speeds: I-495 to US 40 Split**

Overnight Average Speed: 30.1 mph



* Travel Time does not include portion of SR 273

Corridor #8: US 13/Hare's Corner Journey to Work and Employment Characteristics**2020 Employment Density– Total Jobs by Place of Work**

Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	9%	11%
Wholesale/Retail/Transp. & Utilities	35%	18%
Finance / Information	8%	11%
Prof. & Business Services	10%	14%
Health & Education	11%	24%
Leisure & Hospitality	8%	10%
Other Service & Public Admin.	18%	12%

Source: WILMAPCO Traffic Analysis Zones

Adaptation of analysis developed by the DVRPC titled *“Creating a Regional Transit Score Protocol”* which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

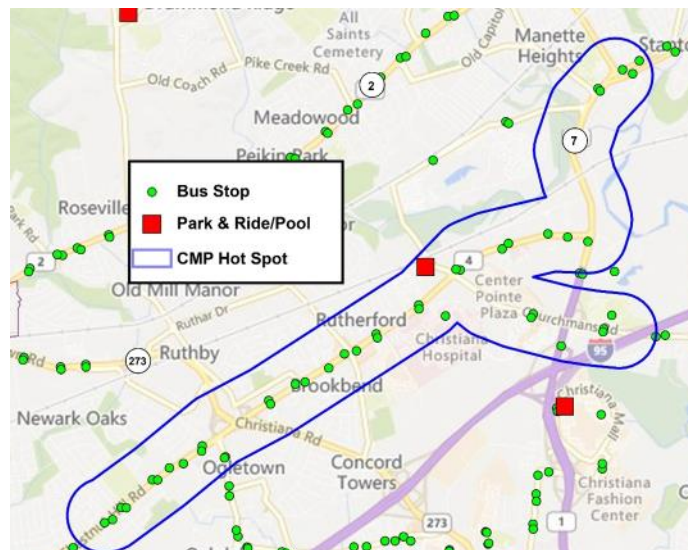
Mode Share: ACS Journey to Work

Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	81.2%	79.8%
Carpool	10.7%	8.5%
Transit/Taxi	4.4%	3.8%
Walk/Bike	1.2%	2.8%
Other	0.6%	0.6%
Work at Home	1.9%	4.5%

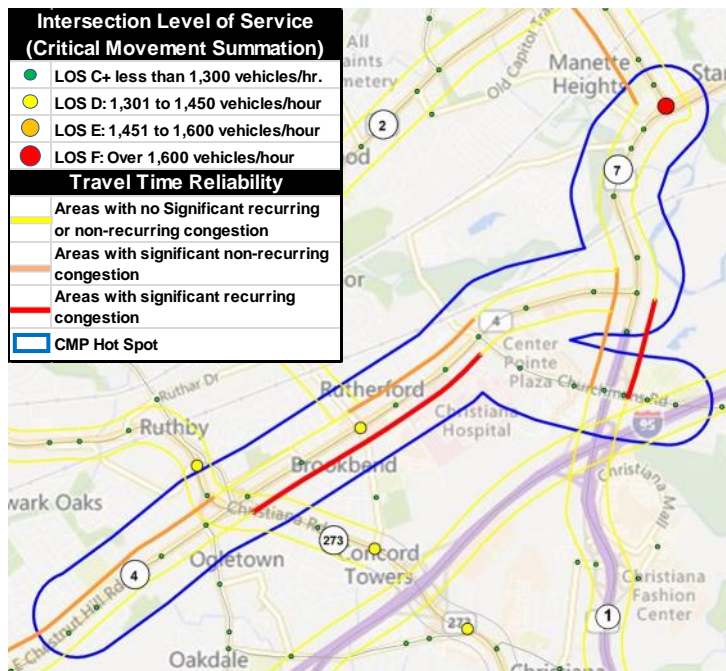
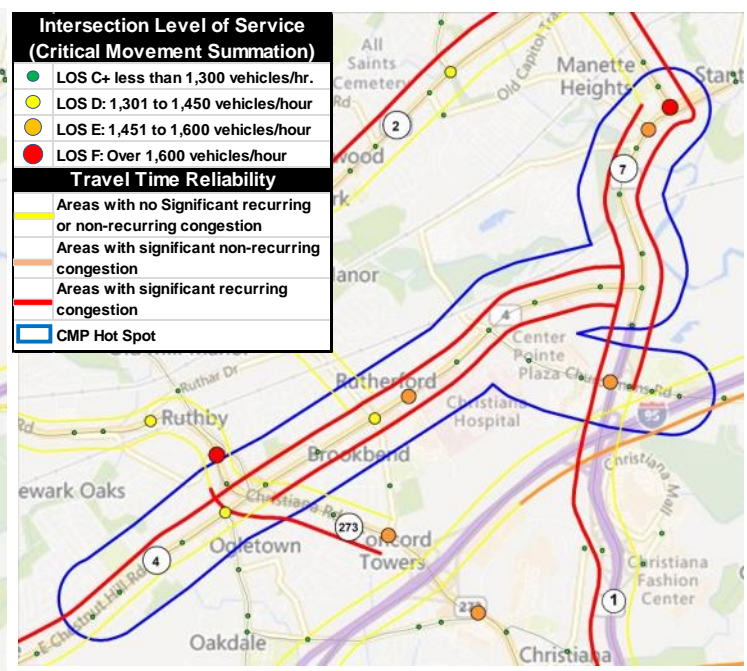
Source: American Community Survey: 2015-19 5-year data.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

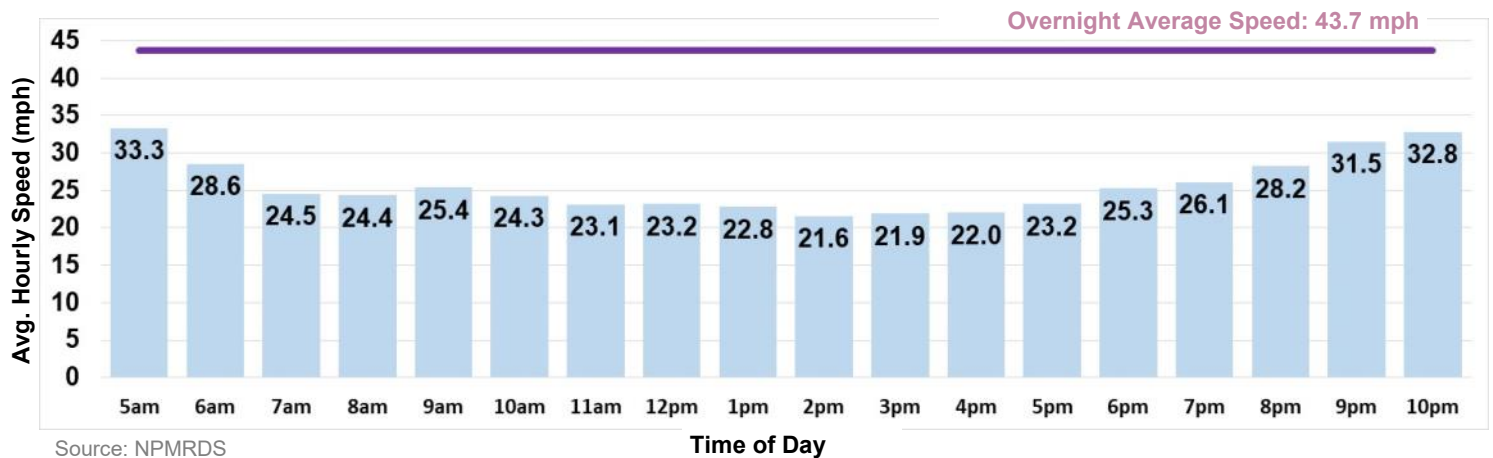
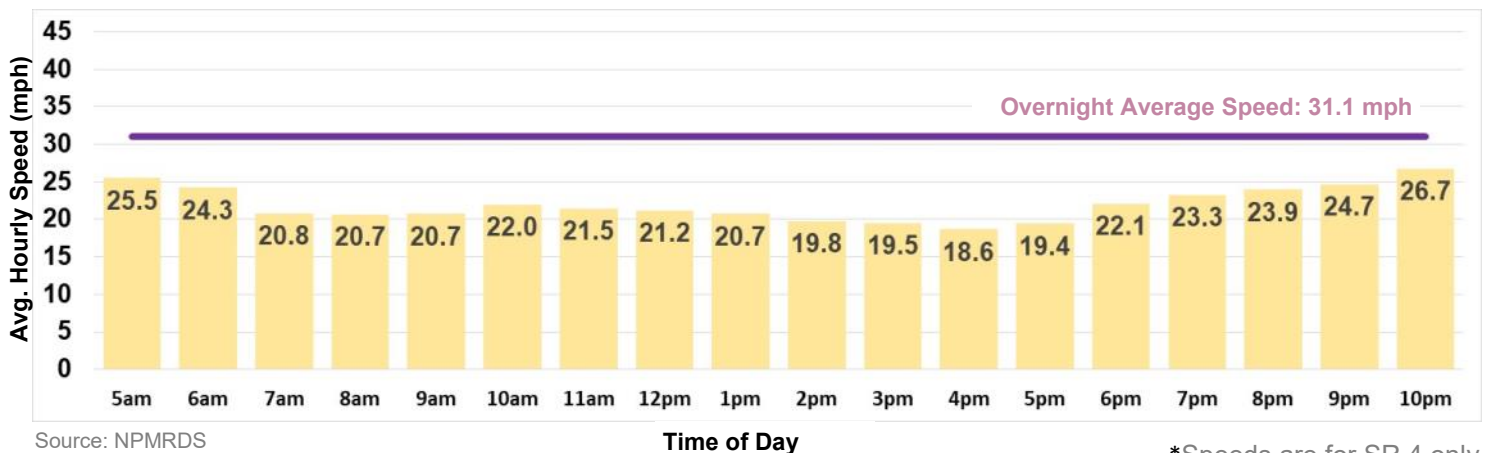
Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Possible
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Corridor #9: DE 4/Churchman's Rd. Profile and Screening

Transportation Inventory	
Corridor Length (miles)	6.6
Daily AADT Range	17,700 - 52,864
Functional Classification	Principal Arterial & Minor Arterial
National Freight Highway Network (NHFN)	MAP-21 NHS Route (SR 4 portion)
Total Person-Hours of Peak Hour Excessive Delay (PHED)	133,114 (Churchman's Rd. portion not covered)
Non-Motorized Facilities Coverage along main corridor roadway frontage	72.4%
Intersections in top 20% of Statewide Crash Rankings	DE 4 & Salem Church Rd. (#22)
	DE 7 & Telegraph Rd. (#43)
	DE 7 & AAA Blvd. (#24)
	SR 7 & Churchman's Rd. (#38)
	DE 4 & Harmony Rd. (#45)
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 62 Churchman's Shuttle (5 trips / 5 trips)
	Route 5 Maryland Ave / Christiana Mall (18 trips / 18 trips)
	Route 54 Fairplay Sta / C Mall / Wilton (8 trips / 6 trips)
Number of Park and Rides and % Usage	1 location 32% usage
Last Signal Retiming (if applicable)	2018 (Churchman's Rd portion) 2019 (SR 4 portion)
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	Moderate Areas: 2,239 Significant Areas: 0
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	7,691
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	No MC Areas within corridor
WILMAPCO Transportation Investment Area(s)	Center/Core
Corridor within a designated truck bottleneck (and Ranking)	Yes (high)
Corridor inclusion in recent areawide studies	Churchman's Crossing Plan Update (2022), Churchman's Crossing TID (2023)

Corridor #9: DE 4/Churchman's Rd. Traffic and Travel Conditions**AM Peak Travel Conditions (7-9am)****PM Peak Travel Conditions (4-6pm)**

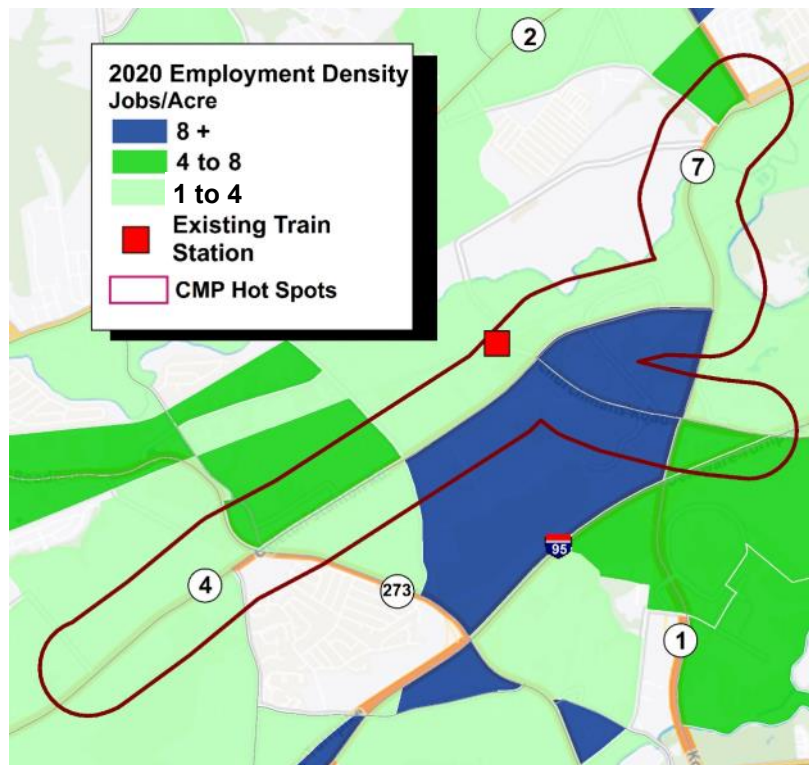
Source: DeIDOT TOMP

EASTBOUND Hourly Travel Speeds: SR 72 to SR 4/7 Stanton Split***WESTBOUND Hourly Travel Speeds: SR 4/7 Stanton Split to SR 72***

*Speeds are for SR 4 only

Corridor #9: DE 4/Churchman's Rd. Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	5%	11%
Wholesale/Retail/Transp. & Utilities	9%	18%
Finance / Information	13%	11%
Prof. & Business Services	4%	14%
Health & Education	56%	24%
Leisure & Hospitality	8%	10%
Other Service & Public Admin.	4%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

