



STATE HIGHWAY
ADMINISTRATION

2017
MARYLAND
State Highway Mobility Report

**Major Corridor Reports and
2017 Capital Projects**

DECEMBER 2017



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Introduction

The Maryland Mobility Report highlights what has happened in the past year related to Mobility Trends and what MDOT SHA is doing and what have been the outcomes to address mobility issues. In addition to the report, an Appendix has been created to provide more in-depth details of material presented in the report. This includes:

Appendix A:

Freeway/Expressway Fact Sheets

Top 30 Bottleneck Locations Statewide

Individual Freeway/Expressway Top Bottleneck Location

Arterial Corridor Fact Sheets

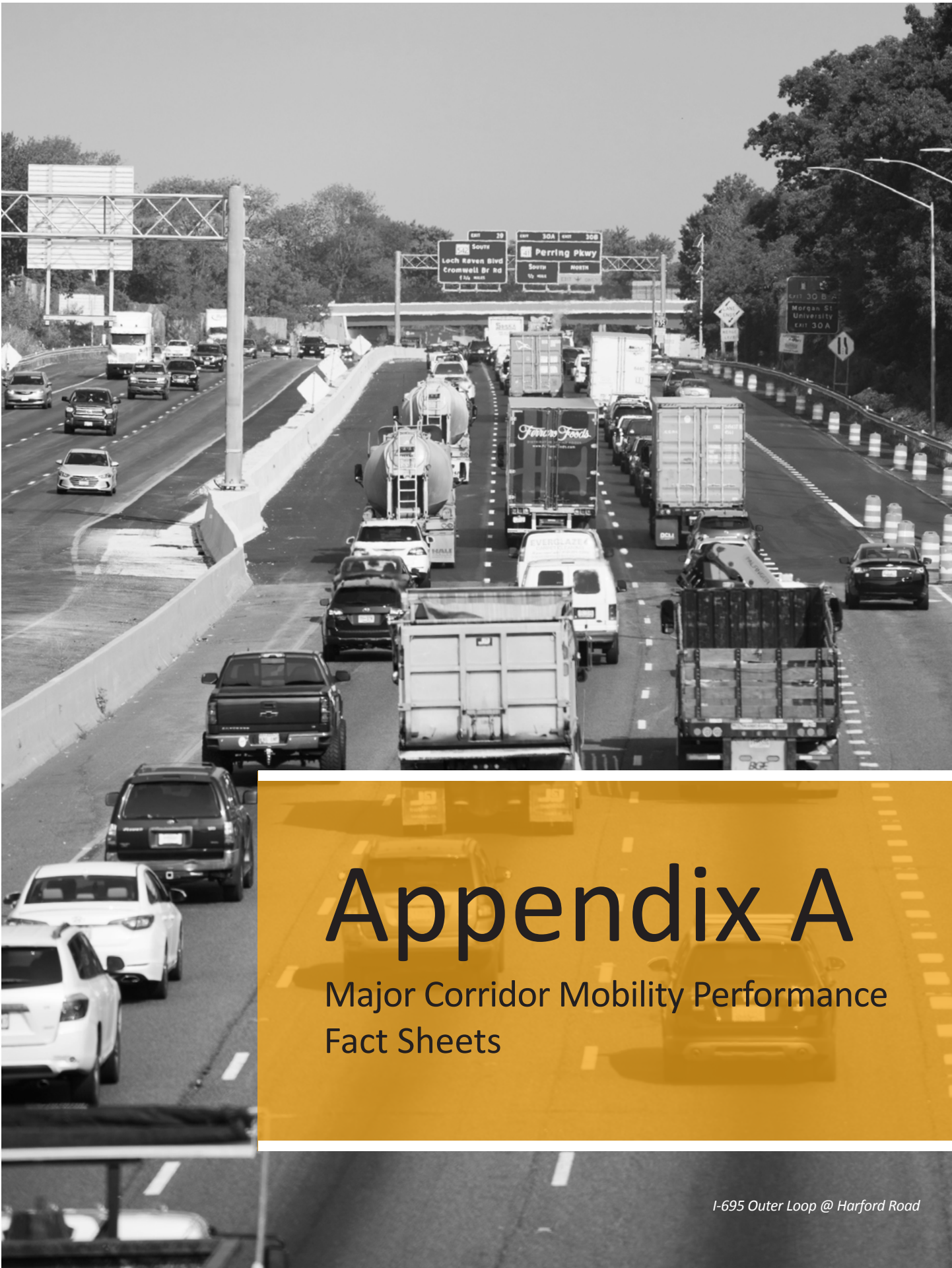
Appendix B:

County Congestion Maps

Appendix C:

Capital Projects Before/After Fact Sheets for the 11 Improvements

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Appendix A

Major Corridor Mobility Performance
Fact Sheets

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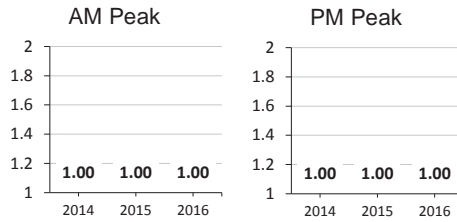


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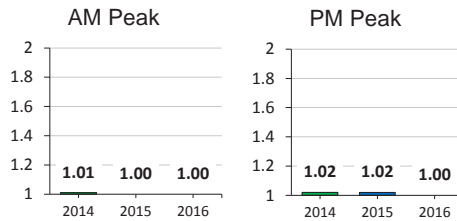
I-70 (Part 1)

Trends^a

Travel Time Index^b
measure of average delay



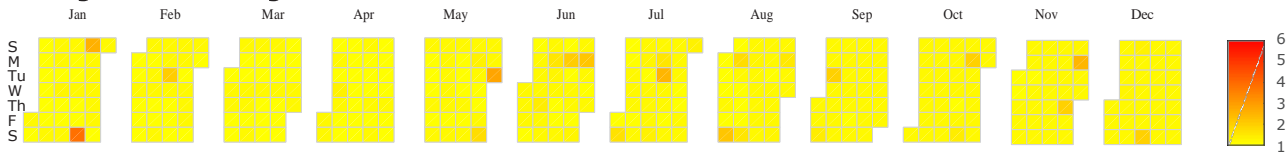
Planning Time Index^c
measure of worst-case delay



48 center miles carrying 50,000 vehicles every day

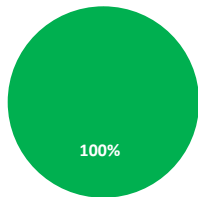


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Westbound

Most Improved Segments (TTI)

1. N/A

2016
N/A

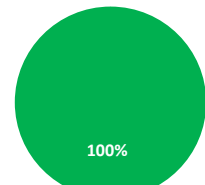
2015
N/A

Decreased Operations Segments (TTI)

1. N/A

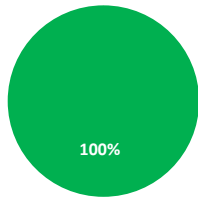
2016
N/A

2015
N/A



AM Eastbound

PM Peak Hour



PM Westbound

Most Improved Segments (TTI)

1. US 40 to MD 66 WB

2016
1.00

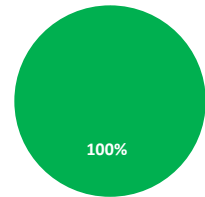
2015
1.01

Decreased Operations Segments (TTI)

1. N/A

2016
N/A

2015
N/A



PM Eastbound

Notes

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

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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.



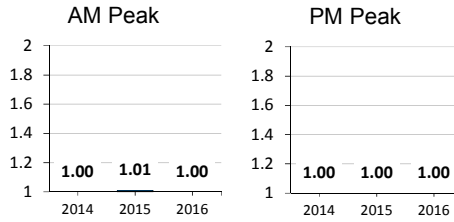
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I-70 (Part 2)

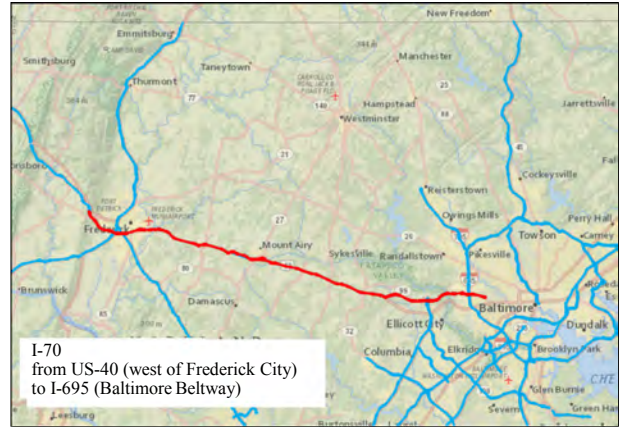
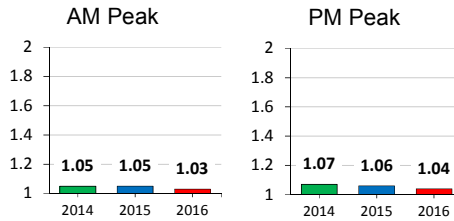
Trends^a

43 center miles carrying 66,000 vehicles every day

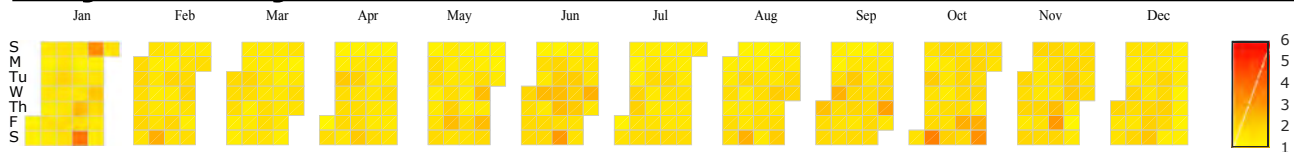
Travel Time Index^b
measure of average delay



Planning Time Index^c
measure of worst-case delay

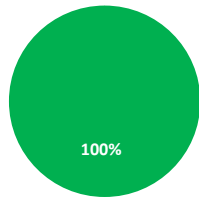


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Westbound

Most Improved Segments (TTI)

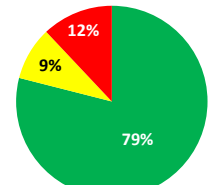
1. I-70 at I-695 EB
2. MD 32 to US 40 EB
3. US 29 to I-695 EB

Year	TTI
2016	1.03
2015	1.12
2016	1.10
2015	1.17
2016	1.16
2015	1.21

Decreased Operations Segments (TTI)

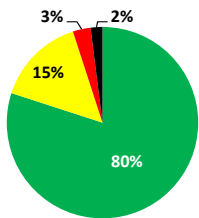
1. I-70 at Marriottsville Rd EB
2. US 40 to Marriottsville Rd EB
3. Marriottsville Rd to US 29 EB

Year	TTI
2016	1.95
2015	1.80
2016	1.82
2015	1.75
2016	1.40
2015	1.36



AM Eastbound

PM Peak Hour



PM Westbound

Most Improved Segments (TTI)

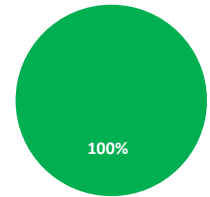
1. I-70 at I-695 EB
2. US 29 to I-695 EB

Year	TTI
2016	1.06
2015	1.22
2016	1.08
2015	1.11

Decreased Operations Segments (TTI)

1. I-70 at US 15 WB
2. I-270 to US 15 WB
3. I-70 at I-270 WB

Year	TTI
2016	1.84
2015	1.55
2016	1.67
2015	1.44
2016	1.57
2015	1.35



PM Eastbound

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.

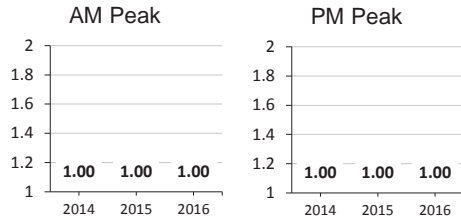


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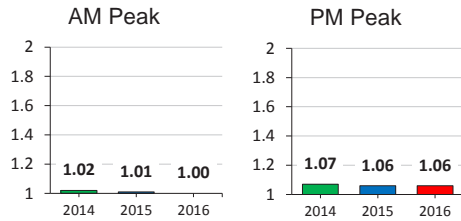
I-81

Trends^a

Travel Time Index^b
measure of average delay



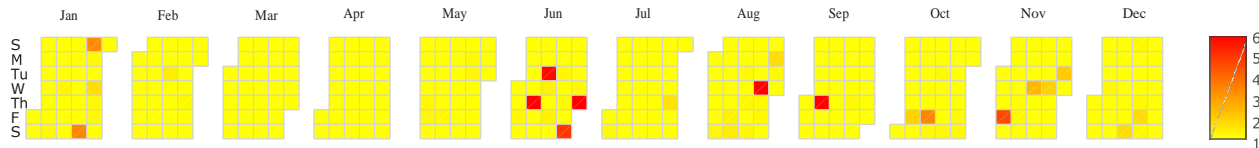
Planning Time Index^c
measure of worst-case delay



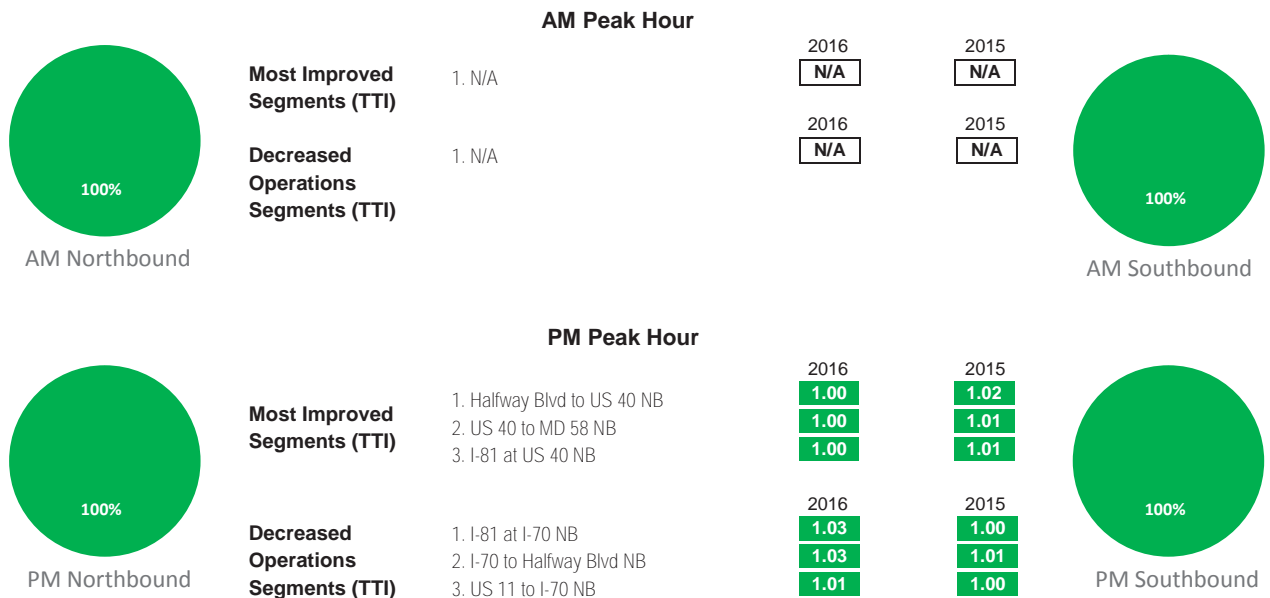
12 center miles carrying 65,000 vehicles every day



Daily Variability^d



Weekday Congestion



Notes

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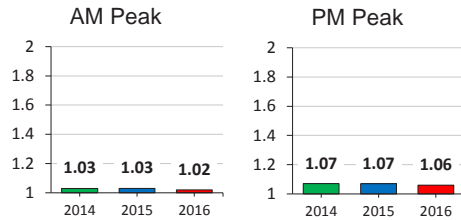


2017 Maryland State Highway Mobility Report

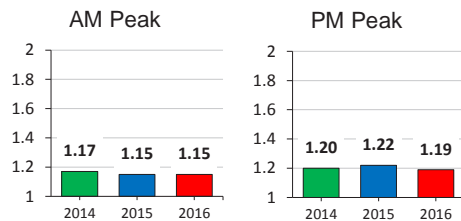
I-83

Trends^a

Travel Time Index^b
measure of average delay



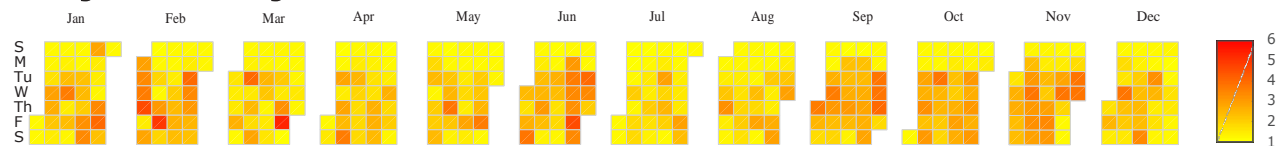
Planning Time Index^c
measure of worst-case delay



26 center miles carrying 88,000 vehicles every day

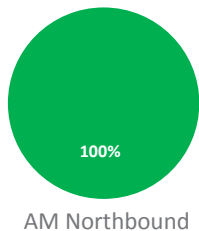


Daily Variability^d



Weekday Congestion

AM Peak Hour



Most Improved Segments (TTI)

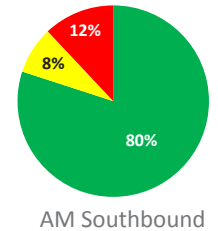
1. I-83 at Middletown Rd SB
2. MD 45 to Middletown Rd SB
3. Padonia Rd to Timonium Rd SB

Year	TTI
2016	1.04
2015	1.09
2016	1.02
2015	1.07
2016	1.28
2015	1.32

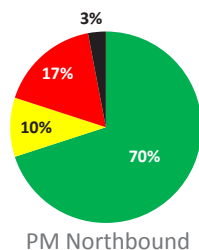
Decreased Operations Segments (TTI)

1. MD 137 to Belfast Rd SB
2. I-83 at MD 137 SB

Year	TTI
2016	1.06
2015	1.05
2016	1.07
2015	1.05



PM Peak Hour



Most Improved Segments (TTI)

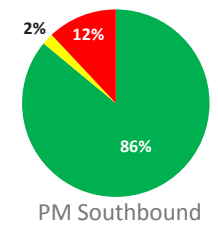
1. I-83 at I-695 SB
2. Timonium Rd to I-695 SB
3. MD 133 to I-695 NB

Year	TTI
2016	1.70
2015	1.84
2016	1.61
2015	1.72
2016	1.05
2015	1.16

Decreased Operations Segments (TTI)

1. I-83 at Shawan Road NB
2. Warren Rd to Shawan Rd NB
3. Shawan Rd to Belfast Rd NB

Year	TTI
2016	2.20
2015	2.03
2016	1.47
2015	1.34
2016	1.40
2015	1.37



Notes

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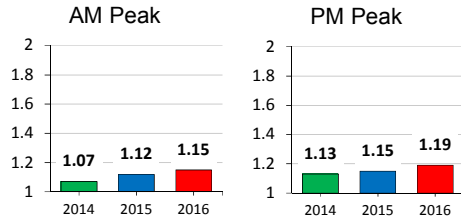


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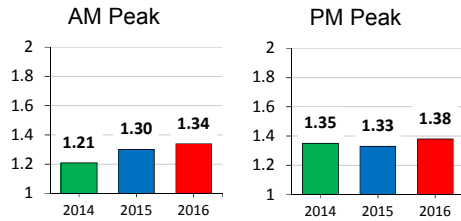
I-95 (Part 1)

Trends^a

Travel Time Index^b
measure of average delay



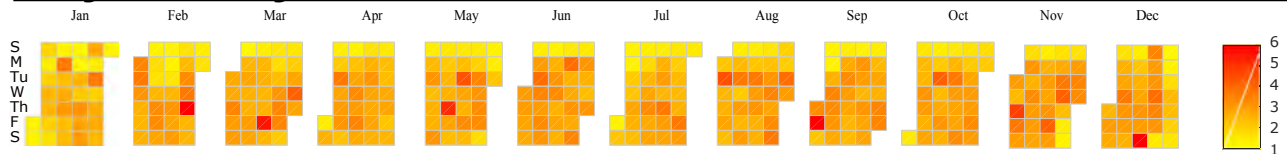
Planning Time Index^c
measure of worst-case delay



40 center miles carrying 162,000 vehicles every day

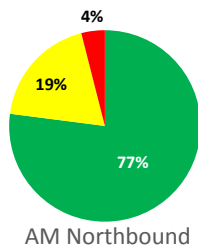


Daily Variability^d



Weekday Congestion

AM Peak Hour

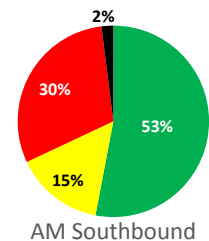


Most Improved Segments (TTI)

1. I-95 at Exit from Ft. McHenry Tunnel SB
2. Tunnel Exit to Key Hwy SB
3. I-95 at S. Caton Ave NB

2016	2015
1.08	1.23
1.12	1.22
1.18	1.27

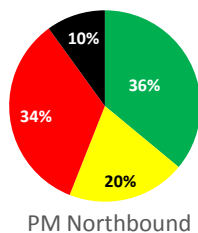
2016	2015
1.93	1.31
1.71	1.24
1.50	1.11



Decreased Operations Segments (TTI)

