



MARYLAND DEPARTMENT
OF TRANSPORTATION

STATE HIGHWAY
ADMINISTRATION



MARYLAND STATE HIGHWAY
MOBILITY REPORT **2020**
SUPPLEMENT

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2020

MARYLAND STATE HIGHWAY MOBILITY REPORT SUPPLEMENT

INTRODUCTION

The Maryland Mobility Report Supplement provides more-in-depth detail of performance and mobility trends over the past year. This report provides additional specifics on each freeway/expressways and arterials plus detailed information on the County/regionwide level. The Supplement includes data on:

- **Traffic Volumes by County and Region**
- **Congestion Trends**
 - **Freeway Operations**
 - **Bottleneck Locations**
 - **Arterial Corridor Operations**
 - **Most Congested Freeway and Arterial Sections by County**
 - **Congestion Cost by Region**
- **Capital Projects Before and After Studies**

In addition, mapping was provided to identify locations of the various programs and projects including:

Location Mapping

- **New Sidewalk Locations**
- **Park and Ride Lot Locations**
- **Reversible, HOV and Express Toll Lanes and Managed Location Facilities Locations**
- **Public Truck Parking and Virtual Weigh Station Locations**
- **CHART Operations Center Locations**
- **Failing Intersection Level of Service Locations**

For additional information, reference the 2020 Maryland Mobility Report.

TRAFFIC VOLUMES



Traffic volume data is collected from many sources. This includes from continuous count stations which are located throughout the State on different types of roadways. These stations record volumes 24 hours a day, 365 days a year at approximately 100 locations. In addition, the majority of traffic data is collected every three years at the same locations for forty-eight (48) hours. These counts are factored to develop the average daily traffic on each section of roadway. The length of these sections is multiplied by the traffic volume to develop the total vehicle miles traveled (VMT). The VMT is developed on a statewide, countywide and regionwide basis. Maryland is subdivided into five geographical regions. These five geographical regions are: Baltimore Metropolitan; Washington Metropolitan; Southern Maryland; Eastern Shore; and Western Maryland (Figure 1).

BALTIMORE METROPOLITAN REGION

- Anne Arundel (AA)
- Baltimore City (BC)
- Baltimore (BA)
- Carroll (CL)
- Harford (HA)
- Howard (HO)

WASHINGTON METROPOLITAN REGION (MARYLAND COUNTIES)

- Frederick (FR)
- Montgomery (MO)
- Prince George's (PG)

SOUTHERN MARYLAND

- Calvert (CA)
- Charles (CH)
- St. Mary's (SM)

EASTERN SHORE

- Caroline (CO)
- Cecil (CE)
- Dorchester (DO)
- Kent (KE)
- Queen Anne's (QA)
- Somerset (SO)
- Talbot (TA)
- Wicomico (WI)
- Worcester (WO)

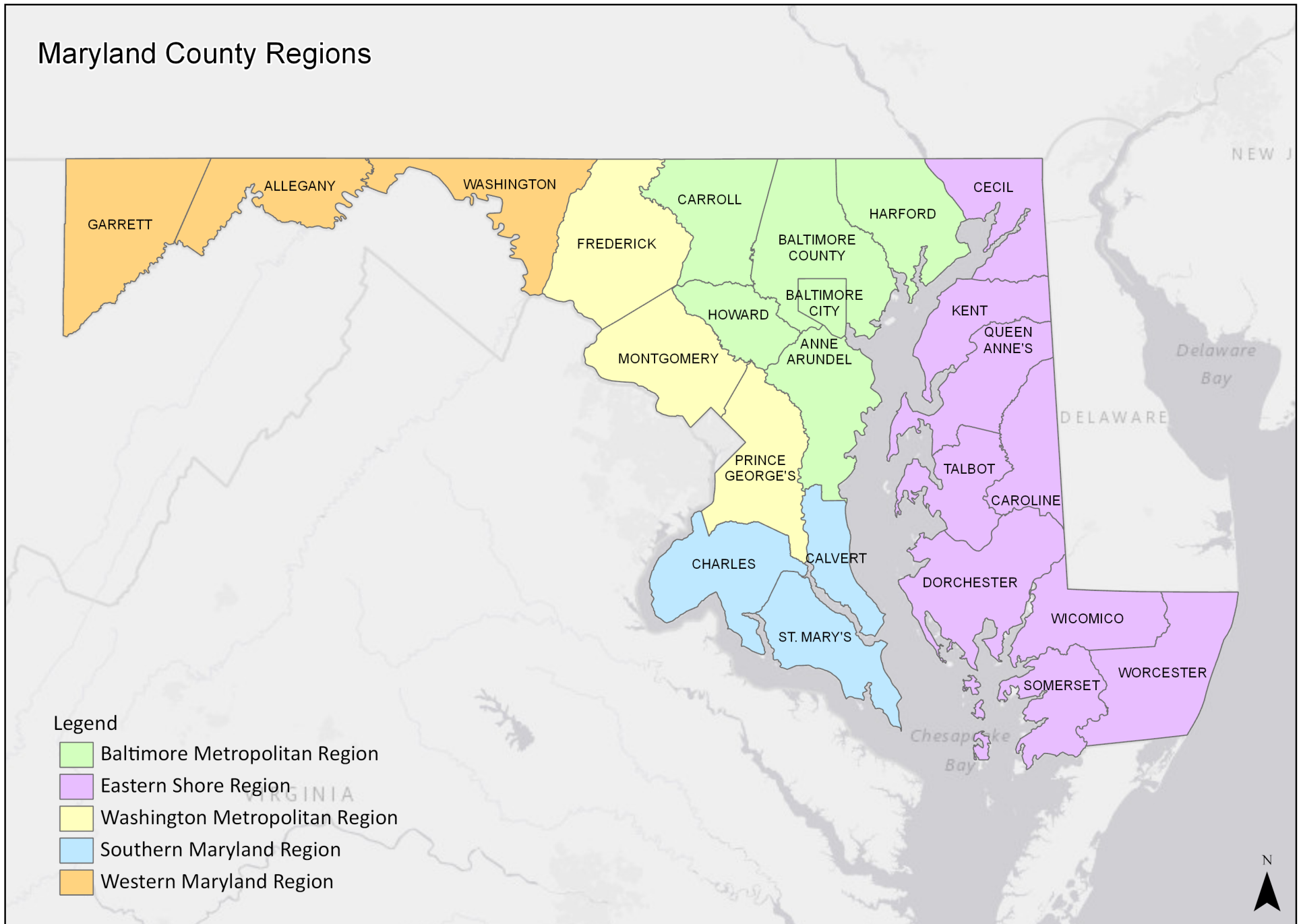
WESTERN MARYLAND

- Allegany (AL)
- Garrett (GA)
- Washington (WA)

The MDOT SHA county abbreviation is in parenthesis.

Figure 1

Maryland County Regions



The largest growth in traffic volumes were in the Washington region with an increase of approximately 250 million VMT. The Baltimore region and the Eastern Shore also saw an increase with the Baltimore region growing by 130 million VMT from 2018. Southern and western Maryland were relatively flat. (Table 1).

Table 1

VMT BY REGION (BILLIONS)					
AREA	2016	2017	2018	2019	CHANGE 2018 TO 2019
Baltimore Region	26.37	26.77	26.72	26.85	+0.13
Washington Region	20.07	20.55	20.45	20.70	+0.25
Southern Region	3.05	3.04	3.01	3.01	0.00
Eastern Shore Region	6.07	6.08	6.02	6.13	+0.11
Western Region	3.41	3.45	3.43	3.45	+0.02
Total	58.97	59.89	59.63	60.14	+0.51



I-695 @ I-95 Outer Loop

CONGESTION TRENDS



A. FREEWAY/EXPRESSWAY FACT SHEETS

Freeways and expressways are the highest classification of roadways. These are high speed facilities that provide the maximum mobility. Access along these roadways is limited to interchanges and these highways are termed controlled access facilities. Analysis was performed on these roadways to evaluate various attributes including:

- Travel time index (Congestion)
- Planning time index (Reliability)
- Daily variability
- Percentage of roadway in each direction in the peak hour that operate at uncongested, moderate, heavy and severe congestion
- Segments that experienced the largest increase or decrease in congestion

The freeways/expressways evaluated include:

- I-70 (Pennsylvania Border to US 40 in Frederick)
- I-70 (US 40 in Frederick to I-695)
- I-81
- I-83
- I-95 (Capital Beltway to I-695 North)
- I-95 (I-695 North to Delaware State Line)
- I-97
- I-270
- I-495 Capital Beltway
- I-695 Baltimore Beltway
- I-795
- I-895
- US-50 (DC Line to William Preston Lane Bridge (Bay Bridge))
- MD 32
- MD 100
- MD 200
- MD 295

In addition to year round analysis, summer seasonal weekend analysis was performed for:

- I-95 (Tydings Bridge to Delaware State Line)
- US 50 (William Preston Lane (Chesapeake Bay) Bridge to Easton)

For each freeway/expressway, the percentage of roadway miles that operate in uncongested, moderate congestion, heavy congestion and severe congestion conditions are identified (Table 2).

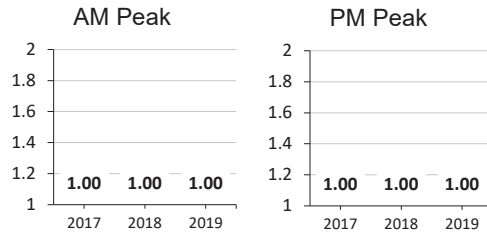


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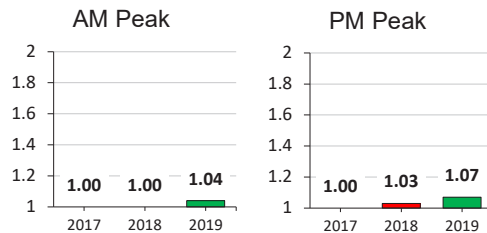
I-70: Pennsylvania Border to US 40 Frederick

Trends^a

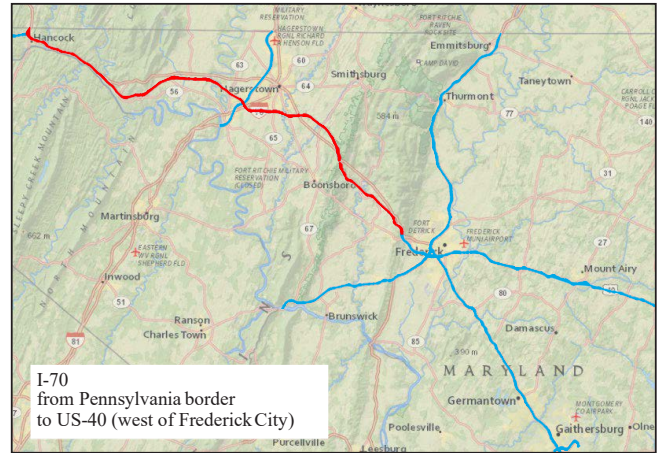
Travel Time Index^b
measure of
average delay



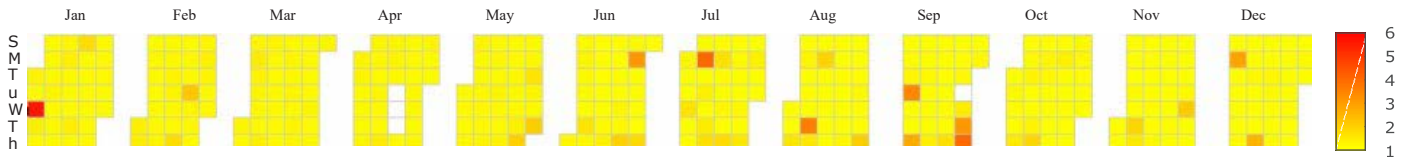
Planning Time Index^c
measure of
worst-case delay



48 center miles carrying 51,000 vehicles every day

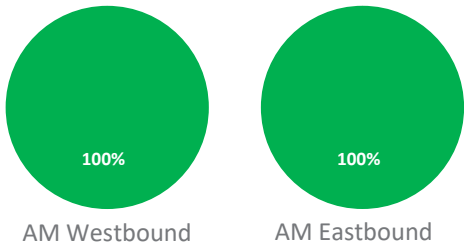


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



AM Westbound

AM Eastbound

**Most Improved
Segments (TTI)**

1. N/A

2019
N/A

2018
N/A

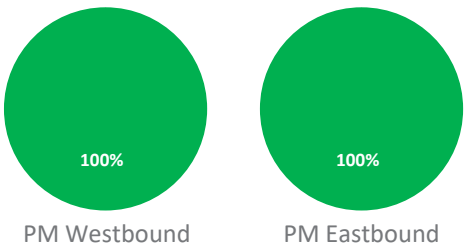
**Decreased
Operations
Segments (TTI)**

1. I-70 EB at MD 17/Exit 42
2. I-70 EB from MD 632 to MD 65
3. I-70 EB at MD 65/Exit 29

1.02
1.02
1.02

1.00
1.00
1.00

PM Peak Hour^a



PM Westbound

PM Eastbound

**Most Improved
Segments (TTI)**

1. N/A

2019
N/A

2018
N/A

**Decreased
Operations
Segments (TTI)**

1. I-70 WB at MD 65/Exit 29
2. I-70 WB at US 40/Exit 52
3. I-70 WB from MD 65 to MD 632

1.05
1.04
1.06

1.00
1.00
1.02

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

a - Peak Hours are considered as 8-9am and 5-6pm.

b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.

c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.

d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

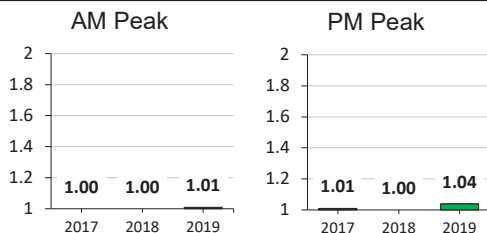


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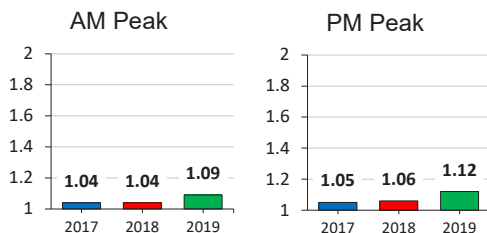
I-70: US 40 Frederick to I-695

Trends^a

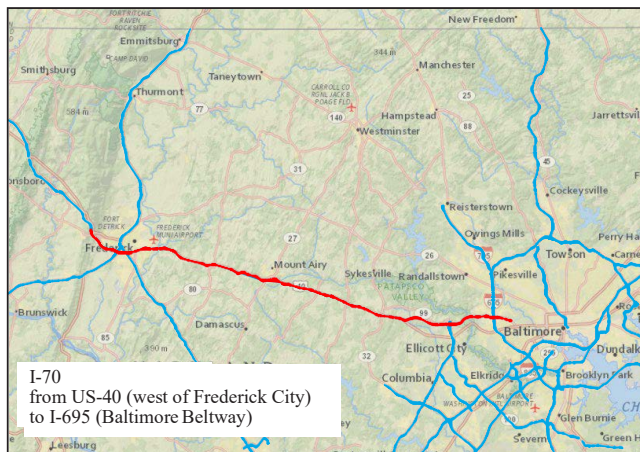
Travel Time Index^b
measure of
average delay



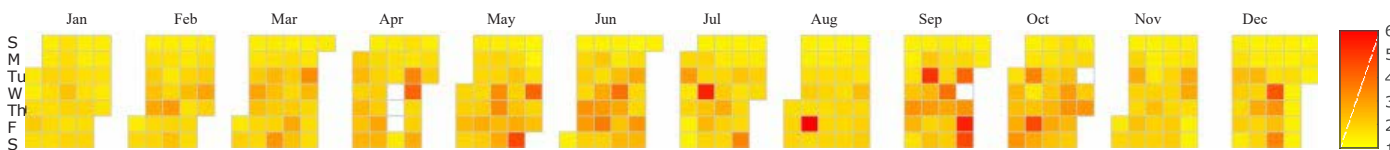
Planning Time Index^c
measure of
worst-case delay



45 center miles carrying 74,000 vehicles every day

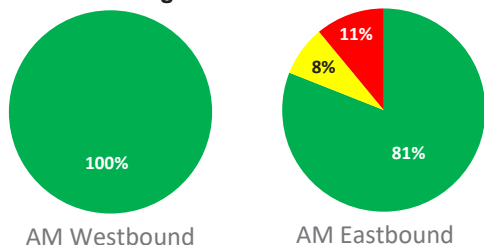


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



**Most Improved
Segments (TTI)**

AM Peak Hour^a

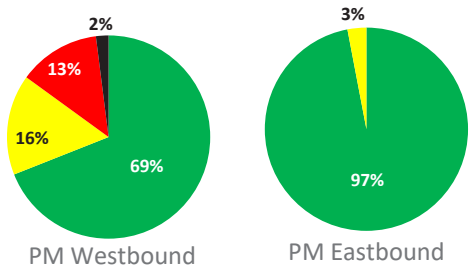
- I-70 EB between US 40 and Marriottsville Rd
- I-70 EB at US 40/Exit 32
- I-70 EB at Marriottsville Rd/Exit 83

2019	2018
1.81	1.90
1.46	1.54
1.91	1.96

**Decreased
Operations
Segments (TTI)**

- I-70 EB at MD 122/Security Blvd/Exit 94
- I-70 EB at Ingleside Ave
- I-70 EB at beginning of freeway

2019	2018
1.16	1.02
1.10	1.01
1.10	1.04



**Most Improved
Segments (TTI)**

PM Peak Hour^a

- I-70 WB at MD 122/Security Blvd/Exit 94
- I-70 EB between US 29 and Rolling Rd
- I-70 EB at I-695/Exit 91

2019	2018
1.00	1.09
1.07	1.12
1.15	1.17

**Decreased
Operations
Segments (TTI)**

- I-70 WB at US 29/Exit 87
- I-70 WB at beginning of freeway
- I-70 WB at MD 355/Exit 54

2019	2018
3.27	2.71
1.38	1.00
1.33	1.11

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

a - Peak Hours are considered as 8-9am and 5-6pm.

b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.

c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.

d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



Source: Based on speed data from INRIX and volume data from MDOT-SHA

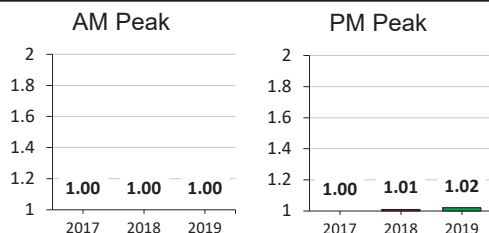


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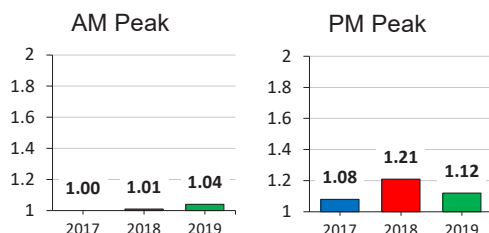
I-81

Trends^a

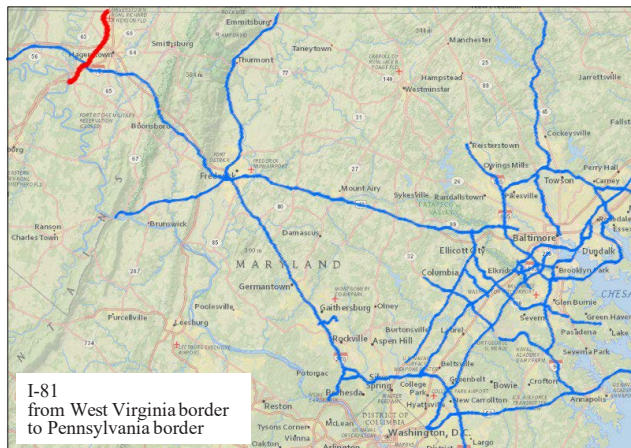
Travel Time Index^b
measure of
average delay



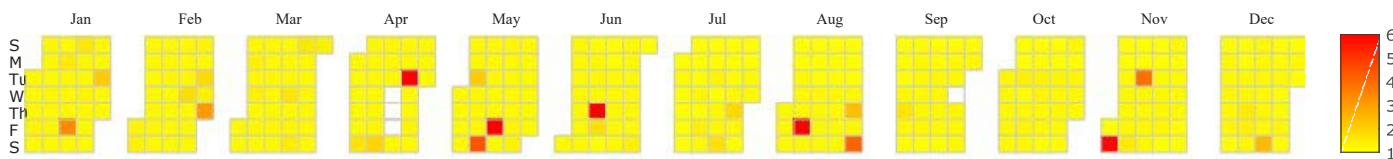
Planning Time Index^c
measure of
worst-case delay



12 center miles carrying 67,000 vehicles every day

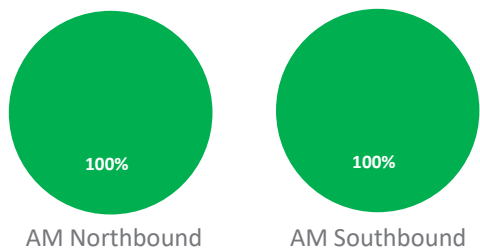


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



AM Northbound

AM Southbound

**Most Improved
Segments (TTI)**

AM Peak Hour^a

1. N/A

2019
N/A

2018
N/A

**Decreased
Operations
Segments (TTI)**

1. I-81 NB at US 40/Exit 6

1.02

1.02

**Most Improved
Segments (TTI)**

PM Peak Hour^a

1. I-81 SB between US 11 and MD 63
2. I-81 SB at MD 63/MD 68/Exit 1
3. I-81 SB at I-70/Exit 3

2019
1.04
1.03
1.03

2018
1.07
1.06
1.05

**Decreased
Operations
Segments (TTI)**

1. I-81 SB at Maryland/WV State Line
2. I-81 NB at MD 58/Exit 7
3. I-81 NB at Maugansville Rd/Exit 8

1.06
1.04
1.03

1.00
1.01
1.00

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

a - **Peak Hours** are considered as 8-9am and 5-6pm.

b - **Travel Time Index (TTI)** is the ratio of the *average* travel time during the peak hour to the time required under free flow.

c - **Planning Time Index (PTI)** is the ratio of the *worst-case* travel time (95th percentile) during peak hour to the free-flow time.

d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



STATE HIGHWAY
ADMINISTRATION

Source: Based on speed data from INRIX and volume data from MDOT-SHA

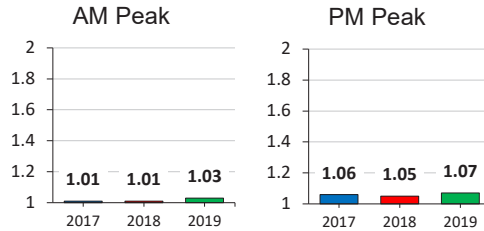


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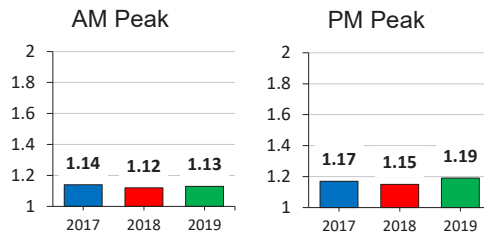
I-83

Trends^a

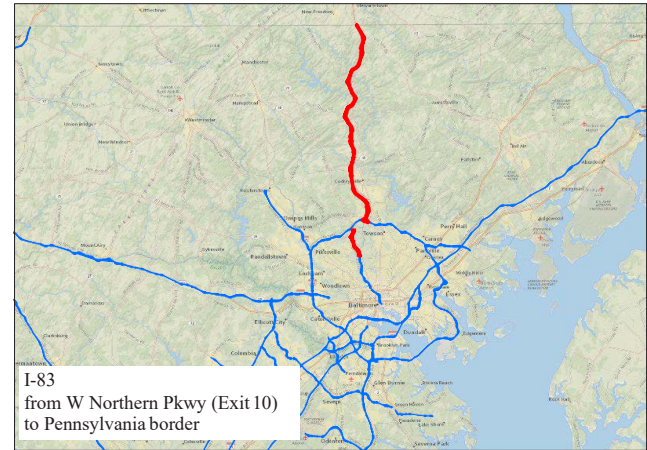
Travel Time Index^b
measure of
average delay



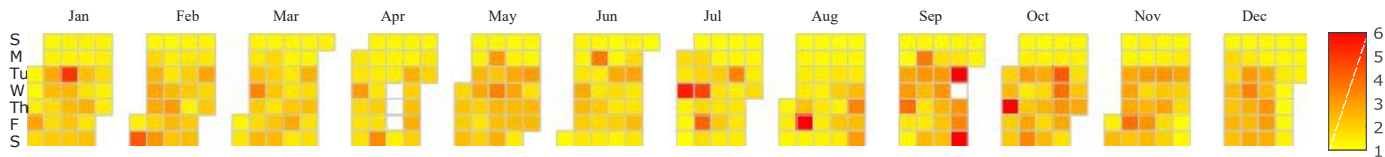
Planning Time Index^c
measure of
worst-case delay



27 center miles carrying 90,000 vehicles every day

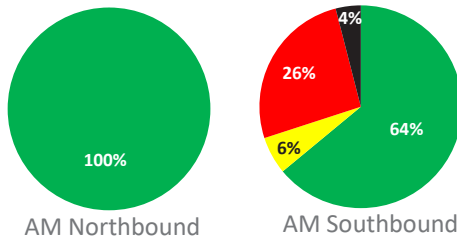


Daily Variability^d



Weekday Congestion

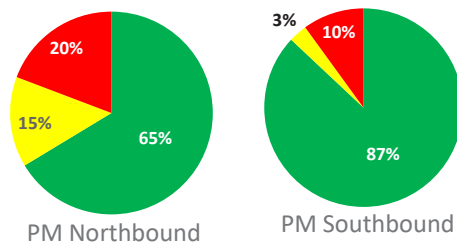
2019 Percent of Roadway
Miles in Congested Conditions



**Most Improved
Segments (TTI)**

**Decreased
Operations
Segments (TTI)**

AM Peak Hour ^a		2019	2018
1. I-83 SB at I-695/Jones Falls Expy/Exit 23		1.02	1.07
2. I-83 SB at W. Northern Pkwy/Exit 10		2.18	2.00
3. I-83 SB at Warren Rd/Exit 18		1.20	1.11
4. I-83 SB from Shawan Rd to Warren Rd		1.07	1.00



**Most Improved
Segments (TTI)**

**Decreased
Operations
Segments (TTI)**

PM Peak Hour ^a		2019	2018
1. I-83 SB at Timonium Rd/Exit 16		1.69	1.78
2. I-83 SB at Padonia Rd/Exit 17		1.45	1.51
3. I-83 NB at Shawan Rd/Exit 20		1.76	1.82
4. I-83 NB at I-695/Jones Falls Expy/Exit 23		1.23	1.00
5. I-83 SB at I-695		1.93	1.79
6. I-83 NB at Middletown Rd		1.12	1.06

Green-uncongested (TTI < 1.15); Yellow-moderate congestion (1.15 < TTI < 1.30); Red-heavy congestion (1.30 < TTI < 2.0); Black-severe congestion (TTI > 2.0)

Notes

a - Peak Hours are considered as 8-9am and 5-6pm.

b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.

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Source: Based on speed data from INRIX and volume data from MDOT-SHA

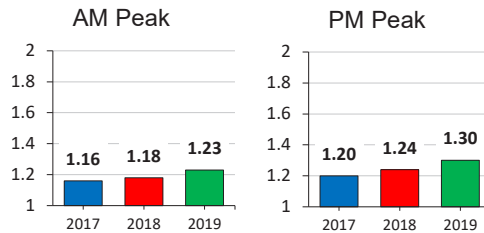


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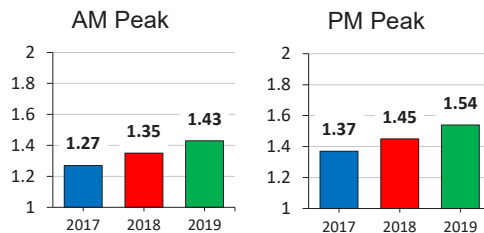
I-95: I-495 to I-695 (North)

Trends^a

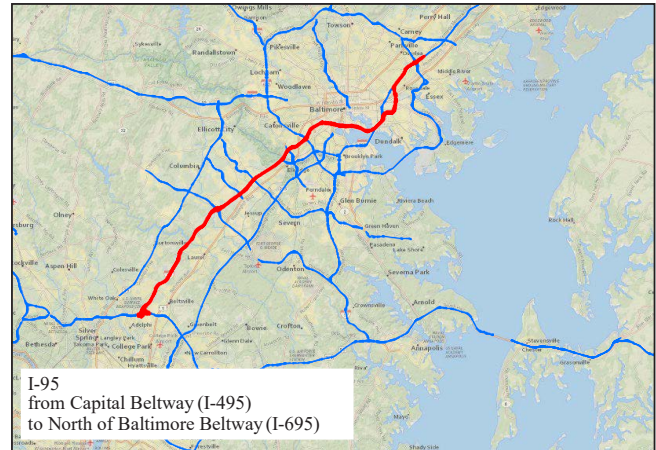
Travel Time Index^b
measure of
average delay



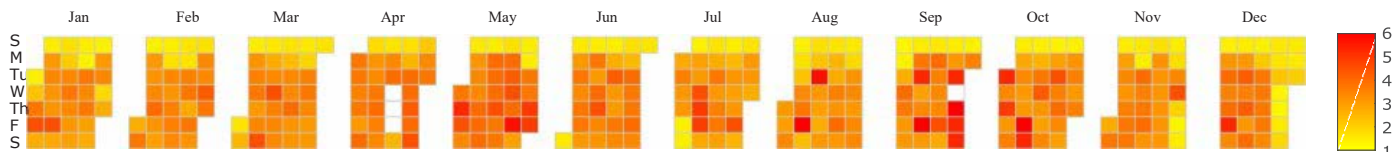
Planning Time Index^c
measure of
worst-case delay



39 center miles carrying 175,000 vehicles every day

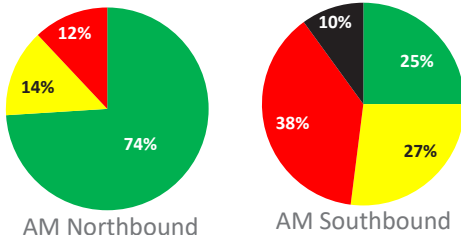


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



**Most Improved
Segments (TTI)**

1. I-95 SB at MD 150/Eastern Ave/Exit 59
2. I-95 SB at I-895/Exit 46
3. I-95 SB between I-195 and I-895/Exit 46

**Decreased
Operations
Segments (TTI)**

1. I-95 SB at Boston St/Exit 57
2. I-95 SB at Keith Ave/Exit 56
3. I-95 SB at Fort McHenry Tunnel

AM Peak Hour^a

2019	2018
2.10	2.23
1.21	1.32
1.24	1.32

PM Peak Hour^a

2019	2018
1.03	1.74
1.54	1.94
2.24	2.53

**Most Improved
Segments (TTI)**

1. I-95 NB at Keith Ave/Exit 56
2. I-95 NB at Fort McHenry Tunnel
3. I-95 NB between Key Hwy and at Fort McHenry Tunnel

**Decreased
Operations
Segments (TTI)**

1. I-95 NB at Key Highway (West)
2. I-95 NB at Fort McHenry Toll Plaza
3. I-95 SB at MD 295/Baltimore Washington Pkwy/Exit 52

2019	2018
2.27	1.05
2.12	1.00
1.89	1.11

Green-uncongested (TTI < 1.15); Yellow-moderate congestion (1.15 < TTI < 1.30); Red-heavy congestion (1.30 < TTI < 2.0); Black-severe congestion (TTI > 2.0)

Notes

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d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

Source: Based on speed data from INRIX and volume data from MDOT-SHA

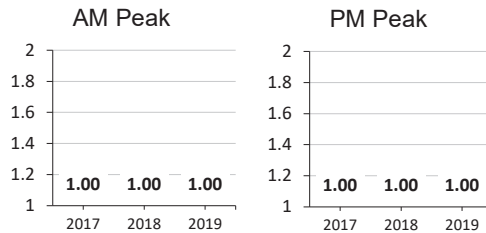


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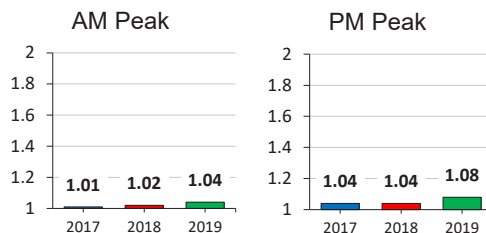
I-95: I-695 North to Delaware Line

Trends^a

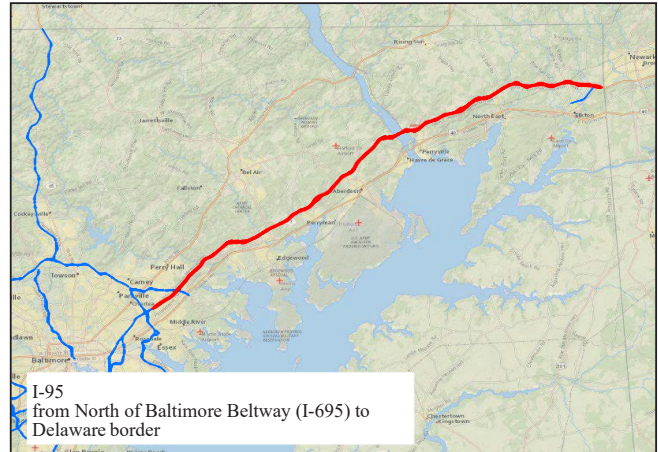
Travel Time Index^b
measure of
average delay



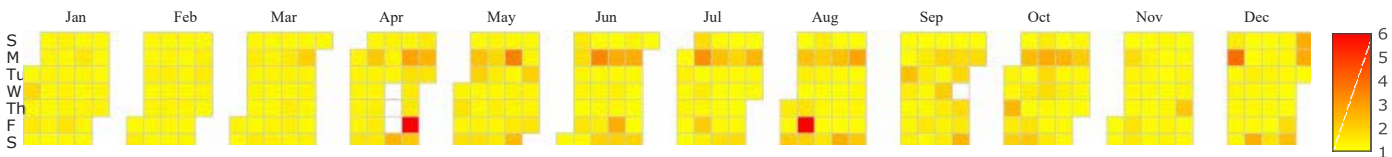
Planning Time Index^c
measure of
worst-case delay



44 center miles carrying 105,000 vehicles every day

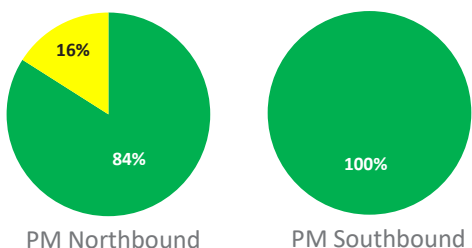
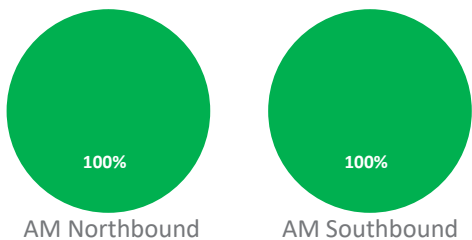


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



**Most Improved
Segments (TTI)**

1. I-95 SB I-695/Exit 54
2. I-95 SB at MD 152/Exit 74

**Decreased
Operations
Segments (TTI)**

1. I-95 SB at Tydings Memorial Bridge Toll Plaza
2. I-95 NB at MD 24/Exit 77
3. I-95 NB at MD 43/White Marsh Blvd/Exit 67

	2019	2018
1. I-95 SB I-695/Exit 54	1.07	1.08
2. I-95 SB at MD 152/Exit 74	1.00	1.01
1. I-95 SB at Tydings Memorial Bridge Toll Plaza	1.04	1.01
2. I-95 NB at MD 24/Exit 77	1.01	1.00
3. I-95 NB at MD 43/White Marsh Blvd/Exit 67	1.04	1.00

**Most Improved
Segments (TTI)**

1. N/A

**Decreased
Operations
Segments (TTI)**

1. I-95 NB at MD 152/Exit 74
2. I-95 NB at MD 24/Exit 77
3. I-95 NB at MD 43/White Marsh Blvd/Exit 67

	2019	2018
1. N/A	N/A	N/A
1. I-95 NB at MD 152/Exit 74	1.23	1.14
2. I-95 NB at MD 24/Exit 77	1.10	1.05
3. I-95 NB at MD 43/White Marsh Blvd/Exit 67	1.11	1.06

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

a - **Peak Hours** are considered as 8-9am and 5-6pm.

b - **Travel Time Index (TTI)** is the ratio of the *average* travel time during the peak hour to the time required under free flow.

c - **Planning Time Index (PTI)** is the ratio of the *worst-case* travel time (95th percentile) during peak hour to the free-flow time.

d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



Source: Based on speed data from INRIX and volume data from MDOT-SHA

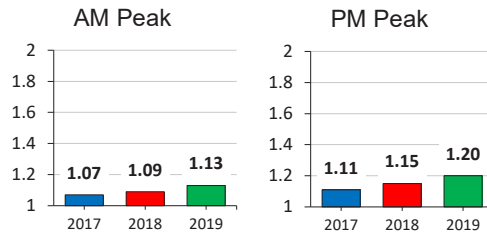


2020 Maryland State Highway Mobility Report

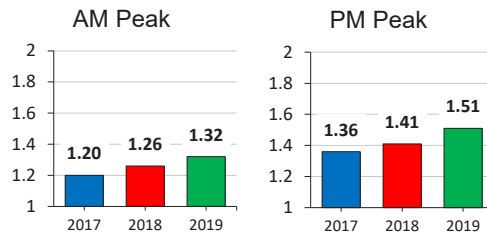
I-97

Trends^a

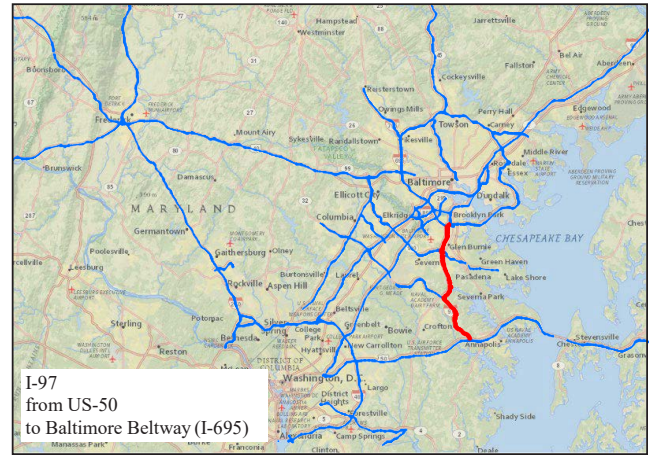
Travel Time Index^b
measure of
average delay



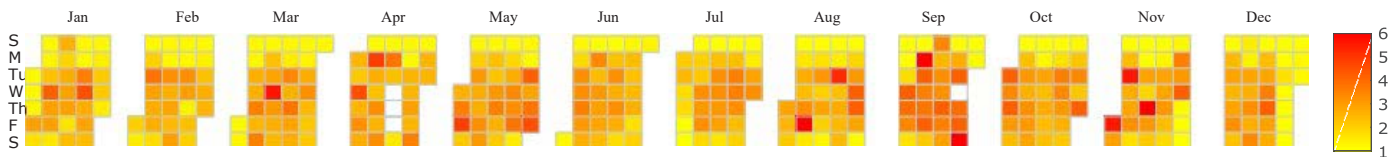
Planning Time Index^c
measure of
worst-case delay



17 center miles carrying 131,000 vehicles every day

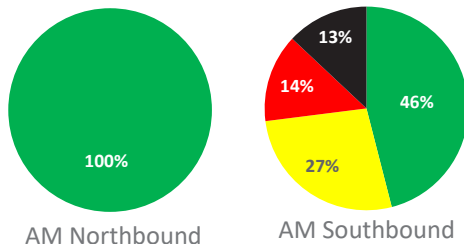


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



Most Improved
Segments (TTI)

Decreased
Operations
Segments (TTI)

AM Peak Hour^a

	2019	2018
1. I-97 SB at I-695/Exit 17	1.00	1.02
1. I-97 SB between MD 3 and Millersville Rd	2.75	2.36
2. I-97 SB at MD 32/Exit 7	2.34	2.00
3. I-97 SB at MD 178/Exit 5	2.17	1.98

PM Peak Hour^a

	2019	2018
1. I-97 SB at MD 100/Exit 14	1.33	1.50
2. I-97 SB between MD 176 and MD 100	1.21	1.37
3. I-97 SB at MD 176/MD 162/Exit 15	1.13	1.27
1. I-97 NB at US 50/US 301	2.68	1.28
2. I-97 SB at MD 32/Exit 7	2.35	2.09
3. I-97 NB at I-695/Exit 17	1.26	1.01

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

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d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

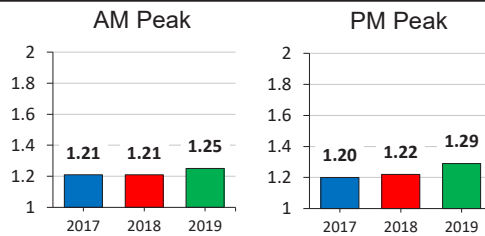


2020 Maryland State Highway Mobility Report

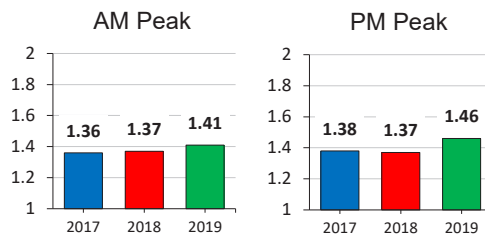
I-270

Trends^a

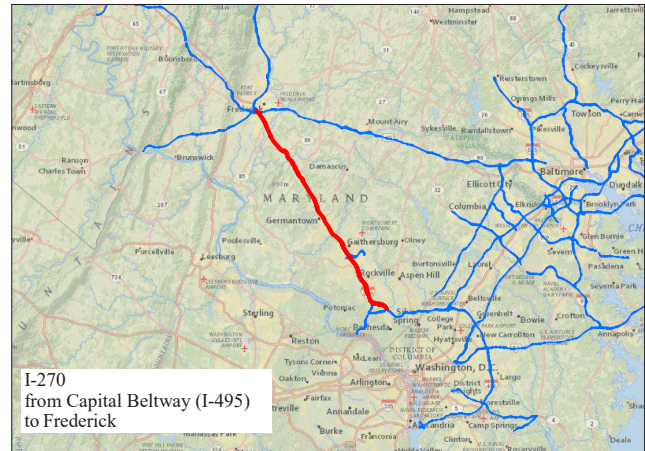
Travel Time Index^b
measure of average delay



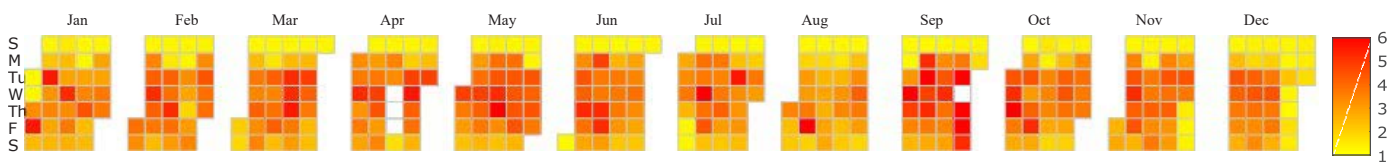
Planning Time Index^c
measure of worst-case delay



41 center miles carrying 185,000 vehicles every day

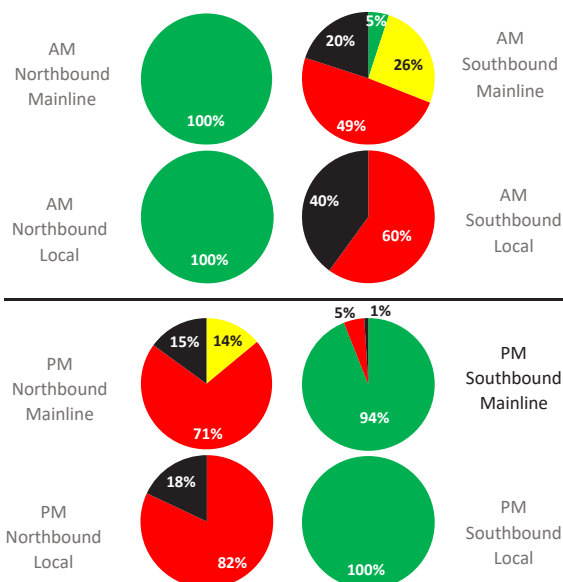


Daily Variability^d



Weekday Congestion I-270 Mainline (M) / Local (L)

2019 Percent of Roadway Miles in Congested Conditions



Congestion Peak Most Improved Segments (TTI)

1. I-270 SB at MD 189/Great Falls Rd (L)
2. I-270 SB Spur at Democracy Blvd (M)
3. I-270 SB Spur at I-270 (M)

Decreased Operations Segments (TTI)

1. I-270 SB at MD 28/W. Montgomery Ave (L)
2. I-270 SB at Shady Grove Rd (L)
3. I-270 SB Spur at I-495 (M)

AM Peak Hour^a

2019	2018
2.39	2.57
1.64	1.81
1.87	2.02

PM Peak Hour^a

Congestion Peak Most Improved Segments (TTI)

1. I-270 NB Spur between I-495 and Democracy Blvd (M)
2. I-270 NB at Democracy Blvd (M)
3. I-270 NB from MD 187 to I-270 Split (M)

Decreased Operations Segments (TTI)

1. I-270 NB at I-270 at Washington National Pike (M)
2. I-270 NB at I-270 Split (M)
3. I-270 NB West Spur at I-495

2019	2018
1.83	2.61
1.97	2.63
1.83	2.33
3.36	1.70
2.12	1.09
2.01	1.21

Green-uncongested (TTI < 1.15); Yellow-moderate congestion (1.15 < TTI < 1.30); Red-heavy congestion (1.30 < TTI < 2.0); Black-severe congestion (TTI > 2.0)

Notes

a - Peak Hours are considered as 8-9am and 5-6pm.

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Source: Based on speed data from INRIX and volume data from MDOT-SHA

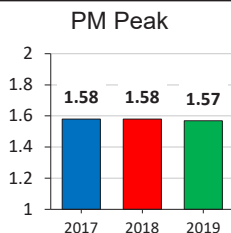
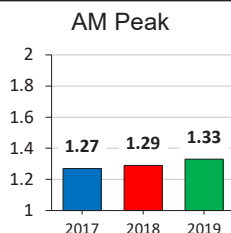


2020 Maryland State Highway Mobility Report

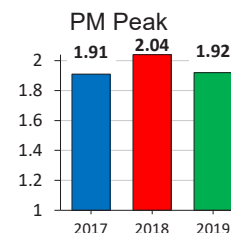
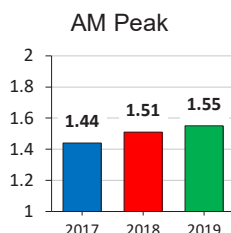
I-495 Capital Beltway

Trends^a

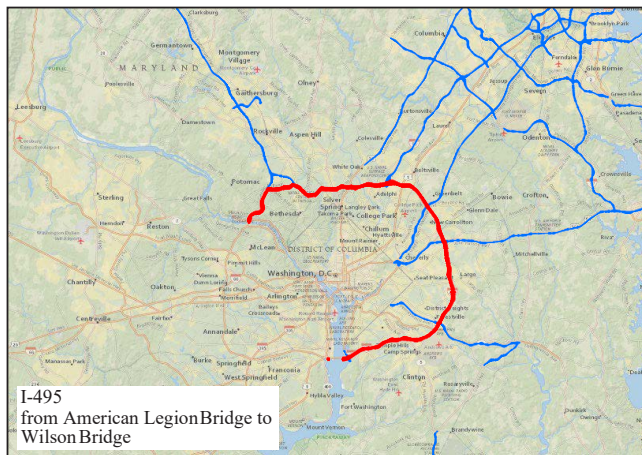
Travel Time Index^b
measure of
average delay



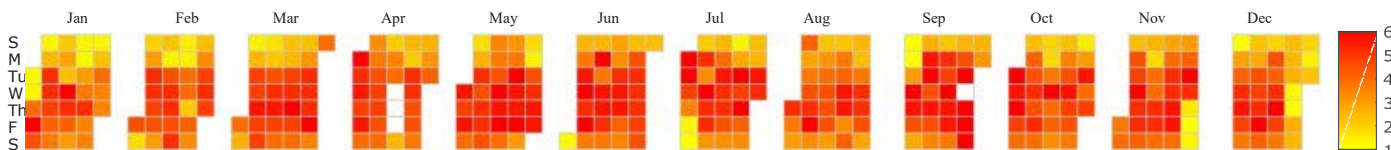
Planning Time Index^c
measure of
worst-case delay



41 center miles carrying 210,000 vehicles every day

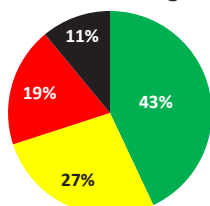


Daily Variability^d

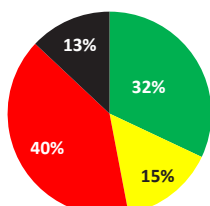


Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



AM Inner Loop



AM Outer Loop

**Most Improved
Segments (TTI)**

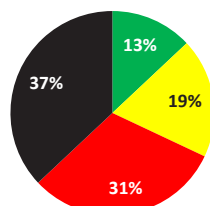
1. I-495 Inner Loop between MD 414 and Livingston Rd
2. I-495 Outer Loop at MD 202/Landover Rd/Exit 17
3. I-495 Inner Loop at Greenbelt Metro Dr/Exit 24

**Decreased
Operations
Segments (TTI)**

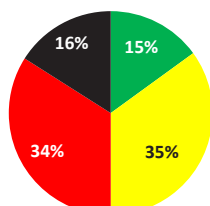
1. I-495 Inner Loop at MD 210/Exit 3
2. I-495 Inner Loop at MD 414/St. Barnabas Rd/Exit 4
3. I-495 Outer Loop at MD 650/New Hampshire Ave/Exit 28

AM Peak Hour

2019	2018
2.06	2.41
1.40	1.67
1.56	1.73



PM Inner Loop



PM Outer Loop

**Most Improved
Segments (TTI)**

1. I-495 Inner Loop at Cabin John Pkwy/Exit 40
2. I-495 Inner Loop at MD 190/River Rd/Exit 39
3. I-495 Inner Loop between Clara Barton Pkwy and Cabin John Pkwy

**Decreased
Operations
Segments (TTI)**

1. I-495 Inner Loop at I-270 East Spur
2. I-495 Inner Loop at MD 355/Wisconsin Ave/Exit 34
3. I-495 Inner Loop from MD 187 to I-270 East Spur

PM Peak Hour

2019	2018
3.32	4.32
3.20	4.15
2.75	3.61
3.12	1.96
3.46	2.47
2.46	1.49

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

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Source: Based on speed data from INRIX and volume data from MDOT-SHA

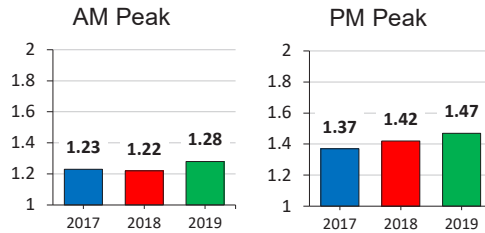


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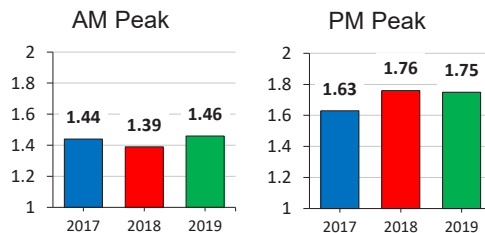
Baltimore Beltway

Trends^a

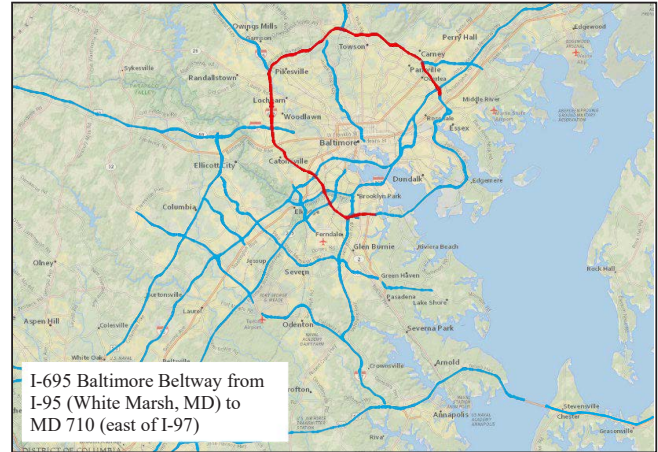
Travel Time Index^b
measure of
average delay



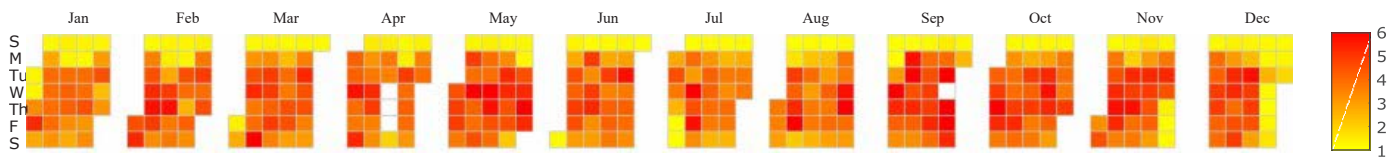
Planning Time Index^c
measure of
worst-case delay



34 center miles carrying 162,000 vehicles every day

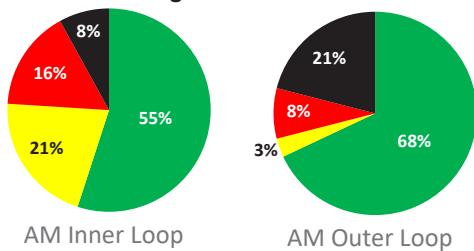


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



**Most Improved
Segments (TTI)**

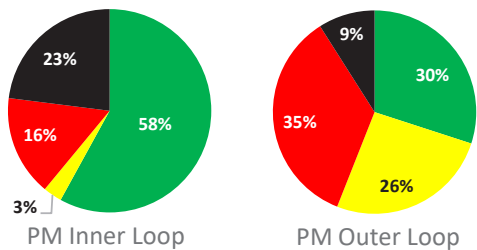
1. I-695 Inner Loop at Quarantine Rd/Exit 1
2. I-695 Outer Loop at MD 147/Harford Rd/Exit 31
3. I-695 Inner Loop East of Quarantine Rd/Exit 1

**Decreased
Operations
Segments (TTI)**

1. I-695 Outer Loop between I-70 and Security Blvd
2. I-695 Outer Loop at I-70/Exit 16
3. I-695 Inner Loop at I-895 Spur/Exit 3

AM Peak Hour^a

2019	2018
1.00	2.27
2.91	3.50
1.00	1.57



**Most Improved
Segments (TTI)**

1. I-695 Outer Loop at MD 10/Exit 2B & 3B
2. I-695 Outer Loop between MD 2 and MD 10
3. I-695 Outer Loop at MD 2/Ritchie Hwy/Exit 3

**Decreased
Operations
Segments (TTI)**

1. I-695 Inner Loop at MD 139/Charles St/Exit 25
2. I-695 Outer Loop at US 1 ALT/Washington Blvd/Exit 10
3. I-695 Outer Loop between I-95 and US 1 ALT

PM Peak Hour^a

2019	2018
1.13	2.42
1.10	2.15
1.10	2.01
3.34	1.71
2.70	1.59
2.52	1.51

Green-uncongested (TTI < 1.15); Yellow-moderate congestion (1.15 < TTI < 1.30); Red-heavy congestion (1.30 < TTI < 2.0); Black-severe congestion (TTI > 2.0)

Notes

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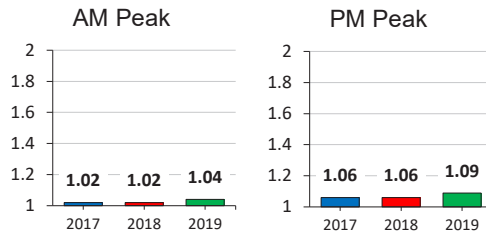


2020 Maryland State Highway Mobility Report

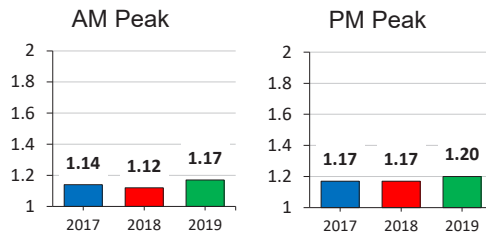
I-795

Trends^a

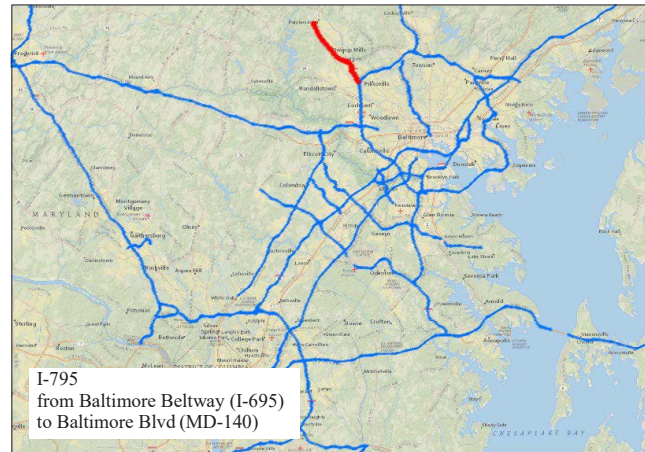
Travel Time Index^b
measure of
average delay



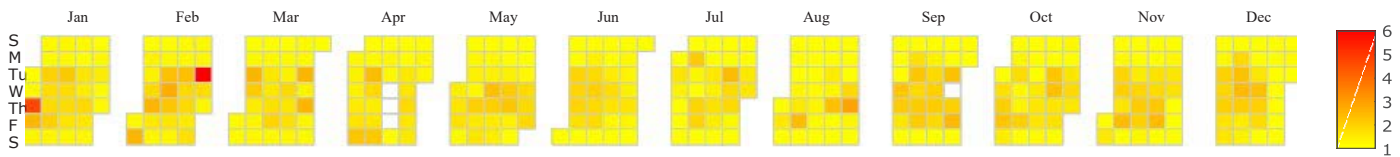
Planning Time Index^c
measure of
worst-case delay



8 center miles carrying 69,000 vehicles every day

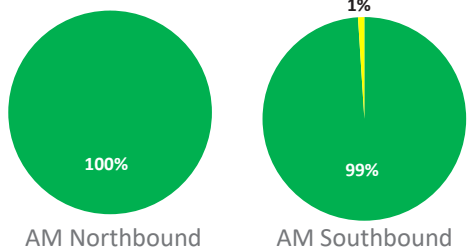


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



AM Peak Hour^a

Most Improved
Segments (TTI)

1. N/A

Decreased
Operations
Segments (TTI)

1. I-795 SB at I-695
2. I-795 SB at Owings Mills Blvd/Exit 4
3. I-795 SB between Owings Mills Blvd and I-695

2019
N/A

2018
N/A

1.29
1.04
1.11

1.21
1.00
1.08

PM Peak Hour^a

Most Improved
Segments (TTI)

1. N/A

Decreased
Operations
Segments (TTI)

1. I-795 NB at I-695
2. I-795 NB at Owings Mills Blvd/Exit 4
3. I-795 NB at MD 128/MD 140/MD 30/Exit 9

2019
N/A

2018
N/A

1.43
1.32
1.04

1.00
1.23
1.00

Green-uncongested (TTI < 1.15); Yellow-moderate congestion (1.15 < TTI < 1.30); Red-heavy congestion (1.30 < TTI < 2.0); Black-severe congestion (TTI > 2.0)

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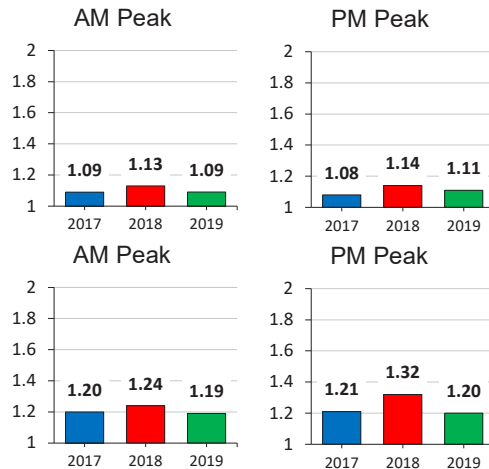


2020 Maryland State Highway Mobility Report

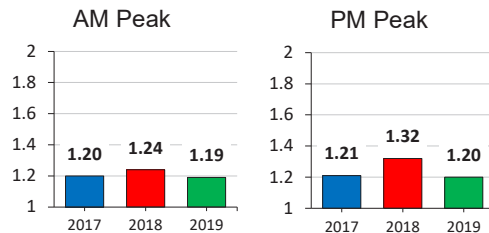
I-895

Trends^a

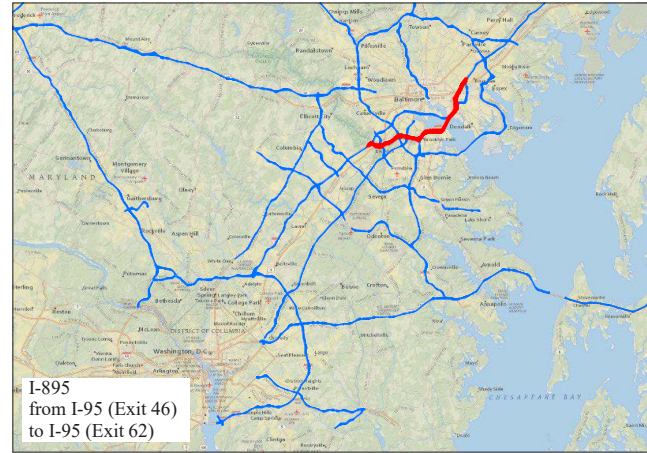
Travel Time Index^b
measure of
average delay



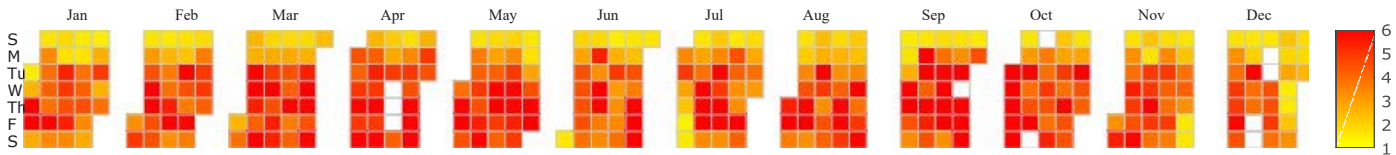
Planning Time Index^c
measure of
worst-case delay



14 center miles carrying 41,000 vehicles every day

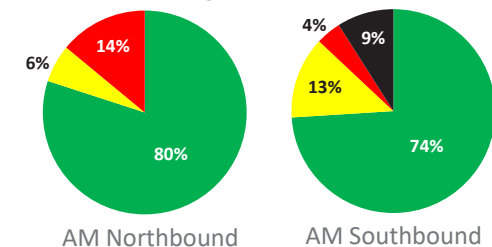


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



**Most Improved
Segments (TTI)**

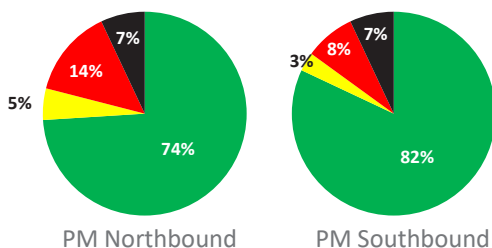
- AM Peak Hour^a**
1. I-895 SB at US 40/Pulaski Hwy/Exit 13
 2. I-895 SB at Moravia Rd/Exit 14
 3. I-895 SB at I-895/6th Ave/Exit 6

2019	2018
1.08	1.60
1.06	1.49
1.17	1.41

**Decreased
Operations
Segments (TTI)**

1. I-895 SB at O'Donnell St/Exit 11
2. I-895 SB from Eastern Ave to O'Donnell St
3. I-895 SB at Holabird Ave/Exit 10

2019	2018
5.51	2.34
4.97	2.17
2.66	1.72



**Most Improved
Segments (TTI)**

- PM Peak Hour^a**
1. I-895 NB at MD 2/Potee St/Exit 7
 2. I-895 NB at Frankfurst Ave/Shell Rd
 3. I-895 NB from I-8 Spur to MD 2

2019	2018
1.09	2.23
1.46	2.49
1.03	1.96

**Decreased
Operations
Segments (TTI)**

1. I-895 SB at O'Donnell St/Exit 11
2. I-895 SB between Eastern Ave and O'Donnell St
3. I-895 SB at Holabird Ave/Exit 10

2019	2018
4.53	1.41
4.09	1.37
2.78	1.37

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

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STATE HIGHWAY
ADMINISTRATION

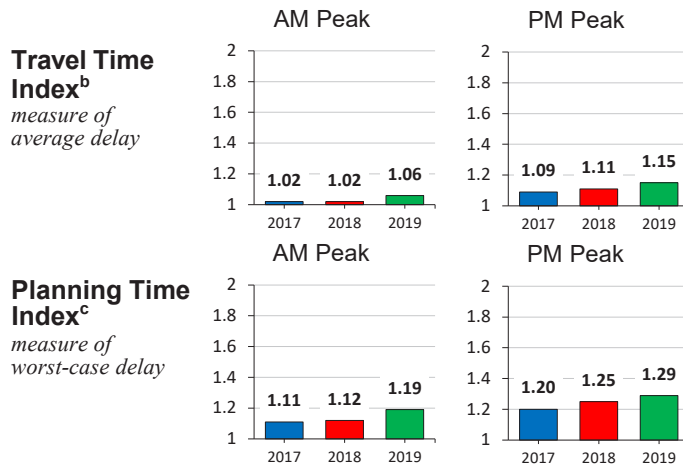
Source: Based on speed data from INRIX and volume data from MDOT-SHA



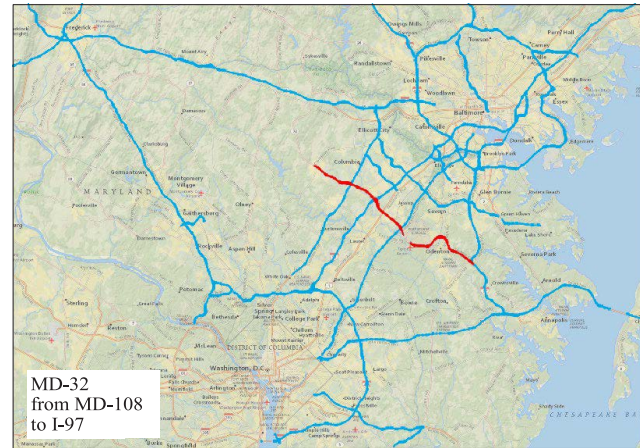
2020 Maryland State Highway Mobility Report

MD 32

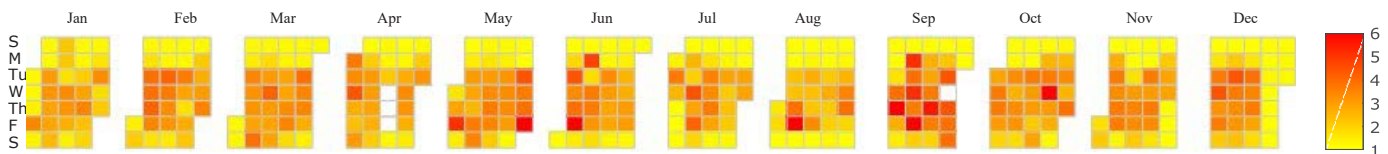
Trends^a



22 center miles carrying 74,000 vehicles every day

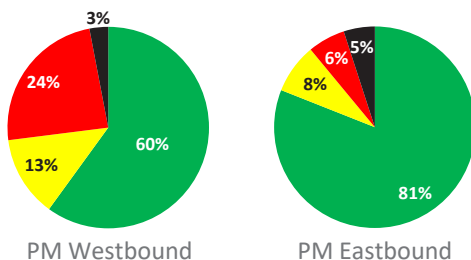
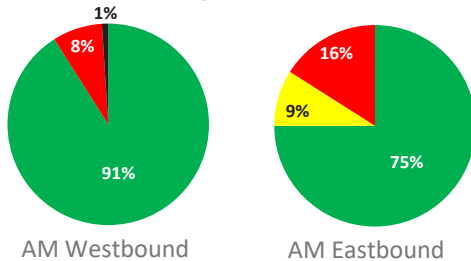


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



Most Improved Segments (TTI)

- AM Peak Hour**
- MD 32 EB at MD 108
 - MD 32 EB at MD 31/New Windsor Rd
 - MD 32 EB at I-97

	2019	2018
1. MD 32 EB at MD 108	1.17	2.41
2. MD 32 EB at MD 31/New Windsor Rd	1.14	1.36
3. MD 32 EB at I-97	1.27	1.44

Decreased Operations Segments (TTI)

- MD 32 EB at MD 144/Frederick Rd
- MD 32 WB at Ten Oaks Rd
- MD 32 EB at Burntwoods Rd

	2019	2018
1. MD 32 EB at MD 144/Frederick Rd	1.64	1.32
2. MD 32 WB at Ten Oaks Rd	1.36	1.06
3. MD 32 EB at Burntwoods Rd	1.33	1.03

Most Improved Segments (TTI)

- PM Peak Hour**
- MD 32 WB at MD 108
 - MD 32 EB at MD 851/Springfield Ave
 - MD 32 WB MD 32 at I-70

	2019	2018
1. MD 32 WB at MD 108	1.67	3.92
2. MD 32 EB at MD 851/Springfield Ave	1.01	1.24
3. MD 32 WB MD 32 at I-70	1.40	1.52

Decreased Operations Segments (TTI)

- MD 32 EB at I-97
- MD 32 WB at Henkels Ln/Dorsey Run Rd
- MD 32 WB at Burntwoods Rd

	2019	2018
1. MD 32 EB at I-97	1.64	1.00
2. MD 32 WB at Henkels Ln/Dorsey Run Rd	2.69	2.31
3. MD 32 WB at Burntwoods Rd	1.55	1.18

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

- a - **Peak Hours** are considered as 8-9am and 5-6pm.
- b - **Travel Time Index (TTI)** is the ratio of the *average* travel time during the peak hour to the time required under free flow.
- c - **Planning Time Index (PTI)** is the ratio of the *worst-case* travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