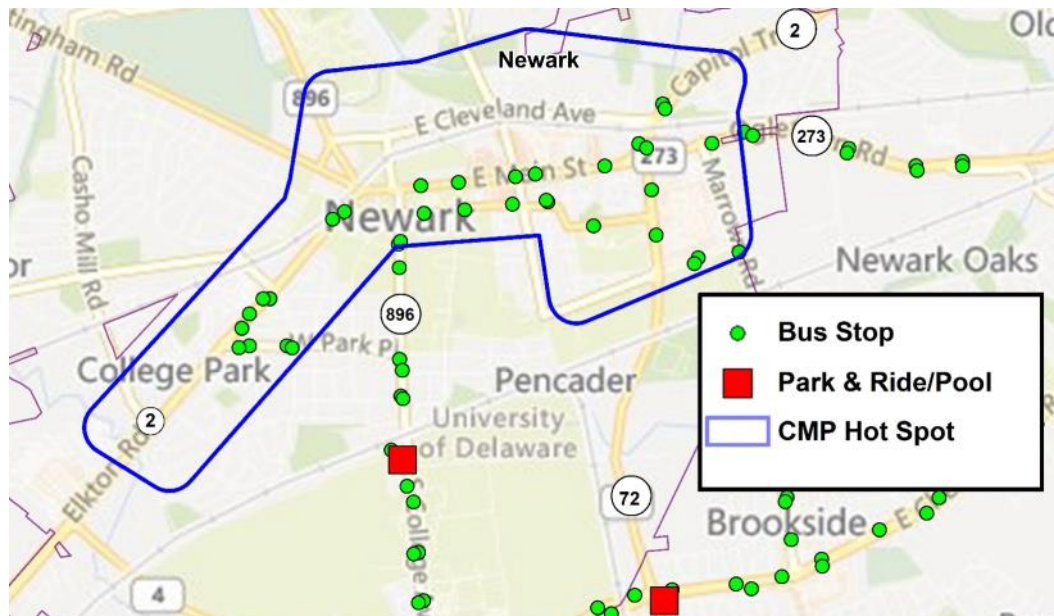
Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	84.2%	79.8%
Carpool	8.0%	8.5%
Transit/Taxi	1.6%	3.8%
Walk/Bike	1.5%	2.8%
Other	1.2%	0.6%
Work at Home	3.4%	4.5%

Source: American Community Survey: 2015-19 5-year data.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Appropriate
Light Rail Transit	Appropriate
Commuter Rail	Appropriate
Bus Rapid Transit	Possible
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

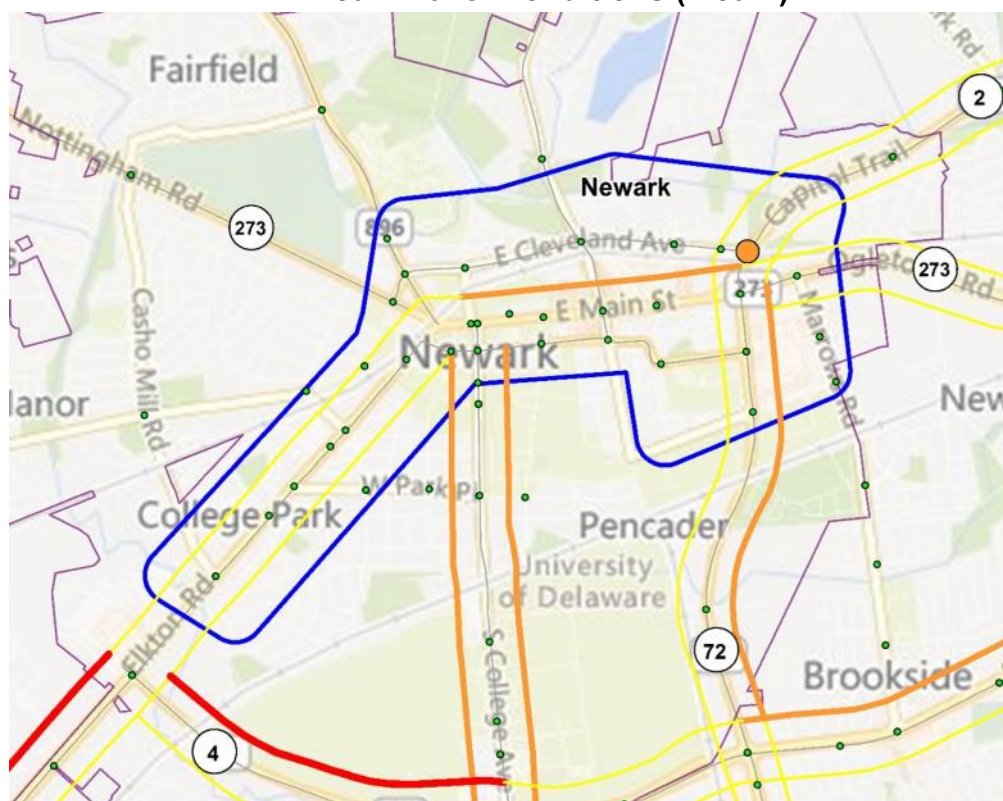
Adaptation of analysis developed by the DVRPC titled "*Creating a Regional Transit Score Protocol*" which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Corridor #10: City of Newark: Profile and Screening

Transportation Inventory	
Corridor Length (miles)	5.5
Daily AADT Range	22,600 - 28,600
Functional Classification	Principal Arterial & Minor Arterial
National Freight Highway Network (NHFN)	MAP-21 NHS Route
Total Person-Hours of Peak Hour Excessive Delay	139,287
Non-Motorized Facilities Coverage along main corridor roadway frontage	94.5%
Intersections in top 20% of Statewide Crash Rankings	DE 273 & Library Ave. (#7)
Average Total Transit Trips by Route (AM Peak Trips / PM Peak Trips)	Route 55, Ch Mall / Old Baltimore Pk / Newark (8 trips / 10 trips)
	Route 33 (Christiana Mall/Newark (12 trips / 12 trips)
	Route 6 Kirkwood Highway (16 trips / 19 trips)
	Route 10 Wilmington / Univ Plz / Newark (9 trips / 8 trips)
	Route 53 Delaware City DMV / Newark Hub (1 trip / 5 trips)
Number of Park and Rides and % Usage	None
Last Signal Retiming (if applicable)	2019
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	No EJ Areas within corridor
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	No MC Areas within corridor
WILMAPCO Transportation Investment Area(s)	Center
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	0
Corridor within a designated truck bottleneck (and Ranking)	No
Corridor inclusion in recent areawide studies	Newark TID (2022)

Corridor #10: City of Newark: Traffic and Travel Conditions

AM Peak Travel Conditions (7-9am)

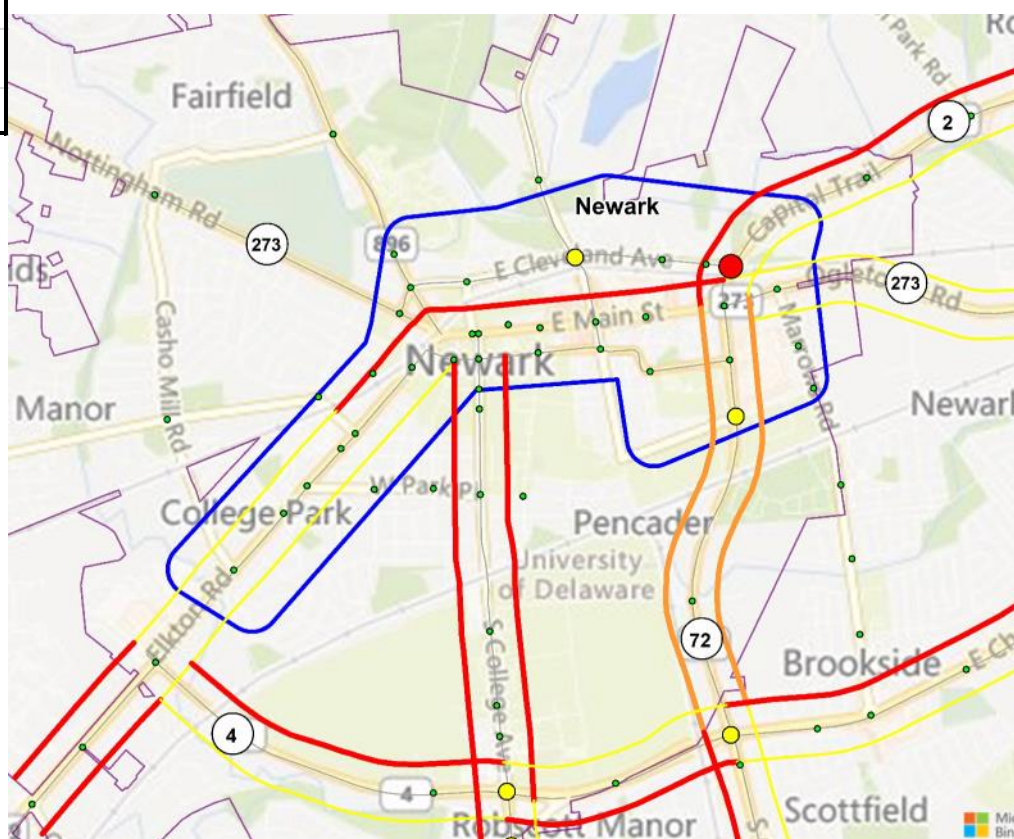


Source: DeIDOT TOMP

Map Legend

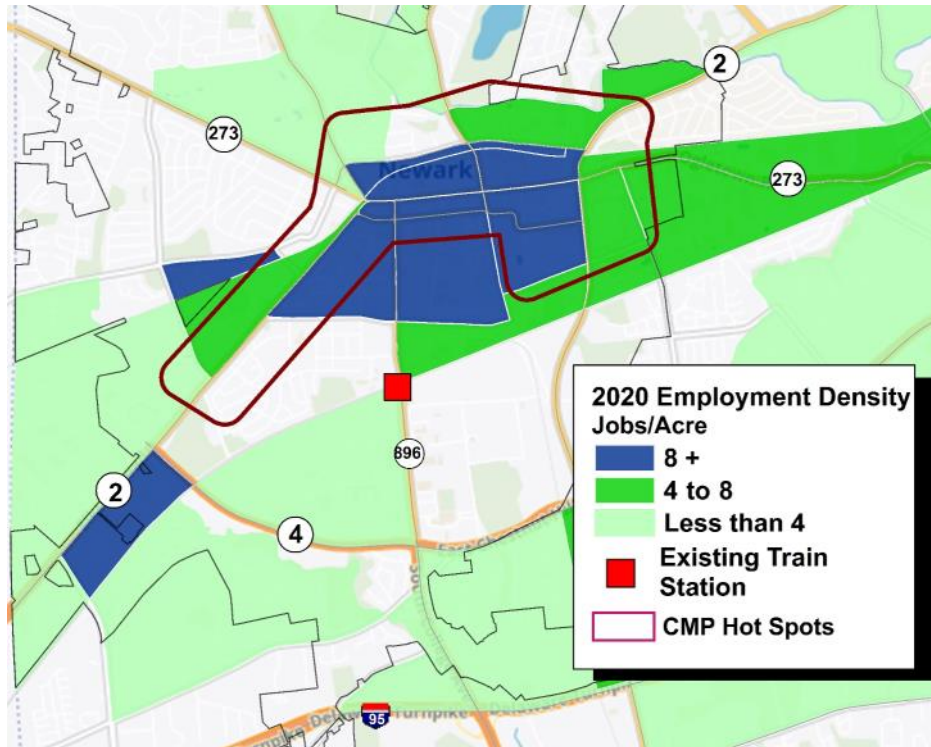
Intersection Level of Service (Critical Movement Summation)	
●	LOS C+ less than 1,300 vehicles/hr.
●	LOS D: 1,301 to 1,450 vehicles/hour
●	LOS E: 1,451 to 1,600 vehicles/hour
●	LOS F: Over 1,600 vehicles/hour
Travel Time Reliability	
	Areas with no Significant recurring or non-recurring congestion
	Areas with significant non-recurring congestion
	Areas with significant recurring congestion
	CMP Hot Spot

PM Peak Travel Conditions (4-6pm)



Corridor #10: City of Newark: Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	3%	11%
Wholesale/Retail/Transp. & Utilities	15%	18%
Finance / Information	11%	11%
Prof. & Business Services	14%	14%
Health & Education	23%	24%
Leisure & Hospitality	24%	10%
Other Service & Public Admin.	9%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

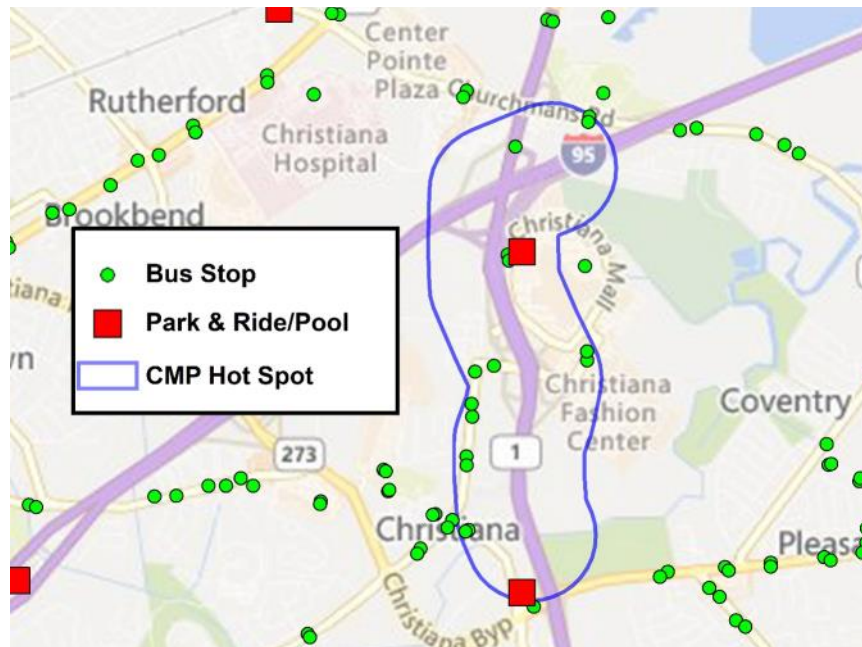
Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	67.8%	79.8%
Carpool	7.5%	8.5%
Transit/Taxi	3.3%	3.8%
Walk/Bike	16.4%	2.8%
Other	0.4%	0.6%
Work at Home	4.6%	4.5%

Source: American Community Survey: 2015-19 5-year data.