1. I-95 at MD 150 SB
2. MD 150 to MD 151 SB
3. I-895/I-95 Interchange to US 40 SB

PM Peak Hour

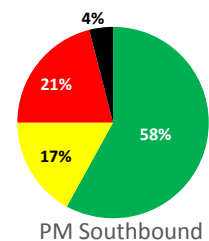


Most Improved Segments (TTI)

1. I-95 at I-495 SB
2. MD 200 to MD 198 NB
3. I-695 to S. Caton St NB

2016	2015
2.05	2.31
1.22	1.40
1.12	1.23

2016	2015
2.31	1.54
1.92	1.29
1.61	1.17



Decreased Operations Segments (TTI)

1. I-95 at Entrance to Ft. McHenry Tunnel NB
2. MD 2 to Entrance to Ft. McHenry Tunnel NB
3. S. Caton Ave to I-695 SB

Notes

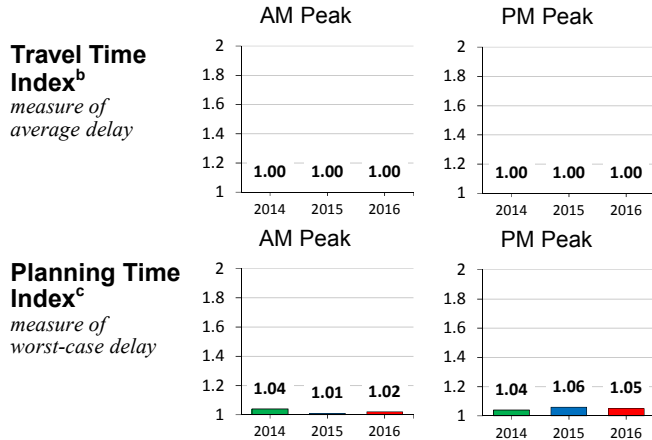
- a - **Peak Hours** are considered as 8-9am and 5-6pm.
- b - **Travel Time Index (TTI)** is the ratio of the *average* travel time during the peak hour to the time required under free flow.
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- d - Variability of worst-case travel experience along facility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



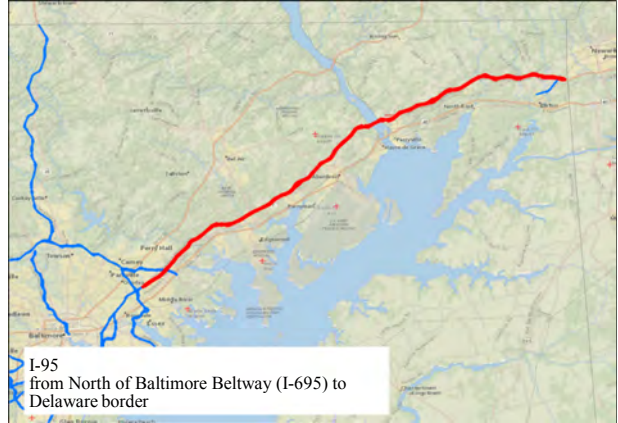
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I-95 (Part 2)

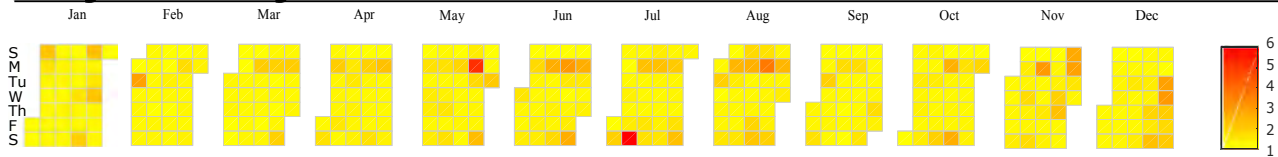
Trends^a



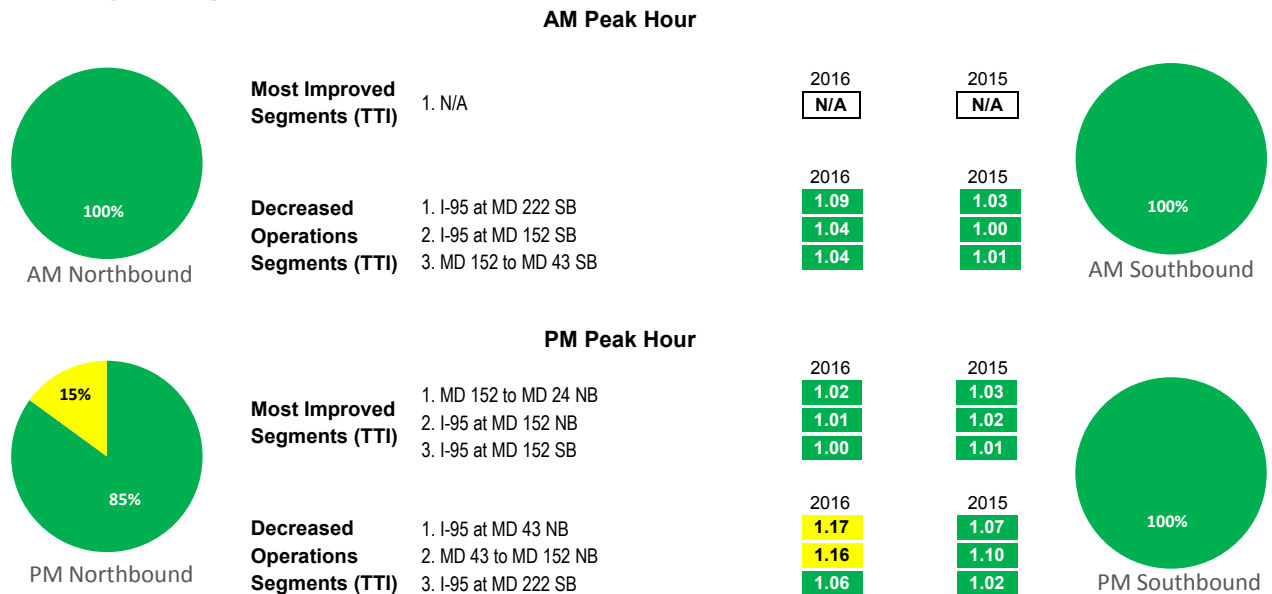
45 center miles carrying 104,000 vehicles every day



Daily Variability^d



Weekday Congestion



Notes

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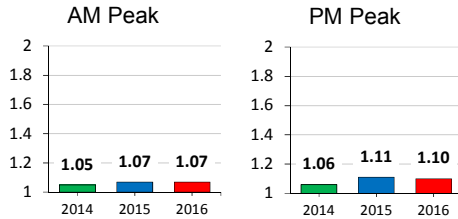


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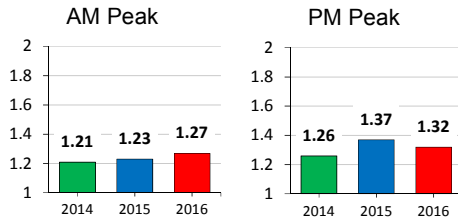
I-97

Trends^a

Travel Time Index^b
measure of average delay



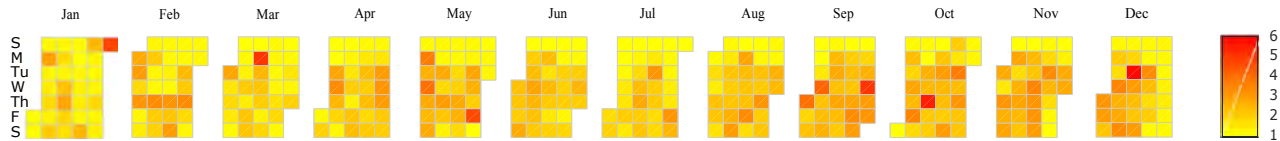
Planning Time Index^c
measure of worst-case delay



17 center miles carrying 118,000 vehicles every day

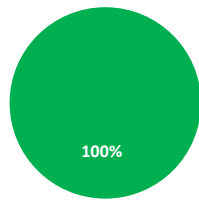


Daily Variability^d



Weekday Congestion

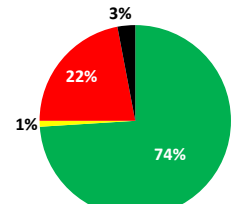
AM Peak Hour



AM Northbound

Most Improved Segments (TTI)

1. US 50 to MD 178 NB
2. MD 178 to US 50 SB
3. I-97 at MD 100 NB



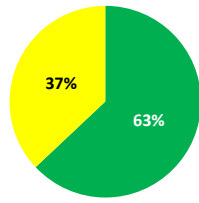
AM Southbound

Decreased Operations Segments (TTI)

1. MD 3 to Millersville Rd SB
2. Millersville Rd to MD 178 SB
3. I-97 at MD 3/MD 32 SB



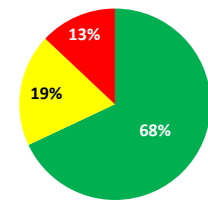
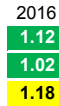
PM Peak Hour



PM Northbound

Most Improved Segments (TTI)

1. MD 178 to US 50 SB
2. I-97 at MD 3/MD 32 NB
3. Benfield Blvd to MD 3 SB



PM Southbound

Decreased Operations Segments (TTI)

1. MD 3 to Millersville Rd SB
2. Millersville Rd to MD 178 SB
3. I-97 at MD 3/MD 32 SB



Notes

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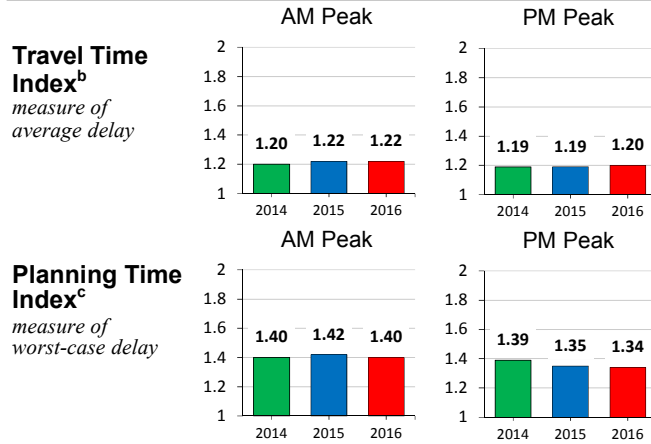
d - Variability of worst-case travel experience along facility for each day of year, shown as plot of PTI by day of week and month, showing seasonal and weekly trends.



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I-270

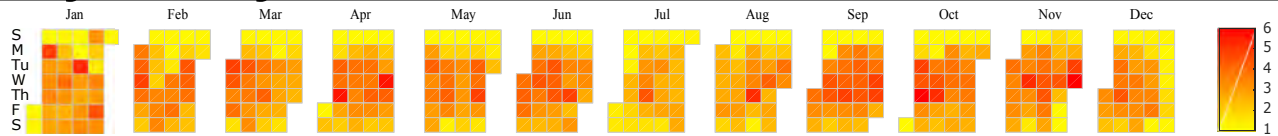
Trends^a



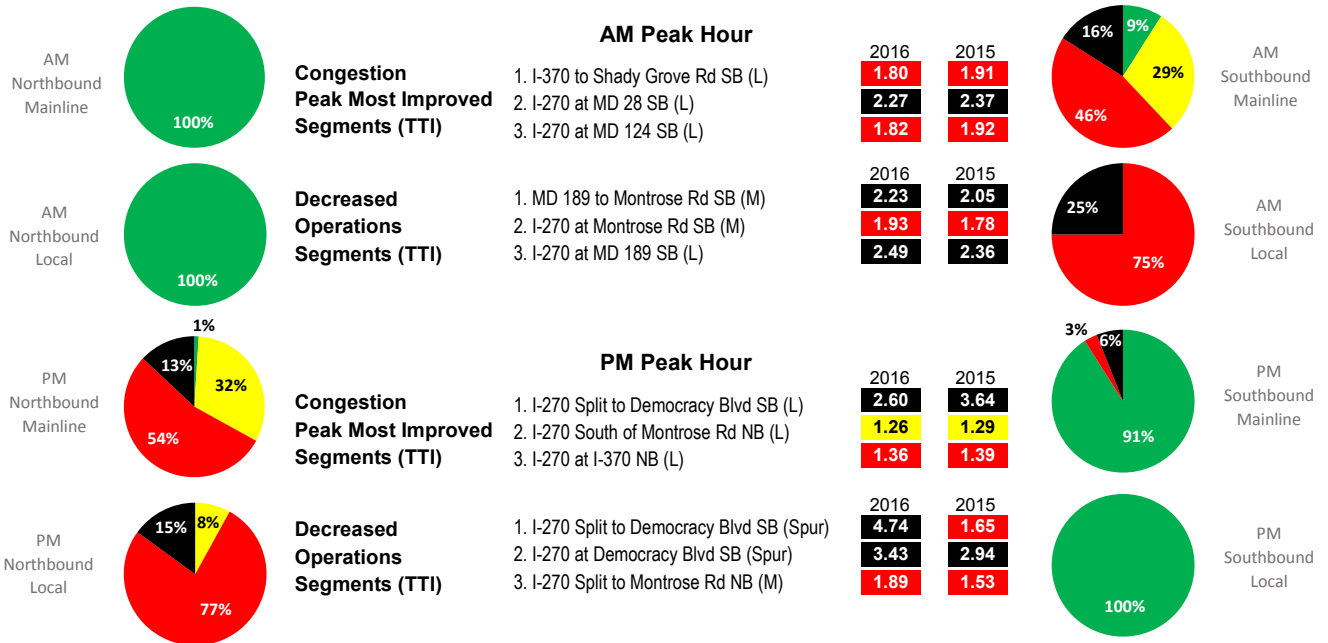
41 center miles carrying 172,000 vehicles every day



Daily Variability^d



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



Notes

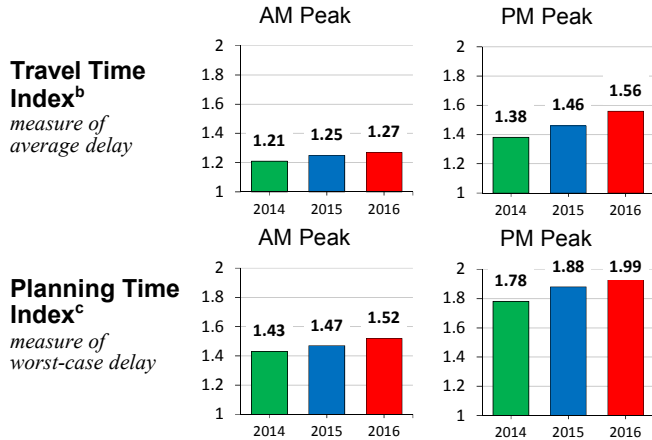
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Capital Beltway

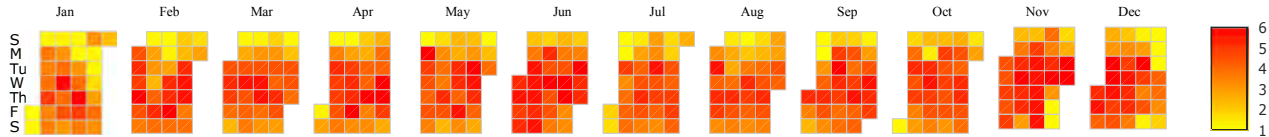
Trends^a



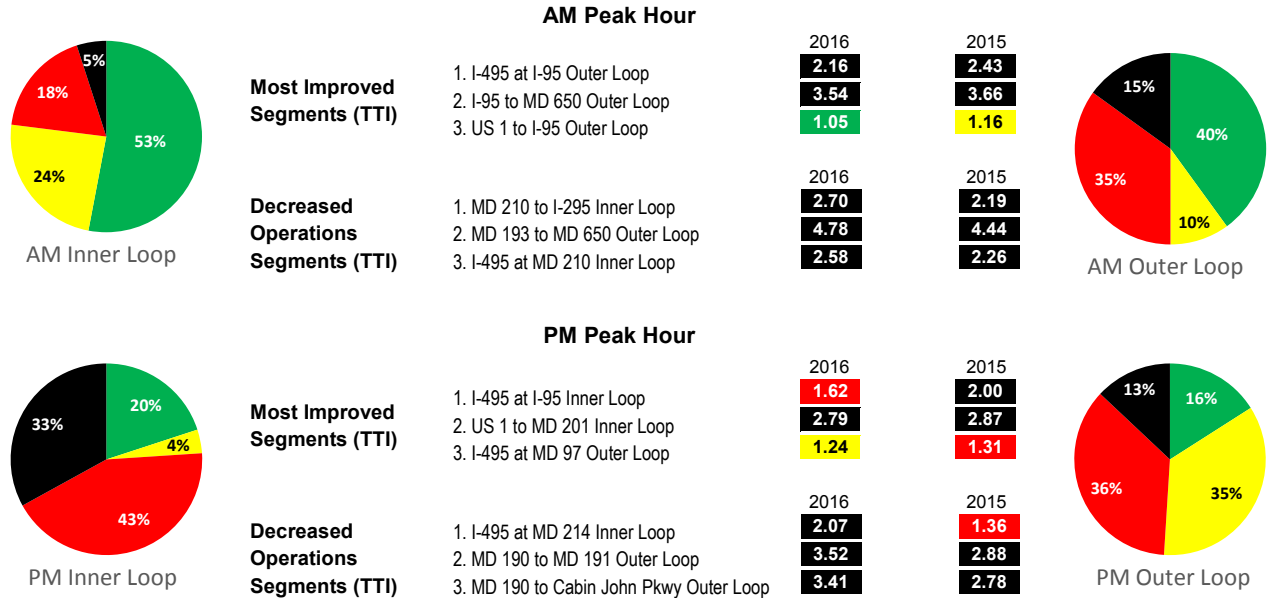
42 center miles carrying 202,000 vehicles every day



Daily Variability^d



Weekday Congestion



Notes

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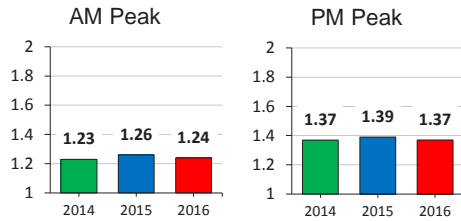


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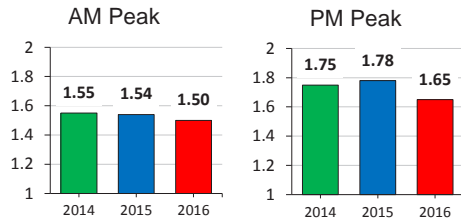
Baltimore Beltway

Trends^a

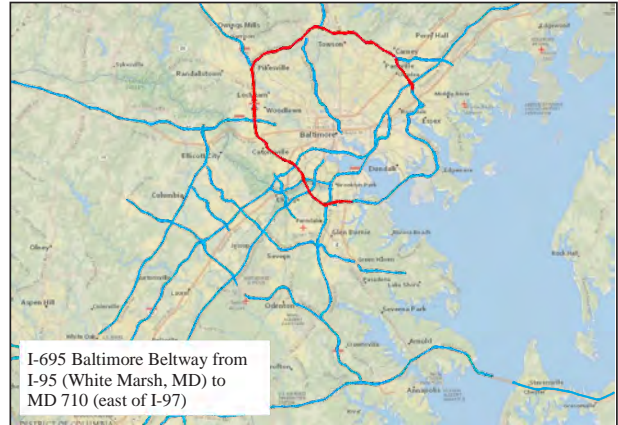
Travel Time Index^b
measure of average delay



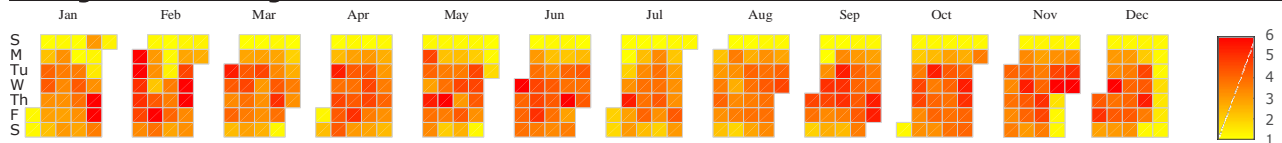
Planning Time Index^c
measure of worst-case delay



35 center miles carrying 157,000 vehicles every day

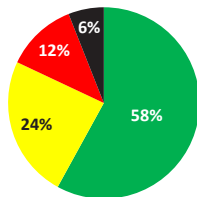


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Inner Loop

Most Improved Segments (TTI)

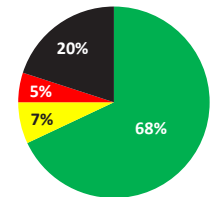
1. US 1 to MD 43 Outer Loop
2. I-695 at US 1 Outer Loop
3. I-695 at MD 140 Outer Loop

Decreased Operations Segments (TTI)

1. I-695 at I-70 Outer Loop
2. I-695 at MD 122 Outer Loop
3. US 40 to I-70 Outer Loop

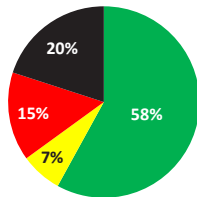
2016
2.70
1.92
1.21

2015
3.00
2.19
1.41



AM Outer Loop

PM Peak Hour



PM Inner Loop

Most Improved Segments (TTI)

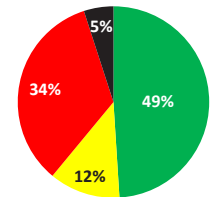
1. I-695 at MD 139 Inner Loop
2. I-695 at MD 26 Inner Loop
3. MD 122 to MD 26 Inner Loop

Decreased Operations Segments (TTI)

1. MD 146 to Providence Rd Inner Loop
2. I-695 at I-95 (South) Inner Loop
3. I-695 at I-70 Outer Loop

2016
2.21
1.40
1.51

2015
2.64
1.75
1.73



PM Outer Loop

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.