Source: Based on speed data from INRIX and volume data from MDOT-SHA

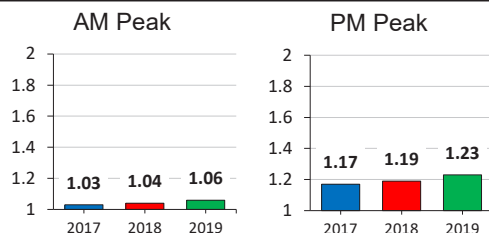


2020 Maryland State Highway Mobility Report

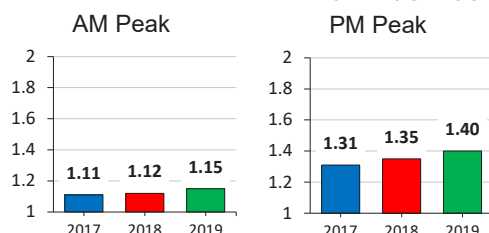
MD 100

Trends^a

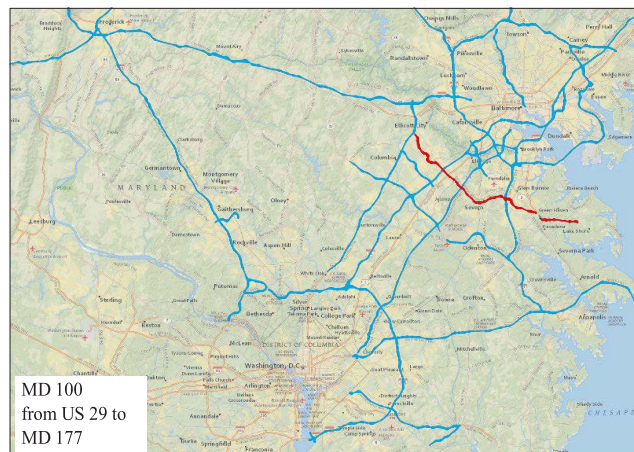
Travel Time Index^b
measure of
average delay



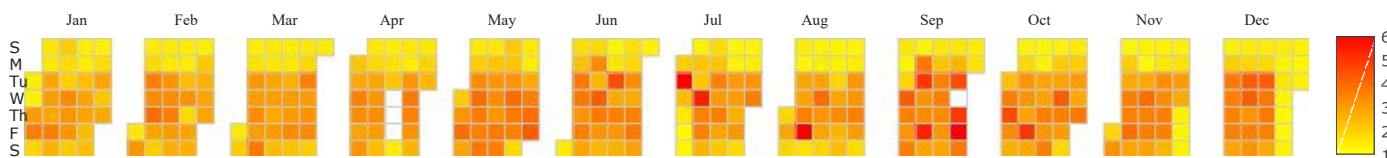
Planning Time Index^c
measure of
worst-case delay



21 center miles carrying 76,000 vehicles every day

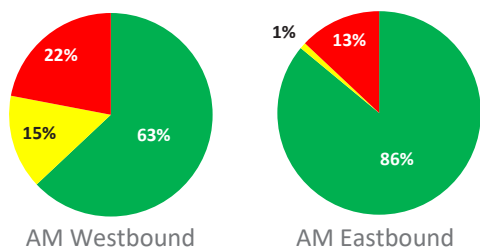


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



AM Westbound

AM Eastbound

**Most Improved
Segments (TTI)**

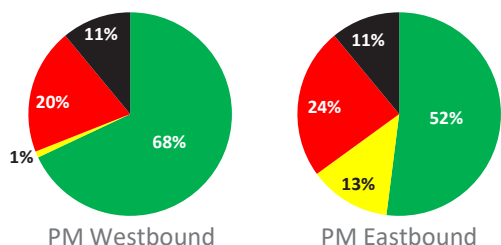
- AM Peak Hour^a**
1. MD 100 WB at MD 607/Magothy Bridge Rd
 2. MD 100 EB between Edward Raynor Blvd and MD 607
 3. MD 100 EB at MD 10

2019	2018
1.02	1.08
1.05	1.07
1.00	1.02

**Decreased
Operations
Segments (TTI)**

1. MD 100 EB at US 1/Washington Blvd/Exit 6
2. MD 100 WB at MD 170/Telegraph Rd/Exit 11
3. MD 100 EB between I-95 and US 1

2019	2018
1.66	1.35
1.58	1.33
1.48	1.25



PM Westbound

PM Eastbound

**Most Improved
Segments (TTI)**

- PM Peak Hour^a**
1. MD 100 EB at I-97/Exit 13
 2. MD 100 EB at MD 175/Quarterfield Rd
 3. MD 100 EB at Oakwood Rd

2019	2018
2.54	2.92
2.03	2.17
1.37	1.46

**Decreased
Operations
Segments (TTI)**

1. MD 100 WB at US 29
2. MD 100 EB at US 1/Washington Blvd/Exit 6
3. MD 100 EB at MARC Dorsey Station Access Rd/Exit 7

2019	2018
2.18	1.00
1.75	1.40
1.81	1.49

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

a - Peak Hours are considered as 8-9am and 5-6pm.

b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.

c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.

d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



Source: Based on speed data from INRIX and volume data from MDOT-SHA

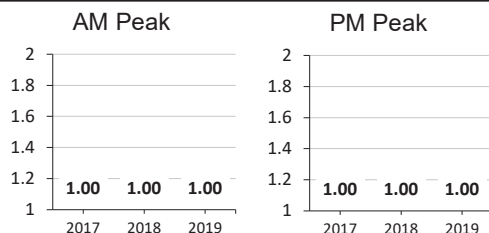


2020 Maryland State Highway Mobility Report

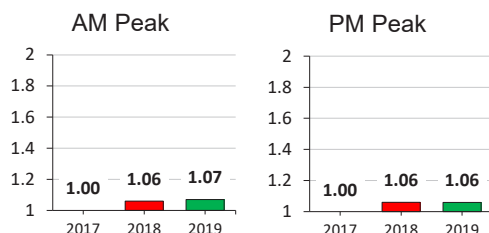
MD 200

Trends^a

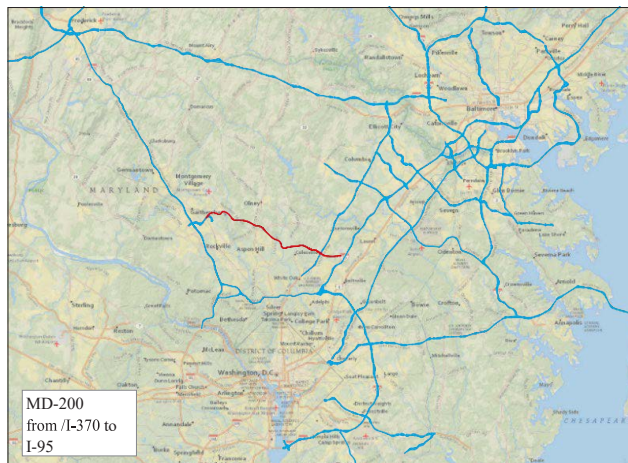
Travel Time Index^b
measure of
average delay



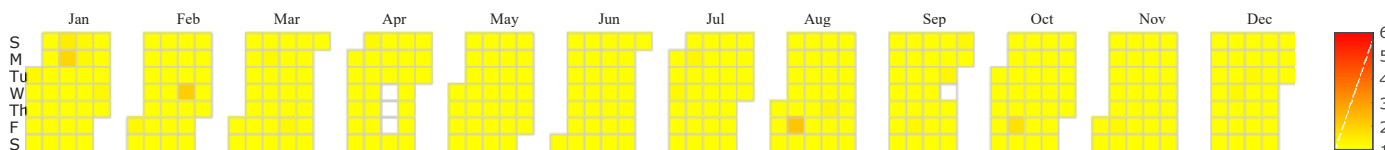
Planning Time Index^c
measure of
worst-case delay



16 center miles carrying 58,000 vehicles every day

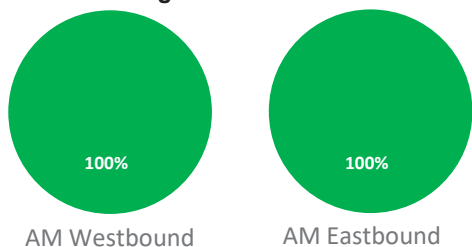


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



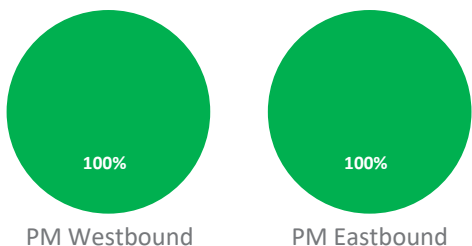
AM Westbound

AM Eastbound

**Most Improved
Segments (TTI)**

**Decreased
Operations
Segments (TTI)**

AM Peak Hour ^a		
	2019	2018
Most Improved Segments (TTI)	1. N/A	N/A
Decreased Operations Segments (TTI)	N/A	N/A



PM Westbound

PM Eastbound

**Most Improved
Segments (TTI)**

**Decreased
Operations
Segments (TTI)**

PM Peak Hour ^a		
	2019	2018
Most Improved Segments (TTI)	1. N/A	N/A
Decreased Operations Segments (TTI)	N/A	N/A

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

a - **Peak Hours** are considered as 8-9am and 5-6pm.

b - **Travel Time Index (TTI)** is the ratio of the *average* travel time during the peak hour to the time required under free flow.

c - **Planning Time Index (PTI)** is the ratio of the *worst-case* travel time (95th percentile) during peak hour to the free-flow time.

d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

Source: Based on speed data from INRIX and volume data from MDOT-SHA

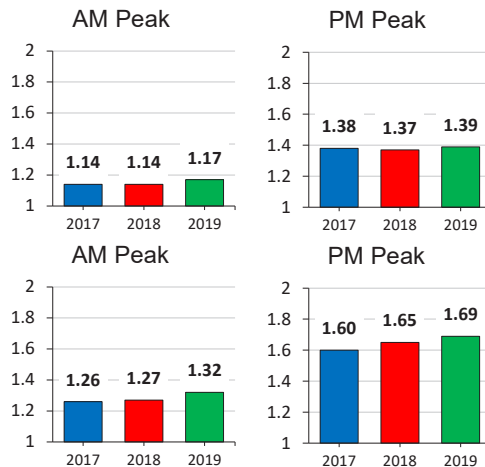


2020 Maryland State Highway Mobility Report

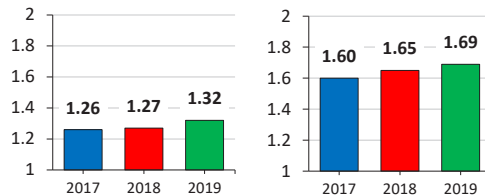
MD-295

Trends^a

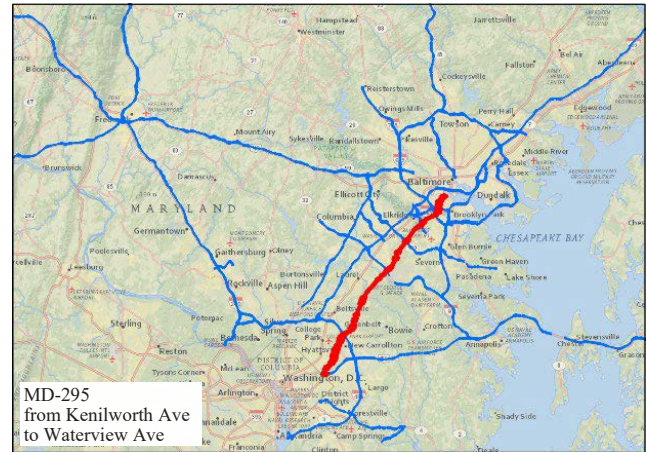
Travel Time Index^b
measure of
average delay



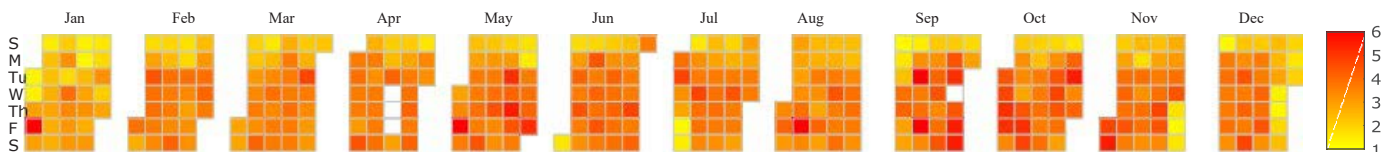
Planning Time Index^c
measure of
worst-case delay



29 center miles carrying 107,000 vehicles every day

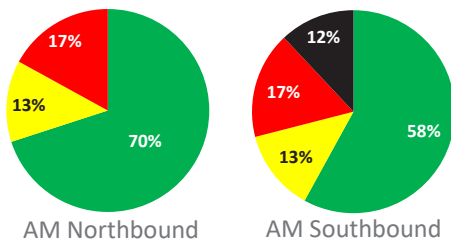


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway
Miles in Congested Conditions



AM Peak Hour^a

Most Improved
Segments (TTI)

Decreased
Operations
Segments (TTI)

1. MD 295 SB at US 50
2. MD 295 NB at I-95/Monroe St
3. MD 295 NB at Manokin St/Russel St

1. MD 295 SB at Eastern Ave
2. MD 295 SB at AA & PG CO/L
3. MD 295 NB at PG & AA CO/L

	2019	2018
1. MD 295 SB at US 50	2.05	2.56
2. MD 295 NB at I-95/Monroe St	1.44	1.91
3. MD 295 NB at Manokin St/Russel St	1.44	1.79
1. MD 295 SB at Eastern Ave	2.19	1.50
2. MD 295 SB at AA & PG CO/L	2.28	1.66
3. MD 295 NB at PG & AA CO/L	1.39	1.06

PM Peak Hour^a

Most Improved
Segments (TTI)

Decreased
Operations
Segments (TTI)

1. MD 295 NB at MD 100
2. MD 295 NB at Powder Mill Rd
3. MD 295 NB at Arundel Mills Blvd

1. MD 295 NB between DC Line and US 50
2. MD 295 NB at MD 32
3. MD 295 SB at AA & PG CO/L

	2019	2018
1. MD 295 NB at MD 100	1.78	2.29
2. MD 295 NB at Powder Mill Rd	2.19	2.54
3. MD 295 NB at Arundel Mills Blvd	1.18	1.51
1. MD 295 NB between DC Line and US 50	1.74	1.00
2. MD 295 NB at MD 32	2.83	2.19
3. MD 295 SB at AA & PG CO/L	1.63	1.00

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

a - Peak Hours are considered as 8-9am and 5-6pm.

b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.

c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.

d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

Source: Based on speed data from INRIX and volume data from MDOT-SHA

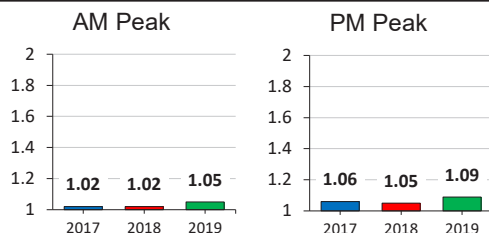


2020 Maryland State Highway Mobility Report

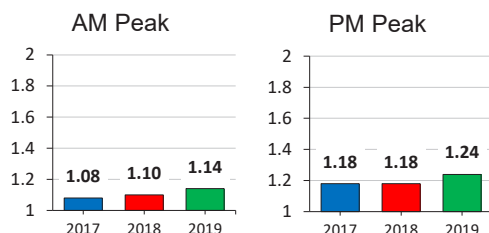
US 50

Trends^a

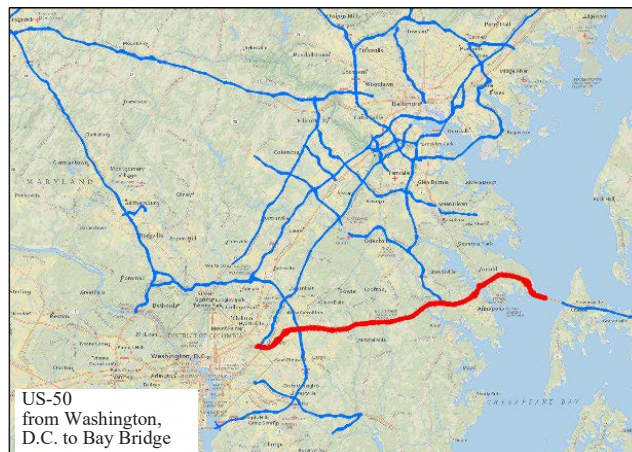
Travel Time Index^b
measure of
average delay



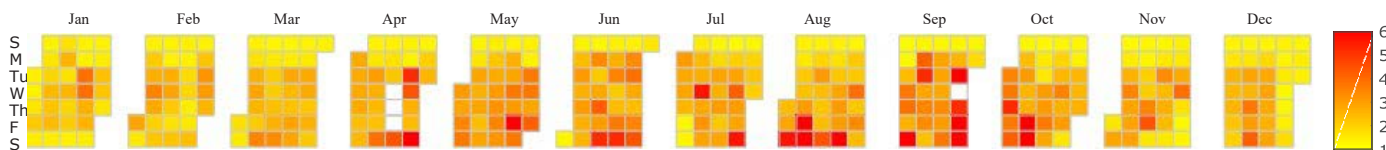
Planning Time Index^c
measure of
worst-case delay



32 center miles carrying 107,000 vehicles every day

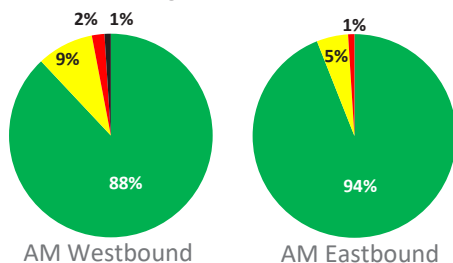


Daily Variability^d



Weekday Congestion

2019 Percent of Roadway Miles in Congested Conditions



Most Improved Segments (TTI)

Decreased Operations Segments (TTI)

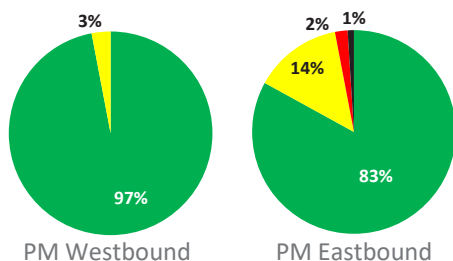
AM Peak Hour^a

- US 50 WB between MD 410 and MD 202
- US 50 WB at MD 410/Exit 5
- US 50 WB at MD 202/Landover Rd

2019	2018
1.79	2.03
1.23	1.34
2.51	2.57

- US 50 WB at Columbia Park Rd
- US 50 WB at Sixty Foot Rd
- US 50 WB between MD 202 and Columbia Park Rd

2019	2018
3.23	2.99
1.24	1.01
3.16	3.02



Most Improved Segments (TTI)

Decreased Operations Segments (TTI)

PM Peak Hour^a

- US 50 EB at MD 70/Rowe Blvd/Exit 24
- US 50 EB between MD 2 and Rowe Blvd
- US 50 EB at MD 2/Jennifer Rd/Exit 23

2019	2018
2.24	1.52
1.23	1.48
1.21	1.36

- US 50 WB at MD 213/Centerville Rd
- US 50 EB at William P. Lane Bridge Toll Plaza
- US 50 EB at MD 213/Centerville Rd

2019	2018
1.35	1.00
1.31	1.00
1.28	1.00

Green-uncongested (TTI < 1.15); Yellow-moderate congestion (1.15 < TTI < 1.30); Red-heavy congestion (1.30 < TTI < 2.0); Black-severe congestion (TTI > 2.0)

Notes

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d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

Source: Based on speed data from INRIX and volume data from MDOT-SHA

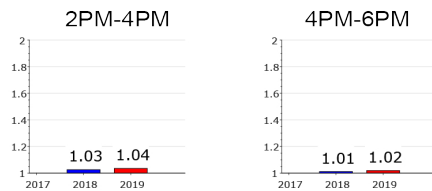


2020 Maryland State Highway Mobility Report

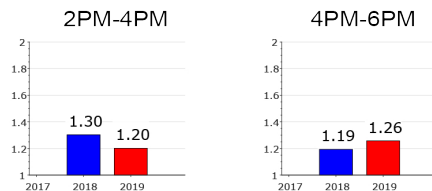
I-95 (Tydings Memorial Bridge to Delaware Border) – Summer Weekends

Trends^a

Travel Time Index^b
measure of average delay



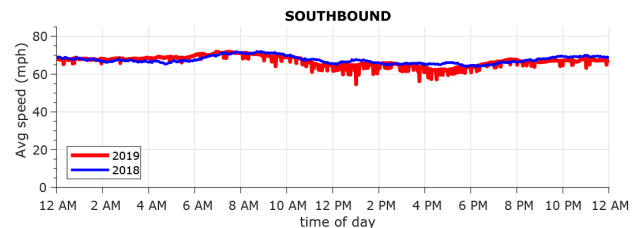
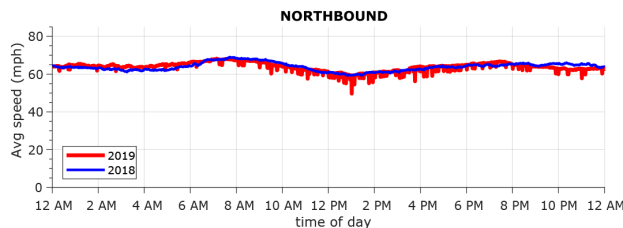
Planning Time Index^c
measure of worst-case delay



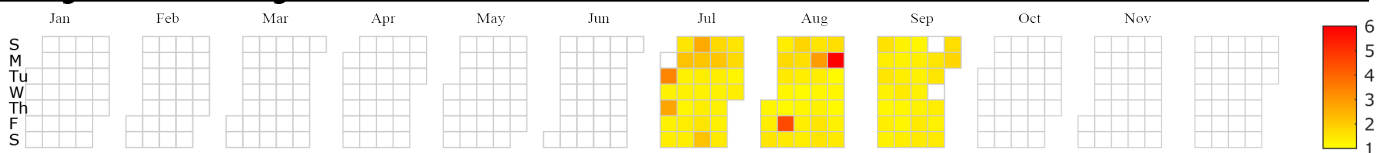
19 center miles carrying 77,000 vehicles every day



Speed Profiles^d



Daily Variability^e



Weekend congestion comparisons were not determined for the seasonal analysis.

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

- a - **Peak Hours** are considered as 8-9am and 5-6pm.
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- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

Source: Based on speed data from INRIX and volume data from MDOT-SHA

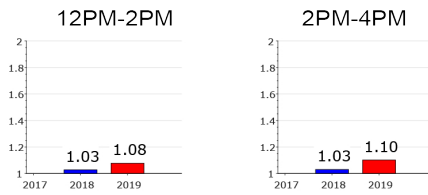


2020 Maryland State Highway Mobility Report

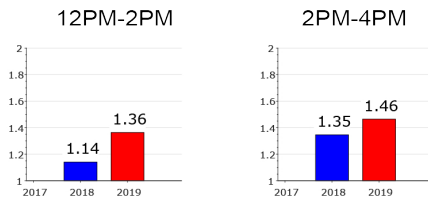
US 50 (Bay Bridge to Easton) – Summer Weekends

Trends^a

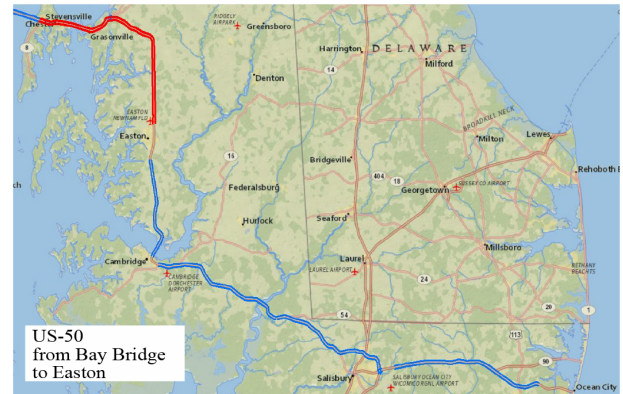
Travel Time Index^b
measure of average delay



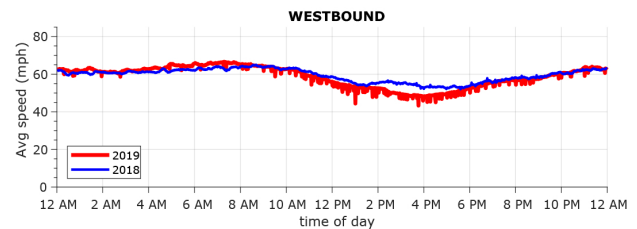
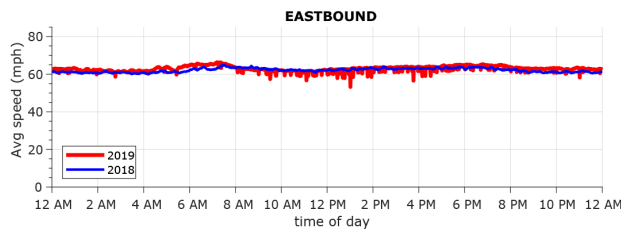
Planning Time Index^c
measure of worst-case delay



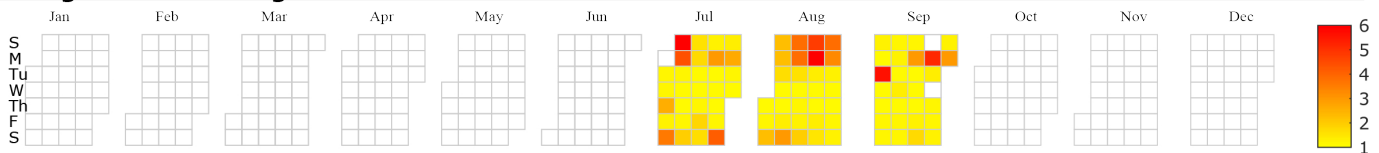
25 center miles carrying 68,000 vehicles every day



Speed Profiles^d



Daily Variability^e



Weekend congestion comparisons were not determined for the seasonal analysis.

Green-uncongested (TTI<1.15); Yellow-moderate congestion (1.15<TTI<1.30); Red-heavy congestion (1.30<TTI<2.0); Black-severe congestion (TTI>2.0)

Notes

- a - Peak Hours are considered as 8-9am and 5-6pm.
- b - Travel Time Index (TTI) is the ratio of the average travel time during the peak hour to the time required under free flow.
- c - Planning Time Index (PTI) is the ratio of the worst-case travel time (95th percentile) during peak hour to the free-flow time.
- d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.

Source: Based on speed data from INRIX and volume data from MDOT-SHA

Table 2

Percentage of Roadway Miles Operating in Various Levels of Congestion

I-70 FROM PENNSYLVANIA LINE TO US 40 (PART 1)	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Westbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Eastbound	100	100	100	0	0	0	0	0	0	0	0	0
PM Westbound	100	100	100	0	0	0	0	0	0	0	0	0
PM Eastbound	100	100	100	0	0	0	0	0	0	0	0	0
I-70 FROM US 40 TO I-695 (PART 2)	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Westbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Eastbound	81	81	89	8	8	0	11	11	11	0	0	0
PM Westbound	69	73	71	16	13	22	13	12	5	2	2	2
PM Eastbound	97	97	100	3	3	0	0	0	0	0	00	0
I-81 WEST VIRGINIA LINE TO PENNSYLVANIA LINE	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Southbound	100	100	100	0	0	0	0	0	0	0	0	0
PM Northbound	100	100	100	0	0	0	0	0	0	0	0	0
PM Southbound	100	100	100	0	0	0	0	0	0	0	0	0
I-83 FROM W. NORTHERN PARKWAY (EXIT 10) TO PENNSYLVANIA LINE	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Southbound	64	80	80	6	4	4	26	16	16	4	0	0
PM Northbound	69	78	80	15	6	0	20	16	17	0	0	3
PM Southbound	87	86	86	3	2	2	10	12	12	0	0	0
I-95 (PART 1) FROM I-495 TO I-695	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	74	83	77	14	8	16	12	9	7	0	0	0
AM Southbound	25	27	54	27	36	17	38	32	20	10	5	9
PM Northbound	40	44	42	10	14	14	37	32	38	13	10	6
PM Southbound	47	56	58	8	16	17	42	25	25	3	3	0

Table 2 (Continued)

I-95 (PART 2) FROM I-695 TO DELAWARE LINE	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Southbound	100	100	99	0	0	1	0	0	0	0	0	0
PM Northbound	84	100	84	16	0	16	0	0	0	0	0	0
PM Southbound	100	100	96	0	0	3	0	0	1	0	0	0
I-97 FROM US 50 TO BALTIMORE BELTWAY (I-695)	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Southbound	46	73	72	27	0	0	14	24	24	13	3	4
PM Northbound	39	66	58	29	7	42	32	27	0	0	0	0
PM Southbound	37	60	70	36	10	17	24	27	13	3	3	0
I-270 MAINLINE FROM CAPITAL BELTWAY (I- 495) TO FREDERICK	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Southbound	5	9	28	26	23	11	49	48	48	20	20	13
PM Northbound	0	2	0	14	27	31	71	57	51	15	14	18
PM Southbound	94	96	91	0	3	0	5	0	3	1	1	6
I-270 LOCAL	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Southbound	0	0	0	0	0	0	60	71	60	40	29	40
PM Northbound	0	0	0	0	8	9	82	80	76	18	12	15
PM Southbound	100	100	100	0	0	0	0	0	0	0	0	0
I-495 FROM AMERICAN LEGION BRIDGE TO WILSON BRIDGE	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Inner Loop	43	47	51	27	27	23	19	17	18	11	9	8
AM Outer Loop	32	38	41	15	11	11	40	39	33	13	12	15
PM Inner Loop	13	19	18	19	8	6	31	41	42	37	32	34
PM Outer Loop	15	22	27	35	30	27	34	29	32	16	19	14

Table 2 (Continued)

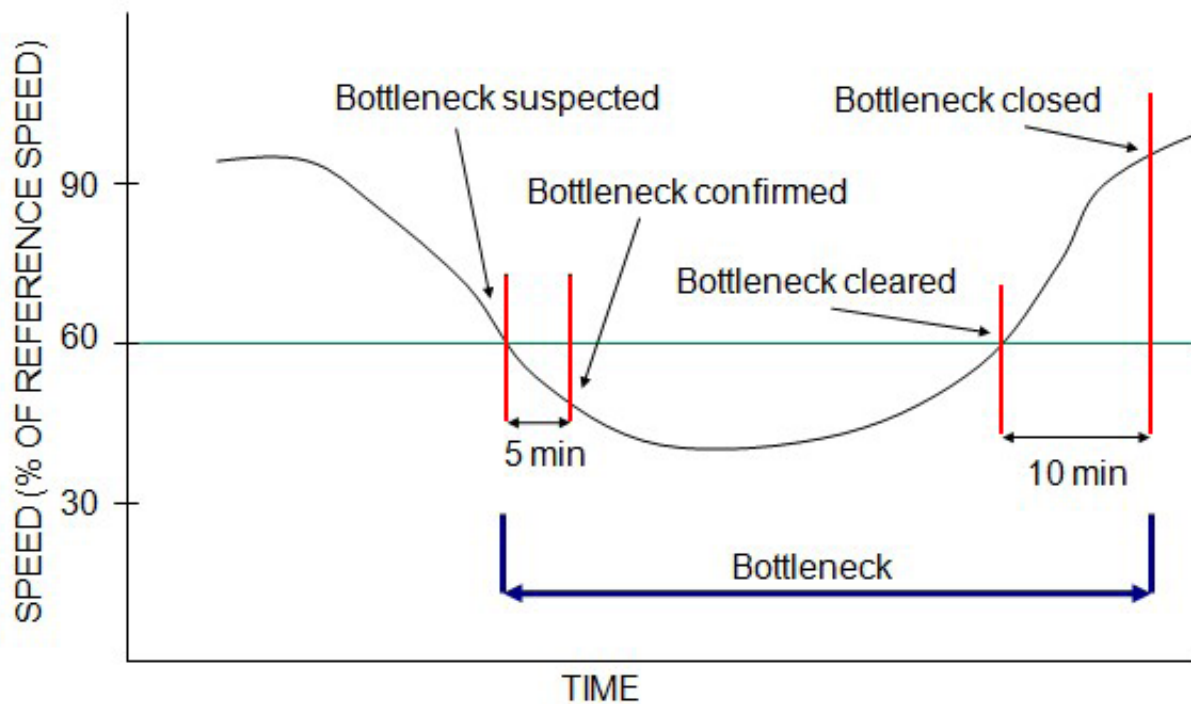
I-695 FROM I-95 TO MD 710	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Inner Loop	55	62	51	21	15	25	16	11	14	8	12	10
AM Outer Loop	68	53	53	3	9	10	8	7	7	21	31	30
PM Inner Loop	58	38	38	3	4	10	16	32	26	23	26	26
PM Outer Loop	30	14	21	26	23	17	35	56	53	9	7	9
I-795 FROM I-695 TO MD 140	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Southbound	99	99	100	1	1	0	0	0	0	0	0	0
PM Northbound	28	28	28	21	55	56	51	17	16	0	0	0
PM Southbound	100	100	100	0	0	0	0	0	0	0	0	0
I-895 FROM I-95 (EXIT 46) TO I-95 (EXIT 62)	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	80	90	100	6	10	0	14	0	0	0	0	0
AM Southbound	74	47	63	13	23	11	4	23	26	9	7	0
PM Northbound	74	56	69	5	5	12	14	17	19	7	22	0
PM Southbound	82	72	85	3	21	10	8	7	5	7	0	0
MD 32 FROM MD 108 TO I-97	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Westbound	91	82	82	8	8	8	1	10	10	0	0	0
AM Eastbound	75	87	84	9	8	10	16	5	6	0	0	0
PM Westbound	60	78	77	13	0	4	24	13	9	3	9	10
PM Eastbound	81	68	72	8	13	16	6	7	5	5	12	7
MD 100 FROM US 29 TO MD 177	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Westbound	63	68	76	15	26	15	22	6	9	0	0	0
AM Eastbound	86	86	86	1	2	8	13	6	6	0	0	0
PM Westbound	68	68	68	1	9	9	20	13	14	11	10	9
PM Eastbound	52	56	65	13	11	2	24	27	28	11	6	5

Table 2 (Continued)

MD 200 FROM I-370 TO I-95	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Westbound	100	100	100	0	0	0	0	0	0	0	0	0
AM Eastbound	100	100	100	0	0	0	0	0	0	0	0	0
PM Westbound	100	100	100	0	0	0	0	0	0	0	0	0
PM Eastbound	100	100	100	0	0	0	0	0	0	0	0	0
MD 295 FROM KENILWORTH AVE. TO WATERVIEW AVE.	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Northbound	70	81	87	13	13	8	17	6	5	0	0	0
AM Southbound	58	58	57	13	14	13	17	18	17	12	10	13
PM Northbound	19	21	21	9	20	15	52	36	40	20	23	24
PM Southbound	36	44	44	21	14	11	36	37	37	7	5	8
US 50 FROM WASHINGTON, DC TO BAY BRIDGE	Uncongested %			Moderate Congestion %			Heavy Congestion %			Severe Congestion %		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
AM Westbound	88	83	85	9	5	1	2	3	7	1	9	7
AM Eastbound	94	100	100	5	0	0	1	0	0	0	0	0
PM Westbound	97	99	99	3	1	1	0	0	0	0	0	0
PM Eastbound	83	52	52	14	34	31	2	13	10	1	1	7

B. Freeway/Expressway Bottlenecks

The most congested areas on a freeway/expressway system are termed bottlenecks. A bottleneck, as defined by the Vehicle Probe Project (VPP) Suite, occurs when, “the speeds observed for a roadway segment drop below 60% of the free flow speed for a period greater than 5 minutes. Adjacent roadway segments meeting this condition are joined together to form a bottleneck queue. The duration of the bottleneck is calculated until the time speeds are greater than 60% for more than 10 minutes.” This definition uses minute-to-minute speeds available across the system to determine congestion patterns. This is graphically shown below.



The ranking of bottlenecks is based on an algorithm developed by the University of Maryland CATT Lab that includes locations weighted by speed, congestion, and delay. An occurrence of a bottleneck is developed when consecutive congested roadway segments form at a single point in time. Each occurrence of a bottleneck is assigned a set of attributes such as date and time and congested segments. The base impact factor is the sum of the queue lengths over the duration of the bottleneck. Locations with the highest impact factor are determined to be the worse bottleneck locations and represent areas of recurring congestion or areas that experience severe non-recurring events during the time period analyzed. The following pages show the Top 30 bottlenecks statewide (Figure 2 and Table 3) along with the bottleneck locations along each individual freeway/expressway.

2019 TOP 30 BOTTLENECKS

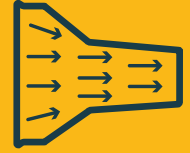


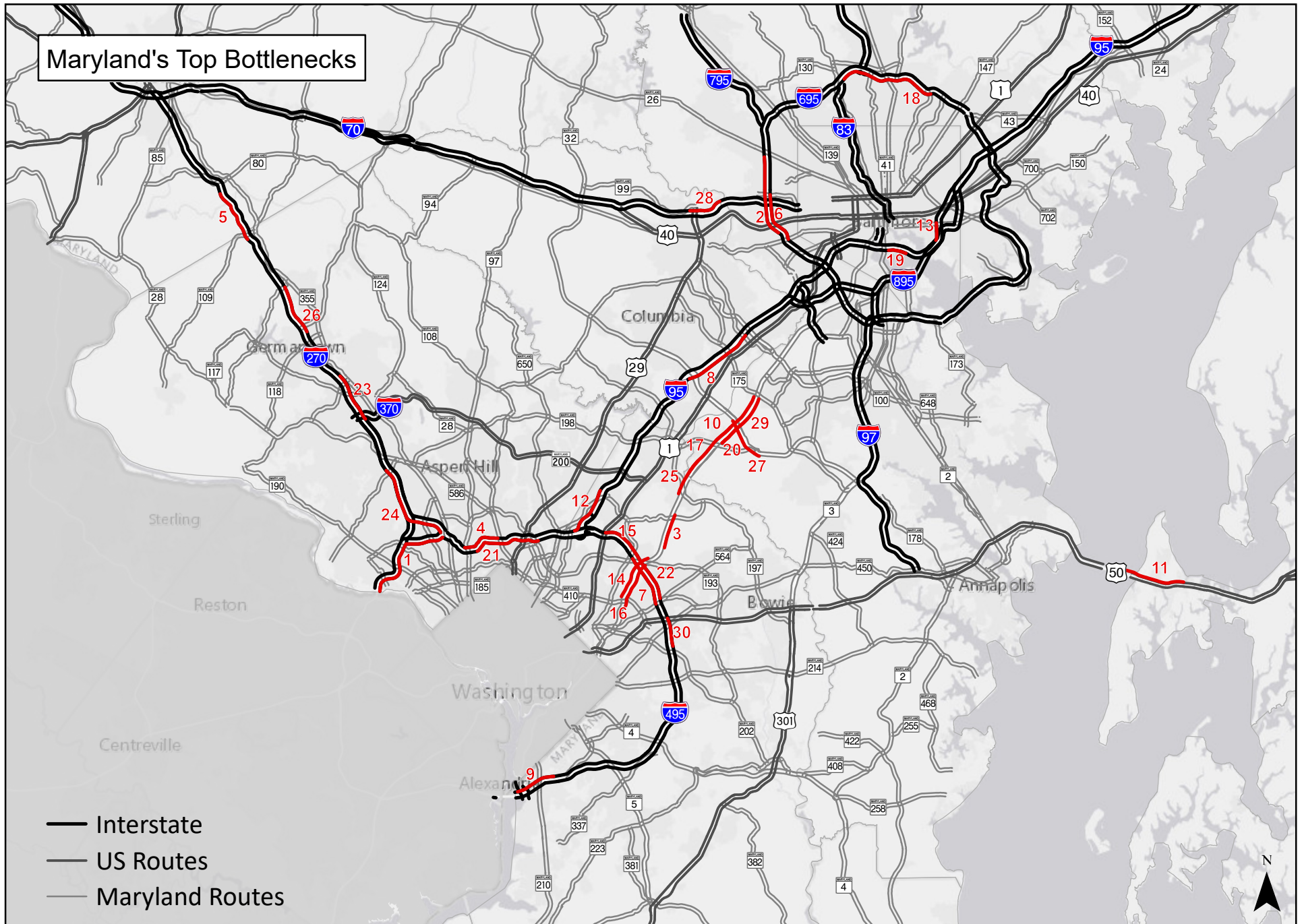
Table 3

2019 Rank	LOCATION	Road	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
1	I-495 IL @ I-270 SPUR	I-495	Inner Loop	139	5.0	3.0	3	↓ -2
2	I-695 @ Edmondson Ave*	I-695	Outer Loop	197	4.0	3.0	4	↓ -2
3	MD 295 N @ Powder Mill Rd ¹	MD-295	Northbound	345	2.0	2.7	1	↑ 2
4	I-495 OL @ MD 97	I-495	Outer Loop	147	3.0	2.2	2	↑ 2
5	I-270 S @ MD 109	I-270	Southbound	139	3.0	1.9	9	↓ -4
6	I-695 IL @ Security Blvd	I-695	Inner Loop	186	3.0	1.9	49	↓ -43
7	I-495 IL @ MD 450	I-495	Inner Loop	157	3.0	1.7	N/A	N/A
8	I-95 N @ MD 100	I-95	Northbound	133	4.0	1.7	N/A	N/A
9	I-495 IL @ I-295	I-495	Inner Loop	145	2.0	1.6	N/A	N/A
10	MD 295 @ MD 198 ¹	MD 295	Southbound	160	3.0	1.6	8	↑ 2
11	US 50 @ William Preston Lane Bridge	US 50	Westbound	81	4.0	1.4	15	↓ -4
12	I-95 S @ I-495	I-95	Southbound	150	2.0	1.1	2	↓ -1
13	I-895 S @ Holabird Ave*	I-895	Southbound	269	1.0	1.3	85	↓ -72
14	MD 295 S @ Riverdale Rd ¹	MD 295	Southbound	115	3.0	1.1	25	↓ -11
15	I-495 OL @ Greenbelt Metro Dr	I-495	Outer Loop	76	4.0	1.1	39	↓ -24
16	MD 295 N @ I-495/I-95 ¹	MD 295	Northbound	88	3.0	1.1	18	↓ -2
17	MD 295 S @ Arundel-- Prince George's County Border ¹	MD 295	Southbound	96	3.0	1.0	58	↓ -41
18	I-695 IL @ MD 542	I-695	Inner Loop	64	5.0	1.0	N/A	N/A
19	I-95 N @ Fort McHenry Tunnel	I-95	Northbound	138	2.0	1.0	91	↓ -72
20	MD 295 N @ MD 32 ¹	MD 295	Northbound	115	2.0	1.0	33	↓ -13
21	I-495 IL @ MD 193	I-495	Inner Loop	90	3.0	1.0	73	↓ -52
22	I-495 OL @ MD 201	I-495	Outer Loop	88	3.0	1.0	11	↑ 11
23	I-270 N @ MD 124	I-270	Northbound	121	3.0	0.9	89	↓ -66
24	I-270 S @ I-270 (SPUR)	i-270	Southbound	44	5.0	0.9	21	↑ 3
25	MD 295 @ MD 197 ¹	MD 295	Southbound	137	2.0	0.8	10	↑ 15
26	I-270 @ MD 121	I-270	Northbound	107	3.0	0.8	20	↑ 6
27	MD 32 @ MD 198/Fort Meade Rd	MD 32	Eastbound	101	2.0	0.8	29	↓ -2
28	I-70 W @ US 29	I-70	Westbound	129	2.0	0.8	34	↓ -6
29	MD 295 N @ MD 175 ¹	MD 295	Northbound	68	3.0	0.8	N/A	N/A
30	I-495 OL @ US 50	I-495	Outer Loop	102	2.0	0.8	N/A	N/A

¹ - Owned by National Park Service

* - Under Construction

Figure 2



I-70 (Pennsylvania Lie to US 40 Frederick) Top Bottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
135	I-70 W @ MD 66/EXIT 35	Westbound	13	4	0.2	N/A	N/A N/A
173	I-70 E @ MD 17/EXIT 42	Eastbound	11	3	0.2	153	↑ 20
176	I-70 W @ MD 68/EXIT 18	Westbound	7	6	0.2	178	↓ -2
177	I-70 W @ US 40/EXIT 48	Eastbound	6	6	0.2	N/A	N/A N/A
188	I-70 W @ MD 56/EXIT 12	Westbound	7	5	0.1	309	↓ -121
208	I-70 E @ WASHINGTON FREDERICK COUNTY LINE	Eastbound	8	4	0.1	210	↓ -2
226	I-70 E @ US 40/EXIT 32	Eastbound	10	3	0.1	365	↓ -139
230	I-70 W @ FREDERICK WASHINGTON COUNTY LINE	Westbound	8	3	0.1	233	↓ -3
277	I-70 W @ US 40/EXIT 32	Westbound	8	2	0.1	N/A	N/A N/A
284	I-70 W @ US 522/EXIT 1B	Westbound	11	2	0.1	333	↓ -49

I-70 (US 40 Frederick to I-695) Top Bottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
28	I-70 W @ US 29/EXIT 87	Westbound	129	2	0.8	34	↓ -6
45	I-70 W @ US 15/US 340/EXIT 52	Westbound	95	1	0.6	N/A	N/A N/A
46	I-70 E @ US 29/EXIT 87	Eastbound	36	4	0.6	43	↑ 3
64	I-70 E @ I-695/EXIT 91	Eastbound	34	4	0.5	38	↑ 26
95	I-70 E @ MARIOTTSTVILLE RD/EXIT 83	Eastbound	64	1	0.3	95	0
125	I-70 W @ MARIOTTSTVILLE RD/EXIT 83	Westbound	16	4	0.3	N/A	N/A N/A
231	I-70 W @ MD 27/EXIT 68	Eastbound	6	5	0.1	N/A	↑ N/A
286	I-70 W @ CARROLL-HOWARD COUNTY BORDER (MOUNT AIRY) (EAST)	Westbound	6	3	0.1	375	↓ -89
314	I-70 W @ MD 94/EXIT 73	Westbound	7	3	0.1	393	↓ -79
334	I-70 W @ MD 144/EXIT 56	Westbound	5	3	0.1	323	↑ 11

I-81 Top Bottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
268	I-81 S @ MD-WV STATE LINE	Southbound	12	2	0.1	138	↑ 130
422	I-81 N @ HALFWAY BLVD/EXIT 5	Northbound	10	1	0.0	554	↓ -132
455	I-81 S @ PA 63/EXIT 1	Southbound	34	0	0.0	693	↓ -238
494	I-81 N @ PA 63/EXIT 1	Northbound	6	1	0.0	N/A	N/A N/A
505	I-81 N @ MAUGANSVILLE RD/EXIT 9	Northbound	5	1	0.0	664	↓ -159
548	I-81 S @ SHOWALTER RD/EXIT 10	Southbound	3	1	0.0	722	↓ -174
550	I-81 S @ MAUGANSVILLE RD/EXIT 8	Southbound	3	2	0.0	382	↑ 168
595	I-81 S @ US 11/EXIT 2	Southbound	5	1	0.0	N/A	N/A N/A
598	I-81 S @ MD 63/MD 68/EXIT 1	Southbound	4	1	0.0	257	↑ 341
614	I-81 S @ HALFWAY BLVD/EXIT 5	Southbound	2	2	0.0	N/A	N/A N/A

I-83 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change	
124	I-83 N @ BELFAST RD/EXIT 24	Northbound	17	4	0.3	109	↑	15
144	I-83 S @ US 1/NORTH AVE/EXIT 6	Southbound	23	2	0.2	166	↓	-22
151	I-83 S @ SHAWAN RD/EXIT 20	Southbound	14	4	0.2	N/A	N/A	N/A
153	I-83 S @ COLD SPRING LN/EXIT 9	Southbound	22	2	0.2	112	↑	41
168	I-83 N @ MD 439/EXIT 36	Northbound	14	3	0.2	291	↓	-123
169	I-83 N @ SHAWAN RD/EXIT 20	Northbound	41	1	0.2	158	↑	11
171	I-83 S @ TIMONIUM RD/EXIT 16	Southbound	22	2	0.2	128	↑	43
193	I-83 N @ MIDDLETOWN RD/EXIT 31	Northbound	12	3	0.1	N/A	N/A	N/A
206	I-83 S @ MD 137/MT CARMEL RD/EXIT 27	Southbound	10	3	0.1	N/A	N/A	N/A
240	I-83 N @ MD 133/RUXTON RD/EXIT 12	Northbound	8	3	0.1	N/A	N/A	N/A

I-95 (I-495 to I-695 North) TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change	
8	I-95 N @ MD 100/EXIT 43	Northbound	133	4	1.7	N/A	N/A	N/A
12	I-95 S @ I-495/EXIT 27	Southbound	150	2	1.1	13	↓	-1
19	I-95 N @ FORT MCHENRY TUNNEL	Northbound	138	2	1.0	91	↓	-72
41	I-95 N @ MD 175/EXIT 41	Northbound	78	3	0.7	27	↑	14
48	I-95 S @ MD 175/EXIT 41	Southbound	86	2	0.6	50	↓	-2
65	I-95 S @ MD 216/EXIT 35	Southbound	28	4	0.5	52	↑	13
68	I-95 S @ FORT MCHENRY TOLL PLAZA	Southbound	128	0	0.5	434	↓	-366
73	I-95 N @ MD 32/EXIT 38	Northbound	38	3	0.4	N/A	N/A	N/A
75	I-95 N @ HOWARD-PRINCE GEORGE'S CO LINE	Northbound	66	2	0.4	92	↓	-17
108	I-95 S @ FORT MCHENRY TUNNEL	Southbound	132	0	0.3	216	↓	-108

I-95 (I-695 North to Delaware Line) TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change	
31	I-95 S @ MD 43/WHITE MARSH BLVD/EXIT 67	Southbound	30	7	0.8	130	↓	-99
34	I-95 N @ MD 152/EXIT 74	Northbound	28	7	0.7	N/A	N/A	N/A
50	I-95 S @ MD 24/EXIT 77	Southbound	28	5	0.6	48	↑	2
70	I-95 S @ MD 272/EXIT 100	Southbound	14	8	0.4	94	↓	-99
72	I-95 S @ MD 543/EXIT 80	Southbound	49	3	0.4	54	↑	18
98	I-95 S @ MARYLAND HOUSE	Southbound	24	3	0.3	106	↓	-8
150	I-95 S @ MILLARD E TYDINGS MEMORIAL BRG	Southbound	29	2	0.2	199	↓	-49
157	I-95 N @ MILLARD E TYDINGS MEMORIAL BRG	Northbound	32	1	0.2	183	↓	-26
163	I-95 S @ CHESAPEAKE HOUSE TRAVEL PLAZA	Southbound	64	1	0.2	N/A	N/A	N/A
198	I-95 N @ MD 22/MD 132 EXIT 85	Northbound	14	2	0.1	152	↑	46

I-97 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
83	I-97 S @ MD 178/EXIT 5	Southbound	41	3	0.4	N/A	N/A N/A
97	I-97 S @ US 50/US 301	Southbound	14	6	0.3	107	↓ -10
181	I-97 N @ MD 3/EXIT 7	Northbound	29	2	0.2	255	↓ -74
215	I-97 N @ I-695/EXIT 17	Northbound	23	1	0.1	N/A	N/A N/A
317	I-97 S @ MD 100/EXIT 14	Southbound	15	1	0.1	189	↑ 128
354	I-97 S @ BENFIELD BLVD/EXIT 10	Southbound	13	1	0.1	N/A	N/A N/A
396	I-97 N @ MD 178/EXIT 5	Northbound	5	2	0.0	336	↑ 60
400	I-97 N @ MD 3 BUS/NEW CUT RD/EXIT 12	Northbound	4	2	0.0	411	↓ -11
434	I-97 S @ MD 174/QUARTERFIELD RD/EXIT 13	Northbound	4	2	0.0	N/A	N/A N/A
466	I-97 S @ MD 32/EXIT 7	Southbound	7	1	0.0	385	↑ 81

I-270 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
5	I-270 S @ MD 109/EXIT 22	Southbound	139	3	1.9	9	↓ -4
23	I-270 N @ MD 124/QUINCE ORCHARD/EXIT 11	Northbound	121	3	0.9	89	↓ -66
24	I-270 S @ I-270 (SPUR)	Southbound	44	5	0.9	21	↑ 3
26	I-270 N @ MD 121	Northbound	107	3	0.8	20	↑ 6
37	I-270 S @ MONTROSE RD/EXIT 4	Southbound	48	4	0.7	23	↑ 14
38	I-270 S @ MD 85/EXIT 31	Northbound	29	7	0.7	74	↓ -36
42	I-270 N @ MONTROSE RD/EXIT 4	Northbound	78	2	0.6	101	↓ -59
54	I-270 N @ MIDDLEBROOK RD/EXIT 13	Northbound	31	5	0.6	14	↑ 40
57	I-270 N @ MD 80/EXIT 26	Northbound	26	6	0.5	N/A	N/A N/A
59	I-270 S @ MD 121	Southbound	25	7	0.5	N/A	N/A N/A

I-495 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
1	I-495 IL @ I 270 SPUR	Inner Loop	139	5	3.0	3	↓ -2
4	I-495 OL @ MD 97/GEORGIA AVE/EXIT 31	Outer Loop	149	3	2.2	2	↑ 2
7	I-495 IL @ MD 450/ANNAPOLIS RD/EXIT 20	Inner Loop	157	3	1.7	N/A	N/A N/A
9	I-495 IL @ I 295/EXIT 2	Inner Loop	145	2	1.6	N/A	N/A N/A
15	I-495 OL @ GREENBELT STATION RD/EXIT 24	Outer Loop	76	4	1.1	39	↓ -24
21	I-495 IL @ MD 193/UNIVERSITY BLVD/EXIT 29	Inner Loop	90	3	1.0	73	↓ -52
22	I-495 OL @ MD 201/KENILWORTH AVE/EXIT 23	Outer Loop	88	3	1.0	11	↑ 11
30	I-495 IL @ US 50/EXIT 19	Outer Loop	102	2	0.8	N/A	N/A N/A
32	I-495 IL @ GREENBELT STATION RD/EXIT 24	Inner Loop	143	1	0.8	N/A	N/A N/A
35	I-495 IL @ I 270/EXIT 35	Inner Loop	223	1	0.7	N/A	N/A N/A

I-695 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
2	I-695 OL @ EDMONDSON AVE/EXIT 14	Outer Loop	197	4	2.9	4	↓ -2
6	I-695 IL @ SECURITY BLVD/EXIT 17	Inner Loop	186	3	1.9	49	↓ -43
18	I-695 IL @ MD 542/LOCK RAVEN BLVD/EXIT 29	Inner Loop	64	5	1.0	N/A	N/A N/A
33	I-695 OL @ MD 567/CROMWELL BRIDGE RD/EXIT 29	Outer Loop	120	2	0.7	42	↓ -9
44	I-695 OL @ MD 295/BALT-WASH PKWY/EXIT 7	Outer Loop	78	2	0.6	71	↓ -27
62	I-695 IL @ MD 372/WILKINS AVE/EXIT 12	Inner Loop	88	2	0.5	80	↓ -18
69	I-695 OL @ MD 122/SECURITY BLVD/EXIT 17	Outer Loop	32	4	0.4	77	↓ -8
77	I-695 OL @ MD 26/EXIT 18	Outer Loop	62	2	0.4	86	↓ -9
82	I-695 OL @ I-70/EXIT 16	Outer Loop	70	2	0.4	65	↑ 17
102	I-695 OL @ MD 295/BALTIMORE WASHINGTON PKWY/EXIT 7 (LINTHICUM HEIGHTS) (SOUTH)	Outer Loop	58	1	0.3	98	↑ 4

I-795 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
127	I-795 N @ OWINGS MILLS BLVD/EXIT 4	Northbound	35	2	0.2	117	↑ 10
245	I-795 S @ I-695	Southbound	7	3	0.1	125	↑ 120
373	I-795 S @ FRANKLIN BLVD/EXIT 7	Southbound	12	1	0.1	332	↑ 41
571	I-795 N @ MD 128/MD 140/MD 30/EXIT 9	Northbound	2	2	0.0	447	↑ 124
576	I-795 S @ OWINGS MILLS BLVD/EXIT 4	Southbound	4	1	0.0	537	↑ 39
862	I-795 N @ FRANKLIN BLVD/EXIT 7	Northbound	1	1	0.0	845	↑ 17

I-895 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
13	I-895 S @ HOLABIRD AVE/EXIT 10	Southbound	269	1	1.1	85	↓ -72
36	I-895 N @ HOLABIRD AVE/EXIT 10	Northbound	123	2	0.7	N/A	N/A N/A
104	I-895 N @ HARBOR TUNNEL THWY (NORTH)	Northbound	77	1	0.3	22	↑ 82
106	I-895 S @ HARBOR TUNNEL THWY (SOUTH)	Southbound	49	2	0.3	81	↑ 25
122	I-895 S @ HARBOR TUNNEL THWY (NORTH)	Southbound	66	1	0.3	N/A	N/A N/A
217	I-895 N @ I-695/BELTWAY/EXIT 3	Northbound	14	2	0.1	322	↓ -105
225	I-895 N @ US 1/WASHINGTON BLVD/EXIT 1	Southbound	14	1	0.1	355	↓ -130
241	I-895 N @ HARBOR TUNNEL TOLL PLAZA	Northbound	64	0	0.1	369	↓ -28
246	I-895 N @ HARBOR TUNNEL THWY (SOUTH)	Northbound	37	1	0.1	5	↑ 241
269	I-895 S @ CHILDS ST/EXIT 9	Southbound	100	0	0.1	396	↓ -127

MD 32 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change	
27	MD 32 E @ MD 198/FORT MEADE RD	EASTBOUND	101	2	0.8	29	↓	-2
66	MD 32 W @ MD 175/ANNAPOLIS RD	WESTBOUND	64	2	0.5	66		0
85	MD 32 W @ US 1	WESTBOUND	61	2	0.4	40	↑	45
94	MD 32 E @ I-95	EASTBOUND	46	2	0.3	118	↓	-24
271	MD 32 W @ US 29	WESTBOUND	19	1	0.1	N/A	N/A	N/A
327	MD 32 E @ HENKELS LN/DORSEY RUN RD	EASTBOUND	20	1	0.1	409	↓	-82
442	MD 32 E @ BROKENLAND PKWY	EASTBOUND	10	1	0.0	448	↓	-6
497	MD 32 E @ GREAT STAR DR	EASTBOUND	7	1	0.0	N/A	N/A	N/A
507	MD 32 E @ MD 295/BALTIMORE WASHINGTON PKWY	EASTBOUND	2	2	0.0	N/A	N/A	N/A
532	MD 32 W @ BROKENLAND PKWY	WESTBOUND	3	2	0.0	612	↓	-80

MD 100 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change	
71	MD 100 E @ MD 170/TELEGRAPH RD/EXIT 11	EASTBOUND	34	3	0.4	N/A	N/A	N/A
91	MD 100 E @ MD 174/QUARTERFIELD RD	EASTBOUND	81	1	0.4	75	↑	16
110	MD 100 E @ EXIT 7	EASTBOUND	63	1	0.3	164	↓	-54
129	MD 100 W @ OAKWOOD RD	WESTBOUND	46	1	0.2	123	↑	6
138	MD 100 W @ MD 607/MAGOTHY BRIDGE RD	WESTBOUND	310	0	0.2	145	↓	-7
146	MD 100 E @ MD 713/RIDGE RD/EXIT 10	EASTBOUND	27	2	0.2	157	↓	-11
154	MD 100 W @ EXIT 7	WESTBOUND	27	2	0.2	N/A	N/A	N/A
165	MD 100 W @ I-95/EXIT 5	WESTBOUND	26	2	0.2	184	↓	-19
209	MD 100 W @ MD 170/TELEGRAPH RD/EXIT 11	WESTBOUND	23	2	0.1	252	↓	-43
224	MD 100 W @ MD 174/QUARTERFIELD RD	WESTBOUND	16	2	0.1	223	↑	1

MD 200 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change	
495	MD 200 W @ MD 182/LAYHILL RD	WESTBOUND	3	3	0.0	N/A	N/A	N/A
562	MD 200 E @ MD 97/GEORGIA AVE	EASTBOUND	7	1	0.0	865	↓	-303
581	MD 200 W @ I-370	WESTBOUND	1	3	0.0	725	↓	-144
631	MD 200 W @ MD 650/NEW HAMPSHIRE AVE	WESTBOUND	1	2	0.0	617	↑	14
702	MD 200 E @ I-95	EASTBOUND	1	2	0.0	644	↑	58
756	MD 200 W @ US 29/COLUMBIA PIKE	WESTBOUND	2	1	0.0	810	↓	-54
774	MD 200 W @ BRIGGS CHANEY RD	WESTBOUND	1	1	0.0	N/A	N/A	N/A
816	MD 200 W @ MD 97/GEORGIA AVE	WESTBOUND	0	2	0.0	N/A	N/A	N/A
851	MD 200 E @ MD 650/NEW HAMPSHIRE AVE	EASTBOUND	1	1	0.0	771	↑	80
874	MD 200 E @ MD 182/LAYHILL RD	EASTBOUND	1	1	0.0	885	↓	-11

MD 295 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
3	MD 295 N @ POWDER MILL RD	Northbound	345	2	2.7	1	↑ 2
10	MD 295 S @ MD 198	Southbound	160	3	1.6	8	↑ 2
14	MD 295 S @ RIVERDALE RD	Southbound	115	3	1.1	25	↓ -11
16	MD 295 N @ I-495/I-95	Northbound	88	3	1.1	18	↓ -2
17	MD 295 S @ PRINCE GEORGE'S/ARUNDEL CO LINE	Southbound	96	3	1.1	58	↓ -41
20	MD 295 N @ MD 32	Northbound	115	2	1.0	33	↓ -13
25	MD 295 S @ MD 197/EXIT 11	Southbound	137	2	0.8	10	↑ 15
29	MD 295 N @ MD 175	Northbound	68	3	0.8	N/A	N/A N/A
49	MD 295 N @ MD 648/ANNAPOLIS RD/WATERVIEW AVE	Northbound	76	2	0.6	358	↓ -309
53	MD 295 N @ PRINCE GEORGE'S/ARUNDEL CO LINE	Northbound	113	2	0.6	36	↑ 17

US 50 TopBottlenecks

2019 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2018 Rank	Change
11	US 50 W @ WILLIAM PRESTON LANE BRIDGE	WESTBOUND	81	4	1.4	N/A	N/A N/A
40	US 50 E @ MD 202/LANDOVER RD	EASTBOUND	94	2	0.7	56	↓ -16
63	US 50 E @ MD 295/BALTIMORE WASHINGTON PKWY	EASTBOUND	134	1	0.5	67	↓ -4
80	US 50 W @ MD 213/CENTREVILLE RD	WESTBOUND	26	3	0.4	68	↑ 12
118	US 50 E @ MD 213/CENTREVILLE RD	EASTBOUND	17	4	0.3	100	↑ 18
128	US 50 E @ WILLIAM PRESTON LANE BRIDGE	EASTBOUND	14	4	0.2	N/A	N/A N/A
132	US 50 W @ MD 201/MD 295/KENILWORTH AVE	WESTBOUND	22	3	0.2	90	↑ 42
143	US 50 E @ BAY DALE/FERGUSON RD/EXIT 28	EASTBOUND	15	3	0.2	283	↓ -140
180	US 50 E @ MD 648/BALTIMORE ANNAPOLIS BLVD	EASTBOUND	19	2	0.2	182	↓ -2
184	US 50 E @ WILLIAM P LANE BRG TOLL PLAZA	EASTBOUND	37	0	0.2	458	↓ -274

C. ARTERIAL CORRIDOR FACT SHEETS

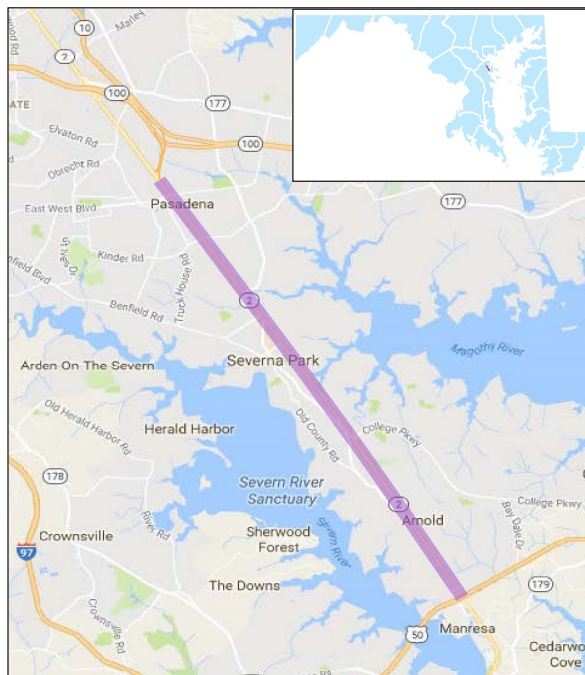
Arterial roadways represent the next highest classification of roadways after freeways/expressways. Arterials provide a vital connection between the freeway/ expressway system and the local roadways. These roadways normally have multi-lanes, traffic signals, and access points either from cross streets or driveways. Arterial roadways carry the next highest volumes of traffic in comparison to freeways/ expressways.