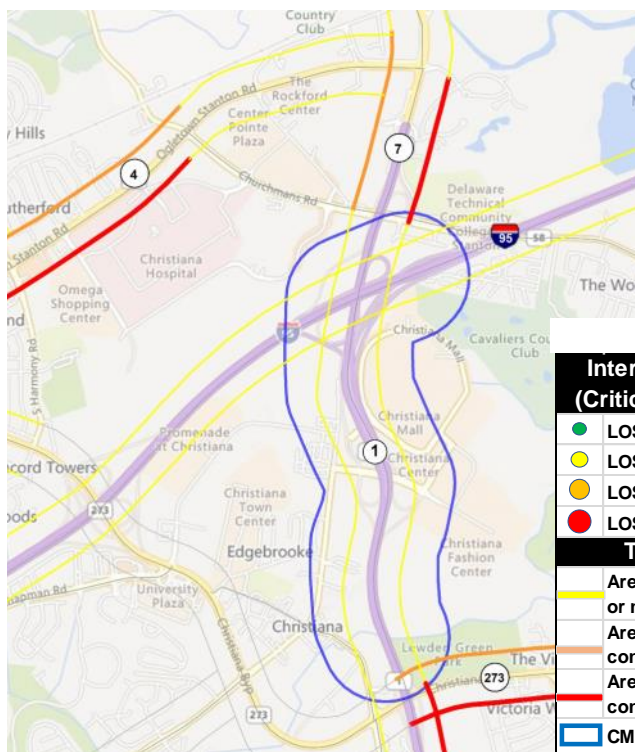
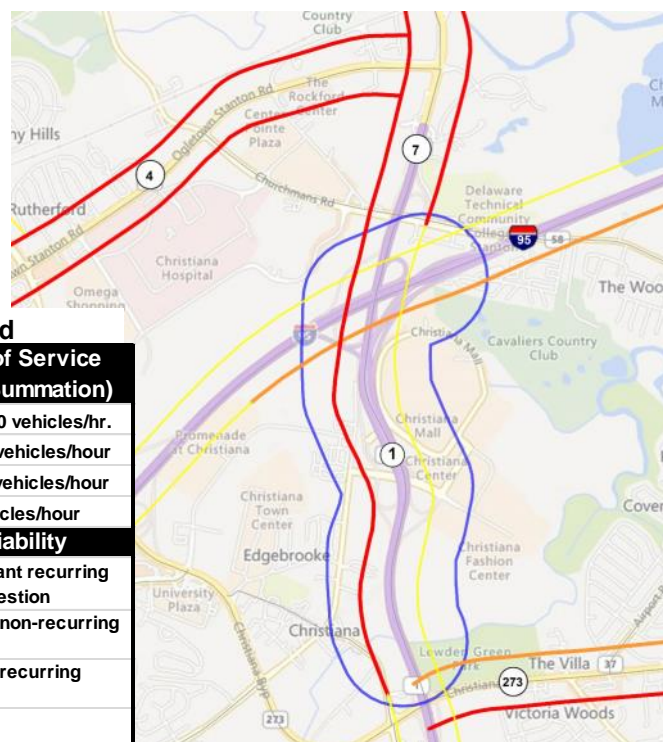
Adaptation of analysis developed by the DVRPC titled *“Creating a Regional Transit Score Protocol”* which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Appropriate
Light Rail Transit	Appropriate
Commuter Rail	Appropriate
Bus Rapid Transit	Possible
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Corridor #11: SR 1/ Christiana Mall Area Profile and Screening

Transportation Inventory	
Corridor Length (miles)	1.8
Daily AADT Range	70,800 - 86,800
Functional Classification	Other Freeway / Expressway
National Freight Highway Network (NHFN)	Critical Urban Freight Corridor (CUFC)
Total Person-Hours of Peak Hour Excessive Delay (PHED)	48,115
Non-Motorized Facilities Coverage along main corridor roadway frontage	N/A
Intersections in top 20% of Statewide Crash Rankings	N/A
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 301 Intercounty Wilmington / Dover (8 trips / 8 trips)
	Route 51 New Castle Ave / DE 273 / Ch Mall (6 trips / 6 trips)
	Route 37 Wilmington/Christiana Mall/ Amazon (4 trips / 5 trips)
Number of Park and Rides and % Usage	1 location 4% usage
Last Signal Retiming (if applicable)	N/A
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	N/A
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	No MC Areas within corridor
WILMAPCO Transportation Investment Area(s)	Center/Core
Corridor within a designated truck bottleneck (and Ranking)	Yes (Low)
Population Along Corridor within areas of high concentrations of Particu-	911
Corridor inclusion in recent areawide studies	Churchman's Crossing Plan Update (2022), Churchman's Crossing TID (2023)

Corridor #11: SR 1/ Christiana Mall Area Traffic and Travel Conditions**AM Peak Travel Conditions (7-9am)****PM Peak Travel Conditions (4-6pm)****Map Legend****Intersection Level of Service
(Critical Movement Summation)**

- LOS C+ less than 1,300 vehicles/hr.
- LOS D: 1,301 to 1,450 vehicles/hour
- LOS E: 1,451 to 1,600 vehicles/hour
- LOS F: Over 1,600 vehicles/hour

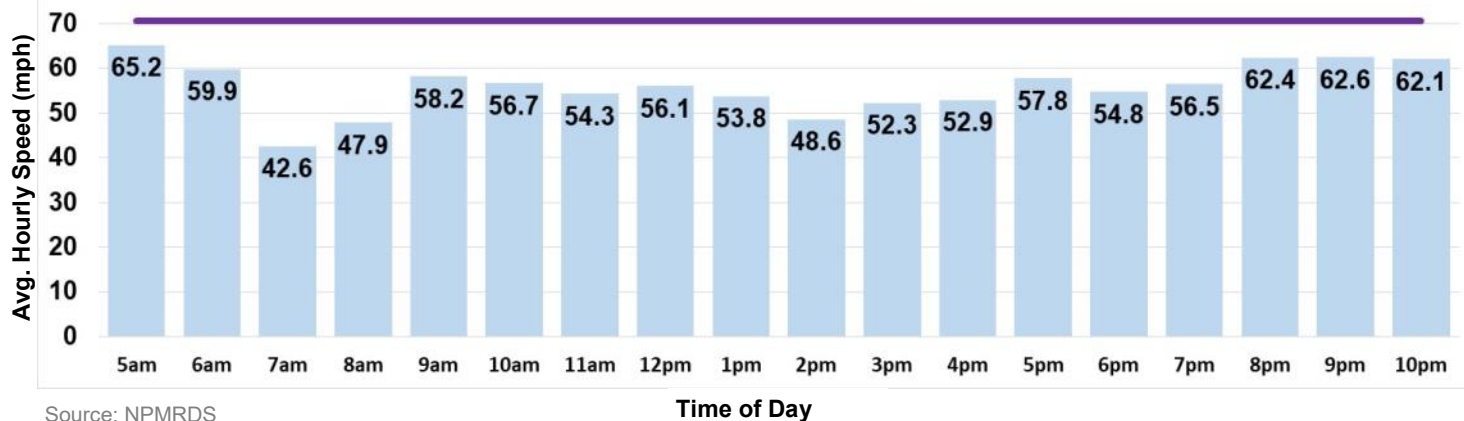
Travel Time Reliability

- Areas with no Significant recurring or non-recurring congestion
- Areas with significant non-recurring congestion
- Areas with significant recurring congestion
- CMP Hot Spot