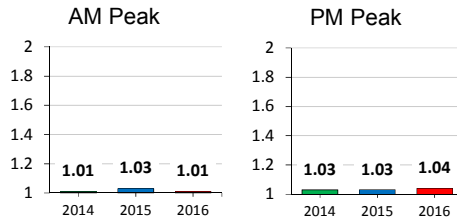


2017 Maryland State Highway Mobility Report

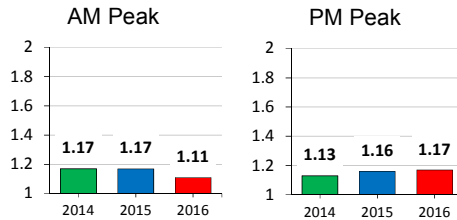
I-795

Trends^a

Travel Time Index^b
measure of average delay



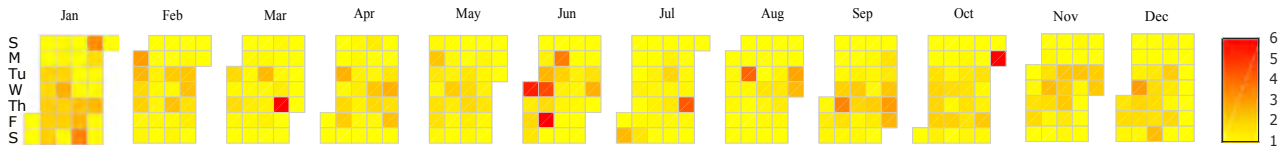
Planning Time Index^c
measure of worst-case delay



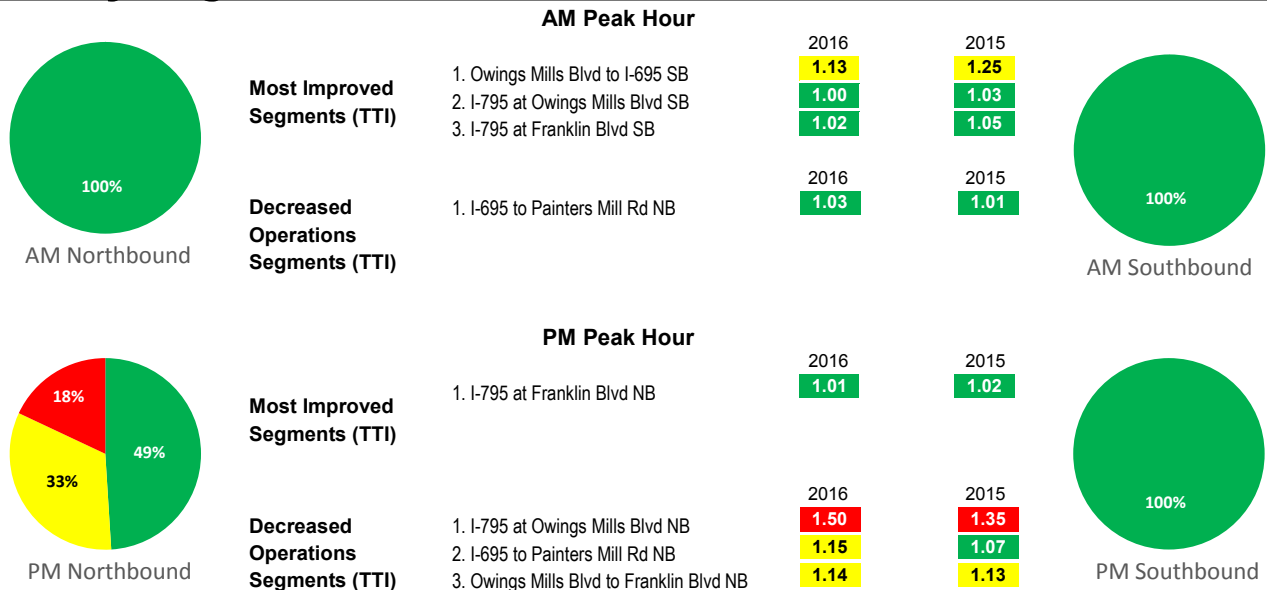
8 center miles carrying 83,000 vehicles every day



Daily Variability^d



Weekday Congestion



Notes

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

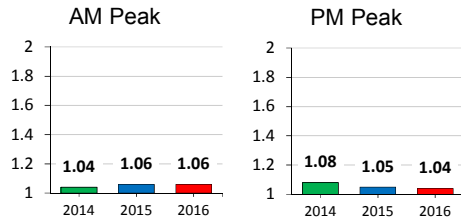


2017 Maryland State Highway Mobility Report

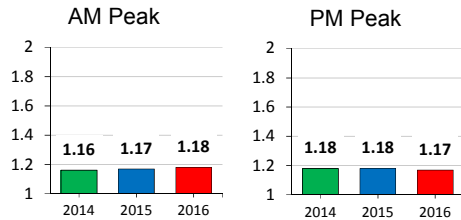
I-895

Trends^a

Travel Time Index^b
measure of average delay



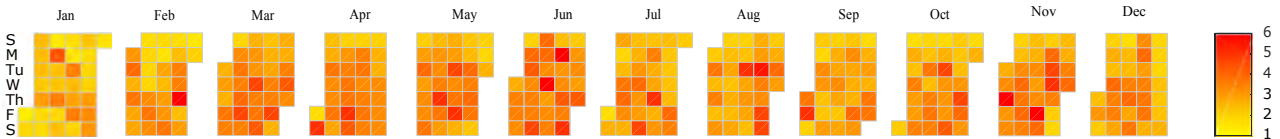
Planning Time Index^c
measure of worst-case delay



15 center miles carrying 59,000 vehicles every day

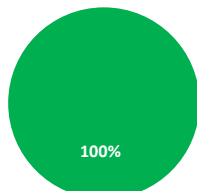


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Northbound

Most Improved Segments (TTI)

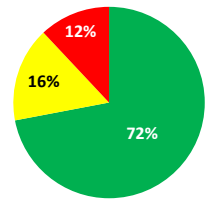
1. MD 150 to O'Donnell St SB
2. I-895 at Lombard St SB
3. MD 151 to Lombard St SB

Decreased Operations Segments (TTI)

1. Frankfurst Ave to MD 2 SB
2. MD 2 to I-895 Spur SB
3. I-895 at Harbor Tunnel SB

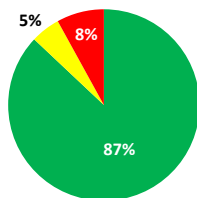
2016	2015
1.92	2.17
1.74	1.96
1.48	1.65

2016	2015
1.22	1.01
1.19	1.00
1.08	1.02



AM Southbound

PM Peak Hour



PM Northbound

Most Improved Segments (TTI)

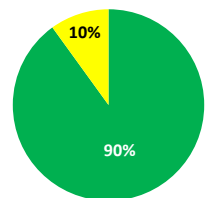
1. I-895 at I-895 Spur NB
2. I-895 at Harbor Tunnel NB
3. I-695 to MD 2 SB

Decreased Operations Segments (TTI)

1. I-895 at MD 295 NB
2. MD 295 to I-895 Spur NB
3. I-695 to MD 295 NB

2016	2015
1.02	1.07
1.04	1.08
1.01	1.05

2016	2015
1.14	1.00
1.10	1.01
1.05	1.00



PM Southbound

Notes

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- 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.

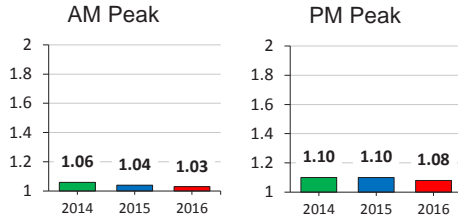


2017 Maryland State Highway Mobility Report

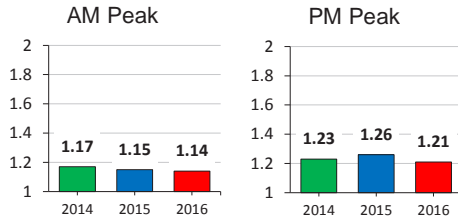
MD 32

Trends^a

Travel Time Index^b
measure of average delay



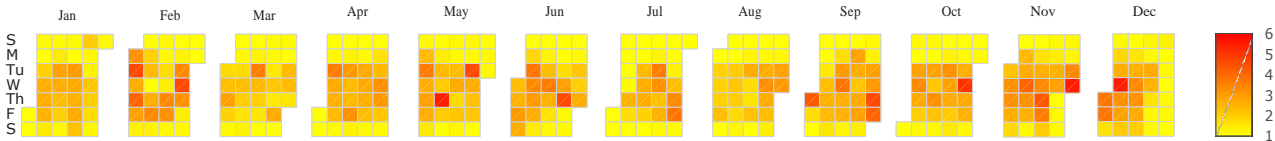
Planning Time Index^c
measure of worst-case delay



23 center miles carrying 71,000 vehicles every day

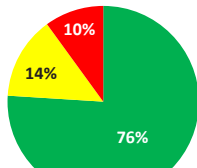


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Westbound

Most Improved Segments (TTI)

1. MD 32 at US 1 WB
2. MD 32 at MD 3 EB
3. US 1 to I-95 WB

2016
1.00
1.00
1.03

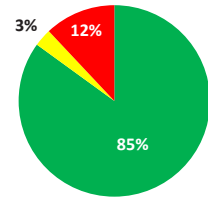
2015
1.01
1.01
1.04

Decreased Operations Segments (TTI)

1. MD 170 to MD 175 WB
2. MD 32 at MD 175 WB
3. MD 32 at I-95 EB

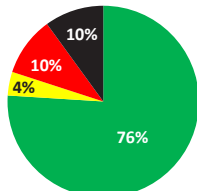
2016
1.64
1.92
1.41

2015
1.57
1.86
1.36



AM Eastbound

PM Peak Hour



PM Westbound

Most Improved Segments (TTI)

1. Dorsey Run Rd to US 1 WB
2. MD 32 at MD 198 EB
3. MD 32 at MD 295 WB

2016
1.62
2.37
1.05

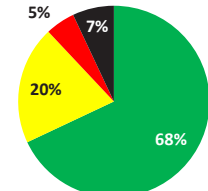
2015
1.74
2.47
1.11

Decreased Operations Segments (TTI)

1. MD 32 at MD 108 WB
2. MD 32 at MD 3 EB
3. MD 32 at US 1 WB

2016
3.95
1.29
2.10

2015
3.41
1.22
2.05



PM Eastbound

Notes

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

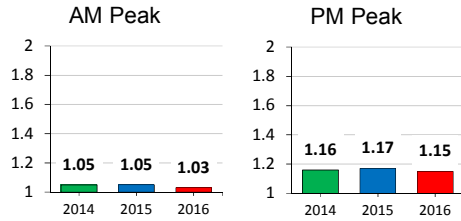


2017 Maryland State Highway Mobility Report

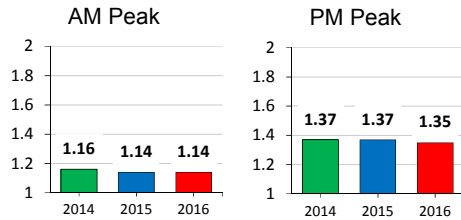
MD 100

Trends^a

Travel Time Index^b
measure of average delay



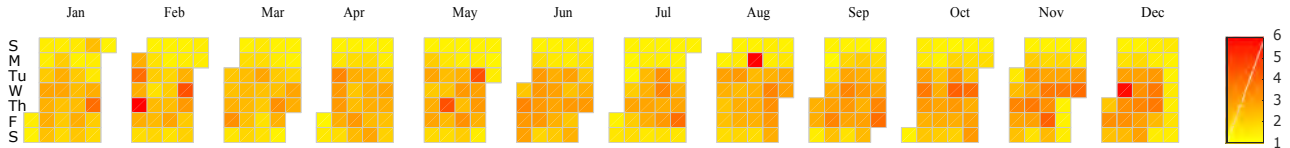
Planning Time Index^c
measure of worst-case delay



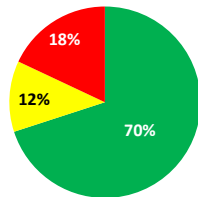
22 center miles carrying 75,000 vehicles every day



Daily Variability^d



Weekday Congestion



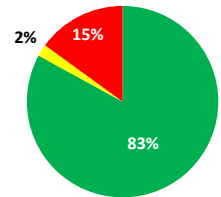
AM Westbound

Most Improved Segments (TTI)

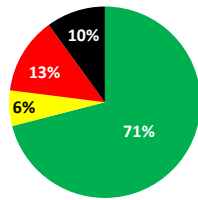
- MD 100 at MD 2 WB
- MD 100 at US 1 EB
- I-97 to MD 170 WB

Decreased Operations Segments (TTI)

- MD 103 to I-95 EB
- Snowden River Pkwy to MD 103 EB
- MD 100 at MD 713 WB



AM Eastbound



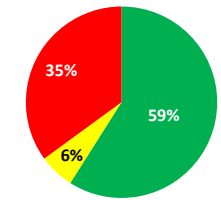
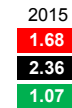
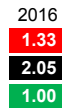
PM Westbound

Most Improved Segments (TTI)

- MD 100 at MD 713 WB
- MD 713 to MD 295 WB
- MD 170 to MD 713 WB

Decreased Operations Segments (TTI)

- MD 100 at Coca Cola Dr WB
- MD 295 to MD 713 EB
- MD 100 at MD 295 EB



PM Eastbound

Notes

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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.

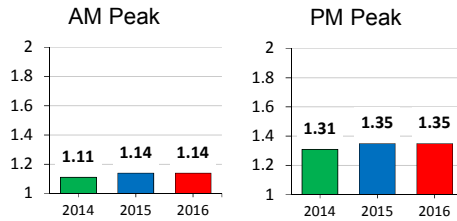


2017 Maryland State Highway Mobility Report

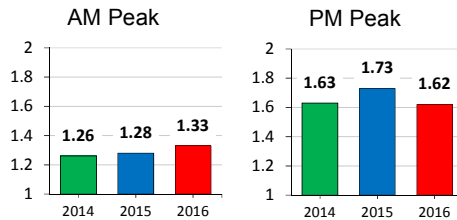
MD 295

Trends^a

Travel Time Index^b
measure of average delay



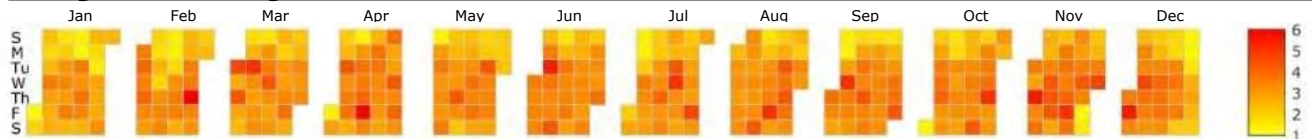
Planning Time Index^c
measure of worst-case delay



29 center miles carrying 108,000 vehicles every day

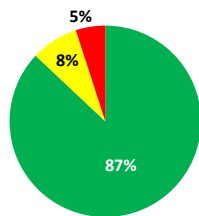


Daily Variability^d



Weekday Congestion

AM Peak Hour



AM Northbound

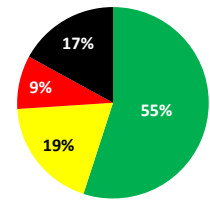
Most Improved Segments (TTI)

1. MD 295 at Powder Mill Rd NB
2. Powder Mill Rd to MD 197 NB
3. MD 193 to Powder Mill Rd NB

Decreased Operations Segments (TTI)

1. US 50 to MD/DC Line SB
2. MD 295 at MD 197 SB
3. MD 202 to US 50 SB

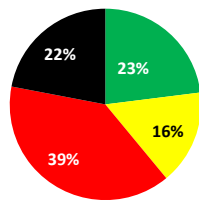
2016	2015
1.28	1.41
1.20	1.32
1.15	1.25



AM Southbound

2016	2015
3.15	2.79
2.67	2.37
2.09	1.92

PM Peak Hour



PM Northbound

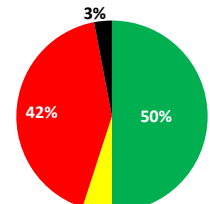
Most Improved Segments (TTI)

1. MD 198 to MD 32 NB
2. MD 295 at MD 32 NB
3. MD 295 at MD 198 NB

Decreased Operations Segments (TTI)

1. MD 295 at Powder Mill Rd NB
2. MD 410 to I-95/I-495 NB
3. I-895 to I-695 SB

2016	2015
2.04	2.30
2.21	2.43
1.59	1.79



PM Southbound

2016	2015
2.84	2.54
2.11	1.86
1.73	1.50

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.

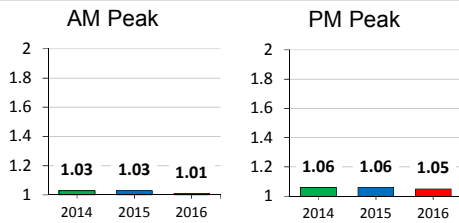


2017 Maryland State Highway Mobility Report

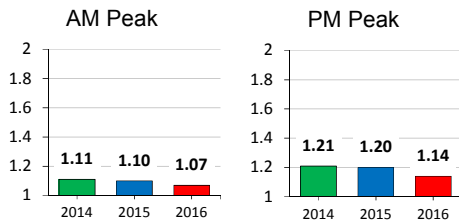
US 50

Trends^a

Travel Time Index^b
measure of average delay



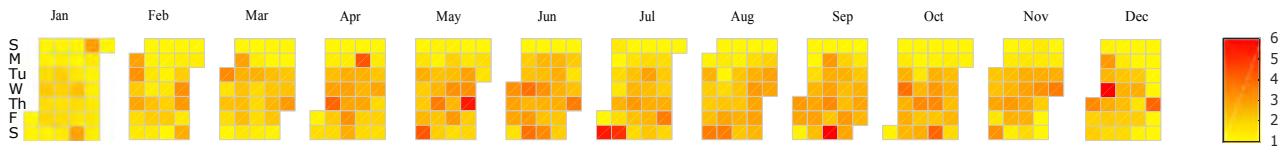
Planning Time Index^c
measure of worst-case delay



33 center miles carrying 103,000 vehicles every day

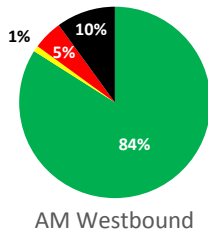


Daily Variability^d



Weekday Congestion

AM Peak Hour



Most Improved Segments (TTI)

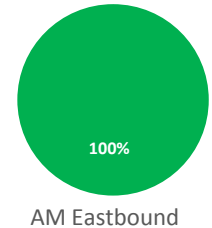
1. MD 202 to MD 459 WB
2. Bay Dale Dr to MD 2 WB
3. US 50 at MD 450 WB

2016	2015
1.00	1.05
1.01	1.05
1.05	1.09

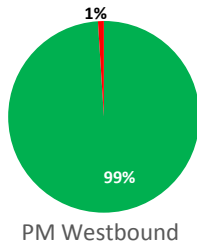
Decreased Operations Segments (TTI)

1. MD 202 to MD 295 WB
2. US 50 at MD 202 WB
3. MD 459 to MD 295 WB

2016	2015
2.96	2.64
2.54	2.25
2.57	2.31



PM Peak Hour



Most Improved Segments (TTI)

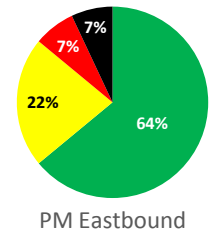
1. MD 70 to Severn River Bridge EB
2. US 50 at Severn River Bridge EB
3. US 50 at MD 450 EB

2016	2015
1.79	1.85
1.27	1.32
1.07	1.11

Decreased Operations Segments (TTI)

1. US 50 at MD 295 EB
2. MD 295 to MD 459 EB
3. US 50 at MD 450 EB

2016	2015
2.04	1.74
1.64	1.57
1.42	1.36



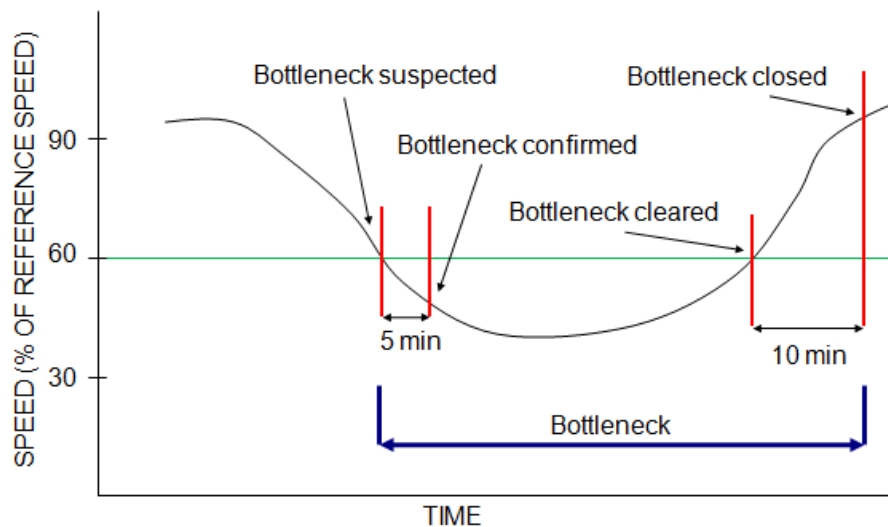
Notes

- 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.