The 35 most congested arterial corridors in the AM and PM peak hours were identified based on observed traffic operations, traffic volumes, regional significance, and availability of data to analyze in further detail. In addition, US 50, MD 18, MD 90 and MD 528 for the summer weekend traffic was also included. Traffic analysis was performed to identify the most congested intersections and segments and the accompanying levels of service, TTI, and PTI on a segment basis. Various roadway characteristics such as the number of lanes, speed limits, signalized intersections, and traffic/transit ridership data were analyzed. The following corridors were analyzed:

- MD 2 - US 50/301 to MD 10
- MD 3 - US 50/301 to I-97
- MD 4 - Washington DC Line to Dower House Road
- MD 4 - MD 235 to MD 2
- MD 5 - US 301 to MD 223
- MD 18 - MD 8 to Piney Road (summer weekend)
- MD 24 - US 40 to US 1
- MD 26 - MD 32 to Baltimore City Line
- MD 28 - Riffle Ford Road to MD 97
- MD 30- MD 30 Business to MD 86
- MD 32 - MD 108 to MD 26
- MD 43 - I-695 to US 40
- MD 45 - Baltimore City Line to Shawan Road
- MD 85 - English Muffin Way to I-70
- MD 90 - US 50 to MD 528 (summer weekend)
- MD 97 - Washington DC Line to MD 108
- MD 124 - MD 28 to MD 108
- MD 140 - MD 97 to Baltimore City Line
- MD 152 - US 40 to Carrs Mill Road
- MD 175 - MD 32 to US 29
- MD 185 - Washington DC Line to MD 97
- MD 193 - MD 201 to MD 650
- MD 201 - MD 450 to MD 212
- MD 210 - MD 228 to I-95
- MD 228 - MD 210 to US 301
- MD 355 - Washington DC Line to MD 27
- MD 410 - MD 650 to Pennsy Drive
- MD 410 - MD 355 to US 29
- MD 450 - MD 202 to MD 704
- MD 528 - Delaware Line to US 50 (summer weekend)
- MD 650 - Washington DC Line to US 29
- US 1 - MD 410 to MD 198
- US 1 - Baltimore City Line to Honeygo Boulevard
- US 29 - MD 97 to MD 650
- US 29 - Industrial Parkway to MD 198
- US 40 - I-70 to Cleveland Ave
- US 50 - MD 213 to MD 528 (summer weekend)
- US 301 - Billingsley Rd to MD 5
- US 301 - Leeland Road to MD 4

MD 2

Limits:	US 50/301 to MD 10	
Corridor Length:	8.4 miles	
Speed Limit:	50 MPH	
Travel Lanes:	2-3 (Northbound) 1-3 (Southbound)	
Signal Controlled Intersections:	12	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 10, MD 648, College Pkwy, Magothy Bridge Rd, East West Blvd / Pasadena Rd, College Parkway, US 50	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA LocalLink 70	1,927
	MTA Commuter Bus 260	291



2019 AADT	Trucks	Peak Hour Traffic
48,000 - 65,000 vpd	7%	8% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	4	2
LOS E	0	2
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	4.7 / 1.6	0.0 / 4.2
LOS E	2.8 / 0.0	4.5 / 0.5
LOS F	0.9 / 6.8	3.9 / 3.7

LOS 'E' Intersections

MD 2 at Pasadena Rd/East-West Blvd (PM)
MD 2 at Robinson Rd/Leelyn Dr (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	MD 10 - Pasadena Rd/East West Blvd.	0.3				W				W
	Pasadena Rd/East West Blvd. - E Earleigh Heights Rd/Magothy Bridge Rd.	0.9			W		W	W		I
	E Earleigh Heights Rd/Magothy Bridge Rd. - MD 648/Baltimore Annapolis Blvd.	1.1								
	MD 648/Baltimore Annapolis Blvd. - Robinson Rd.	0.5								
	Robinson Rd. - College Pkwy	2.5								I
	College Pkwy - US 301	3.1								I

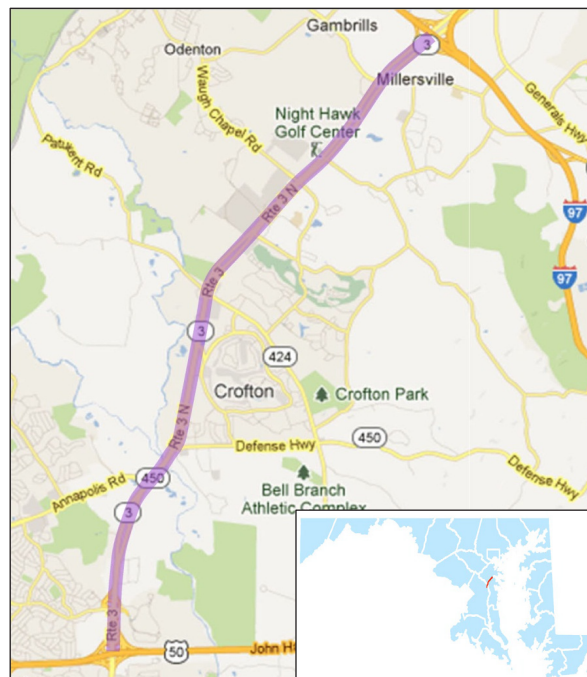
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 3

Limits:	US 50/301 to I-97	
Corridor Length:	8.8 miles	
Speed Limit:	45 - 50 MPH	
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	12	
Grade Separated Interchanges:	3	
Major Cross Streets:	I-97, MD 175, MD 424, Waugh Chapel Rd, Defense Hwy, MD 450, Belair Rd, US 50/301	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO B29	203



2019 AADT	Trucks	Peak Hour Traffic
70,000 - 84,000 vpd	6% - 7%	7% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	10	8
LOS E	1	2
LOS F	0	1

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	6.3 / 1.7	0.5 / 2.1
LOS E	0.8 / 1.3	6.6 / 3.3
LOS F	1.7 / 5.8	1.7 / 3.4

LOS 'E' Intersections

MD 3 at MD 450 (AM, PM)
MD 3 (SB) at South Main Chapel Way/Directional Crossover (PM)

LOS 'F' Intersections

MD 3 at Crawford Blvd/Cronson Blvd (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Patuxent Fwy (MD 32) - Annapolis Rd (MD 175)/Millersville Rd	0.8		I		I		I		I
	Annapolis Rd (MD 175)/Millersville Rd - St. Stephens Ch Rd	1.2								W
	St. Stephens Church Rd - Waugh Chapel Rd/Riedel Rd	0.5							I	
	Waugh Chapel Rd/Riedel Rd - John Hopkins Rd	0.8						W		W
	Johns Hopkins Rd - Conway Rd/Davidsonville Rd (MD 424)	0.9				W		W		W
	Conway Rd/Davidsonville Rd (MD 424) - Crawford Blvd/Cronson Blvd	0.7								
	Crawford Blvd/Cronson Blvd - Defense Hwy (MD 450)	1.3						I		
	Defense Hwy (MD 450) - Annapolis Rd (MD 450)	0.5		W				W	W	
	Annapolis Rd (MD 450) - Belair Drive/Melford Blvd	1.6							I	
	Belair Drive/Melford Blvd - US 50	0.5							I	I

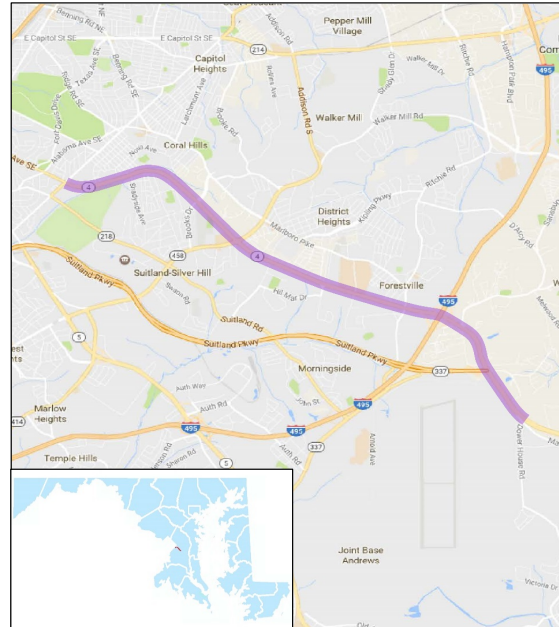
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TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 4

Limits:	Washington DC Line to Dower House Rd			
Corridor Length:	6.6 miles			
Speed Limit:	35 - 55 MPH			
Travel Lanes:	(2 - 3) Northbound (2 - 3) Southbound			
Signal Controlled Intersections:	12			
Grade Separated Interchanges:	7			
Major Cross Streets:	MD 458, Forestville Rd, I-95, MD 337, MD 223, Dower House Rd			
Routes and Ridership	MTA Commuter Bus Routes	Avg. Daily Ridership	METRO Routes	Avg. Daily Ridership
			J12	977
			K12/K13	2,587
			V12	1,774
	810	192	The Bus Routes	Avg. Daily Ridership
	820	853		
	830	603		
	840	402	20	598
	850	187	24	630



2019 AADT	Trucks	Peak Hour Traffic
22,000 - 78,000 vpd	3% - 8%	6.5% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	6	8
LOS E	1	0
LOS F	2	1

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	6.2 / 6.2	5.7 / 3.0
LOS E	0.4 / 0.0	0.0 / 2.3
LOS F	0.0 / 0.4	0.9 / 1.3

LOS 'E' Intersections

MD 4 at Parkland Dr (AM)

LOS 'F' Intersections

MD 4 at MD 337/Presidential Pkwy (AM, PM)
MD 4 at Dower House Rd (AM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Southern Ave - Alton St/ Shadyside Ave.	0.8								
	Alton St/Shadyside Ave. - Spaulding Ave./Quarter Ave.	0.5								
	Spaulding Ave./Quarter Ave. - Brooks Dr.	0.4								
	Brooks Dr. - Silver Hill Rd. (MD 458)	0.7								
	Silver Hill Rd. (MD 458) - Parkland Dr.	0.3								
	Parkland Dr. - Walters Ln.	0.8								
	Walters Ln. - Donnell Dr.	0.4								
	Donnell Dr. - Forestville Rd.	0.6								
Urban Freeway Expressway	Forestville Rd. - I-95/I-495	0.4								
	I-95/I-495 - Old Marlboro Pike/ Westphalia Rd.	0.3								
	Old Marlboro Pike/ Westphalia Rd. - MD 337	0.6								
	MD 337 - Dowerhouse Rd.	0.8								

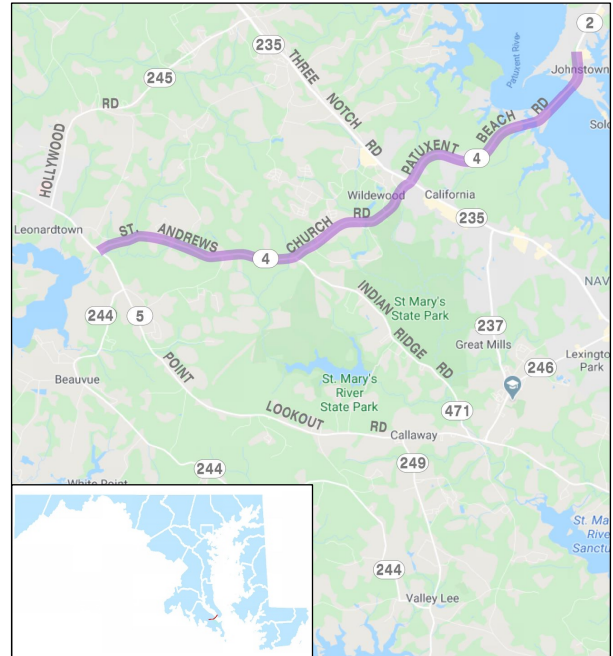
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TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 4

Limits:	MD 5 to MD 2	
Corridor Length:	10 miles	
Speed Limit:	45 - 50 MPH	
Travel Lanes:	(1 - 2) Northbound (1 - 2) Southbound	
Signal Controlled Intersections:	4	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 5, Indian Bridge Rd, FDR Blvd, MD 235, Patuxent Blvd, MD 2	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
12,000 - 28,000 vpd	4% - 5%	8% - 8.5%

Segment Operations

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	1	2
LOS E	2	0
LOS F	0	1

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	10.0 / 6.1	6.1 / 10.0
LOS E	0.0 / 0.0	3.9 / 0.0
LOS F	0.0 / 3.9	0.0 / 0.0

LOS 'E' Intersections

MD 4 at MD 235 (AM)
MD 4 at Patuxent Blvd (AM)

LOS 'F' Intersections

MD 4 at Patuxent Blvd (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Rural Freeway Expressway/Rural Other Principal Arterial	MD 2 (Thomas Johnson Memorial Brdg.) - N Patuxent Beach Rd.	1.0								
	N Patuxent Beach Rd. - Patuxent Blvd.	2.2			W				W	
	Patuxent Blvd. - MD 235 (Three Notch Rd.)	0.7								
Rural Minor Arterial	MD 235 (Three Notch Rd.) - FDR Blvd.	0.3								
	FDR Blvd. - MD 5	5.8								

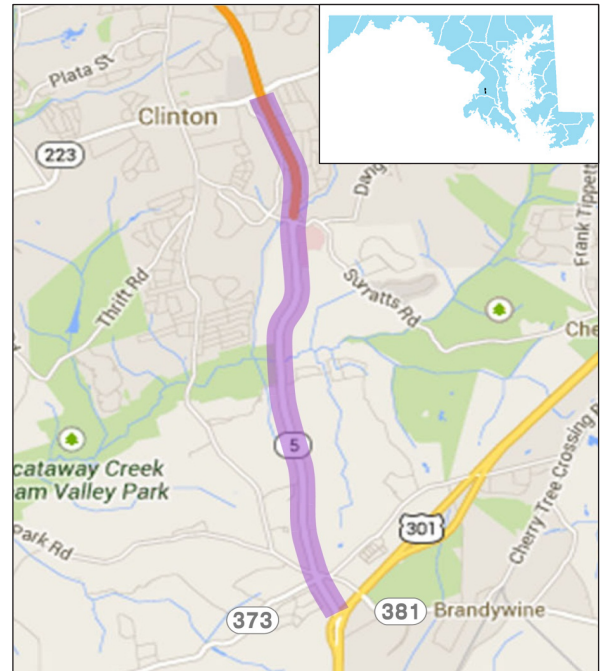
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 5

Limits:	US 301 to MD 223	
Corridor Length:	5.4 miles	
Speed Limit:	55 MPH	
Travel Lanes:	(2 - 3) Northbound (2 - 3) Southbound	
Signal Controlled Intersections:	3	
Grade Separated Interchanges:	2	
Major Cross Streets:	MD 223, Surratts Road MD 381, MD 373, US 301	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 705	866
	MTA Commuter Bus 715	628
	MTA Commuter Bus 725	262
	MTA Commuter Bus 735	433



2019 AADT	Trucks	Peak Hour Traffic
67,000 - 85,000 vpd	5%	6% - 6.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	0	1
LOS E	0	0
LOS F	1	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	1.3 / 5.4	5.4 / 0.0
LOS E	0.0 / 0.0	0.0 / 1.6
LOS F	4.1 / 0.0	0.0 / 3.8

LOS 'E' Intersections

LOS 'F' Intersections

MD 5 at Surratts Rd (AM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	Woodyard Rd. (MD 223) - Surratts Rd.	1.3				W	I			W
	Surratts Rd. - Burch Hill Rd/Earnshaw Dr.	1.6				I				I
	Burch Hill Rd/Earnshaw Dr. - Brandywine Rd./ Accokeek Rd (MD 373)	1.9	W			I	W	I		I
Rural Other Princ. Arterial	Brandywine Rd./ Accokeek Rd (MD 373) - Crain Hwy. (US 301)	0.6				W	W			W

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 18

FRIDAY SUMMER

Limits:	MD 8 to Piney Rd	
Corridor Length:	3.0 miles	
Speed Limit:	30 - 40 MPH	
Travel Lanes:	2	
Signal Controlled Intersections:	2	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 8, MD 835(Duke St),Castle Marina Rd, Piney Creek Rd,MD 552	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
9,000 vpd	N/A	N/A

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	N/A
LOS E	N/A	N/A
LOS F	N/A	N/A

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	N/A	2.3
LOS E	N/A	0.7
LOS F	N/A	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI		PTI	
			Friday (6PM-8PM)		Friday (6PM-8PM)	
			EB	WB	EB	WB
Rural Minor Arterial	MD-8/Business Pkwy - Postal Rd.	2.3				
	Postal Rd. - MD-552/Dominion Rd.	0.1				
	MD-552/Dominion Rd. - S Piney Rd.	0.6				

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time/freeflow travel time)

MD 18

SATURDAY SUMMER

Limits:	MD 8 to Piney Rd	
Corridor Length:	3.0 miles	
Speed Limit:	30 - 40 MPH	
Travel Lanes:	2	
Signal Controlled Intersections:	2	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 8, MD 835 (Duke St), Castle Marina Rd Piney Creek Rd, MD 552	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
N/A	N/A	N/A

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	N/A
LOS E	N/A	N/A
LOS F	N/A	N/A

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	N/A	0.0
LOS E	N/A	2.3
LOS F	N/A	0.7

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI			PTI	
			Saturday (12PM-2PM)			Saturday (12PM-2PM)	
			EB	WB		EB	WB
Rural Minor Arterial	MD-8/Business Pkwy - Postal Rd.	2.3					
	Postal Rd. - MD-552/Dominion Rd.	0.1					
	MD-552/Dominion Rd. - S Piney Rd.	0.6					

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time/ freeflow travel time)

MD 18

SUNDAY SUMMER

Limits:	MD 8 to Piney Rd	
Corridor Length:	3.0 miles	
Speed Limit:	30 - 40 MPH	
Travel Lanes:	2	
Signal Controlled Intersections:	2	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 8, MD 835 (Duke St), Castle Marina Rd Piney Creek Rd, MD 552	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
10,500 vpd	N/A	12%

Segment Operations

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	1
LOS E	N/A	0
LOS F	N/A	0

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	N/A	0.0
LOS E	N/A	2.9
LOS F	N/A	0.1

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI		PTI	
			Sunday (4PM-6PM)		Sunday (4PM-6PM)	
			EB	WB	EB	WB
Rural Minor Arterial	MD-8/Business Pkwy - Postal Rd.	2.3				
	Postal Rd. - MD-552/Dominion Rd.	0.1				
	MD-552/Dominion Rd. - S Piney Rd.	0.6				

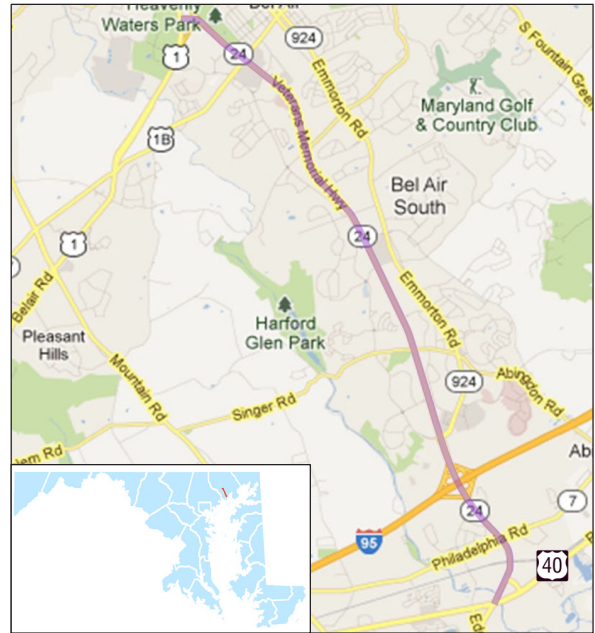
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 24

Limits:	US 40 (Pulaski Highway) to US 1 (Bel Air Bypass)	
Corridor Length:	7.9 miles	
Speed Limit:	40 - 55 MPH	
Travel Lanes:	(2 - 3) Northbound (2 - 3) Southbound	
Signal Controlled Intersections:	15	
Grade Separated Interchanges:	3	
Major Cross Streets:	US 40, I-95 MD 7, MD 924, Singer Rd Bel Air South Pkwy, US 1 BUS., US 1	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 410	208



2019 AADT	Trucks	Peak Hour Traffic
24,000 - 72,000 vpd	4% - 6%	8% - 8.5%

Segment Operations

Intersection Operations		
Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	6	6
LOS E	0	0
LOS F	0	0

	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
Level of Service		
LOS D or Better	4.7 / 1.2	6.8 / 3.3
LOS E	3.2 / 2.4	1.1 / 3.4
LOS F	0.0 / 4.3	0.0 / 1.2

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	Bel Air Bypass (US 1) - Baltimore Pike (Bus US 1)	0.5			W	W		W		
	Baltimore Pike (Bus US 1) - Ring Factory Rd.	1.3								
	Ring Factory Rd. - Plumtree Rd.	0.9							I	
	Plumtree Rd. - Bel Air Pkwy	0.4								
	Bel Air Pkwy - Wheel Rd.	0.3			W					
	Wheel Rd. - Singer Rd.	1.0								
	Singer Rd. - Tollgate Rd./Emmorton Rd (MD 924)	1.0								
	Tollgate Rd./Emmorton Rd (MD 924) - I-95	0.6							I	
	I-95 - Edgewood Rd.	0.4								
	Edgewood Rd. - Philadelphia Rd. (MD 7)	0.4							I	
	Philadelphia Rd. (MD 7) - Pulaski Hwy (US 40)	0.5								
	Pulaski Hwy (US 40) - Edgewood Rd. (MD 755)	0.6								

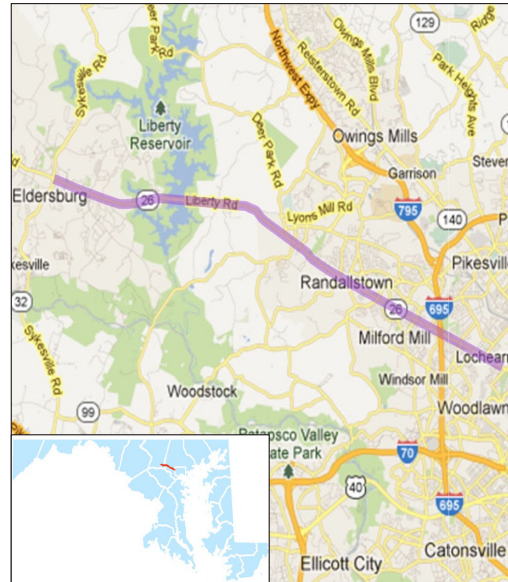
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 26

Limits:	MD 32 (Sykesville Road) to Baltimore City Line		
Corridor Length:	14.1 miles		
Speed Limit:	35 - 50 MPH		
Travel Lanes:	(1 - 2) Eastbound (1 - 3) Westbound		
Signal Controlled Intersections:	27		
Grade Separated Interchanges:	1		
Major Cross Streets:	MD 32, Mariottsville Rd, Old Court Rd, Courtleigh Dr, Rolling Rd, I-695		
Routes and Ridership	Routes	Avg. Daily Ridership	
	CityLink Lime Route	6,131	
	MTA LocalLink 81	1,726	
	MTA LocalLink 37	2,694	



Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	16	15
LOS E	0	0
LOS F	1	2

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	12.5 / 9.0	12.3 / 7.8
LOS E	1.3 / 3.4	1.8 / 4.5
LOS F	0.5 / 1.7	0.0 / 2.0

LOS 'E' Intersections

LOS 'F' Intersections

MD 26 at Lord Baltimore Dr/Ramp 5 from I-695 SB (Including Ramp 8 & Spurs) (AM,PM)

MD 26 @ Croyden Rd (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	Sykesville Rd. (MD 32) -Georgetown Blvd.	0.3								
	Georgetown Blvd.- Ridge Rd./Oklahoma Rd	0.7								
	Ridge Rd./Oklahoma Rd. - Oakland Mills Rd.	2.0								
Rural Minor Arterial	Oakland Mills Rd. - Wards Chapel Rd.	1.7								
	Wards Chapel Rd. - Lyons Mill Rd.	1.2								
Urban Other Principal Arterial	Lyons Mill Rd. - Deer Park Rd.	1.3								
	Deer Park Rd. - Marriottsville Rd.	0.2								
	Marriottsville Rd. - Offutt Rd.	1.5								
	Offutt Rd.- Greens Ln/McDonogh Rd.	0.2								
	Greens Ln/McDonogh Rd. - Brenbrook Dr.	0.6								
	Brenbrook Dr. - Old Court Rd.	0.3								
	Old Court Rd. - Rolling Rd.	0.8								
	Rolling Rd. - Milford Mill Rd.	0.4								
	Milford Mill Rd. - Washington Ave.	0.5								
	Washington Ave. - I-695	0.3								
	I-695 -St. Lukes Lane	1.0								
	St. Lukes Lane - Patterson Ave.	0.3								
	Patterson Ave. - Northern Parkway/Baltimore City	0.8								

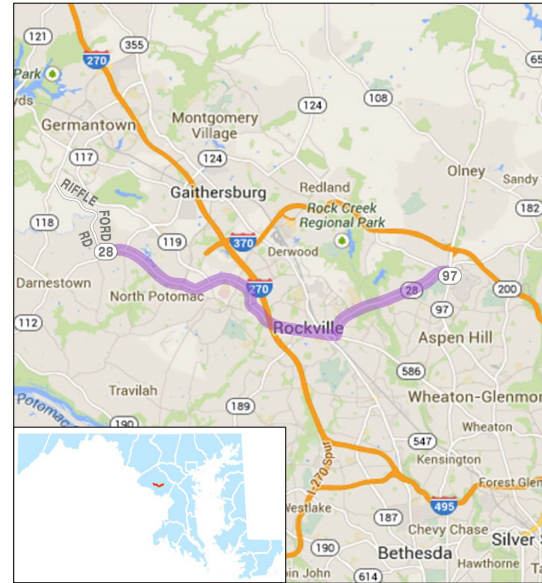
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 28

Limits:	Riffle Ford Rd to MD 97	
Corridor Length:	11.9 miles	
Speed Limit:	40 - 50 MPH	
Travel Lanes:	(1 - 3) Eastbound (1 - 3) Westbound	
Signal Controlled Intersections:	30	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 124, MD 119, Shady Grove Dr, Gude Dr, I-270, MD 189, MD 355, MD 115, MD 97	
Routes and Ridership	Routes	Avg. Daily Ridership
	Ride On Route 46	2,614
	Ride On Route 48	1,552
	Ride On Route 52	123
	Ride On Route 54	1,480
	Ride On Route 56	1,582
	Ride On Route 63	673
	Ride On Route 66	202
	Ride On Route 76	702



2019 AADT	Trucks	Peak Hour Traffic
24,000 - 51,000 vpd	3% - 6%	7.5% - 9%

Segment Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	9	9
LOS E	0	0
LOS F	0	0

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	4.4 / 4.7	5.4 / 3.7
LOS E	5.9 / 2.4	4.0 / 4.9
LOS F	1.6 / 4.8	2.5 / 3.5

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	Riffle Ford Rd. - Quince Orchard Rd (MD 124)	0.5								
	Quince Orchard Rd (MD 124) - Muddy Branch Rd.	2.1								W
	Muddy Branch Rd. - Great Seneca Hwy (MD 119)	0.8					I			I
	Great Seneca Hwy (MD 119) - Shady Grove Rd.	0.9								
	Shady Grove Rd. - Falls Grove Dr/Gude St.	0.4						I		
	Falls Grove Dr/Gude St. - Darnestown Rd.	0.5								
	Darnestown Rd. - I-270	0.7	W			W	W			W
	I-270 - Great Falls Rd./Van Buren St.	0.9								
	Great Falls Rd./Van Buren St. - Rockville Pike (MD 355)	0.6								
	Rockville Pike (MD 355) - Veirs Mill Rd (MD 586)/1st St (MD 911)	0.4								
	Veirs Mill Rd (MD 586)/1st St (MD 911) - Gude Dr.	0.9								
	Gude Dr. - Baltimore Rd.	1.0			W		W		W	
	Baltimore Rd. - Emory Ln./Bel Pre Rd.	0.7	W	W	W	W	W	W	W	W
	Emory Ln./Bel Pre Rd. - Muncaster Mill Rd. (MD 115)	1.3							I	
	Muncaster Mill Rd. (MD 115) - Georgia Ave. (MD 97)	0.2								

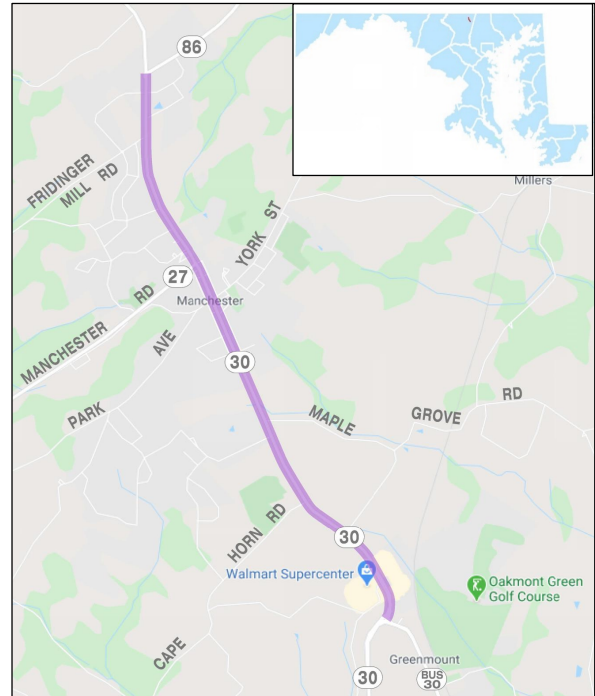
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 30

Limits:	MD 30 Business to MD 86	
Corridor Length:	3.7 miles	
Speed Limit:	40 MPH	
Travel Lanes:	(1 - 2) Northbound (1 - 2) Southbound	
Signal Controlled Intersections:	6	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 30 Business, Broadbeck Rd/Eagle Ridge Ct Cape Horn Rd, Maple Grove Rd, Park Ave/York St, MD 27 Fridinger Mill Rd, MD 86	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
14,000 - 20,000 vpd	6% - 10%	8% - 8.5%

Segment Operations

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	5	5
LOS E	0	0
LOS F	0	0

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	3.7 / 1.2	2.5 / 3.7
LOS E	0.0 / 0.0	0.0 / 0.0
LOS F	0.0 / 2.5	1.2 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	MD86/(Lineboro Rd.) - Hallie Ave.	0.1								
	Hallie Ave. - MD27/(Manchester Rd.)	1.1								
	MD27/(Manchester Rd.) - Westminster St./(York St.)	0.2								
	Westminster St./(York St.) - Maple Grove Rd.	0.8								
	Maple Grove Rd. - Eagle Ridge Ct./(Brodbeck Rd.)	1.2								
	Eagle Ridge Ct./(Brodbeck Rd.) - MD30 Bus/(Hanover Pike/Hampstead Bypass)	0.3								

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 32

Limits:	MD 108 (Clarksville Pike) to MD 26 (Liberty Road)	
Corridor Length:	16.3 miles	
Speed Limit:	40 - 50 MPH	
Travel Lanes:	(1 - 2) Northbound (1 - 2) Southbound	
Signal Controlled Intersections:	11	
Grade Separated Interchanges:	3	
Major Cross Streets:	MD 108, Burntwoods Rd, MD 144, I-70, MD 99, MD 26	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
20,000 - 30,000 vpd	6% - 7%	7.5% - 8.5%

Segment Operations

Intersection Operations		
Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	3
LOS E	0	0
LOS F	0	0

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	16.3 / 1.7	5.8 / 15.5
LOS E	0.0 / 5.0	5.1 / 0.0
LOS F	0.0 / 9.6	5.4 / 0.8

LOS 'E' Intersections

LOS 'F' Intersections

Color Key	
TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Liberty Rd. (MD 26) - Springfield Ave. (MD 851)	2.2							W	
	Springfield Ave. (MD 851) - Sandosky Rd./Raincliffe Rd.	0.7								
	Sandosky Rd./Raincliffe Rd. - Friendship Rd. (MD 851)	0.8						I		
Rural Minor Arterial	Friendship Rd. (MD 851) - River Rd.	1.7								
	River Rd. - Old Frederick Rd. (MD 99)	1.3								
	Old Frederick Rd. (MD 99) - I-70/US-40	0.8			W	W			W	W
Rural Other Principal Arterial	I-70/US 40 - Frederick Rd. (MD 144)	0.4		W				W		
	Frederick Rd. (MD 144) - Burntwoods Rd./Andrea Dr.	3.0						I		
	Burntwoods Rd./Andrea Dr. - Clarksville Pike (MD 108)	5.4		I				I	W	

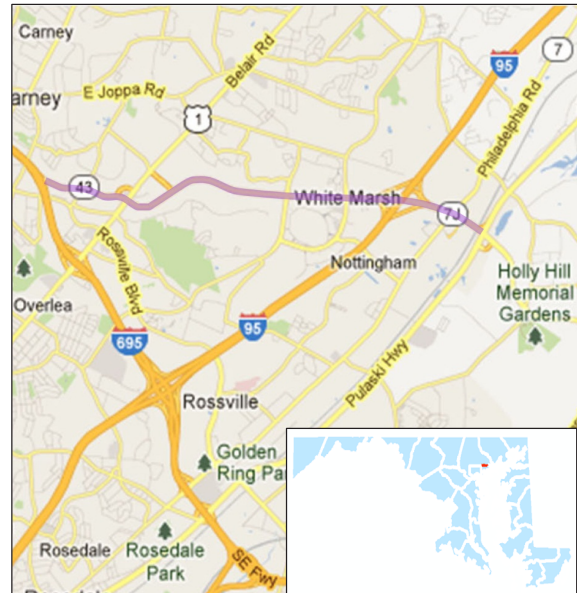
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 43

Limits:	I-695 to US 40	
Corridor Length:	6.0 miles	
Speed Limit:	45 - 50 MPH	
Travel Lanes:	2 Eastbound 2 Westbound	
Signal Controlled Intersections:	6	
Grade Separated Interchanges:	5	
Major Cross Streets:	I-695, US 1, Perry Hall Blvd, Honeygo Blvd, I-95, MD 7, US 40	
Routes and Ridership	Routes	Avg. Daily Ridership
	CityLink Brown Route	7,327
	MTA LocalLink 120	479



2019 AADT	Trucks	Peak Hour Traffic
29,000 - 56,000 vpd	3% - 4%	7.5% - 9%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	N/A
LOS E	N/A	N/A
LOS F	N/A	N/A

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	4.0 / 3.0	4.1 / 2.8
LOS E	2.0 / 2.6	1.3 / 2.3
LOS F	0.0 / 0.4	0.6 / 0.9

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Freeway Expressway	I-695 - Walther Blvd	0.6		I				I		
	Walther Blvd - Belair Rd (US 1) SB	0.4						I		
	Belair Rd (US 1) SB - Belair Rd (US 1) NB	0.6							I	
	Belair Rd (US 1) NB - Perry Hall Blvd	1.8								
	Perry Hall Blvd - Honeygo Blvd	0.7					I		I	
	Honeygo Blvd - I-95	0.9								I
	I-95 - Philadelphia Rd	0.6								
	Philadelphia Rd - Pulaski Hwy (US 40)	0.4					W			

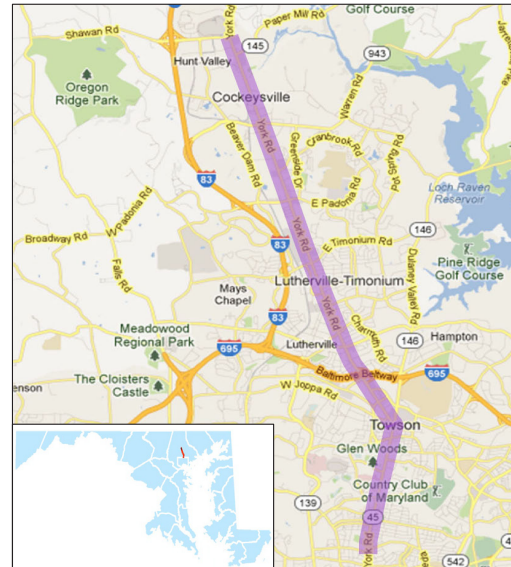
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 45

Limits:	Baltimore City Line to Shawan Road	
Corridor Length:	9.3 miles	
Speed Limit:	35 - 40 MPH	
Travel Lanes:	(1 – 2) Northbound (1 – 2) Southbound	
Signal Controlled Intersections:	31	
Grade Separated Interchanges:	1	
Major Cross Streets:	Stevenson Ln, Towsontown Blvd, Joppa Rd, Fairmount Ave, I-695, MD 131, Timonium Rd, Padonia Rd, Warren Rd, Shawan Rd	
Routes and Ridership	Routes	Avg. Daily Ridership
	Light RailLink Hunt Valley	474
	Light RailLink Pepper Rd	103
	Light RailLink McCormick Rd	282
	Light RailLink Gilroy Rd	145
	Light RailLink Warren Rd	179
	Light RailLink Timonium Rd	626
	Light RailLink Timonium BP	202
	Light RailLink Lutherville	515
	CityLink Red Route	11,614
	MTA LocalLink 52	275
	MTA LocalLink 53	4,227
	MTA LocalLink 93	1,277



2019 AADT	Trucks	Peak Hour Traffic
17,000 - 42,000 vpd	2% - 4%	6% - 8.5%

Segment Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	13	14
LOS E	1	0
LOS F	0	0

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	5.4 / 1.1	7.6 / 0.0
LOS E	3.9 / 3.9	1.7 / 5.5
LOS F	0.0 / 4.3	0.0 / 3.8

LOS 'E' Intersections
MD 45 at Shawan Rd (AM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Shawan Rd. - Paper Mill Rd. (MD 145)	0.3								
	Paper Mill Rd. (MD 145) - Warren Rd. (MD 483)	1.2							W	
	Warren Rd. (MD 483) - Cranbrook Rd.	0.8								
	Cranbrook Rd. - Padonia Rd.	0.5								
	Padonia Rd. - Timonium Rd.	1.1								
	Timonium Rd. - Ridgely Rd	0.8								
	Ridgely Rd. - Bellona Ave./Margate Rd.	0.5								I
	Bellona Ave./Margate Rd. - Seminary Ave. (MD 131)	0.2								
	Seminary Ave. (MD 131) - I-695	0.5								
	I-695 - Fairmount Ave	0.3								
Urban Minor Arterial	Fairmount Ave. - Bosley Ave.	0.2							W	
	Bosley Ave. - Dulany Valley Rd. (MD 146)/Joppa Rd.	0.4							W	W
Urban Other Principal Arterial	Dulany Valley Rd. (MD 146)/Joppa Rd. - Towsontown Blvd.	0.3							W	W
	Towsontown Blvd. - Burke Ave.	0.2							W	W
	Burke Ave. - Stevenson Ln.	0.8							W	
	Stevenson Ln. - Regester Ave.	0.4								
	Regester Ave. - Lake Ave.	0.8								

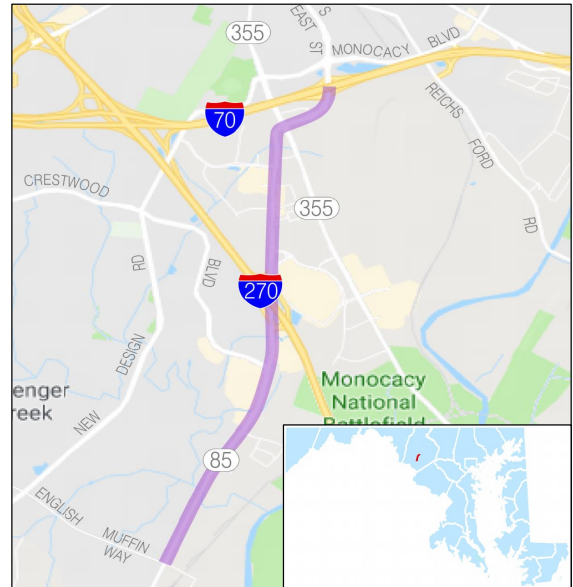
I = Improvement from 2018 W = worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 85

Limits:	English Muffin Way to I-70	
Corridor Length:	3.5 miles	
Speed Limit:	40 MPH	
Travel Lanes:	(1 – 3) Northbound (1 – 3) Southbound	
Signal Controlled Intersections:	13	
Grade Separated Interchanges:	2	
Major Cross Streets:	Executive Way, Crestwood Blvd / Shockley Way, I-270, Spectrum Dr, Francis Scott Key Dr, MD 355, I-70	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
17,000 - 52,000	4% - 12%	7% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	N/A
LOS E	N/A	N/A
LOS F	N/A	N/A

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	3.5 / 1.6	3.5 / 1.9
LOS E	0.0 / 1.9	0.0 / 0.0
LOS F	0.0 / 0.0	0.0 / 1.6

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	I-70 - MD 355	0.4								
	MD 355 - Guilford Rd.	0.3								
	Guilford Rd. - Grove Rd.	0.3	I		I		I		I	
	Grove Rd. - Spectrum Dr.	0.3								
	Spectrum Dr. - I-270	0.3								
	I-270 - Crestwood Blvd.	0.4								
	Crestwood Blv. - Executive Way	0.5								
	Executive Way / Shockley Dr. - English Muffin Way	1.0								

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

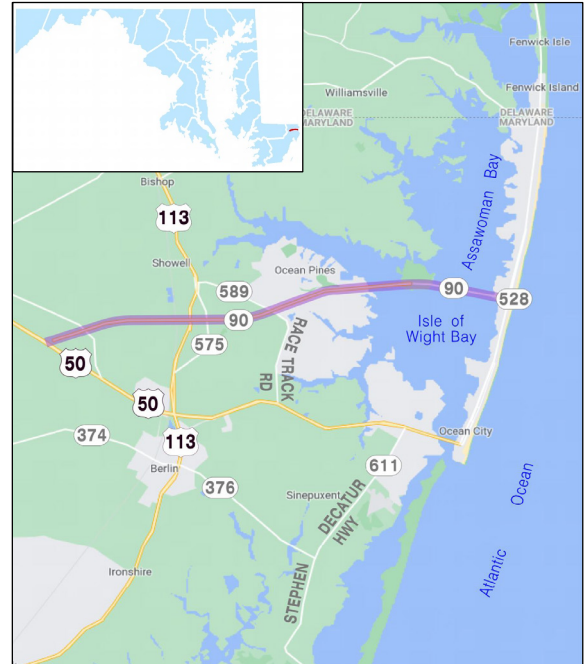
PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 90

FRIDAY SUMMER

Limits:	US 50 to MD 528	
Corridor Length:	11.4 miles	
Speed Limit:	40 - 55 MPH	
Travel Lanes:	2	
Signal Controlled Intersections:	2	
Grade Separated Interchanges:	3	
Major Cross Streets:	US 50, US 113, MD 589, St Martins Neck Rd, MD 528	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
15,000-31,000 vpd	3% -4%	8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	2	2
LOS E	N/A	0
LOS F	N/A	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	11.4	11.4
LOS E	0.0	0.0
LOS F	0.0	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI			PTI	
			Friday (6PM-8PM)			Friday (6PM-8PM)	
			EB	WB		EB	WB
Rural Other Principal Arterial	US-50/Ocean Gateway - St Martins Neck Rd.	9.0					
	St Martins Neck Rd. - MD-528/Coastal Hwy	2.4					

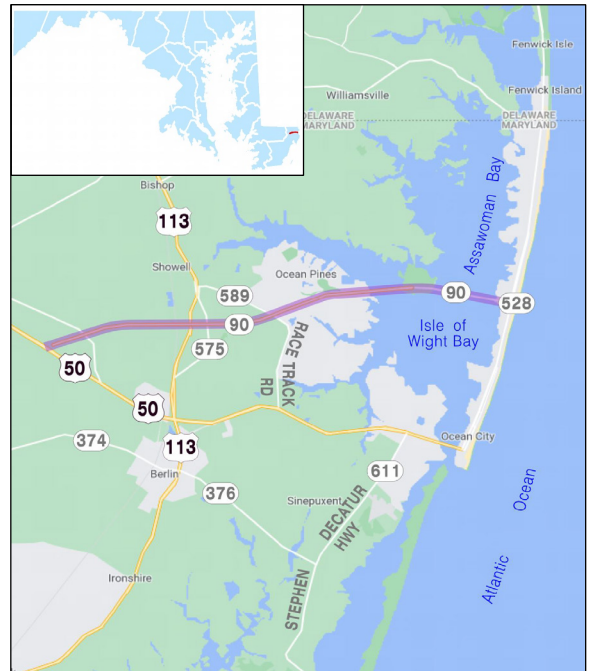
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 90 SATURDAY SUMMER

Limits:	US 50 to MD 528	
Corridor Length:	11.4 miles	
Speed Limit:	40 - 55 MPH	
Travel Lanes:	2	
Signal Controlled Intersections:	2	
Grade Separated Interchanges:	3	
Major Cross Streets:	US 50, US 113, MD 589 St Martins Neck Rd, MD 528	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
13,000-33,000 vpd	3%	7%

Segment Operations

Intersection Operations		
Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	2	2
LOS E	N/A	0
LOS F	N/A	0

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	0.0	11.4
LOS E	0.0	0.0
LOS F	11.4	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI			PTI	
			Saturday (12PM-2PM)			Saturday (12PM-2PM)	
			EB	WB		EB	WB
Rural Other Principal Arterial	US-50/Ocean Gateway - St Martins Neck Rd.	9.0	W			W	
	St Martins Neck Rd. - MD-528/Coastal Hwy	2.4					

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 90

SUNDAY SUMMER

Limits:	US 50 to MD 528	
Corridor Length:	11.4 miles	
Speed Limit:	40 - 55 MPH	
Travel Lanes:	2	
Signal Controlled Intersections:	2	
Grade Separated Interchanges:	3	
Major Cross Streets:	US 50, US 113, MD 589 St. Martins Neck Rd, MD 528	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
13,000-30,000 vpd	2%	8%

Segment Operations

Intersection Operations		
Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	2	2
LOS E	N/A	0
LOS F	N/A	0

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	11.4	11.4
LOS E	0.0	0.0
LOS F	0.0	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI			PTI	
			Sunday (4PM-6PM)			Sunday (4PM-6PM)	
			EB	WB		EB	WB
Rural Other Principal Arterial	US-50/Ocean Gateway - St Martins Neck Rd.	9.0					
	St Martins Neck Rd. - MD-528/Coastal Hwy	2.4					

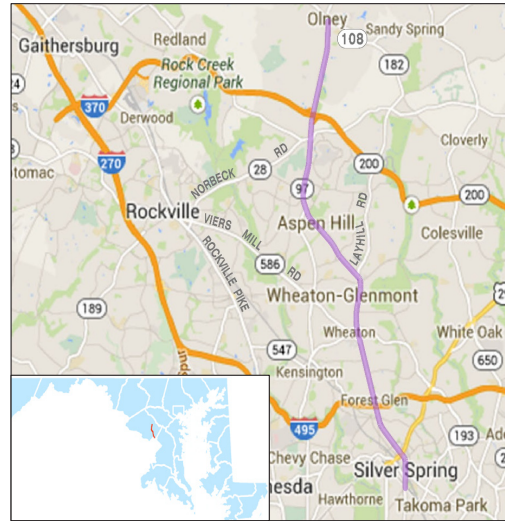
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 97

Limits:	Washington DC Line to MD 108	
Corridor Length:	12.7 miles	
Speed Limit:	30 - 45 MPH	
Travel Lanes:	(3 - 4) Northbound (3 - 4) Southbound	
Signal Controlled Intersections:	48	
Grade Separated Interchanges:	1	
Major Cross Streets:	US 29, I-495, MD 586, Randolph Rd, MD 193, MD 182, MD 28, MD 200, MD 108	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO Q1/Q2/Q4/Q6	6,109
	METRO Y2/Y7/Y8	7,160
	Ride On Route 10	2,134
	Ride On Route 26	2,439
	Ride On Route 31	105
	Ride On Route 33	257
	Ride On Route 41	518
	Ride On Route 51	199
	Ride On Route 52	123
	Ride On Route 53	240



2019 AADT	Trucks	Peak Hour Traffic
30,000 - 69,000 vpd	2% - 5%	6.5% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	9	11
LOS E	3	1
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	6.9 / 1.1	6.0 / 2.0
LOS E	5.3 / 6.3	3.8 / 9.4
LOS F	0.5 / 5.3	2.9 / 1.3

LOS 'E' Intersections

MD 97 at Dennis Ave (AM)
MD 97 at Seminary Rd/Columbia Blvd (AM)
MD 97 at MD 192/Forest Glen Rd (AM, PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Olney Sandy Spring/Laytonville Rd. (MD 108) - Emory Lane	1.9								
	Emory Lane - Norbeck Rd. (MD 28)	1.2							W	
	Norbeck Rd. (MD 28) - Rossmoor Blvd.	0.5								
	Rossmoor Blvd. - Bel Pre Rd.	0.6								
	Bel Pre Rd. - Connecticut Ave. (MD 185)	0.7								
	Connecticut Ave. (MD 185) - Hewitt Ave.	0.6								W
	Hewitt Ave. - May St./Rippling Brook Dr.	0.5								
	May St./Rippling Brook Dr. - Layhill Rd. (MD182)	1.1								
	Layhill Rd. (MD 182) - Randolph Rd.	0.2								
	Randolph Rd. - Shorefield Rd.	0.4				W				
	Shorefield Rd. - Arcola Ave.	0.4		W				W		
	Arcola Ave. - University Blvd. (MD 193)	0.4								W
	University Blvd. (MD 193) - Veirs Mill Rd. (MD 586)	0.4								
	Veirs Mill Rd. (MD 586) - Dennis Ave.	0.8								
	Dennis Ave. - I-495	0.8								
	I-495 - 16th St. (MD390)	0.5							I	
	16th St. (MD390) - Spring St	0.6								
	Spring St. - Colesville Rd (US29)	0.3							I	
	Colesville Rd (US29) - Sligo Ave.	0.4								
	Sligo Ave. - East-West Hwy/Philadelphia Ave. (MD 410)	0.2								
	East-West Hwy/Philadelphia Ave(MD 410) - Eastern Ave/ DC Line	0.2								

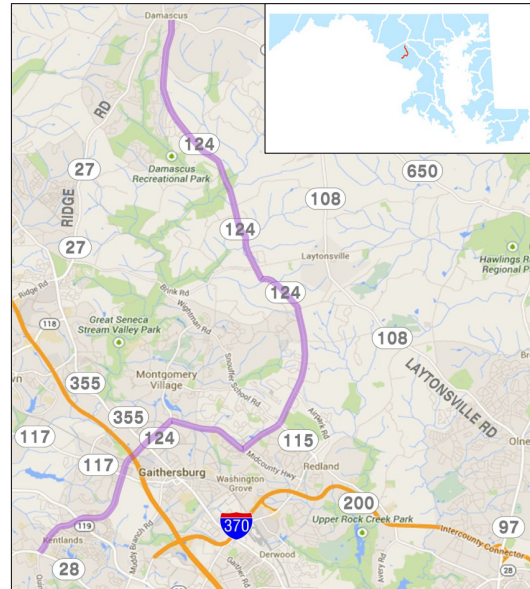
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 124

Limits:	MD 28 to MD 108	
Corridor Length:	16.7 miles	
Speed Limit:	30 - 50 MPH	
Travel Lanes:	(1 - 4) Northbound (1 - 4) Southbound	
Signal Controlled Intersections:	31	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 28, MD 119, MD 117, I-270, MD 355, MD 115, MD 108	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 201	528
	Ride On 56	1,582
	Ride On 58	1,144
	Ride On 59	2,596
	Ride On 90	633



2019 AADT	Trucks	Peak Hour Traffic
12,000 - 73,000 vpd	2% - 7%	6.5% - 10%

Segment Operations

Intersection Operations		
Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	5	6
LOS E	0	0
LOS F	1	0

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
	LOS D or Better	LOS D or Better
LOS D or Better	14.3 / 11.3	13.6 / 11.9
LOS E	2.4 / 4.2	1.8 / 4.1
LOS F	0.0 / 1.2	1.3 / 0.7

LOS 'E' Intersections

LOS 'F' Intersections

MD 124 at Warfield Rd (AM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	> 2.5
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Minor Arterial	Main St. (MD 108) - Hawkins Creamery Rd.	1.0							I	
	Hawkins Creamery Rd. - Log House Rd/ Low Meadow Dr.	1.2							I	
	Log House Rd/ Low Meadow Dr. - Rocky Rd.	2.4								
	Rocky Rd. - Brink Rd.	1.4								
	Brink Rd. - Warfield Rd.	1.3			W					
	Warfield Rd. - Fieldcrest Rd/ Hadley Farms Dr.	0.7				W			W	
	Fieldcrest Rd/ Hadley Farms Dr. - Airpark Rd.	1.1								
	Airpark Rd. - Snouffer School Rd./Muncaster Mill Rd (MD 115)	0.7								
Urban Other Principal Arterial	SnoufferSchlRd/MncterMillRd (MD 115) - MdCty.Hwy/WoodfieldRd.	0.9								
	Midcounty Hwy./Woodfield Rd. - Goshen Rd.	1.1								
	Goshen Rd. - Montgomery Village Dr /Midcounty Hwy	0.6								
	MontgomeryVillage/MidcountyHwy - Frederick Rd/Ave (MD 355)	0.7							I	I
	Frederick Rd/Ave (MD 355) - I-270	0.4							I	
	I-270 - Clopper Rd. /Diamond Av (MD 117)	0.5								
	Clopper Rd/Diamond Av (MD 117) - Gt Seneca Hwy (MD 119)	1.5								
	Great Seneca Hwy. (MD 119) - Darnestown Rd. (MD 28)	1.2								

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 140

Limits:	MD 97 to Baltimore City Line	
Corridor Length:	20.4 miles	
Speed Limit:	30 - 55 MPH	
Travel Lanes:	(1 - 3) Northbound (1 - 2) Southbound	
Signal Controlled Intersections:	51	
Grade Separated Interchanges:	3	
Major Cross Streets:	MD 97, MD 91, I-795, MD 30, MD 940, Painters Mill Rd MD 130, I-695, Old Court Rd	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA LocalLink 83	3,321
	MTA LocalLink 87	1,641
	MTA LocalLink 89	1,782



2019 AADT	Trucks	Peak Hour Traffic
17,000 - 54,000 vpd	2% - 9%	6.5% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	20	20
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	15.2 / 13.5	17.1 / 13.8
LOS E	5.2 / 2.5	2.7 / 2.2
LOS F	0.0 / 4.4	0.0 / 4.4

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	New Washington Rd (MD 97) Malcom Dr. - Reese Rd.	2.5								
	Reese Rd. - Green Mill Rd./Suffolk Rd.	2.2								
	Green Mill Rd./Suffolk Rd. - Emory Rd/Gamber Rd (MD 91)	1.9								
Urban/Rural Other P. Arterial	Emory Rd/Gamber Rd (MD 91) - Butler Rd. (MD 795)	3.4								
Urban Other Principal Arterial	Butler Rd. (MD 795) - Hanover Rd. (MD 30)	0.4					I	I		
	Hanover Rd. (MD 30) - Glyndon Dr/Glyndon Trace Dr.	0.7								
	Glyndon Dr/ Glyndon Trace Dr. - Berrymans Ln.	0.4								
	Berrymans Ln. - Franklin Blvd./Cherry Hill Rd.	0.7								
	Franklin Blvd./Cherry Hill Rd. - Dolfield Blvd/ Richmar Rd.	1.2								
	Dolfield Blvd/ Richmar Rd. - Pleasant Hill Rd.	0.5								
	Pleasant Hill Rd. - Owings Mills Blvd. (MD 940)	1								
	Owings Mills Blvd. (MD 940) - Painters Mill Rd.	0.4			W	W	W		W	W
	Painters Mill Rd. - Greenspring Valley Rd (MD 130)	1.2								W
	Greenspring Valley Rd (MD 130) - McDonogh Rd./Craddock Ln.	0.6								
	McDonogh Rd./ Craddock Ln. - I-695	1.2							W	
	I-695 - Old Court Rd.	0.6								
	Old Court Rd. - Sudbrook Ln	0.4					I			I
	Sudbrook Ln. - Slade Ave/Milford Mill Rd.	0.5								I
	Slade Ave/Milford Mill Rd. - Baltimore City Line/Fallstaff Rd	0.6								

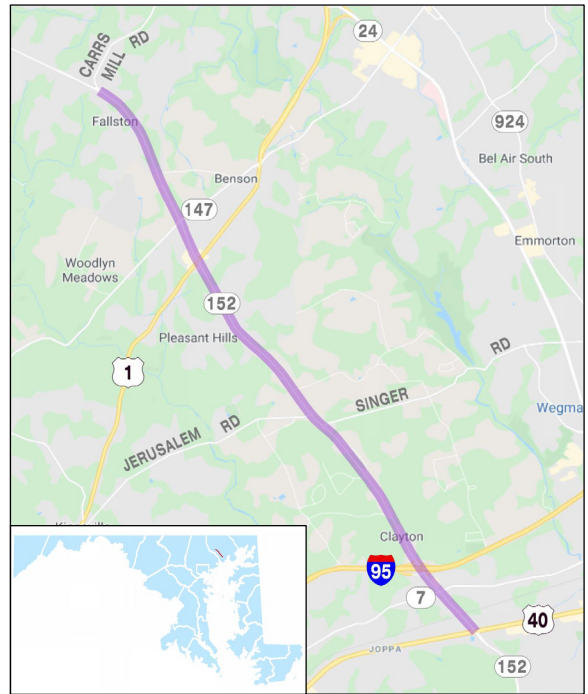
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 152

Limits:	US 40 to Carrs Mill Rd	
Corridor Length:	7.6 miles	
Speed Limit:	50 MPH	
Travel Lanes:	(1 - 2) Northbound (1 - 2) Southbound	
Signal Controlled Intersections:	9	
Grade Separated Interchanges:	1	
Major Cross Streets:	US 40, MD 7, I-95, Jerusalem Rd/Singer Rd, US 1, MD 147, Carrs Mill Rd	
Routes and Ridership	Routes	Avg. Daily Ridership
	Commuter Bus 411	201



2019 AADT	Trucks	Peak Hour Traffic
21,000 - 27,000 vpd	4% - 9%	7.5% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	2	1
LOS E	0	1
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	6.6 / 0.6	5.3 / 5.3
LOS E	1.0 / 4.1	1.9 / 1.9
LOS F	0.0 / 2.9	0.4 / 0.4

LOS 'E' Intersections

MD 152 at MD 147 (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Rural Other Principal Arterial	Carrs Mill Rd. (Old Fallston Rd.) - Watervale Rd.	0.5								
	Watervale Rd. - MD147 (Harford Rd.)	1.3							W	
	MD147 (Harford Rd.) - US1 (Belair Rd.)	0.5						I		I
	US1 (Belair Rd.) - Old Joppa Rd.	1.4						I		
	Old Joppa Rd. - Singer Rd.	1.0						I		
Rural Minor Arterial	Singer Rd. - I-95 (John F. Kennedy Hwy)	1.9							I	
Rural Other Principal Arterial	I-95 (John F. Kennedy Hwy) - MD7 (Philadelphia Rd.)	0.4		W			W			
	MD7 (Philadelphia Rd.) - Pulaski Hwy (US40)	0.6						W		

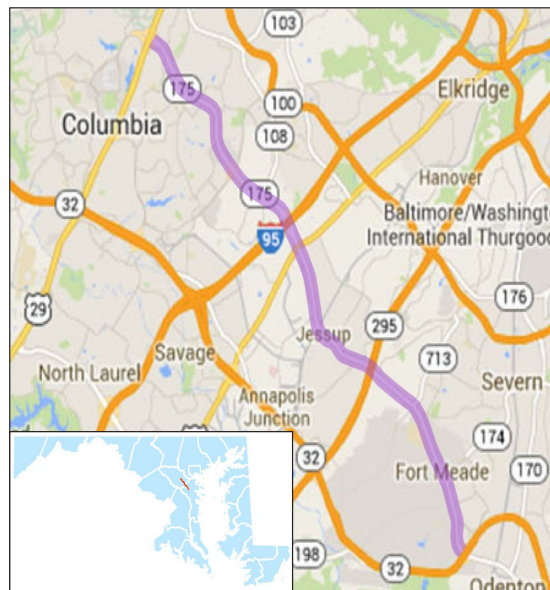
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 175

Limits:	MD 32 (Patuxent Freeway) to US 29 (Columbia Pike)	
Corridor Length:	12.2 miles	
Speed Limit:	35 - 50 MPH	
Travel Lanes:	(1 - 3) Northbound (1 - 4) Southbound	
Signal Controlled Intersections:	19	
Grade Separated Interchanges:	5	
Major Cross Streets:	MD 32, MD 174, MD 713, MD 295, US 1, I-95, Snowden River Pkwy, US 29	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 310	278
	MTA Commuter Bus 320	165



2019 AADT	Trucks	Peak Hour Traffic
20,000 - 74,000 vpd	2% -12%	7.5% - 9.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	8	8
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	8.1 / 4.1	10.9 / 3.2
LOS E	4.1 / 1.7	1.3 / 7.7
LOS F	0.0 / 6.4	0.0 / 1.3

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	Columbia Pike (US 29) - Thunder Hill Rd.	0.6							I	
	Thunder Hill Rd. - Tamar Dr	1.1								
	Tamar Dr - Dobbin Rd.	0.9							W	
	Dobbin Rd - Snowden River Pkwy	0.6								
	Snowden River Pkwy - Waterloo Rd (MD 108)	0.8								
	Waterloo Rd (MD 108) - I-95	0.7								
Urban Minor Arterial	I-95 - Washington Blvd (US 1)	0.5								
	Washington Blvd (US 1) - Dorsey Run Rd.	1.3							I	W
	Dorsey Run Rd. - MD 295	1.6								
	MD 295 - Ridge Rd/Rockenbach Rd (MD 713)	1.1					W	W	W	W
	Ridge Rd/Rockenbach Rd. (MD 713) - Reece Rd	1.3			W				W	I
	Reece Rd - Charter Oaks Blvd.	0.6								
	Charter Oaks Blvd. - MD 32	1.1					W			

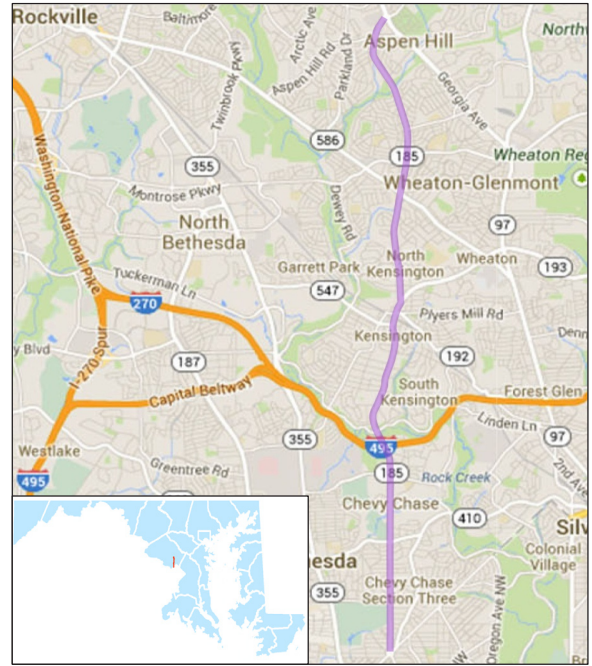
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 185

Limits:	Washington DC Line to MD 97	
Corridor Length:	8.3 miles	
Speed Limit:	30 - 45 MPH	
Travel Lanes:	(3 - 4) Northbound (3 - 4) Southbound	
Signal Controlled Intersections:	26	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 410, I-495, MD 547, MD 193, MD 586, Randolph Rd, MD 97	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO L8	2,059
	Ride On Route 1	970
	Ride On Route 5	1,457
	Ride On Route 11	571
	Ride On Route 26	2,439
	Ride On Route 33	257
	Ride On Route 34	2,308
	Ride On Route 41	518



2019 AADT	Trucks	Peak Hour Traffic
36,000 - 78,000 vpd	2%	7% - 8%

Segment Operations

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	5	6
LOS E	1	1
LOS F	1	0

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	7.6 / 3.0	1.2 / 5.2
LOS E	0.6 / 1.9	3.4 / 1.2
LOS F	0.0 / 3.4	3.6 / 1.9

LOS 'E' Intersections

MD 185 at MD 410 (AM, PM)

LOS 'F' Intersections

MD 185 at Aspen Hill Rd (AM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Georgia Ave. (MD 97) - Aspen Hill Rd.	0.3		W		W				W
	Aspen Hill Rd. - Randolph Rd.	0.4								
	Randolph Rd. - Veirs Mill Rd. (MD 586)	1.7								
	Veirs Mill Rd. (MD 586) - University Blvd. (MD 193)	1.4		W				W		
	University Blvd (MD 193) - Saul Rd.	1.2								
	Saul Rd. - I-495	0.6						W		
	I-495 - Jones Bridge Rd.	0.5								
	Jones Bridge Rd. - East West Hwy (MD 410)	0.8							W	
	East West Hwy (MD 410) - Bradley Ln. (MD 191)	0.8							W	
	Bradley Ln. (MD 191) - Western Ave/DC Line	0.6							W	

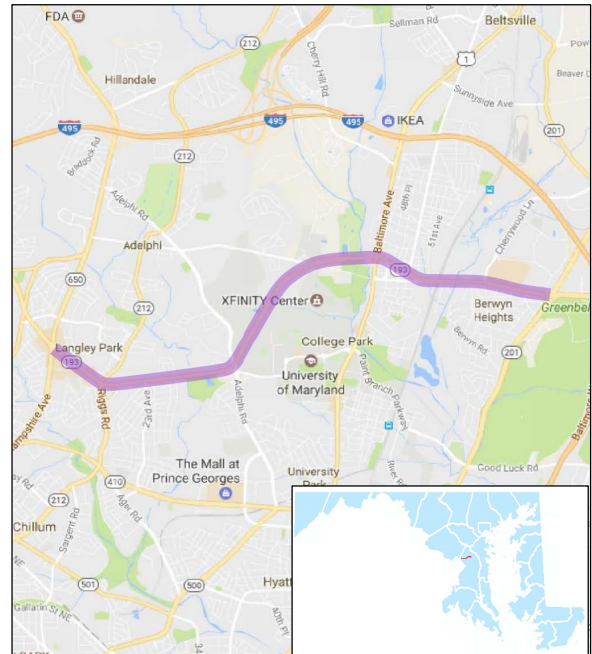
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 193

Limits:	MD 201 to MD 650	
Corridor Length:	5.5 miles	
Speed Limit:	35 - 45 MPH	
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	20	
Grade Separated Interchanges:	2	
Major Cross Streets:	MD 201, 63rd Ave, 62nd Ave, Cherrywood Ln / 60th Ave, Rhode Island Ave, US 1, Metzerott Rd / Paint Branch Dr, Adelphi Rd, Riggs Rd, MD 650	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO C2, C4	9,102
	METRO F6	1,886
	METRO F8	1,241
	METRO G14/G12	3,273
	METRO J4	774
	METRO R2/R1	3,030
	The Bus Route 15X	224
	The Bus Route 18	707



2019 AADT	Trucks	Peak Hour Traffic
30,000 - 50,000 vpd	2% - 3%	7% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	4	4
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	5.5 / 0.0	3.9 / 0.0
LOS E	0.0 / 3.3	0.0 / 4.8
LOS F	0.0 / 2.2	1.6 / 0.7

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	New Hampshire Ave. (MD 650) - Riggs Rd. (MD 212)	0.6					W	W	W	W
	Riggs Rd. (MD 212) - Adelphi Rd.	1.3								W
	Adelphi Rd. - Metzerott Rd.	1.3								
	Metzerott Rd. - Greenbelt Rd.	1.0						I		
	Greenbelt Rd. - Cherrywood Ln./60th Ave	0.6							I	
	Cherrywood Ln./60th Ave. - MD 201	0.7							I	

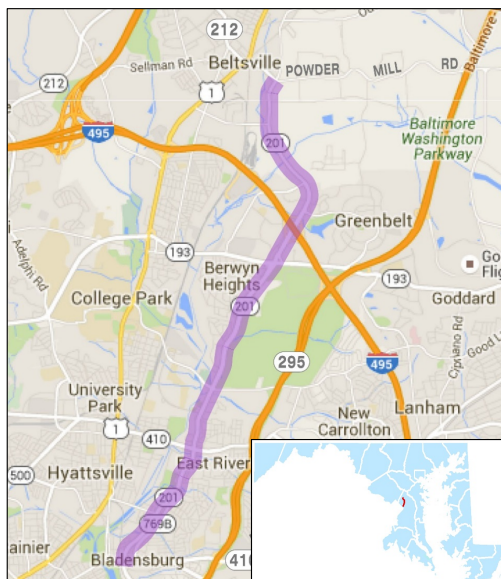
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 201

Limits:	MD 450 to MD 212	
Corridor Length:	7.4 miles	
Speed Limit:	40 - 50 MPH	
Travel Lanes:	(1 - 3) Northbound (1 - 3) Southbound	
Signal Controlled Intersections:	19	
Grade Separated Interchanges:	3	
Major Cross Streets:	MD 450, Decatur St, MD 769B, Riverdale Rd, MD 410, Paint Branch Pkwy, Good Luck Rd, MD 193, I-95 / I-495, Cherrywood Ln, Sunnyside Ave, Beaver Dam Rd, MD 212	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO R12	1,414
	METRO F6	1,886
	METRO 87	606
	The Bus Route 11	297
	The Bus Route 14	334
	The Bus Route 15X	224
	The Bus Route 16	734



2019 AADT	Trucks	Peak Hour Traffic
23,000 - 54,000 vpd	6% - 11%	7% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	3
LOS E	0	0
LOS F	0	0

Segment Operations

	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
Level of Service		
LOS D or Better	7.2 / 2.1	5.0 / 3.1
LOS E	0.0 / 1.5	1.6 / 2.8
LOS F	0.0 / 3.6	0.6 / 1.4

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Minor Arterial	MD212 - Sunnyside Ave.	0.6		I				I		
	Sunnyside Ave. - Cherrywood Ln.	0.9							I	
	Cherrywood Ln. - Ivy Ln.	0.3								
	Ivy Ln. - Crescent Rd.	0.2								
	Crescent Rd. - I-495/I-95	0.5								
Urban Other Freeways and Expressways	I-495/I-95 - MD193	0.5							W	
	MD193 - Paint Branch Ave./Good Luck Rd.	1.6								
Urban Other Principal Arterial	Paint Branch Ave./Good Luck Rd. - Sarvis Ave.	0.2								
	Sarvis Ave. - River Rd.	0.2						W		W
	River Rd. - Rittenhouse St.	0.3								
	Rittenhouse St. - MD410	0.2								
	MD410 - Riverdale Rd.	0.2								
	Riverdale Rd. - Jefferson St.	0.2								
	Jefferson St. - Edmonston Rd.	0.3								
	Edmonston Rd. - Decatur St.	0.4							I	
	Decatur St. - Buchanan St.	0.2								
	Buchanan St. - Upshur St./Tilden Rd.	0.3								
	Upshur St./Tilden Rd. - MD450	0.3								

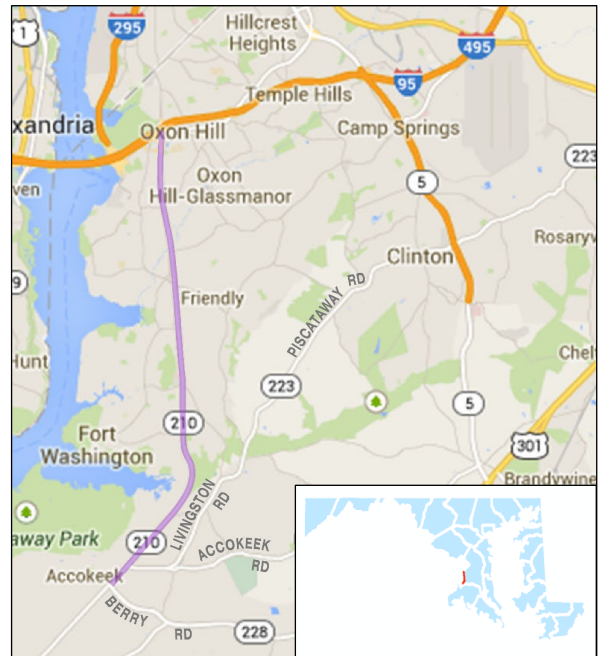
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PTI: planning time index (95th percentile travel time / freeway travel time)

TTI: travel time index (50th percentile travel time / freeway travel time)

MD 210

Limits:	MD 228 to I-95	
Corridor Length:	10.3 miles	
Speed Limit:	40 - 45 MPH	
Travel Lanes:	(2 - 3) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	10	
Grade Separated Interchanges:	1	
Major Cross Streets:	I-95, Livingston Rd, MD 373, MD 228	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO D13/D12/D14	2,063
	MTA Commuter Bus 610	774
	MTA Commuter Bus 620	801
	MTA Commuter Bus 630	397
	MTA Commuter Bus 640	537
	MTA Commuter Bus 650	745
	The Bus Route 35	384
	The Bus Route 35s	23
	The Bus Route 37	155



2019 AADT	Trucks	Peak Hour Traffic
29,000 - 83,000 vpd	3% - 4%	6% - 7.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	4	4
LOS E	2	3
LOS F	2	1

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	6.6 / 8.4	4.4 / 4.5
LOS E	1.1 / 1.9	1.1 / 3.3
LOS F	2.6 / 0.0	0.0 / 2.5

LOS 'E' Intersections

MD 210 at MD 373/Livingston Rd (AM, PM)
MD 210 at Fort Washington Rd (AM, PM)
MD 210 at Livingston Rd/Palmer Rd (PM)

LOS 'F' Intersections

MD 210 at Livingston Rd/Kerby Hill Rd (AM, PM)
MD 210 at Wilson Bridge Dr (AM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	I-495/I-95 - Livingston Rd./Kerby Hill Rd.	1.8								
	Livingston Rd./Kerby Hill Rd. - Palmer Rd.	1.0	I							W
	Palmer Rd. - Old Fort Rd.	0.7	I				I		I	
	Old Fort Rd. - Fort Washington Rd.	0.9	I				I		I	
	Fort Washington Rd. - Livingston Rd./Swan Creek Rd.	1.1					I			
	Livingston Rd./Swan Creek Rd. - Washington Ln.	0.8								
	Washington Ln. - Farmington Rd.	2.1								
	Farmington Rd. - Livingston Rd. (MD 373)	1.4								
	Livingston Rd. (MD 373) - Berry Rd. (MD 228)	0.5								

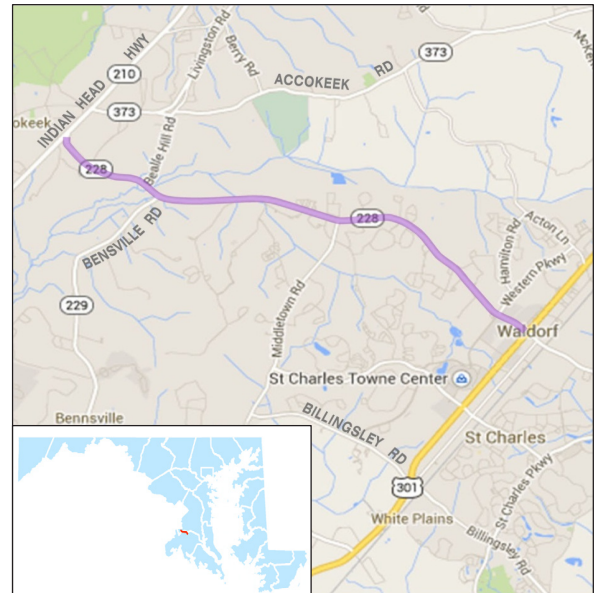
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 228

Limits:	MD 210 to US 301	
Corridor Length:	6.8 miles	
Speed Limit:	35 - 50 MPH	
Travel Lanes:	(2 - 3) Eastbound 2 Westbound	
Signal Controlled Intersections:	11	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 210, MD 229, US 301	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA 610	774
	MTA 620	801
	MTA 630	397
	MTA 650	537



2019 AADT	Trucks	Peak Hour Traffic
36,000 - 39,000 vpd	2% - 3%	7% - 7.5%

Segment Operations

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	4	4
LOS E	0	0
LOS F	0	0

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	6.8 / 5.3	6.8 / 3.8
LOS E	0.0 / 0.0	0.0 / 0.0
LOS F	0.0 / 1.5	0.0 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	Indian Head Hwy (MD 210) - Manning Rd	0.5								
	Manning Rd - Bensville Rd (MD 229)	1.0			W				W	
	Bensville Rd (MD 229) - Bunker Hill Rd.	1.3								
	Bunker Hill Rd. - Middletown Rd./Ironwood Dr.	1.0								
	Middletown Rd./Ironwood Dr. - Western Pkwy	2.6								
	Western Pkwy - Crain Highway (US 301)	0.4								

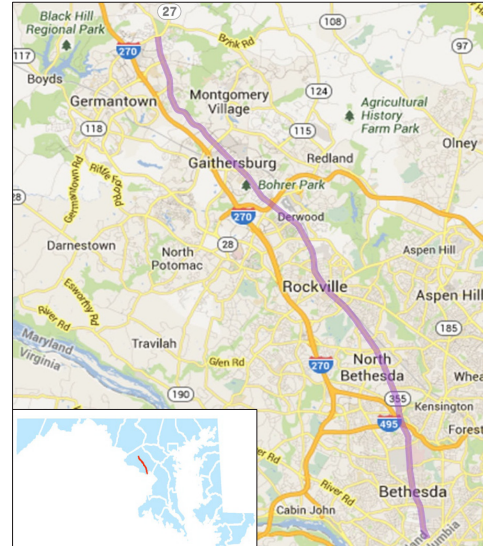
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 355

Limits:	Washington DC Line to MD 27			
Corridor Length:	19.7 miles			
Speed Limit:	25 - 45 MPH			
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound			
Signal Controlled Intersections:	80			
Grade Separated Interchanges:	3			
Major Cross Streets:	MD 27, MD 118, Middlebrook Rd, MD 124, MD 117 I-370, Shady Grove Rd, MD 28, Montrose Pkwy, MD 187, MD 547, MD 410, MD 191			
Routes and Ridership	Ride On Routes	Avg. Daily Ridership	METRO Routes	Avg. Daily Ridership
	5	1,457	J1/J2/J3	5,195
	30	614	Q1/Q2/Q4/Q6	6,109
	34	2,308	Red Line Routes	Avg. Daily Ridership
	42	361		
	46	2,614	Shady Grove	8,781
	55	4,897	Rockville	3,107
	59	2,596	Twinbrook	3,171
	67	94	White Flint	2,742
	70	616	Grosvenor	3,764
	75	465	Strathmore	3,764
	81	180	Medical Center	3,820
	83	398	Bethesda	7,169