Source: DelDOT TOMP

NORTHBOUND Hourly Travel Speeds: SR 273 to I-95

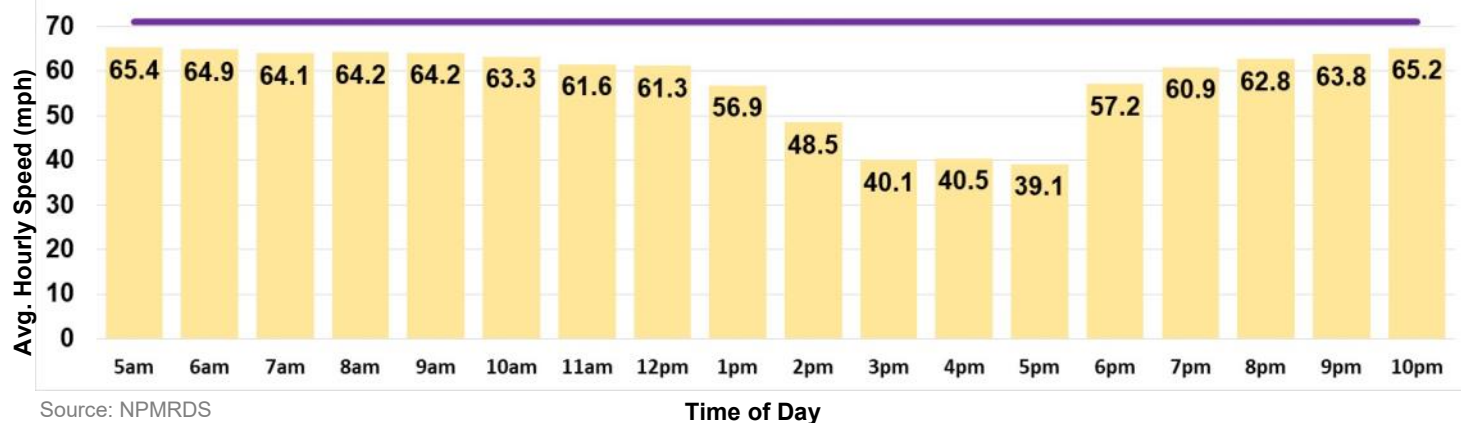
Overnight Average Speed : 70.6 mph



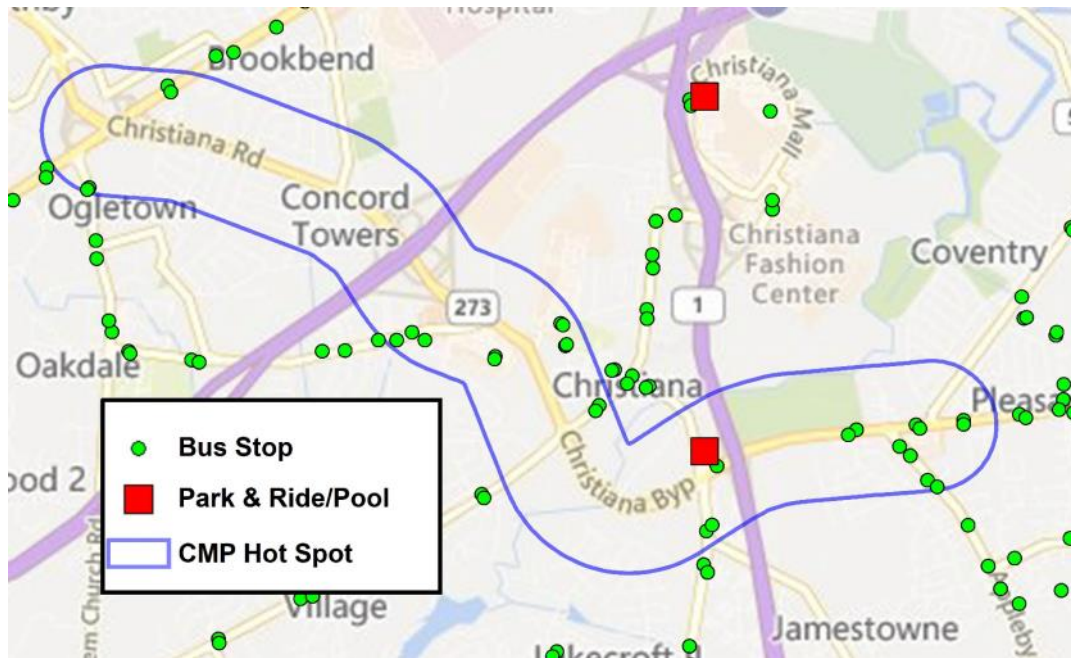
Source: NPMRDS

SOUTHBOUND Hourly Travel Speeds: I-95 to SR 273

Overnight Average Speed: 71.1 mph



Source: NPMRDS

Corridor #12: DE 273 (Churchman's Area) Profile and Screening

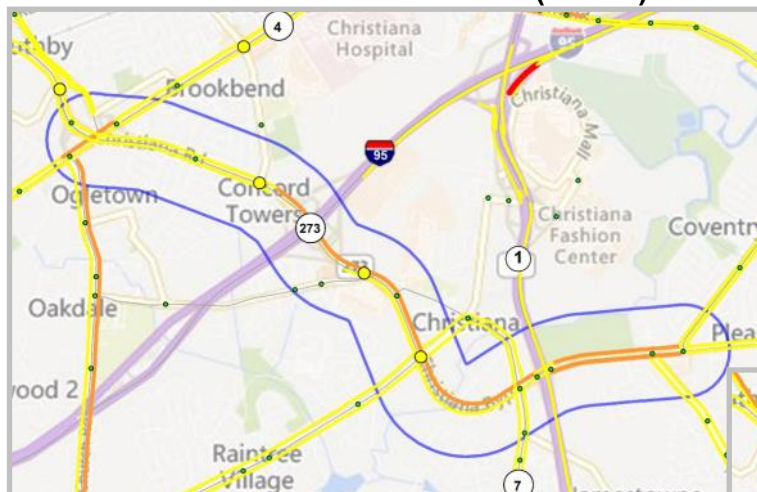
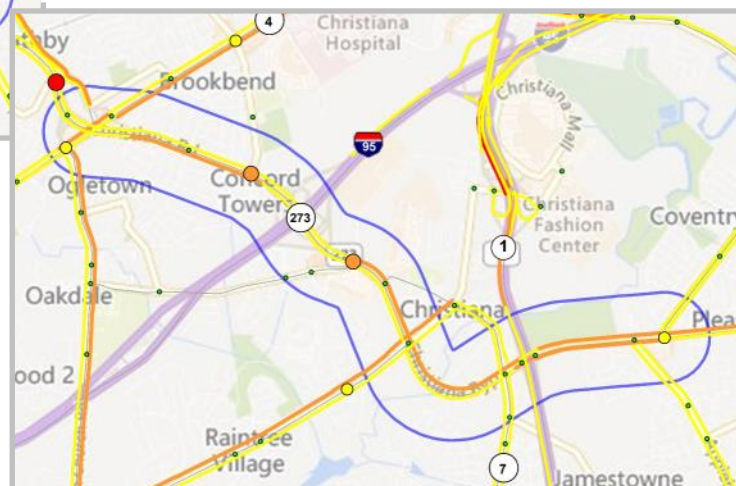
Transportation Inventory	
Corridor Length (miles)	4.0
Daily AADT Range	32,400 - 43,500
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	MAP-21 NHS Route
Total Person-Hours of Peak Hour Excessive Delay (PHED)	238,882
Non-Motorized Facilities Coverage along main corridor roadway frontage	23.5%
Intersections in top 20% of Statewide Crash Rankings	DE 273 & Harmony Rd. (#46)
	DE 273 & Appleby Rd. (#53)
	DE 7 & DE 273 (#7)
	DE 273 & Old Balt. Pike (#17)
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 10 Wilmington / Univ Plz / Newark (9 trips / 8 trips)
	Route 51 New Castle Av / DE 273 / Ch Mall (6 trips / 6 trips)
Number of Park and Rides and % Usage	1 location 23% usage
Last Signal Retiming (if applicable)	2018
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	Moderate: 2,239 Significant Areas: 0
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	14,398
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	Moderate Areas: 468 Significant Areas: 0
Corridor within a designated truck bottleneck (and Ranking)	None
WILMAPCO Transportation Investment Area(s)	Core
Corridor inclusion in recent areawide studies	Churchman's Crossing Plan Update (2022)

Corridor #12: DE 273 (Churchman's Area) Traffic and Travel Conditions**Map Legend****Intersection Level of Service
(Critical Movement Summation)**

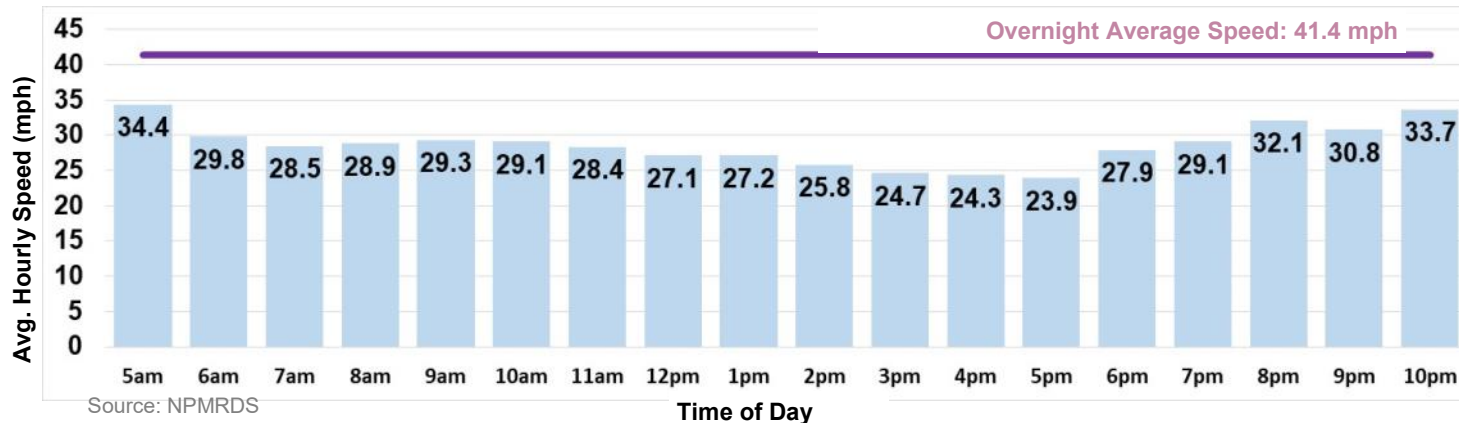
●	LOS C+ less than 1,300 vehicles/hr.
●	LOS D: 1,301 to 1,450 vehicles/hour
●	LOS E: 1,451 to 1,600 vehicles/hour
●	LOS F: Over 1,600 vehicles/hour

Travel Time Reliability

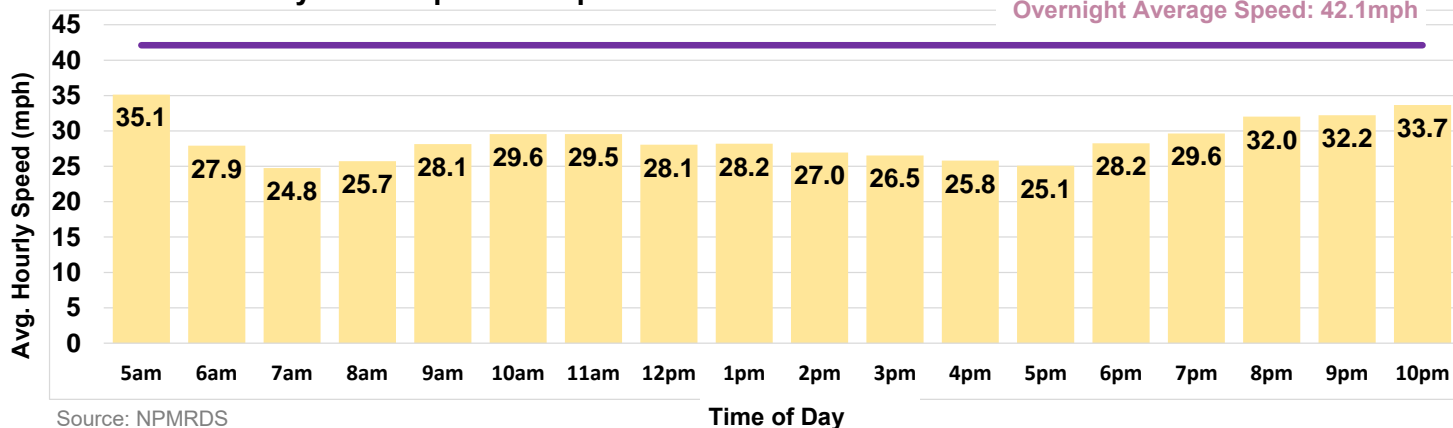
—	Areas with no Significant recurring or non-recurring congestion
—	Areas with moderate recurring congestion
—	Areas with significant recurring congestion
—	CMP Hot Spot

AM Peak Travel Conditions (7-9am)**PM Peak Travel Conditions (4-6pm)****EASTBOUND Hourly Travel Speeds: Ruthar Drive to Airport Road**

Source: NPMRDS

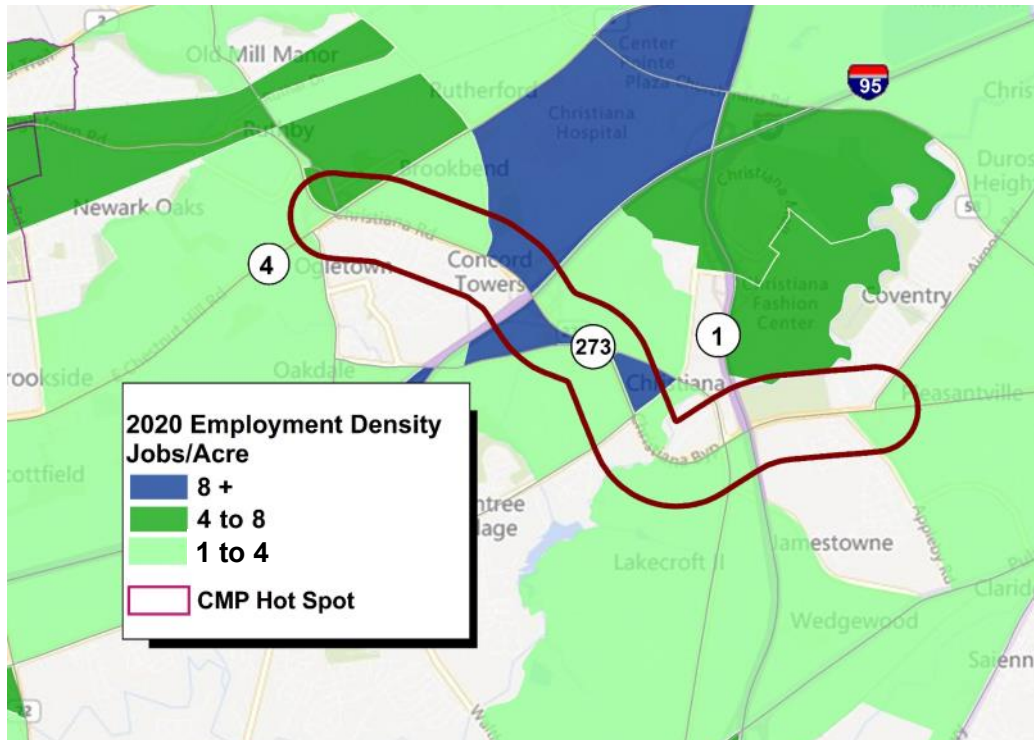
**WESTBOUND Hourly Travel Speeds: Airport Road to Ruthar Drive**

Overnight Average Speed: 42.1mph



Corridor #12: DE 273 (Churchman's Area) Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	2%	11%
Wholesale/Retail/Transp. & Utilities	8%	18%
Finance / Information	12%	11%
Prof. & Business Services	6%	14%
Health & Education	53%	24%
Leisure & Hospitality	6%	10%
Other Service & Public Admin.	13%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	79.2%	79.8%
Carpool	12.9%	8.5%
Transit/Taxi	3.1%	3.8%
Walk/Bike	0.9%	2.8%
Other	1.1%	0.6%
Work at Home	2.9%	4.5%

Source: American Community Survey: 2015-19 5-year data.

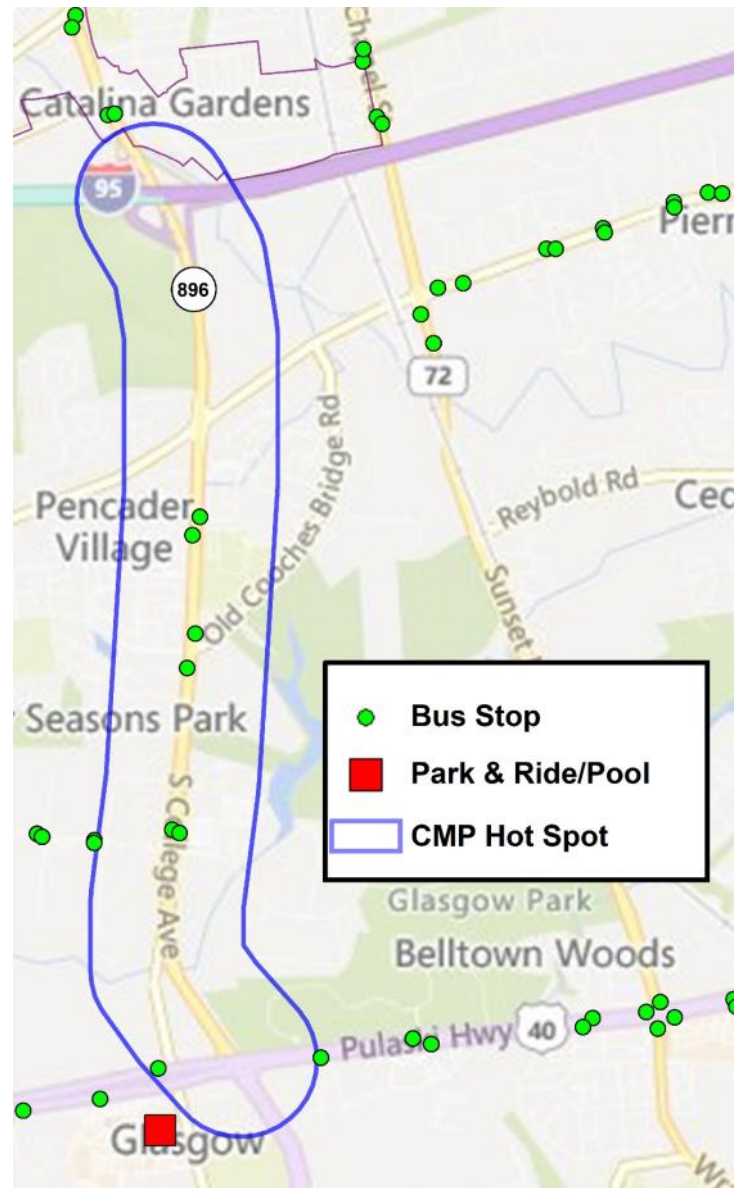
Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Not Appropriate
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Adaptation of analysis developed by the DVRPC titled "*Creating a Regional Transit Score Protocol*" which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Corridor #13: DE 896, S. of Newark Profile and Screening