Bottlenecks

Another measure of congestion along the freeway/expressway system is termed bottleneck locations. 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 segments are analyzed by comparing the duration, intensity and frequency with which the bottlenecks occur during an entire average weekday based on vehicle probe data. The ranking is based on impact factors (computed as the number of times a bottleneck occurs on a particular segment, multiplied by its duration and the average queue length). The following pages show the top 30 bottleneck locations statewide along with the top bottleneck locations along each individual freeway/expressway.



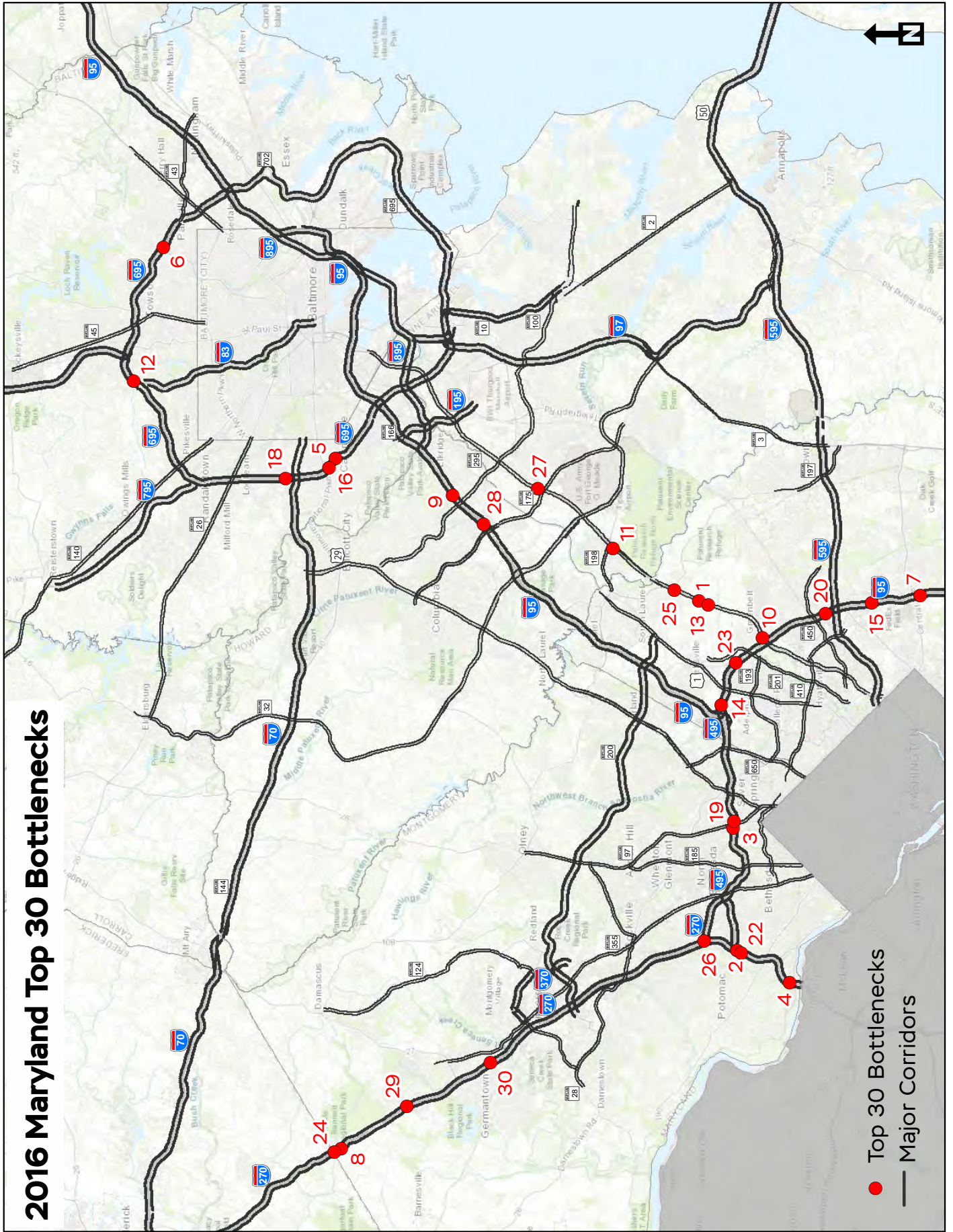
2016 Top 30 Bottlenecks

2016 Rank	LOCATION	Road	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
1	MD 295 @ Powder Mill Rd ¹	MD 295	Northbound	349	3.0	3.0	22	↓ -21
2	I-495 @ I-270 Spur	I-495	Inner Loop	131	5.0	2.6	N/A	N/A
3	I-495 @ MD 97	I-495	Outer Loop	208	3.0	2.5	31	↓ -28
4	I-495 @ Clara Barton Parkway	I-495	Inner Loop	216	4.0	2.2	16	↓ -12
5	I-695 @ Edmondson Ave *	I-695	Outer Loop	123	5.0	2.2	8	↓ -3
6	I-695 @ MD 41 *	I-695	Inner Loop	148	3.0	2.0	12	↓ -6
7	I-95/ I-495 @ MD 214	I-95	Inner Loop	149	4.0	2.0	1	↑ 6
8	I-270 @ MD 109	I-270	Southbound	133	4.0	1.9	33	↓ -25
9	I-95 @ MD 100	I-95	Northbound	104	5.0	1.7	3	↑ 6
10	MD-295 @ I-95/I-495 ¹	MD-295	Northbound	171	3.0	1.7	71	↓ -61
11	MD 295 @ MD 198 ¹	MD 295	Southbound	178	3.0	1.6	57	↓ -46
12	I-695 @ I-83/MD 25	I-695	Inner Loop	160	4.0	1.6	20	↓ -8
13	MD 295 @ Powder Mill Rd ¹	MD 295	Southbound	123	4.0	1.5	17	↓ -4
14	I-95 @ I-495	I-95	Southbound	193	3.0	1.5	18	↓ -4
15	I-95/ I-495 @ MD 202	I-95	Outer Loop	234	3.0	1.5	1182	↓ -1167
16	I-695 @ US 40 *	I-695	Outer Loop	112	4.0	1.5	10	↑ 6
17	I-495 @ VA State Line	I-495	Outer Loop	84	5.0	1.3	414	↓ -397
18	I-695 @ I-70	I-695	Inner Loop	158	2.0	1.3	199	↓ -181
19	I-495 @ MD 97	I-495	Inner Loop	112	3.0	1.3	60	↓ -41
20	I-95/ I-495 @ US 50	I-95/ I-495	Outer Loop	162	2.0	1.2	25	↓ -5
21	I-95/ I-495 @ I-295	I-95/ I-495	Inner Loop	113	3.0	1.2	123	↓ -102
22	I-270 West Spur @ I-495	I-270	Southbound	223	2.0	1.1	37	↓ -15
23	I-95/ I-495 @ Greenbelt Metro	I-95/ I-495	Outer Loop	119	2.0	1.1	6	↑ 17
24	I-270 @ MD 109	I-270	Northbound	47	7.0	1.0	21	↑ 3
25	MD 295 @ MD 197 ¹	MD 295	Southbound	123	3.0	1.0	222	↓ -197
26	I-270 @ I-270 Spur	I-270	Southbound	40	8.0	0.9	2	↑ 24
27	MD 295 @ MD 175	MD 295	Northbound	71	4.0	0.9	15	↑ 12
28	I-95 @ MD 175	I-95	Northbound	79	4.0	0.9	163	↓ -135
29	I-270 @ MD 121	I-270	Northbound	116	4.0	0.9	69	↓ -40
30	I-270 @ Middlebrook Rd	I-270	Northbound	61	5.0	0.9	70	↓ -40

¹ - Owned by National Park Service

* - Under Construction

2016 Maryland Top 30 Bottlenecks



- Top 30 Bottlenecks
- Major Corridors



Bottlenecks

I-70 (Part 1) Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
177	I-70 W @ US-15/US-340/EXIT 52	Westbound	141	1.0	0.3	157	↑ 20
237	I-70 E @ MD-17/EXIT 42	Eastbound	35	2.0	0.3	211	↑ 26
253	I-70 W @ MD-66/EXIT 35	Westbound	30	3.0	0.2	161	↑ 92
398	I-70 W @ MD-17/EXIT 42	Westbound	8	5.0	0.2	234	↑ 164
445	I-70 W @ FREDERICK--WASINGTON COUNTY BORDER	Westbound	12	3.0	0.1	582	↓ -137
469	I-70 E @ MD-68/EXIT 18	Eastbound	10	3.0	0.1	798	↓ -329
484	I-70 W @ MD-56/EXIT 12	Westbound	9	4.0	0.1	736	↓ -252
503	I-70 E @ US-40 ALT/EXIT 48	Eastbound	5	4.0	0.1	510	↓ -7
605	I-70 W @ MD-68/EXIT 18	Westbound	8	4.0	0.1	405	↑ 200
630	I-70 W @ MD-65/EXIT 29	Westbound	23	1.0	0.1	252	↑ 378

I-70 (Part 2) Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
66	I-70 W @ US-29/EXIT 87	Westbound	110	2.0	0.5	88	↓ -22
84	I-70 E @ US-29/EXIT 87	Eastbound	45	3.0	0.5	63	↑ 21
100	I-70 E @ I-695/EXIT 91	Eastbound	44	3.0	0.4	87	↑ 13
241	I-70 E @ MARRIOTTSVILLE RD/EXIT 83	Eastbound	131	1.0	0.2	323	↓ -82
444	I-70 E @ US-40/EXIT 82	Eastbound	22	2.0	0.1	822	↓ -378
507	I-70 E @ US-15/US-340/EXIT 52	Eastbound	16	2.0	0.1	293	↑ 214
552	I-70 E @ MD-27/EXIT 68	Eastbound	9	4.0	0.1	608	↓ -56
553	I-70 W @ MARRIOTTSVILLE RD/EXIT 83	Westbound	10	3.0	0.1	287	↑ 266
644	I-70 W @ I-270/US-40/EXIT 53	Westbound	38	1.0	0.1	1237	↓ -593
750	I-70 W @ MD-75/EXIT 62	Westbound	5	3.0	0.1	597	↑ 153

I-81 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
370	I-81 N @ US-40/EXIT 6	Northbound	18	3.0	0.2	514	↓ -144
634	I-81 N @ HALFWAY BLVD/EXIT 5	Northbound	13	2.0	0.1	741	↓ -107
730	I-81 N @ MAUGANS AVE/EXIT 9	Northbound	7	2.0	0.1	878	↓ -148
774	I-81 S @ HALFWAY BLVD/EXIT 5	Southbound	7	3.0	0.1	679	↑ 95
843	I-81 N @ SHOWALTER RD/EXIT 10	Northbound	8	2.0	0.0	620	↑ 223
883	I-81 S @ US-40/EXIT 6	Southbound	6	2.0	0.0	910	↓ -27
885	I-81 N @ MAUGANSVILLE RD/EXIT 8	Northbound	7	2.0	0.0	938	↓ -53
975	I-81 N @ MD-58/EXIT 7	Northbound	5	2.0	0.0	880	↑ 95
1002	I-81 S @ MD--WV STATE BORDER	Southbound	5	2.0	0.0	447	↑ 555
1151	I-81 S @ MAUGANSVILLE RD/EXIT 8	Southbound	3	3.0	0.0	799	↑ 352



Bottlenecks

I-83 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
88	I-83 S @ I-695	Southbound	66	2.0	0.5	73	↑ 15
118	I-83 S @ COLD SPRING LN/EXIT 9	Southbound	42	3.0	0.4	226	↓ -108
169	I-83 N @ BELFAST RD/EXIT 24	Northbound	21	5.0	0.3	107	↑ 62
207	I-83 S @ BELFAST RD/EXIT 24	Southbound	27	3.0	0.3	101	↑ 106
244	I-83 S @ TIMONIUM RD/EXIT 16	Southbound	34	2.0	0.2	224	↑ 20
277	I-83 S @ SHAWAN RD/EXIT 20	Southbound	15	4.0	0.2	417	↓ -140
321	I-83 S @ MD-25/FALLS RD/EXIT 8	Southbound	18	4.0	0.2	214	↑ 107
323	I-83 N @ SHAWAN RD/EXIT 20	Northbound	41	2.0	0.2	0	↑ 323
360	I-83 S @ FAYETTE ST/EXIT 1	Southbound	487	0.0	0.2	76	↑ 284
362	I-83 S @ MD-137/MOUNT CARMEL RD/EXIT 27	Southbound	17	3.0	0.2	229	↑ 133

I-95 (Part 1) Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
9	I-95 N @ MD 100/EXIT 43	Northbound	104	5.0	1.7	3	↑ 6
14	I-95 S @ I-495/EXIT 27-25	Southbound	193	3.0	1.5	18	↓ -4
28	I-95 N @ MD 175/EXIT 41	Northbound	79	4.0	0.9	163	↓ -135
50	I-95 S @ MD-175/EXIT 41	Southbound	82	3.0	0.6	51	↓ -1
83	I-95 N @ I-95 (BALTIMORE) (EAST)	Northbound	57	4.0	0.5	80	↑ 3
102	I-95 N @ MD-32/EXIT 38	Northbound	41	3.0	0.4	193	↓ -91
116	I-95 N @ MD-295/BALTIMORE WASHINGTON PKWY/EXIT 52	Northbound	70	2.0	0.4	162	↓ -46
133	I-95 S @ I-895/EXIT 46	Southbound	57	2.0	0.4	204	↓ -71
149	I-95 N @ KEITH AVE/EXIT 56	Northbound	124	1.0	0.3	126	↑ 23
152	I-95 N @ I-895/EXIT 46	Northbound	24	6.0	0.3	85	↑ 67

I-95 (Part 2) Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
34	I-95 N @ MD-24/EXIT 77	Northbound	72	3.0	0.8	95	↓ -61
96	I-95 S @ MD-24/EXIT 77	Southbound	21	7.0	0.4	8000	↓ -7904
104	I-95 S @ MD-543/EXIT 80	Southbound	46	4.0	0.4	203	↓ -99
185	I-95 N @ MD-22/EXIT 85	Northbound	28	3.0	0.3	197	↓ -12
197	I-95 N @ MD-152/EXIT 74	Northbound	12	7.0	0.3	183	↑ 14
213	I-95 S @ MD-43/WHITE MARSH BLVD/EXIT 67	Southbound	10	7.0	0.3	98	↑ 115
242	I-95 S @ MARYLAND HOUSE	Southbound	20	4.0	0.2	300	↓ -58
264	I-95 N @ MD-543/EXIT 80	Northbound	16	5.0	0.2	201	↑ 63
268	I-95 N @ TYDINGS MEMORIAL BRIDGE TOLL PLAZA	Northbound	31	2.0	0.2	253	↑ 15
367	I-95 N @ MD-155/EXIT 89	Northbound	12	4.0	0.2	333	↑ 34



Bottlenecks

I-97 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
31	I-97 S @ MD-178/EXIT 5	Southbound	118	3.0	0.9	62	↓ -31
260	I-97 N @ MD-178/EXIT 5	Northbound	16	4.0	0.2	241	↑ 19
289	I-97 S @ US-301/US-50	Southbound	9	7.0	0.2	38	↑ 251
324	I-97 N @ I-695/EXIT 17	Northbound	28	2.0	0.2	275	↑ 49
474	I-97 N @ MD-3/EXIT 7	Northbound	23	2.0	0.1	360	↑ 114
557	I-97 S @ MD-3/EXIT 7	Southbound	16	2.0	0.1	522	↑ 35
571	I-97 N @ MD-3 BUS/NEW CUT RD/EXIT 12	Northbound	12	3.0	0.1	479	↑ 92
714	I-97 N @ BENFIELD BLVD/EXIT 10	Northbound	6	3.0	0.1	425	↑ 289
751	I-97 S @ MD-3 BUS/NEW CUT RD/EXIT 12	Southbound	11	2.0	0.1	801	↓ -50
810	I-97 N @ MD-174/QUARTERFIELD RD/EXIT 13	Northbound	6	3.0	0.1	470	↑ 340

I-270 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
8	I-270 S @ MD-109/EXIT 22	Southbound	133	4.0	1.9	33	↓ -25
22	I-270 SPUR S @ I-495	Southbound	223	2.0	1.1	37	↓ -15
24	I-270 N @ MD-109/EXIT 22	Northbound	47	7.0	1.0	21	↑ 3
26	I-270 S @ I-270 (SPUR)	Southbound	40	8.0	0.9	2	↑ 24
29	I-270 N @ MD-121	Northbound	116	4.0	0.9	69	↓ -40
30	I-270 N @ MIDDLEBROOK RD/EXIT 13	Northbound	61	5.0	0.9	70	↓ -40
46	I-270 S @ MONTROSE RD/EXIT 4	Southbound	50	4.0	0.7	127	↓ -81
49	I-270 N @ MONTROSE RD/EXIT 4	Northbound	67	3.0	0.6	108	↓ -59
53	I-270 SPUR N @ I-270	Northbound	86	2.0	0.6	53	0
58	I-270 N @ MD 80/EXIT 26	Northbound	46	4.0	0.6	13	↑ 45

I-495 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
2	I-495 CW @ I-270 SPUR	Inner Loop	131	5.0	2.6	N/A	N/A
3	I-495 CCW @ MD-97/GEORGIA AVE/EXIT 31	Outer Loop	208	3.0	2.5	31	↓ -28
4	I-495 CW @ CLARA BARTON PKWY/EXIT 41	Inner Loop	216	4.0	2.2	16	↓ -12
7	I-495 CW @ MD-214/CENTRAL AVE/EXIT 15	Inner Loop	149	4.0	2.0	1	↑ 6
15	I-495 CCW @ MD-202/LANDOVER RD/EXIT 17	Outer Loop	234	3.0	1.5	1182	↓ -1167
17	I-495 CCW @ WOODROW WILSON MEMORIAL BRIDGE	Outer Loop	84	5.0	1.3	414	↓ -397
19	I-495 CW @ MD-97/GEORGIA AVE/EXIT 31	Inner Loop	112	3.0	1.3	60	↓ -41
20	I-495 CCW @ US-50/EXIT 19	Outer Loop	162	2.0	1.2	25	↓ -5
21	I-495 CW @ I-295	Inner Loop	113	3.0	1.2	123	↓ -102
23	I-495 CCW @ GREENBELT METRO DR/EXIT 24	Outer Loop	119	2.0	1.1	6	↑ 17



Bottlenecks

I-695 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
5	I-695 CCW @ EDMONDSON AVE/EXIT 14	Outer Loop	123	5.0	2.2	8	↓ -3
6	I-695 CW @ MD-41/PERRING PKWY/EXIT 30	Inner Loop	148	3.0	2.0	12	↓ -6
12	I-695 CW @ I-83/MD-25/EXIT 23	Inner Loop	160	4.0	1.6	20	↓ -8
16	I-695 CCW @ US-40/EXIT 15	Outer Loop	112	4.0	1.5	10	↑ 6
18	I-695 CW @ I-70/EXIT 16	Inner Loop	158	2.0	1.3	199	↓ -181
59	I-695 CCW @ MD-41/PERRING PKWY/EXIT 30	Outer Loop	80	2.0	0.6	97	↓ -38
73	I-695 CCW @ I-83/MD-25/EXIT 23	Outer Loop	46	4.0	0.5	117	↓ -44
95	I-695 CCW @ I-70/EXIT 16	Outer Loop	57	3.0	0.4	227	↓ -132
124	I-695 CCW @ PROVIDENCE RD/EXIT 28	Outer Loop	32	4.0	0.4	43	↑ 81
128	I-695 CCW @ MD-295/BALTIMORE WASHINGTON PKWY/EXIT 7 (LINTHICUM HEIGHTS) (SOUTH)	Outer Loop	55	3.0	0.4	904	↓ -776

I-795 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
184	I-795 S @ I-695	Southbound	23	4.0	0.3	112	↑ 72
270	I-795 N @ OWINGS MILLS BLVD/EXIT 4	Northbound	34	2.0	0.2	321	↓ -51
704	I-795 N @ MD-128/MD-140/MD-30/EXIT 9	Northbound	8	4.0	0.1	507	↑ 197
786	I-795 S @ FRANKLIN BLVD/EXIT 7	Southbound	12	2.0	0.1	700	↑ 86
816	I-795 N @ FRANKLIN BLVD/EXIT 7	Northbound	6	3.0	0.1	348	↑ 468
936	I-795 S @ OWINGS MILLS BLVD/EXIT 4	Southbound	5	3.0	0.0	695	↑ 241

I-895 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
205	I-895 S @ HOLABIRD AVE/EXIT 10	Southbound	61	2.0	0.3	481	↓ -276
301	I-895 N @ CHILDS ST/EXIT 9	Northbound	541	0.0	0.2	240	↑ 61
383	I-895 N @ I-895/6TH AVE/EXIT 6	Northbound	29	2.0	0.2	1011	↓ -628
384	I-895 S @ I-895/6TH AVE/EXIT 6	Southbound	27	2.0	0.2	693	↓ -309
406	I-895 S @ FRANKFURST AVE/SHELL RD/EXIT 8	Southbound	116	0.0	0.2	48	↑ 358
425	I-895 S @ HARBOR TUNNEL TOLL PLAZA	Southbound	649	0.0	0.1	444	↓ -19
566	I-895 N @ FRANKFURST AVE/SHELL RD/EXIT 8	Northbound	23	1.0	0.1	666	↓ -100
684	I-895 N @ I-695/EXIT 3	Northbound	11	2.0	0.1	665	↑ 19
756	I-895 SPUR N @ I-895	Northbound	15	1.0	0.1	376	↑ 380
777	I-895 S @ O'DONNELL ST/EXIT 11	Southbound	19	1.0	0.1	916	↓ -139