2019 AADT	Trucks	Peak Hour Traffic
29,000 - 60,000 vpd	1% - 4%	7% - 9%

NOTE: The Red Line ridership data represents boardings

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	21	18
LOS E	0	2
LOS F	0	1

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	10.9 / 9.2	9.6 / 4.8
LOS E	7.1 / 1.5	6.1 / 11.5
LOS F	1.7 / 9.0	4.0 / 3.4

LOS 'E' Intersections

MD 355 at Cedar Dr (PM)
MD 355 at Pooks Hill Rd (PM)

LOS 'F' Intersections

MD 355 at Jones Bridge Rd/Center Dr (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	No data

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Ridge Rd. (MD 27) -Germantown Rd. (MD 118)	0.9						W		
	Germantown Rd. (MD 118) - Middlebrook Road	0.8					I			
	Middlebrook Road - Christopher Ave.	2.3						W		
	Christopher Ave. - Montgomery Village Ave (MD 124)	0.3				W	I			W
	Montgomery Village Ave. (MD 124) - Odendhal Ave.	0.4			W				W	
	Odendhal Ave - Summit Ave.	1.0							W	
	Summit Ave. - Shady Grove Rd./I-370	1.2								
	Shady Grove Rd./I-370 - Redland Blvd.	1.0						I		
	Redland Blvd. - Gude Dr.	0.8						I		
	Gude Dr. - Washington St.	1.0								
	Washington St. - Veirs Mill Rd/ Jefferson St (MD 28)	0.9								
	Veirs Mill Rd/Jefferson St (MD 28) - Wootton Pkwy (MD 911)	0.4		W						
	Wootton Pkwy (MD 911) - Montrose Pkwy	2.1							W	
	Montrose Pkwy - Strathmore Ave (MD 547)	1.3							W	
	Strathmore Ave (MD 547) -Grosvenor Lane	0.9			W				W	
	Grosvenor Lane - I-495	0.3								
	I-495 - Cedar Lane	0.9								
	Cedar Lane - Jones Bridge Rd.	0.6								W
	Jones Bridge Rd - Montgomery Avenue (MD 410)	0.9						W		W
	Montgomery Avenue (MD 410) - Bradley Blvd./Lane (MD 191)	0.5			W		W		W	
	Bradley Blvd./Lane (MD 191) - Dorset Ave	0.7								
	Dorset Ave. - DC Line	0.5								

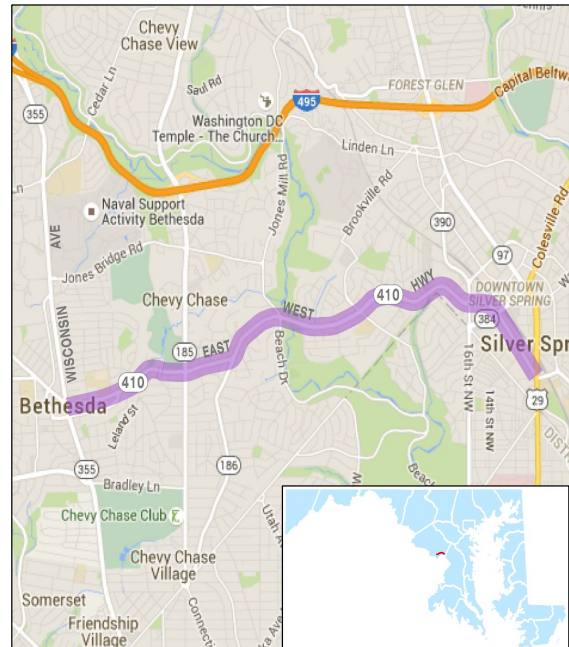
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time/ freeflow travel time)

MD 410

Limits:	MD 355 to US 29	
Corridor Length:	3.8 miles	
Speed Limit:	25 - 35 MPH	
Travel Lanes:	(1 - 2) Eastbound (1 - 2) Westbound	
Signal Controlled Intersections:	19	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 355, Montgomery Ave, MD 185, MD 186, Beach Dr / Jones Mill Dr, Grubb Rd, MD 390, MD 384, US 29	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO J1/J2/J3	5,195
	Ride On Route 1	970
	Ride On Route 2	561
	Ride On Route 11	571
	Ride On Route 18	482
	Ride On Route 28	700



2019 AADT	Trucks	Peak Hour Traffic
14,000 - 28,000 vpd	3% - 4%	8% - 10%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	4	4
LOS E	1	1
LOS F	0	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	3.3 / 1.2	1.0 / 0.5
LOS E	0.5 / 0.0	1.7 / 3.3
LOS F	0.0 / 2.6	1.1 / 0.0

LOS 'E' Intersections

MD 185 at MD 410 (AM, PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	Montgomery Ave. - MD 185	0.5			I				I	
	MD 185 - Beach Dr.	0.9							W	
	Beach Dr. - Meadowbrook Ln.	0.2								
	Meadowbrook Ln. - Grubb Rd.	0.5							W	W
	Grubb Rd. - Washington Ave.	0.4								
	Washington Ave. - Rosemary Hill Dr.	0.4								
	Rosemary Hill Dr. - MD 390	0.2								
	MD 390 - Colesville Rd.	0.2							W	W
	Colesville Rd. - Shopping Center	0.1		W				W	W	W
	Shopping Center - Blair Mill Rd.	0.2								
	Blair Mill Rd. - US 29	0.2								

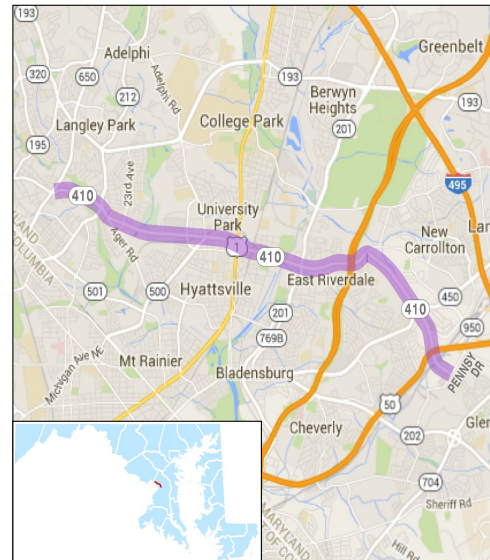
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 410

Limits:	MD 650 to Pennsy Drive	
Corridor Length:	7.7 miles	
Speed Limit:	30 - 45 MPH	
Travel Lanes:	(1 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	20	
Grade Separated Interchanges:	2	
Major Cross Streets:	MD 650, MD 212, Ager Rd, Belcrest Rd, MD 500, US 1, MD 201, MD 295, Riverdale Rd, MD 450, US 50, Pennsy Dr	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO C4/C2	9,102
	METRO F4	5,945
	METRO F6	1,886
	METRO 86/83/83x	3,938
	The Bus Route 13	269
	The Bus Route 14	334
	The Bus Route 18	707



2019 AADT	Trucks	Peak Hour Traffic
18,000 - 48,000 vpd	2% - 9%	6.5% - 7.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	10	9
LOS E	0	0
LOS F	1	2

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	5.9 / 1.2	3.1 / 4.0
LOS E	1.8 / 3.5	2.9 / 3.7
LOS F	0.0 / 3.0	1.7 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

MD 410 at MD 212 (AM, PM)
MD 500 at MD 410/Adelphi Rd (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	MD 650 - MD 212	0.9								
	MD 212 - Ager Rd.	0.2								
	Ager Rd. - 23rd Ave.	0.3								
	23rd Ave. - Toledo Terrace	0.5								
	Toledo Terrace - Editors Park Dr.	0.1								
	Editors Park Dr. - Pr. George's Plaza	0.1								
	Pr. George's Plaza - Belcrest Rd.	0.3								
	Belcrest Rd. - MD 500/Adelphi Rd.	0.4	I				I			
	MD 500/Adelphi Rd. - US 1/Baltimore Ave.	0.5								
	US 1/Baltimore Ave. - Taylor Rd.	0.5								
	Taylor Rd. - Kenilworth Ave./MD201	0.5								
	Kenilworth Ave./MD 201 - Mustang Dr.	0.5								
	Mustang Dr. - 64th Ave.	0.2								
	64th Ave. - Baltimore-Washington Pkwy.	0.1								
	Baltimore-Washington Pkwy.-Veterans Pkwy.	0.3	W				W			
	Veterans Pkwy. - Annapolis Rd./MD 450	1.1			W				W	
	Annapolis Rd./MD 450 - Ellin Rd.	0.5								
	Ellin Rd. - US 50/John Hanson Hwy.	0.4								
	US50/John Hanson Hwy. - Pennsy Dr.	0.3				I				I

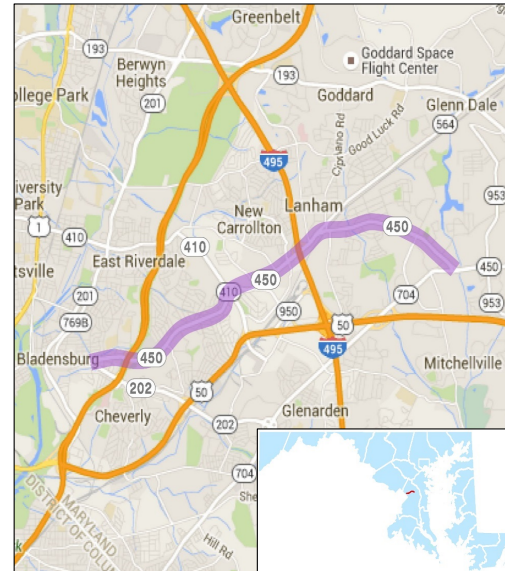
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PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 450

Limits:	MD 202 to MD 704	
Corridor Length:	6.3 miles	
Speed Limit:	35 - 40 MPH	
Travel Lanes:	(2 - 4) Eastbound (2 - 4) Westbound	
Signal Controlled Intersections:	22	
Grade Separated Interchanges:	2	
Major Cross Streets:	MD 202, MD 295, Ardwick Ardmore Rd / Surrey Ln MD 410, Riverdale Rd, 85th Ave, I-95 / I-495, MD 564, Whitfield Chapel Rd, Forbes Blvd, MD 704	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO B24	910
	METRO B27	294
	METRO F4	5,945
	METRO F13	775
	METRO G12/G14	3,273
	METRO T18	4,247
	The Bus Route 15X	224
	The Bus Route 16	734



2019 AADT	Trucks	Peak Hour Traffic
29,000 - 66,000 vpd	3%	7.5%

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	5.7 / 1.9	5.5 / 4.6
LOS E	0.6 / 3.8	0.8 / 0.6
LOS F	0.0 / 0.6	0.0 / 0.1

Intersection Operations

Signalized Intersections*	AM Peak Hour	PM Peak Hour
LOS D or Better	20	20
LOS E	0	0
LOS F	0	0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Minor Arterial	MD 202 - 56th Ave.	0.2								
	56th Ave. - 57th Ave.	0.2								
	57th Ave. - MD 295 (Balt/Wash Pkwy)	0.4								
	MD 295 - 65th Ave.	0.2								
	65th Ave. - Cooper Ln.	0.3								
	Cooper Ln. - 68th Ave.	0.2								
	68th Ave. - 71st Ave.	0.4								
	71st Ave. - Ardwick-Ardmore Rd.	0.3								
	Ardwick-Ardmore Rd. - Gallatin Rd.	0.2								
	Gallatin Rd. - MD 410 (Veterans Pkwy)	0.1								
	MD 410 (Veterans Pkwy) - Harkins Rd./Finns Ln.	0.4								
	Harkins Rd./Finns Ln. - Riverdale Rd.	0.4								
	Riverdale Rd. - 85th Ave.	0.2								
	85th Ave. - I-495	0.1								
	I-495 - Princess Garden Pkwy	0.3								
	Princess Garden Pkwy - Whitfield Chapel Rd.	0.4								
	Whitfield Chapel Rd. - Carter Ave.	0.6								
	Carter Ave. - Forbes Blvd.	0.7								
	Forbes Blvd. - MD 704	0.7								

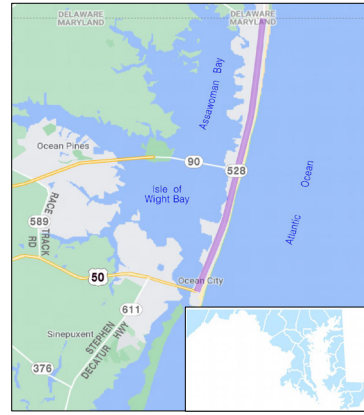
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 528 FRIDAY SUMMER

Limits:	Delaware Line to US 50			
Corridor Length:	8.6 miles			
Speed Limit:	30-40 MPH			
Travel Lanes:	(2-3) Northbound + (0-1) bus lane; 3 Southbound + (0-1) bus lane			
Signal Controlled Intersections:	48			
Grade Separated Interchanges:	0			
Major Cross Streets:	142nd St, 130th St, 94th St, MD 90, 52nd St, 33rd St, 15th St, US 50			
Routes and Ridership	Routes	Avg. Daily Ridership	2019 AADT	Trucks
	N/A	N/A	26,000-59,000 vpd	N/A
			Peak Hour Traffic	
			6.5% -8%	



Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	2	2
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound (Miles of Roadway)	Southbound (Miles of Roadway)
LOS D or Better	4.0	4.0
LOS E	4.6	4.6
LOS F	0.0	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	> 2.5
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI		PTI	
			Friday (6PM-8PM)		Friday (6PM-8PM)	
			NB	SB	NB	SB
Urban Other Principal Arterial	Maryland-Delaware State Line/146th St. - 142nd St./Frankford Ave.	0.3				
	142nd St./Frankford Ave. - 139th St./Bennett Rd.	0.2				
	139th St./Bennett Rd. - 136th St.	0.2				
	136th St. - 133rd St./Melson Ave.	0.2				
	133rd St./Melson Ave. - 130th St./Sea Breeze Dr.	0.2				
	130th St./Sea Breeze Dr. - 127th St.	0.2				
	127th St. - 123rd St./Mc Comas Ave.	0.3				
	123rd St./Mc Comas Ave. - 120th St./Edward Taylor Rd.	0.2				
	120th St./Edward Taylor Rd. - 118th St.	0.2				
	118th St. - Jamestown Rd.	0.1				
	Jamestown Rd. - Gold Coast Mall	0.1				
	Gold Coast Mall - Channel Bouy Rd.	0.2				
	Channel Bouy Rd. - Old Landing Rd.	0.2				
	Old Landing Rd. - 100th St.	0.2				
	100th St. - 94th St.	0.2				
	94th St. - Pacific Ave.	0.2				
	Pacific Ave. - 85th St.	0.2				
	85th St. - 81st St.	0.2				
	81st St. - 77th St.	0.2				
	77th St. - 74th St.	0.2				
	74th St. - 70th St.	0.2				
	70th St. - 67th St.	0.2				
	67th St. - 65th St.	0.1				
	65th St. - 62nd St./MD-90 (Ocean City Expy)	0.2				
	62nd St./MD-90 (Ocean City Expy) - 59th St.	0.2				
	59th St. - 56th St.	0.2				
	56th St. - 54th St.	0.1				
	54th St. - 52nd St.	0.1				
	52nd St. - 49th St.	0.2				
	49th St. - 48th St.	0.1				
	48th St. - 45th St.	0.2				
	45th St. - 41st St.	0.2				
	41st St. - Convention Center Dr.	0.1				
	Convention Center Dr. - 36th St.	0.2				
	36th St. - 33rd St.	0.2				
	33rd St. - 30th St.	0.2				
	30th St. - 28th St./Robin Dr.	0.2				
	28th St./Robin Dr. - 26th St.	0.1				
	26th St. - 23rd St.	0.2				
	23rd St. - 21st St.	0.2				
	21st St. - 19th St./Dolphin St.	0.1				
	19th St./Dolphin St. - 17th St.	0.2				
	17th St. - 15th St.	0.1				
	15th St. - 12th St.	0.2				
	12th St. - 8th St.	0.2				
	8th St. - 7th St.	0.1				
	7th St. - 5th St.	0.1				
	5th St. - 3rd St.	0.1				
	3rd St. - 2nd St.	0.1				
	2nd St. - 1st St.	0.1				
	1st St. - N Division St./US-50/Ocean Gateway	0.1				

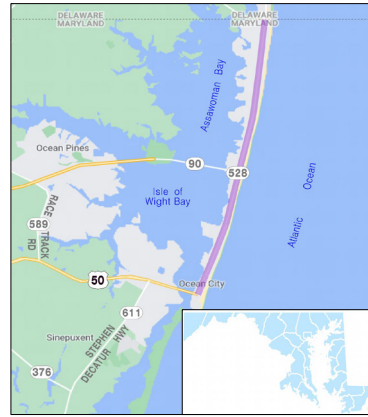
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeway travel time)

TTI: travel time index (50th percentile travel time / freeway travel time)

MD 528 SATURDAY SUMMER

Limits:	Maryland Line to US 50				
Corridor Length:	8.6 miles				
Speed Limit:	30-40 MPH				
Travel Lanes:	(2-3) Northbound + (0-1) bus lane; 3 Southbound + (0-1) bus lane				
Signal Controlled Intersections:	48				
Grade Separated Interchanges:	0				
Major Cross Streets:	142nd St, 130th St, 94th St MD 90, 52nd St, 33rd St 15th St, US 50				
Routes and Ridership	<table> <tr> <td>Routes</td><td>Avg. Daily Ridership</td></tr> <tr> <td>N/A</td><td>N/A</td></tr> </table>	Routes	Avg. Daily Ridership	N/A	N/A
Routes	Avg. Daily Ridership				
N/A	N/A				



Intersection Operations			Segment Operations		
Signalized Intersections*	AM Peak Hour	PM Peak Hour	Level of Service	Northbound (Miles of Roadway)	Southbound (Miles of Roadway)
LOS D or Better	2	2	LOS D or Better	4.0	4.0
LOS E	0	0	LOS E	4.6	4.6
LOS F	0	0	LOS F	0.0	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key	
TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI		PTI	
			Saturday (12PM-2PM)		Saturday (12PM-2PM)	
			NB	SB	NB	SB
Urban Other Principal Arterial	Maryland-Delaware State Line/146th St - 142nd St/Frankford Ave.	0.3				
	142nd St/Frankford Ave. - 139th St/Bennett Rd.	0.2				
	139th St/Bennett Rd. - 136th St.	0.2				
	136th St. - 133rd St/Melson Ave.	0.2				
	133rd St/Melson Ave. - 130th St/Sea Breeze Dr.	0.2				
	130th St/Sea Breeze Dr. - 127th St.	0.2				
	127th St. - 123rd St/Mc Comas Ave.	0.3				
	123rd St/Mc Comas Ave. - 120th St/Edward Taylor Rd.	0.2				
	120th St/Edward Taylor Rd. - 118th St.	0.2				
	118th St. - Jamestown Rd.	0.1				
	Jamestown Rd. - Gold Coast Mall	0.1				
	Gold Coast Mall - Channel Bouy Rd.	0.2				
	Channel Bouy Rd. - Old Landing Rd.	0.2				
	Old Landing Rd. - 100th St.	0.2				
	100th St. - 94th St.	0.2				
	94th St. - Pacific Ave.	0.2				
	Pacific Ave. - 85th St.	0.2				
	85th St. - 81st St.	0.2				
	81st St. - 77th St.	0.2				
	77th St. - 74th St.	0.2				
	74th St. - 70th St.	0.2				
	70th St. - 67th St.	0.2				
	67th St. - 65th St.	0.1				
	65th St. - 62nd St./MD-90 (Ocean City Expy)	0.2				
	62nd St./MD-90 (Ocean City Expy) - 59th St.	0.2				
	59th St. - 56th St.	0.2				
	56th St. - 54th St.	0.1				
	54th St. - 52nd St.	0.1				
	52nd St. - 49th St.	0.2				
	49th St. - 48th St.	0.1				
	48th St. - 45th St.	0.2				
	45th St. - 41st St.	0.2				
	41st St. - Convention Center Dr.	0.1				
	Convention Center Dr. - 36th St.	0.2				
	36th St. - 33rd St.	0.2				
	33rd St. - 30th St.	0.2				
	30th St. - 28th St./Robin Dr.	0.2				
	28th St./Robin Dr. - 26th St.	0.1				
	26th St. - 23rd St.	0.2				
	23rd St. - 21st St.	0.2				
	21st St. - 19th St./Dolphin St.	0.1				
	19th St./Dolphin St. - 17th St.	0.2				
	17th St. - 15th St.	0.1				
	15th St. - 12th St.	0.2				
	12th St. - 8th St.	0.2				
	8th St. - 7th St.	0.1				
	7th St. - 5th St.	0.1				
	5th St. - 3rd St.	0.1				
	3rd St. - 2nd St.	0.1				
	2nd St. - 1st St.	0.1				
	1st St. - N Division St./US-50/Ocean Gateway	0.1				

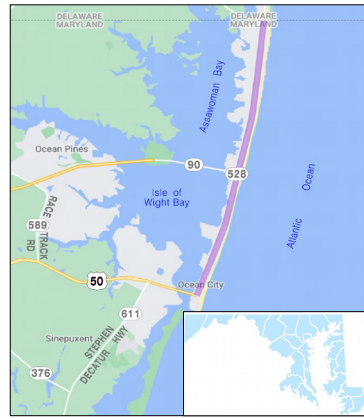
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 528 SUNDAY SUMMER

Limits:	Maryland Line to US 50	
Corridor Length:	8.6 miles	
Speed Limit:	30-40 MPH	
Travel Lanes:	(2-3) Nothbound + (0-1) bus lane; 3 Southbound + (0-1) bus lane	
Signal Controlled Intersections:	48	
Grade Separated Interchanges:	0	
Major Cross Streets:	142nd St, 130th St, 94th St, MD 90, 52nd St, 33rd St, 15th St, US 50	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
29,000-56,000 vpd	N/A	6.5% -8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	2	2
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound (Miles of Roadway)	Southbound (Miles of Roadway)
LOS D or Better	4.0	4.0
LOS E	4.6	4.6
LOS F	0.0	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI		PTI	
			Sunday (4PM-6PM)		Sunday (4PM-6PM)	
			NB	SB	NB	SB
Urban Other Principal Arterial	Maryland-Delaware State Line/146th St. - 142nd St./Frankford Ave.	0.3				
	142nd St./Frankford Ave. - 139th St./Bennett Rd.	0.2				
	139th St./Bennett Rd. - 136th St.	0.2				
	136th St. - 133rd St./Melson Ave.	0.2				
	133rd St./Melson Ave. - 130th St./Sea Breeze Dr.	0.2				
	130th St./Sea Breeze Dr. - 127th St.	0.2				
	127th St. - 123rd St./Mc Comas Ave.	0.3				
	123rd St./Mc Comas Ave. - 120th St./Edward Taylor Rd.	0.2				
	120th St./Edward Taylor Rd. - 118th St.	0.2				
	118th St. - Jamestown Rd.	0.1				
	Jamestown Rd. - Gold Coast Mall	0.1				
	Gold Coast Mall - Channel Bouy Rd.	0.2				
	Channel Bouy Rd. - Old Landing Rd.	0.2				
	Old Landing Rd. - 100th St.	0.2				
	100th St. - 94th St.	0.2				
	94th St. - Pacific Ave.	0.2				
	Pacific Ave. - 85th St.	0.2				
	85th St. - 81st St.	0.2				
	81st St. - 77th St.	0.2				
	77th St. - 74th St.	0.2				
	74th St. - 70th St.	0.2				
	70th St. - 67th St.	0.2				
	67th St. - 65th St.	0.1				
	65th St. - 62nd St./MD-90 (Ocean City Expy)	0.2				
	62nd St./MD-90 (Ocean City Expy) - 59th St.	0.2				
	59th St. - 56th St.	0.2				
	56th St. - 54th St.	0.1				
	54th St. - 52nd St.	0.1				
	52nd St. - 49th St.	0.2				
	49th St. - 48th St.	0.1				
	48th St. - 45th St.	0.2				
	45th St. - 41st St.	0.2				
	41st St. - Convention Center Dr.	0.1				
	Convention Center Dr. - 36th St.	0.2				
	36th St. - 33rd St.	0.2				
	33rd St. - 30th St.	0.2				
	30th St. - 28th St./Robin Dr.	0.2				
	28th St./Robin Dr. - 26th St.	0.1				
	26th St. - 23rd St.	0.2				
	23rd St. - 21st St.	0.2				
	21st St. - 19th St./Dolphin St.	0.1				
	19th St./Dolphin St. - 17th St.	0.2				
	17th St. - 15th St.	0.1				
	15th St. - 12th St.	0.2				
	12th St. - 8th St.	0.2				
	8th St. - 7th St.	0.1				
	7th St. - 5th St.	0.1				
	5th St. - 3rd St.	0.1				
	3rd St. - 2nd St.	0.1				
	2nd St. - 1st St.	0.1				
	1st St. - N Division St./US-50/Ocean Gateway	0.1				

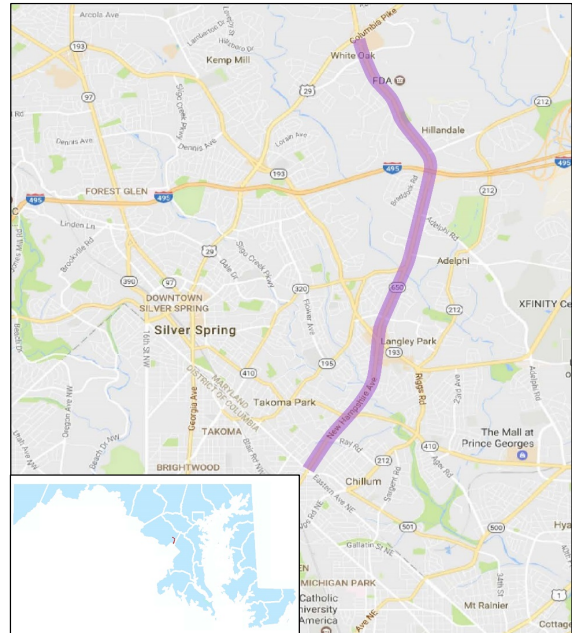
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

MD 650

Limits:	Washington DC Line to US 29	
Corridor Length:	6.0 miles	
Speed Limit:	35 - 40 MPH	
Travel Lanes:	(3 - 4) Northbound (2 - 3) Southbound	
Signal Controlled Intersections:	30	
Grade Separated Interchanges:	2	
Major Cross Streets:	Eastern Ave, MD 410, MD 193, Piney Branch Rd, MD 320, Adelphi Rd, Powder Mill Rd, US 29	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO C8	2,675
	METRO K6	5,624
	METRO K9	1,330
	METRO Z2	825
	MTA Commuter Bus 204	745
	Ride On Route 10	2,134
	Ride On Route 16	2,308
	Ride On Route 18	482
	Ride On Route 20	2,320
	Ride On Route 22	479
	Ride On Route 24	221
	Ride On Route 25	406



2019 AADT	Trucks	Peak Hour Traffic
37,000 - 80,000 vpd	2% - 5%	7% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	13	14
LOS E	1	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	5.2 / 2.7	2.7 / 2.0
LOS E	0.8 / 0.0	0.0 / 1.7
LOS F	0.0 / 8.3	3.3 / 2.3

LOS 'E' Intersections

MD 650 at Oakview Dr (AM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	US 29 - Lockwood Dr.	0.3								
	Lockwood Dr. - Powder Mill Rd.	1.5								
	Powder Mill Rd. - I-495	0.4								
	I-495 - Adelphi Rd.	0.4								
	Adelphi Rd. - Metzert Rd.	0.5								
	Metzert Rd. - MD 320	0.2								
	MD 320 - MD 193	0.9								
	MD 193 - MD 410	1.0								
	MD 410 - Eastern Ave./DC line	0.8								

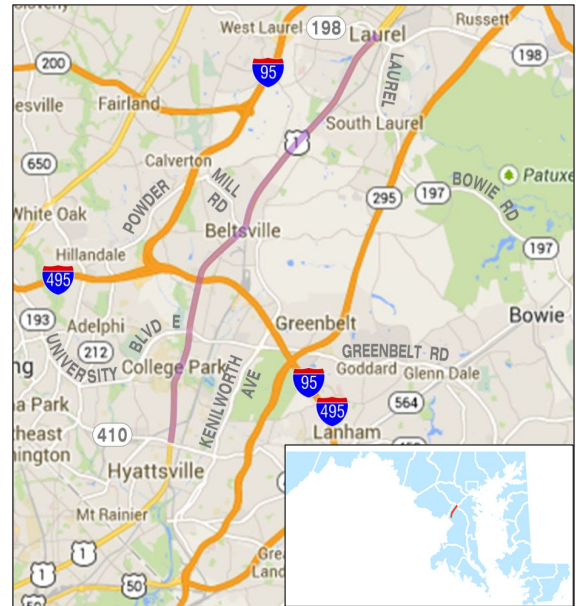
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 1

Limits:	MD 410 to MD 198	
Corridor Length:	10.7 miles	
Speed Limit:	35 - 50 MPH	
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	40	
Grade Separated Interchanges:	3	
Major Cross Streets:	MD 410, MD 193, I-495, Rhode Island Ave, MD 212, Muirkirk Rd, Contee Rd, Cherry Lane, MD 198	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO 83/83x/86	3,938
	METRO 89/89M	802
	Green Line Greenbelt	4,402
	Green Line College Park	3,071
	The Bus Route 17	1,042



2019 AADT	Trucks	Peak Hour Traffic
18,000 - 47,000 vpd	3% - 4%	6.5% - 8%

NOTE: The Green Line ridership data represents boardings

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	24	22
LOS E	0	2
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	10.7 / 0.6	8.4 / 5.4
LOS E	0.0 / 10.1	2.3 / 3.0
LOS F	0.0 / 0.0	0.0 / 2.3

LOS 'E' Intersections

US 1 at MD 430/Metzerott Rd (PM)
US 1 at Edgewood Rd (PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Gorman Ave (MD 198) - Cherry Ln.	0.6								
	Cherry Ln. - Cypress St.	0.7								
	Cypress St. - Contee Rd.	0.5								
	Contee Rd. - Muirkirk Rd.	1.3								
	Muirkirk Rd. - Ritz Way	0.4								
	Ritz Way - Powder Mill Rd. (MD212)	1.8								
	Powder Mill Rd. (MD 212) - Rhode Island Ave.	0.6								
	Rhode Island Ave. - I-495/I-95	1.0								
	I-495/I-95 - Cherry Hill Rd.	0.3								
	Cherry Hill Rd. - Greenbelt Rd./Metzerott Rd.	1.1								
	Greenbelt Rd./Metzerott Rd. - Campus Dr./Paint Branch Pkwy	0.7								
	Campus Dr./Paint Branch Pkwy - Guilford Rd/Dr	0.8								
	Guilford Rd/Dr - East West Hwy (MD 410)	0.9								

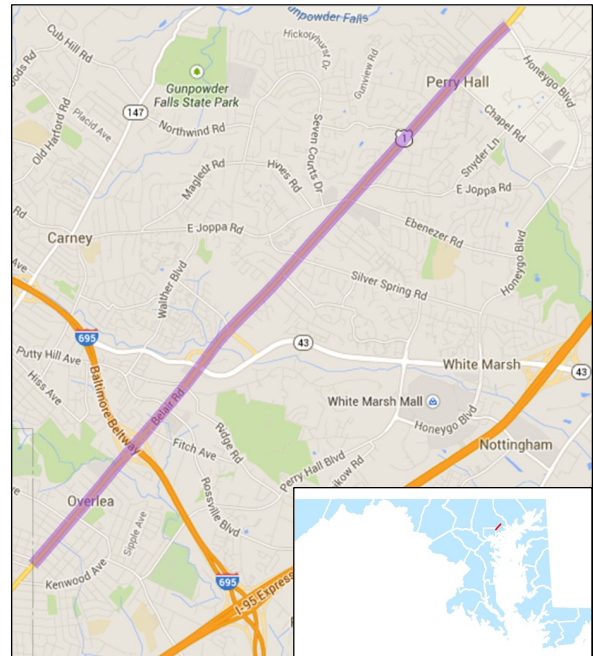
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 1

Limits:	Baltimore City Line to Honeygo Blvd	
Corridor Length:	5.6 miles	
Speed Limit:	35 - 40 MPH	
Travel Lanes:	(2 - 3) Northbound (2 - 3) Southbound	
Signal Controlled Intersections:	23	
Grade Separated Interchanges:	2	
Major Cross Streets:	Taylor Ave, Fullerton Ave, I-695, Rossville Blvd, Putty Hill Ave / Ridge Rd, MD 43, Silver Spring Rd, E. Joppa Rd / Ebenezer Rd, Honeygo Blvd	
Routes and Ridership	Routes	Avg. Daily Ridership
	CityLink Brown Route	7,327
	MTA LocalLink 33	2,365
	MTA LocalLink 36	997



2019 AADT	Trucks	Peak Hour Traffic
23,000 - 46,000 vpd	1% - 3%	7% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	6	6
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	5.0 / 1.3	4.9 / 2.3
LOS E	0.6 / 2.7	0.0 / 2.0
LOS F	0.0 / 1.6	0.7 / 1.3

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	Chapel Rd. - Joppa Rd.	1.3								
	Joppa Rd. - Silver Spring Rd.	0.6				W			W	W
	Silver Spring Rd. - White Marsh Blvd. (MD 43)/Dunfield Rd.	1.2								
	White Marsh Blvd. (MD 43)/Dunfield Rd. - Rossville Blvd.	0.8								
	Rossville Blvd. - I-695	0.4							I	
	I-695 - Fullerton Ave.	0.7								I
	Fullerton Ave. - Fleetwood Ave.	0.6								

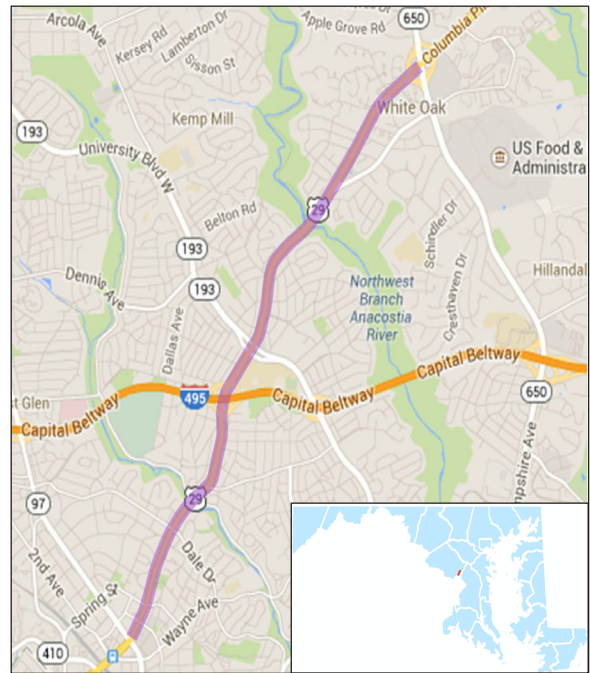
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 29

Limits:	MD 97 to MD 650					
Corridor Length:	3.8 miles					
Speed Limit:	35 - 45 MPH					
Travel Lanes:	(3 - 4) Northbound (2 - 4) Southbound					
Signal Controlled Intersections:	13					
Grade Separated Interchanges:	2					
Major Cross Streets:	MD 97, Spring St / Cedar St, Dale Dr, Sligo Creek Pkwy / St Andrews Way, I-495, MD 193, Lockwood Dr, MD 650					
Routes and Ridership	Ride On Routes	Avg. Daily Ridership	METRO Routes	Avg. Daily Ridership		
			Z2	825		
			Z6	2,681		
			Z7	462		
	8	571	Z8	3,008		
			Z11	816		
			MTA Commuter Bus Routes		Avg. Daily Ridership	
			12	1,261		
			13	196	201	528
			14	644	305	560
			21	254	315	434
			22	479	325	233



2019 AADT	Trucks	Peak Hour Traffic
28,000 - 72,000 vpd	2% - 4%	7% - 7.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	2	2
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	3.5 / 2.5	1.0 / 0.8
LOS E	0.0 / 1.0	0.8 / 2.7
LOS F	0.3 / 0.3	2.0 / 0.3

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Other Principal Arterial	New Hampshire Ave. (MD 650) - Lockwood Dr.	0.9								
	Lockwood Dr. - University Blvd. (MD 193)	1.1								
	University Blvd. (MD 193) - I-495	0.3								
	I-495 - Franklin Ave.	0.5								
	Franklin Ave. - Dale Dr.	0.3								
	Dale Dr. - Cedar St./Spring St.	0.5								
	Cedar St./Spring St. - Georgia Ave. (MD 97)	0.2								

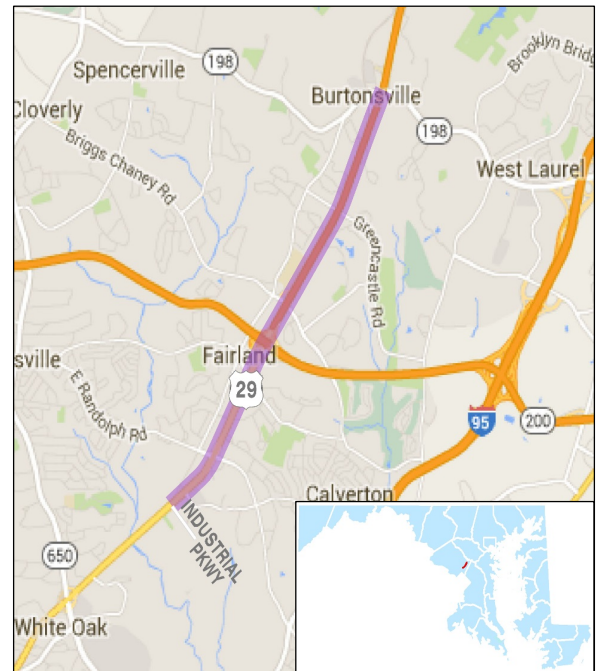
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 29

Limits:	Industrial Pkwy to MD 198	
Corridor Length:	4.5 miles	
Speed Limit:	50 - 55 MPH	
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	6	
Grade Separated Interchanges:	4	
Major Cross Streets:	Industrial Parkway, Tech Rd E Randolph Rd / Cherry Hill Rd Musgrove Rd, Fairland Rd, MD 200, Briggs Chaney Rd, Blackburn Rd, MD 198	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO Z7	462
	METRO Z8	3,008
	METRO Z11	816
	Ride On Route 10	2,134



2018 AADT	Trucks	Peak Hour Traffic
59,000 - 69,000 vpd	2%	7.5% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	1	1
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	4.5 / 2.0	2.6 / 3.7
LOS E	0.0 / 0.0	0.0 / 0.8
LOS F	0.0 / 2.5	1.9 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Freeway Expressway	MD 198 - Greencastle Rd.	1.2						I	I	
	Greencastle Rd. - Fairland Rd.	1.8							I	
	Fairland Rd. - Musgrove Rd.	0.5								
	Musgrove Rd. - Tech Rd./Old Columbia Pike	0.3								
	Tech Rd./Old Columbia Pike - Industrial Pkwy.	0.7		I			I	I	I	

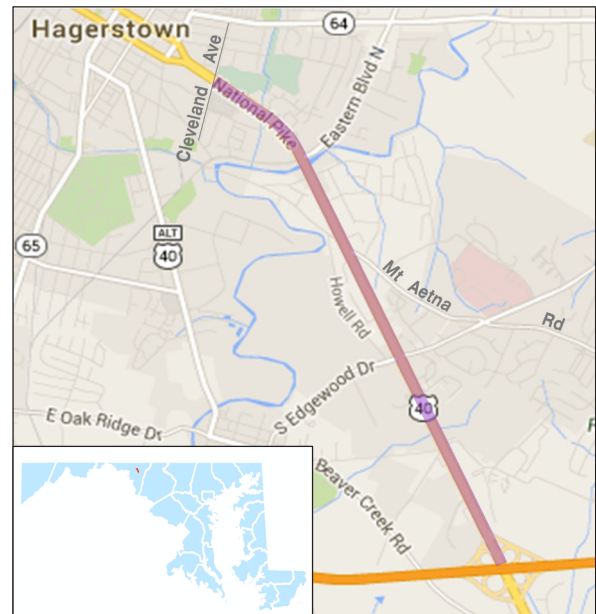
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 40

Limits:	I-70 to Cleveland Ave	
Corridor Length:	3.4 miles	
Speed Limit:	35 - 45 MPH	
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	6	
Grade Separated Interchanges:	1	
Major Cross Streets:	I-70, Edgewood Dr, Mt. Aetna Rd, Eastern Blvd, Cleveland Ave	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
25,000 - 38,000 vpd	2%	8% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	No Data	No Data
LOS E	No Data	No Data
LOS F	No Data	No Data

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	3.4 / 3.4	3.4 / 3.1
LOS E	0.0 / 0.0	0.0 / 0.3
LOS F	0.0 / 0.0	0.0 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	Cannon Ave (MD 64) - Cleveland Ave.	0.3								
	Cleveland Ave. - Eastern Blvd.	0.6								I
	Eastern Blvd. - Mt. Aetna Rd./ Birch Knoll Rd.	0.5								I
	Mt. Aetna Rd./ Birch Knoll Rd - Edgewood Dr.	0.7								
	Edgewood Dr. - I-70	1.3								

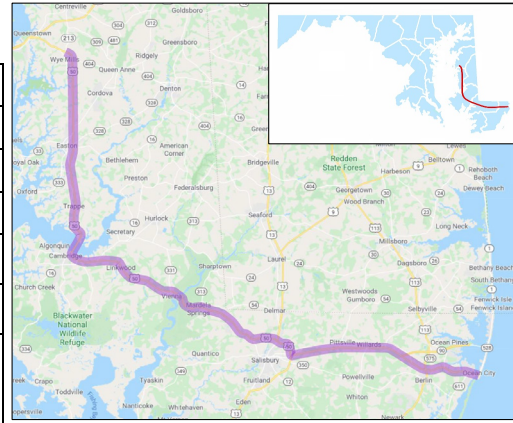
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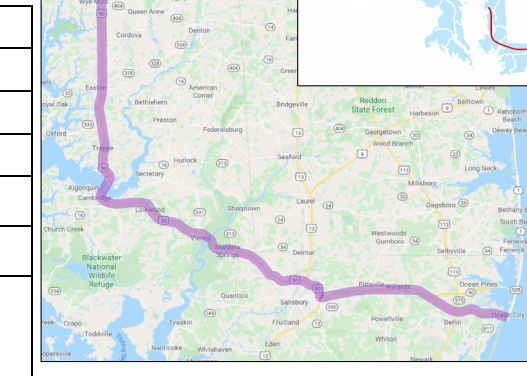
PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 50

FRIDAY SUMMER



Limits:	MD 213 to MD 528				
Corridor Length:	93 miles				
Speed Limit:	35 - 55 MPH				
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound				
Signal Controlled Intersections:	36				
Grade Separated Interchanges:	7				
Major Cross Streets:	MD 213, MD 404, MD 309 MD 322, MD 328, Mt. Holly Rd, MD 331, MD 313, Naylor Mill Rd, Northwood Dr, US 13, US 50 BUS, MD 90, US 113, MD 589, MD 528				
Routes and Ridership	Routes	Avg. Daily Ridership			
	N/A	N/A			
			2019 AADT	Trucks	Peak Hour Traffic
			22,500-45,000 vpd	3%-12%	10.5%-11.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	7	7
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Eastbound (Miles of Roadway)	Westbound (Miles of Roadway)
LOS D or Better	86.7	91.6
LOS E	4.5	1.4
LOS F	1.8	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI		PTI	
			Friday (6PM-8PM)		Friday (6PM-8PM)	
			EB	WB	EB	WB
Other Principal Arterial	Del Rhodes Ave - MD 213	3.7			I	
	MD 213 - MD 404(Queen Ann Hwy)	1.5			W	I
	MD 404(Queen Ann Hwy) - Black Dog Alley/Airport Rd	8.7				
	Black Dog Alley/Airport Rd - Easton Pkwy	0.9				
	Easton Pkwy - Chapel Rd	0.4			I	
	Chapel Rd - MD 328 (Goldsborough St/Matthewstown Rd)	1.1			I	I
	MD 328 - MD 331 (Dover Rd)	0.3			I	I
	MD 331 (Dover Rd) - Dutchmans Ln	0.9				
	Dutchmans Ln - Easton Pkwy	1.7				
	Easton Pkwy - Old Trappe Rd/Landing Neck Rd	0.7				
	Old Trappe Rd/Landing Neck Rd - Barber Rd	5.2				
	Barber Rd - Maryland Ave	6.4				
	Maryland Ave - E Cedar St/Meteor Ave	0.3				
	E Cedar St/Meteor Ave - Crusader Rd	0.2				I
	Crusader Rd - Woods Rd	0.3				
	Woods Rd - MD 16/Gypsy Hill Rd/Church Creek Rd	0.5				
	MD 16/Gypsy Hill Rd/Church Creek Rd - Old Rt 50/Bucktown Rd	0.4			I	I
Other Freeways and Expressways	Old Rt 50/Bucktown Rd - MD 313/MD 54 (Delmar Rd)/Main St	19				
	MD 313/MD 54 (Delmar Rd)/Main St - US 13/Salisbury Bypass/Ocean Hwy	12.6				
	US 13/Salisbury Bypass/Ocean Hwy - Hobbs Rd	3				
Other Principal Arterial	Hobbs Rd - Walston Switch Rd	1.5				
	Walston Switch Rd - MD 452/Friendship Rd/Seahawk Rd	17.8				
	MD 452/Friendship Rd/Seahawk Rd - MD 589/Racetrack Rd	1.3				I
	MD 589/Racetrack Rd - Samuel Bowen Blvd/Riddle Ln/Holly Grove Rd	0.8				
	Samuel Bowen Blvd/Riddle Ln - Jerry Mack Rd/Man O War Ln	1.2				
	Jerry Mack Rd/Man O War Ln - Old Ocean City Rd/MD 707/Old Bridge Rd	0.4				
	Old Ocean City Rd/MD 707/Old Bridge Rd - Keyser Point Rd	0.5				
	Keyser Point Rd - MD 611/Stephen Decatur Hwy	0.3				
	MD 611/Stephen Decatur Hwy - Golf Course Rd	0.4				
	Golf Course Rd - Inlet Isle Ln	0.2				I
Other Principal Arterial	Inlet Isle Ln - MD 528/Philadelphia Ave	0.8				

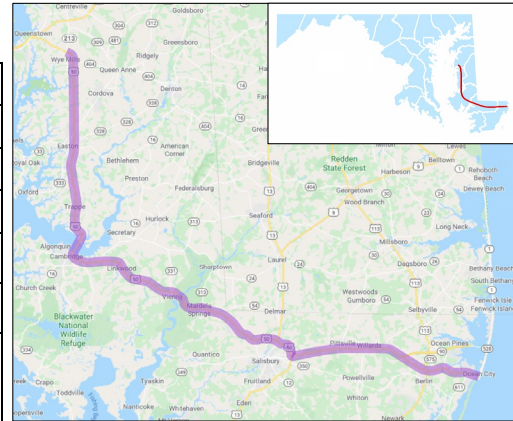
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 50 SATURDAY SUMMER

Limits:	MD 213 to MD 528	
Corridor Length:	93 miles	
Speed Limit:	35 - 55 MPH	
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	36	
Grade Separated Interchanges:	7	
Major Cross Streets:	MD 213, MD 404, MD 309 MD 322, MD 328, Mt. Holly Rd, MD 331, MD 313, Naylor Mill Rd, Northwood Dr, US 13, US 50 BUS, MD 90, US 113, MD 589, MD 528	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
25,000-43,500 vpd	3%-12%	10.5%-12%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	6	6
LOS E	1	1
LOS F	N/A	0

Segment Operations

Level of Service	Eastbound (Miles of Roadway)	Westbound (Miles of Roadway)
LOS D or Better	82.6	84.8
LOS E	3.7	6.7
LOS F	6.7	1.5

LOS 'E' Intersections

US 50 at MD 213 (AM, PM)

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI		PTI	
			Saturday (12PM-2PM)		Saturday (12PM-2PM)	
			EB	WB	EB	WB
Other Principal Arterial	Del Rhodes Ave - MD 213	3.7				
	MD 213 - MD 404(Queen Ann Hwy)	1.5				
	MD 404(Queen Ann Hwy) - Black Dog Alley/Airport Rd	8.7				
	Black Dog Alley/Airport Rd - Easton Pkwy	0.9				I
	Easton Pkwy - Chapel Rd	0.4			I	I
	Chapel Rd - MD 328 (Goldsborough St/Matthewstown Rd)	1.1			I	I
	MD 328 - MD 331 (Dover Rd)	0.3			I	I
	MD 331 (Dover Rd) - Dutchmans Ln	0.9			I	
	Dutchmans Ln - Easton Pkwy	1.7				
	Easton Pkwy - Old Trappe Rd/Landing Neck Rd	0.7				I
	Old Trappe Rd/Landing Neck Rd - Barber Rd	5.2				
	Barber Rd - Maryland Ave	6.4				
	Maryland Ave - E Cedar St/Meteor Ave	0.3				
	E Cedar St/Meteor Ave - Crusader Rd	0.2			I	I
	Crusader Rd - Woods Rd	0.3				
	Woods Rd - MD 16/Gypsy Hill Rd/Church Creek Rd	0.5				
	MD 16/Gypsy Hill Rd/Church Creek Rd - Old Rt 50/Bucktown Rd	0.4			I	I
	Old Rt 50/Bucktown Rd - MD 313/MD 54 (Delmar Rd)/Main St	19				
Other Freeways and Expressways	MD 313/MD 54 (Delmar Rd)/Main St - US 13/Salisbury Bypass/Ocean Hwy	12.6				
	US 13/Salisbury Bypass/Ocean Hwy - Hobbs Rd	3				
	Hobbs Rd - Walston Switch Rd	1.5				
Other Principal Arterial	Walston Switch Rd - MD 452/Friendship Rd/Seahawk Rd	17.8				
	MD 452/Friendship Rd/Seahawk Rd - MD 589/Racetrack Rd	1.3			I	
	MD 589/Racetrack Rd - Samuel Bowen Blvd/Riddle Ln/Holly Grove Rd	0.8				
	Samuel Bowen Blvd/Riddle Ln - Jerry Mack Rd/Man O War Ln	1.2				
	Jerry Mack Rd/Man O War Ln - Old Ocean City Rd/MD 707/Old Bridge Rd	0.4	W		W	I
	Old Ocean City Rd/MD 707/Old Bridge Rd - Keyser Point Rd	0.5				
	Keyser Point Rd - MD 611/Stephen Decatur Hwy	0.3				
	MD 611/Stephen Decatur Hwy - Golf Course Rd	0.4				
	Golf Course Rd - Inlet Isle Ln	0.2	W			I
	Inlet Isle Ln - MD 528/Philadelphia Ave	0.8				

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

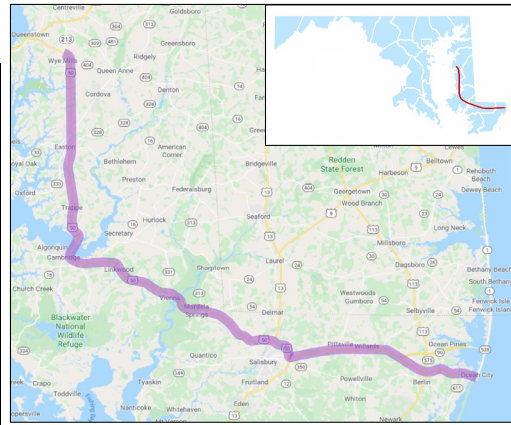
PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 50

SUNDAY SUMMER

Limits:	MD 213 to MD 528	
Corridor Length:	93 miles	
Speed Limit:	35 - 55 MPH	
Travel Lanes:	(2 - 3) Eastbound (2 - 3) Westbound	
Signal Controlled Intersections:	36	
Grade Separated Interchanges:	7	
Major Cross Streets:	MD 213, MD 404, MD 309 MD 322, MD 328, Mt. Holly Rd, MD 331, MD 313, Naylor Mill Rd, Northwood Dr, US 13, US 50 BUS, MD 90, US 113, MD 589, MD 528	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
22,500-40,500 vpd	3% - 12%	10.5% - 12%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	15	14
LOS E	0	1
LOS F	1	1

Segment Operations

Level of Service	Eastbound (Miles of Roadway)	Westbound (Miles of Roadway)
LOS D or Better	87.6	85.2
LOS E	4.0	4.9
LOS F	1.4	2.9

LOS 'E' Intersections

US 50 at MD 213 (PM)

LOS 'F' Intersections

US 50 at MD 404 (PM)
US 50 at MD 213 (AM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment West to East	Length (miles)	TTI		PTI	
			Sunday (2PM-4PM)		Sunday (2PM-4PM)	
			EB	WB	EB	WB
Other Principal Arterial	Del Rhodes Ave - MD 213	3.7				
	MD 213 - MD 404(Queen Ann Hwy)	1.5				W
	MD 404(Queen Ann Hwy) - Black Dog Alley/Airport Rd	8.7				
	Black Dog Alley/Airport Rd - Easton Pkwy	0.9				
	Easton Pkwy - Chapel Rd	0.4			I	
	Chapel Rd - MD 328 (Goldsborough St/Matthewstown Rd)	1.1			I	I
	MD 328 - MD 331 (Dover Rd)	0.3				W
	MD 331 (Dover Rd) - Dutchmans Ln	0.9				I
	Dutchmans Ln - Easton Pkwy	1.7				
	Easton Pkwy - Old Trappe Rd/Landing Neck Rd	0.7				
	Old Trappe Rd/Landing Neck Rd - Barber Rd	5.2				
	Barber Rd - Maryland Ave	6.4				
	Maryland Ave - E Cedar St/Meteor Ave	0.3				
	E Cedar St/Meteor Ave - Crusader Rd	0.2			I	I
	Crusader Rd - Woods Rd	0.3				
	Woods Rd - MD 16/Gypsy Hill Rd/Church Creek Rd	0.5				
	MD 16/Gypsy Hill Rd/Church Creek Rd - Old Rt 50/Bucktown Rd	0.4				
	Old Rt 50/Bucktown Rd - MD 313/MD 54 (Delmar Rd)/Main St	19				
Other Freeways and Expressways	MD 313/MD 54 (Delmar Rd)/Main St - US 13/Salisbury Bypass/Ocean Hwy	12.6				
	US 13/Salisbury Bypass/Ocean Hwy - Hobbs Rd	3				
	Hobbs Rd - Walston Switch Rd	1.5				
Other Principal Arterial	Walston Switch Rd - MD 452/Friendship Rd/Seahawk Rd	17.8				
	MD 452/Friendship Rd/Seahawk Rd - MD 589/Racetrack Rd	1.3				I
	MD 589/Racetrack Rd - Samuel Bowen Blvd/Riddle Ln/Holly Grove Rd	0.8				
	Samuel Bowen Blvd/Riddle Ln - Jerry Mack Rd/Man O War Ln	1.2				
	Jerry Mack Rd/Man O War Ln - Old Ocean City Rd/MD 707/Old Bridge Rd	0.4				I
	Old Ocean City Rd/MD 707/Old Bridge Rd - Keyser Point Rd	0.5				
	Keyser Point Rd - MD 611/Stephen Decatur Hwy	0.3				
	MD 611/Stephen Decatur Hwy - Golf Course Rd	0.4				
	Golf Course Rd - Inlet Isle Ln	0.2			I	I
	Inlet Isle Ln - MD 528/Philadelphia Ave	0.8				

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

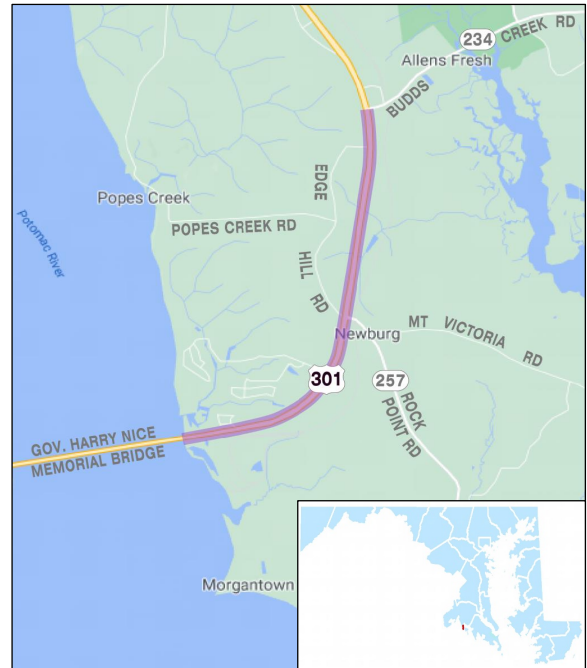
PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 301

FRIDAY SUMMER

Limits:	MD 234 to Nice Bridge	
Corridor Length:	5.8 miles	
Speed Limit:	25 - 55 MPH	
Travel Lanes:	2 to 4	
Signal Controlled Intersections:	2	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 234, MD 237	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
29,000 vpd	6%	9%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	N/A
LOS E	N/A	N/A
LOS F	N/A	N/A

Segment Operations

Level of Service	Northbound (Miles of Roadway)	Southbound (Miles of Roadway)
LOS D or Better	5.8	5.8
LOS E	0.0	0.0
LOS F	0.0	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI			PTI	
			Friday (6PM-8PM)			Friday (6PM-8PM)	
			NB	SB		NB	SB
Rural Other Principal Arterial	MD-234/Budds Creek Rd. - MD-257/Edge Hill Rd/RockPoint Rd.	2.0					
	MD-257/Edge Hill Rd/RockPoint Rd. - Harry W Nice Memorial Bridge/State Line	3.8					W

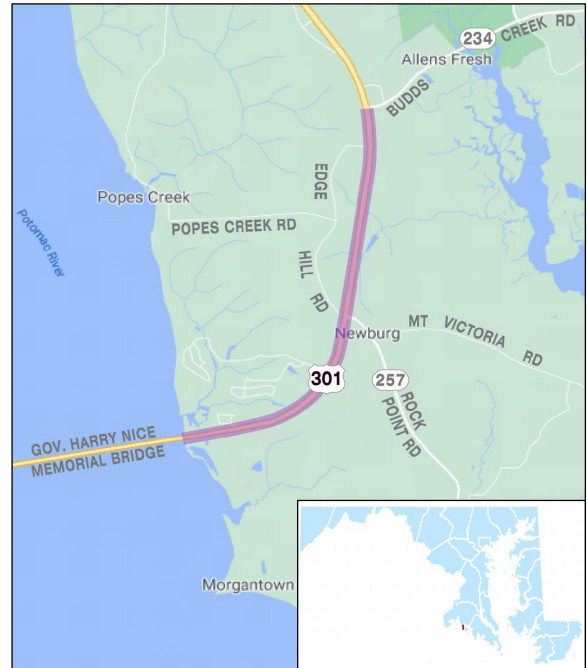
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 301 SATURDAY SUMMER

Limits:	MD 234 to Nice Bridge	
Corridor Length:	5.8 miles	
Speed Limit:	25 - 55 MPH	
Travel Lanes:	2 to 4	
Signal Controlled Intersections:	2	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 234, MD 257	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
25,000 vpd	N/A	10%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	N/A
LOS E	N/A	N/A
LOS F	N/A	N/A

Segment Operations

Level of Service	Northbound (Miles of Roadway)	Southbound (Miles of Roadway)
LOS D or Better	5.8	0.0
LOS E	0.0	0.0
LOS F	0.0	5.8

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI			PTI	
			Saturday (12PM-2PM)			Saturday (12PM-2PM)	
			NB	SB		NB	SB
Rural Other Principal Arterial	MD-234/Budds Creek Rd. - MD-257/Edge Hill Rd/RockPoint Rd.	2.0		W			W
	MD-257/Edge Hill Rd/RockPoint Rd. - Harry W Nice Memorial Bridge/State Line	3.8		W		W	W

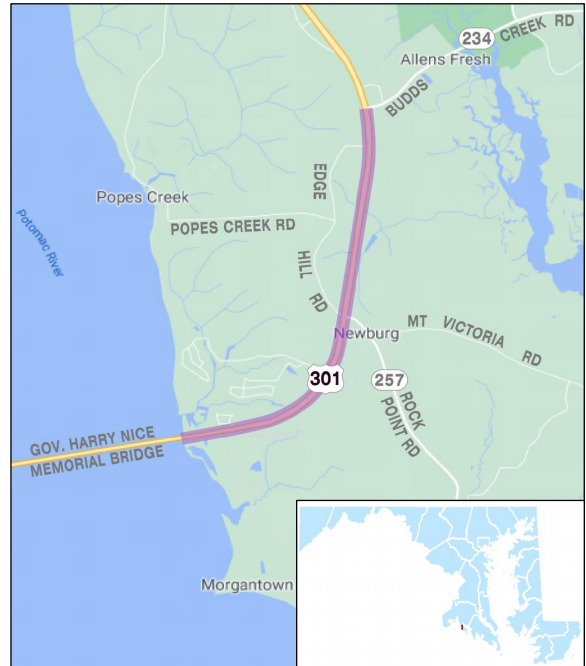
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 301 SUNDAY SUMMER

Limits:	MD 234 to Nice Bridge	
Corridor Length:	5.8 miles	
Speed Limit:	25 - 55 MPH	
Travel Lanes:	2 to 4	
Signal Controlled Intersections:	2	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 234, MD 257	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
19,000 vpd	N/A	10%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	N/A	N/A
LOS E	N/A	N/A
LOS F	N/A	N/A

Segment Operations

Level of Service	Northbound (Miles of Roadway)	Southbound (Miles of Roadway)
LOS D or Better	5.8	5.8
LOS E	0.0	0.0
LOS F	0.0	0.0

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI			PTI	
			Sunday (4PM-6PM)			Sunday (4PM-6PM)	
			NB	SB		NB	SB
Rural Other Principal Arterial	MD-234/Budds Creek Rd. - MD-257/Edge Hill Rd/RockPoint Rd.	2.0					
	MD-257/Edge Hill Rd/RockPoint Rd. - Harry W Nice Memorial Bridge/State Line	3.8				I	

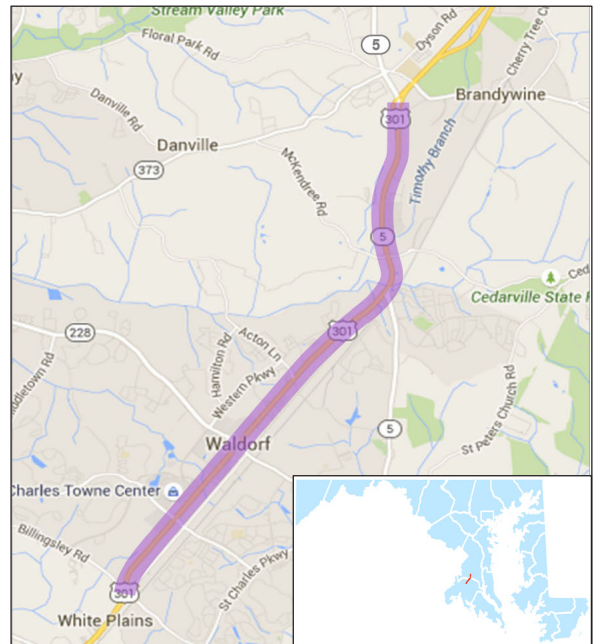
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 301

Limits:	Billingsley Rd to MD 5	
Corridor Length:	7.8 miles	
Speed Limit:	45 - 55 MPH	
Travel Lanes:	(2 - 4) Northbound (2 - 4) Southbound	
Signal Controlled Intersections:	16	
Grade Separated Interchanges:	2	
Major Cross Streets:	Billingsley Rd, Smallwood Dr, MD 228, Acton Ln, MD 5, Cedarville Rd/McKendree Rd Chadds Ford Dr.	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA Commuter Bus 705	886
	MTA Commuter Bus 715	628
	MTA Commuter Bus 725	262
	MTA Commuter Bus 735	433
	The Bus Route 36	207



2019 AADT	Trucks	Peak Hour Traffic
38,000 - 105,000 vpd	4% - 5%	7% - 8%

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	5.9 / 6.1	4.0 / 0.9
LOS E	1.9 / 0.4	3.8 / 2.5
LOS F	0.0 / 1.3	0.0 / 1.9

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	16	14
LOS E	1	1
LOS F	0	2

LOS 'E' Intersections

US 301 at Cedarville Rd/McKendree Rd (AM)
US 301 at Berry Rd. (PM)

LOS 'F' Intersections

US 301 at Cedarville Rd/McKendree Rd (PM)
US 301 at Chadds Ford Dr/Timothy Branch Dr (PM)

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Rural Other Principal Arterial	Branch Ave. (MD 5) - Timothy Branch/Chadds Ford Dr.	1.1				W	I		W	W
	Timothy Branch/Chadds Ford Dr-Cedarville Rd/McKendree Rd	0.8					I			
	Cedarville Rd/McKendree Rd.-Mattawmn Beantown Rd (MD 5)	0.5					I			
Urban Other Principal Arterial	Mattawoman Beantown Rd. (MD 5) - Sub-Station Rd.	0.4					I			
	Sub-Station Rd. - Acton Ln.	1.3								
	Acton Ln. - Berry Rd. (MD 228)/Leonardtown Rd. (Bus MD 5)	1.2								
	Berry Rd. (MD 228)/Leonardtown Rd. (Bus MD 5) - St Patricks Dr.	0.7								
	St Patricks Dr. - Smallwood Dr.	0.6								
	Smallwood Dr. - Billingsley Rd.	1.2								

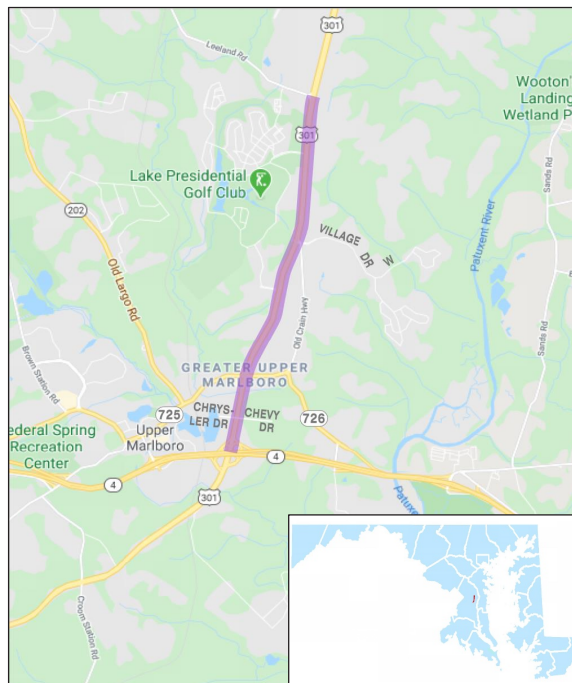
I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

US 301

Limits:	Leeland Rd to MD 4	
Corridor Length:	3.4 miles	
Speed Limit:	55 MPH	
Travel Lanes:	(2 - 3) Northbound (2 - 3) Southbound	
Signal Controlled Intersections:	5	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 4, Chrysler Dr/Chevy Dr, MD 725, Village Dr W Leeland Rd to MD 4	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2019 AADT	Trucks	Peak Hour Traffic
48,000 vpd	6%	7%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	3
LOS E	0	0
LOS F	0	0

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	3.4 / 3.4	3.4 / 0.0
LOS E	0.0 / 0.0	0.0 / 0.0
LOS F	0.0 / 0.0	0.0 / 3.4

LOS 'E' Intersections

LOS 'F' Intersections

Color Key

TTI	PTI
1.00 - 1.15	1.0 - 1.5
1.15 - 1.30	1.5 - 2.5
1.30 - 2.00	> 2.5
> 2.00	
No data	

* Available count data.

Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Rural Other Principal Arterial	Leeland Rd. - Swanson Rd./Beech Tree Pkwy	0.5								
	Swanson Rd./Beech Tree Pkwy - Village Dr W	0.8								
	Village Dr W - Marlboro Pike(MD725)	1.3								
	Marlboro Pike(MD725) - Chrysler Dr/Chevy Dr.	0.5								
	Chrysler Dr/Chevy Dr. - Pennsylvania Ave(MD-4)	0.3								

I = Improvement from 2018 W = Worsened from 2018 (blank) = No significant change from 2018

PTI: planning time index (95th percentile travel time / freeflow travel time)

TTI: travel time index (50th percentile travel time / freeflow travel time)

D. MOST CONGESTED LOCATIONS BY COUNTY

Each freeway/expressway and arterial roadway in all 23 Counties was analyzed based on the Travel Time Index (TTI) to determine the most congested roadways. The TTI for each individual segment was combined to develop sections in the following manner.

Most Congested Weighted Average = (Individual Segment TTI x Section Length)/Total Section Length

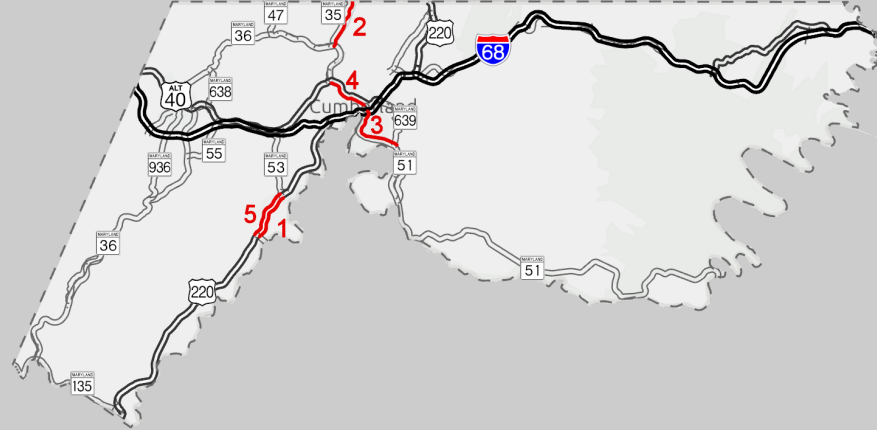
Freeway/expressway segments were combined into three to eight mile sections. The arterial roadways were evaluated for two to five mile sections. The top 5 locations for each county are shown in mapping on the following pages.