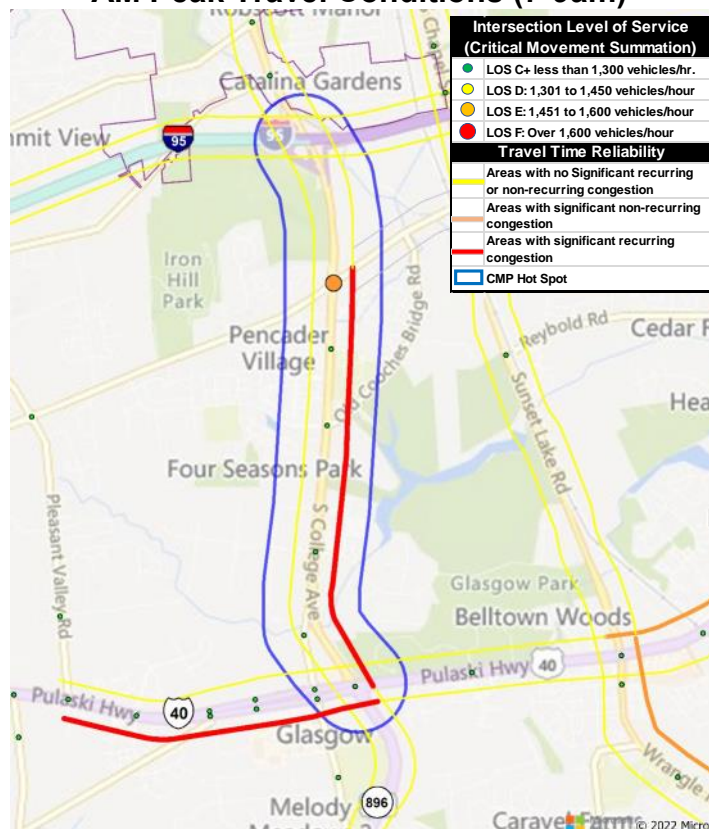
Transportation Inventory	
Corridor Length (miles)	3.1
Daily AADT Range	32,600 - 47,700
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	Critical Urban Freight Corridor (CUFC)
Total Person-Hours of Peak Hour Excessive Delay (PHED)	11,412
Non-Motorized Facilities Coverage along main corridor roadway frontage	21.9%
Intersections in top 20% of Statewide Crash Rankings	DE 896 & Old Baltimore Pk. (#44)
	US 40 & DE 896 (#13)
Average Total Transit Trips by Route (AM Peak Trips / PM Peak Trips)	Route 302 intercounty / Middletown (3 trips / 3 trips)
	Route 42 Glasgow / Newark Express (7 trips / 7 trips)
	Route 46 Newark / Glasgow (8 trips / 12 trips)
Number of Park and Rides and % Usage	None
Last Signal Retiming (if applicable)	2020



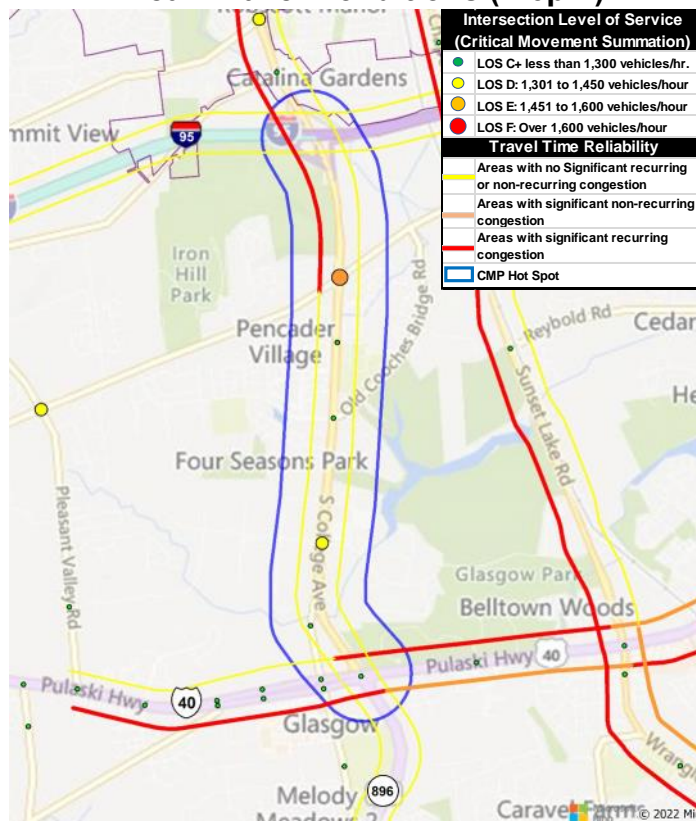
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	No EJ Areas within corridor
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	No MC Areas within corridor
WILMAPCO Transportation Investment Area(s)	Core
Corridor within a designated truck bottleneck (and Ranking)	Yes (Moderate)
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	0
Corridor inclusion in recent areawide studies	US 40 Corridor Study (2000)

Corridor #13: DE 896, S. of Newark and Travel Conditions

AM Peak Travel Conditions (7-9am)

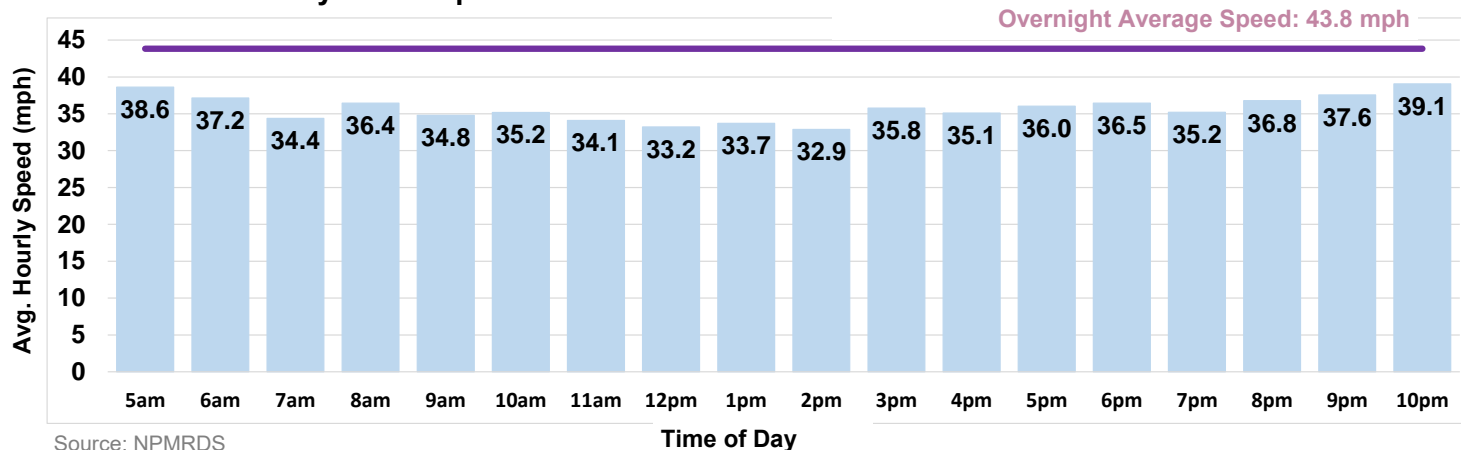


PM Peak Travel Conditions (4-6pm)

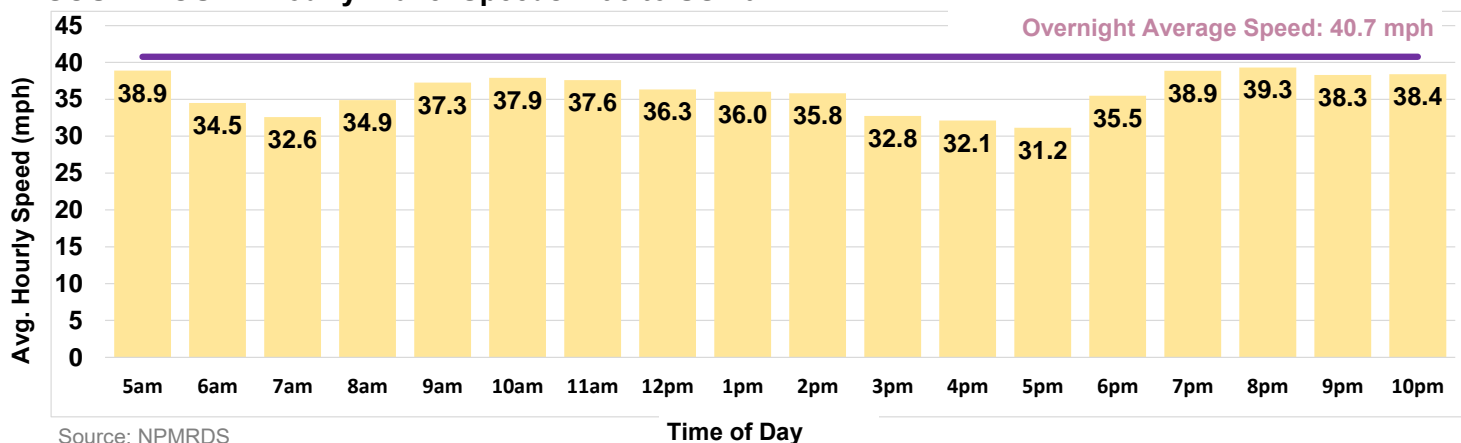


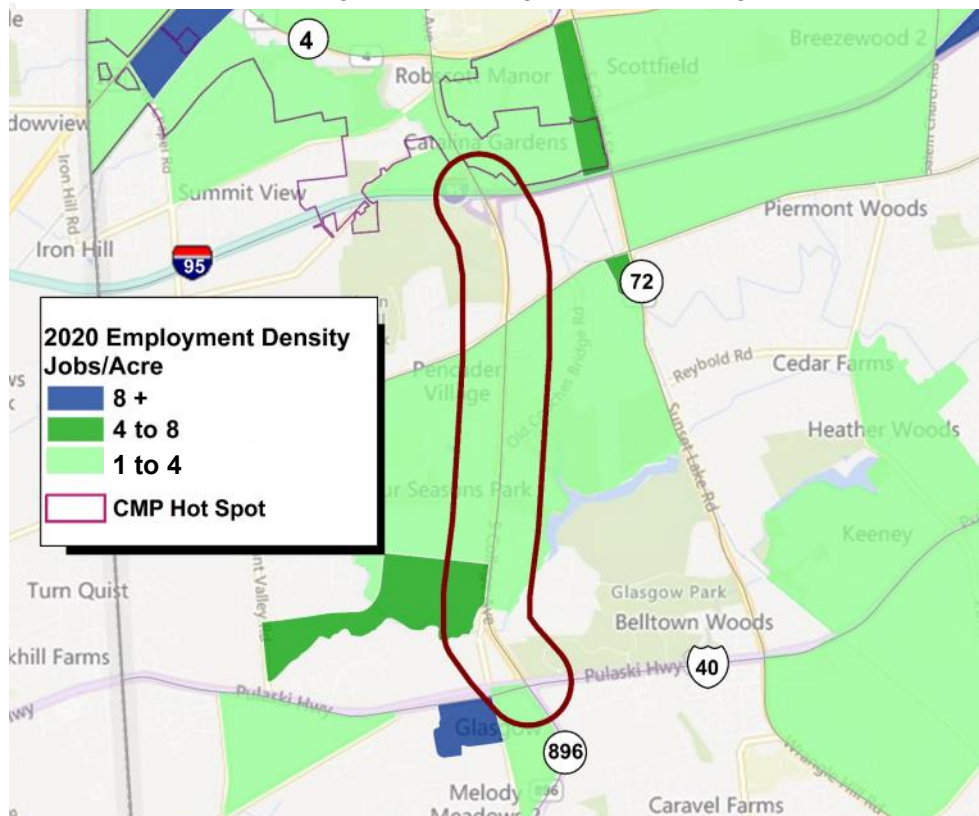
Source: DelDOT TOMP

NORTHBOUND Hourly Travel Speeds: US 40 to I-95



SOUTHBOUND Hourly Travel Speeds: I-95 to US 40



Corridor #13: DE 896, S. of Newark Journey to Work and Employment Characteristics**2020 Employment Density– Total Jobs by Place of Work**

Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	19%	11%
Wholesale/Retail/Transp. & Utilities	21%	18%
Finance / Information	8%	11%
Prof. & Business Services	9%	14%
Health & Education	18%	24%
Leisure & Hospitality	8%	10%
Other Service & Public Admin.	17%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

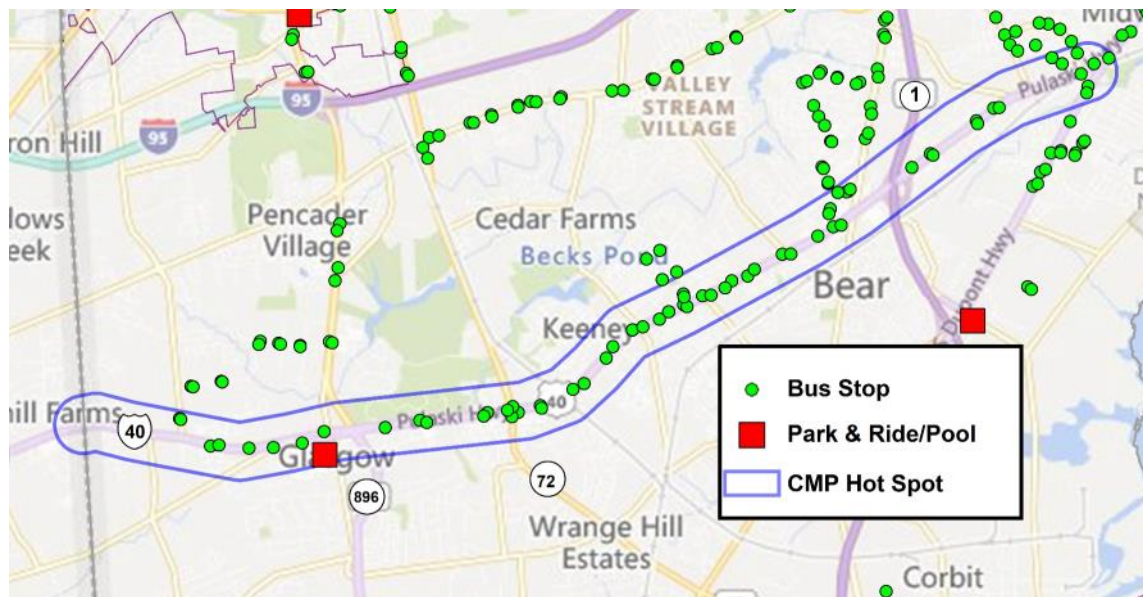
Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	84.2%	79.8%
Carpool	7.4%	8.5%
Transit/Taxi	2.4%	3.8%
Walk/Bike	1.0%	2.8%
Other	0.6%	0.6%
Work at Home	4.5%	4.5%

Source: American Community Survey: 2015-19 5-year data.