Bottlenecks

MD 32 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
77	MD-32 E @ MD-198/FORT MEADE RD	Eastbound	71	2.0	0.5	103	↓ -26
119	MD-32 W @ US-1	Westbound	70	2.0	0.4	273	↓ -154
148	MD-32 W @ MD-175/ANNAPOLIS RD	Westbound	52	2.0	0.3	198	↓ -50
193	MD-32 E @ I-95	Eastbound	47	2.0	0.3	185	↑ 8
229	MD-32 W @ MD-108	Westbound	116	1.0	0.3	180	↑ 49
403	MD-32 W @ I-95	Westbound	18	3.0	0.2	99	↑ 304
791	MD-32 E @ I-97	Eastbound	33	1.0	0.1	294	↑ 497
824	MD-32 W @ HENKELS LN/DORSEY RUN RD	Westbound	18	1.0	0.1	922	↓ -98
834	MD-32 W @ MD-198/FORT MEADE RD	Westbound	5	3.0	0.0	330	↑ 504
860	MD-32 E @ BROKEN LAND PKWY	Eastbound	11	2.0	0.0	990	↓ -130

MD 100 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
105	MD-100 W @ MARC DORSEY STATION ACCESS RD/EXIT 7	Westbound	76	2.0	0.4	153	↓ -48
168	MD-100 E @ MD-170/TELEGRAPH RD/EXIT 11	Eastbound	28	3.0	0.3	81	↑ 87
188	MD-100 W @ MD-607/MAGOTHY BRIDGE RD	Westbound	252	0.0	0.3	188	0
312	MD-100 E @ MD-174/QUARTERFIELD RD	Eastbound	51	1.0	0.2	301	↑ 11
351	MD-100 E @ MD-713/RIDGE RD/EXIT 10	Eastbound	36	2.0	0.2	413	↓ -62
364	MD-100 W @ OAKWOOD RD	Westbound	34	2.0	0.2	318	↑ 46
391	MD-100 W @ US-29	Westbound	44	1.0	0.2	150	↑ 241
419	MD-100 W @ MD-295/BALTIMORE WASHINGTON PKWY	Westbound	18	2.0	0.2	144	↑ 275
435	MD-100 E @ MARC DORSEY STATION ACCESS RD/EXIT 7	Eastbound	29	2.0	0.1	166	↑ 269
451	MD-100 E @ MD-607/MAGOTHY BRIDGE RD	Eastbound	235	0.0	0.1	345	↑ 106

MD 295 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
1	MD-295 N @ POWDER MILL RD	Northbound	349	3.0	3.0	22	↓ -21
10	MD-295 N @ I-495/I-95	Northbound	171	3.0	1.7	71	↓ -61
11	MD-295 S @ MD-198	Southbound	178	3.0	1.6	57	↓ -46
13	MD-295 S @ POWDER MILL RD	Southbound	123	4.0	1.5	17	↓ -4
25	MD-295 S @ MD-197/EXIT 11	Southbound	123	3.0	1.0	222	↓ -197
27	MD-295 N @ MD-175	Northbound	71	4.0	0.9	15	↑ 12
41	MD-295 S @ GODDARD RD	Southbound	70	3.0	0.7	35	↑ 6
61	MD-295 S @ RIVERDALE RD	Southbound	61	3.0	0.6	40	↑ 21
68	MD-295 N @ CANINE RD	Northbound	65	3.0	0.5	225	↓ -157
75	MD-295 S @ MD-193	Southbound	36	4.0	0.5	7	↑ 68



Bottlenecks

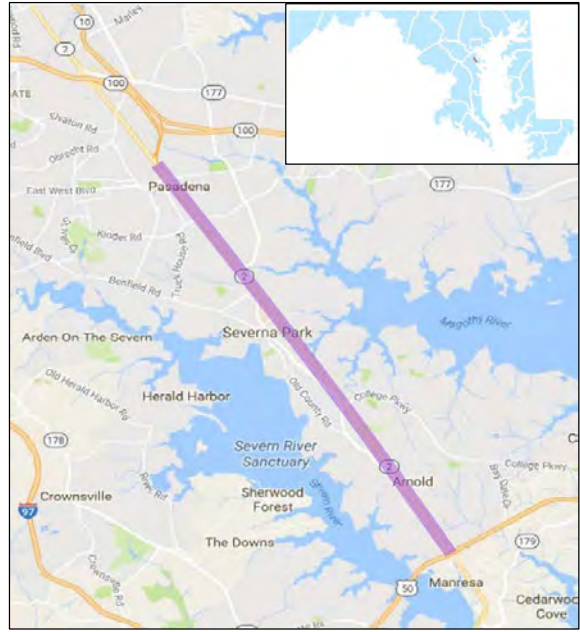
BOTTLENECKS

US 50 Top Bottlenecks

2016 Rank	LOCATION	Direction	Average Duration (minute)	Average Length (mile)	Impact Factor	2015 Rank	Change
37	US-50 E @ WILLIAM PRESTON LANE BRIDGE	Eastbound	203	1.0	0.8	6000	↓ -5963
40	US-50 W @ WILLIAM PRESTON LANE BRIDGE	Westbound	86	3.0	0.8	6000	↓ -5960
52	US-50 E @ SEVERN RIVER BRIDGE	Eastbound	78	3.0	0.6	74	↓ -22
90	US-50 W @ COLUMBIA PARK RD	Westbound	238	1.0	0.4	968	↓ -878
101	US-50 W @ MD-295/KENILWORTH AVE	Westbound	133	1.0	0.4	428	↓ -327
129	US-50 W @ MD-202/LANDOVER RD	Westbound	147	1.0	0.4	723	↓ -594
132	US-50 W @ GOLDSBOROUGH ST	Westbound	345	0.0	0.4	1093	↓ -961
150	US-50 W @ US-13/SALISBURY BYPASS	Westbound	67	2.0	0.3	147	↑ 3
154	US-50 E @ MD-197/COLLINGTON RD/EXIT 11	Eastbound	28	4.0	0.3	174	↓ -20
179	US-50 E @ MD-528/PHILADELPHIA AVE	Eastbound	324	1.0	0.3	194	↓ -15

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 648, College Pkwy, Magothy Bridge Rd, East West Blvd / Pasadena Rd, College Parkway	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA 14	3,852



2016 ADT	Trucks	Peak Hour Traffic
50,000 - 65,000 vpd	7% - 8%	7.5% - 8.5%

Segment Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	7	4
LOS E	1	3
LOS F	1	2

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	3.6 / 1.6	1.1 / 4.2
LOS E	4.8 / 1.2	6.8 / 0.5
LOS F	0.0 / 5.6	0.5 / 3.7

LOS 'E' Intersections

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

LOS 'F' Intersections

- MD 2 at Arnold Rd (AM, PM)
- MD 2 at College Parkway (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	MD 10 - Pasadena Rd/East West Blvd.	0.3									
	Pasadena Rd/East West Blvd. - E Earleigh Heights Rd/Magothy Bridge Rd.	0.9									I
	E Earleigh Heights Rd/Magothy Bridge Rd. - MD-648/Baltimore Annapolis Blvd.	1.1						I			
	MD-648/Baltimore Annapolis Blvd. - Robinson Rd.	0.5						I			
	Robinson Rd. - College Pkwy	2.5									
College Pkwy - US 50/301	3.1										

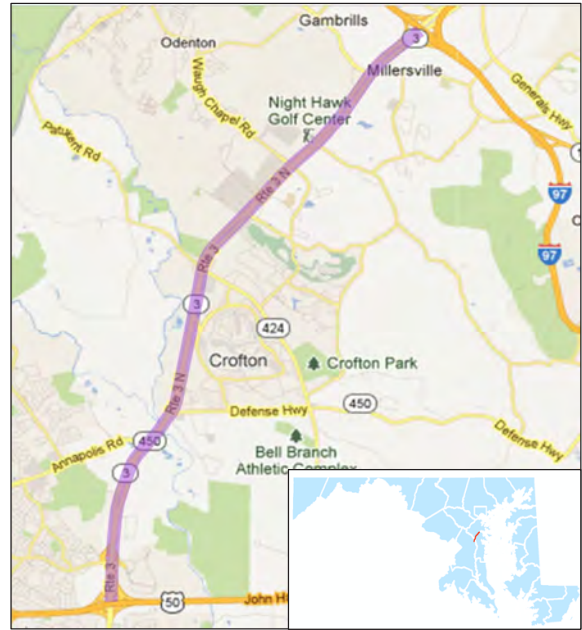
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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, 31	159



2016 AADT	Trucks	Peak Hour Traffic
67,000 - 79,000 vpd	4% - 8%	7.5% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	2	3
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	6.3 / 2.2	3.4 / 2.4
LOS E	0.8 / 0.8	3.2 / 4.1
LOS F	1.7 / 5.8	2.2 / 2.3

LOS 'E' Intersections

LOS 'F' Intersections

MD 3 at Millersville 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	Patuxent Fwy (MD-32) - Annapolis Rd (MD-175)/Millersville Rd	0.8	Green	Red	Green	Black	Green	Yellow	Green	W
	Annapolis Rd (MD-175)/Millersville Rd - St. Stephens Ch Rd	1.2	Red	Yellow	Red	Yellow	Yellow	Yellow	Yellow	Yellow
	St. Stephens Church Rd - Waugh Chapel Rd/Riedel Rd	0.5	Red	Red	Red	Red	Red	Red	W	W
	Waugh Chapel Rd/Riedel Rd - John Hopkins Rd	0.8	Yellow	Green	Yellow	Green	Green	W	W	W
	Johns Hopkins Rd - Conway Rd/Davidsonville Rd (MD-424)	0.9	Green	Red	Green	Yellow	Green	W	W	Green
	CnwayRd/DvdsonvilleRd(MD-424)-CrawfordBlvd/CrnsonBlvd	0.7	Green	Yellow	Red	Yellow	Green	Yellow	Green	Green
	Crawford Blvd/Cronson Blvd - Defense Hwy (MD-450)	1.3	Green	Yellow	Red	Yellow	Green	Yellow	Green	Green
	Defense Hwy (MD-450) - Annapolis Rd (MD-450)	0.5	Green	Green	Red	Red	Green	W	I	Yellow
	Annapolis Rd (MD-450) - Belair Drive/Melford Blvd	1.6	Green	Green	Red	Green	Green	Red	W	W
Belair Drive/Melford Blvd - US-50	0.5	Green	Green	Green	Red	Green	I	W	W	

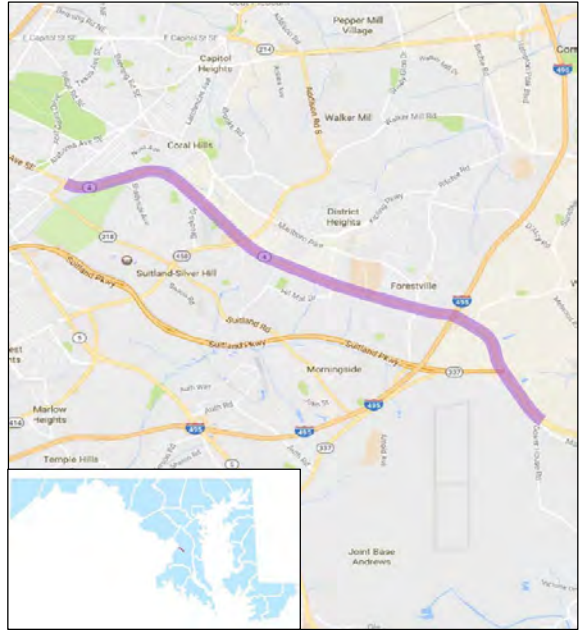
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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	Routes	Avg. Daily Ridership
	N/A	N/A



2016 AADT	Trucks	Peak Hour Traffic
22,000 - 74,000 vpd	3% - 10%	6.5% - 7.5%

Segment Operations

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

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	5.9 / 5.6	5.3 / 3.8
LOS E	0.3 / 0.6	0.4 / 0.9
LOS F	0.4 / 0.4	0.9 / 1.9

LOS 'E' Intersections

MD 4 at Forestville Rd (AM,PM)
MD 4 at Westphalia Rd/Old Marlboro Pike (AM,PM)

LOS 'F' Intersections

MD 4 at MD 337/Presidential Parkway (AM, 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	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					W			W
	Walters Ln. - Donnell Dr.	0.4								
	Donnell Dr. - Forestville Rd.	0.6					I			W
Urban Freeway Expressway	Forestville Rd. - I95/I495	0.4					I			
	I95/I495 - Old Marlboro Pike/ Westphalia Rd.	0.3					I			
	Old Marlboro Pike/ Westphalia Rd. - MD-337	0.6								
	MD-337 - Dower House Rd.	0.8								

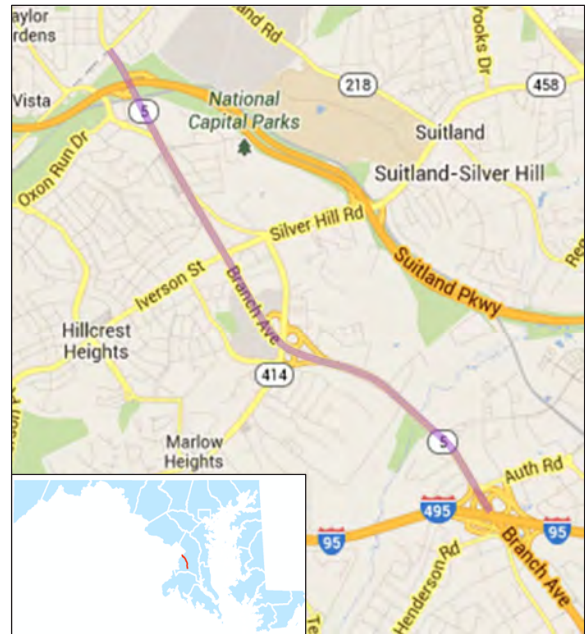
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 5

Limits:	I-95/I-495 to Washington DC Line	
Corridor Length:	3.1 miles	
Speed Limit:	30 - 35 MPH	
Travel Lanes:	(1 - 4) Northbound (1 - 4) Southbound	
Signal Controlled Intersections:	10	
Grade Separated Interchanges:	3	
Major Cross Streets:	Suitland Pkwy, MD 458, MD 414, I-95	
Routes and Ridership	Routes	Avg. Daily Ridership
	Green Line Naylor Rd	2,359
	Green Line Suitland Rd	4,892
	Green Line Branch Ave	5,495
	METRO C12, C14	616
	METRO H11, H12, H13	1,346
	MTA 715	639
	MTA 725	261
MTA 735	464	



2016 AADT	Trucks	Peak Hour Traffic
31,000 - 60,000 vpd	3%	7.5%

NOTE: The Green Line ridership data represents boardings

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	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	0.0 / 3.1	3.1 / 1.6
LOS E	1.5 / 0.0	0.0 / 1.5
LOS F	1.6 / 0.0	0.0 / 0.0

LOS 'E' Intersections

MD 5 at MD 458/Iverson St (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 Freeway Expressway	Suitland Pkwy - Naylor Rd. (MD-637)	0.3	I				I			
	Naylor Rd. (MD-637) - Iverson St/Silver Hill Rd (MD-458)	0.7					I			
	Iverson St/Silver Hill Rd (MD-458) - St. Barnabas Rd. (MD-414)	0.6					I			
	St. Barnabas Rd. (MD-414) - I-95/I-495	1.5					I			

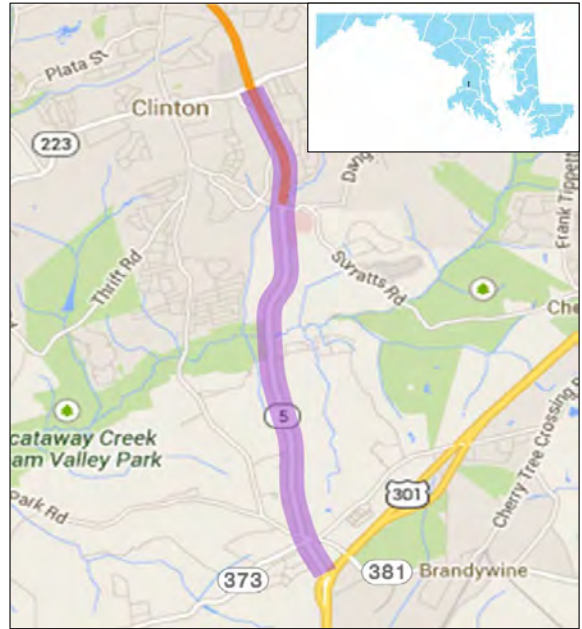
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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:	Surratts Road MD 381, MD 373, US 301	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO C11, C13	420
	MTA 715	639
	MTA 725	261
	MTA 735	464



2016 AADT	Trucks	Peak Hour Traffic
64,000 - 84,000 vpd	8%	6% - 7%

Segment Operations

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

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 / 1.6
LOS E	0.0 / 0.0	0.0 / 0.0
LOS F	4.1 / 0.0	0.0 / 3.8

LOS 'E' Intersections

MD 5 at Brandywine Rd (PM)

LOS 'F' Intersections

MD 5 at Brandywine Rd (AM)
MD 5 at MD 373 (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									
	Surratts Rd. - Burch Hill Rd/Earnshaw Dr.	1.6									
	Burch Hill Rd/Earnshaw Dr. - Brandywine Rd./ Accplee Rd (MD-373)	1.9									W
Rural Other Princ. Arterial	Brandywine Rd./ Accokeek Rd (MD-373)-Crain Hwy. (US-301)	0.6	I					I			

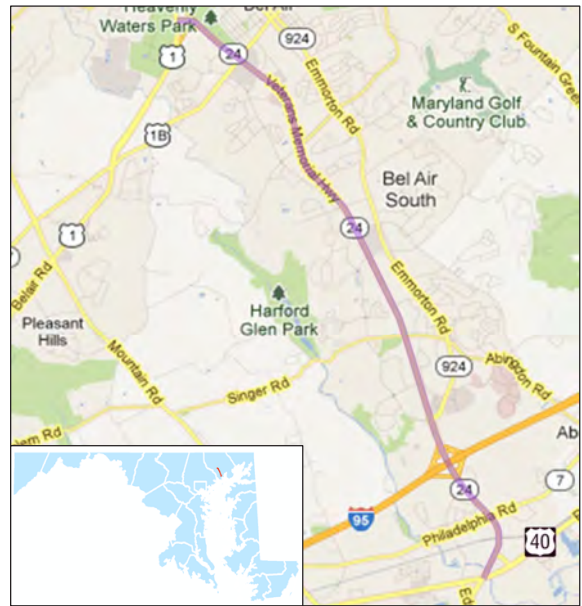
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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, US 1 BU, US 1	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2016 ADT	Trucks	Peak Hour Traffic
22,000 - 69,000 vpd	3% - 5%	8%

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	6.6 / 1.7	7.3 / 3.3
LOS E	1.3 / 3.5	0.6 / 2.8
LOS F	0.0 / 2.7	0.0 / 1.8

Intersection Operations

Signalized Intersections**:	AM Peak Hour	PM Peak Hour
LOS D or Better	5	4
LOS E	0	1
LOS F	0	0

LOS 'E' Intersections
MD 24 at Wheel 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 Freeway Expressway	Bel Air Bypass (US-1) - Baltimore Pike (Bus US-1)	0.5	I		I		I			
	Baltimore Pike (Bus US-1) - Ring Factory Rd.	1.3								
	Ring Factory Rd. - Plumtree Rd.	0.9								
	Plumtree Rd. - Bel Air Pkwy	0.4								
	Bel Air Pkwy - Wheel Rd.	0.3	I							
	Wheel Rd. - Singer Rd.	1.0			I					
	Singer Rd. - Tollgate Rd./Emmorton Rd (MD-924)	1.0						W		
	Tollgate Rd./Emmorton Rd (MD-924) - I-95	0.6								
	I-95 - Edgewood Rd.	0.4					W			
	Edgewood Rd. - Philadelphia Rd. (MD-7)	0.4								
	Philadelphia Rd. (MD-7) - Pulaski Hwy (US-40)	0.5								
	Pulaski Hwy (US-40) - Edgewood Rd. (MD-755)	0.6								

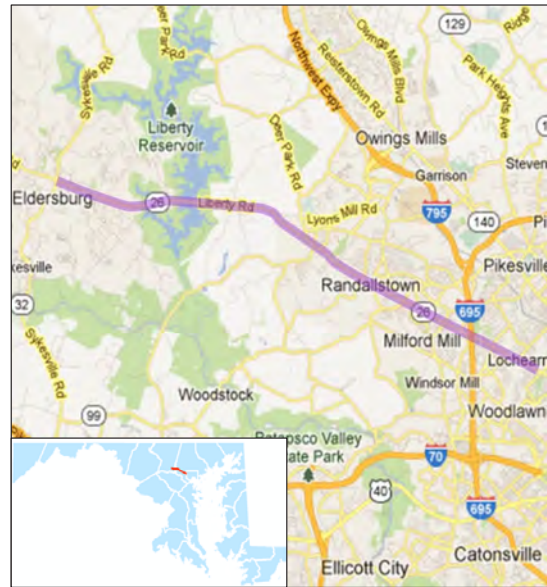
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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
	MTA 52	5,309
	MTA 54	8,063
	MTA 77	4,438
	MTA 99	581