I-95 Southbound @ MD 152

Most Congested Freeway & Arterial Segments - Allegany

8 AM - 9 AM



Top 5 Most Congested Segments - AM

1. US 220 Northbound MD 956 to MD 53
2. MD 35 Northbound MD 36 to MD/PA Line
3. MD 51 Northbound East Oldtown Road to I-68
4. US 40 Alt Eastbound US 40 Ramps to MD 36
5. US 220 Southbound MD 53 to MD 956

— Congested Segments

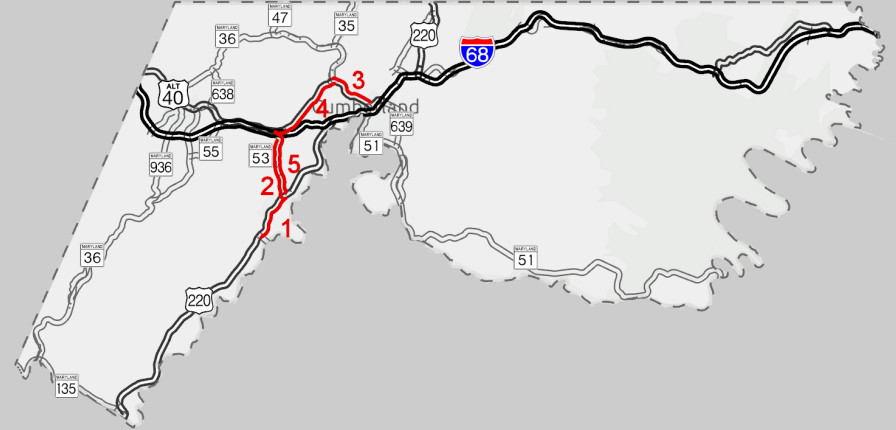
— Interstate

— US Routes

— Maryland Routes



5 PM - 6 PM



Top 5 Most Congested Segments - PM

1. US 220 Northbound MD 956 to MD 53
2. MD 53 Southbound I-68/US 40 Eastbound On Ramp to US 220
3. US 40 Alt Westbound Bedford Road to MD 36
4. US 40 Alt Eastbound East of MD 53 to MD 36
5. MD 53 Northbound MD 636 to US 40

— Congested Segments

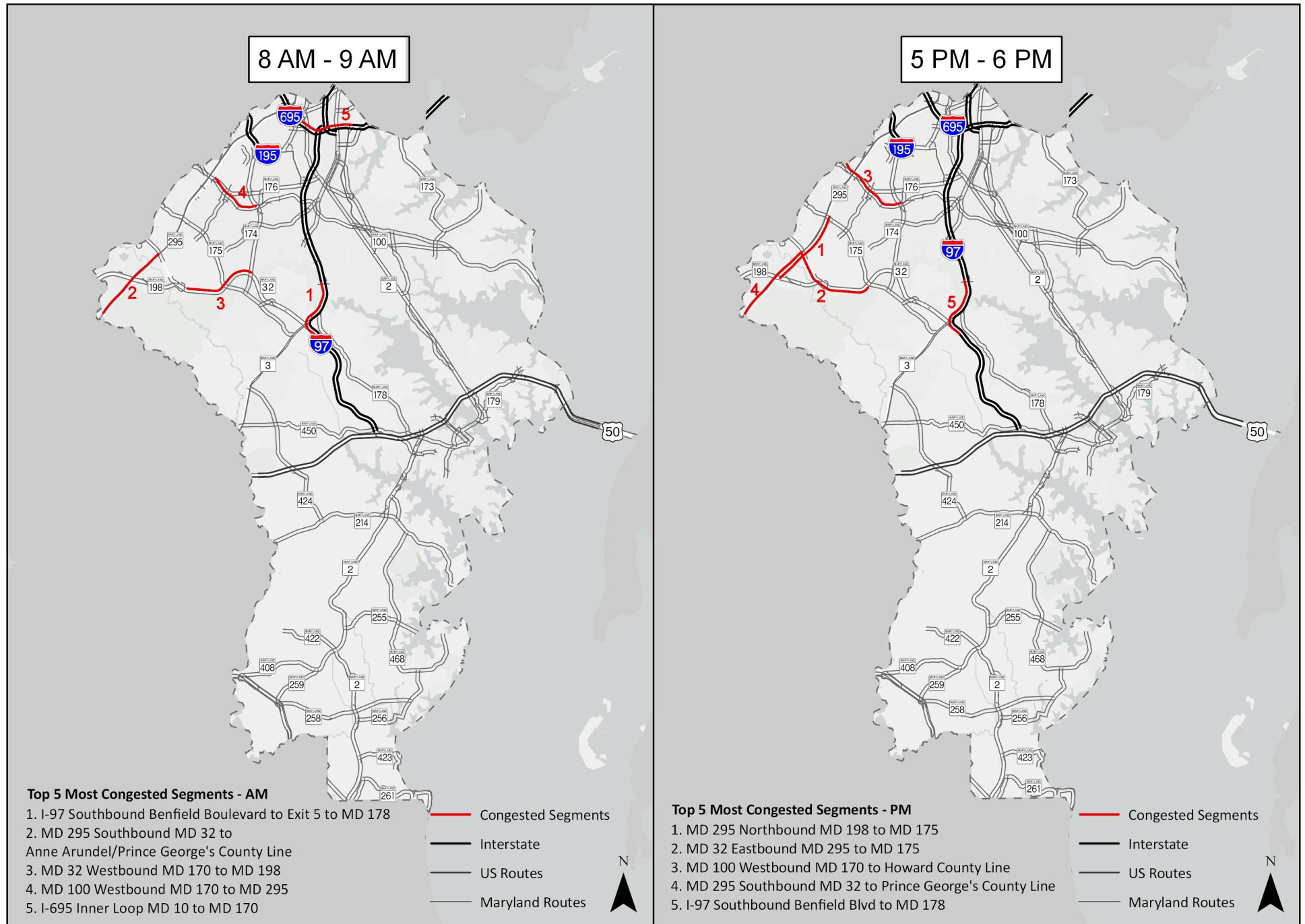
— Interstate

— US Routes

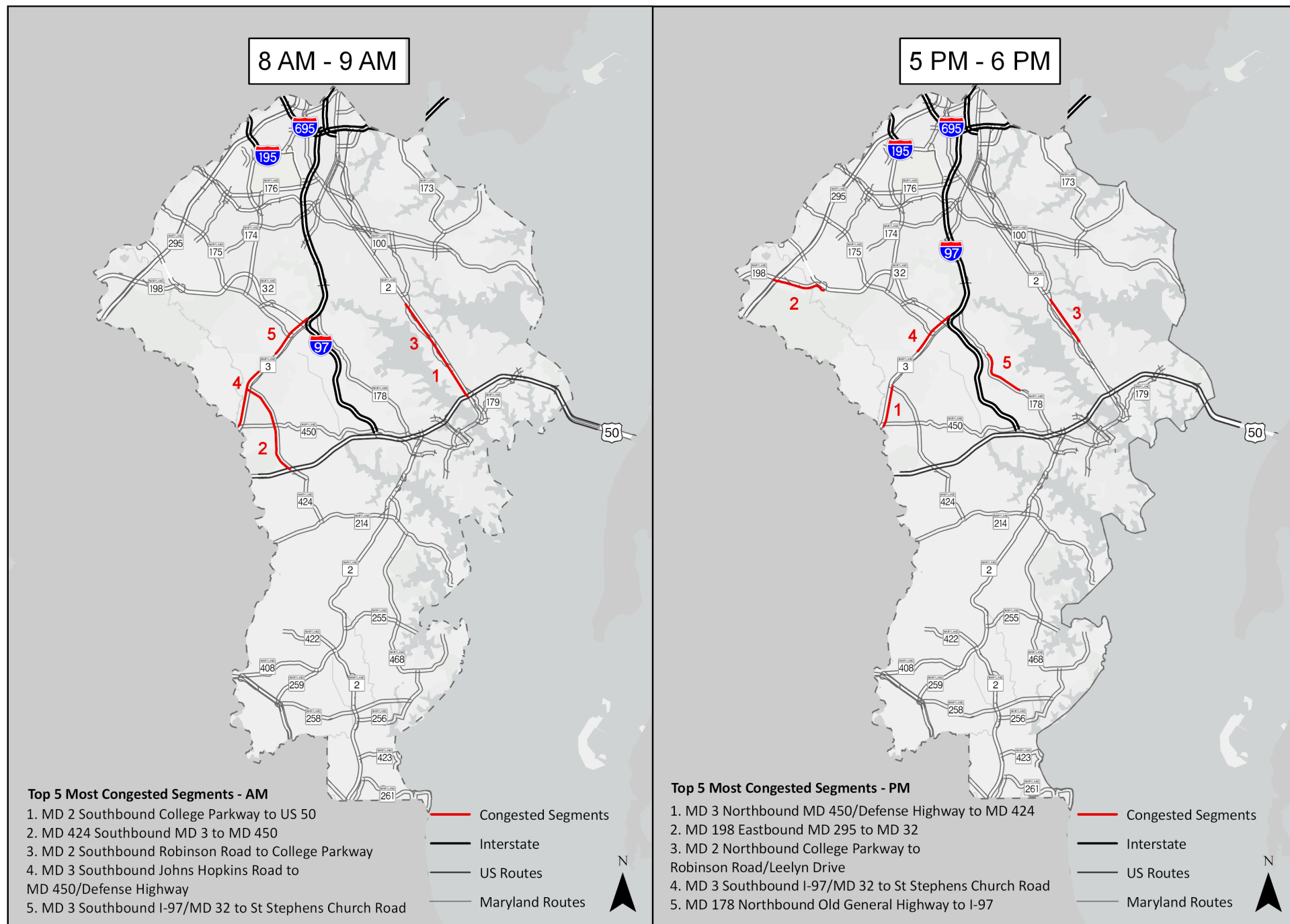
— Maryland Routes



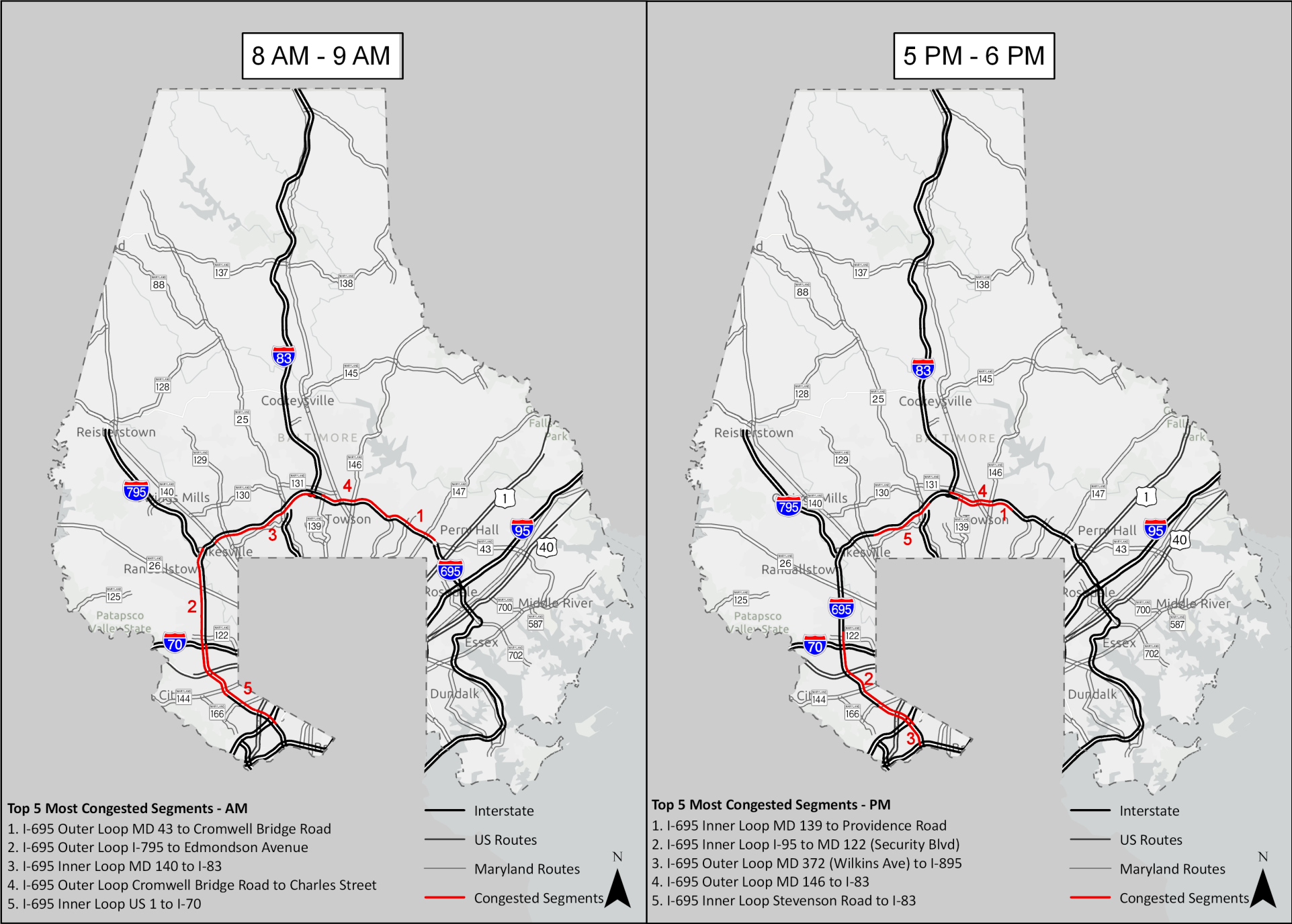
Most Congested Freeway Segments - Anne Arundel



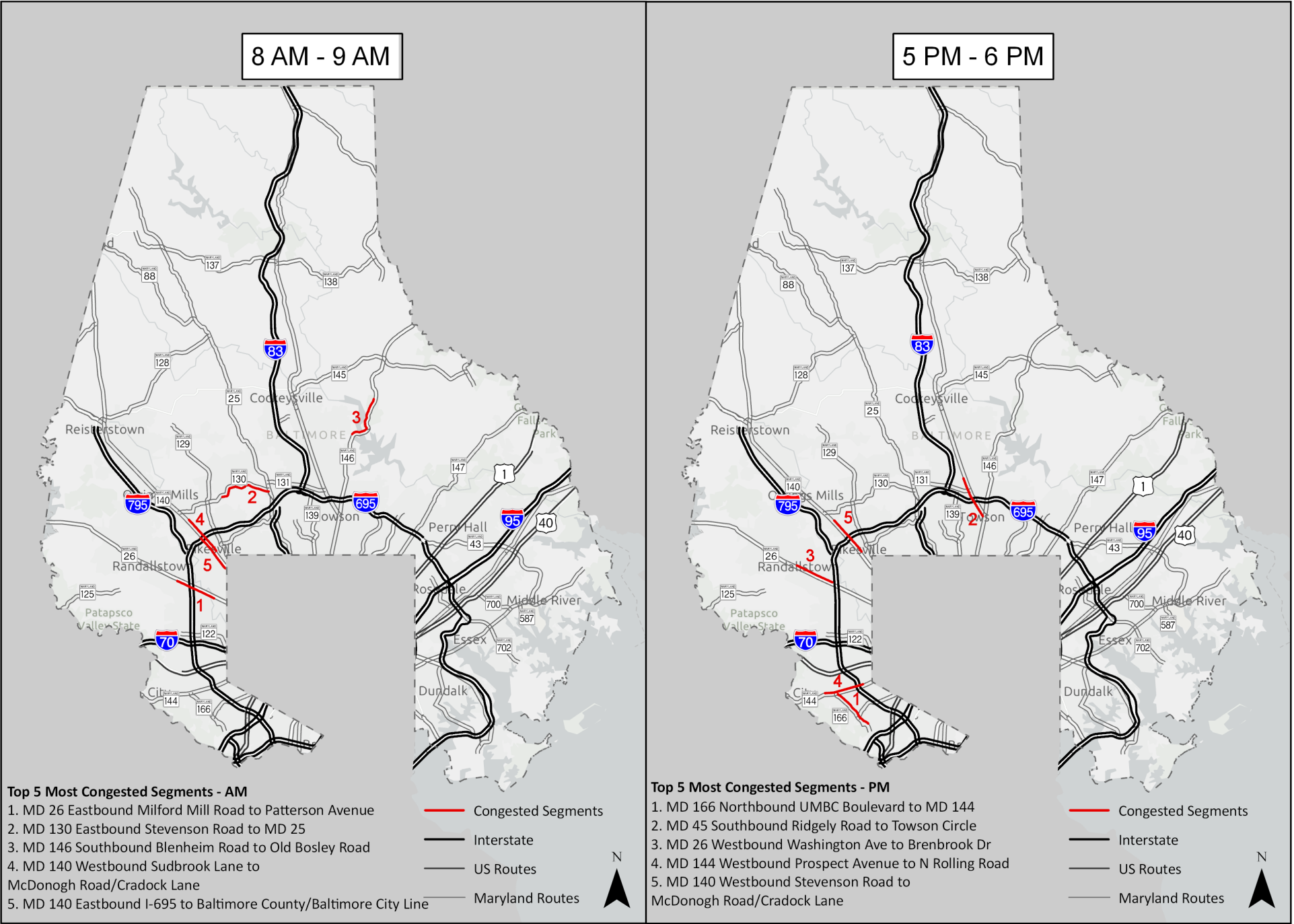
Most Congested Arterial Segments - Anne Arundel



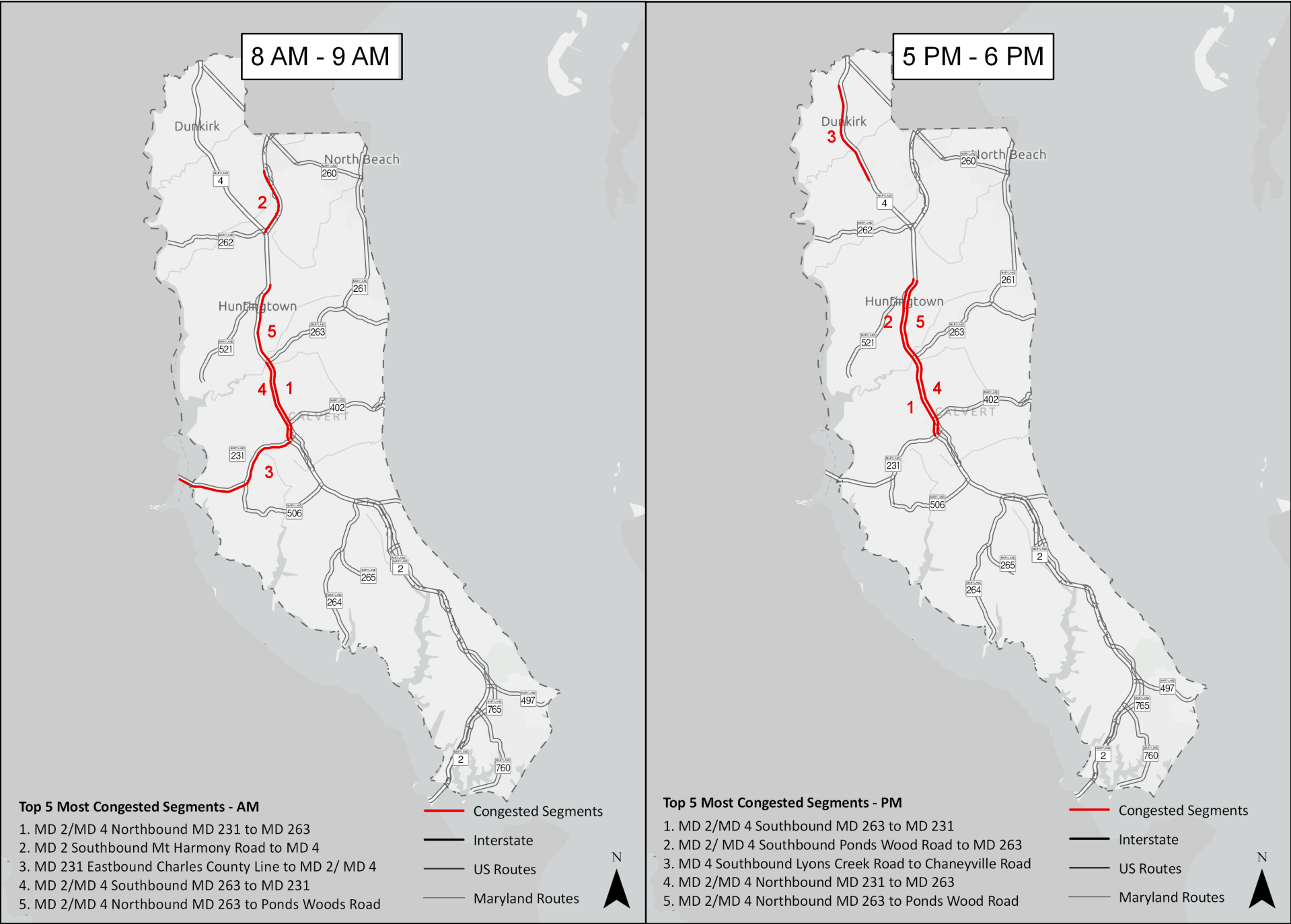
Most Congested Freeway Segments - Baltimore



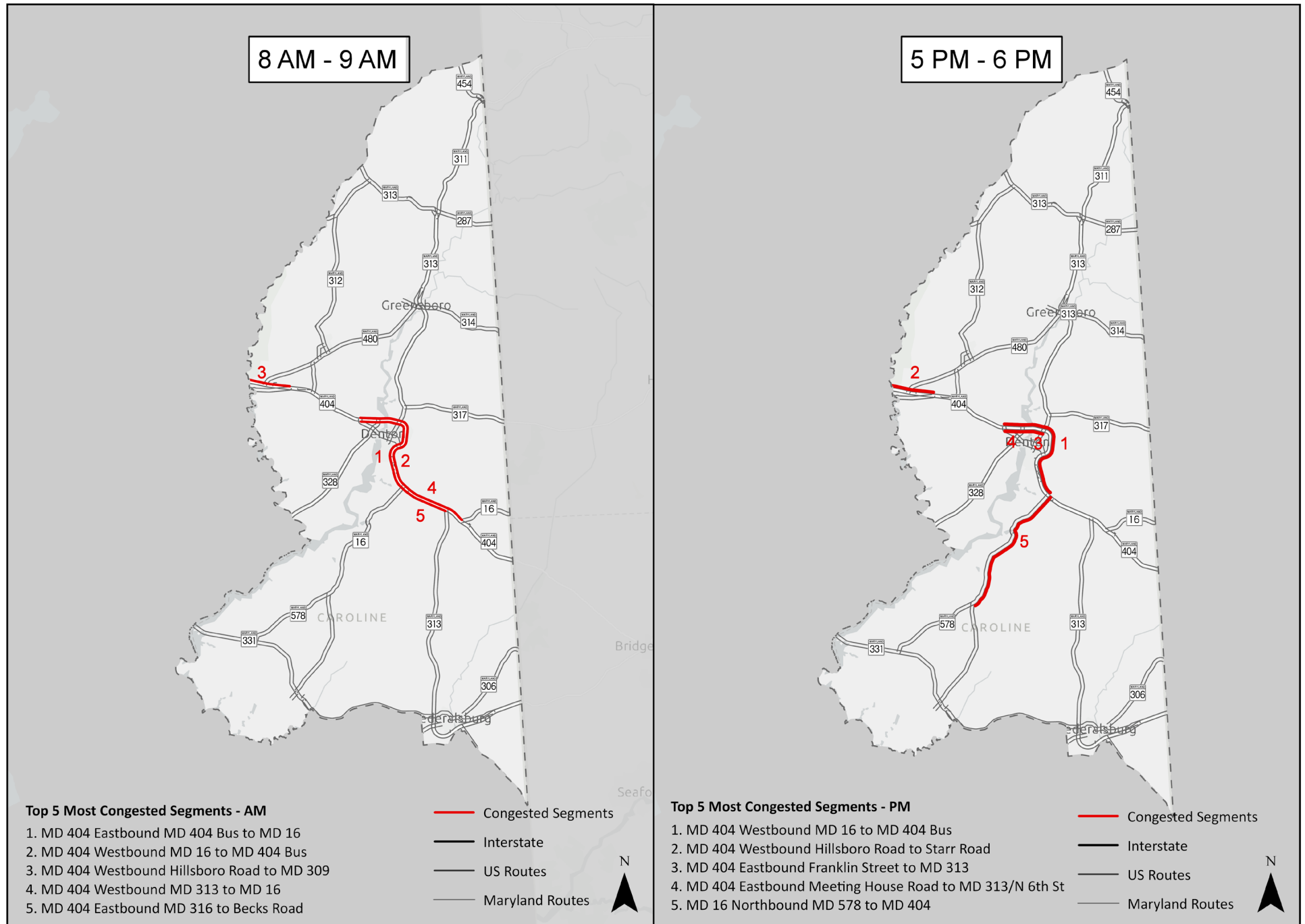
Most Congested Arterial Segments - Baltimore



Most Congested Freeway & Arterial Segments - Calvert

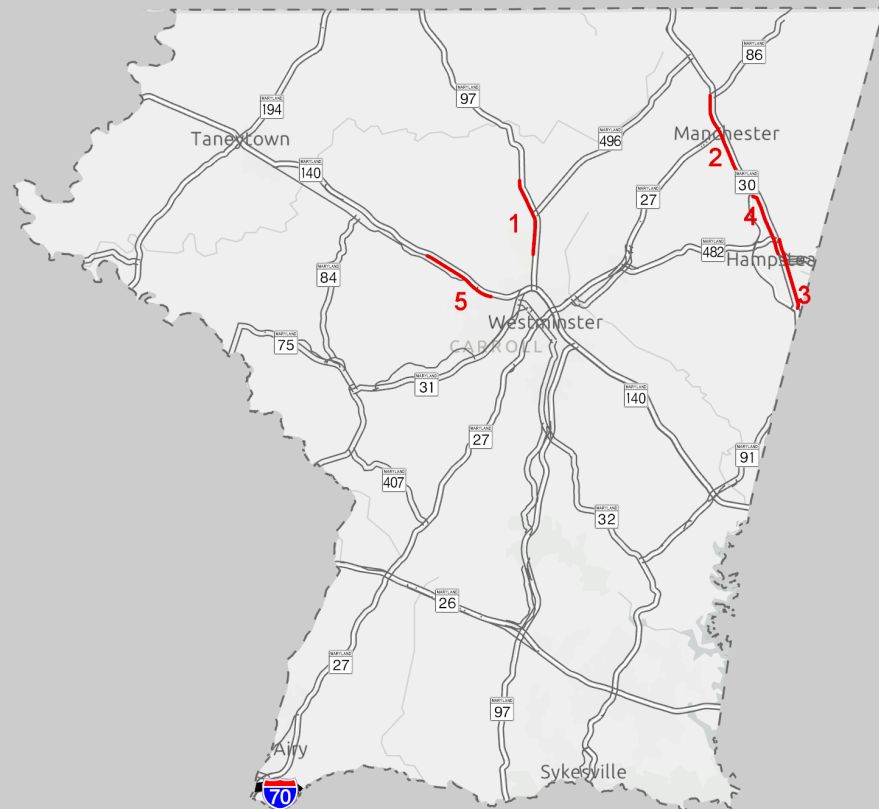


Most Congested Freeway & Arterial Segments - Caroline



A-92

8 AM - 9 AM



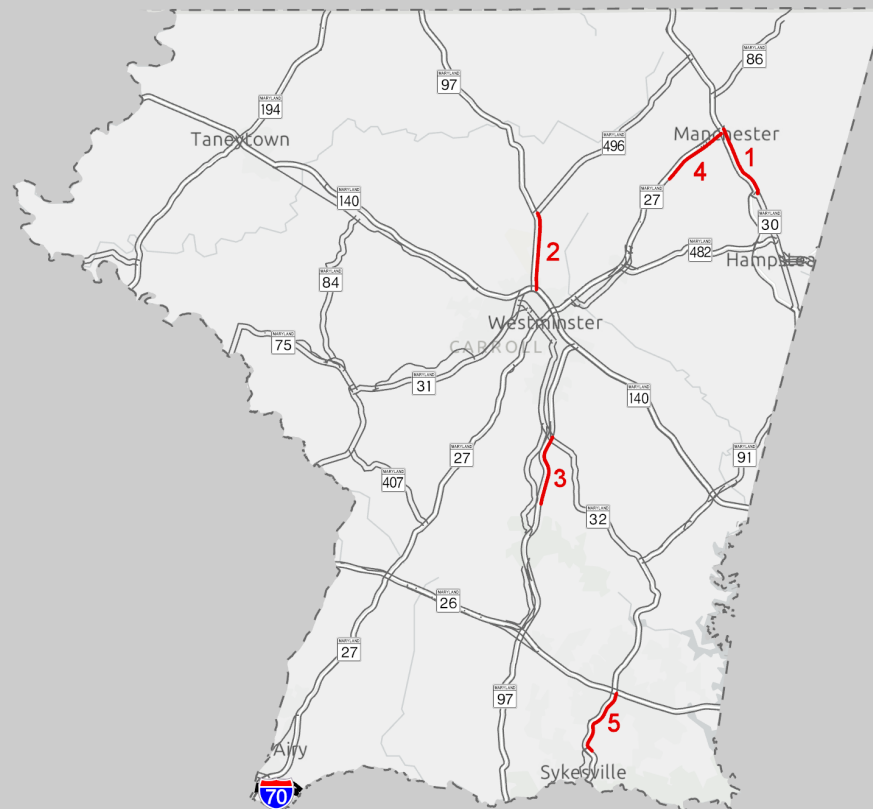
Top 5 Most Congested Segments - AM

1. MD 97 Southbound Stone Road to Magna Way
2. MD 30 Southbound MD 86 to Cape Horn Road
3. MD 30 Bus Northbound MD 30 to MD 482
4. MD 30 Bus Southbound MD 30 to MD 88
5. MD 140 Eastbound S Pleasant Valley Road/Frizzellburg Road to Royer Road

- Congested Segments
- Interstate
- US Routes
- Maryland Routes



5 PM - 6 PM



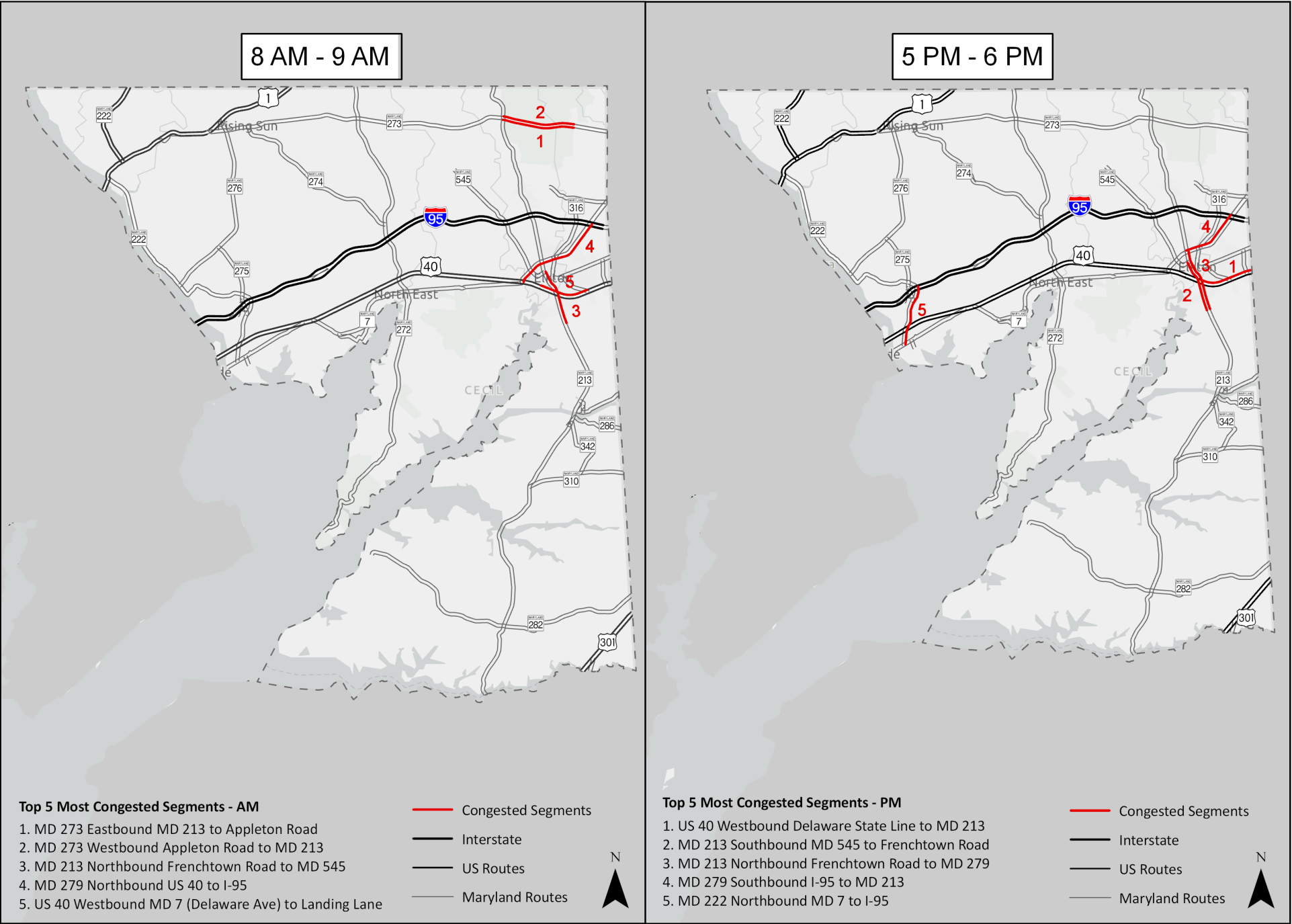
Top 5 Most Congested Segments - PM

1. MD 30 Northbound MD 30 Bus to MD 27
2. MD 97 Northbound MD 140 to MD 496
3. MD 97 Northbound E. Nicodemus Road to MD 32
4. MD 27 Northbound Old Fort Schoolhouse Road to MD 30
5. MD 32 Westbound Springfield Ave to MD 26

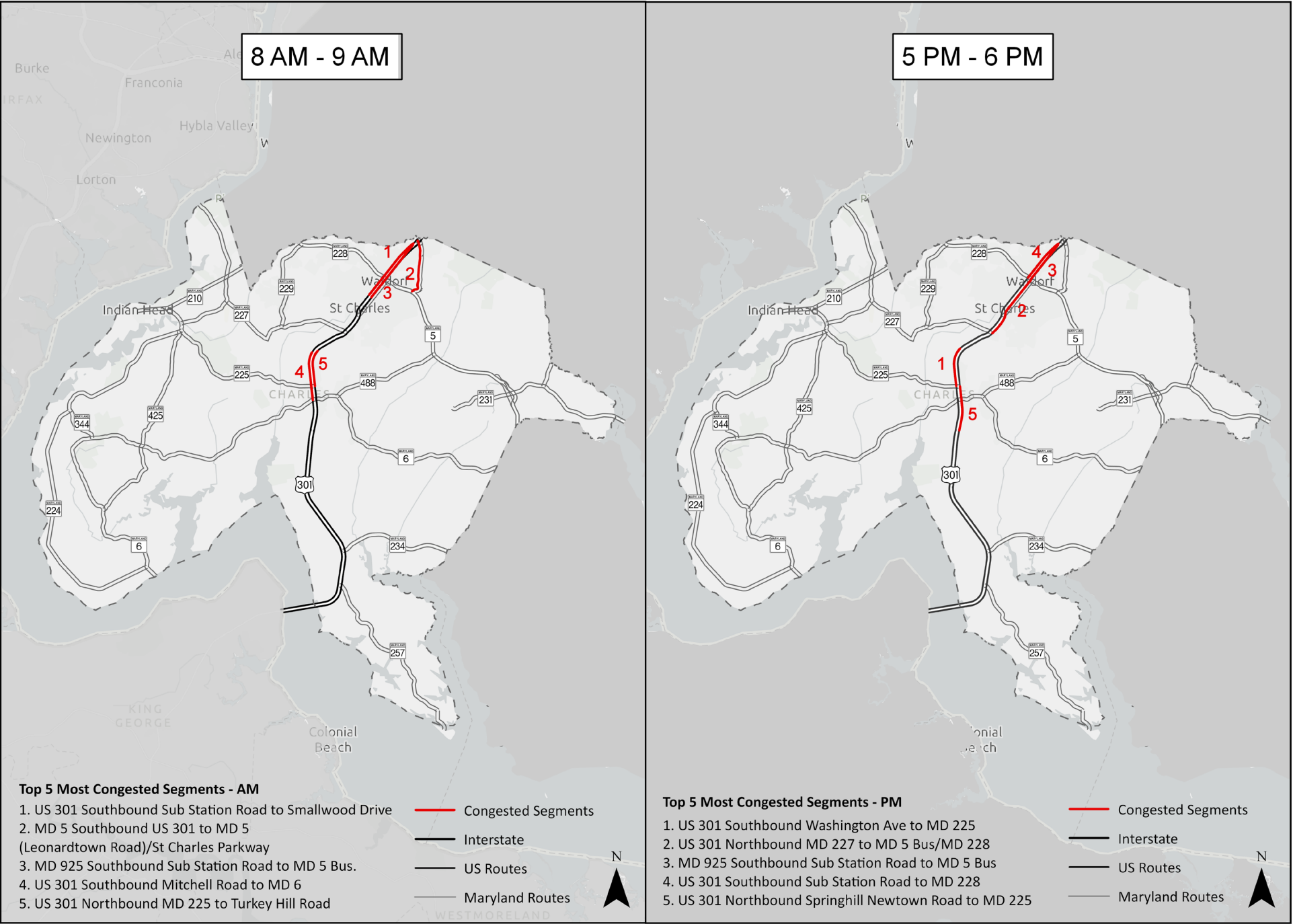
- Congested Segments
- Interstate
- US Routes
- Maryland Routes



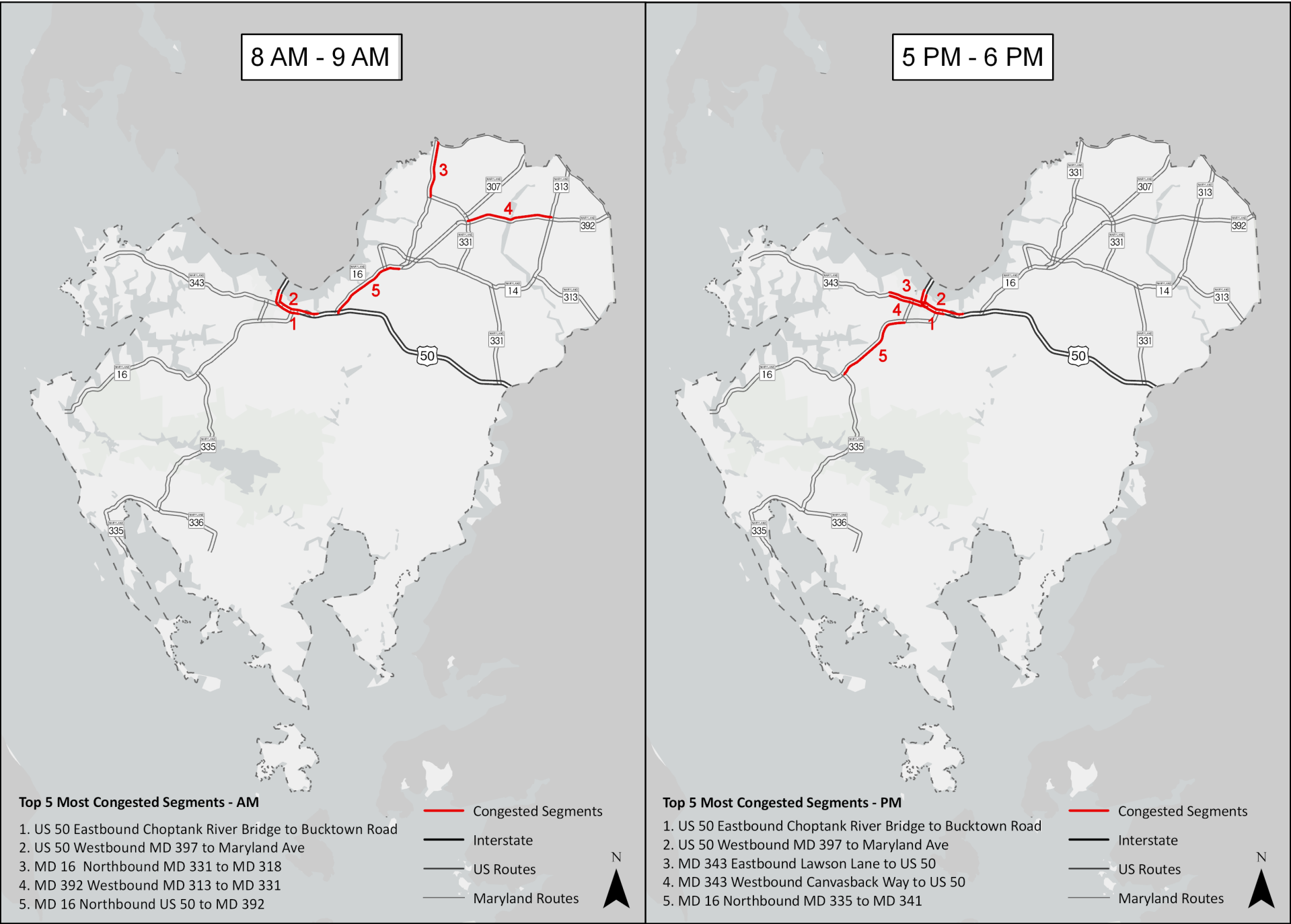
Most Congested Freeway & Arterial Segments - Cecil



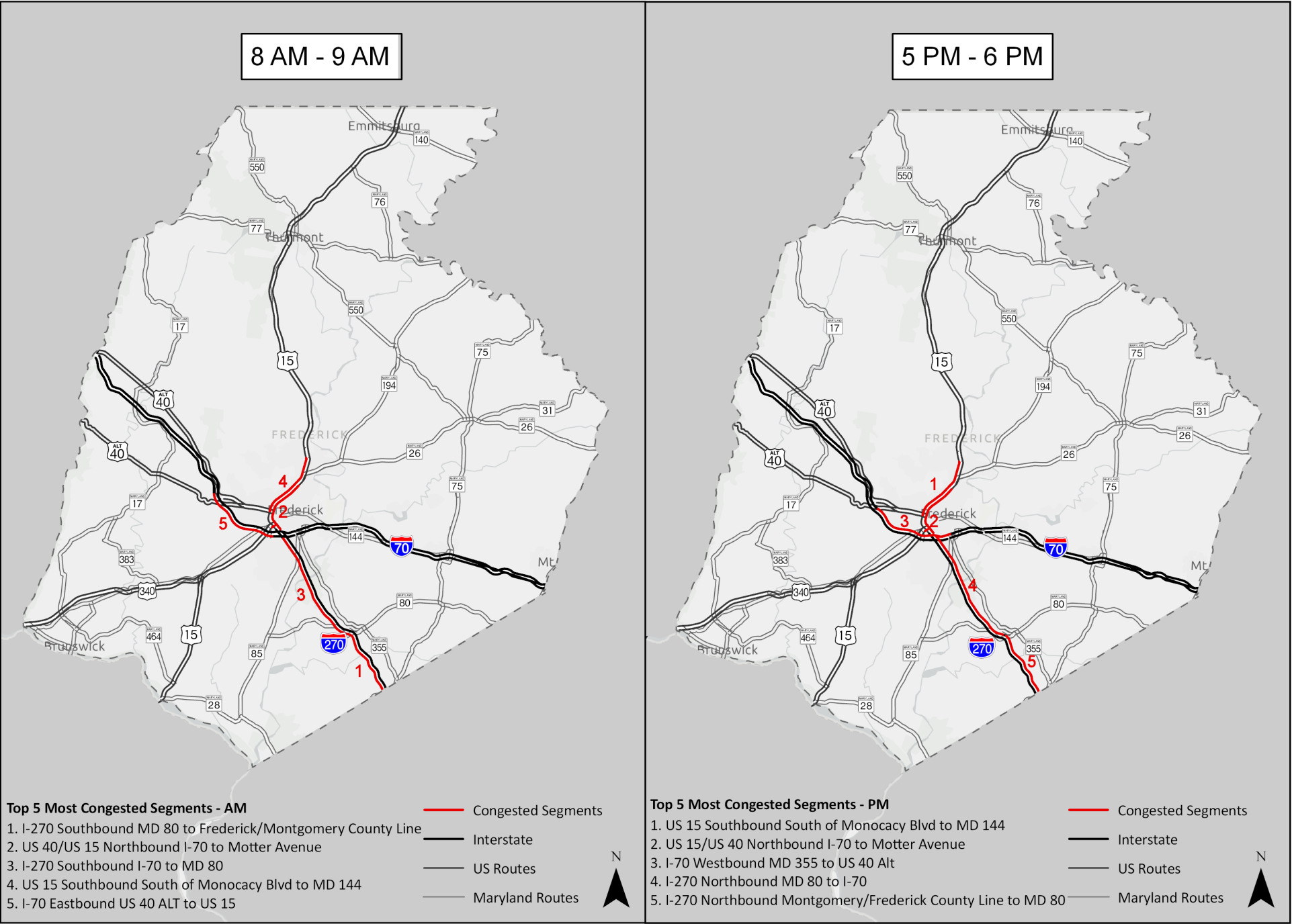
Most Congested Freeway & Arterial Segments - Charles



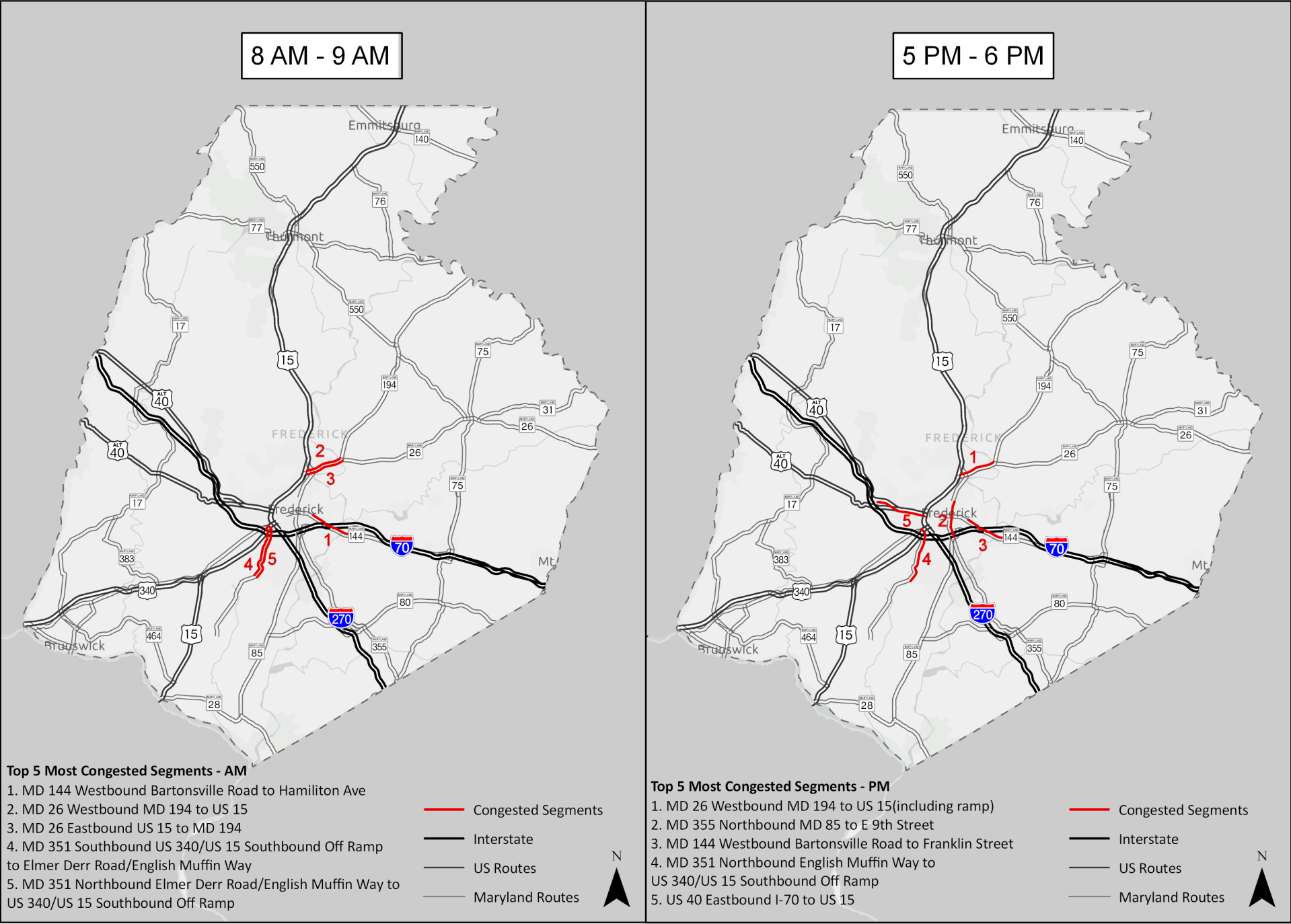
Most Congested Freeway & Arterial Segments - Dorchester



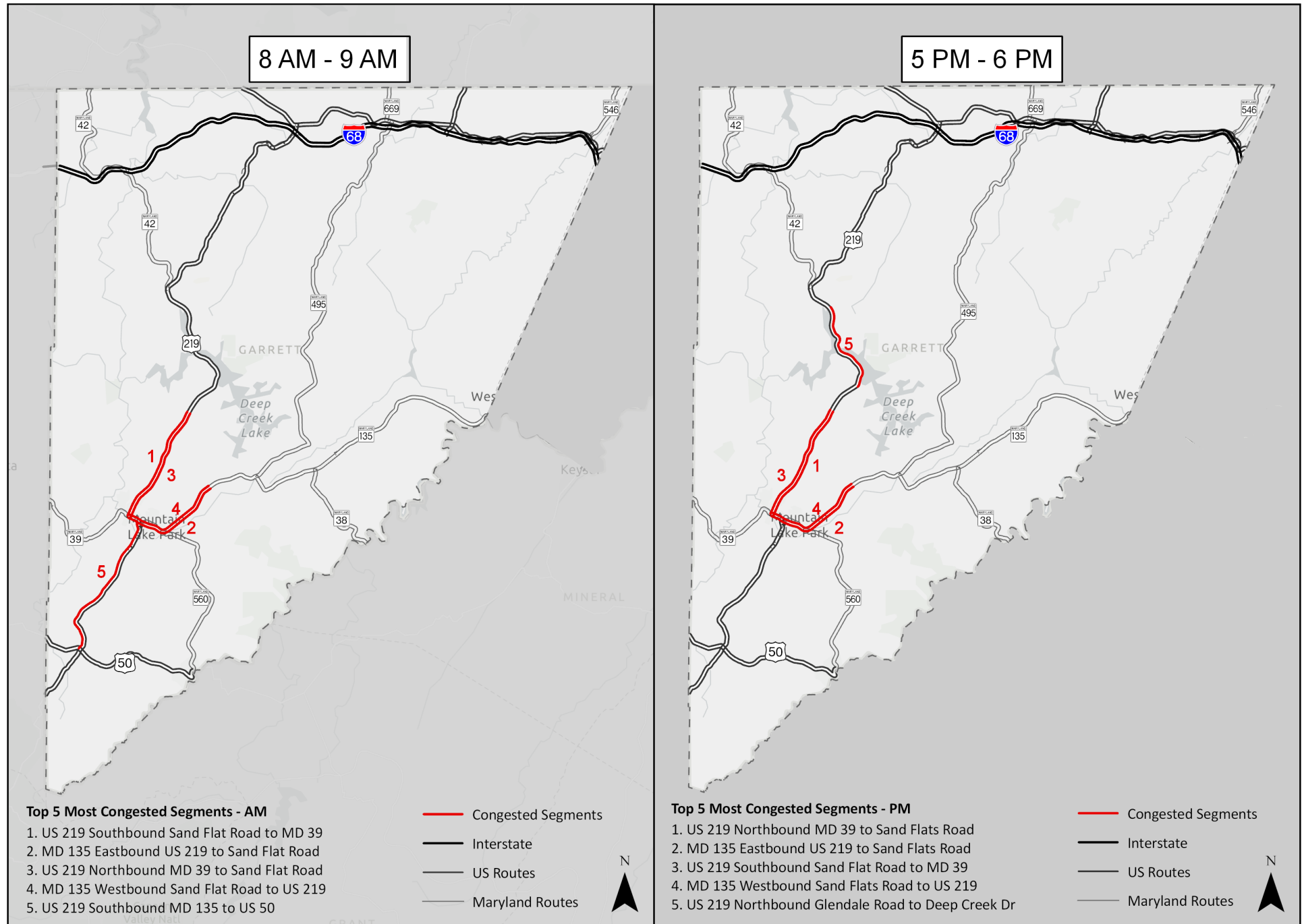
Most Congested Freeway Segments - Frederick



Most Congested Arterial Segments - Frederick

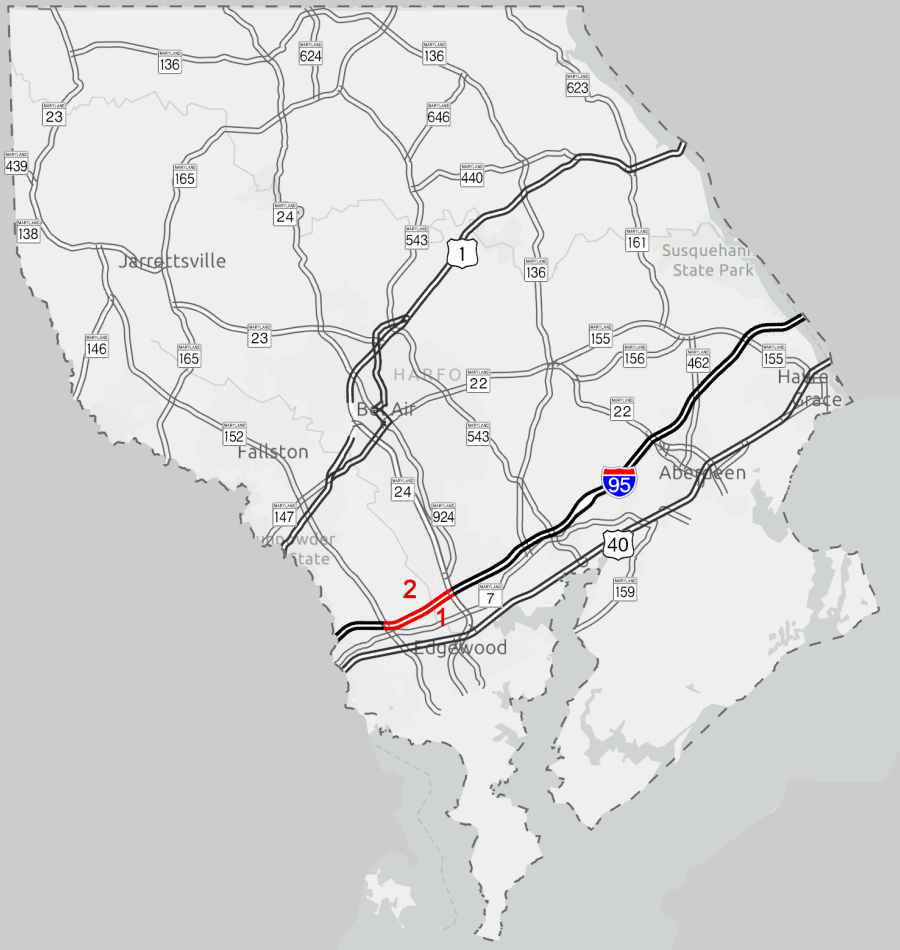


Most Congested Freeway & Arterial Segments - Garrett



Most Congested Freeway Segments - Harford

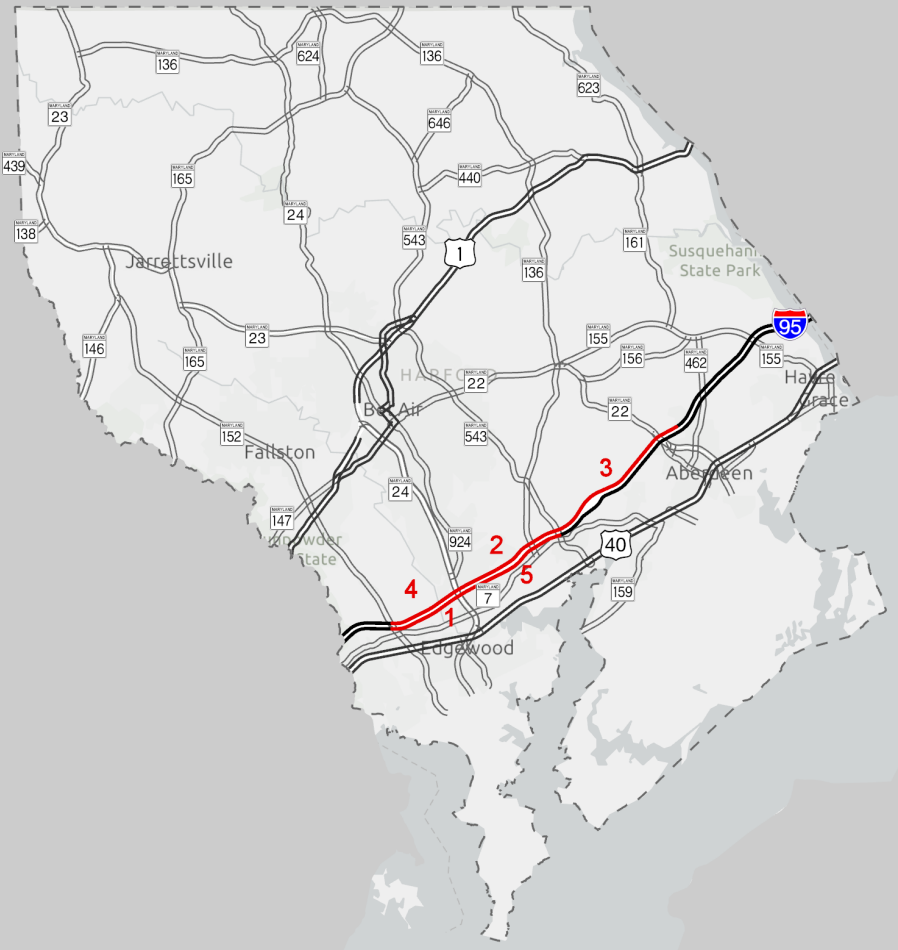
8 AM - 9 AM



Top 5 Most Congested Segments - AM
1. I-95 Northbound MD 152 to MD 24
2. I-95 Southbound MD 24 to MD 152

— Congested Segments
— Interstate
— US Routes
— Maryland Routes

5 PM - 6 PM

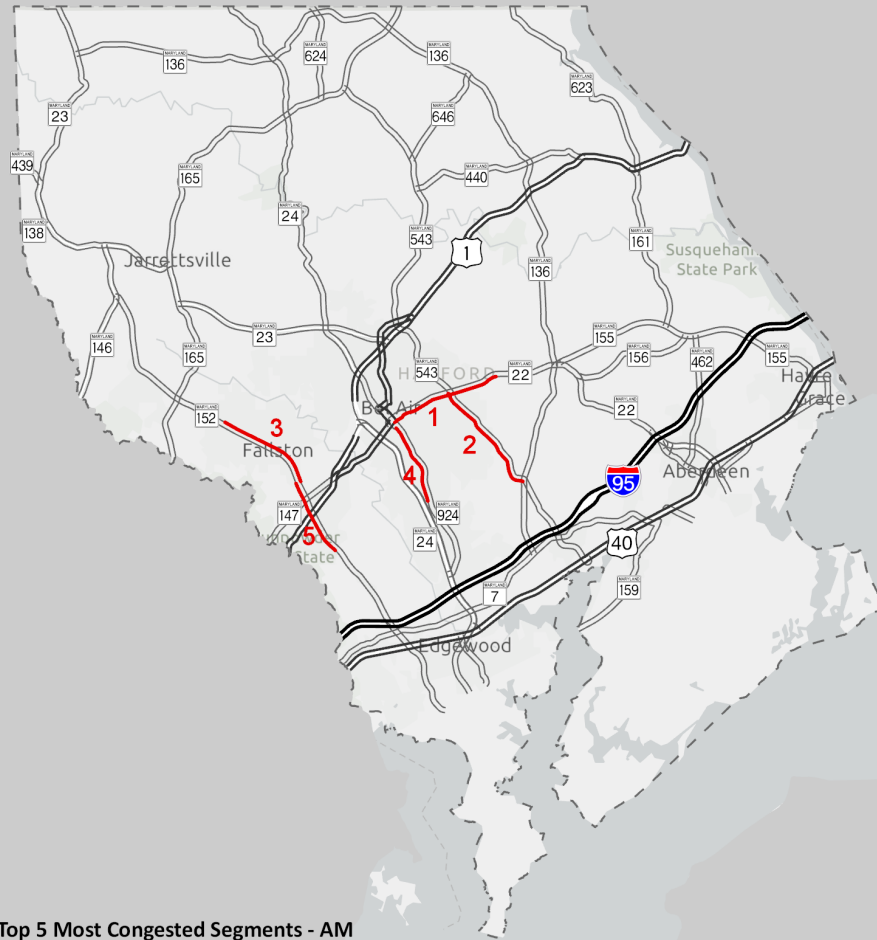


Top 5 Most Congested Segments - PM
1. I-95 Northbound MD 152 to MD 24
2. I-95 Southbound MD 543 to MD 24
3. I-95 Southbound MD 22 to MD 543
4. I-95 Southbound MD 24 to MD 152
5. I-95 Northbound MD 24 to MD 543

— Congested Segments
— Interstate
— US Routes
— Maryland Routes

Most Congested Arterial Segments - Harford

8 AM - 9 AM



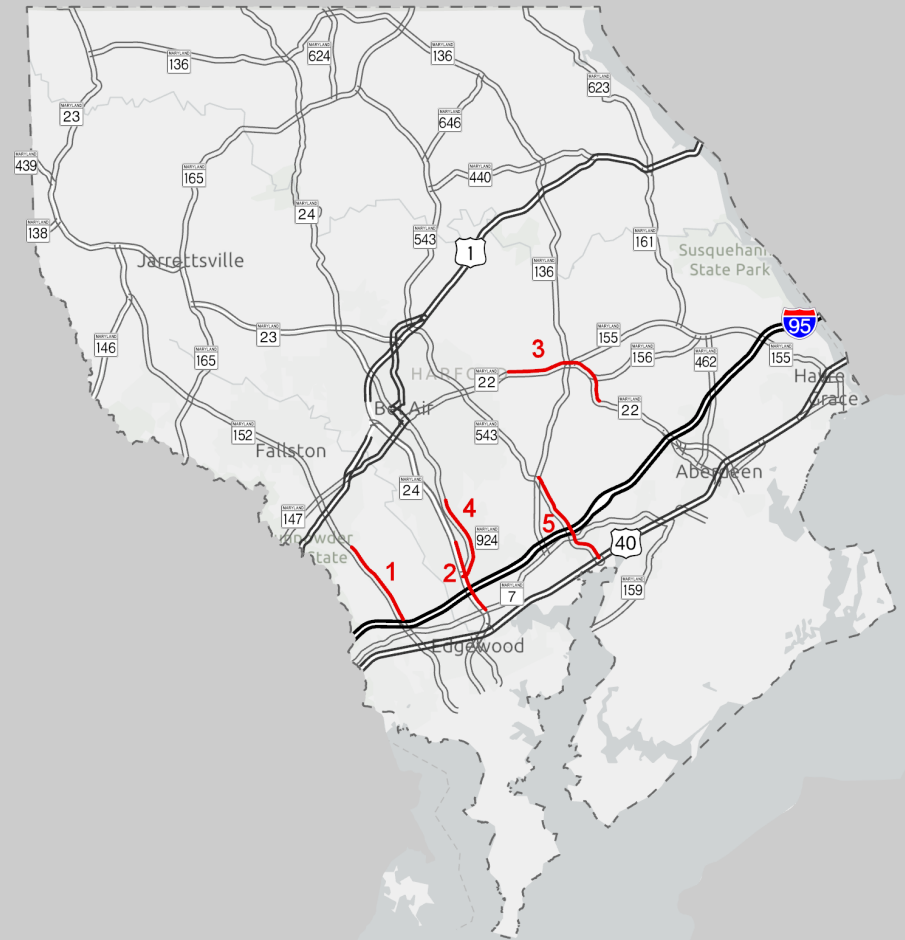
Top 5 Most Congested Segments - AM

1. MD 22 Eastbound MD 924 to Schucks Road/Thomas Run Road
2. MD 543 Southbound MD 22 to MD 136
3. MD 152 Northbound Connolly Road to Pleasantville Road
4. MD 924 Southbound Linwood Ave to Bel Air S Parkway/Laurel Bush Road
5. MD 152 Southbound Old Fallston Road/Connolly Road to Old Joppa Road

- Congested Segments
- Interstate
- US Routes
- Maryland Routes



5 PM - 6 PM



Top 5 Most Congested Segments - PM

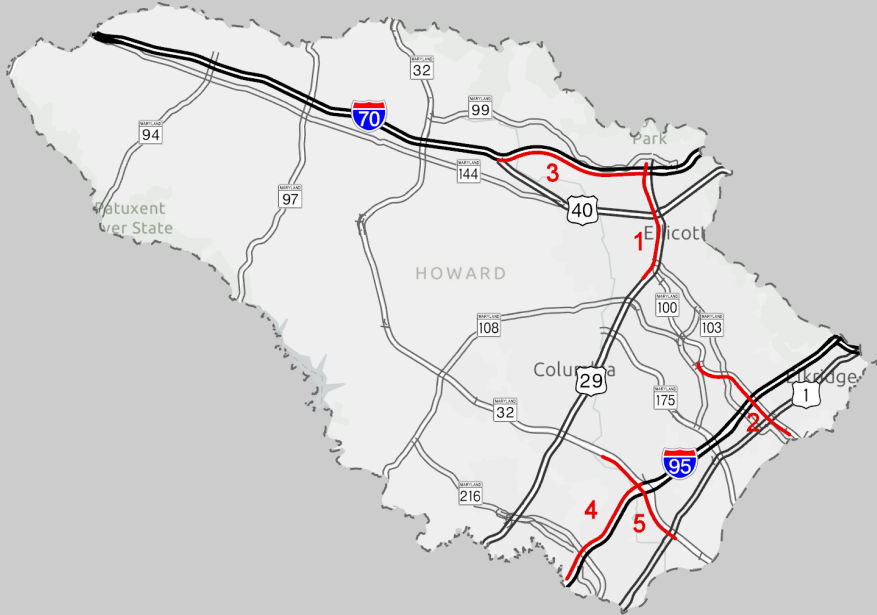
1. MD 152 Northbound I-95 to Old Joppa Road
2. MD 24 Northbound MD 7 to Singer Road
3. MD 22 Westbound Snake Lane to Thomas Run Road/Schucks Road
4. MD 924 Northbound MD 24 to Bel Air S Parkway
5. MD 543 Northbound US 40 to MD 136

- Congested Segments
- Interstate
- US Routes
- Maryland Routes



Most Congested Freeway Segments - Howard

8 AM - 9 AM



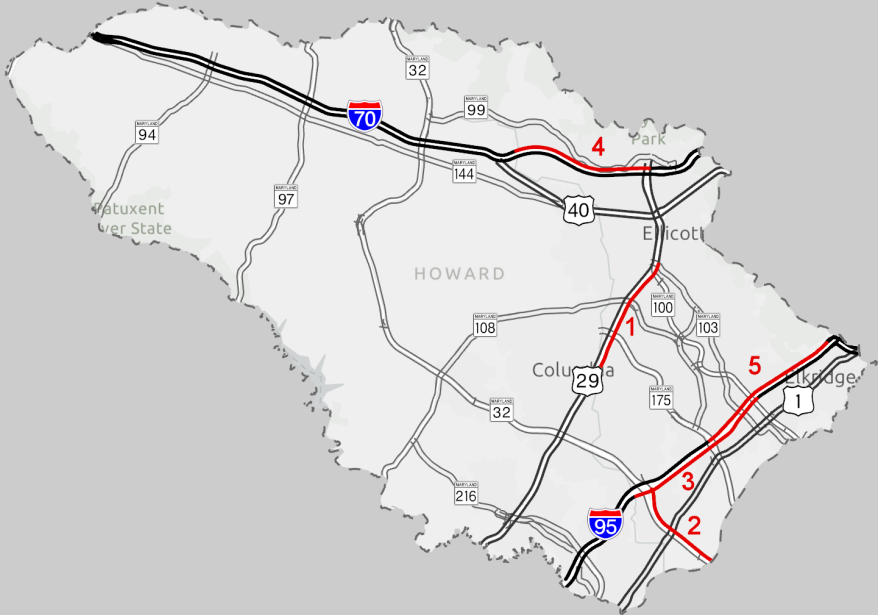
Top 5 Most Congested Segments - AM

- 1. US 29 Southbound I-70 to MD 100
- 2. MD 100 Eastbound Snowden River Parkway to Dorsey MARC Station
- 3. I-70 Eastbound US 40 to US 29
- 4. I-95 Southbound MD 32 to Howard County/Prince George's County Line
- 5. MD 32 Eastbound Brokenland Parkway to US 1

- Congested Segments
- Interstate
- US Routes
- Maryland Routes



5 PM - 6 PM



Top 5 Most Congested Segments - PM

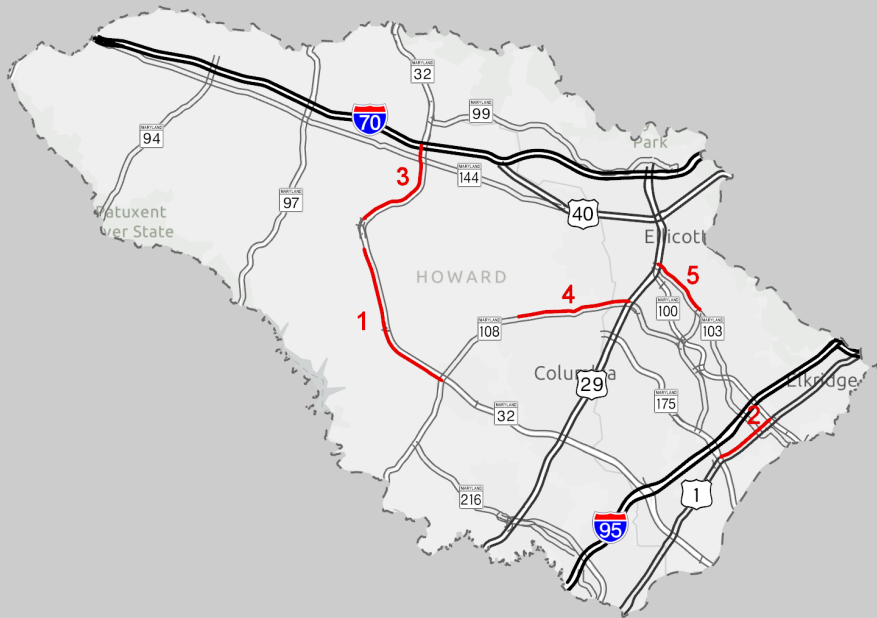
- 1. US 29 Northbound North of Brokenland Parkway to MD 103
- 2. MD 32 Westbound I-95 to Howard/Anne Arundel County Line
- 3. I-95 Northbound MD 32 to MD 100
- 4. I-70 Westbound US 29 to Marriottsville Road
- 5. I-95 Southbound I-895 to MD 175

- Congested Segments
- Interstate
- US Routes
- Maryland Routes



Most Congested Arterial Segments - Howard

8 AM - 9 AM



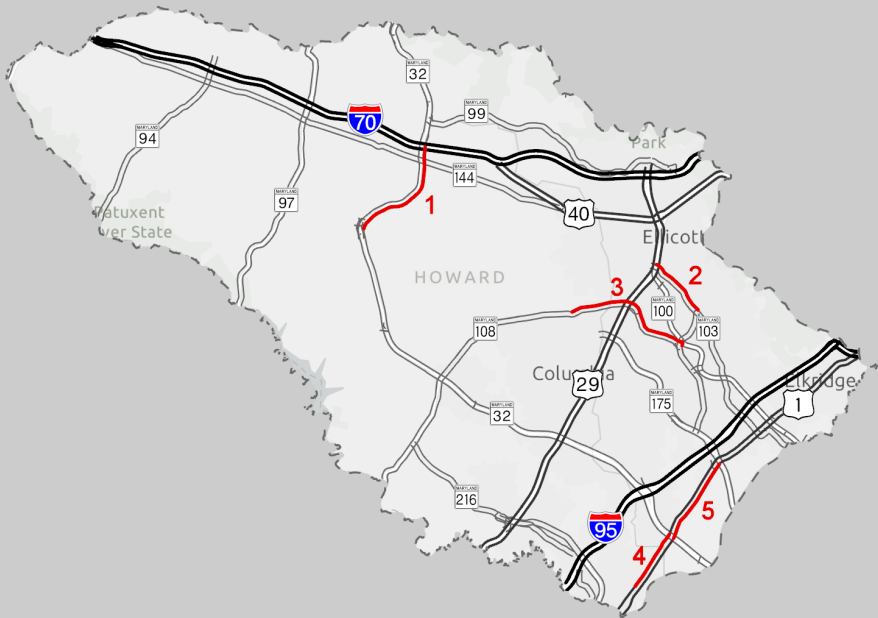
Top 5 Most Congested Segments - AM

- 1. MD 32 Southbound Triadelphia Road to MD 108
- 2. US 1 Southbound MD 100 to MD 175
- 3. MD 32 Southbound I-70 to Pfefferkorn Road
- 4. MD 108 Westbound US 29 to Harpers Farm Road/Homewood Road
- 5. MD 103 Westbound MD 104 to US 29