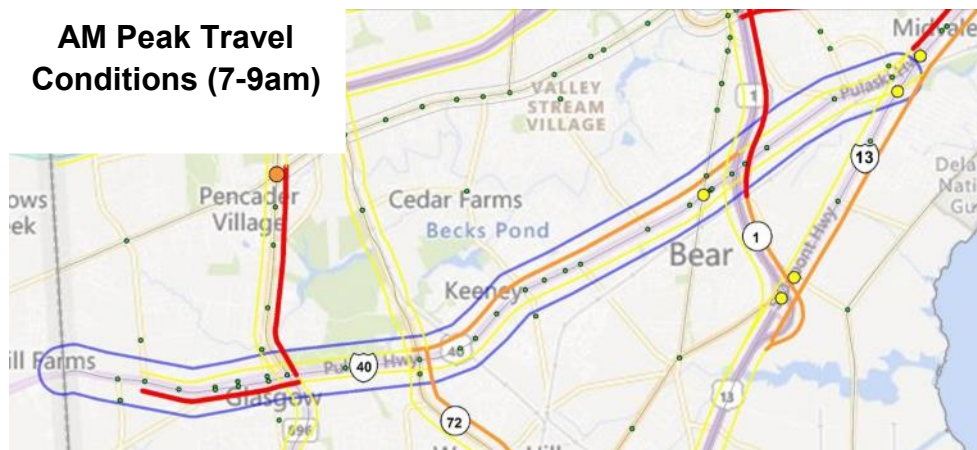
**Appropriateness of Transit Service Intensity/
Investment by Transit Score Category**

Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Not Appropriate
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Adaptation of analysis developed by the DVRPC titled "*Creating a Regional Transit Score Protocol*" which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Corridor #14: US 40 Profile and Screening

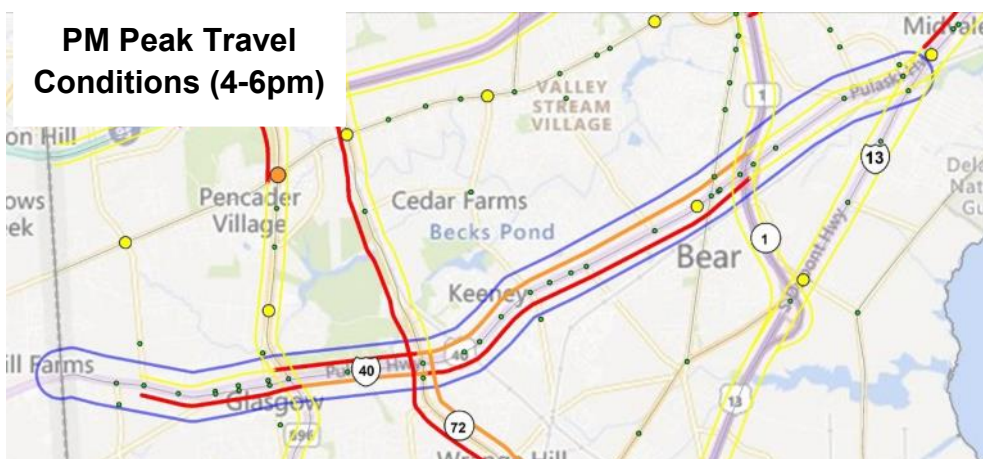
Transportation Inventory	
Corridor Length (miles)	9.8
Daily AADT Range	25,500 - 44,300
Functional Classification	Principal Arterial
National Freight Highway Network (NHFN)	Critical Urban Freight Corridor (CUFC)
Total Person-Hours of Peak Hour Excessive Delay	497,993
Non-Motorized Facilities Coverage along main corridor roadway frontage	32.1%
Intersections in top 20% of Statewide Crash Rankings	US 40 & DE 896 (#13)
	US 40 & DE 7 (#10)
	US 40 & Porter Rd. (#34)
	US 40 & DE 72 (#27)
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 64 Glasgow / Christiana Mall (6 trips / 6 trips)
	Route 54 Fairplay Sta / C Mall / Wilton (8 trips / 6 trips)
	Route 40 Glasgow / Wilmington (12 trips / 12 trips)
Number of Park and Rides and % Usage	1 location 5% usage
Last Signal Retiming (if applicable)	2020 (896 to SR1 portion) 2019 (Western & Eastern portions)
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	Moderate: 1,766
	Significant: 3,762
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	7,700
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	Moderate: 1,223
	Significant Areas: 0
Corridor within a designated truck bottleneck (and Ranking)	None
WILMAPCO Transportation Investment Area(s)	Core
Corridor inclusion in recent areawide studies	US 40 Corridor Study (2000)

Corridor #14: US 40 Traffic and Travel Conditions**AM Peak Travel Conditions (7-9am)****Map Legend****Intersection Level of Service (Critical Movement Summation)**

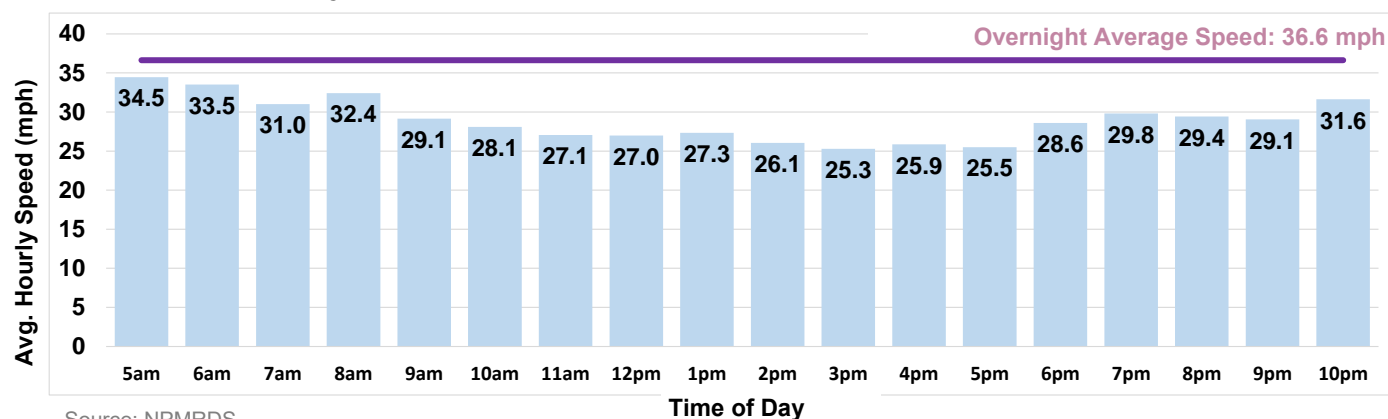
●	LOS C+ less than 1,300 vehicles/hr.
●	LOS D: 1,301 to 1,450 vehicles/hour
●	LOS E: 1,451 to 1,600 vehicles/hour
●	LOS F: Over 1,600 vehicles/hour

Travel Time Reliability

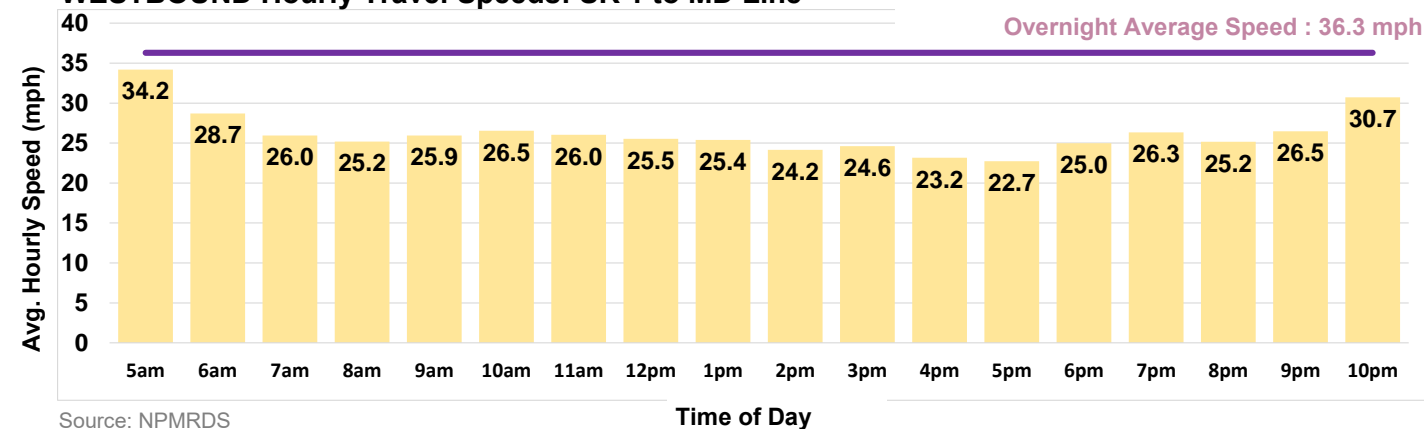
—	Areas with no Significant recurring or non-recurring congestion
—	Areas with significant non-recurring congestion
—	Areas with significant recurring congestion
—	CMP Hot Spot

PM Peak Travel Conditions (4-6pm)**EASTBOUND Hourly Travel Speeds: MD Line to SR 1**

Source: DelDOT TOMP



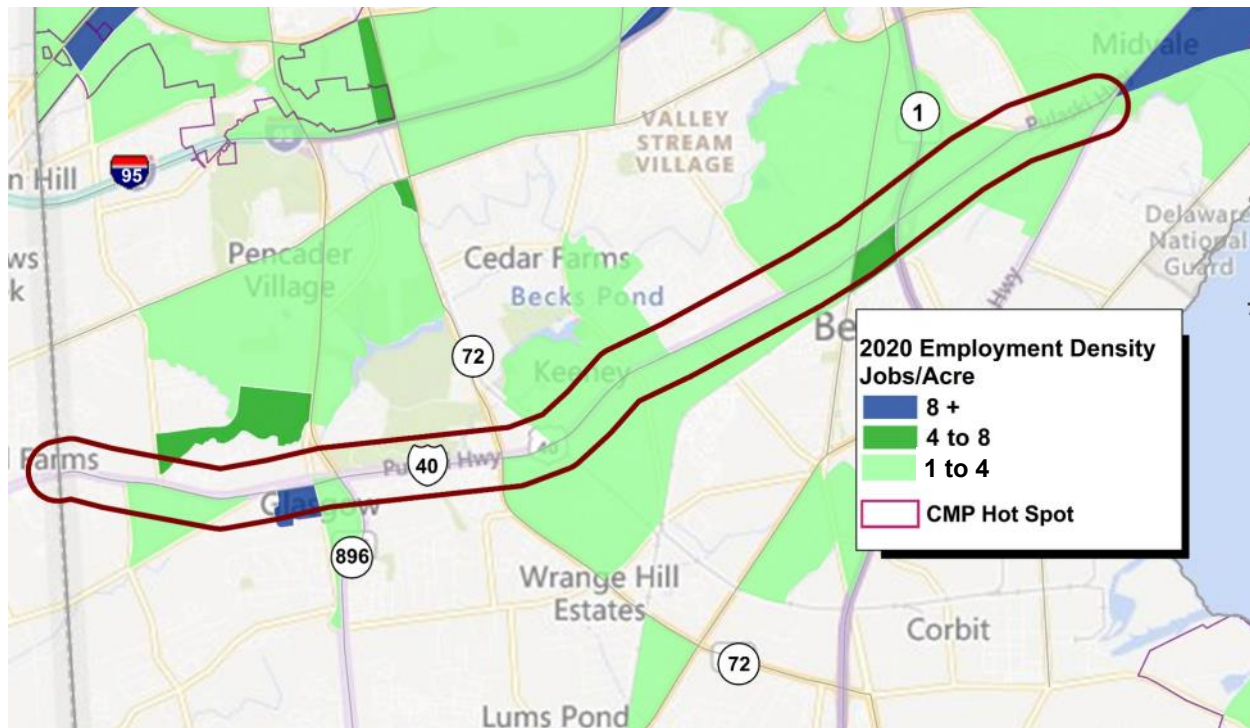
Source: NPMRDS

WESTBOUND Hourly Travel Speeds: SR 1 to MD Line

Source: NPMRDS

Corridor #14: US 40 Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	10%	11%
Wholesale/Retail/Transp. & Utilities	32%	18%
Finance / Information	8%	11%
Prof. & Business Services	9%	14%
Health & Education	18%	24%
Leisure & Hospitality	13%	10%
Other Service & Public Admin.	10%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

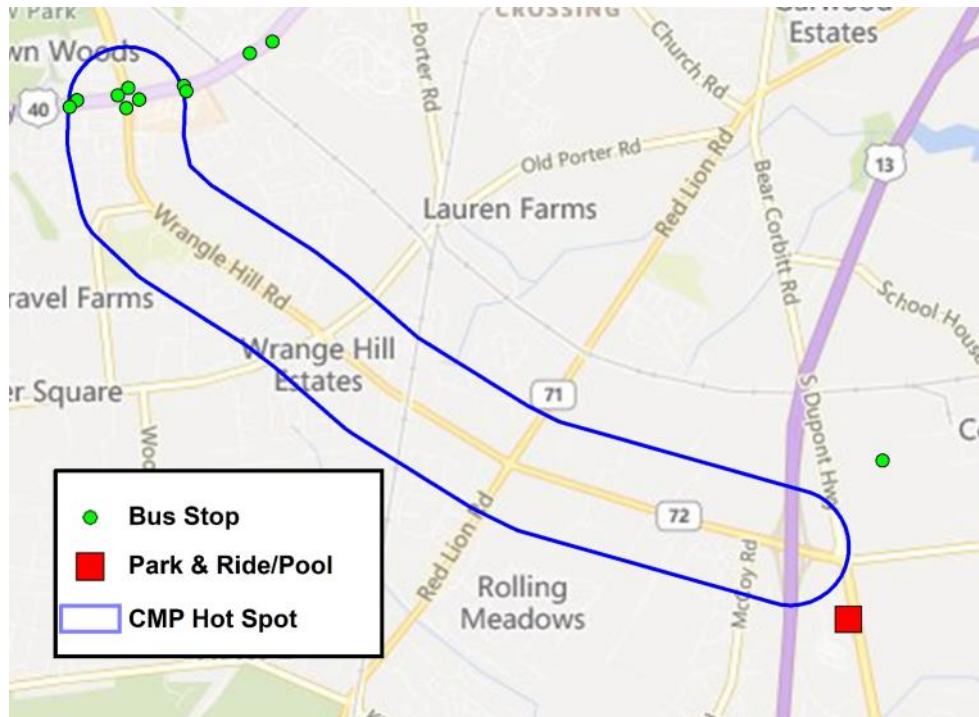
Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	82.2%	79.8%
Carpool	9.7%	8.5%
Transit/Taxi	3.0%	3.8%
Walk/Bike	1.2%	2.8%
Other	0.5%	0.6%
Work at Home	3.3%	4.5%

Source: American Community Survey: 2015-19 5-year data.