2016 AADT	Trucks	Peak Hour Traffic
9,000 - 46,000 vpd	5%	6.5% - 10.5%

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	11	12
LOS E	1	0
LOS F	0	0

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	12.3 / 9.0	11.9 / 7.9
LOS E	1.3 / 3.4	2.2 / 1.9
LOS F	0.5 / 1.7	0.0 / 4.3

LOS 'E' Intersections
 MD 26 at Lord Baltimore Dr/Ramp 5 from I-695 SB (AM)

LOS 'F' Intersections

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		I	I	I	W			I	
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	I	I	I	I		I	I	I	
	Milford Mill Rd. - Washington Ave.	0.5	I	I	I	I	I	I	I	I	
	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										

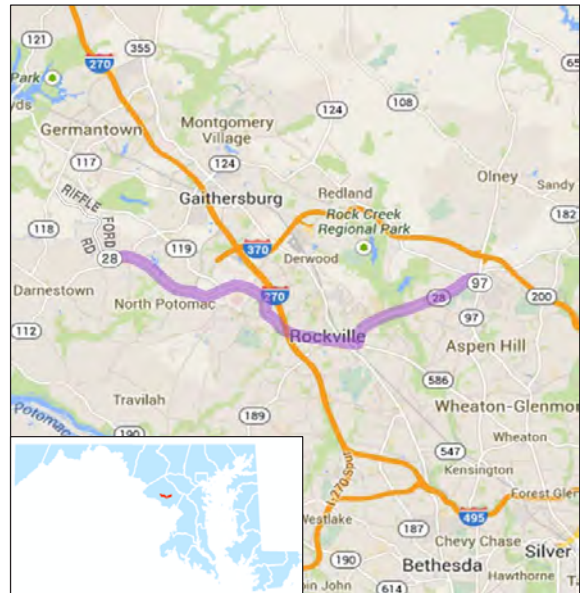
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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
	N/A	N/A



2016 AADT	Trucks	Peak Hour Traffic
26,000 - 50,000 vpd	3% - 7%	7% - 9%

Segment Operations

Intersection Operations

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

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	5.3 / 4.9	4.7 / 3.3
LOS E	5.0 / 2.9	2.8 / 8.0
LOS F	1.6 / 4.1	4.4 / 0.6

LOS 'E' Intersections

- MD 28 at E. Gude Dr (AM,PM)
- MD 28 at Avery Rd (AM)
- MD 28 at MD 97 (PM)

LOS 'F' Intersections

- MD 28 at MD 97 (AM)
- MD 28 at Riffle Ford Rd / Seurat 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	Riffle Ford Rd. - Quince Orchard Rd (MD-124)	0.5	Green	Yellow	Green	Yellow	Green	Green	Yellow	Green	Green
	Quince Orchard Rd (MD-124) - Muddy Branch Rd.	2.1	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Muddy Branch Rd. - Great Seneca Hwy (MD-119)	0.8	Green	Green	Green	Yellow	Green	Green	Green	Green	Green
	Great Seneca Hwy (MD-119) - Shady Grove Rd.	0.9	Yellow	Red	Yellow	Green	Green	Green	Green	Green	Green
	Shady Grove Rd. - Falls Grove Dr/ Gude St.	0.4	Green	Red	Yellow	Green	Green	Green	Green	Green	W
	Falls Grove Dr/ Gude St. - Darnestown Rd.	0.5	Green	Green	Green	Green	Green	Green	I	Green	Green
	Darnestown Rd. - I-270	0.7	Red	Yellow	Red	Yellow	Green	Green	Green	Green	Green
	I-270 - Great Falls Rd. / Van Buren St.	0.9	Red	Green	Green	Green	Green	Green	Green	Green	Green
	Great Falls Rd. / Van Buren St. - Rockville Pike (MD-355)	0.6	Green	Yellow	Green	Red	Green	Green	Green	Green	I
	Rockville Pike (MD-355)-Veirs Mill Rd (MD-586)/1stSt(MD-911)	0.4	Green	Green	Green	Green	Green	W	W	W	W
	Veirs Mill Rd (MD-586)/ 1st St (MD-911) - Gude Dr.	0.9	Yellow	Red	Red	Yellow	Green	Green	I	Green	Green
	Gude Dr. - Baltimore Rd.	1.0	Yellow	Red	Black	Yellow	Green	Green	Red	Green	Green
	Baltimore Rd. - Bel Pre Rd.	0.7	Yellow	Red	Yellow	Yellow	Green	Green	Green	Green	Green
	Bel Pre Rd. - Muncaster Mill Rd. (MD-115)	1.3	Yellow	Red	Red	Green	Green	Green	Green	Green	Green
Muncaster Mill Rd. (MD-115)- Georgia Ave. (MD-97)	0.2	Yellow	Red	Red	Green	Green	Green	Green	Green	Green	

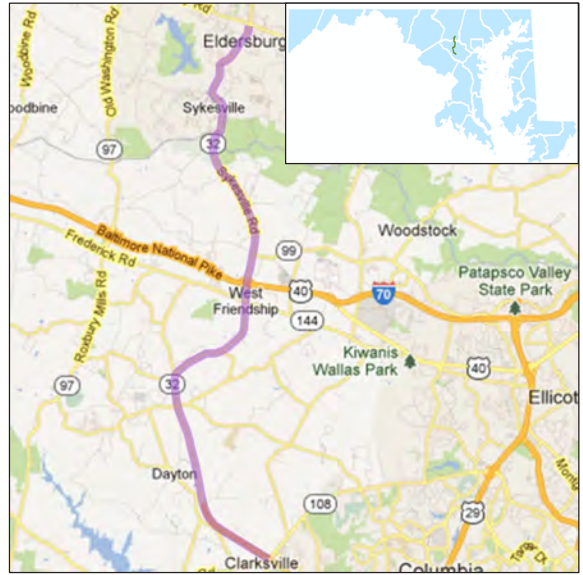
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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



2016 AADT	Trucks	Peak Hour Traffic
21,000 - 29,000 vpd	8% - 11%	7.5% - 8.5%

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	16.3 / 3.0	8.4 / 15.5
LOS E	0.0 / 4.5	2.5 / 0.8
LOS F	0.0 / 8.8	5.4 / 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 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									
	Springfield Ave. (MD-851) - Sandosky Rd./Raincliffe Rd.	0.7									
	Sandosky Rd./Raincliffe Rd. - Friendship Rd. (MD-851)	0.8									
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		
Rural Other Principal Arterial	I-70/US-40 - Frederick Rd. (MD-144)	0.4									
	Frederick Rd. (MD-144) - Burntwoods Rd./ Andrea Dr.	3.0								I	
	Burntwoods Rd./ Andrea Dr. - Clarksville Pike (MD-108)	5.4									

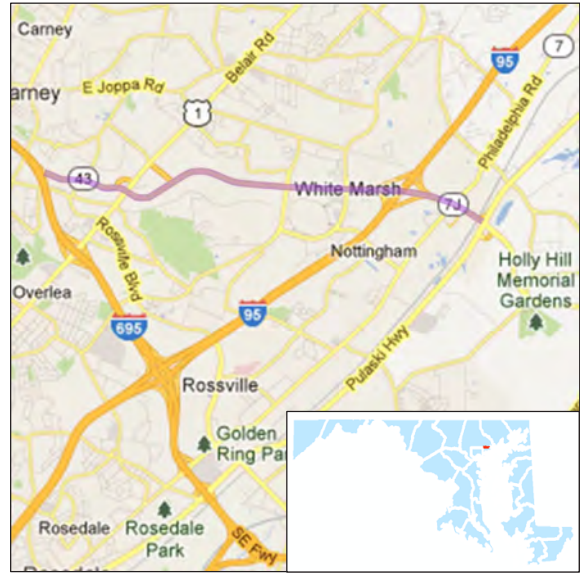
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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
	MTA 15	12,382
	MTA 58	1,866
	MTA 120	587
	MTA 420	184



2016 AADT	Trucks	Peak Hour Traffic
27,000 - 55,000 vpd	2% - 4%	7.5% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	5	4
LOS E	0	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	5.3 / 3.6	4.1 / 3.5
LOS E	0.0 / 1.3	0.9 / 1.6
LOS F	0.7 / 1.1	1.0 / 0.9

LOS 'E' Intersections
MD 43 at Honeygo Blvd (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 Freeway Expressway	I-695 - Walther Blvd	0.6		I					I	
	Walther Blvd - Belair Rd (US-1) SB	0.4		I					I	
	Belair Rd (US-1) SB - Belair Rd (US-1) NB	0.6		I	I				I	
	Belair Rd (US-1) NB - Perry Hall Blvd	1.8		I					I	
	Perry Hall Blvd - Honeygo Blvd	0.7						W		
	Honeygo Blvd - I-95	0.9							I	
	I-95 - Philadelphia Rd (MD 7)	0.6								I
Philadelphia Rd (MD 7) - Pulaski Hwy (US-40)	0.4								I	

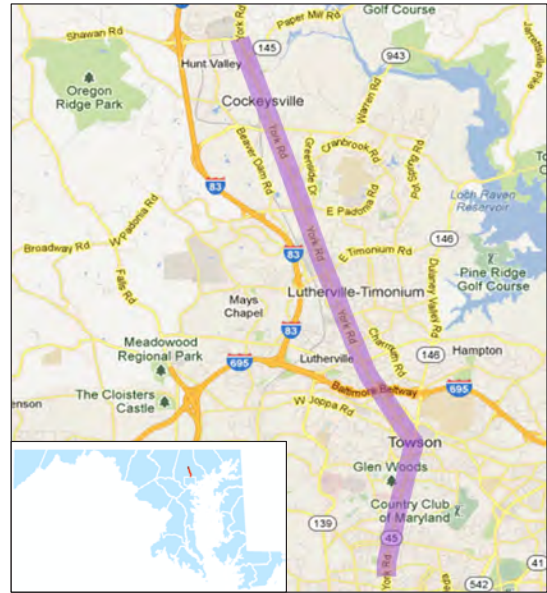
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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 Rail - Hunt Valley	717
	Light Rail - Pepper Rd	156
	Light Rail - McCormick Rd	427
	Light Rail - Gilroy Rd	220
	Light Rail - Warren Rd	271
	Light Rail - Timonium Rd	945
	Light Rail - Timonium BP	305
	Light Rail - Lutherville	778
	MTA 8	10,817
MTA 9	1,172	
MTA 12	272	



2016 AADT	Trucks	Peak Hour Traffic
16,000 - 41,000 vpd	3% - 6%	6.5% - 9%

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	7.4 / 1.1	6.8 / 1.5
LOS E	1.5 / 1.7	2.5 / 3.2
LOS F	0.4 / 6.5	0.0 / 4.6

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	24	22
LOS E	0	2
LOS F	1	1

LOS 'E' Intersections

- MD 45 at Shawan Rd (PM)
- MD 45 at Timonium Rd (PM)

LOS 'F' Intersections

- MD 45 at Shawan Rd (AM)
- MD 45 at MD 131 / Seminary Ave (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.

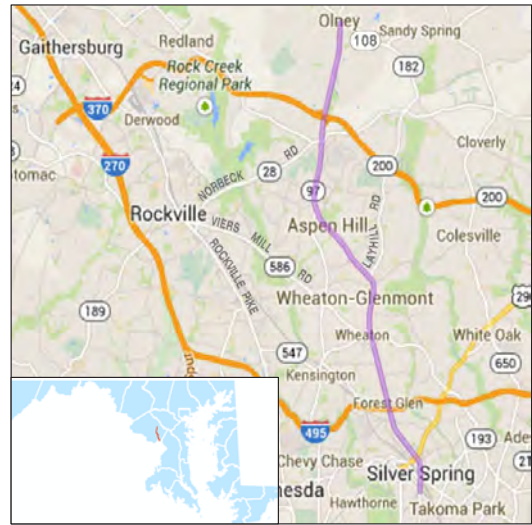
Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			NB	SB	NB	SB	NB	SB	NB	SB	
Urban Other Principal Arterial	Shawan Rd. - Paper Mill Rd. (MD-145)	0.3									
	Paper Mill Rd. (MD-145) - Warren Rd. (MD-483)	1.2								W	
	Warren Rd. (MD-483) - Cranbrook Rd.	0.8								W	
	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								W	W
	Bellona Ave./Margate Rd. - Seminary Ave. (MD-131)	0.2								W	W
	Seminary Ave. (MD-131) - I-695	0.5									
I-695 - Fairmount Ave	0.3									I	
Fairmount Ave. - Bosley Ave.	0.2										
Urban Minor Arterial	Bosley Ave. - Dulaney Valley Rd. (MD-146)/ Joppa Rd.	0.4									W
Urban Other Principal Arterial	Dulaney Valley Rd. (MD-146)/ Joppa Rd. - Towsontown Blvd.	0.3									
	Towsontown Blvd. - Burke Ave.	0.2									
	Burke Ave. - Stevenson Ln.	0.8									
	Stevenson Ln. - Regester Ave.	0.4									
	Regester Ave. - Lake Ave.	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 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 J5	309
	METRO Q1, Q2, Q4, Q5, Q6	7,490
	METRO Y2, Y7, Y8, Y9	8,105

2016 AADT	Trucks	Peak Hour Traffic
28,000 - 63,000 vpd	2% - 6%	6% - 8%

Intersection Operations

Signalized Intersections*	AM Peak Hour	PM Peak Hour
LOS D or Better	17	19
LOS E	5	4
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	8.5 / 2.6	5.2 / 2.9
LOS E	3.7 / 6.4	4.6 / 8.0
LOS F	0.5 / 3.7	2.9 / 1.8

LOS 'E' Intersections

- MD 97 at Seminary PI (AM,PM)
- MD 97 at Seminary Rd/Columbia Blvd (AM,PM)
- MD 97 at MD 192/Forest Glen Rd (AM)
- MD 97 at MD 586 (AM)
- MD 97 at Plyers Mill Rd (AM)
- MD 97 at MD 28 (PM)
- MD 97 at Shorefield Rd (PM)

LOS 'F' Intersections

- MD 97 at Ramp 6 from I-495 EB (AM, PM)
- MD 97 at MD 28 (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	Olney Sandy Spring/ Laytonsville Rd. (MD-108)-Emroy Lane	1.9											
	Emroy Lane - Norbeck Rd. (MD-28)	1.2											
	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											
	Hewitt Ave. - May St./Rippling Brook Dr.	0.5											
	May St./Rippling Brook Dr. - Layhill Rd.(MD-182)	1.1											
	Layhill Rd.(MD-182) - Randolph Rd.	0.2											
	Randolph Rd. - Shorefield Rd.	0.4											
	Shorefield Rd. - Arcola Ave.	0.4											
	Arcola Ave. - University Blvd. (MD-193)	0.4											
	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. (MD-390)	0.5											
	16th St. (MD-390) - Spring St	0.6											
	Spring St. - Colesville Rd (US-29)	0.3											
Colesville Rd (US-29) - Silgo Ave.	0.4												
Silgo Ave. - East-West Hwy/Philadelphia Ave. (MD-410)	0.2												
East-West Hwy/Philadelphia Ave(MD-410) - Eastern Ave./ DC Line	0.2												

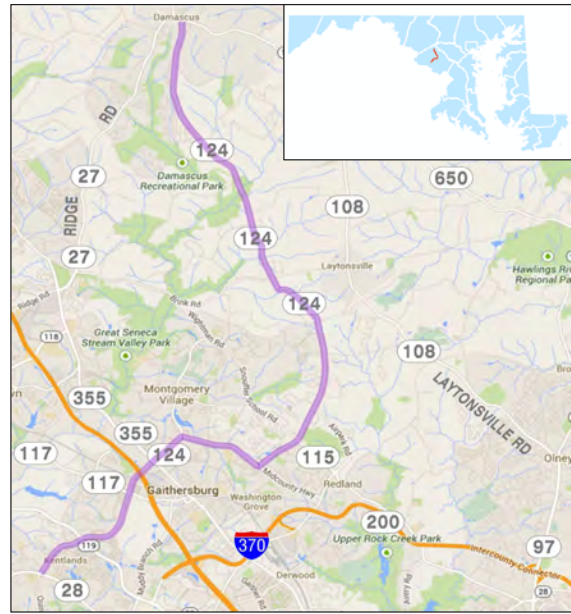
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TTI: travel time index (50th percentile travel time / freeflow travel time)

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 335, MD 115, MD 108	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2016 AADT	Trucks	Peak Hour Traffic
11,000 - 74,000 vpd	2% - 8%	7% - 10.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	14	13
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	15.5 / 11.3	13.6 / 13.0
LOS E	1.2 / 4.2	1.8 / 3.0
LOS F	0.0 / 1.2	1.3 / 0.7

LOS 'E' Intersections

MD 124 at MD 355 (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 Minor Arterial	Main St. (MD-108) - Hawkins Creamery Rd.	1.0											
	Hawkins Creamery Rd. - Log House Rd/ Low Meadow Dr.	1.2											
	Log House Rd/ Low Meadow Dr. - Rocky Rd.	2.4											
	Rocky Rd. - Brink Rd.	1.4											
	Brink Rd. - Warfield Rd.	1.3											
	Warfield Rd. - Fieldcrest Rd./ Hadley Farms Dr.	0.7											
	Fieldcrest Rd./ Hadley Farms Dr. - Airpark Rd.	1.1											
	Airpark Rd. - Snouffer School Rd./Muncaster Mill Rd (MD-115)	0.7											
SnoufferSchIRd/MncterMillRd(MD115) - MdctyHwy/WoodfieldRd.	0.9												
Urban Other Principal Arterial	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											
	Frederick Rd/Ave (MD-355) - I-270	0.4											
	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												

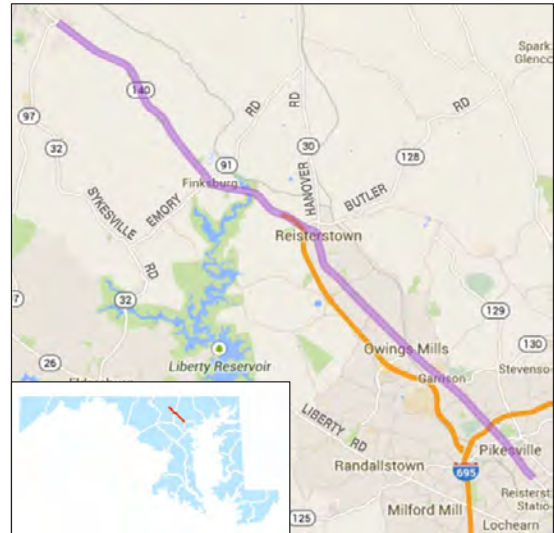
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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 53	4,129
	MTA 56	1,878
	MTA 59	1,611



2016 AADT	Trucks	Peak Hour Traffic
17,000 - 55,000 vpd	2% - 9%	7% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	30	30
LOS E	1	2
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	14.5 / 13.5	16.7 / 11.3
LOS E	5.9 / 3.7	3.3 / 4.6
LOS F	0.0 / 3.2	0.4 / 4.5

LOS 'E' Intersections
 MD 140 at MD 91 (AM,PM)
 MD 140 at Brian Daniel Ct/Woodfield Ct (PM)

LOS 'F' Intersections
 MD 140 at Dede 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	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. - Emroy/Gamber Rd (MD-91)	1.9								
Urban/Rural Other P. Arterial	Emroy/Gamber Rd (MD-91) - Butler Rd. (MD-795)	3.4							I	
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								W
	Glyndon Dr/ Glyndon Trace Dr. - Berrymans Ln.	0.4								
	Berrymans Ln. - Franklin Blvd./Cherry Hill Rd.	0.7	W				W		W	
	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	I			W
	Painters Mill Rd. - Greenspring Valley Rd (MD-130)	1.2								
	Greenspring Valley Rd (MD-130) - McDonogh Rd./ Craddock Ln.	0.6	I				I			
	McDonogh Rd./ Craddock Ln. - I-695	1.2								
	I-695 - Old Court Rd.	0.6								W
	Old Court Rd. - Sudbrook Ln	0.4				W			W	W
	Sudbrook Ln. - Slade Ave/ Milford Mill Rd.	0.5					W			
Slade Ave/ Milford Mill Rd. - Baltimore City Line/ Fallstaff Rd	0.6					I				

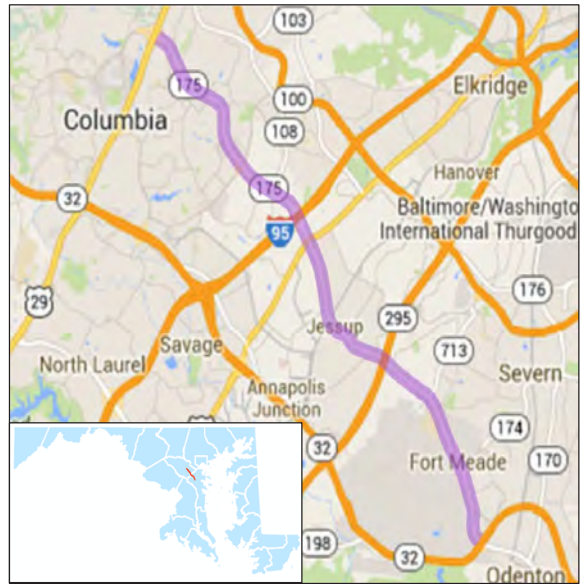
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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	2016 AADT	Trucks	Peak Hour Traffic
	MTA 310	279			
	MTA 320	188			
			19,000 - 76,000 vpd	2% - 13%	7.5% - 9.5%

Segment Operations

Intersection Operations		
Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	11	7
LOS E	1	4
LOS F	0	1