- Congested Segments
- Interstate
- US Routes
- Maryland Routes



5 PM - 6 PM



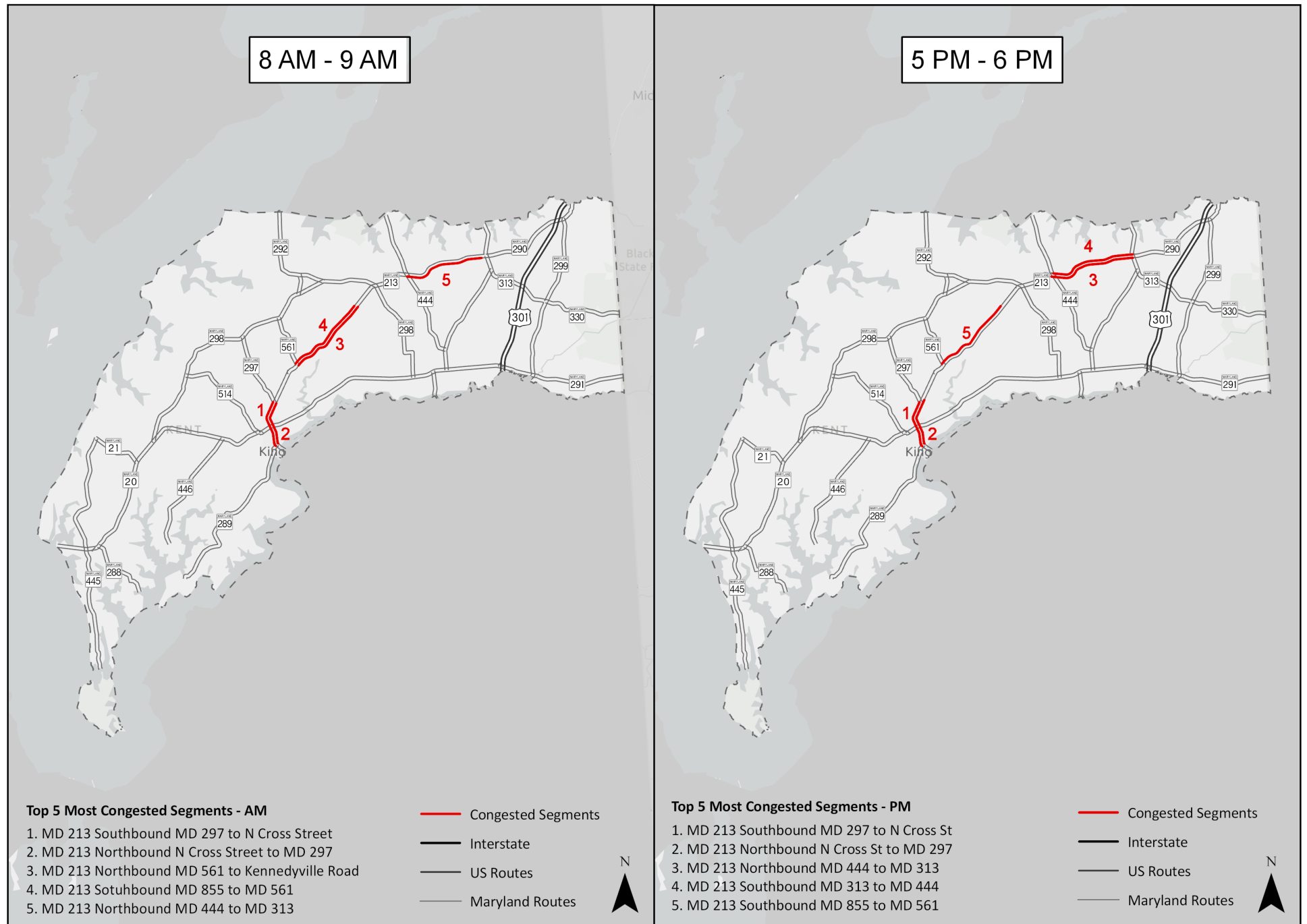
Top 5 Most Congested Segments - PM

- 1. MD 32 Northbound Burntwoods Road to I-70
- 2. MD 103 Westbound MD 104 to US 29
- 3. MD 108 Westbound MD 104 to Centennial Lane
- 4. US 1 Southbound MD 32 to Whiskey Bottom Road
- 5. US 1 Northbound MD 32 to MD 175

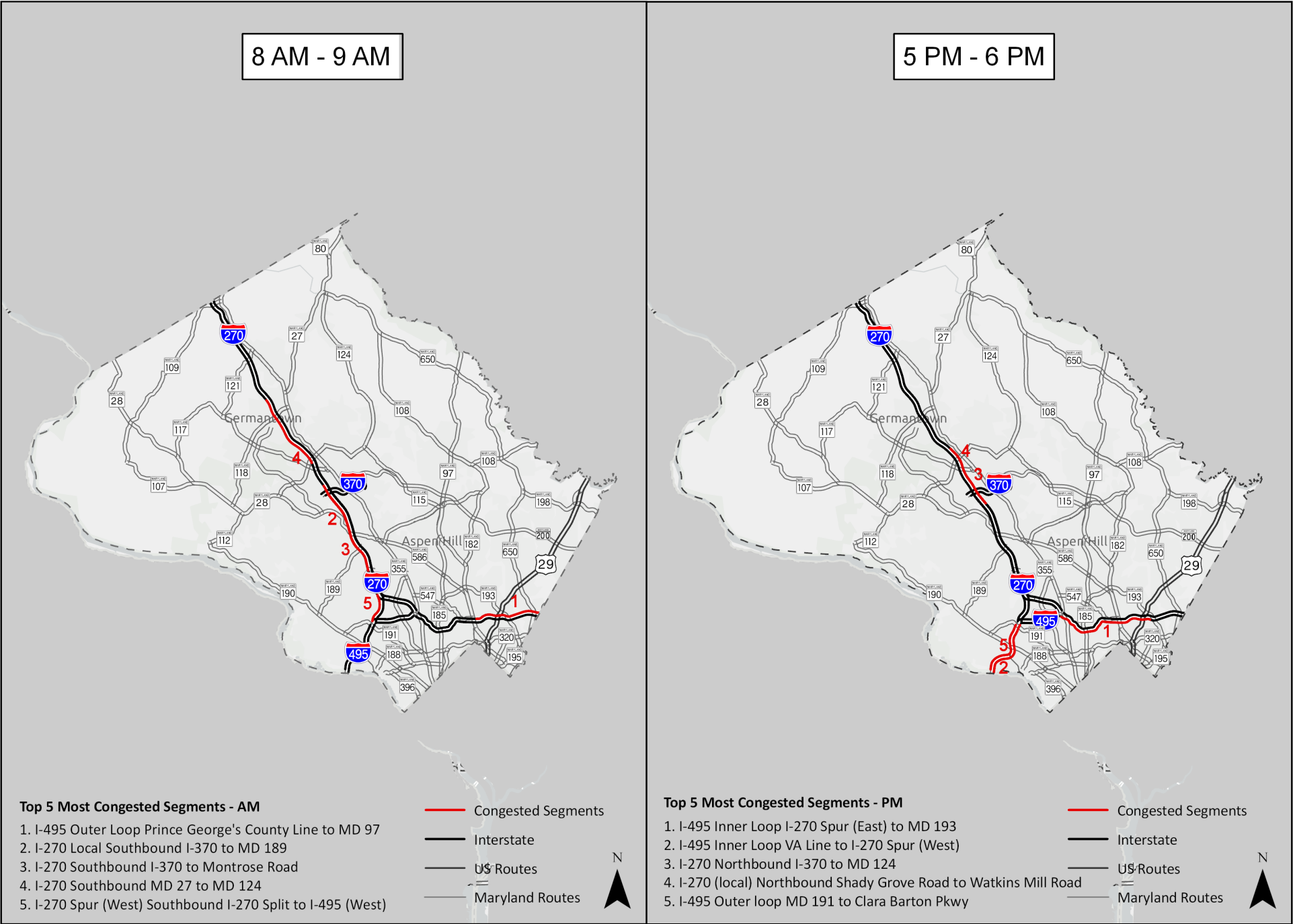
- Congested Segments
- Interstate
- US Routes
- Maryland Routes



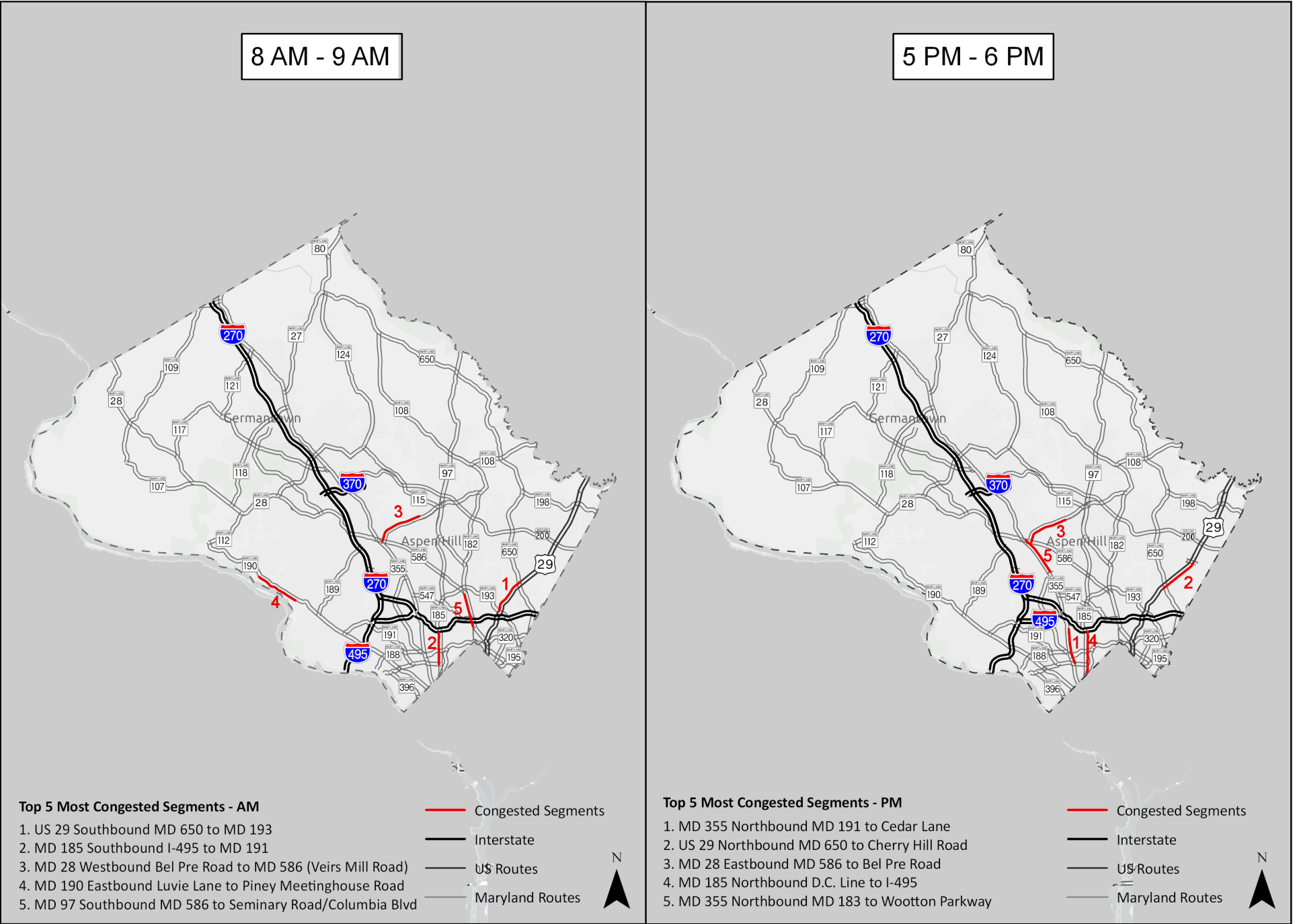
Most Congested Freeway & Arterial Segments - Kent



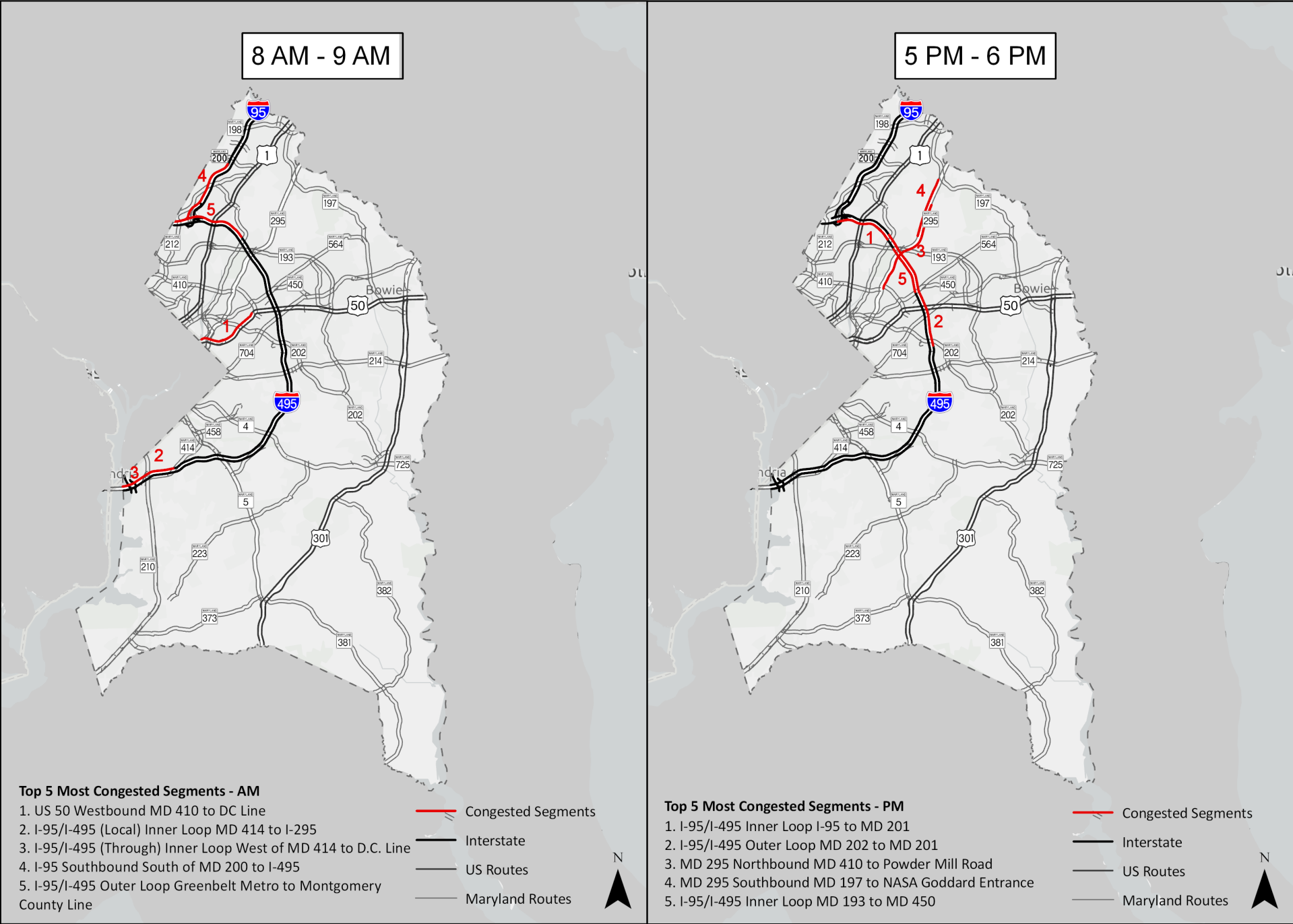
Most Congested Freeway Segments - Montgomery



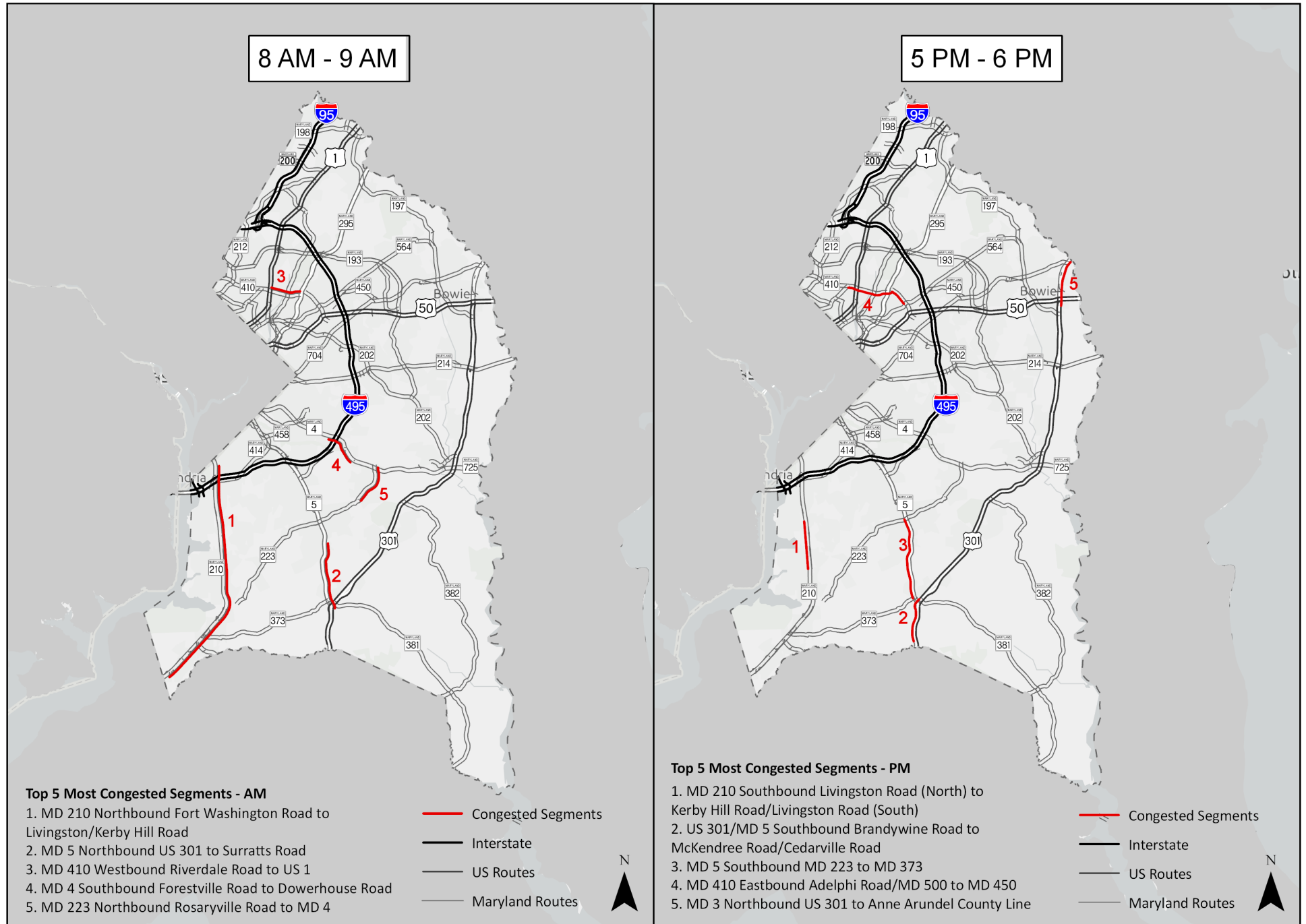
Most Congested Arterial Segments - Montgomery



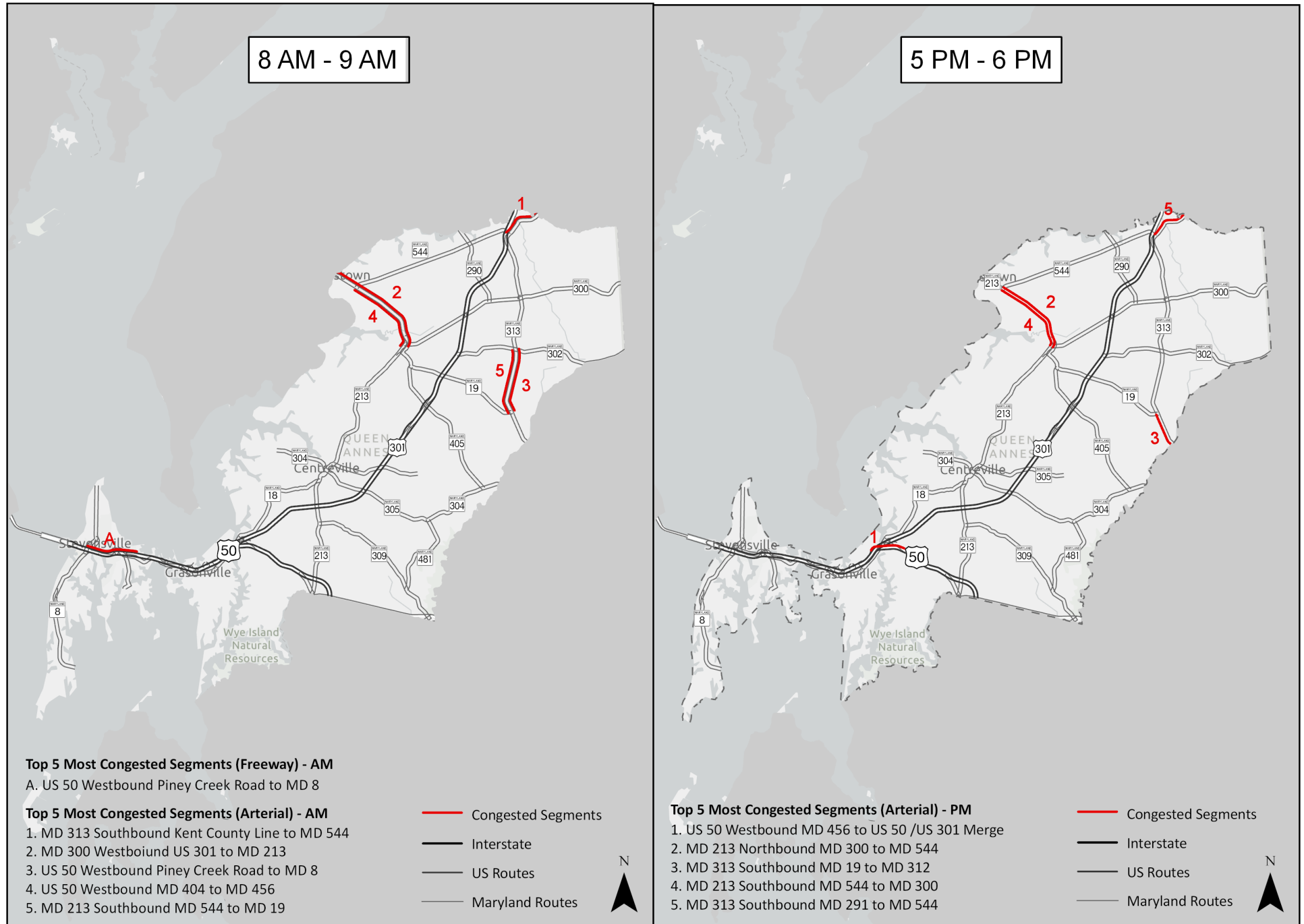
Most Congested Freeway Segments - Prince George's



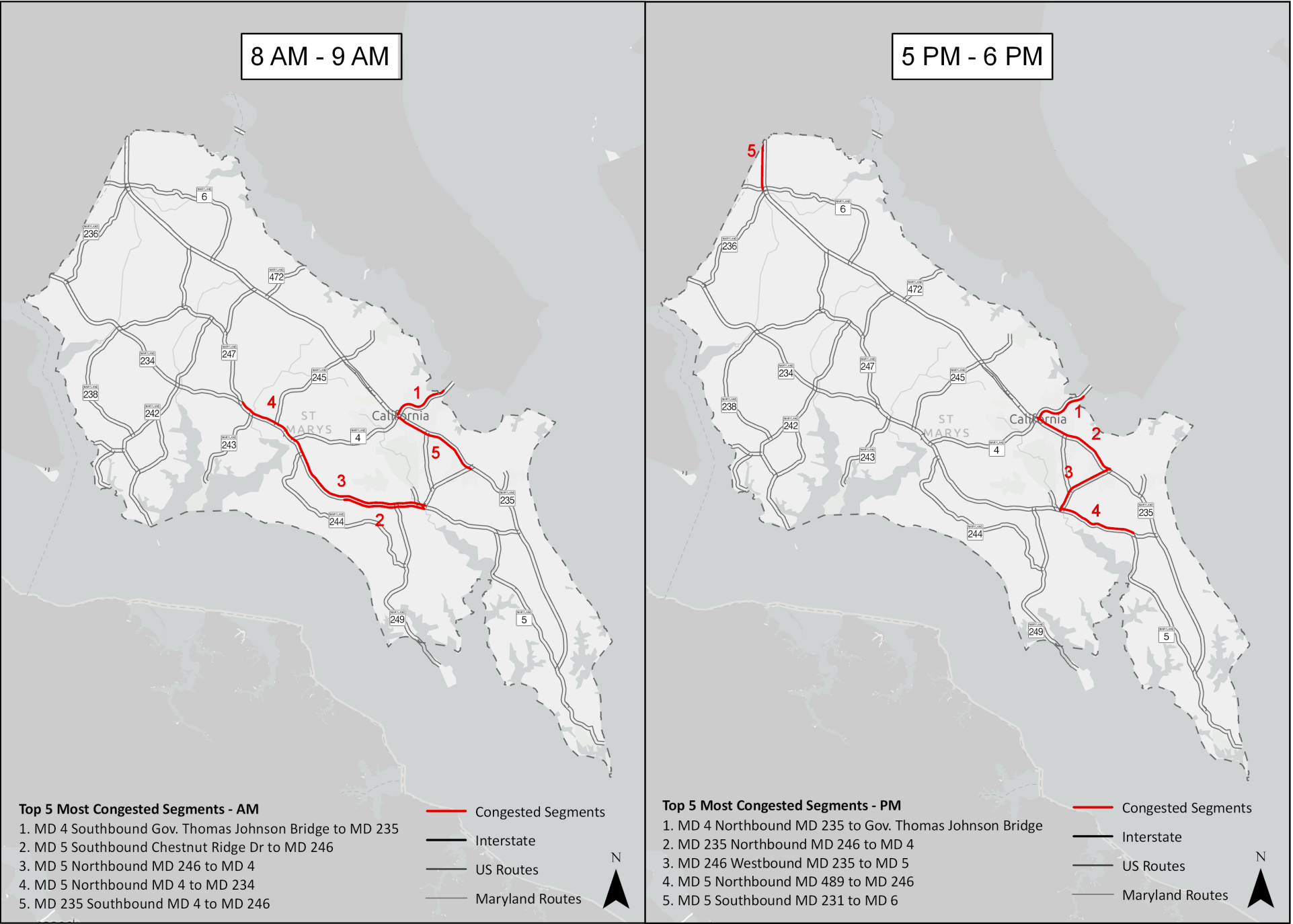
Most Congested Arterial Segments - Prince George's



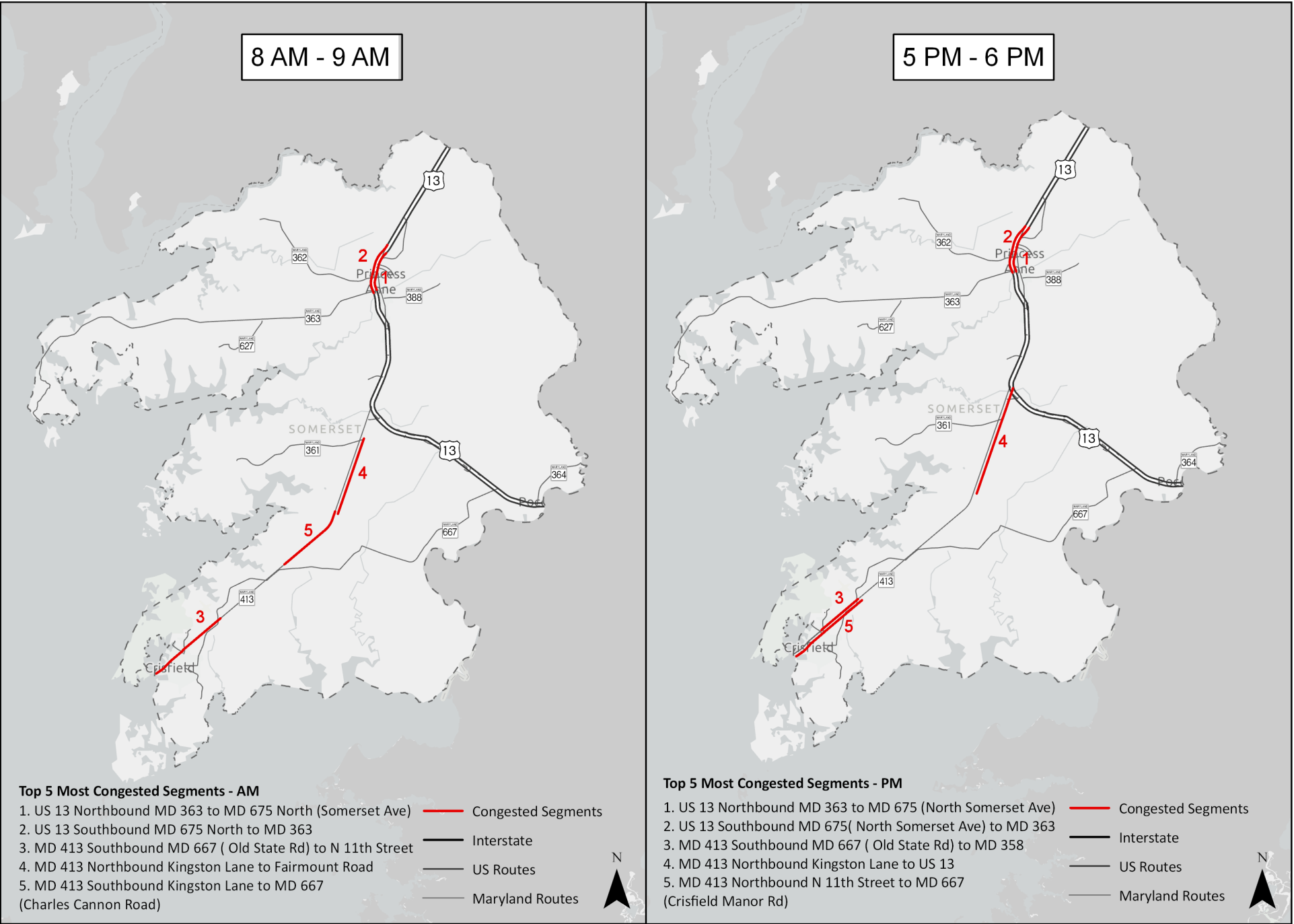
Most Congested Freeway and Arterial Segments - Queen Anne's



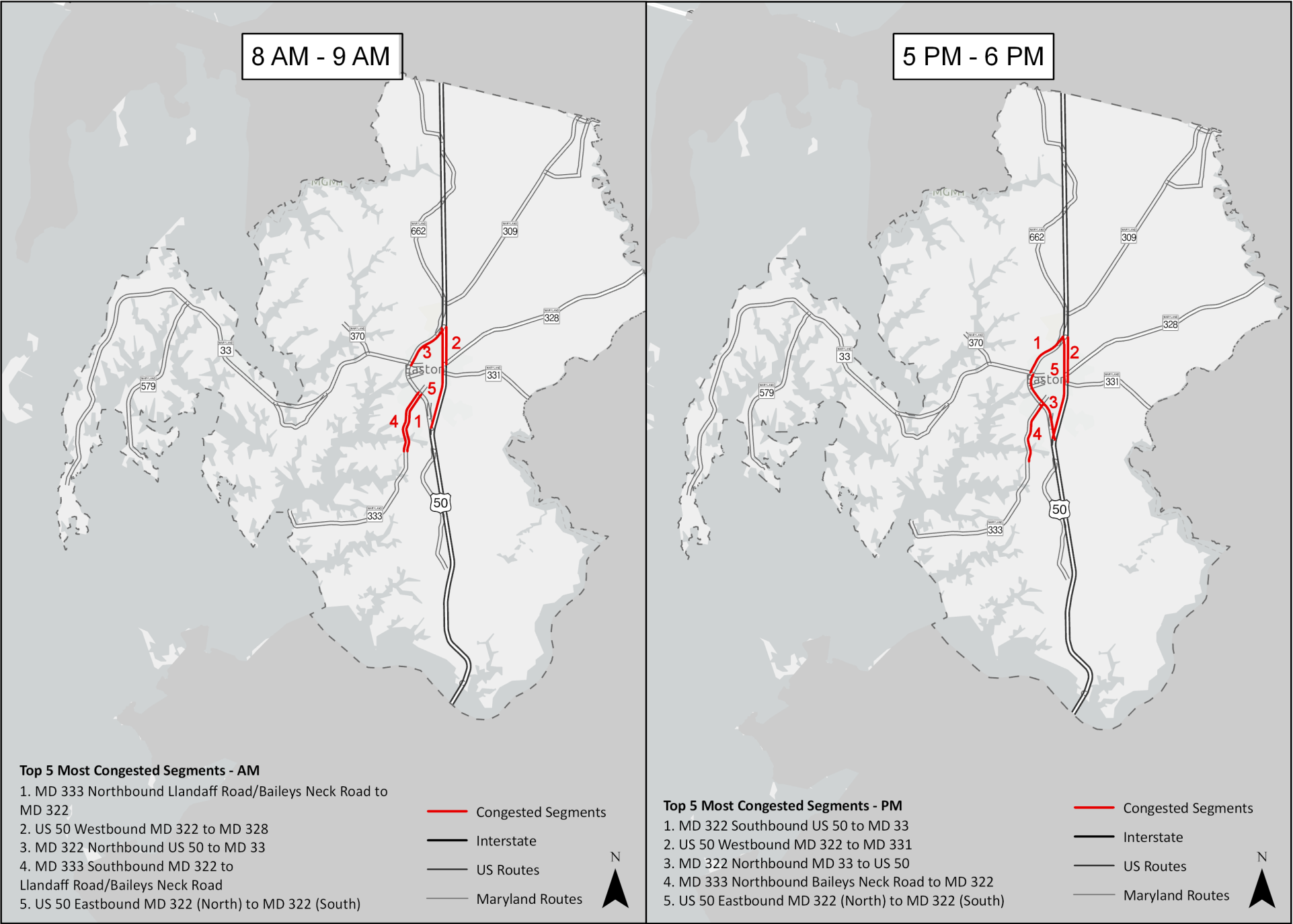
Most Congested Arterial Segments - Saint Mary's



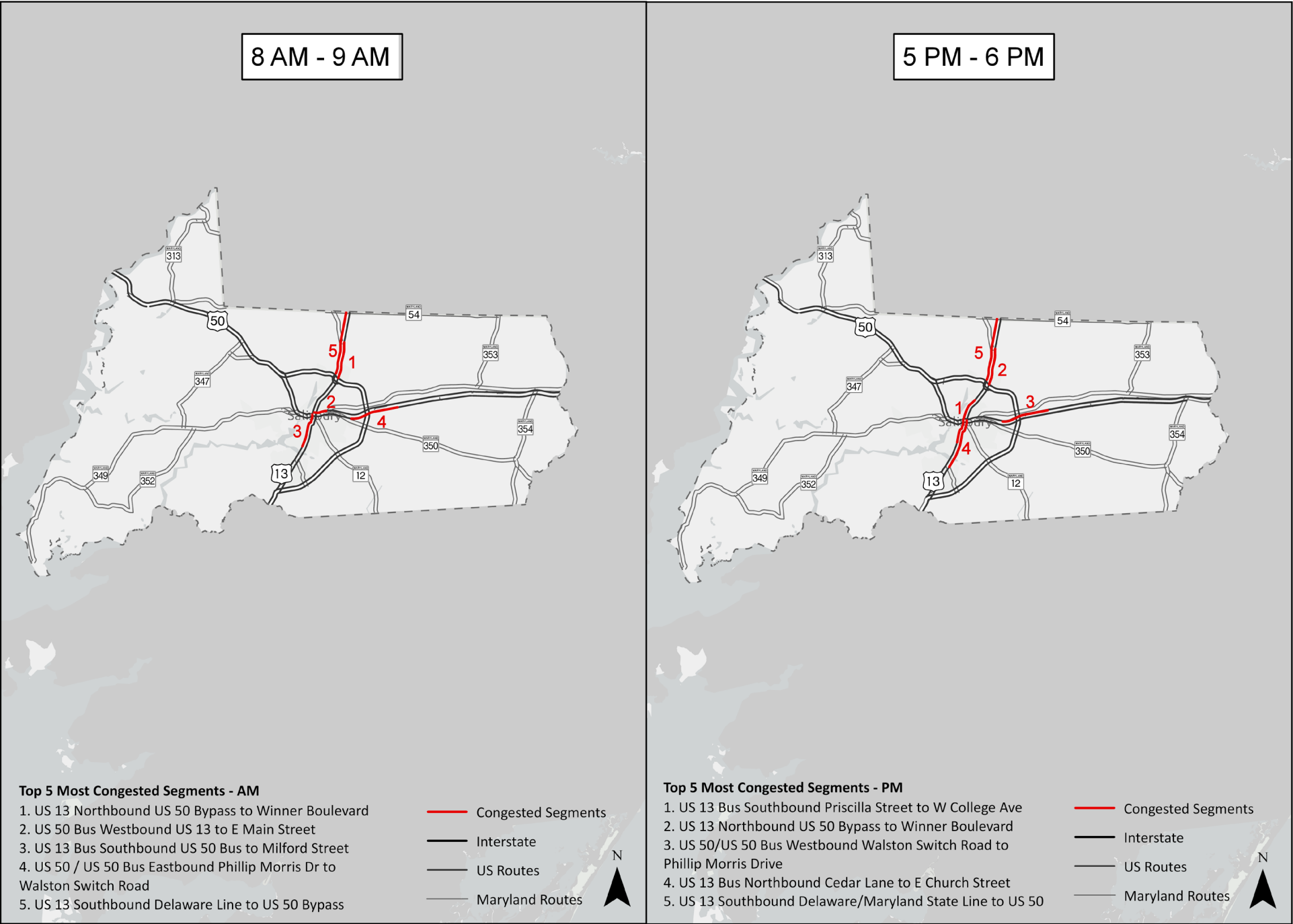
Most Congested Freeway & Arterial Segments - Somerset



Most Congested Freeway & Arterial Segments - Talbot

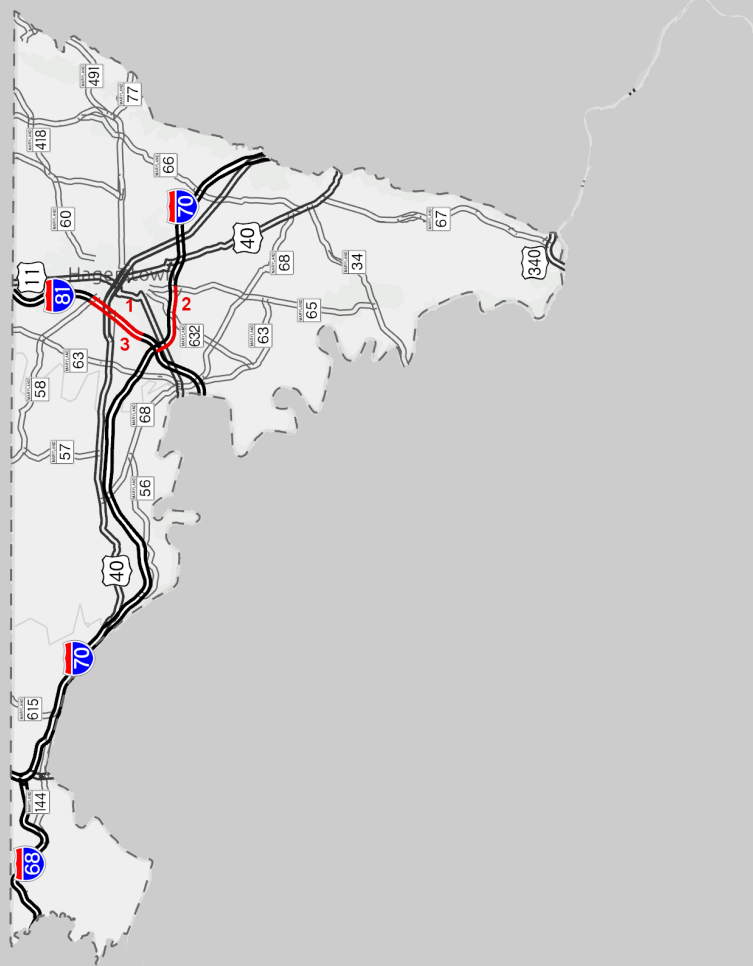


Most Congested Freeway & Arterial Segments - Wicomico



Most Congested Freeway Segments - Washington

8 AM - 9 AM



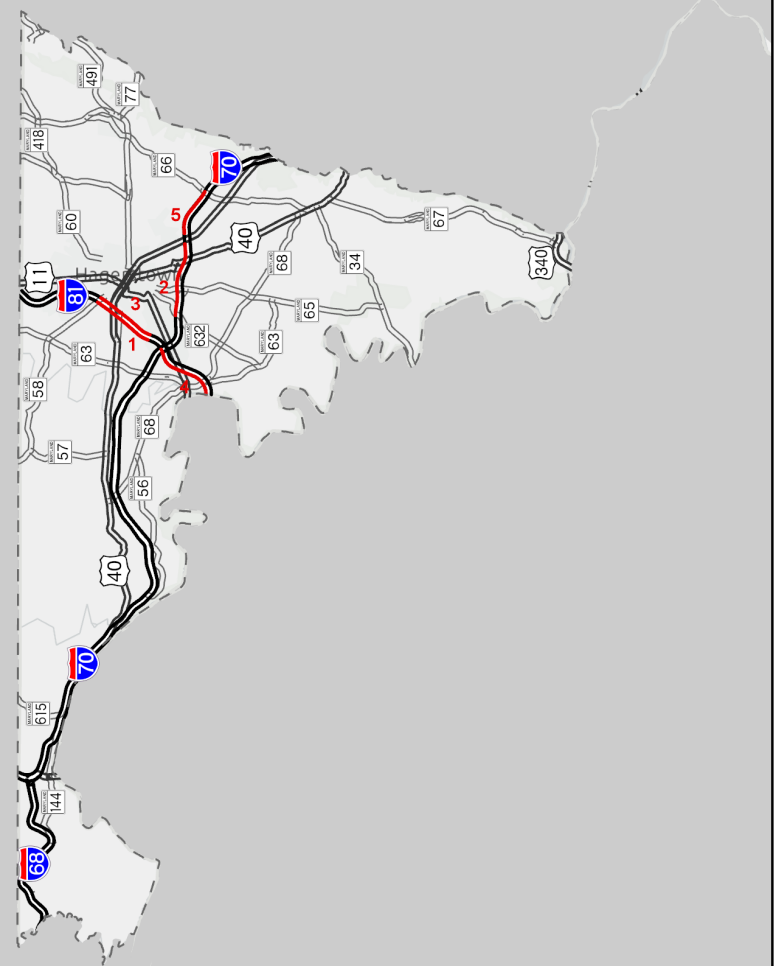
Top 5 Most Congested Segments - AM

1. I-81 Northbound Halfway Blvd to MD 58
2. I-70 Eastbound I-81 to MD 65
3. I-81 Southbound MD 58 to Halfway Blvd

- Congested Segments
- Interstate
- US Routes
- Maryland Routes



5 PM - 6 PM



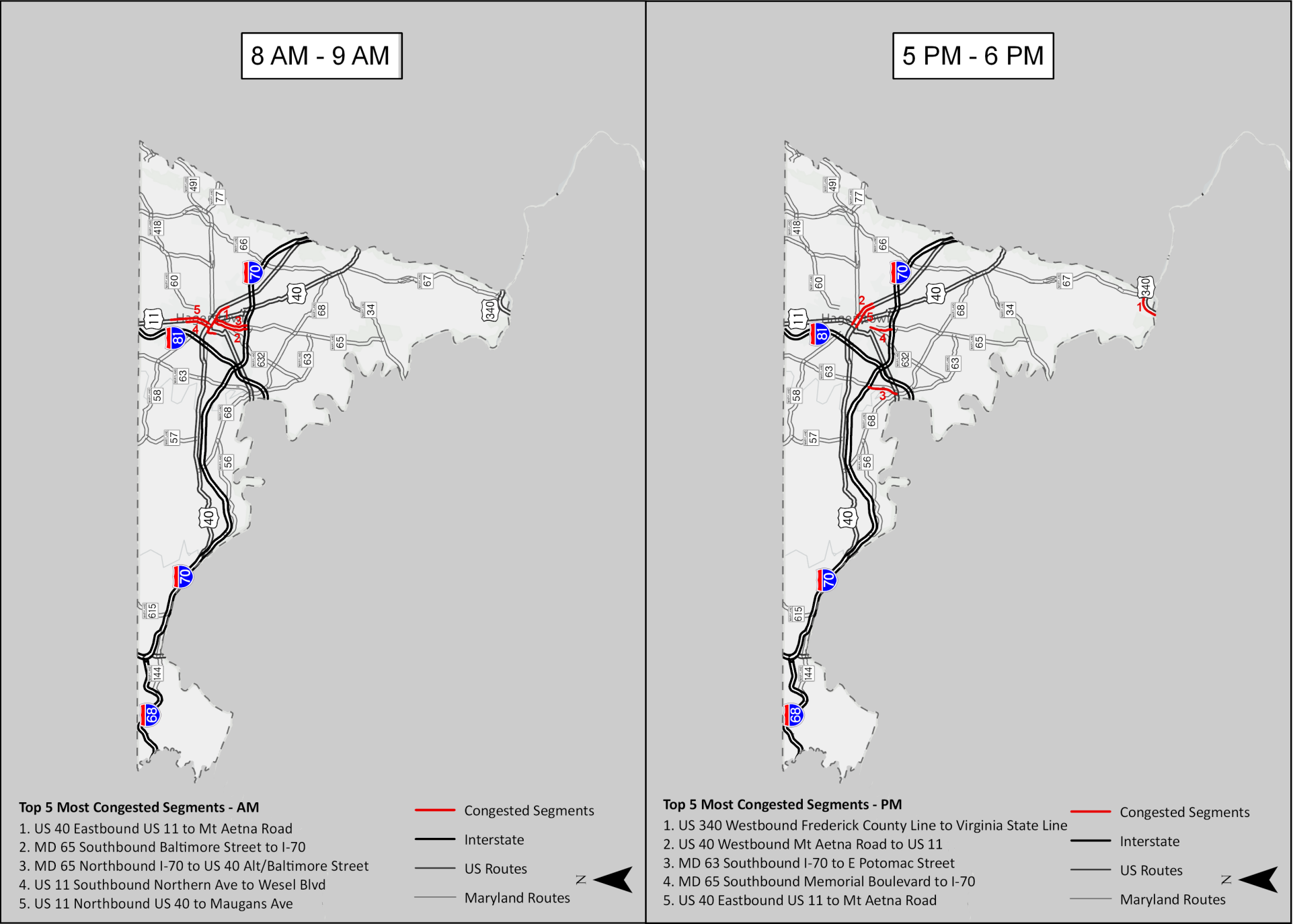
Top 5 Most Congested Segments - PM

1. I-81 Southbound MD 58 to Halfway Blvd
2. I-70 Westbound US 40 to MD 632
3. I-81 Northbound Halfway Blvd to MD 58
4. I-81 Southbound I-70 to Maryland/West Virginia State Line
5. I-70 Westbound US 40 to MD 66

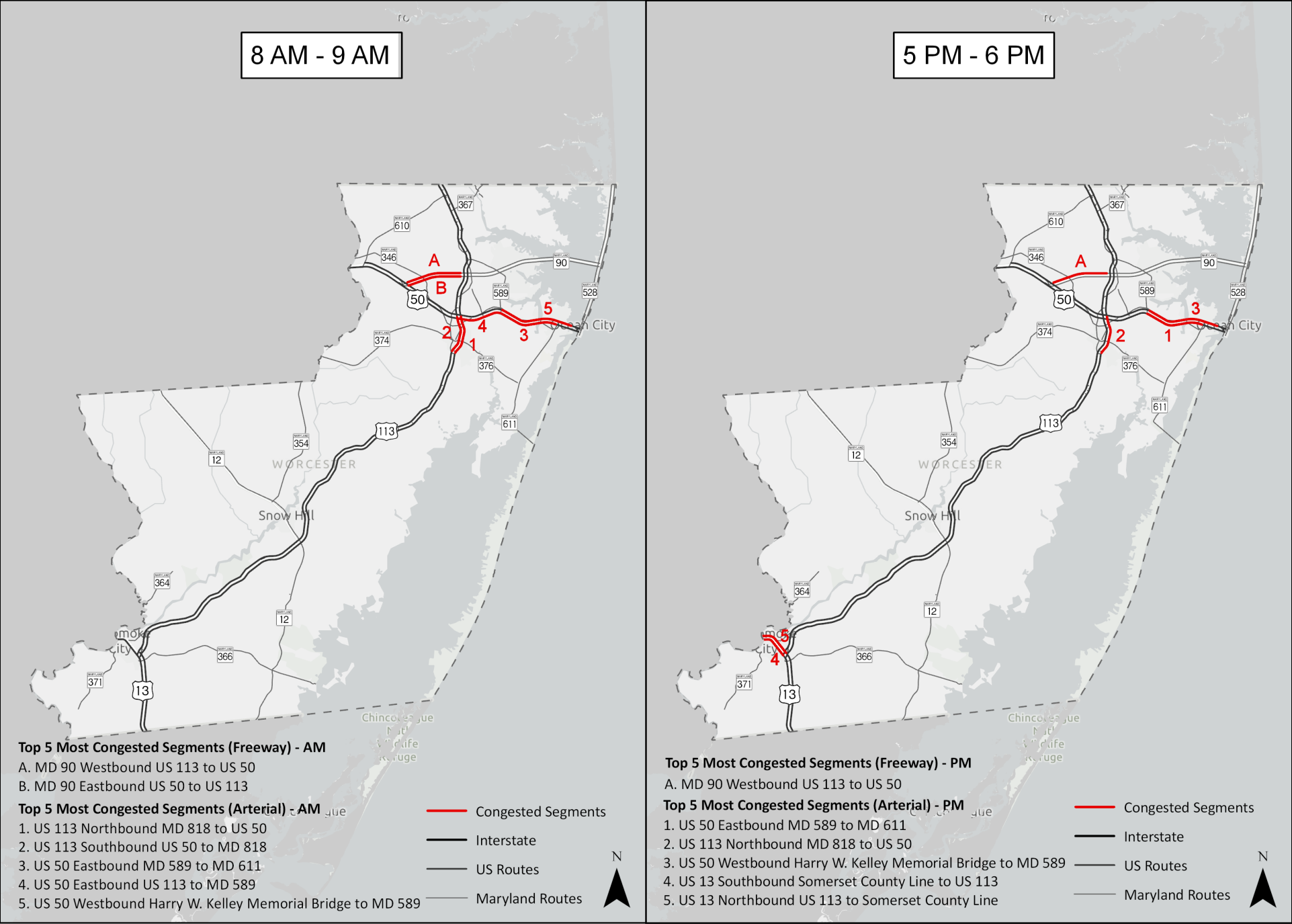
- Congested Segments
- Interstate
- US Routes
- Maryland Routes



Most Congested Arterial Segments - Washington



Most Congested Freeway & Arterial Segments - Worcester



E. CONGESTION COSTS

Motorists and truck drivers who wait in traffic experience a cost associated with that time. These cost range in value depending on the purpose of the trip. The cost are divided into auto delay, truck delay, wasted fuel and cost associated with additional emissions by region for the freeway/expressway system. The Washington region accounts for 58% of the overall statewide congestion costs and the largest increase from 2018 to 2019. Although, all the other regions experienced a higher percentage increase in congestion cost ranging from 33 % to 80%. The Baltimore region accounts for 41% of the congestion cost. The congestion cost combined for the Eastern Shore, Southern and Western regions increased by about \$21 million from 2018 (Table 4).

Table 4

TOTAL FREEWAY/EXPRESSWAY COST OF CONGESTION BY REGION (MILLIONS)				
REGION	2017	2018	2019	CHANGE 2018 TO 2019
Statewide	2,874	2,727	3,585	+858
Baltimore Region	1,079	1,072	1,474	+402
Washington Region	1,772	1,628	2,063	+435
Eastern Shore Region	17	20	36	+16
Southern Region	2	2	3	+1
Western Region	4	5	9	+4

The cost of congestion on the arterial network increased by approximately \$335 million over 2018. By region, the major increase was in the Washington area, which accounted for 70% of the increase in arterial congestion cost statewide. The southern region saw a \$20 million increase in congestion cost in 2019 (Table 5).

Table 5

TOTAL ARTERIAL COST OF CONGESTION BY REGION (MILLIONS)				
REGION	2017	2018	2019	CHANGE 2018 TO 2019
Statewide	1,179	1,241	1,576	+335
Baltimore Region	263	296	376	+80
Washington Region	794	828	1,063	+235
Eastern Shore Region	N/A	N/A	N/A	N/A
Southern Region	114	108	128	+20
Western Region	8	9	9	0

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CAPITAL PROJECTS BEFORE/AFTER FACT SHEETS



MD 180 @ Mt. Zion Rd

CAPITAL PROJECTS BEFORE & AFTER STUDIES



In 2019, to address mobility and safety issues throughout the State, eleven (11) capital projects were completed and opened to traffic (Table 6 and Figure 3). These projects involved intersection improvements including roundabouts and widening of roadways to enhance traffic operations. All projects are reviewed from a practical design standpoint to ensure the proposed project is addressing just the defined purpose and need. The benefits were analyzed to determine the annual user benefits to the traveling public. The benefits are related to the reduction in delay incurred by motorists and commercial vehicles, fuel savings, the safety benefit resulting from the improvements and the benefit provided by the increased reliability of the system. A detailed analysis describing the improvement, construction cost and the benefits that the mobility project provided as part of the benefit cost analysis are detailed in the following pages.

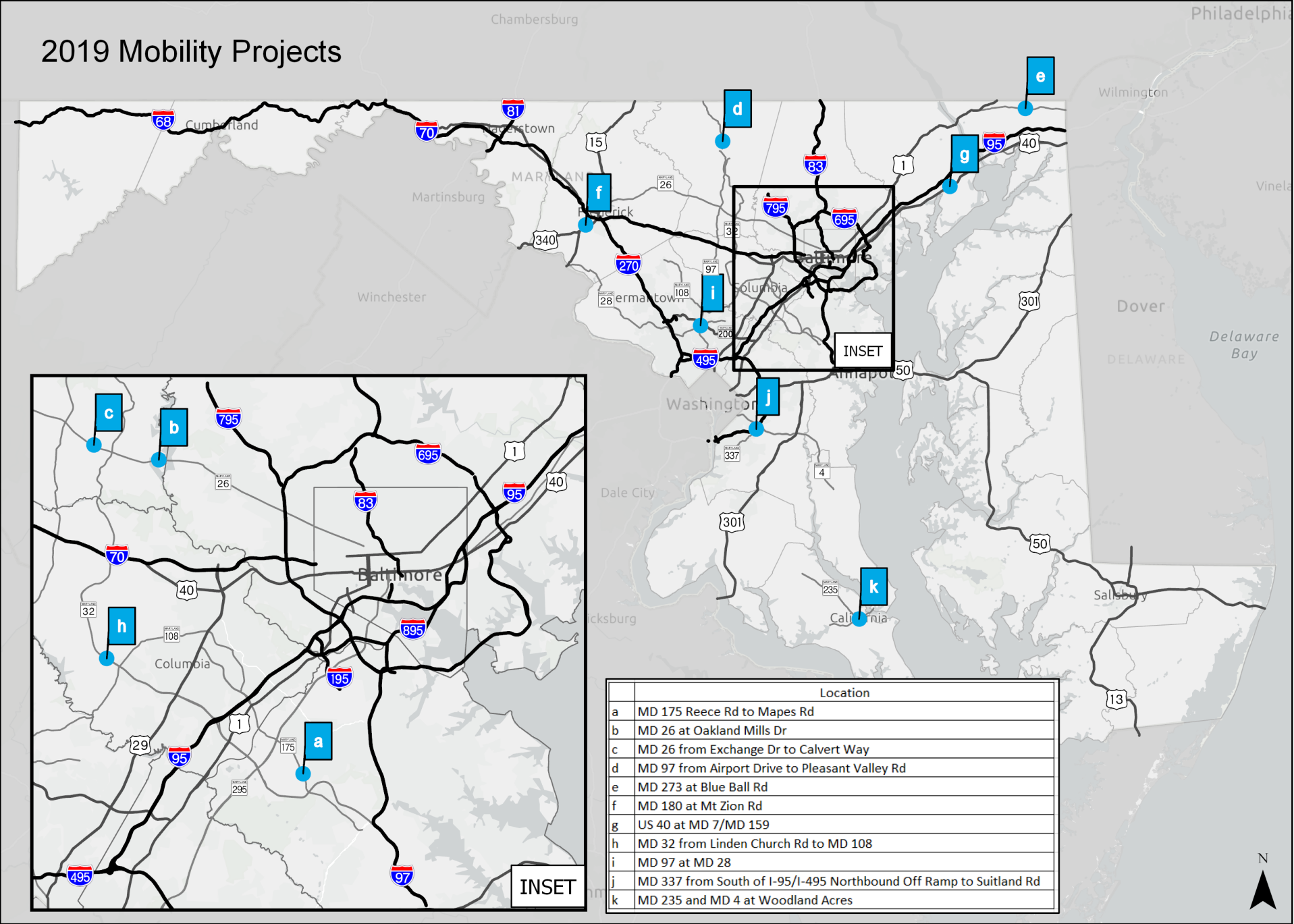
Table 6

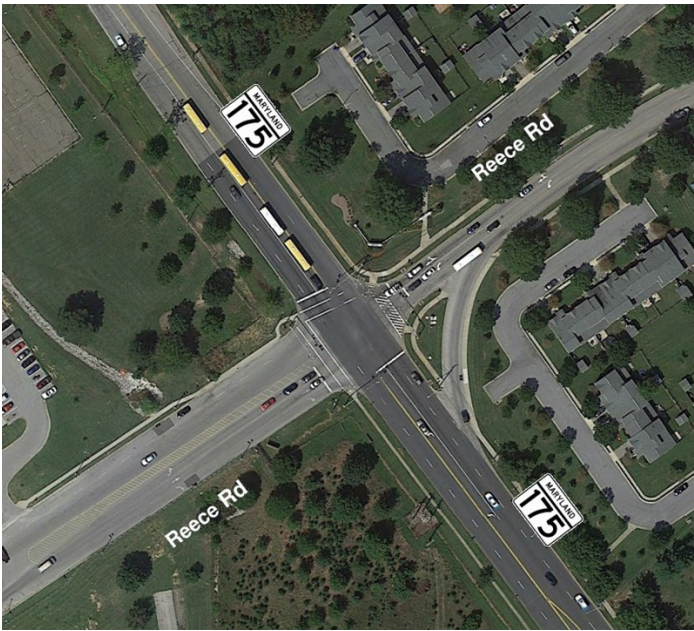
MOBILITY PROJECTS OPENING YEAR BENEFITS				
MOBILITY PROJECT LOCATIONS	COUNTY	CONGESTION & FUEL SAVINGS	SAFETY SAVINGS	ANNUAL COST SAVINGS
		\$ (Thousands)		
a. MD 175 from Mapes Road to Reece Road	Anne Arundel	5,393	803	6,196
b. MD 26 at Oakland Mills Road	Carroll	426	113	539
c. MD 26 from Exchange Drive to Calvert Way	Carroll	1,720	15	1,735
d. MD 97 from Airport Drive to Pleasant Valley Road	Carroll	3,249	2,401	5,650
e. MD 273 at Blue Ball Road	Cecil	-7	3,446	3,439
f. MD 180 at Mt Zion Road	Frederick	83	212	295
g. US 40 at MD 7/ MD 159	Harford	4,032	1,523	5,555
h. MD 32 from Linden Church Road to MD 108	Howard	25,134	1,055	26,189
i. MD 97 at MD 28	Montgomery	4,581	3	4,584
j. MD 337 from I-95/I-495 Northbound Ramp to Suitland Road	Prince George's	3,056	71	3,127
k. MD 235/MD 4 at Woodland Acres	St Mary's	952	3	955
Total		48,619	9,645	58,264



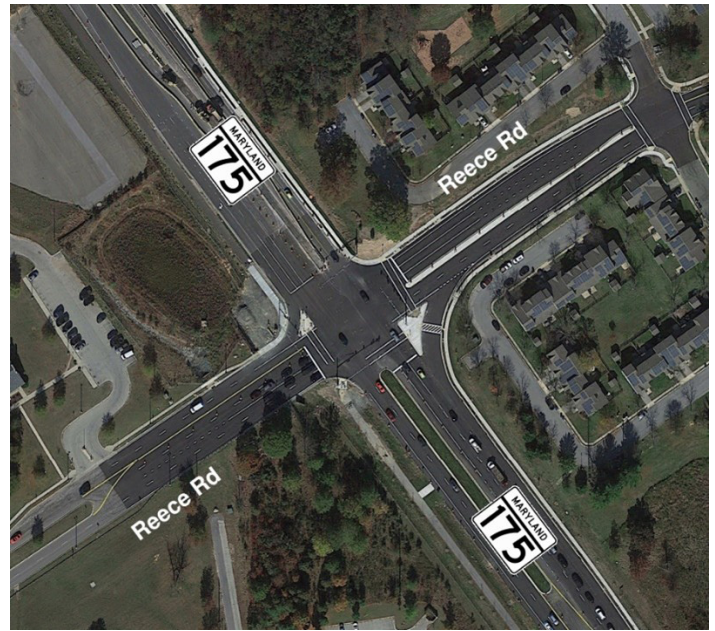
2019 Mobility Projects provide over \$58 million in annual user cost savings in the opening year or approximately \$5 million per project on average.

Figure 3





BEFORE



AFTER

MD 175 (Annapolis Road) from Mapes Road/ Charter Oaks Boulevard to Reece Road

LOCATION: FORT MEADE, ANNE ARUNDEL COUNTY

Improvements were constructed along MD 175 at the intersections with Reece Road and Mapes Road/Charter Oaks Boulevard. This project will improve safety and operations along MD 175 and reduce congestion resulting from BRAC expansion at Fort Meade.

PROJECT BACKGROUND

- MD 175 has an ADT of approximately 24,000 vehicles per day.
- There was a total of 37 crashes during the three-year study period, of which none involved fatalities.
- The MD 175 at Reece Road intersection operated at LOS D during the AM and PM peak hours.
- The MD 175 at Mapes Road/Charter Oaks Boulevard intersection operated at LOS E during the AM and PM peak hours.
- MD 175 westbound operated at arterial LOS C during the AM peak hour and LOS D during the PM peak hour.
- MD 175 eastbound operated at arterial LOS D during the AM and PM peak hours.

PROJECT SCOPE

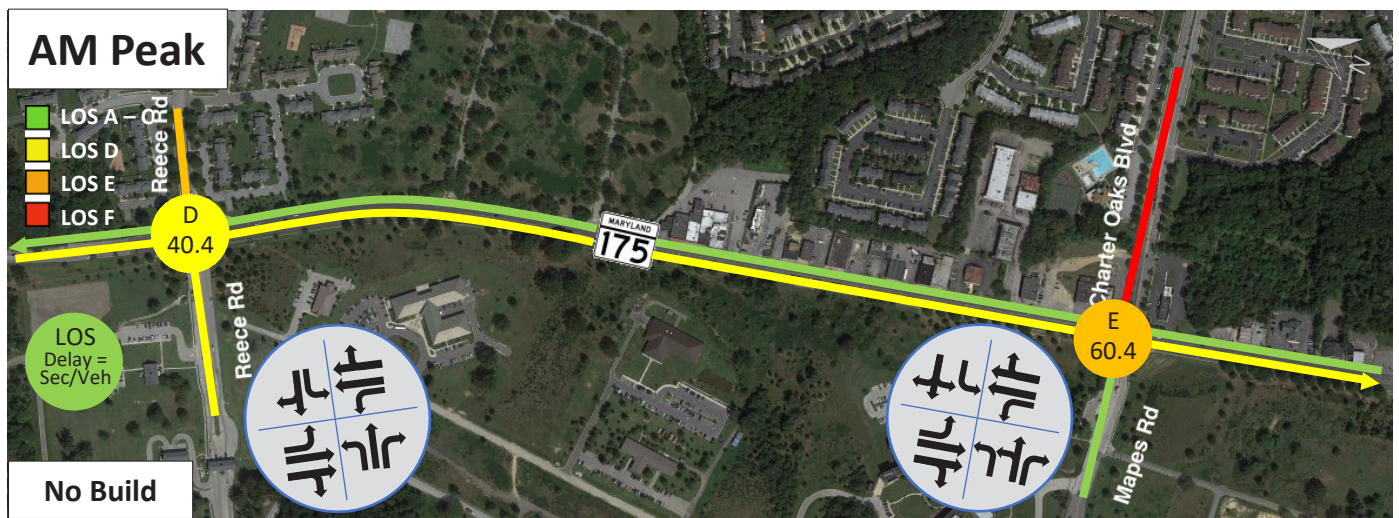
- Construct a right turn lane and an additional left turn lane for MD 175 westbound at Mapes Road/Charter Oaks Boulevard.
- Construct a right turn lane for MD 175 eastbound at Mapes Road/Charter Oaks Boulevard.
- On MD 175 eastbound at Reece Road construct a right turn lane and an additional left turn lane for MD 175. A right turn lane for MD 175 westbound at Reece Road was added.
- Construct a right turn lane for Reece Road westbound and build an additional left turn lane and a shared through/right turn lane for Reece Road eastbound.

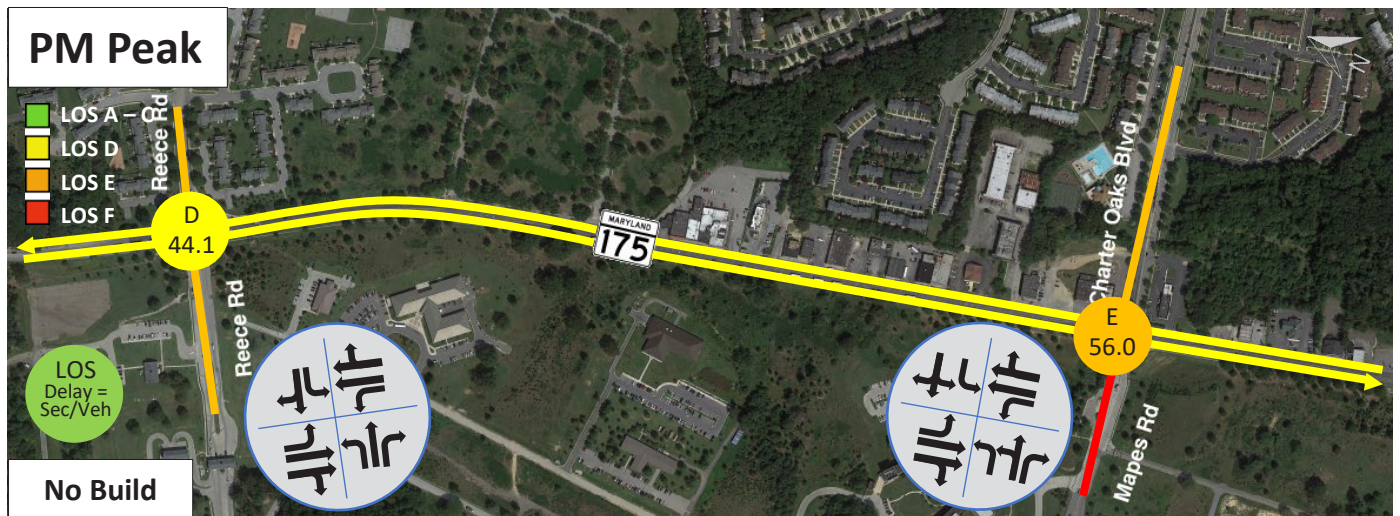
- Upgrade traffic signals, lighting and improve signage/markings. Alter left turn signal phasing from permissive/protected to protected only.

BENEFITS

- During the AM and PM peak hours, network delays have been reduced by 15% and 36%, respectively.
- MD 175 at Mapes Road/Charter Oaks Boulevard improved to LOS D from LOS E during the AM and PM peak hours.
- The protected only left turn phasing can reduce crashes by reducing vehicular conflicts.
- MD 175 westbound speeds increased by 7 MPH and operations improved to LOS B during the AM peak hour and LOS C during the PM peak hour.
- MD 175 eastbound speeds increased by 2-3 MPH during both peak hours and operations improved to LOS C during the AM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$5,310	\$83	\$803	\$16.8	7.3







BEFORE



AFTER

MD 26 at Oakland Mills Road

LOCATION: ELDERSBURG, CARROLL COUNTY

This project added a dedicated left turn lane along MD 26 westbound and restriped MD 26 eastbound to provide for a separate left turn lane to Oakland Mills Road.

PROJECT BACKGROUND

- MD 26 has an ADT of approximately 16,000 vehicles per day.
- Over the five-year study period, there was a total of eight crashes, of which none involved fatalities. There were three injury crashes and five property damage crashes at the intersection.
- The MD 26 and Oakland Mills Road intersection operated at LOS B during both the AM and PM peak hours.