Adaptation of analysis developed by the DVRPC titled *“Creating a Regional Transit Score Protocol”* which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

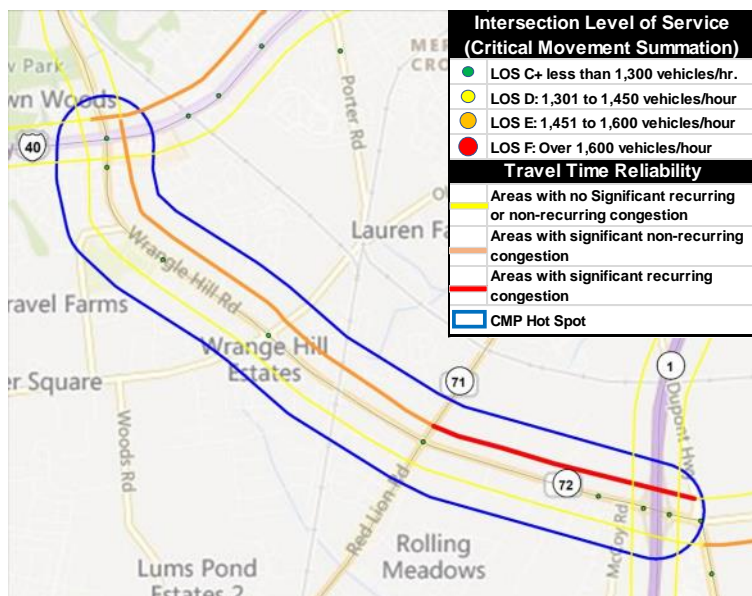
Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Possible
Bus Lane Expansion	Possible
Bus Priority Treatment	Appropriate
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Corridor #15: DE 72 (Red Lion) Profile and Screening

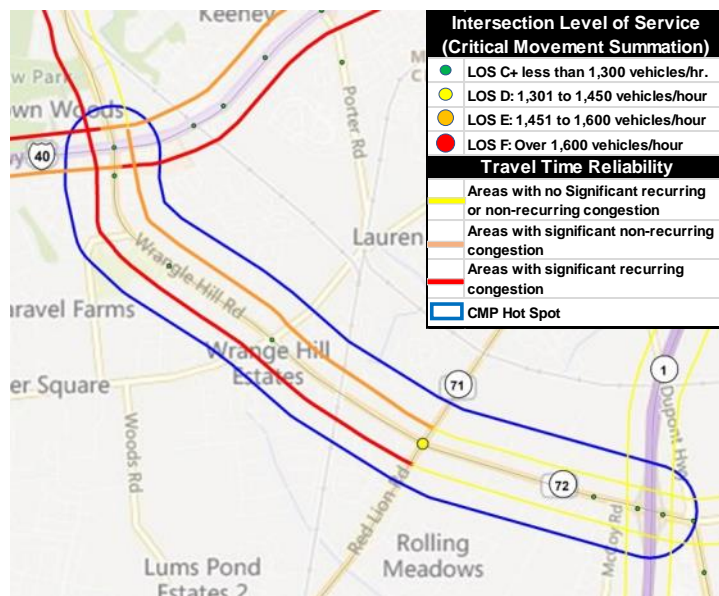
Transportation Inventory	
Corridor Length (miles)	3.7
Daily AADT Range	16,400 - 23,400
Functional Classification	Minor Arterial
National Freight Highway Network (NHFN)	Not on NHS network
Total Person-Hours of Peak Hour Excessive Delay	No Data Available
Non-Motorized Facilities Coverage along main corridor roadway frontage	10.8%
Intersections in top 20% of Statewide Crash Rankings	US 40 & DE 72 (#27)
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 53 Delaware City DMV / Newark Hub (1 trip / 5 trips)
Number of Park and Rides and % Usage	1 location 6% usage
Last Signal Retiming (if applicable)	2020
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	No EJ Areas within corridor
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	No MC Areas within corridor
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	0
WILMAPCO Transportation Investment Area(s)	Community
Corridor within a designated truck bottleneck (and Ranking)	No
Corridor inclusion in recent areawide studies	US 40 Corridor Study (2000)

Corridor #15: DE 72 (Red Lion) Traffic and Travel Conditions

AM Peak Travel Conditions (7-9am)

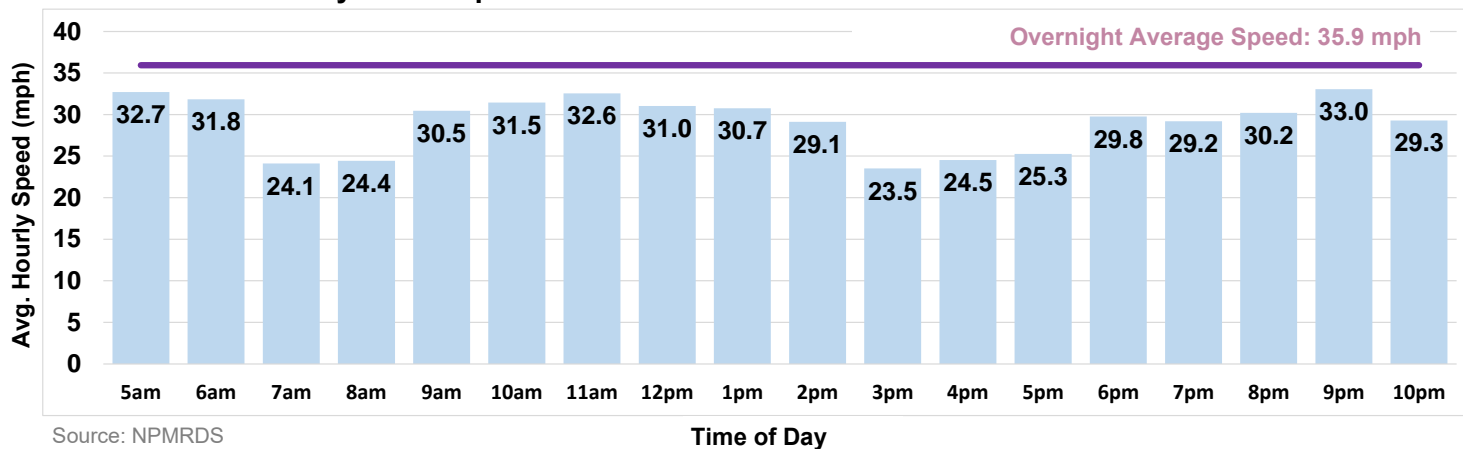


PM Peak Travel Conditions (4-6pm)

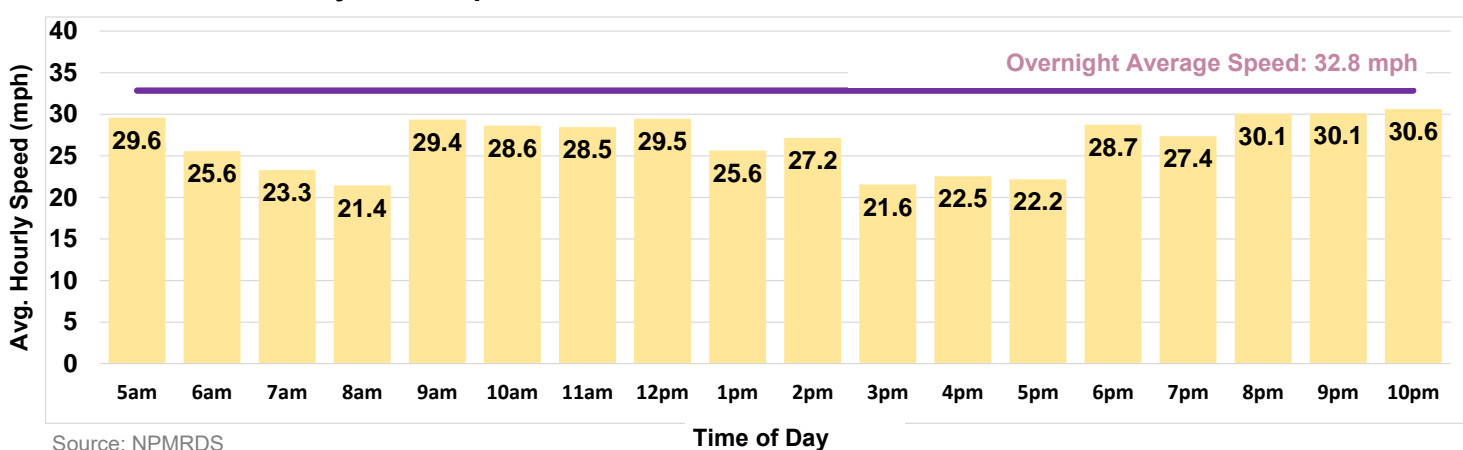


Source: DelDOT TOMP

NORTHBOUND Hourly Travel Speeds: SR 1 to US 40

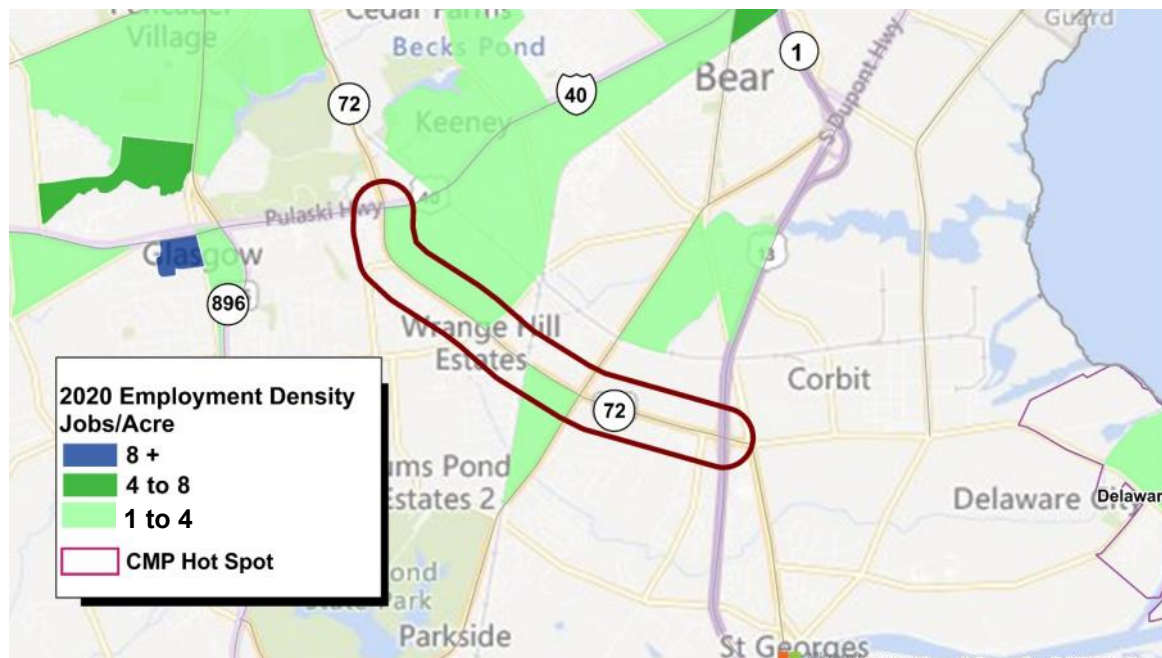


SOUTHBOUND Hourly Travel Speeds: US 40 to SR 1



Corridor #15: DE 72 (Red Lion) Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	39%	11%
Wholesale/Retail/Transp. & Utilities	15%	18%
Finance / Information	7%	11%
Prof. & Business Services	8%	14%
Health & Education	17%	24%
Leisure & Hospitality	6%	10%
Other Service & Public Admin.	9%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

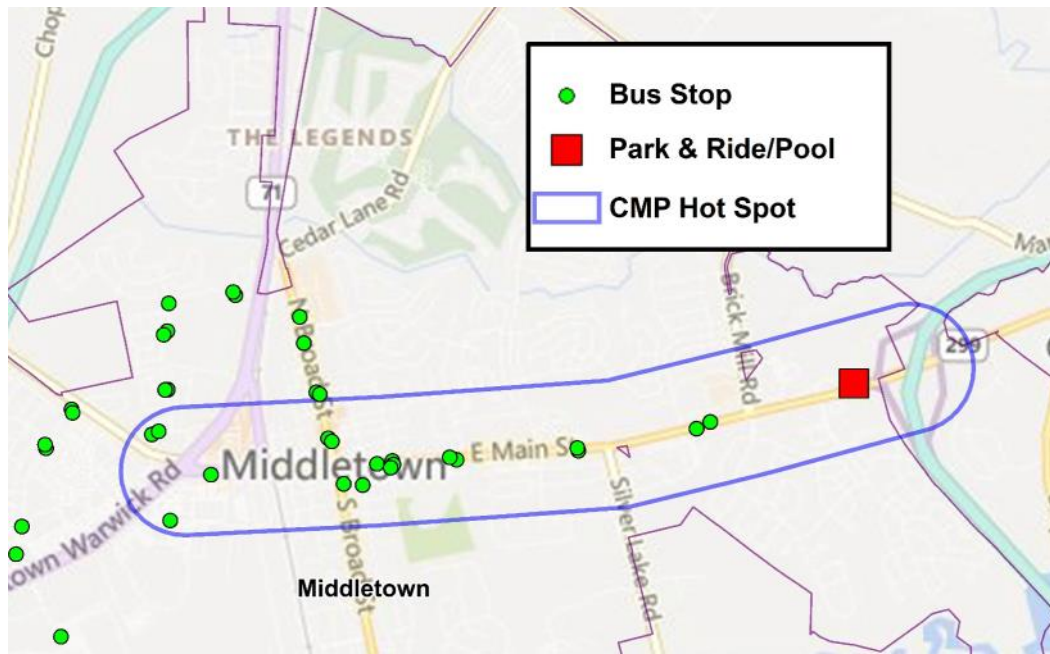
Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	80.6%	79.8%
Carpool	6.0%	8.5%
Transit/Taxi	3.7%	3.8%
Walk/Bike	0.7%	2.8%
Other	0.6%	0.6%
Work at Home	8.4%	4.5%

Source: American Community Survey: 2015-19 5-year data.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Not Appropriate
Bus Lane Expansion	Not Appropriate
Bus Priority Treatment	Possible
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Adaptation of analysis developed by the DVRPC titled “*Creating a Regional Transit Score Protocol*” which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.