Level of Service	Northbound	Southbound
	AM / PM (Miles of Roadway)	AM / PM (Miles of Roadway)
LOS D or Better	11.5 / 4.1	12.2 / 6.2
LOS E	0.7 / 3.7	0.0 / 6.0
LOS F	0.0 / 4.4	0.0 / 0.0

LOS 'E' Intersections

- MD 175 at Ramps 3&4 to & from MD 32 EB (AM,PM)
- MD 175 at Mapes Rd/Charter Oaks Blvd (PM)
- MD 175 at MD 108 (PM)
- MD 175 at Thunder Hill Rd (PM)

LOS 'F' Intersections

- MD 175 at Tamar 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 Freeway Expressway	Columbia Pike (US-29) - Thunder Hill Rd.	0.6									
	Thunder Hill Rd. - Tamar Dr	1.1									
	Tamar Dr - Dobbin Rd.	0.9									
	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									
	Dorsey Run Rd. - MD-295	1.6									
	MD-295 - Ridge Rd/Rockenbach Rd (MD-713)	1.1									
	Ridge Rd/Rockenbach Rd. (MD-713) - Reece Rd	1.3									
	Reece Rd - Charter Oaks Blvd.	0.6									
	Charter Oaks Blvd. - MD-32	1.1									

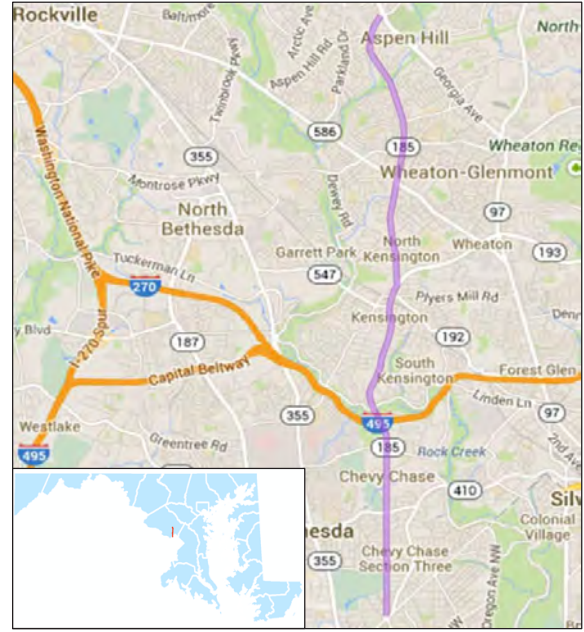
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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	2,364



2016 AADT	Trucks	Peak Hour Traffic
35,000 - 72,000 vpd	4%	7.5% - 9%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	12	10
LOS E	0	2
LOS F	1	1

Segment Operations

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	7.5 / 2.7	1.5 / 6.4
LOS E	0.8 / 2.2	3.4 / 0.3
LOS F	0.0 / 3.4	3.4 / 1.6

LOS 'E' Intersections

MD 185 at MD 192 (PM)
MD 185 at MD 410 (PM)

LOS 'F' Intersections

MD 185 at MD 191 / Bradley Ln (PM)
MD 185 at MD 410 (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									
	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									
	University Blvd (MD-193) - Saul Rd.	1.2									
	Saul Rd. - I495	0.6									
	I-495-Jones Bridge Rd.	0.5									
	Jones Bridge Rd. - East West Hwy (MD-410)	0.8									
	East West Hwy (MD-410) - Bradley Ln. (MD-191)	0.8									
Bradley Ln. (MD-191) -Western Ave/ DC Line	0.6										

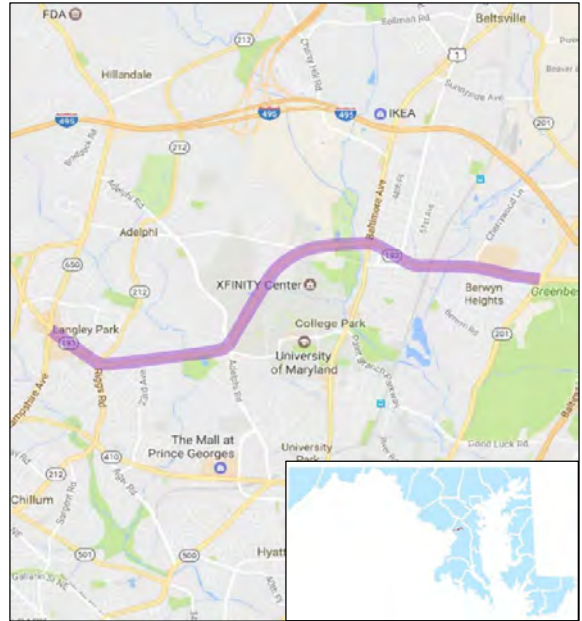
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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, Metzert Rd / Paint Branch Dr, Adelphi Rd, Riggs Rd, MD 650	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO 81	N/A
	METRO C2, C4	10,225
	METRO F8	1,368
	METRO J4	1,061



2016 AADT	Trucks	Peak Hour Traffic
32,000 - 48,000 vpd	3% - 6%	7% - 8.5%

Segment Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	13	12
LOS E	1	0
LOS F	0	2

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	4.8 / 0.0	3.9 / 2.3
LOS E	0.7 / 2.0	0.6 / 1.9
LOS F	0.0 / 3.5	1.0 / 1.3

LOS 'E' Intersections

MD 193 at MD 212 (AM)

LOS 'F' Intersections

MD 193 at Cherrywood Ln / 60th Ave (PM)
MD 193 at Metzert Rd / Paint 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 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	Green	Yellow	Red	Red	Green	Yellow	Yellow	Yellow
	Riggs Rd. (MD-212) - Adelphi Rd.	1.3	Green	Green	Green	Green	Green	Green	Green	Green
	Adelphi Rd. - Metzert Rd.	1.3	Green	Green	Red	Red	Green	Green	Green	Green
	Metzert Rd. - Greenbelt Rd.	1.0	Green	Red	Red	Green	Green	W	Green	Green
	Greenbelt Rd. - Cherrywood Ln. /60th Ave	0.6	Green	Green	Red	Yellow	Green	Green	W	Yellow
	Cherrywood Ln. /60th Ave. - MD-201	0.7	Yellow	Green	Yellow	Red	Green	Green	W	W

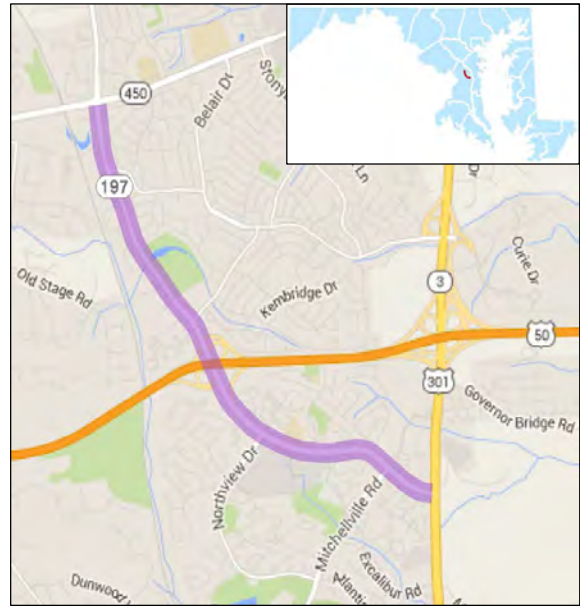
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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

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

MD 197

Limits:	US 301 to MD 450	
Corridor Length:	3.2 miles	
Speed Limit:	40 - 45 MPH	
Travel Lanes:	(1 - 3) Northbound (1 - 3) Southbound	
Signal Controlled Intersections:	11	
Grade Separated Interchanges:	1	
Major Cross Streets:	US 301, Mitchellville Rd, Northview Dr, US 50, Kenhill Dr, MD 450	
Routes and Ridership	Routes	Avg. Daily Ridership
	METRO B21, B22	508
	METRO B24	843
	METRO B29	159



2016 AADT	Trucks	Peak Hour Traffic
19,000 - 35,000 vpd	3%	8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	9	7
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	1.5 / 0.0	3.2 / 1.3
LOS E	1.7 / 1.5	0.0 / 1.7
LOS F	0.0 / 1.7	0.0 / 0.2

LOS 'E' Intersections

- MD 197 at Ramp 6 (FR IS 595 EB) (PM)
- MD 197 at US 301 (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	> 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 Other Principal Arterial	MD450 - Old Annapolis Rd.	0.2	Green	Green	Yellow	Red	Green	Green	Green	Green
	Old Annapolis Rd. - US50	1.2	Yellow	Green	Red	Yellow	Green	Green	Green	W
	US50 - US301	0.5	Green	Green	Yellow	Green	Green	Green	W	Green

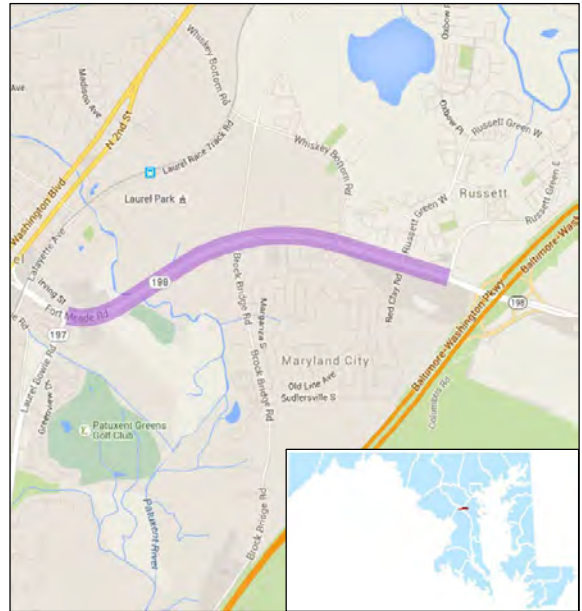
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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

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

MD 198

Limits:	MD 197 to Russett Green	
Corridor Length:	2.2 miles	
Speed Limit:	40 MPH	
Travel Lanes:	3 Eastbound 3 Westbound	
Signal Controlled Intersections:	7	
Grade Separated Interchanges:	0	
Major Cross Streets:	MD 197, Brock Bridge Rd, Laurel Race Track Rd, Whiskey Bottom Rd / Old Annapolis Rd, Russett Green / Red Clay Rd	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2016 AADT	Trucks	Peak Hour Traffic
39,000 vpd	3%	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	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	2.2 / 2.2	2.2 / 0.0
LOS E	0.0 / 0.0	0.0 / 2.2
LOS F	0.0 / 0.0	0.0 / 0.0

LOS 'E' Intersections

MD 198 at Brock Bridge Rd (PM)
MD 197 at MD 198/Irving St (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	> 2.5
No data	

* Available count data.

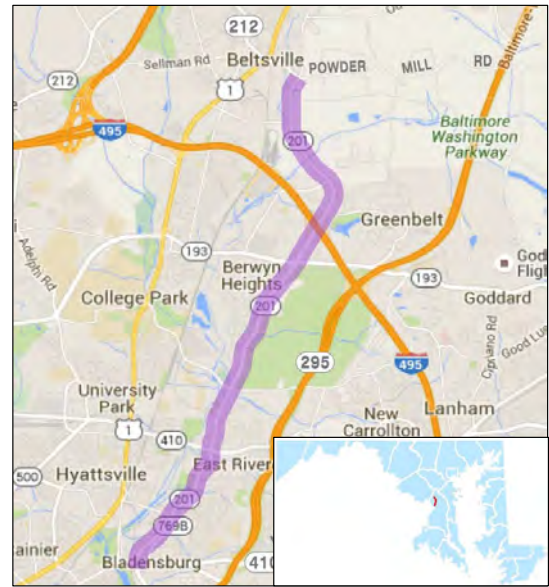
Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	MD197 - Brock Bridge Rd.	1.0								
	Brock Bridge Rd. - Old Line Ave.	0.3								
	Brock Bridge Rd. - Old Annapolis Rd.	0.3								I
	Old Annapolis Rd. - Russett Green W.	0.3								
	Russett Green W. - Russett Green E.	0.3								I

I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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	1,578
	METRO 87	664

2016 AADT	Trucks	Peak Hour Traffic
24,000 - 41,000 vpd	6% - 12%	6.5% - 8.5%

Segment Operations

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

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	5.9 / 3.0	5.9 / 5.0
LOS E	1.5 / 1.0	0.9 / 0.9
LOS F	0.0 / 3.4	0.6 / 1.5

LOS 'E' Intersections

LOS 'F' Intersections
MD 201 at MD 410 (AM, PM)

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.

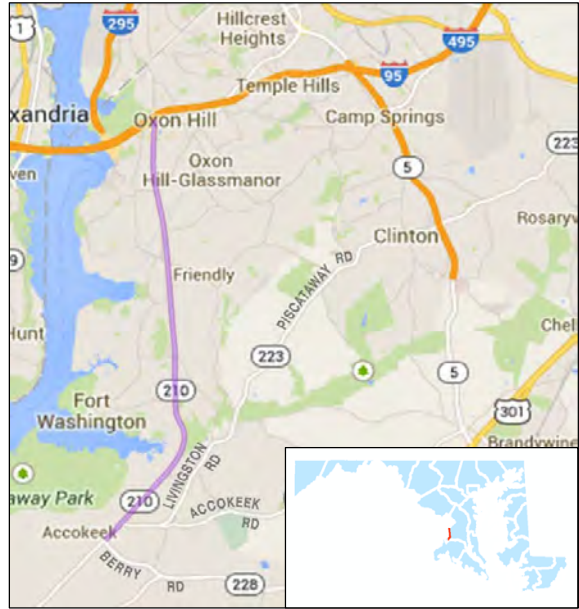
Functional Class	Roadway Segment North to South	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			NB	SB	NB	SB	NB	SB	NB	SB
Urban Minor Arterial	MD212 - SunnySide Ave.	0.6		W		W				W
	SunnySide Ave. - Cherrywood Ln.	0.9					I			
	Cherrywood Ln. - Ivy Ln.	0.3								
	Ivy Ln. - Crescent Rd.	0.2							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

I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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

TTI: travel time index (50th percentile travel time / freeflow 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 D12, D13, D14	3,928
	METRO W19	489
	MTA 610	732
	MTA 620	795
	MTA 630	410
	MTA 640	464
MTA 650	654	

2016 AADT	Trucks	Peak Hour Traffic
27,000 - 75,000 vpd	3% - 4%	6% - 8%

Segment Operations

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

Level of Service	Northbound	Southbound
	AM / PM (Miles of Roadway)	AM / PM (Miles of Roadway)
LOS D or Better	6.6 / 5.8	7.4 / 6.4
LOS E	0.0 / 4.5	2.9 / 1.4
LOS F	3.7 / 0.0	0.0 / 2.5

LOS 'E' Intersections

- MD 210 at Farmington Rd (AM)
- MD 210 at Swan Creek Rd/Livingston Rd (AM)
- MD 210 at Fort Washington Rd (PM)
- MD 210 at MD 373/Livingston Rd (PM)
- MD 210 at Old Fort Rd (South) (PM)

LOS 'F' Intersections

- MD 210 at Livingston Rd/Kerby Hill Rd (AM,PM)
- MD 210 at Livingston Rd/Palmer Rd (AM,PM)
- MD 210 at MD 373/Livingston Rd (AM)
- MD 210 at Old Fort Rd (North) (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 Freeway Expressway	I-495/I-95 - Livingston Rd. /Kerby Hill Rd.	1.8				I				I
	Livingston Rd. /Kerby Hill Rd. - Palmer Rd.	1.0				I				I
	Palmer Rd. - Old Fort Rd.	0.7				I				I
	Old Fort Rd. - Fort Washington Rd.	0.9				I				I
	Fort Washington Rd. - Livingston Rd. /Swan Creek Rd.	1.1				I				I
	Livingston Rd/Swan Creek Rd. - Washington Ln.	0.8				I				W
	Washington Ln. - Farmington Rd.	2.1				I				
	Farmington Rd. - Livingston Rd. (MD-373)	1.4				I				
Livingston Rd. (MD-373)- Berry Rd. (MD-228)	0.5				I					

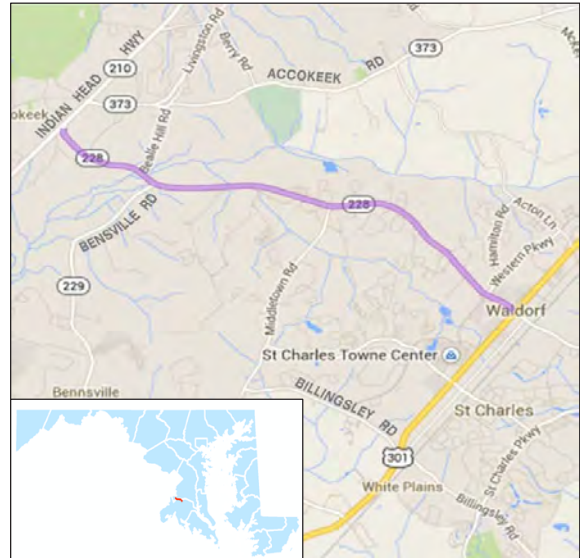
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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	732
	MTA 620	795
	MTA 630	410
	MTA 650	654



2016 AADT	Trucks	Peak Hour Traffic
39,000 - 40,000 vpd	3% - 4%	7.5% - 8%

Intersection Operations

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

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	6.8 / 2.3	6.8 / 6.8
LOS E	0.0 / 3.0	0.0 / 0.0
LOS F	0.0 / 1.5	0.0 / 0.0

LOS 'E' Intersections

MD 228 at US 301/MD 5BU (AM)

LOS 'F' Intersections

MD 228 at US 301/MD 5BU (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	Indian Head Hwy (MD-210) - Manning Rd	0.5									
	Manning Rd - Bensville Rd (MD-229)	1.0									
	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									

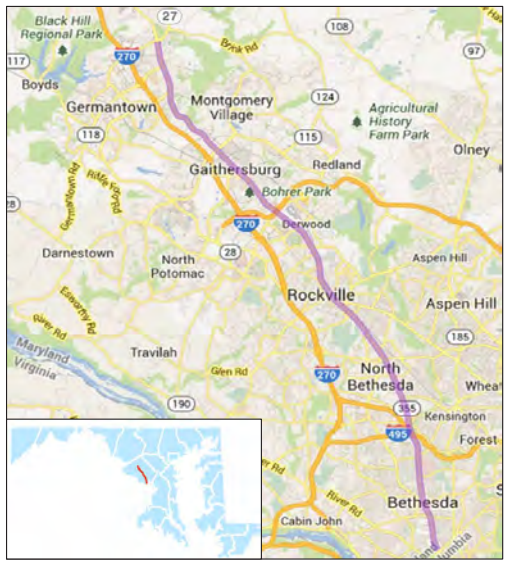
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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	Routes	Avg. Daily Ridership
	METRO J1, J2, J3	5,675
	METRO J5	309
	METRO Q1, Q2, Q4, Q5, Q6	7,490
	Red Line Shady Grove	11,696
	Red Line Rockville	4,087
	Red Line Twinbrook	4,126
	Red Line White Flint	3,456
	Red Line Grosvenor	5,181
	Red Line Strathmore	5,181
Red Line Medical Center	5,465	
Red Line Bethesda	8,088	



2016 AADT	Trucks	Peak Hour Traffic
31,000 - 64,000 vpd	2% - 6%	7% - 9%

NOTE: The Red Line ridership data represents boardings

Signalized Intersections*	AM Peak Hour	PM Peak Hour
LOS D or Better	54	51
LOS E	1	5
LOS F	3	2

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	12.8 / 7.3	11.4 / 3.4
LOS E	5.4 / 5.6	4.3 / 8.5
LOS F	1.5 / 6.8	4.0 / 7.8

- LOS 'E' Intersections**
- MD 355 at Mannakee St (AM)
 - MD 355 at E Middle La/Park Rd (PM)
 - MD 355 at MD 124 (PM)
 - MD 355 at MD 187 (PM)
 - MD 355 at Middlebrook Rd (PM)
 - MD 355 at Shady Grove Rd (PM)

- LOS 'F' Intersections**
- MD 355 at Cedar Ln (AM,PM)
 - MD 355 at E&W Gude Dr (AM)
 - MD 355 at Shady Grove Rd (AM)
 - MD 355 at Tuckerman Ln (North Intersection) (PM)

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			W		
	Germantown Rd. (MD-118) - Middlebrook Road	0.8							W		
	Middlebrook Road - Christopher Ave.	2.3									
	Christopher Ave. - Montgomery Village Ave (MD-124)	0.3									
	Montgomery Village Ave. (MD-124) - Odendhal Ave.	0.4									
	Odendhal Ave - Summit Ave.	1.0									
	Summit Ave. - Shady Grove Rd./ I-370	1.2									
	Shady Grove Rd./ I-370 - Redland Blvd.	1.0							W		
	Redland Blvd. - Gude Dr.	0.8									W
	Gude Dr. - Washington St.	1.0								W	
	Washington St. - Veirs Mill Rd/ Jefferson St (MD-28)	0.9									
	Veirs Mill Rd/ Jefferson St (MD-28) - Wootton Pkwy (MD-911)	0.4									I
	Wootton Pkwy (MD-911) - Montrose Pkwy	2.1									
	Montrose Pkwy - Strathmore Ave (MD-547)	1.3									
	Strathmore Ave (MD-547) -Grosvenor Lane	0.9									
	Grosvenor Lane - I-495	0.3									I
	I-495 - Cedar Lane	0.9									I
	Cedar Lane - Jones Bridge Rd.	0.6									I
	Jones Bridge Rd - Montgomery Avenue(MD-410)	0.9									I
	Montgomery Avenue(MD-410) - Bradley Blvd./ Lane (MD 191)	0.5								W	
Bradley Blvd./ Lane (MD 191) - Dorset Ave	0.7									I	
Dorset Ave. - DC Line	0.5									I	