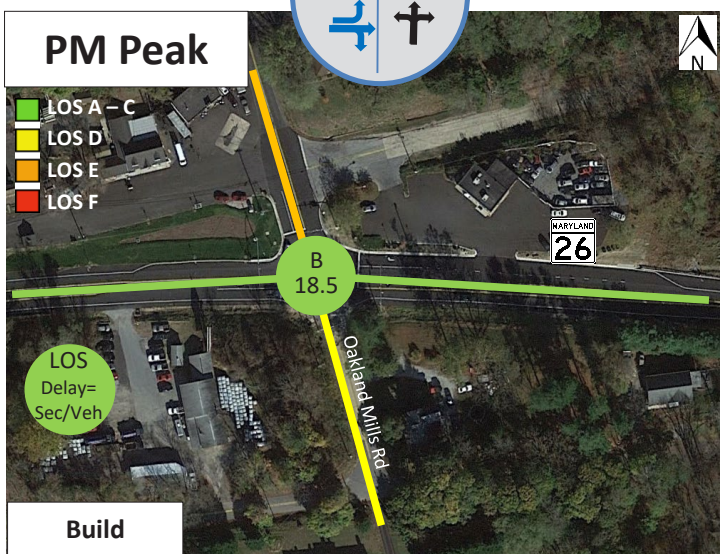
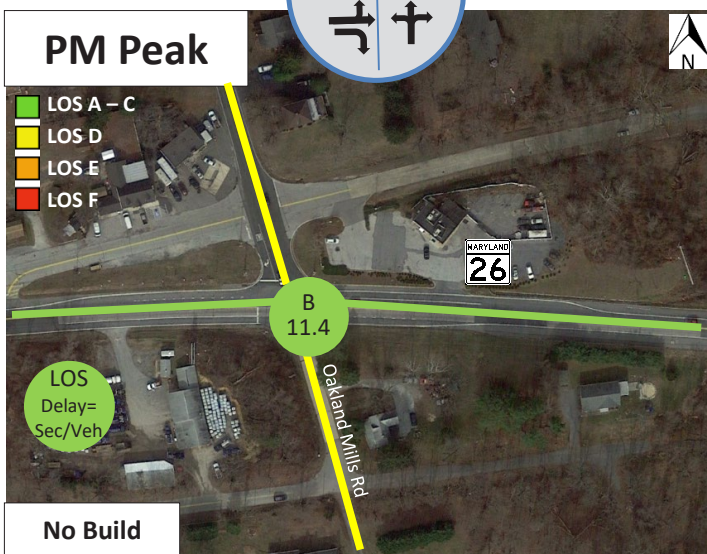
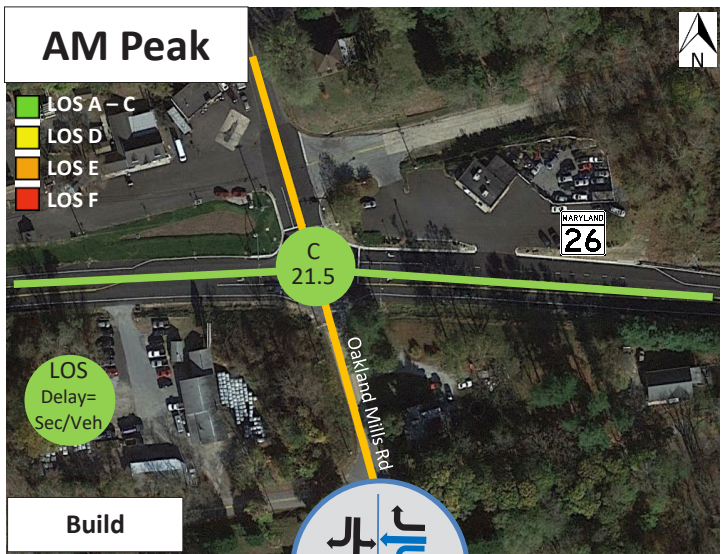
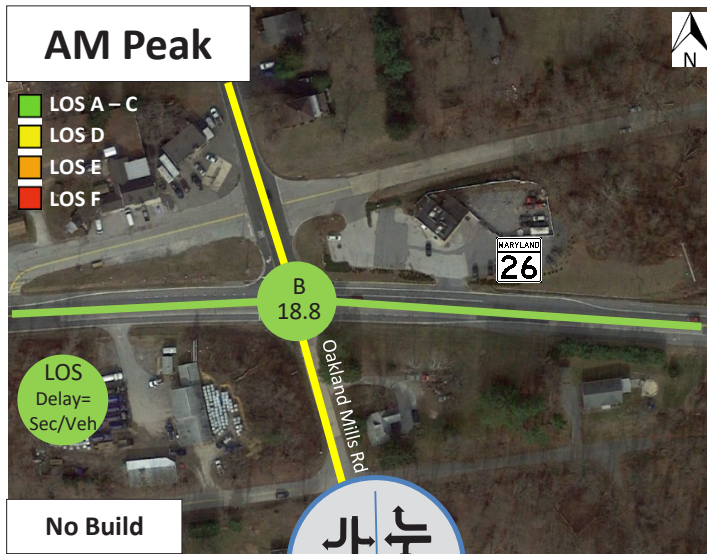
PROJECT SCOPE

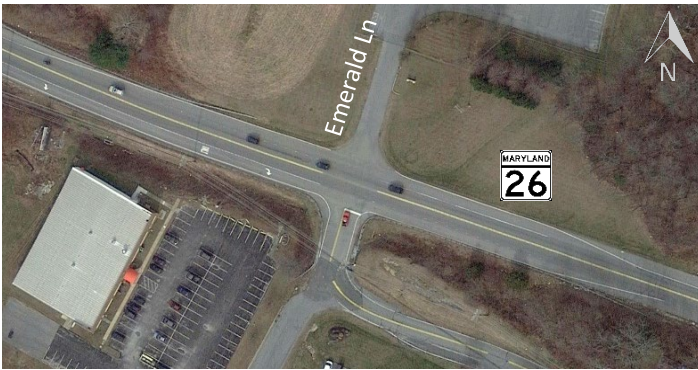
- Add a left turn lane on westbound MD 26 at Oakland Mills Road.
- Convert the eastbound lanes from a shared thru/left and a right to a left turn lane and a shared right/thru lane.
- Resurfacing and restriping along MD 26.
- Constructed bike lanes.

BENEFITS

- Safety should be improved by reducing the speed differential and not having motorists stopped in the through lane along MD 26.
- The addition of protected left turn phases along MD 26 may improve safety by reducing the number of vehicle conflicts.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$420	\$6	\$113	\$1.7	6.1





BEFORE



AFTER

MD 26 from Exchange Drive to Calvert Way

LOCATION: ELDERSBURG, CARROLL COUNTY

This project added a through lane for approximately 0.65 miles in each direction along MD 26 between Exchange Drive and Calvert Way. The project consisted of widening to a four to five lane section between these points. Dedicated bicycle lanes were provided. A center turn lane was also added along MD 26 to provide ingress into the side streets.

PROJECT BACKGROUND

- MD 26 has an ADT of approximately 26,000 vehicles per day.
- Over the three-year study period, there was a total of 21 crashes, of which none involved fatalities. There were eight injury crashes and 13 property damage crashes along the corridor.
- At the intersection of MD 26 and Exchange Drive the LOS was A during the AM and the PM peak hours.
- At the intersection of MD 26 and Emerald Lane the LOS was F during the AM and the PM peak hours.
- The MD 26 and Calvert Way/Piney Ridge Parkway intersection operated at a LOS of E and F during the AM and the PM peak hours, respectively.
- MD 26 had arterial LOS B travelling eastbound and LOS A travelling westbound during the AM peak hour. During the PM peak hour, eastbound operated with LOS B and westbound operated with LOS C.

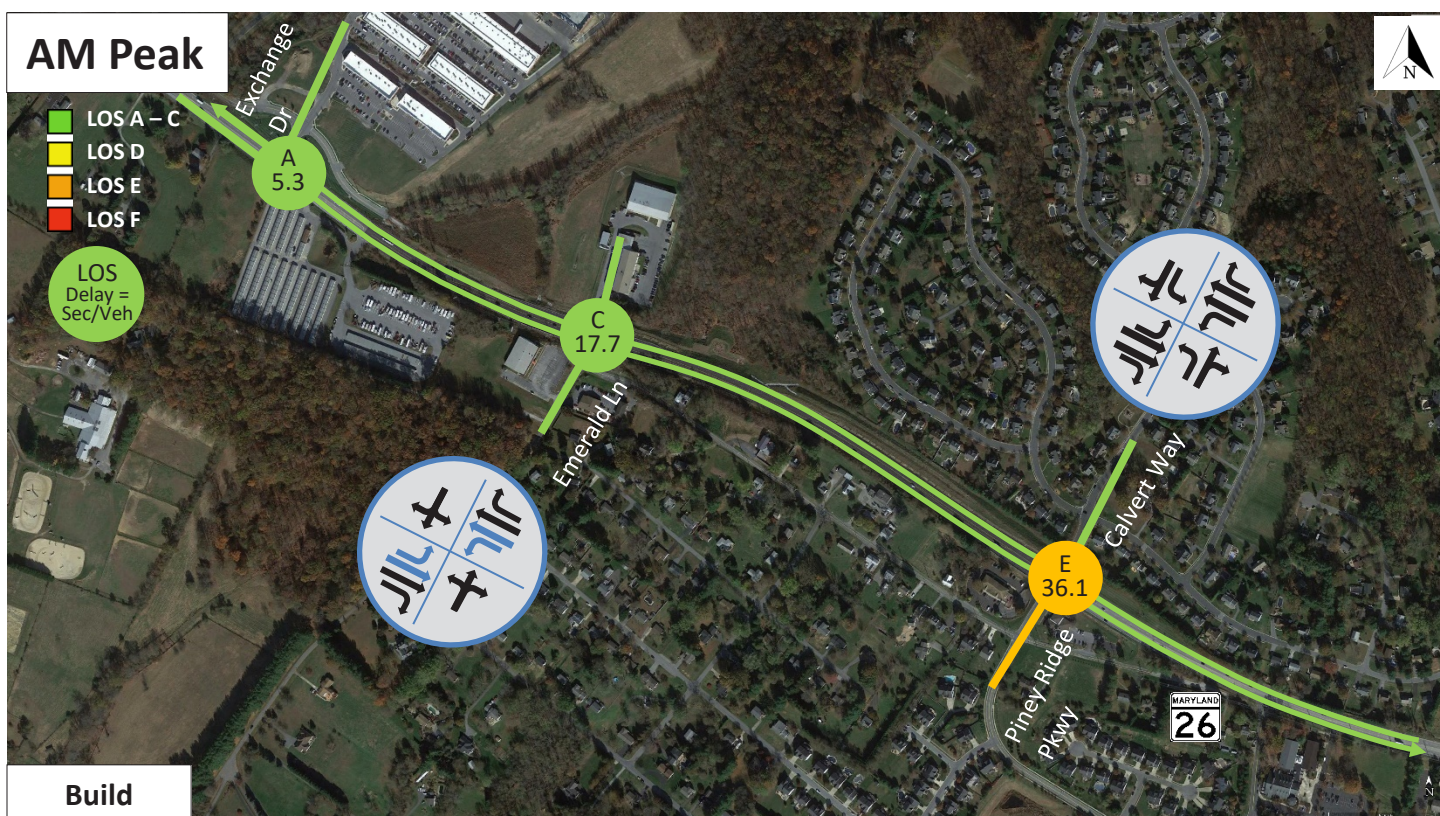
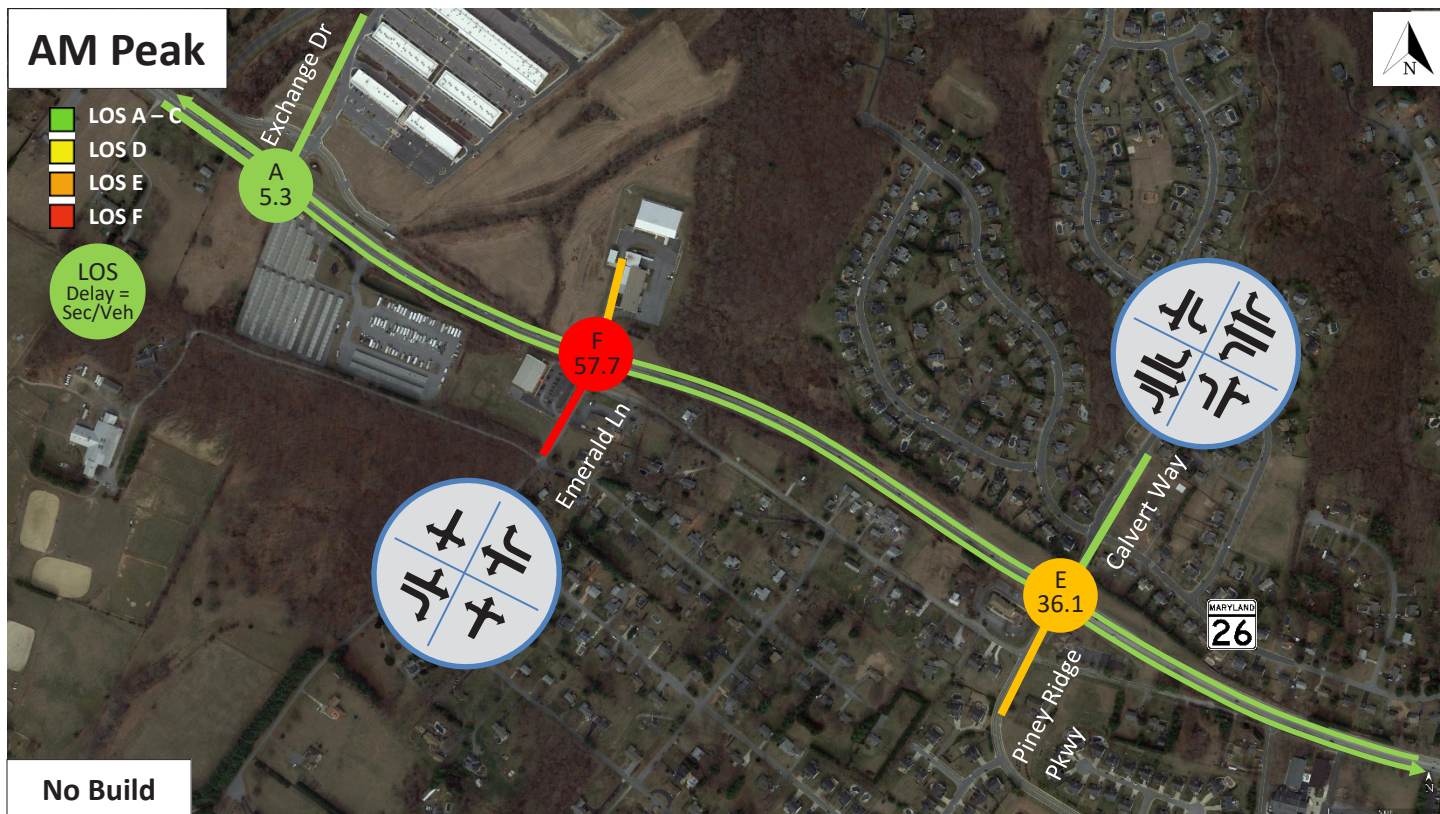
PROJECT SCOPE

- Provide a four to five lane section for approximately 0.65 miles along MD 26 between Exchange Drive and Calvert Way.
- Widen MD 26 to include a separated left turn lane for eastbound and westbound traffic into Emerald Lane.

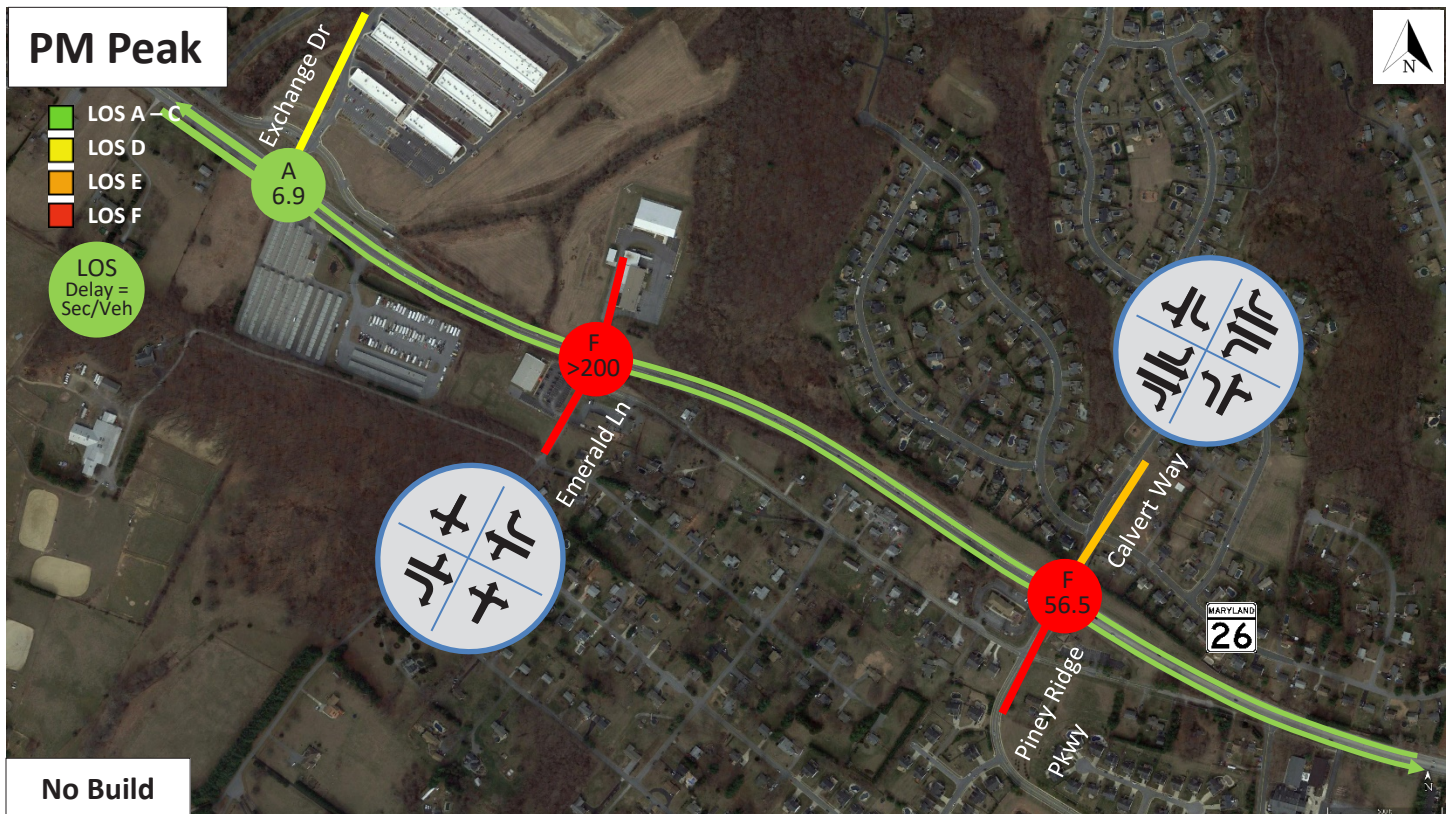
BENEFITS

- During the AM and PM peak hours, corridor delays have been reduced by 5% and 18%, respectively.
- Improves the LOS from F to C during AM peak hour and from F to D during the PM peak hour at Emerald Lane.
- Improve arterial LOS from C to B for the westbound direction during the PM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$1,695	\$25	\$15	\$4.8	7.6



*The LOS and delays reported for MD 26 at Emerald Lane and Piney Ridge Parkway/Calvert Way intersections are the worst approach LOS and delays.



*The LOS and delays reported for MD 26 at Emerald Lane and Piney Ridge Parkway/Calvert Way intersections are the worst approach LOS and delays.



BEFORE



AFTER

MD 97 from Airport Drive to Pleasant Valley Road

LOCATION: WESTMINSTER, CARROLL COUNTY

This project added a thru lane in each direction along MD 97 and converted the partial access intersection at MD 97 and Meadow Branch Road/Arthur Peck Drive into a full access signalized intersection. The project purpose was to improve safety, mobility, and provide improved access to the Industrial Park along Arthur Peck Drive. This project included providing bicycle lanes.

PROJECT BACKGROUND

- MD 97 has an ADT of approximately 25,000 vehicles per day.
- Over the three-year study period, there was a total of 21 crashes, of which none involved fatalities. There were 10 injury crashes and 11 property damage crashes.
- The MD 97 northbound arterial LOS was B in the AM peak hour and LOS F in the PM peak hour.
- The MD 97 southbound arterial LOS was F and B in the AM and PM peak hours respectively.
- The southbound queues extend up to a mile to the north in the AM peak hour. Separately, the northbound queue extends up to a mile to the south in the PM peak hour.

PROJECT SCOPE

- Widened MD 97 by constructing an additional through lane in each direction. Also, added a bicycle lane in each direction along MD 97.
- Provided a full access, signalized intersection at MD 97/Old Meadow Branch Road/Arthur Peck Drive.
- Modified lane configurations at MD 97/Magna Way/Airport Drive westbound approach and modified signal phasing from concurrent to split phasing.
- Improved drainage, resurfaced, and restriped MD 97.

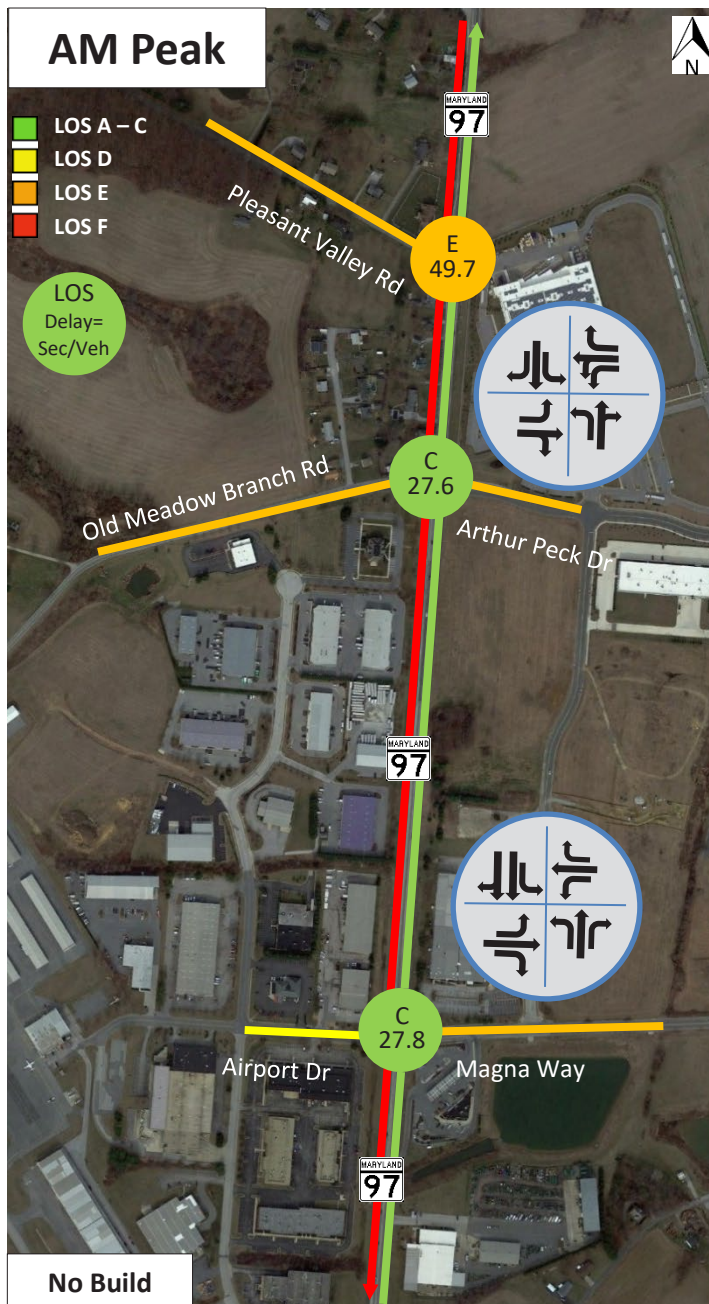
BENEFITS

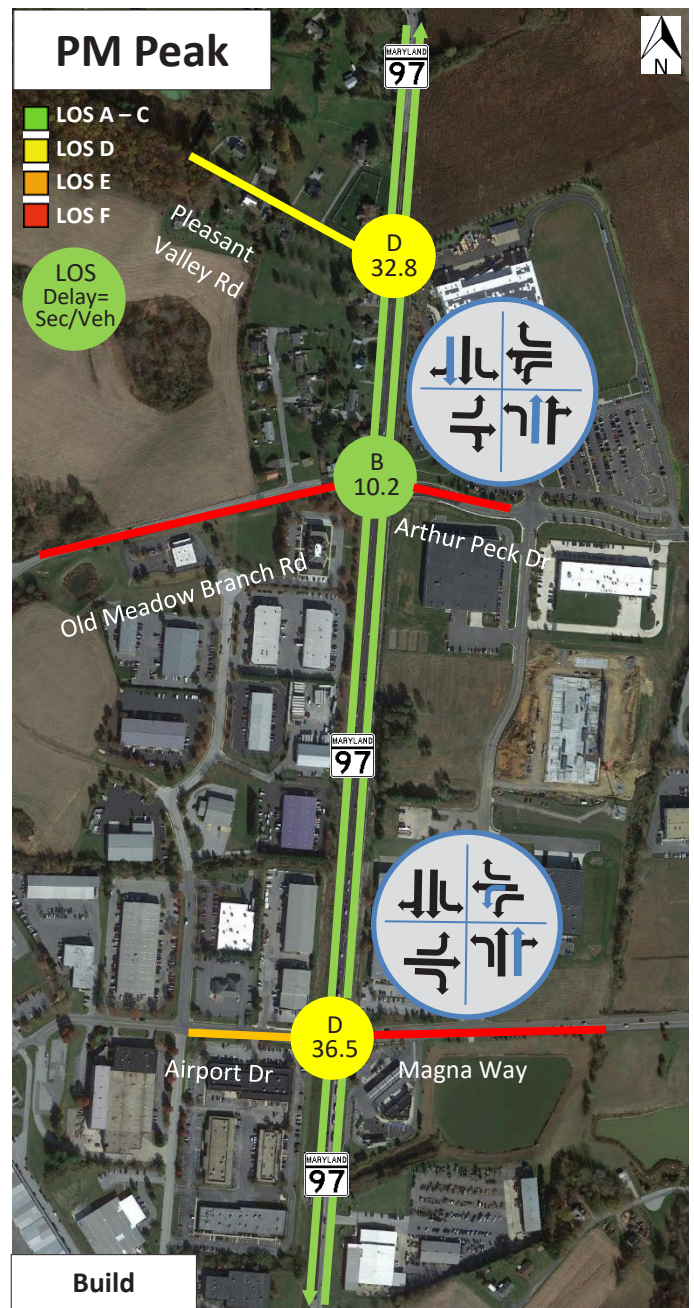
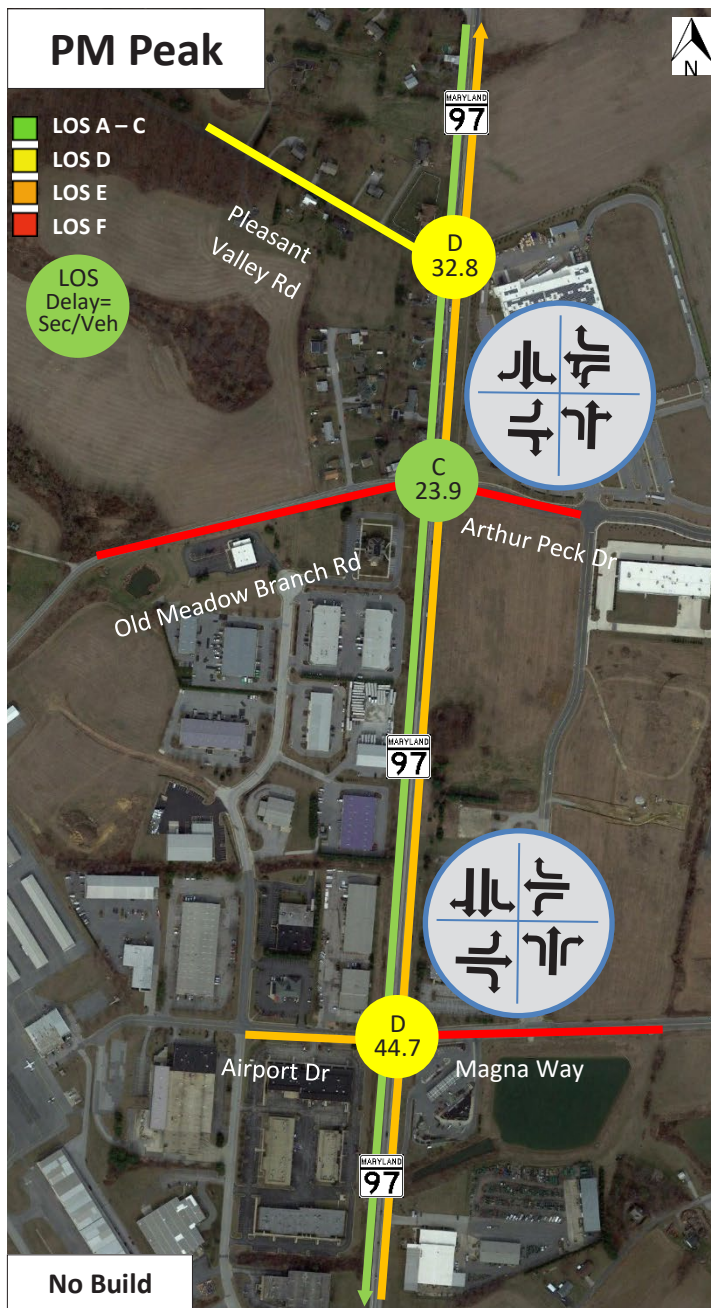
- Network delay was reduced by 58% during the AM peak hour and 48% during the PM peak hour.
- A signed and marked bicycle lane should improve awareness of bicyclists and improve safety, while

encouraging multi modal forms of transportation.

- Modifying the lane configurations and side street signal phasing at MD 97/Airport Drive reduced intersection delay by approximately 10 sec/vehicle in both peak hours.
- The MD 97 southbound arterial LOS was improved to C in the AM peak hour and northbound arterial LOS was improved to C in the PM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$3,200	\$49	\$2,401	\$3.3	21.1







BEFORE



AFTER

MD 273 at Blue Ball Road

LOCATION: FAIR HILL, CECIL COUNTY

The project involved the construction of a roundabout to replace a two-way stop at the intersection of MD 273 (Telegraph Road) at Blue Ball Road in Fair Hill, Cecil County. The improvements included a single lane roundabout, splitter islands, new signage, lighting, pavement markings, and drainage improvements. The purpose of the project was to improve safety and efficiency at the intersection.

PROJECT BACKGROUND

- The intersection was two-way stop-controlled at the northbound and southbound approaches. The intersection operated at LOS C during the AM and PM peak hours.
- There were 14 crashes reported during the three-year study period, of which one involved a fatality.
- MD 273 has an ADT of approximately 8,000 vehicles per day.

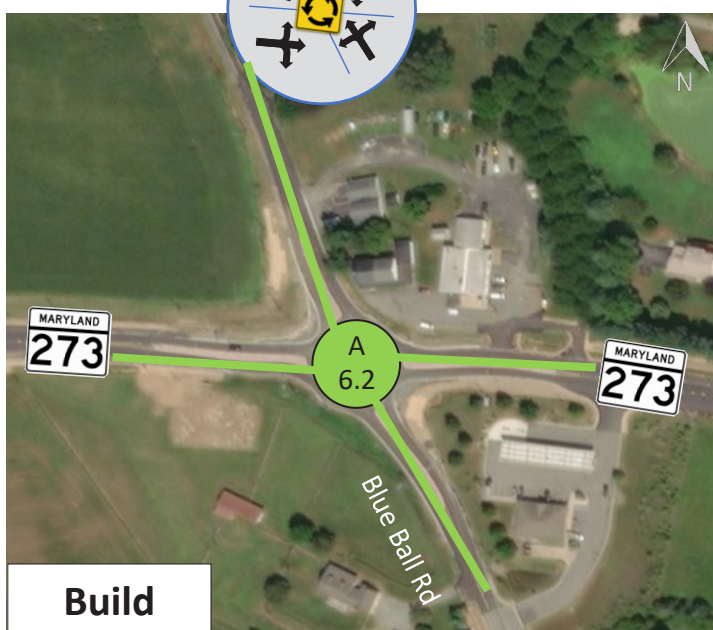
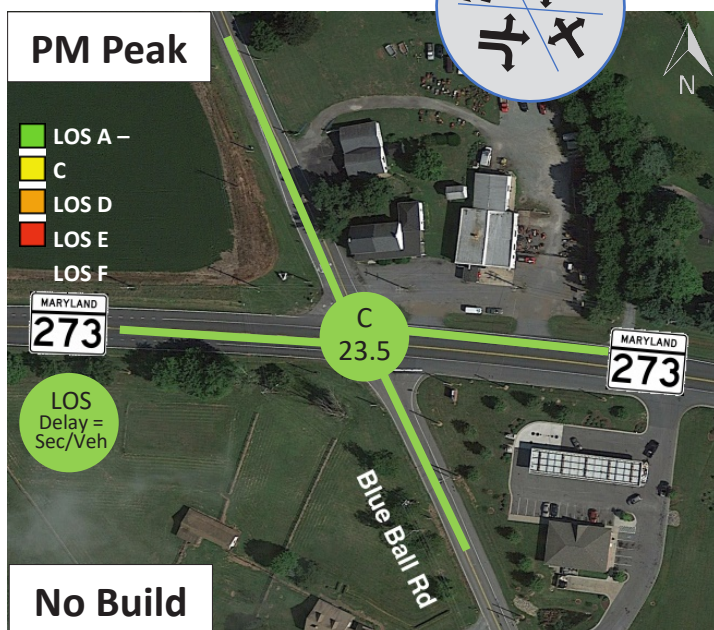
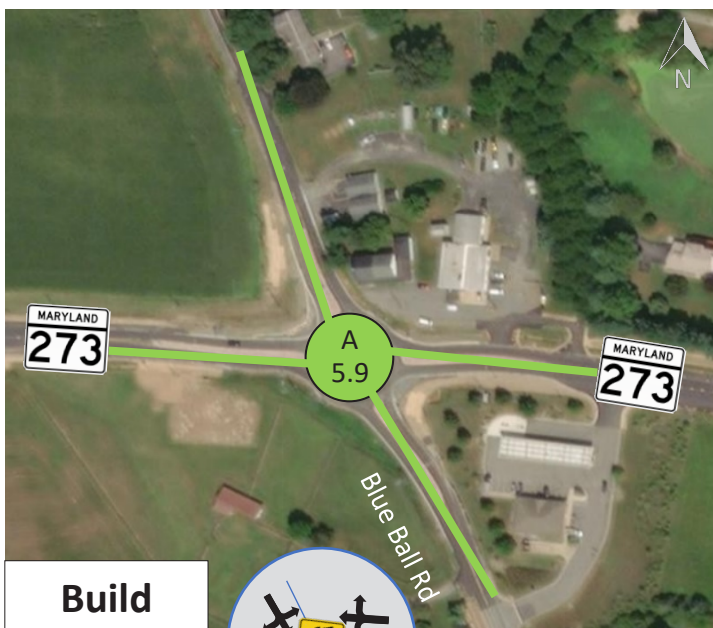
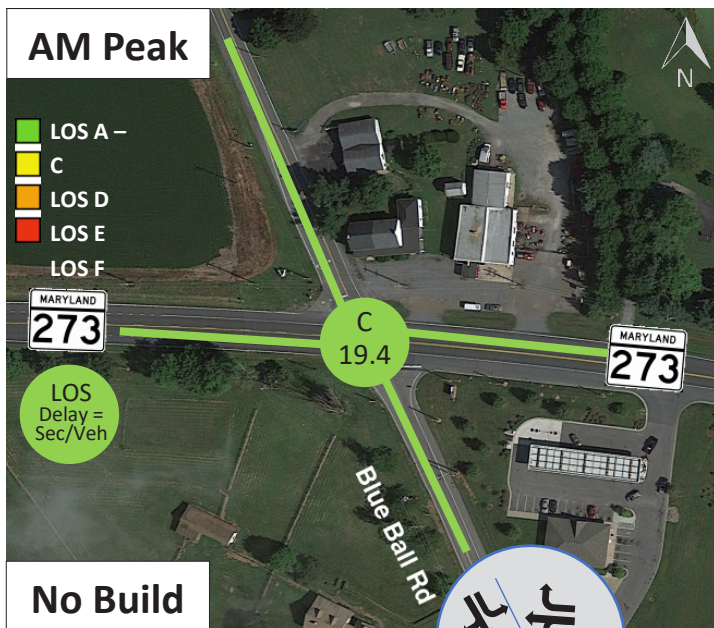
PROJECT SCOPE

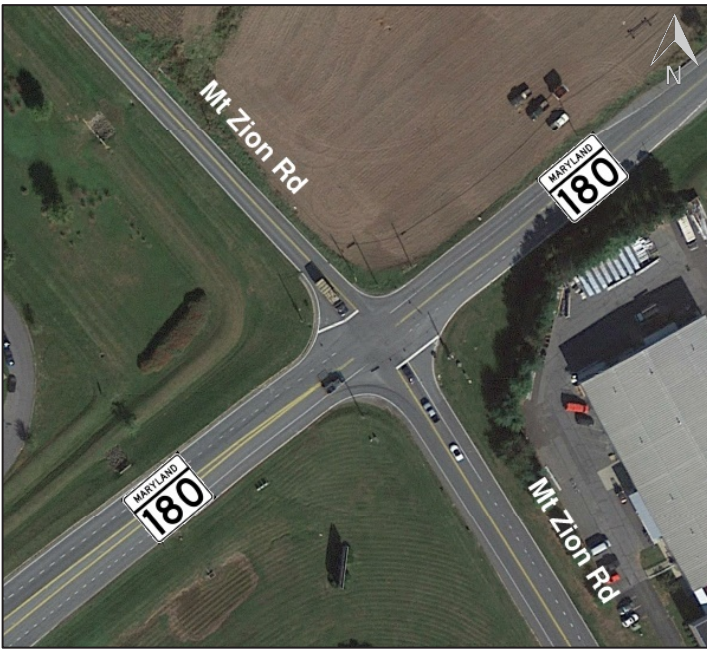
- Added a single lane roundabout at MD 273 and Blue Ball Road.
- Improved drainage, signage, lighting, resurfaced, and restriped MD 273.

BENEFITS

- Improves safety by calming traffic and reduces the chance of high severity crashes.
- The roundabout operates at LOS A in the AM and PM peak hours.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$-7	\$-0.1	\$3,445	\$2.1	19.9





BEFORE



AFTER

MD 180 at Mt. Zion Road

LOCATION: WYE CREEK, FREDERICK COUNTY

The project involved the construction of a roundabout at the intersection of MD 180 (Jefferson Pike) at Mt. Zion Road in Frederick, Frederick County. The improvements included a single lane roundabout, splitter islands, resurfacing, new signage, lighting, pavement markings, and drainage improvements.

PROJECT BACKGROUND

- The intersection had stop signs along the Mt. Zion Road northbound and the southbound approaches. The worst approach operated at LOS B during the AM peak hour and LOS D during the PM peak hour.
- There were 13 crashes reported during the five-year study period. No fatalities were reported; however, this location had a history of severe injury angle crashes.
- Approximately, 8,500 vehicles travel through this intersection per day.

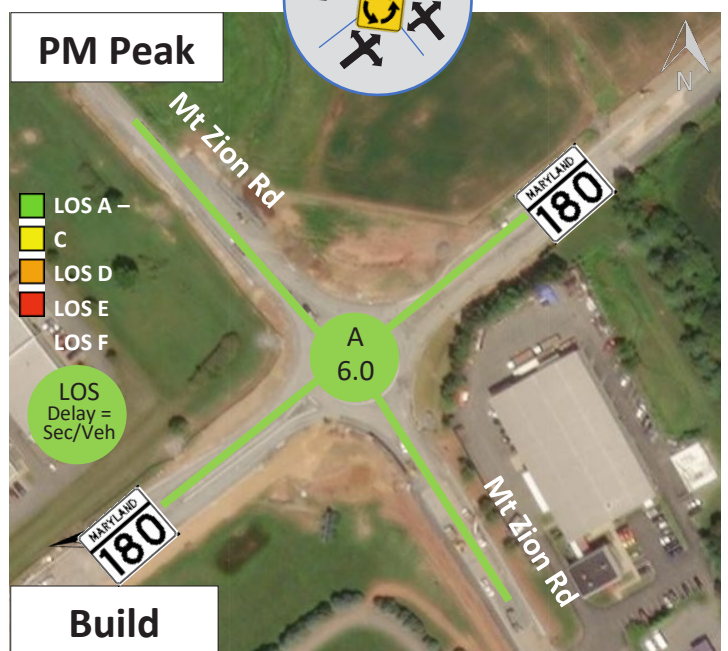
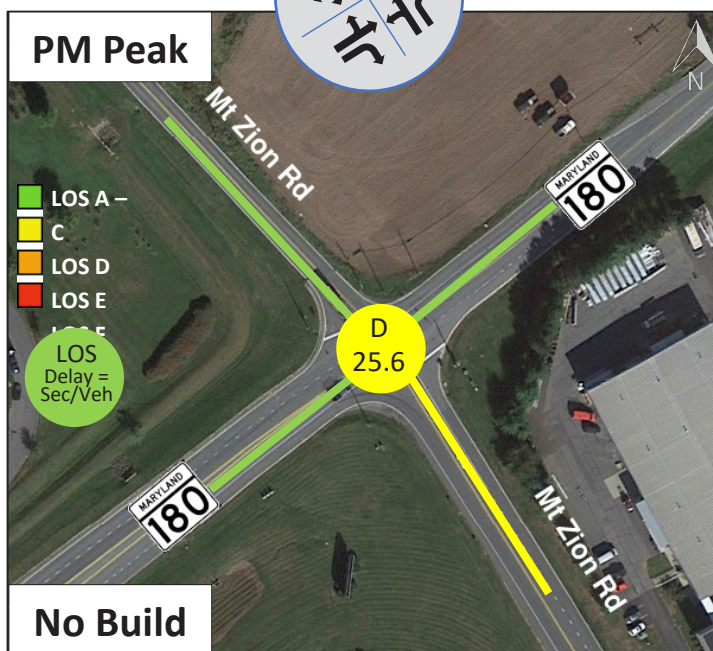
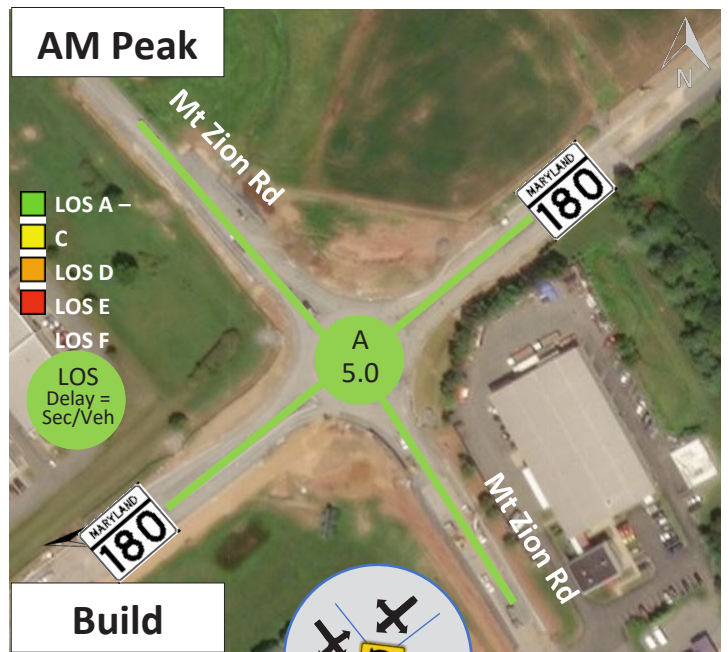
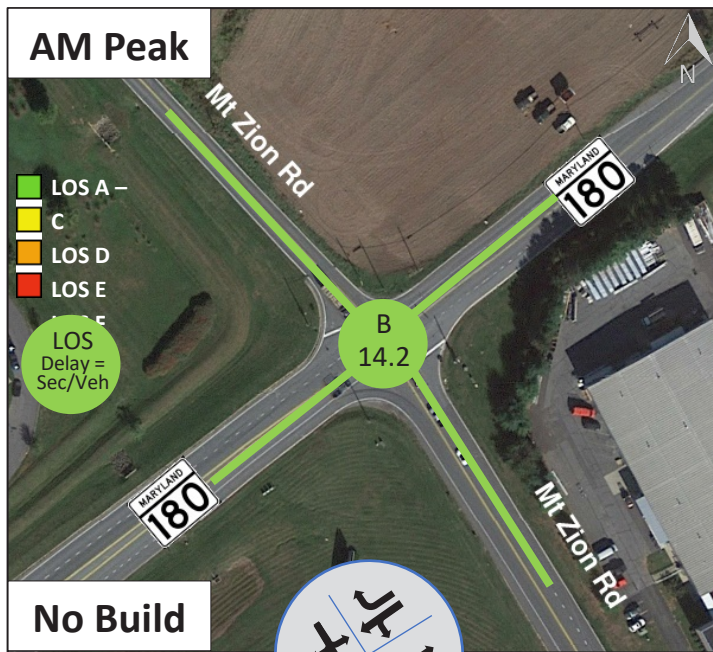
PROJECT SCOPE

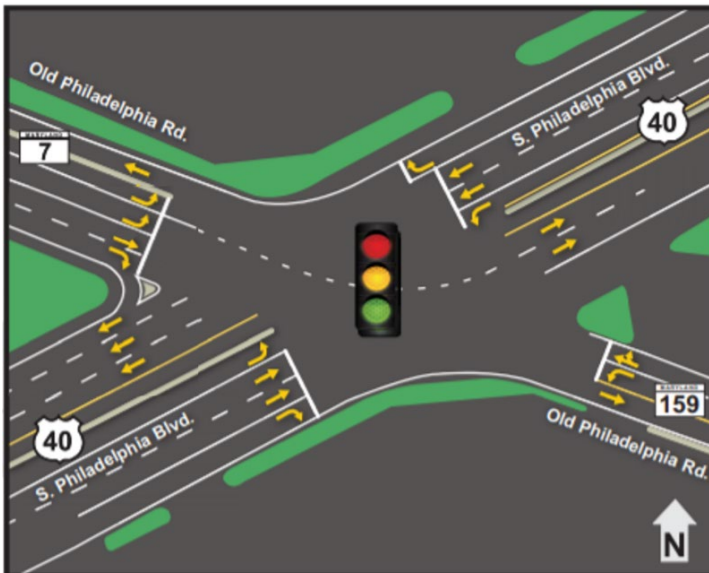
- Constructed a single lane roundabout at MD 180 and Mt. Zion Road.
- Widened travel lanes along the approaches to the roundabout.
- Improved drainage, signage, lighting, resurfaced, and restriped MD 180.

BENEFITS

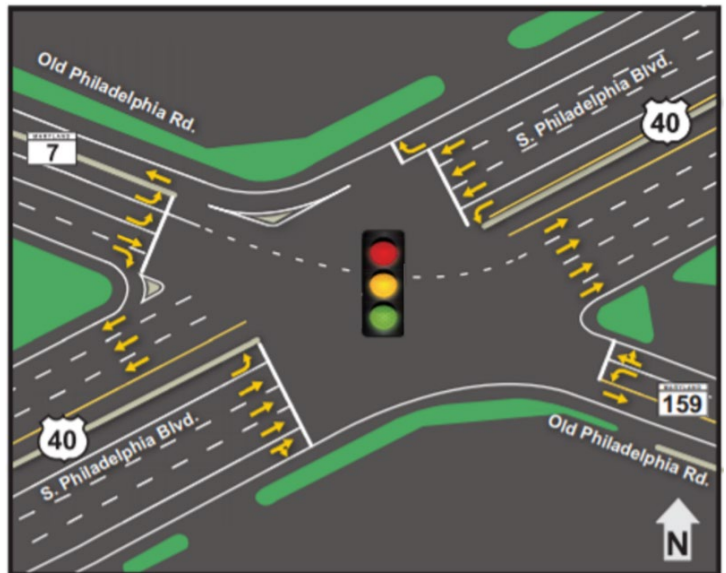
- The roundabout should improve intersection safety especially by reducing the number of severe crashes.
- The roundabout operates at LOS A during the AM and PM peak hours.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$82	\$1	\$212	\$2.4	1.8





BEFORE



AFTER

US 40 at MD 7/MD 159

LOCATION: ABERDEEN, HARFORD COUNTY

The project includes widening US 40 from two through lanes to three through lanes in the westbound direction and from two through lanes and a right turn lane to three through lanes and a shared through/right lane in the eastbound direction. The US 40 westbound widening will extend approximately 2,500 feet west of MD 7. US 40 eastbound widening will extend approximately 3,000 feet to the east to tie into previous widening at the MD 715 interchange. The intersection is a major access point to the Aberdeen Proving Grounds and Aberdeen's surrounding industrial park area. Further improvements included pavement repairs, building curbs and gutters along the road, new drainage and stormwater management infrastructure, and replacing the traffic signal.

PROJECT BACKGROUND

- The intersection operated at LOS D during both the AM and PM peak hours.
- There were 23 crashes reported during the three-year study period, of which one involved a fatality.
- US 40 has an ADT of approximately 39,500 vehicles per day (VPD).
- MD 7 has an ADT of approximately 15,500 VPD and MD 159 has an ADT of approximately 5,200 VPD.

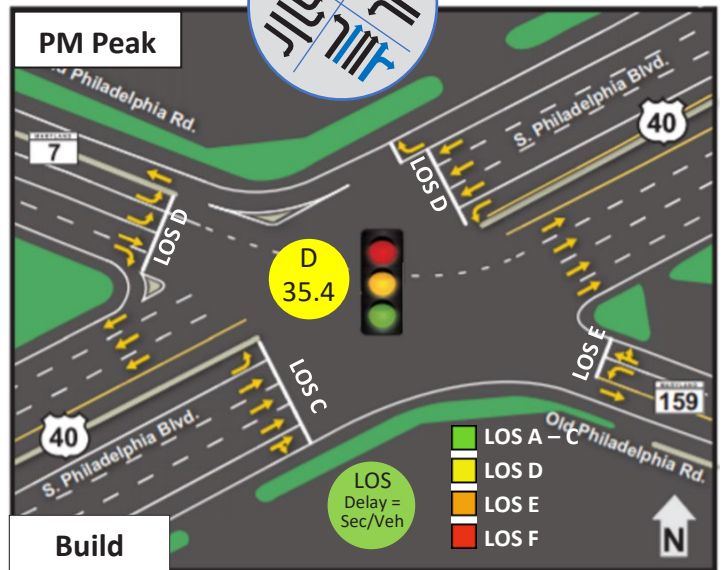
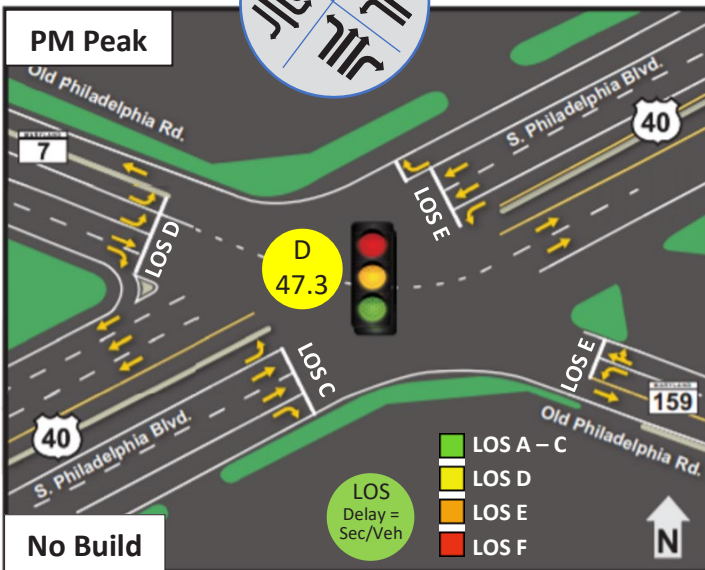
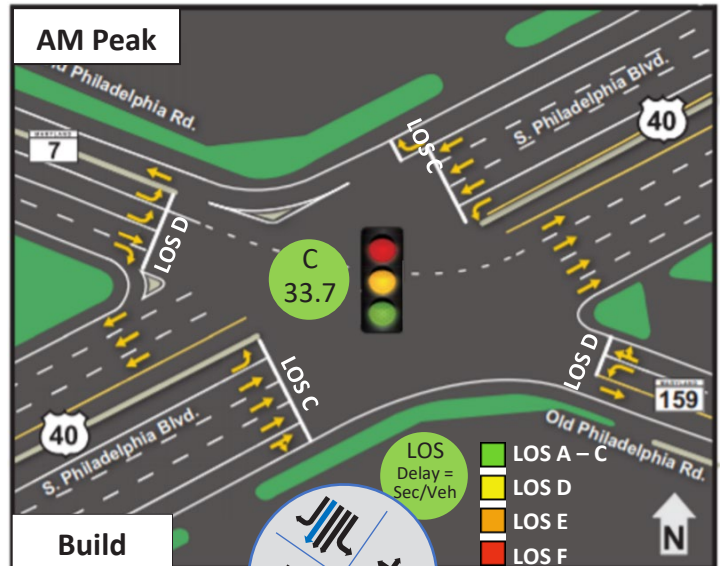
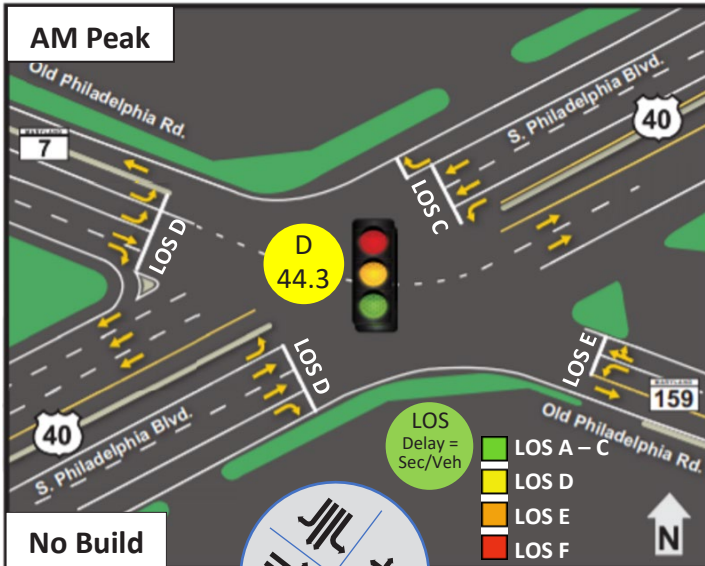
PROJECT SCOPE

- Widened US 40 from two through lanes to three through lanes in the westbound direction.
- Widened US 40 from two through lanes and a right turn lane to three through lanes and a shared through/right lane in the eastbound direction.
- Resurfaced, restriped and improved drainage.
- Replaced traffic signal equipment.

BENEFITS

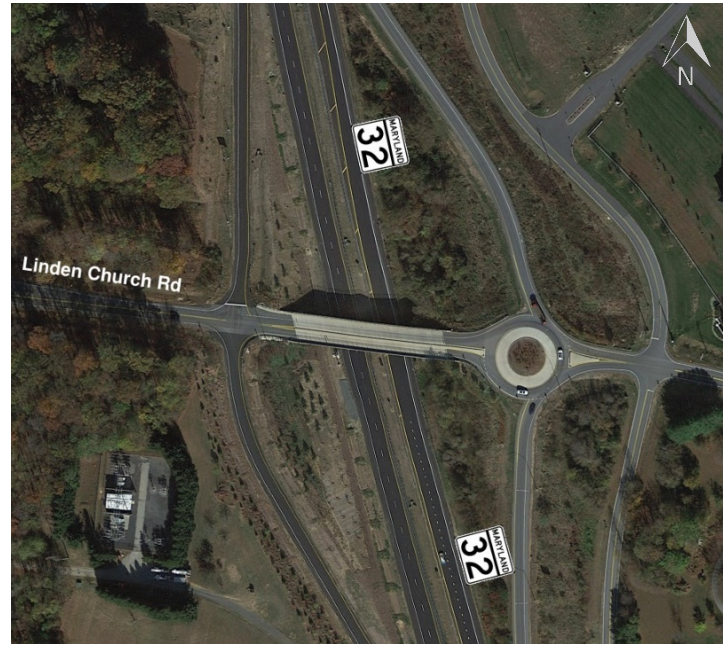
- Improve intersection LOS in the AM peak hour from D to C and reduced the intersection delay in the PM peak hour by 12 seconds/vehicle.
- Reduces congestion which can improve safety.
- Improve mobility to Aberdeen Proving Grounds and the surrounding business districts. The increased capacity reduces queues and delays at the intersection.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$3,975	\$57	\$1,523	\$18.0	5.7





BEFORE



AFTER

MD 32 from MD 108 to Linden Church Road

LOCATION: CLARKSVILLE, HOWARD COUNTY

MD 32 from MD 108 to Linden Church Road was widened as part of Phase 1 improvements for an overall project to dualize the MD 32 corridor between MD 108 and I-70. Traffic flow improvements include dualizing the corridor from two lanes to four lanes and eliminating bottlenecks at the Linden Church Road and MD 108 interchanges. Ramp terminal intersection improvements at MD 108 and Linden Church Road included new signing and lighting. Enhanced stormwater management, landscaping and reforestation were also constructed.

PROJECT BACKGROUND

- MD 32 has an ADT of approximately 30,000 vehicles per day.
- Over the three-year study period, there was a total of 49 crashes, of which none involved fatalities.
- There were 19 injury crashes and 30 property damage crashes within the study area.
- MD 32 northbound operated at LOS F during the PM peak hour.
- MD 32 southbound merge operated at LOS F during the AM peak hour.

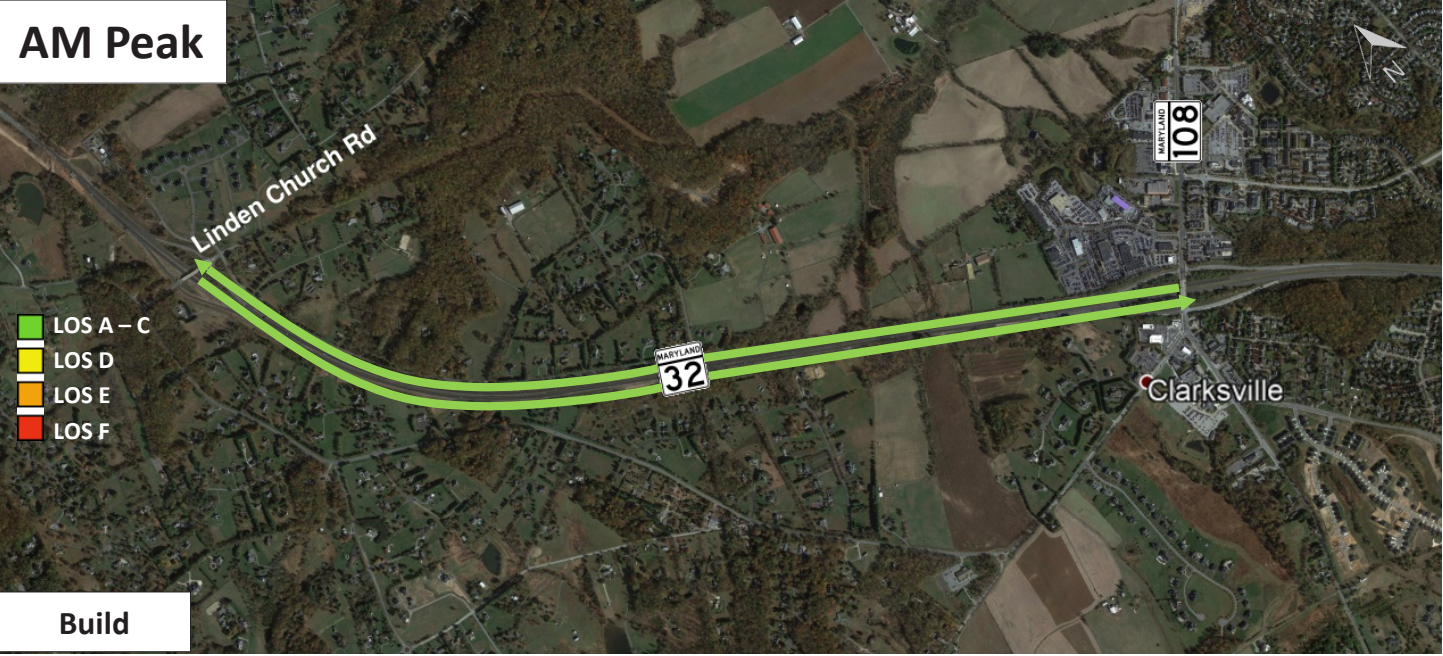
PROJECT SCOPE

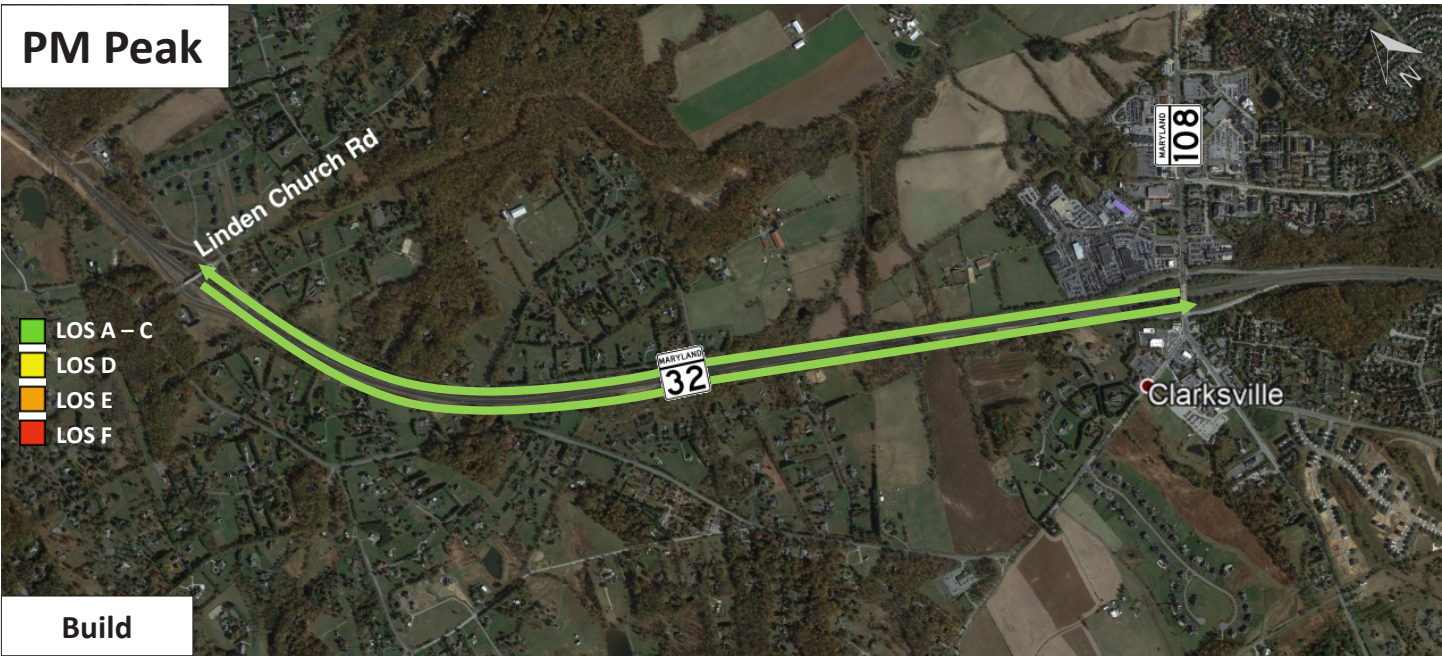
- Widened MD 32 from a two-lane highway to a divided four lane highway between MD 108 and Linden Church Road.
- Improve drainage and stormwater management facilities.

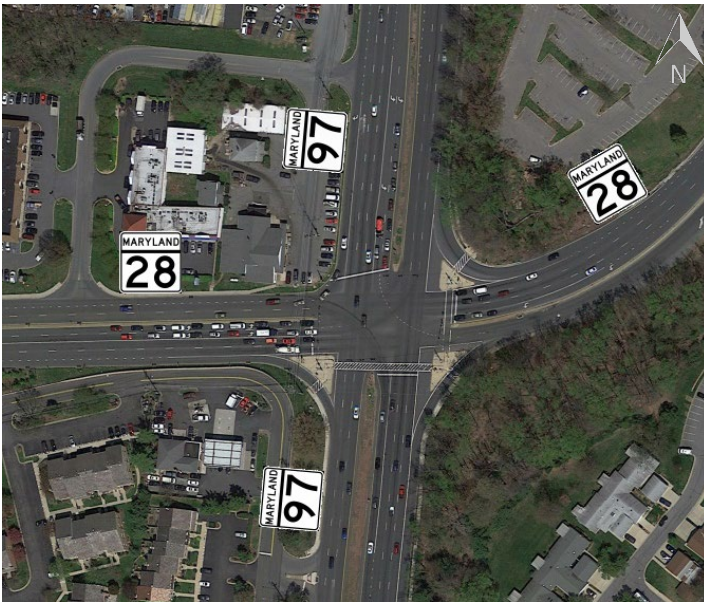
BENEFITS

- During the AM and PM peak hours, travel delays were reduced by 58% and 49%, respectively.
- The LOS for merge and diverge facilities along MD 32 within the study area improved from LOS F to A.
- Reduces the potential for head on crashes and improves safety overall.

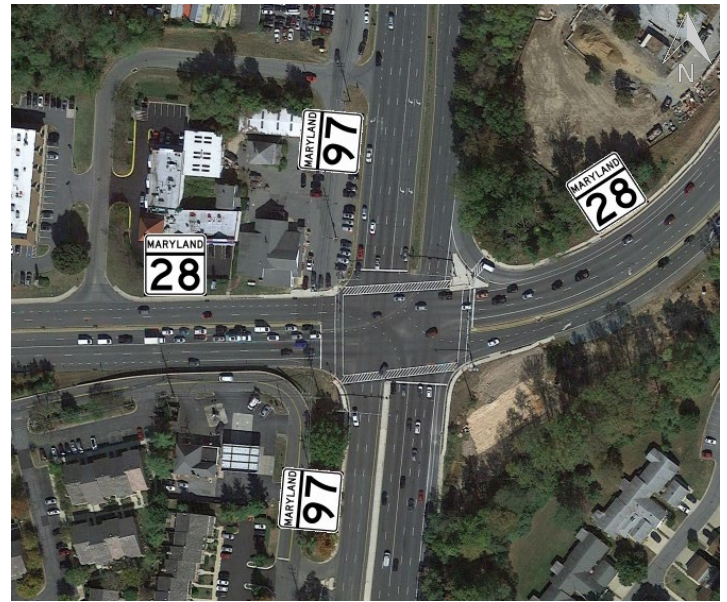
Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$24,780	\$354	\$1,055	\$32.1	16.9







BEFORE



AFTER

MD 97 at MD 28

LOCATION: ASPEN HILL, MONTGOMERY COUNTY

This project added an additional left turn lane along MD 97 northbound. The right turn lane on MD 28 westbound was also extended to increase capacity. The channelized right turns in the southwest and southeast quadrants were removed. This project also reconfigured the MD 28 Park and Ride at this intersection to allow for the widening, sidewalks and stormwater management.

PROJECT BACKGROUND

- The intersection operated at LOS F during the AM peak hour and LOS E during the PM peak hour.
- There were 44 crashes reported during the three-year study period, of which none involved fatalities.
- Approximately 5,000 vehicles per day make the left turn movement.

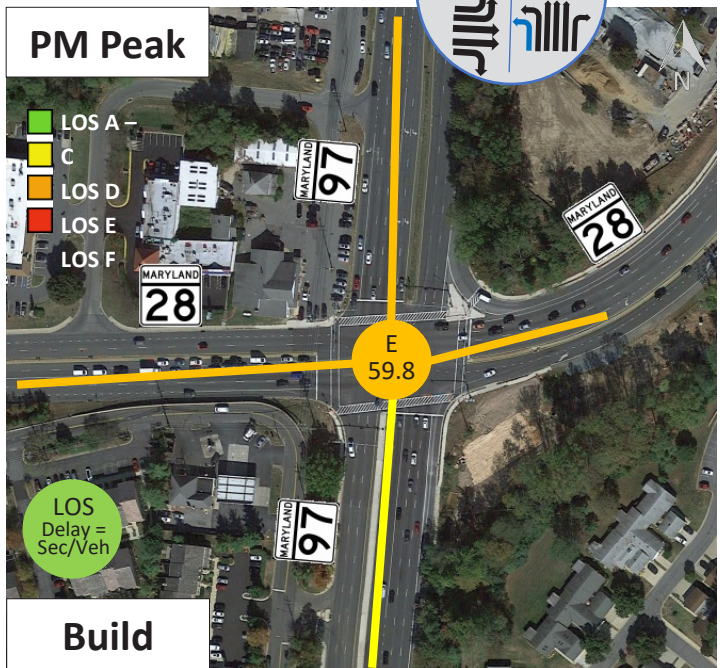
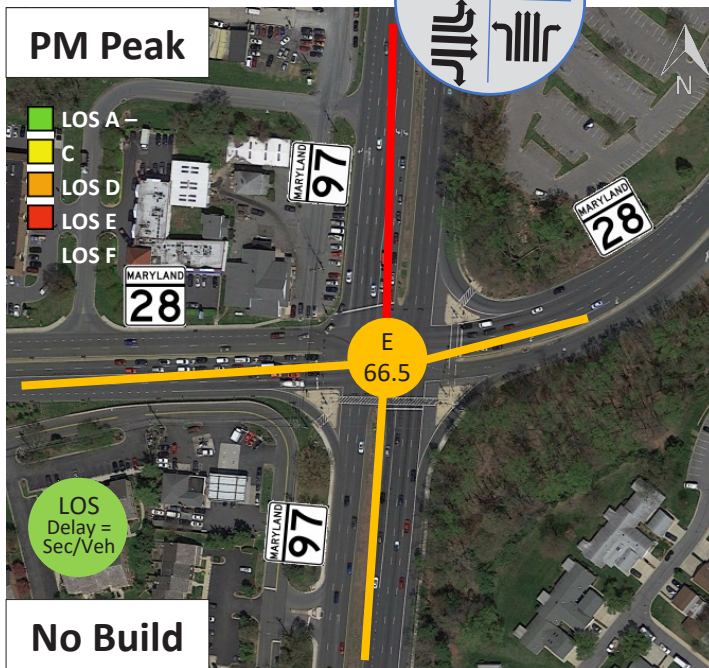
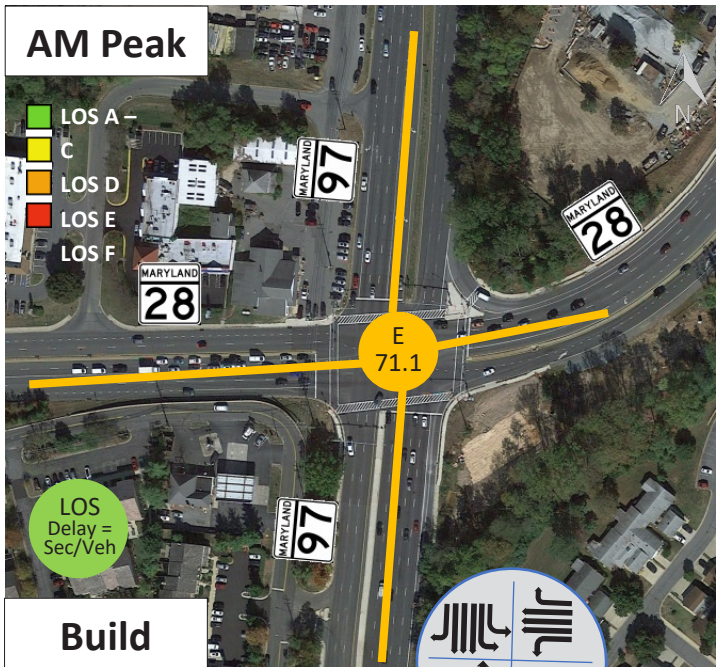
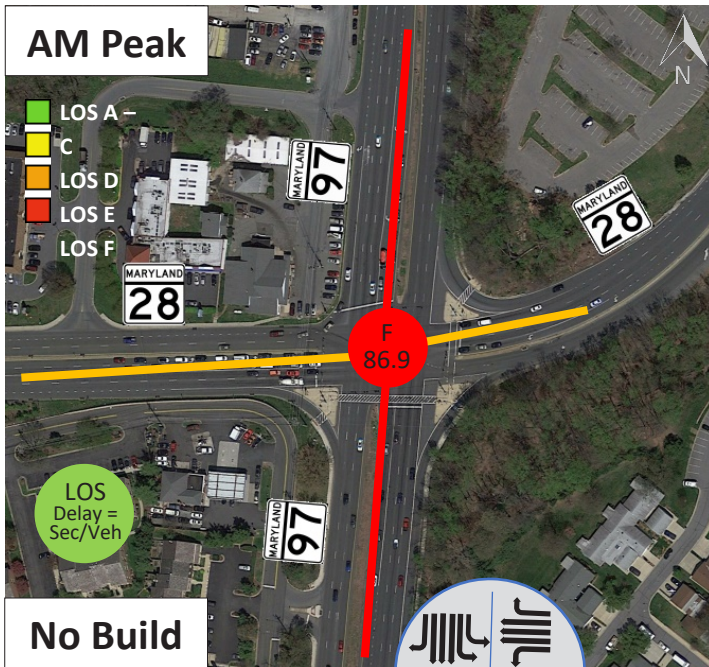
PROJECT SCOPE

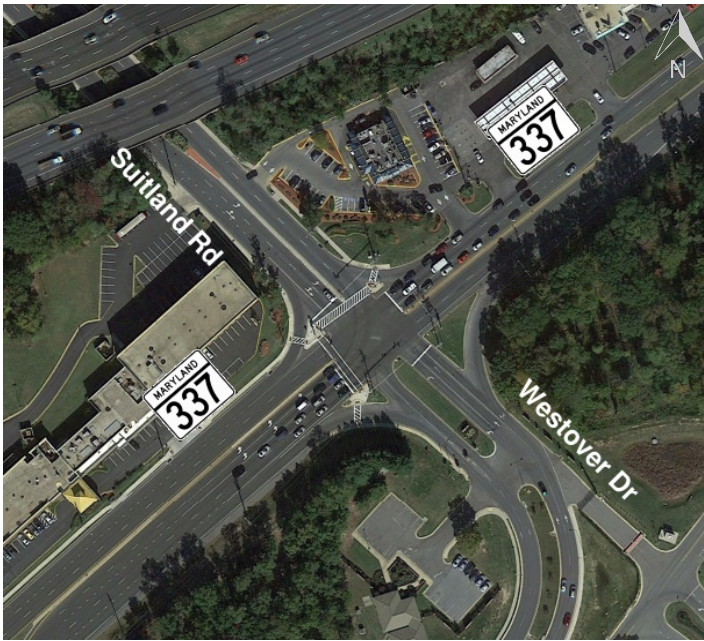
- Added a left turn lane on northbound MD 97.
- Extended the right turn lane on westbound MD 28.
- Removed the southwest and southeast channelized right turns and upgraded other curb ramps and sidewalks for Americans with Disabilities Act (ADA) compliance
- Removing a small section of the Park and Ride lot to accommodate the intersection changes and repaving the lot; and
- Reconstructing the traffic signal at the intersection with new mast arms, signal heads and brighter LED lamps.