Corridor #16: DE 299 (Middletown) Profile and Screening

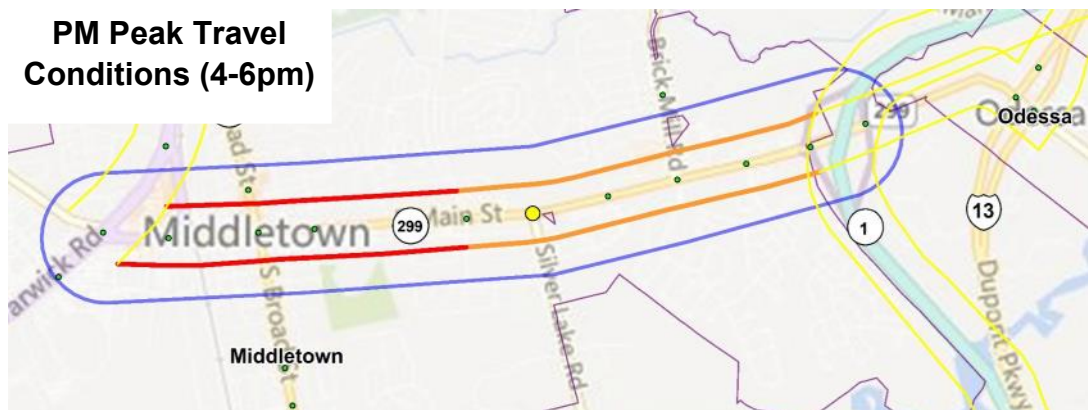
Transportation Inventory	
Corridor Length (miles)	3.1
Daily AADT Range	16,300 - 17,500
Functional Classification	Minor Arterial
National Freight Highway Network (NHFN)	Not on NHS network
Total Person-Hours of Peak Hour Excessive Delay	No Data Available
Non-Motorized Facilities Coverage along main corridor roadway frontage	73.5%
Intersections in top 20% of Statewide Crash Rankings	None
Average Total Transit Trips by Route (AM Peak Trips /PM Peak Trips)	Route 63 Middletown Circulator (8 trips / 5 trips)
	Route 302 intercounty / Middletown (3 trips / 3 trips)
	Route 43 Middletown / Odessa Park & Ride (5 trips / 7 trips)
Number of Park and Rides and % Usage	1 location 37% usage
Last Signal Retiming (if applicable)	2020
Other General Area Details	
Population Along Corridor within Moderate & Significant Environmental Justice Areas	No EJ Areas within corridor
Population Along Corridor within Moderate & Significant Mobility Challenged Areas	No MC Areas within corridor
WILMAPCO Transportation Investment Area(s)	Core/Developing
Population Along Corridor within areas of high concentrations of Particulate Matter Emissions (80-100th Percentile of Statewide average)	0
Corridor within a designated truck bottleneck (and Ranking)	No
Corridor inclusion in recent areawide studies	SNCC master Plan (2021), Eastown TID (2019), Westown TID (2008)

Corridor #16: DE 299 (Middletown) Traffic and Travel Conditions

AM Peak Travel
Conditions (7-9am)

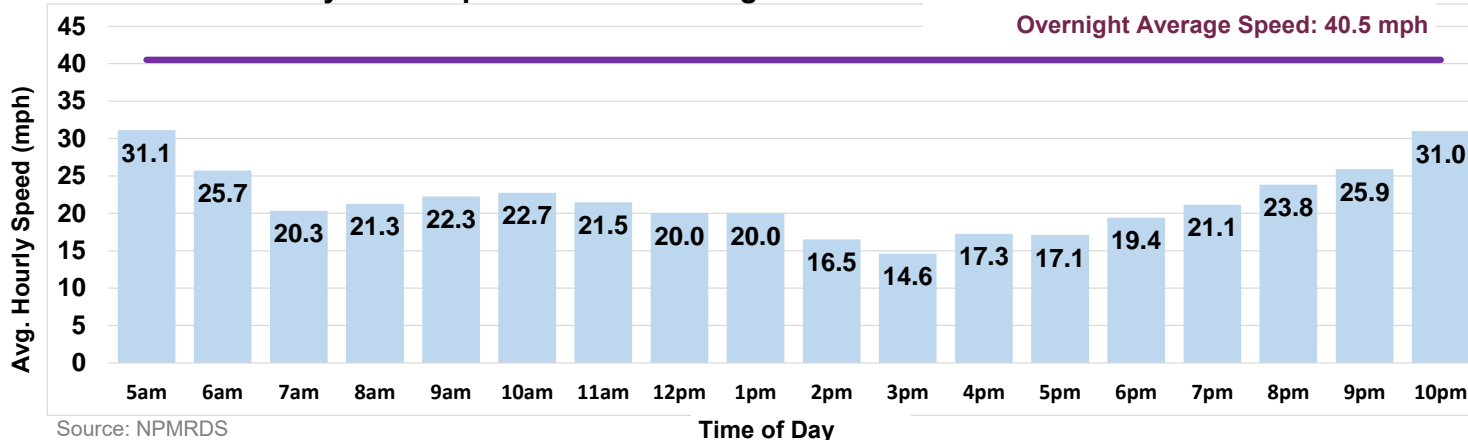
Map Legend

Intersection Level of Service (Critical Movement Summation)	
●	LOS C+ less than 1,300 vehicles/hr.
●	LOS D: 1,301 to 1,450 vehicles/hour
●	LOS E: 1,451 to 1,600 vehicles/hour
●	LOS F: Over 1,600 vehicles/hour
Travel Time Reliability	
—	Areas with no Significant recurring or non-recurring congestion
—	Areas with significant non-recurring congestion
—	Areas with significant recurring congestion
—	CMP Hot Spot

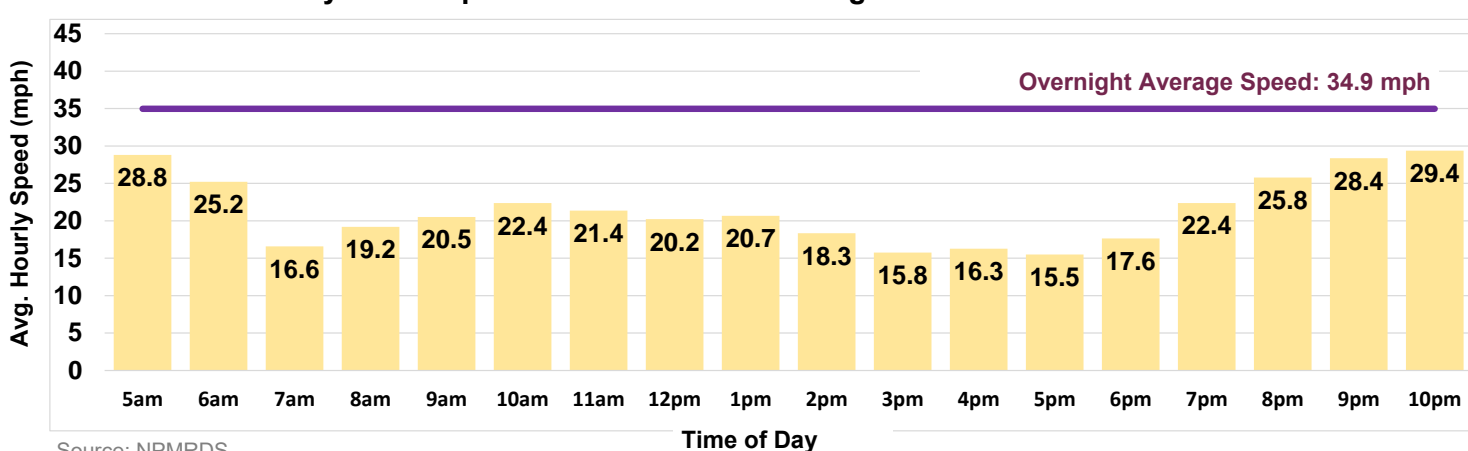
PM Peak Travel
Conditions (4-6pm)

EASTBOUND Hourly Travel Speeds: Summit Bridge Rd. to SR 1

Source: DelDOT TOMP

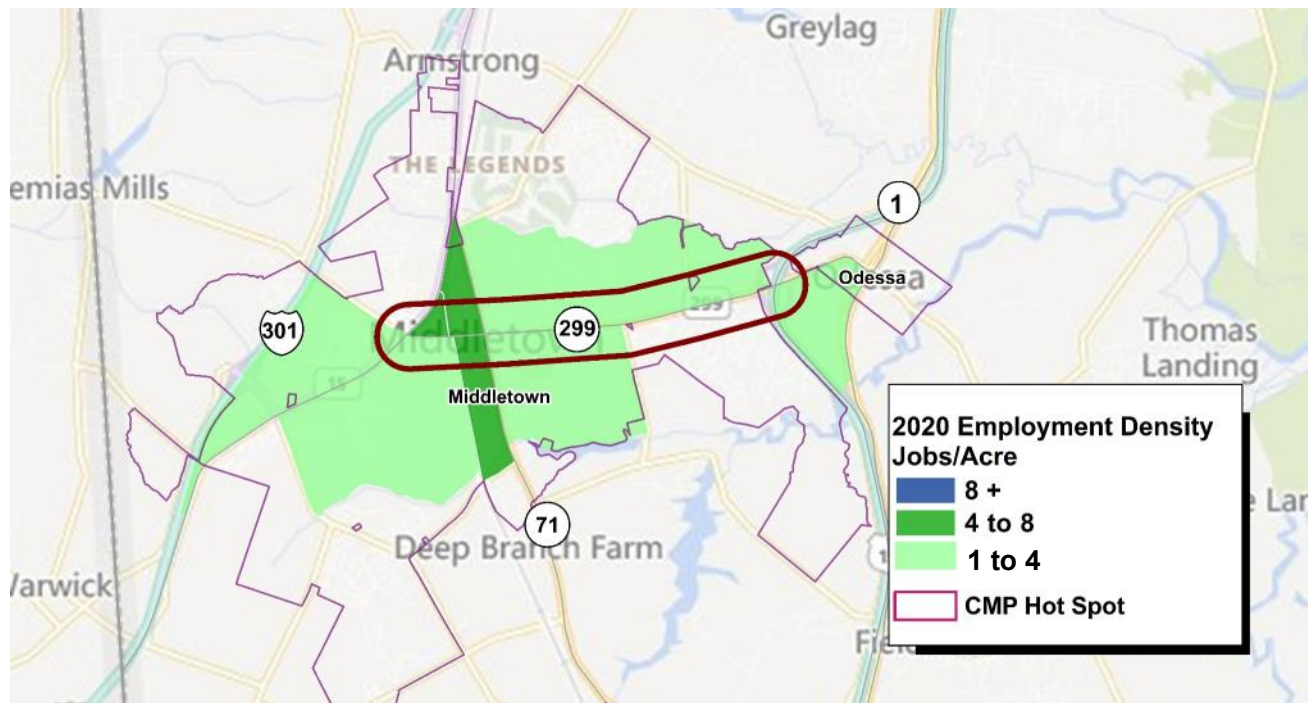


WESTBOUND Hourly Travel Speeds: SR 1 to Summit Bridge Road



Corridor #16: DE 299 (Middletown) Journey to Work and Employment Characteristics

2020 Employment Density– Total Jobs by Place of Work



Source: WILMAPCO Traffic Analysis Zones

2020 Employment By Job Type

Employment Type	Corridor %	County %
Construction/ Manufacturing	10%	11%
Wholesale/Retail/Transp. & Utilities	29%	18%
Finance / Information	5%	11%
Prof. & Business Services	5%	14%
Health & Education	27%	24%
Leisure & Hospitality	15%	10%
Other Service & Public Admin.	9%	12%

Source: WILMAPCO Traffic Analysis Zones

Mode Share: ACS Journey to Work

Journey to Work Mode Split	Corridor Avg.	County Avg.
SOV	89.2%	79.8%
Carpool	5.1%	8.5%
Transit/Taxi	0.6%	3.8%
Walk/Bike	0.9%	2.8%
Other	0.0%	0.6%
Work at Home	4.1%	4.5%

Source: American Community Survey: 2015-19 5-year data.

Appropriateness of Transit Service Intensity/ Investment by Transit Score Category

Modal Investment	Appropriateness of New Investment
Heavy Urban Rail	Not Appropriate
Light Rail Transit	Not Appropriate
Commuter Rail	Not Appropriate
Bus Rapid Transit	Not Appropriate
Bus Lane Expansion	Possible
Bus Priority Treatment	Possible
Fixed Routes	Appropriate
Express Bus	Appropriate
Local Circulator	Appropriate

Adaptation of analysis developed by the DVRPC titled “*Creating a Regional Transit Score Protocol*” which analyzes the relationship of land use, transit dependency and public transportation. Correlates transit investments deemed appropriate based on the intensity of the variables used in developing the transit score. Based on 2020 Traffic Analysis Zone data developed by WILMAPCO.