BENEFITS

- The AM peak hour LOS improved from F to E.
- The delay in the PM peak hour was reduced by about 7 seconds per vehicle.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$4,510	\$71	\$3	\$2.6	36.7





BEFORE



AFTER

MD 337 from South of I-95/ I-495 NB Off Ramp to Suitland Road

LOCATION: CAMP SPRINGS, PRINCE GEORGE'S COUNTY

The project consists of widening MD 337 northbound from 2 to 3 lanes from the Andrews Manor Shopping Center to Suitland Road and intersection improvements at Suitland Road and the I-95/I-495 northbound off-ramp intersection. Bicycle and pedestrian accommodations are provided where appropriate. Access improvements to the Joint Base Andrews is a vital component to accommodate the increase in employment because of BRAC.

PROJECT BACKGROUND

- MD 337 and Suitland Road intersection operated at LOS D and LOS E during the AM and PM peak hours, respectively.
- The MD 337 at I-95/I-495 NB off-ramp operated at LOS D during the AM peak hour and LOS B during the PM peak hour.
- There were 31 crashes reported during the three-year study period, of which none involved fatalities.
- MD 337 has an ADT of approximately 25,500 vehicles per day.

PROJECT SCOPE

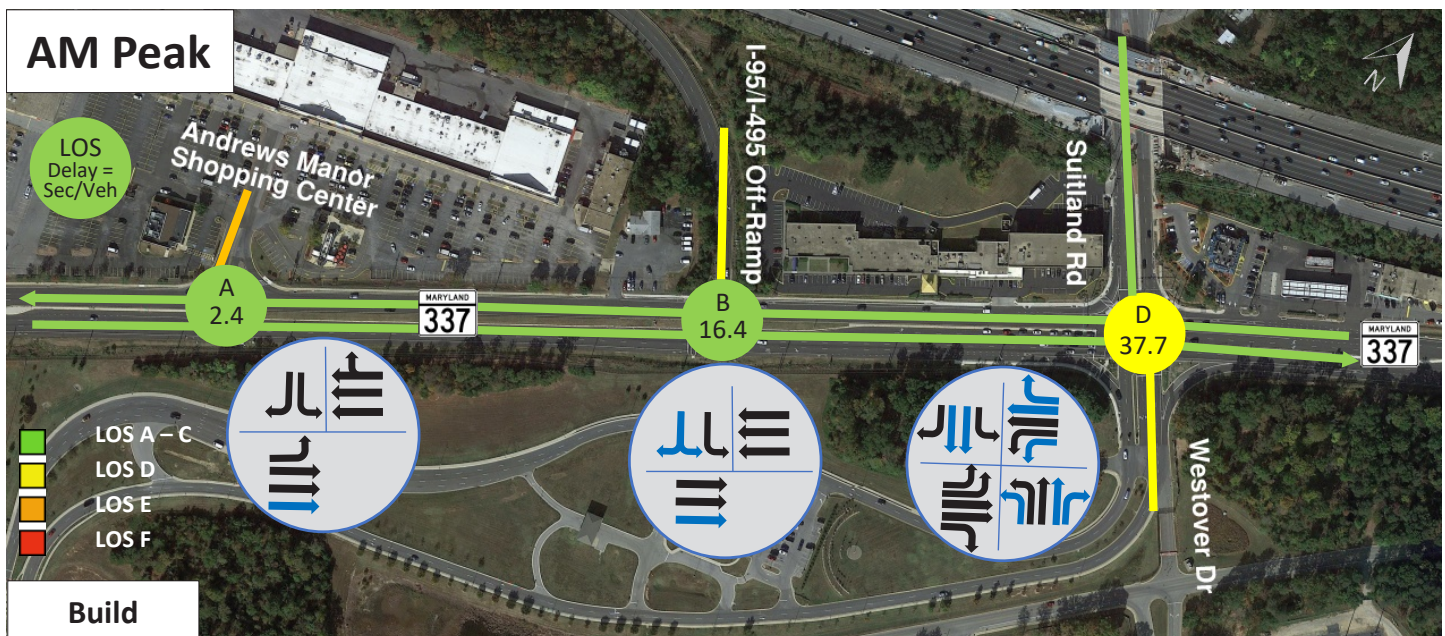
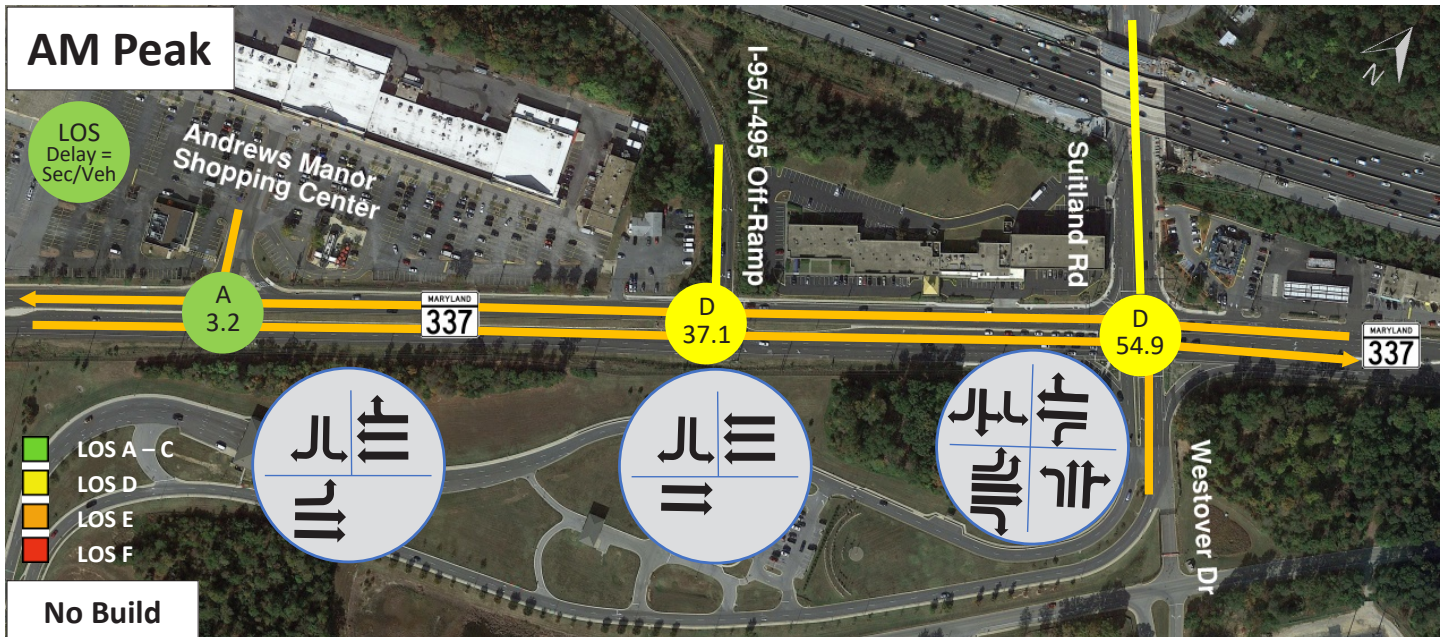
- Construct a third northbound through lane from Andrews Manor Shopping Center to Suitland Road.
- Convert the right turn lane on the I-495/I-95 NB off-ramp to a shared right/left turn lane.
- Convert the shared through/left lane to a through lane and added a right turn lane on Suitland Road eastbound.
- Construct a second left turn lane and a right turn lane on Westover Drive westbound.
- Add a second left turn lane and a right turn lane on MD 337 southbound at Suitland Road/ Westover Drive.

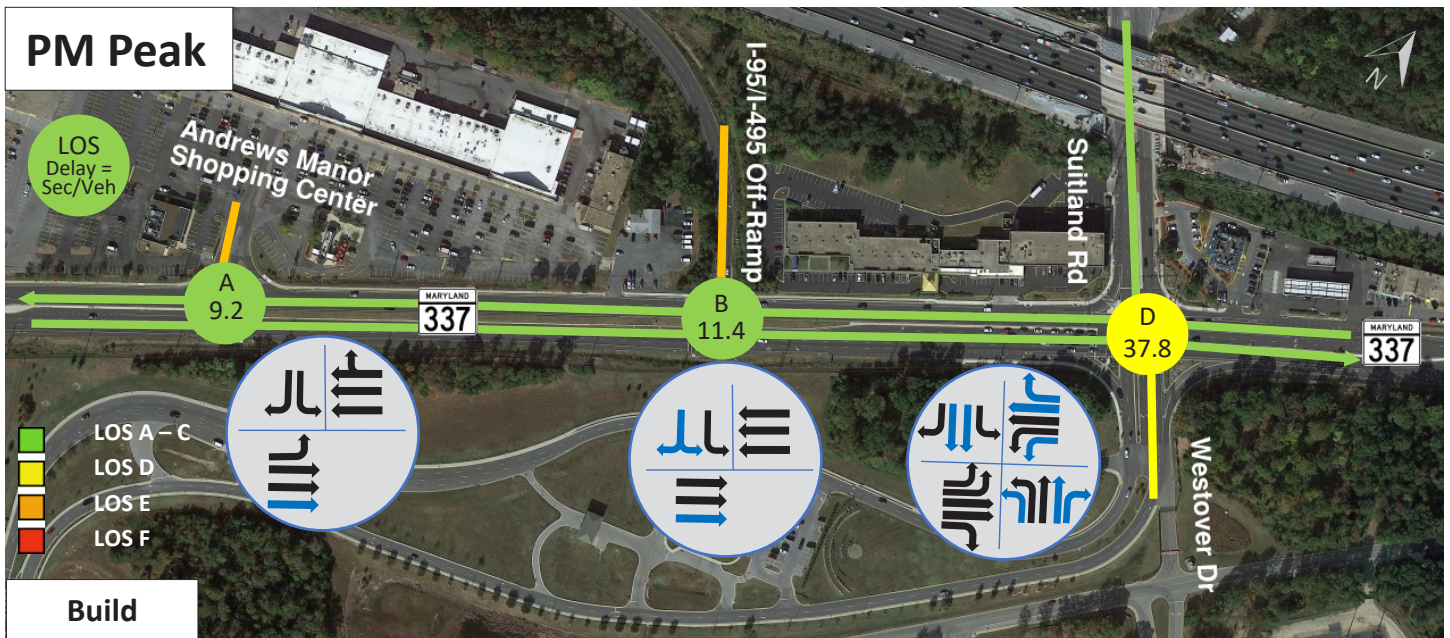
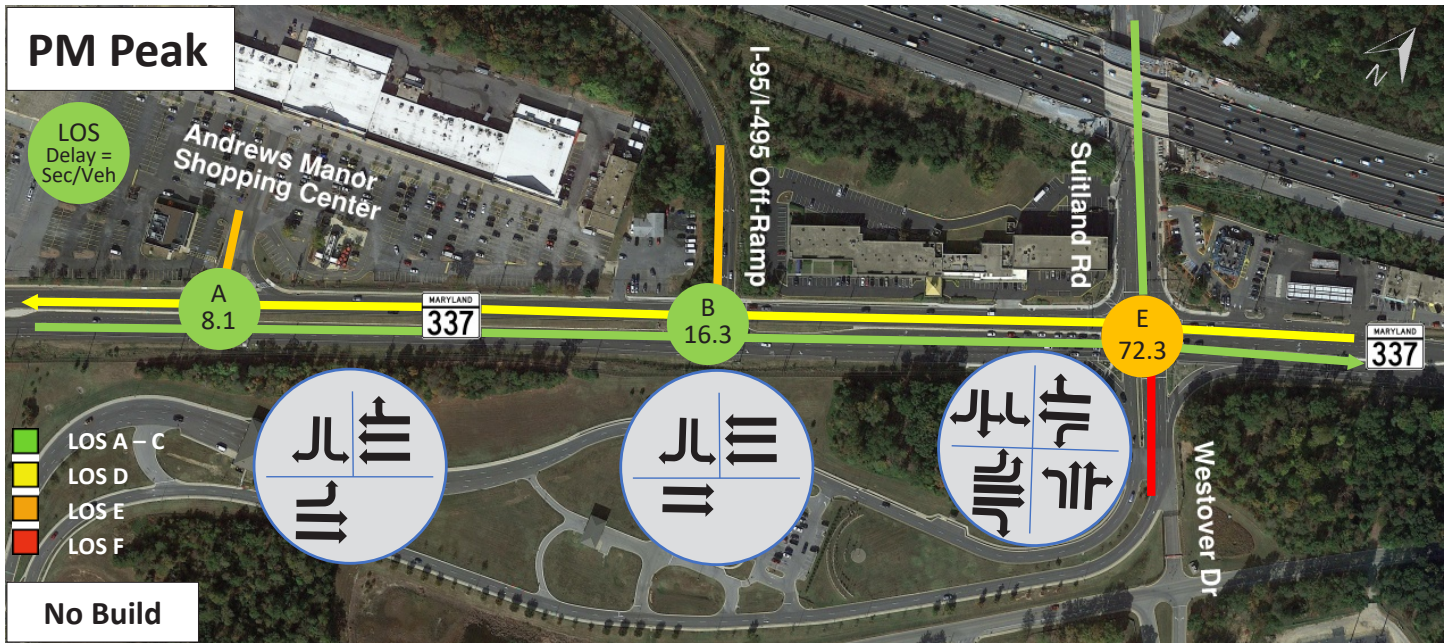
BENEFITS

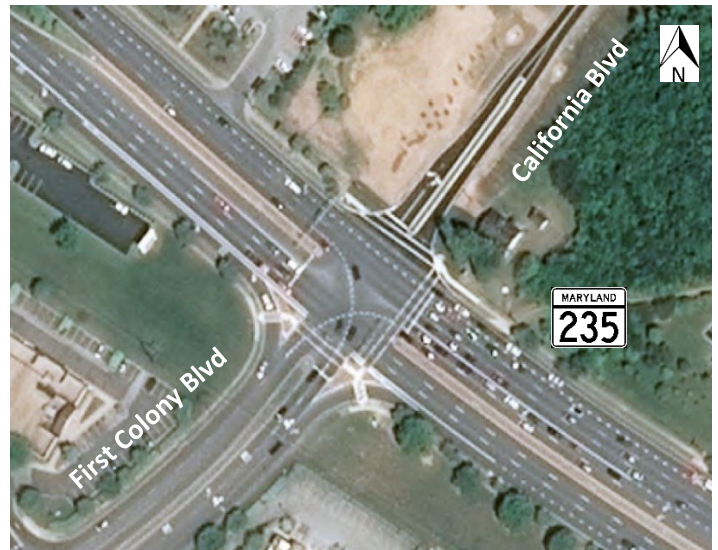
- During the AM and the PM peak hours, arterial delay is reduced by 50% and 31%, respectively.
- The LOS improved from D to B in the AM peak hour at MD 337 and I-95/I-495 NB off ramp intersection.

- During the AM peak hour, the MD 337 arterial LOS improved from E to C and E to B in the northbound and southbound directions, respectively. The arterial LOS from improved from D to C in the southbound direction in the PM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$3,010	\$46	\$71	\$7.2	9.2







BEFORE

AFTER

MD 235 and MD 4 at Woodland Acres Community

LOCATION: CALIFORNIA, ST. MARY'S COUNTY

Due to the severe congestion along MD 4, motorists destined to the Woodland Acres community had difficulty turning in and out of Oak Drive and it was not feasible to install a signal due to the proximity of the adjacent signal at MD 235. This project improved access to the Woodland Acres community by constructing a new connection, California Boulevard, from the community to a full access signalized intersection at MD 235/First Colony Boulevard. The intersection of MD 4 and Oak Drive was modified to restrict all movements except MD 4 northbound right-in movements.

PROJECT BACKGROUND

- The MD 4 and Oak Drive intersection was stopped controlled along Oak Drive. Prior to this project, all turning movement were permitted at the intersection. The LOS was F during both the AM and the PM peak hours.
- MD 235 at First Colony Blvd was three-legged signalized intersection and operated at LOS A in the AM peak hour and LOS B in the PM peak hour.

- There were 4 crashes reported during the three-year study period at MD 4 and Oak Drive. None of the reported crashes included fatalities.
- MD 235 has an ADT of approximately 61,000 vehicles per day.
- MD 4 has an ADT of approximately 28,000 vehicles per day.
- Approximately, 35 vehicles per day turned left onto Oak Drive from MD 4 southbound and 150 vehicles turned left from Oak Drive to MD 4 southbound.

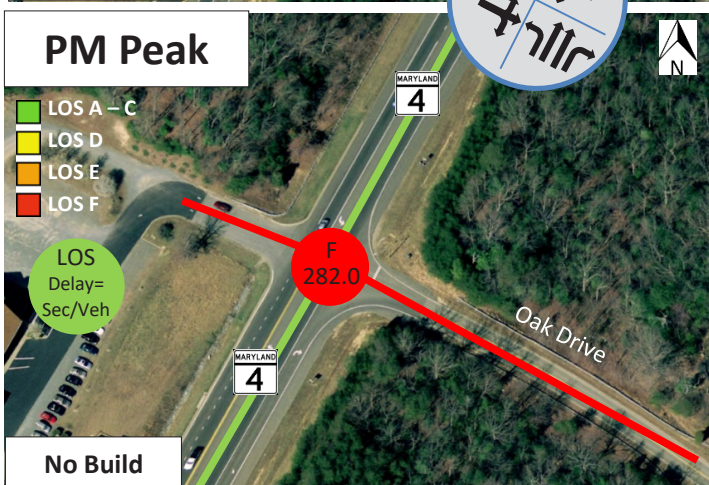
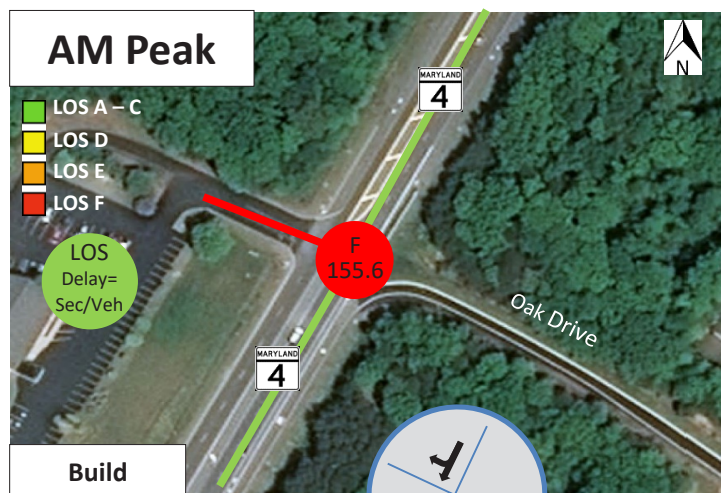
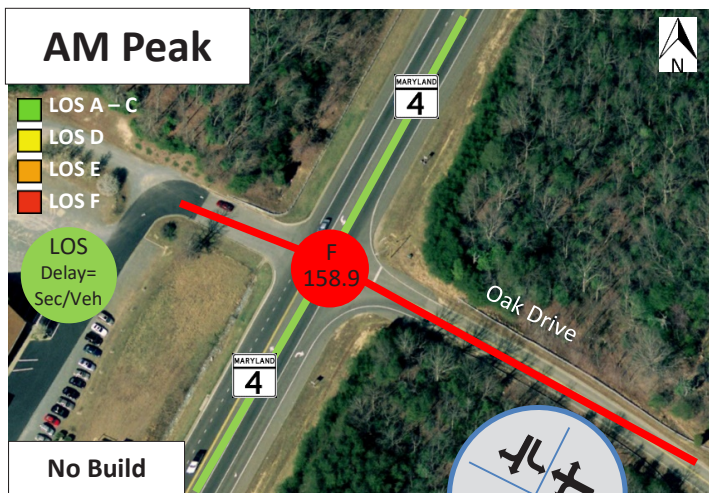
PROJECT SCOPE

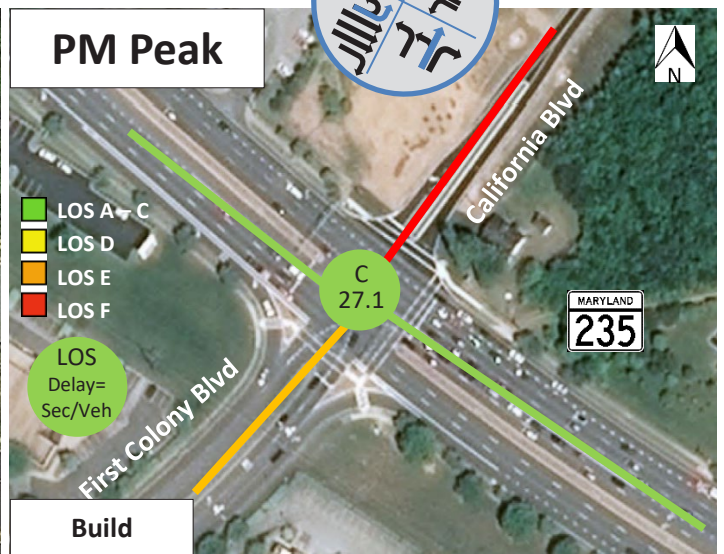
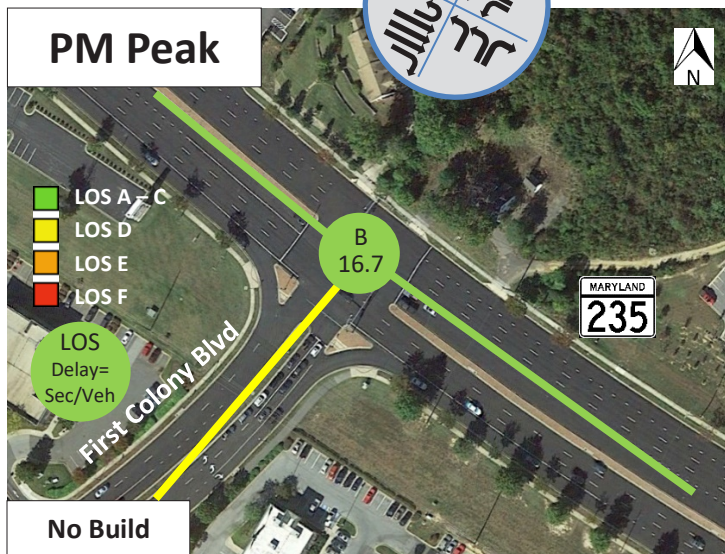
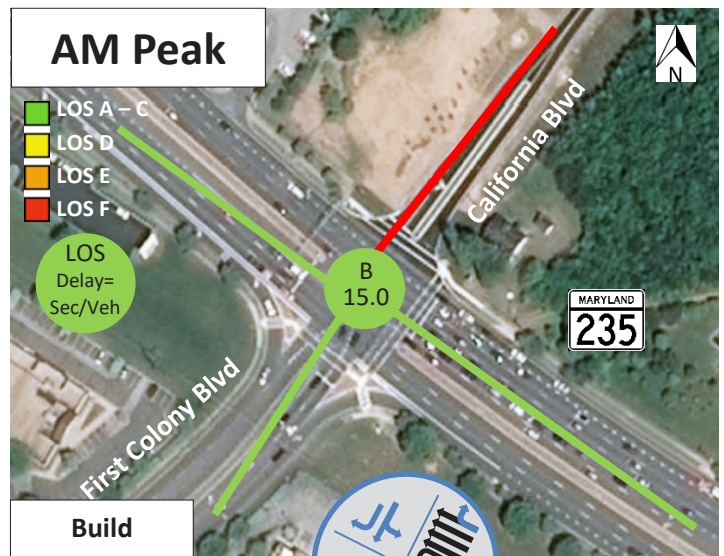
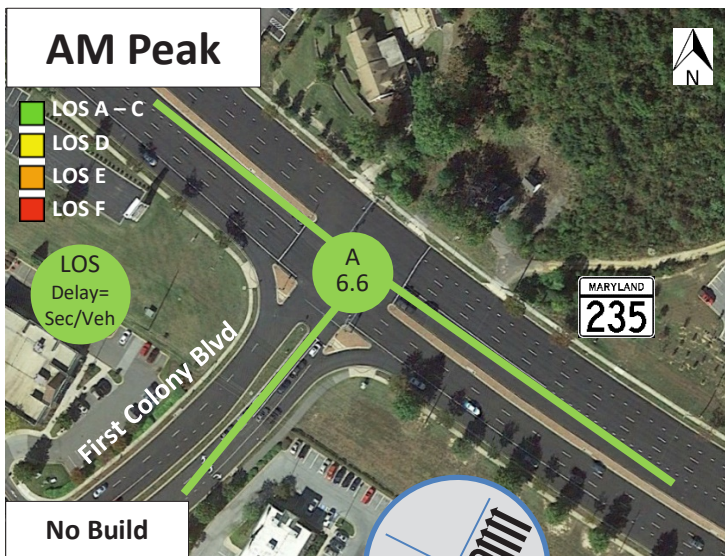
- An access road was constructed to connect MD 235 with Old Pine Court.
- The intersection of MD 4 and Oak Drive was modified to restrict movement to MD 4 right-in movements only.
- Other improvements along MD 235 and MD 4 included improving drainage, resurfacing, and restriping.

BENEFITS

- New access from Old Pine Court to MD 235 will reduce travel time for motorists destined to MD 235.
- Reduces conflicts points along MD 4.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost Estimate (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$938	\$14	\$3	\$2.1	9.5





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LOCATION MAPPING



The MDOT SHA and MDTA provides various programs, policies and projects to improve mobility and identify issues that exist. The location of these improvements/facilities and issues are shown in mapping on the following pages.

A. NEW SIDEWALKS

One of the methods to encourage multi-modal travel is to provide for more facilities. For pedestrians, this involves providing sidewalks, trails or multi-use paths. In addition, other construction includes the upgrading of existing sidewalks, constructing curb ramps and upgrading locations to Americans with Disabilities (ADA) standards. New sidewalks were constructed by MDOT SHA in 19 Counties throughout the State. (Figures 4-7).

B. PARK AND RIDE LOTS

A network of park and ride lots has been established by MDOT SHA and MDTA to reduce the number of single vehicle trips and provide for free parking to connect with transit. This amounts to over 107 park and ride lots that are located in 20 Counties throughout the State with over 13,000 spaces (Figure 8).

C. REVERSIBLE, HOV, EXPRESS TOLL LANES AND MANAGED FACILITIES

To maximize mobility in a corridor, several strategies have been implemented in Maryland. This includes reversible lanes which are utilized where traffic volumes are very high in one direction and much lower in the other direction. This allows for one or more lanes to change direction during the peak flow of the roadway. HOV lanes provide a travel time advantage versus other lanes on those facilities by requiring users of those lanes to have a minimum of two occupants in their vehicle. Transit vehicles or motorcycles are able to use these lanes. A managed facility allows for a lane or a facility to be dedicated to a certain type of vehicle or charge a toll for use of the facility. In Maryland, the managed lanes include express toll lanes where motorists have the option of paying a toll to drive at free flow conditions or utilize the adjacent free lanes and an all-electronic toll collection facility where the toll is based on the time of day. The strategies are employed on both MDOT SHA and MDTA facilities (Figure 9).

D. CHART'S TRAFFIC OPERATIONS CENTERS

The Coordinated Highway Action Response Team (CHART) provides a wide variety of services to keep motorists informed while addressing non- recurring congestion due to crashes, broken down vehicles or other events. A major component of CHART's efforts is to provide incident management of these events to minimize delays and reduce the potential for secondary crashes. This is accomplished through monitoring traffic at its operations centers. The MDOT SHA Statewide Operations Center is located in Hanover, with three supporting regional Operations Centers (Figure 10).

E. SIGNAL SYSTEMS UPGRADES

The retiming of traffic signals is one of the most cost-effective methods to improve mobility. Signal systems are reviewed continually by MDOT SHA to improve traffic progression along a roadway. In 2019, nineteen systems were upgraded plus seven new SMART signal systems were implemented (Figure 11).

F. FAILING INTERSECTIONS

Traffic data collection and analysis is performed to identify the most congested intersections. The worse performing intersections based on traffic counts performed in the last three years are mainly concentrated in Montgomery and Prince George's Counties (Figure 12 and 13).

Figure 4

New Sidewalk Locations

Anne Arundel County

1. MD 2 NB at Admirals Ridge Dr
2. MD 3 WB at MD 175 (Annapolis Rd)
3. MD 170 NB & EB at Wicker Rd
4. MD 175 EB from Brock Bridge Rd to Sellner Rd
5. MD 176 WB from Kiddie Academy Entrance to Airport 100 Way
6. MD 177 EB at Appalachian Dr/Royal Palm Dr
7. MD 178 SB at MD 450
8. MD 435 from Herbert Sachs Boulevard to Annapolis St
9. MD 450 EB MD 424 (Davidsonville Rd)
10. MD 468 NB at MD 256 (Deale Churchton Rd)
11. MD 713 SB at Ridge Rd at Greystone Village

Howard County

12. MD 103 SB at Locust Thicket Way/Wesley Ln
13. MD 103 SB east of I-95
14. MD 99 EB between Woodstock Rd and Dorchester Way

Montgomery County

15. MD 28 WB Key West Ave from Siesta Key Way to Omega Dr
16. MD 28 EB & WB at Bradford Rd
17. MD 355 NB at Clarksburg Square Rd/Redgrave Pl
18. MD 97 at Randolph Rd

Prince George's County

19. MD 223 SB at King Gallahan Ct
20. MD 337 at Suitland Rd/Westover Dr
21. MD 450 NB & EB at High Bridge Rd/Church Rd
22. US 301 WB at Village Dr W
23. Van Dusen Rd EB at Royal Farms Entrance/Exit

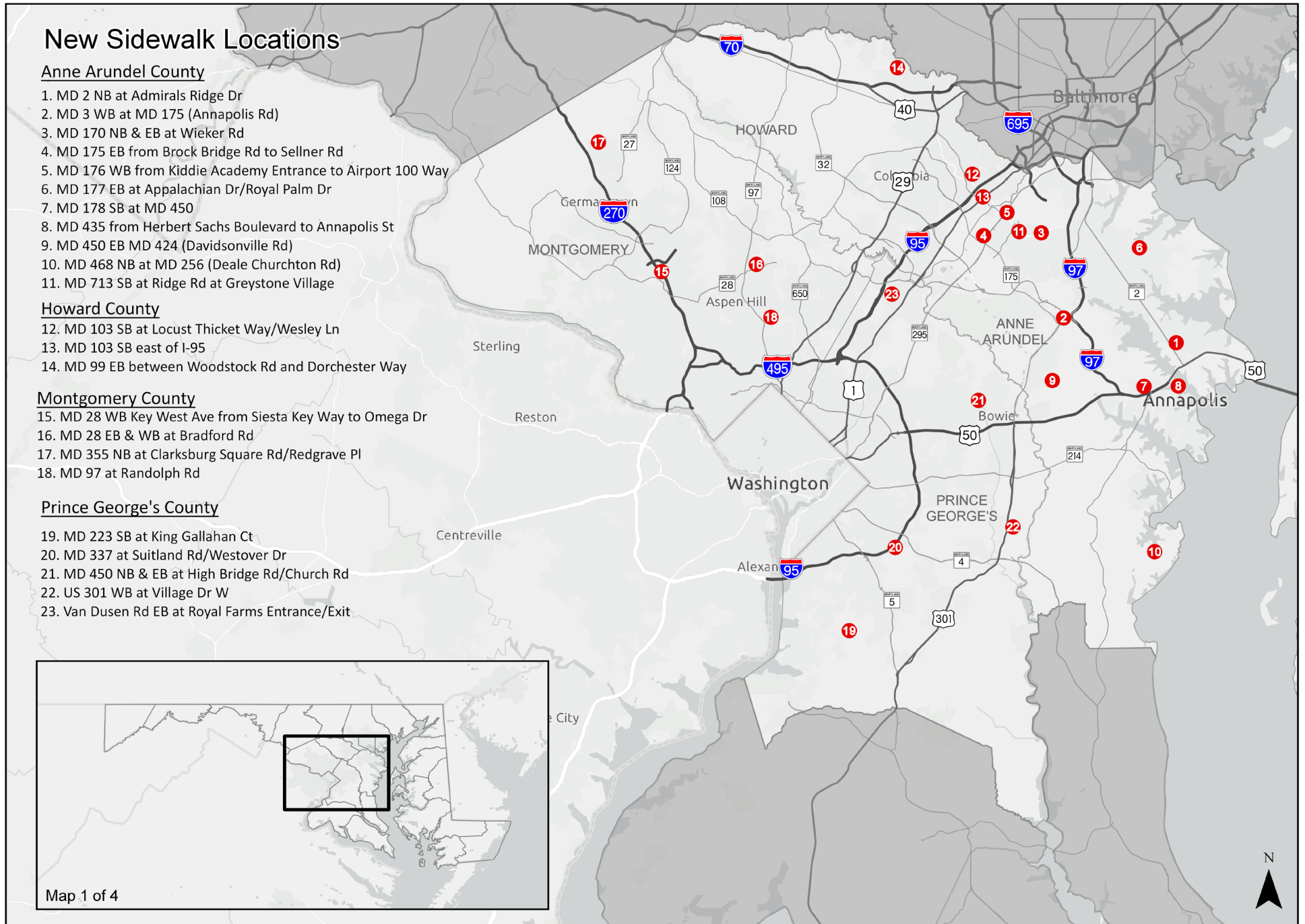
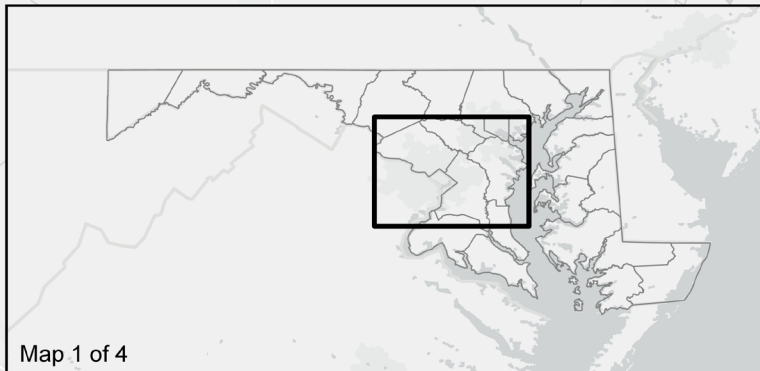


Figure 5

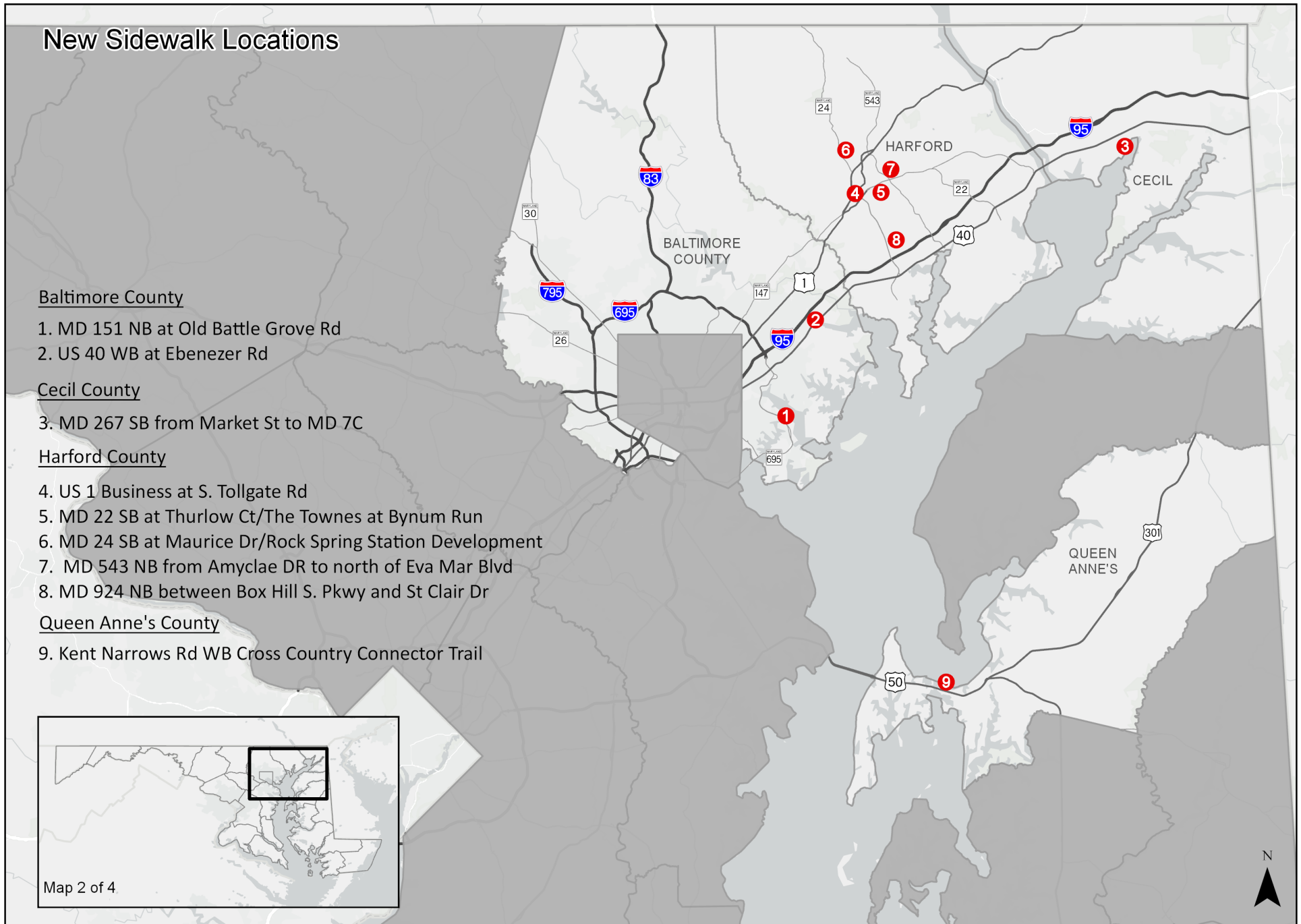


Figure 6

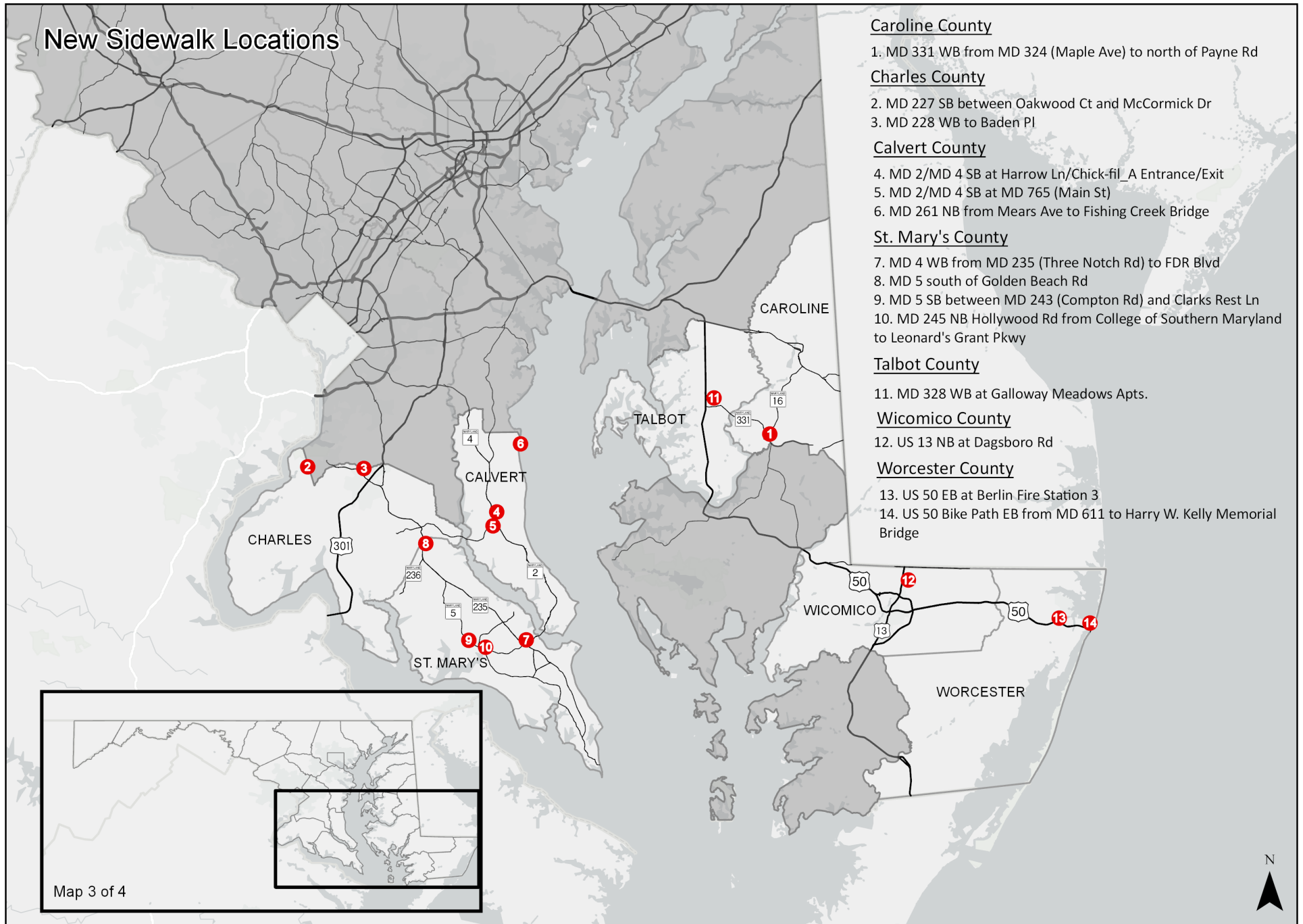


Figure 7

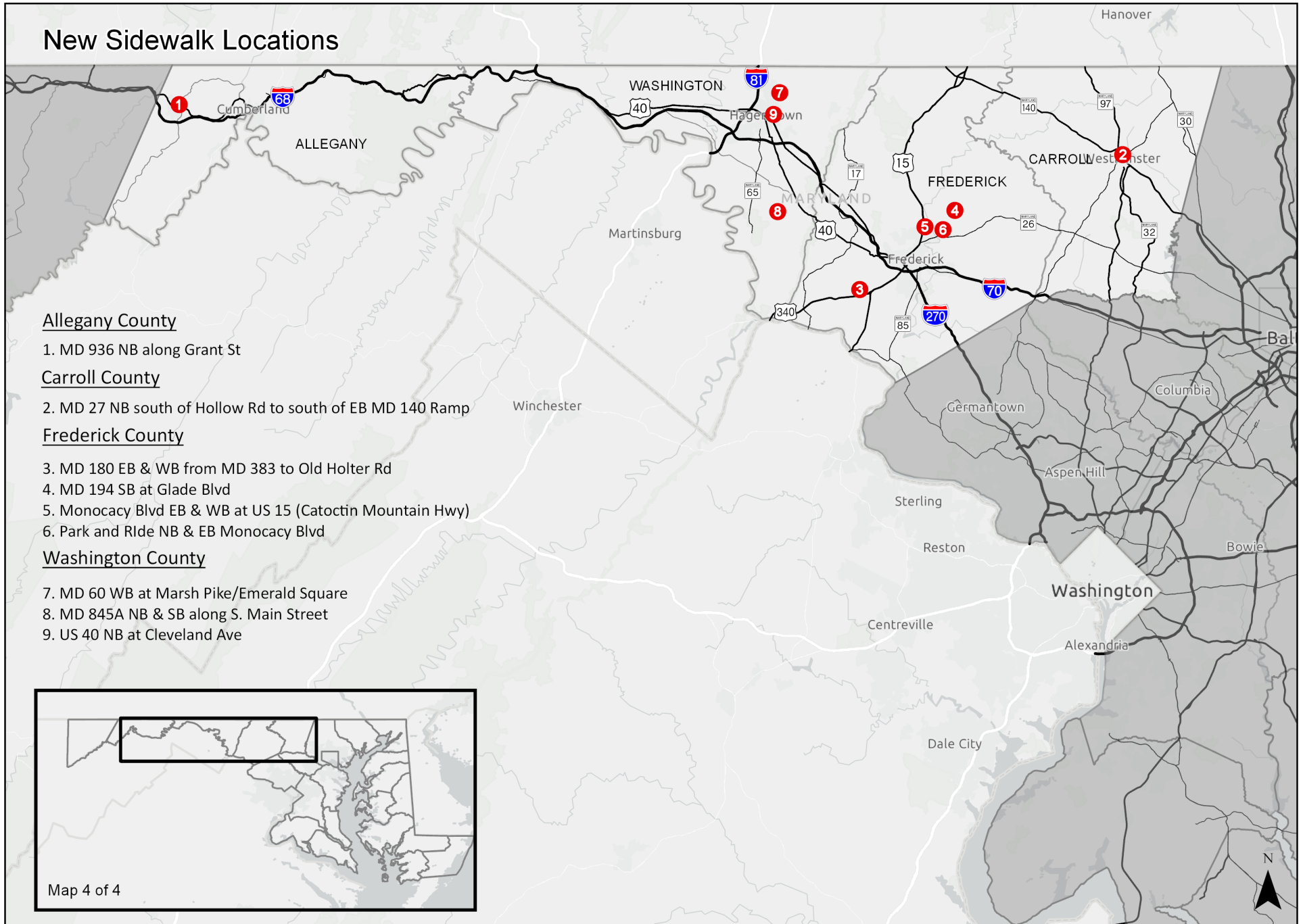


Figure 8

Park and Ride Locations

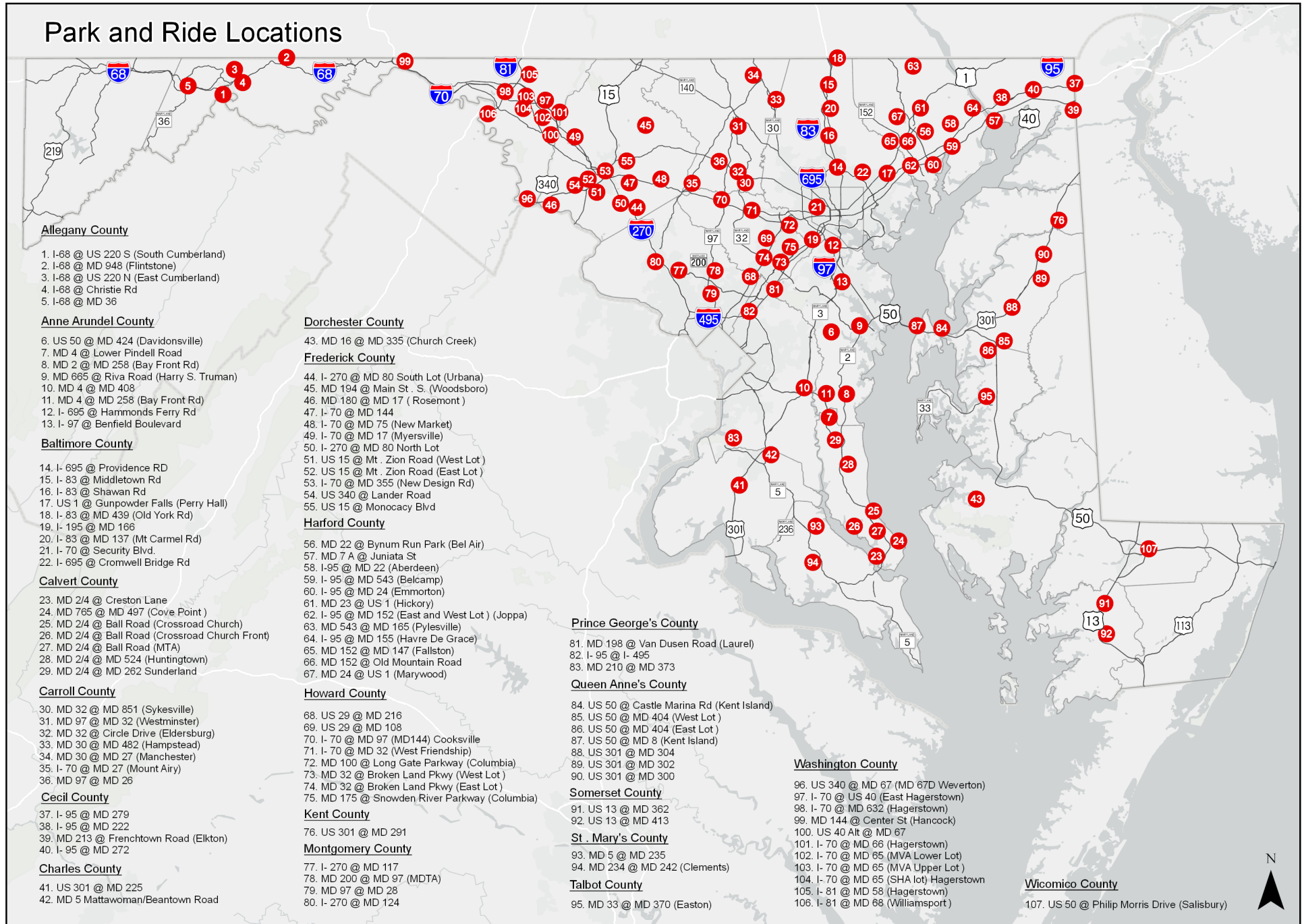


Figure 9

HOV, Reversible and Managed Lane Locations

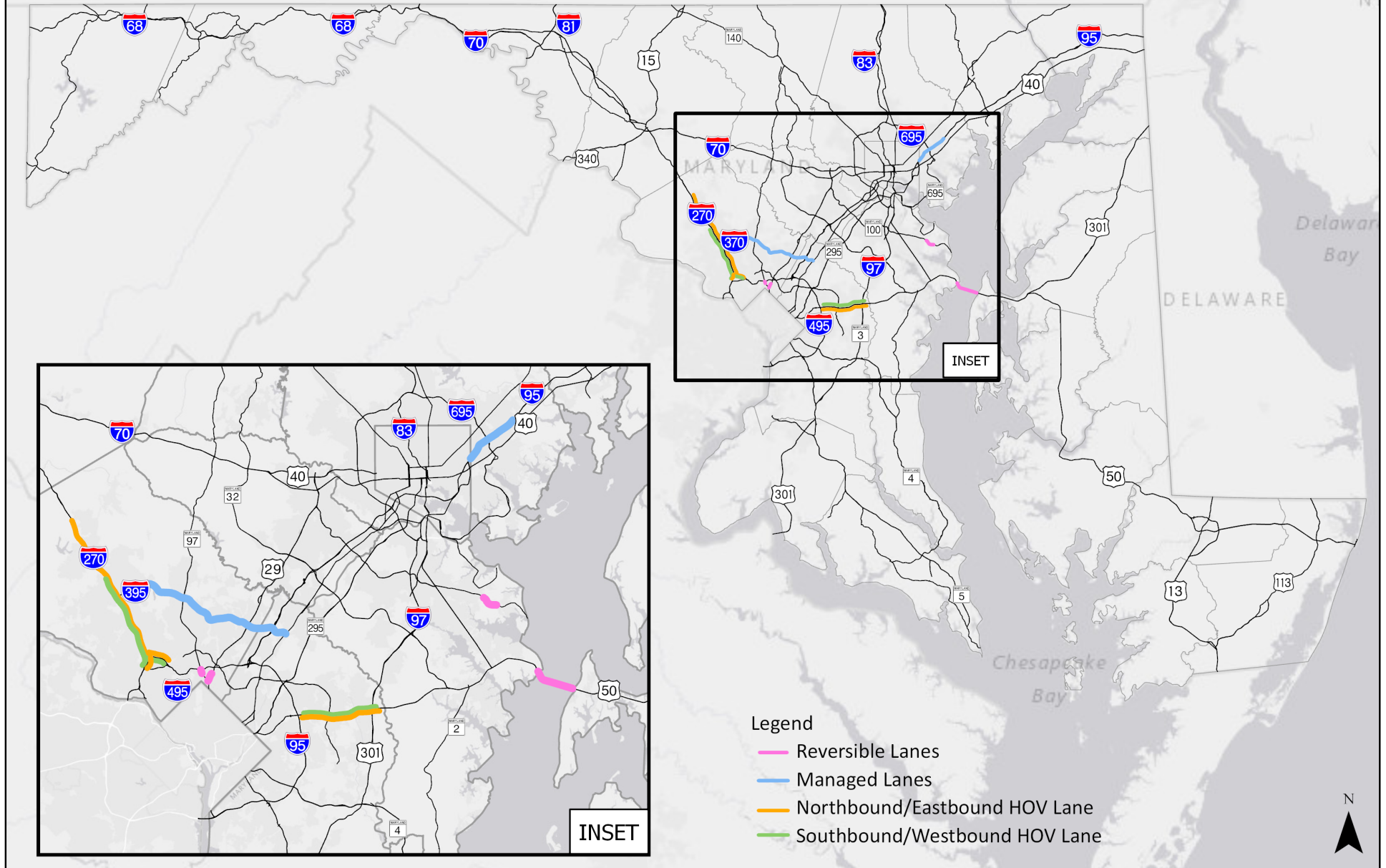


Figure 10

Statewide and Regional Traffic Operations Centers

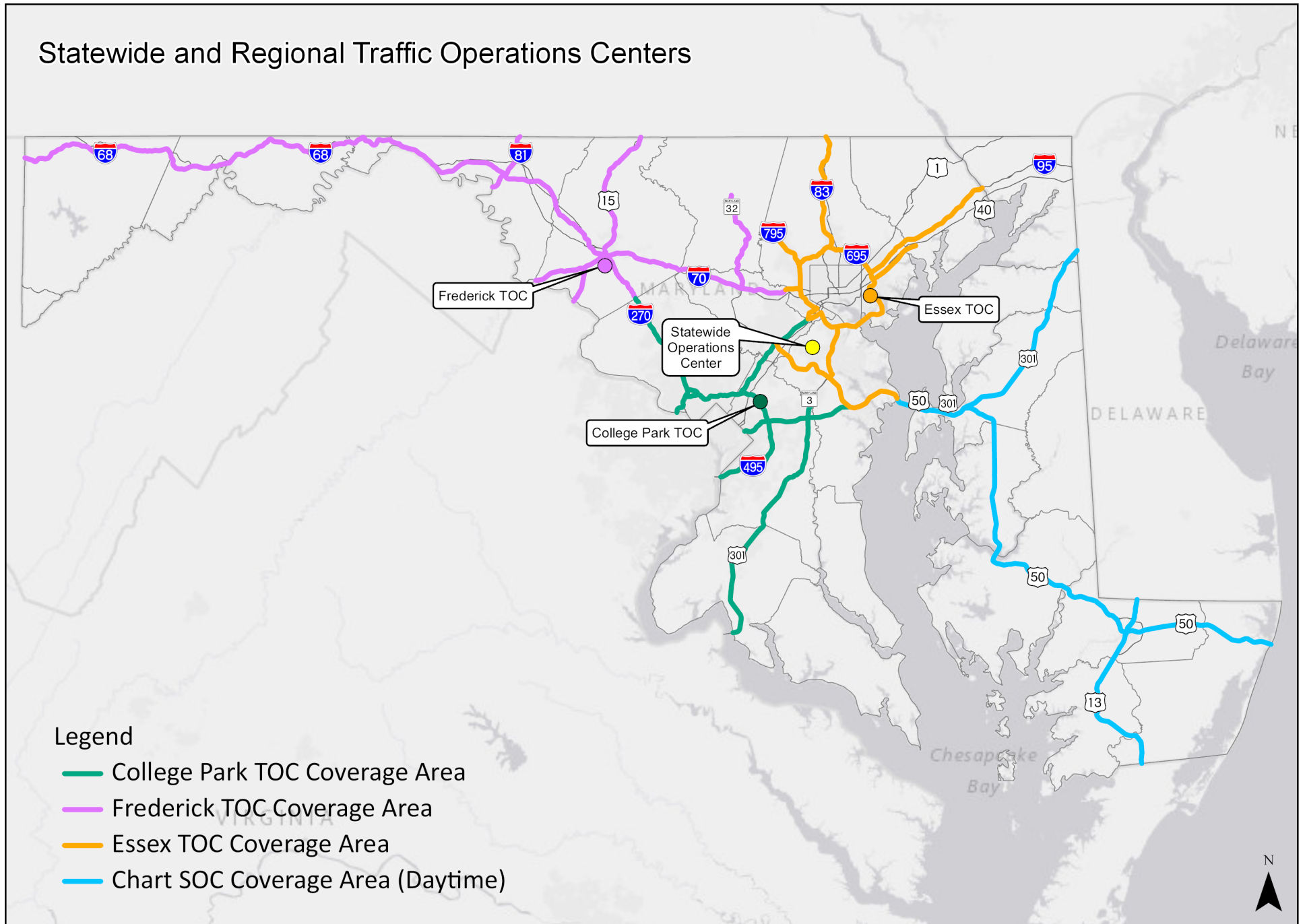


Figure 11

2019 Signal System Upgrades

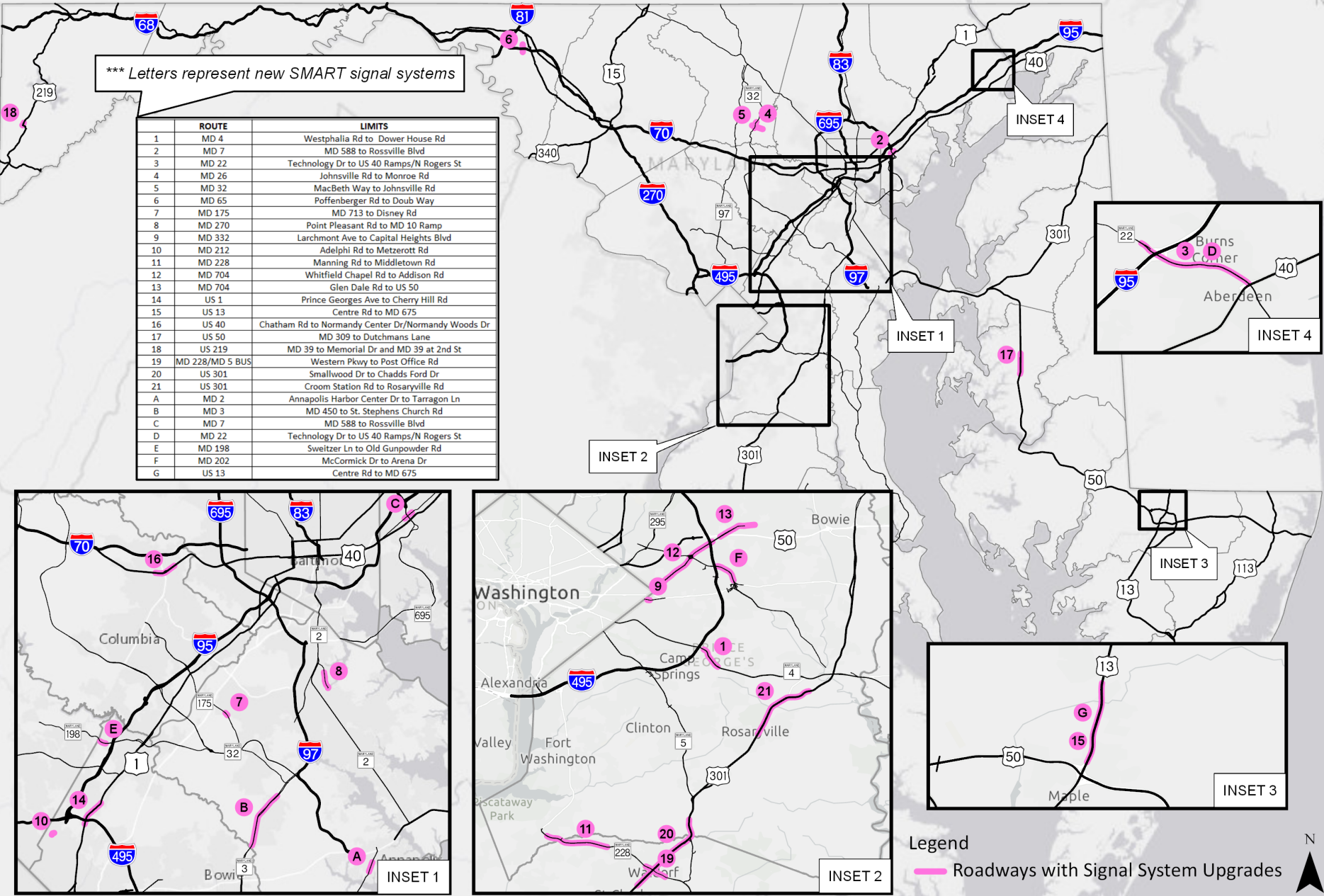


Figure 12

Level of Service F Intersections

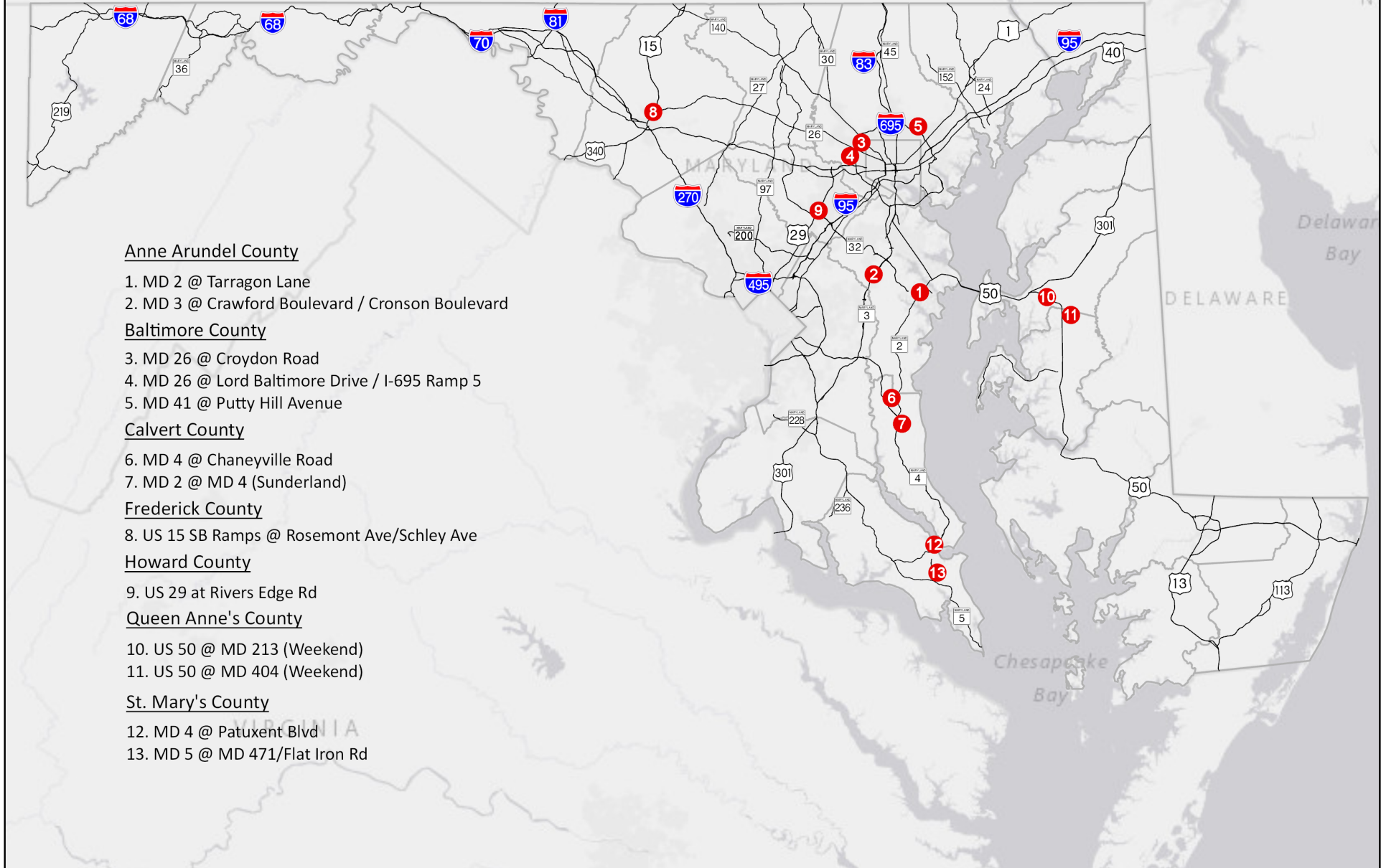
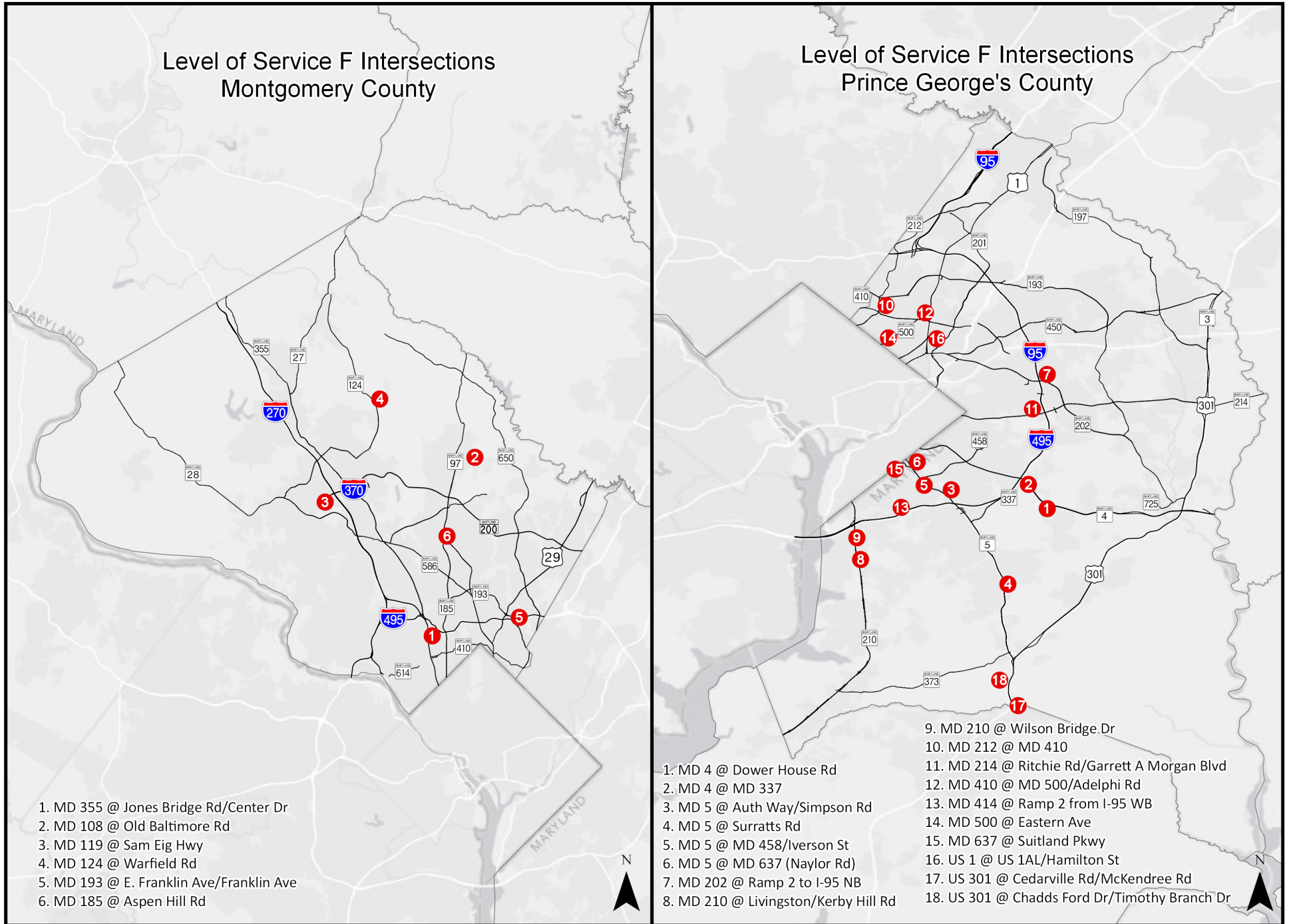


Figure 13



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**STATE HIGHWAY
ADMINISTRATION**

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Governor

BOYD K. RUTHERFORD
Lt. Governor

GREGORY SLATER
MDOT Secretary

TIM SMITH, P.E.
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