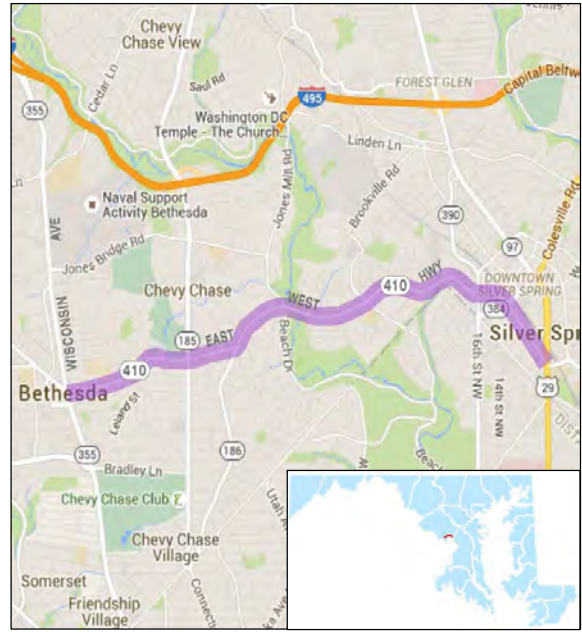
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

MD 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	5,675
	METRO J4	1,061



2016 AADT	Trucks	Peak Hour Traffic
15,000 - 27,000 vpd	4% - 6%	8% - 10%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	7	7
LOS E	0	1
LOS F	1	0

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	3.8 / 0.2	1.2 / 1.5
LOS E	0.0 / 2.2	1.5 / 2.3
LOS F	0.0 / 1.4	1.1 / 0.0

LOS 'E' Intersections

MD 185 at MD 410 (PM)

LOS 'F' Intersections

MD 185 at MD 410 (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			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	Montgomery Ave. - MD185	0.5	Green	Yellow	Red	Green	Green	Red	Green	
	MD185 - Beach Dr.	0.9	Green	Red	Red	Yellow	Green	Yellow	Yellow	
	Beach Dr. - Meadowbrook Ln.	0.2	Green	Green	Green	Green	Green	Green	Green	
	Meadowbrook Ln. - Grubb Rd.	0.5	Green	Green	Green	Green	Green	Green	Green	
	Grubb Rd. - Washington Ave.	0.4	Green	Yellow	Green	Green	Green	Green	Green	
	Washington Ave. - Rosemary Hill Dr.	0.4	Green	Green	Green	Green	Green	Green	Green	
	Rosemary Hill Dr. - MD390	0.2	Green	Green	Green	Green	Green	Green	Green	
	MD390 - Colesville Rd.	0.2	Green	Red	Green	Green	Green	Yellow	Yellow	
	Colesville Rd. - Shopping Center	0.1	Green	Green	Green	Green	Green	Green	Green	
	Shopping Center - Blair Mill Rd.	0.2	Green	Yellow	Green	Green	Green	Yellow	Yellow	
Blair Mill Rd. - US29	0.2	Green	Green	Green	Green	Green	Green	Green		

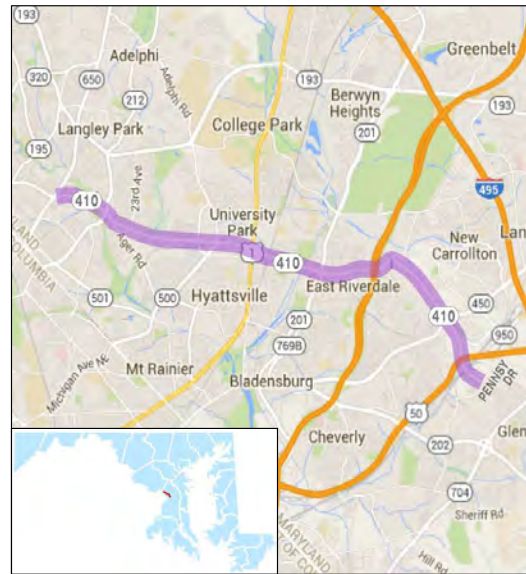
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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 C2, C4	10,255
	METRO F4	6,385
	METRO 82, 83, 86	4,203



2016 AADT	Trucks	Peak Hour Traffic
21,000 - 48,000 vpd	3% - 4%	7% - 8%

Segment Operations

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	5.4 / 0.3	1.7 / 2.1
LOS E	2.3 / 2.7	4.5 / 4.4
LOS F	0.0 / 4.7	1.5 / 1.2

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	11	6
LOS E	1	3
LOS F	1	4

LOS 'E' Intersections

- MD 410 at US 1 (AM,PM)
- MD 410 at Riverdale Rd (PM)
- MD 410 at US 50 EB Ramps 3 & 5 (including Ramps 4&6) (PM)

LOS 'F' Intersections

- MD 410 at MD 201 (AM, PM)
- MD 410 at MD 450 (PM)
- MD 410 at MD 212 (PM)
- MD 410 at MD 500 (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.

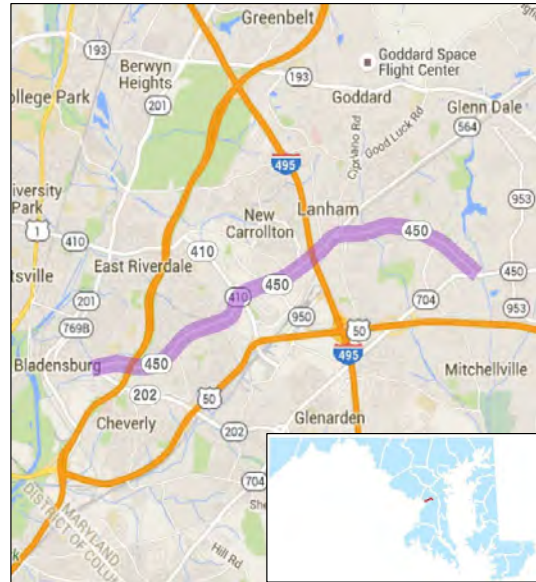
Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI			
			AM		PM		AM		PM	
			EB	WB	EB	WB	EB	WB	EB	WB
Urban Other Principal Arterial	MD650 - MD212	0.9								
	MD212 - Ager Rd.	0.2								
	Ager Rd. - 23rd Ave.	0.3								
	23rd Ave. - Toledo Terrace	0.5								
	Toledo Terrace - Editors Park Dr.	0.1								
	Editors Park Dr. - Pr. George's Plaza	0.1								
	Pr. George's Plaza - Belcrest Rd.	0.3								
	Belcrest Rd. - MD500/Adelphi Rd.	0.4								
	MD500/Adelphi Rd. - US1/Baltimore Ave.	0.5								
	US1/Baltimore Ave. - Taylord Rd.	0.5								
	Taylord Rd. - Kenilworth Ave./MD201	0.5								
	Kenilworth Ave./MD201 - Mustang Dr.	0.5								
	Mustang Dr. - 64th Ave.	0.2								
	64th Ave. - Baltimore-Washington Pkwy.	0.1								
	Baltimore-Washington Pkwy.-Veterans Pkwy.	0.3								
	Veterans Pkwy. - Annapolis Rd./MD450	1.1								
	Annapolis Rd./MD450 - Ellin Rd.	0.5								
Ellin Rd. - US50/John Hanson Hwy.	0.4									
US50/John Hanson Hwy. - Pennsy Dr.	0.3									

I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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	843
	METRO B27	212
	METRO F4	6,385

2016 AADT	Trucks	Peak Hour Traffic
26,000 - 66,000 vpd	3% - 4%	7.5%

Segment Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	13	12
LOS E	0	0
LOS F	0	1

Level of Service	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	6.3 / 4.6	5.5 / 4.6
LOS E	0.0 / 1.1	0.8 / 1.7
LOS F	0.0 / 0.6	0.0 / 0.0

LOS 'E' Intersections

LOS 'F' Intersections

MD 450 at MD 410 (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 Minor Arterial	MD202 - 56th Ave.	0.2									
	56th Ave. - 57th Ave.	0.2									
	57th Ave. - MD295 (Balt/Wash Pkwy)	0.4									
	MD295 - 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							W		
	Gallatin Rd. - MD410 (Veterans Pkwy)	0.1									
	MD410 (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										

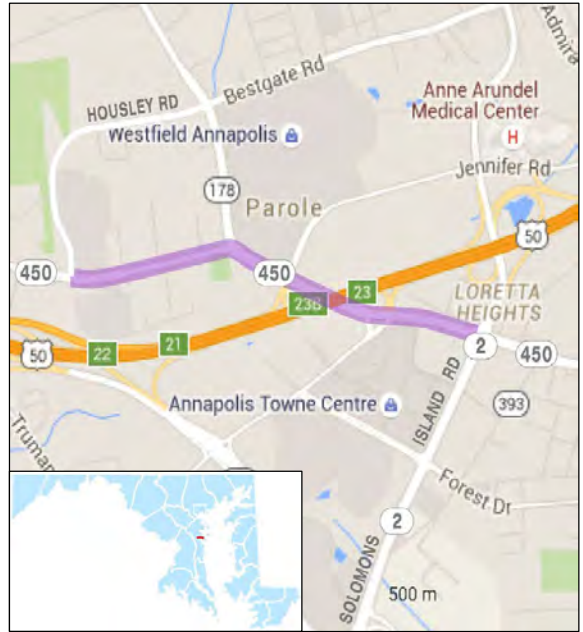
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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:	Housley Rd to MD 2	
Corridor Length:	1.2 miles	
Speed Limit:	35 MPH	
Travel Lanes:	(1 - 2) Eastbound 2 Westbound	
Signal Controlled Intersections:	6	
Grade Separated Interchanges:	1	
Major Cross Streets:	MD 450, MD 178, Jennifer Rd, US 50, Riva Rd, MD 2	
Routes and Ridership	Routes	Avg. Daily Ridership
	N/A	N/A



2016 AADT	Trucks	Peak Hour Traffic
33,000 - 48,000 vpd	2% - 5%	8%

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	0.6 / 0.4	0.7 / 0.7
LOS E	0.6 / 0.3	0.5 / 0.0
LOS F	0.0 / 0.5	0.0 / 0.5

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.

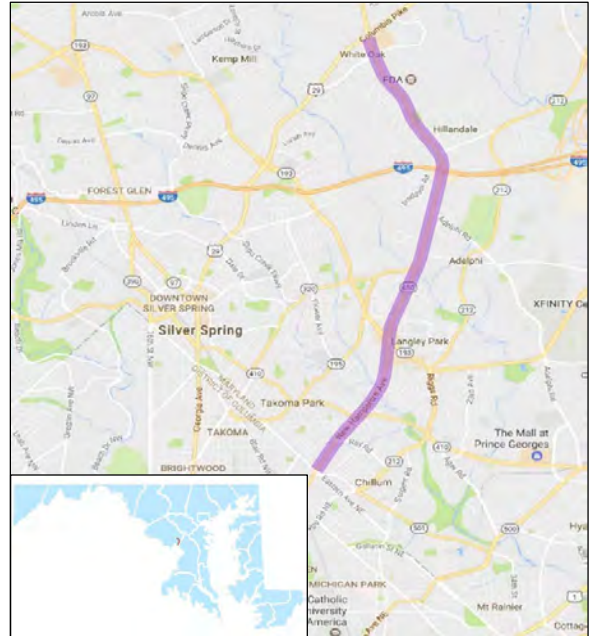
Functional Class	Roadway Segment West to East	Length (miles)	TTI				PTI				
			AM		PM		AM		PM		
			EB	WB	EB	WB	EB	WB	EB	WB	
Urban Minor Arterial	Housley Rd. - MD 178	0.4									
	MD 178 - Jennifer Rd.	0.2			I						I
Urban Other Principal Arterial	Jennifer Rd. - Riva Rd.	0.3									
	Riva Rd. - MD 2	0.3									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 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	2,491
	METRO K6	5,908
	METRO K9	1,286

2016 AADT	Trucks	Peak Hour Traffic
36,000 - 79,000 vpd	3% - 6%	6.5% - 8.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	16	18
LOS E	2	2
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	4.7 / 1.2	2.9 / 0.8
LOS E	0.0 / 2.5	0.9 / 2.4
LOS F	1.3 / 2.3	2.2 / 2.8

LOS 'E' Intersections

MD 650 at Adelphi Rd/Dilston Rd (AM,PM)
MD 650 at Oakview Dr (AM,PM)

LOS 'F' Intersections

MD 650 at Ramps 2 & 7 from I-495 EB (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	US 29 - Lockwood Dr.	0.3									
	Lockwood Dr. - Powder Mill Rd.	1.5		W		W			W		
	Powder Mill Rd. - I-495	0.4								W	
	I-495 - Adelphi Rd.	0.4	I		I						
	Adelphi Rd. - Metzert Rd.	0.5							W		
	Metzert Rd. - MD-320	0.2									
	MD-320 - MD-193	0.9									
	MD-193 - MD-410	1.0								W	
MD-410 - Eastern Ave./DC line	0.8										

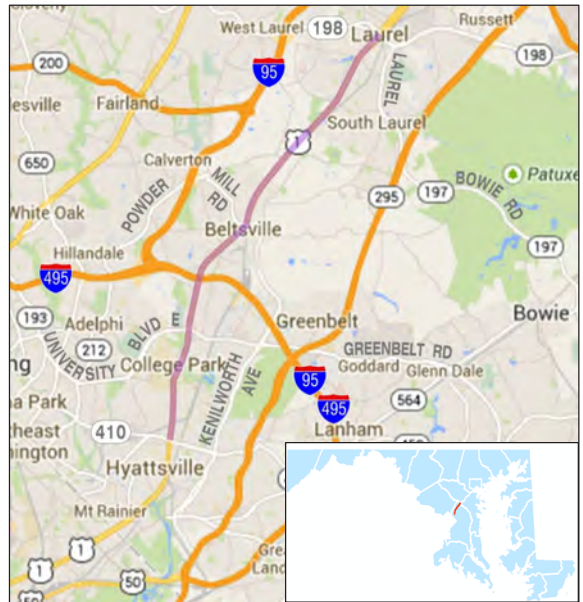
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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, 86	4,203
	METRO 89, 89M	808
	Green Line Greenbelt	5,802
	Green Line College Park	3,982



2016 AADT	Trucks	Peak Hour Traffic
20,000 - 47,000 vpd	3% - 6%	7% - 8%

NOTE: The Green Line ridership data represents boardings

Segment Operations

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

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	9.7 / 1.3	8.4 / 3.5
LOS E	1.0 / 3.5	2.3 / 2.1
LOS F	0.0 / 5.9	0.0 / 5.1

LOS 'E' Intersections

US 1 at MD 410 (AM,PM)

LOS 'F' Intersections

US 1 at Edgewood 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 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	Green	Green	Yellow	Red	Green	I	I	I
	Cherry Ln. - Cypress St.	0.7	Green	Green	Yellow	Red	Green	Green	Yellow	Yellow
	Cypress St. - Contee Rd.	0.5	Green	Green	Yellow	Red	Green	Green	Yellow	Yellow
	Contee Rd. - Muirkirk Rd.	1.3	Green	Green	Yellow	Red	Green	Green	I	Green
	Muirkirk Rd. - Ritz Way	0.4	Green	Green	Yellow	Red	Green	Green	I	Green
	Ritz Way - Powder Mill Rd. (MD-212)	1.8	Green	Green	Yellow	Red	Green	Green	I	Green
	Powder Mill Rd. (MD-212) - Rhode Island Ave.	0.6	Green	Yellow	Green	Red	Green	Yellow	Green	Yellow
	Rhode Island Ave. - I-495/I-95	1.0	Yellow	Green	Red	Red	Green	I	Yellow	Yellow
	I-495/I-95 - Cherry Hill Rd.	0.3	Green	Green	Yellow	Red	Green	Green	Yellow	Green
	Cherry Hill Rd. - Greenbelt Rd./ Metzertott Rd.	1.1	Green	Green	Yellow	Red	Green	Green	Yellow	Green
	Greenbelt Rd./ Metzertott Rd. - Campus Dr./ Painted Branch Pkwy	0.7	Green	Green	Yellow	Red	Green	Green	Yellow	Green
Campus Dr./ Painted Branch Pkwy - Guilford Rd/Dr	0.8	Green	Yellow	Yellow	Red	Green	Green	W	W	
Guilford Rd/Dr - East West Hwy (MD-410)	0.9	Green	Green	Yellow	Red	Green	Green	Yellow	Yellow	

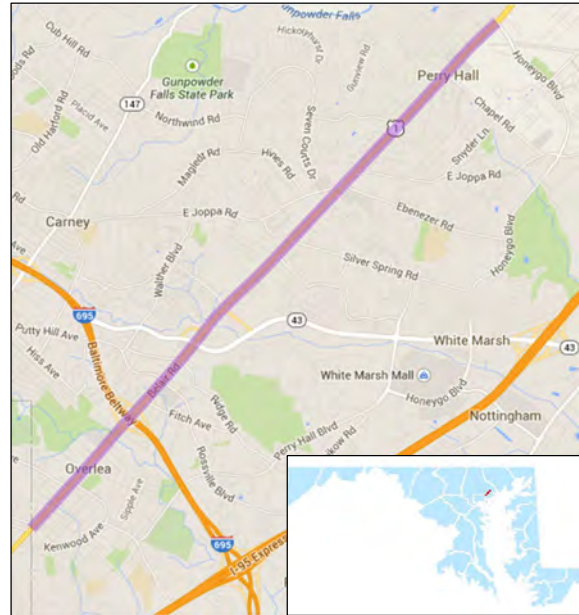
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

US 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
	MTA 15	12,382
	MTA 47	1,285
	MTA 58	1,866



2016 AADT	Trucks	Peak Hour Traffic
27,000 - 47,000 vpd	3%	7% - 8%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	14	13
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	5.0 / 2.1	3.6 / 1.0
LOS E	0.6 / 2.5	2.0 / 4.0
LOS F	0.0 / 1.0	0.0 / 0.6

LOS 'E' Intersections

US 1 at Rossville Blvd (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	Chapel Rd. - Joppa Rd.	1.3									
	Joppa Rd. - Silver Spring Rd.	0.6									
	Silver Spring Rd. - Whitmarsh Blvd. (MD-43)/Dunfield Rd.	1.2									
	Whitmarsh Blvd. (MD-43)/Dunfield Rd. - Rossville Blvd.	0.8									
	Rossville Blvd. - I-695	0.4									
	I-695 - Fullerton Ave.	0.7									
	Fullerton Ave. - Fleetwood Ave.	0.6									

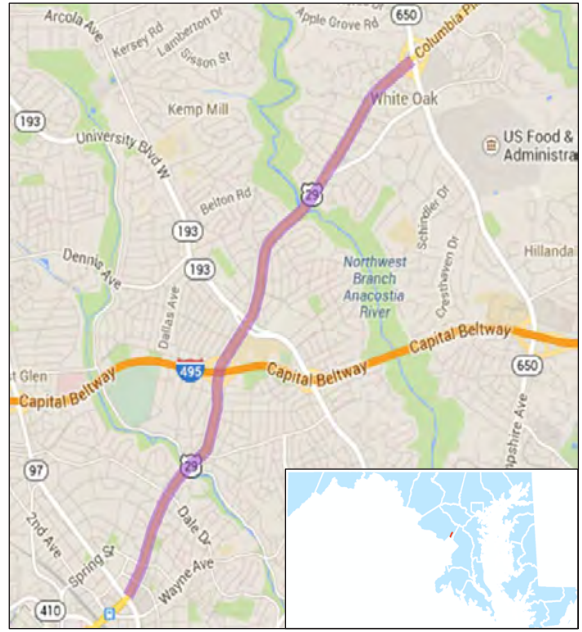
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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	Routes	Avg. Daily Ridership
	METRO Z2	931
	METRO Z6	2,602
	METRO Z8	2,966
	METRO Z11	1,135
	MTA 305	609
	MTA 315	476
MTA 325	266	



2016 AADT	Trucks	Peak Hour Traffic
35,000 - 67,000 vpd	7%	7.5% - 10%

Segment Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	6	7
LOS E	4	3
LOS F	0	0

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	2.8 / 0.5	1.3 / 0.8
LOS E	0.0 / 2.0	0.5 / 2.0
LOS F	1.0 / 1.3	2.0 / 1.0

LOS 'E' Intersections

- US 29 at Dale Dr (AM,PM)
- US 29 at Lockwood Dr (AM,PM)
- US 29 at Southwood Ave (AM,PM)
- US 29 at MD 193 (EB/L) (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	> 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 Other Principal Arterial	New Hampshire Ave. (MD-650) - Lockwood Dr.	0.9	Green	Black	Yellow	Yellow	Green	I	W	Green
	Lockwood Dr. - University Blvd. (MD-193)	1.1	Green	Green	Red	Green	Green	I	W	Green
	University Blvd. (MD-193) - I-495	0.3	Green	Yellow	Red	Green	Green	W	Green	Green
	I-495 - Franklin Ave.	0.5	Green	Yellow	Red	Black	Green	Green	I	Red
	Franklin Ave. - Dale Dr.	0.3	Red	Green	Red	Black	Yellow	I	I	Red
	Dale Dr. - Cedar St./Spring St.	0.5	Red	Green	Red	Red	Yellow	Green	I	I
Cedar St./Spring St. - Georgia Ave. (MD-97)	0.2	Red	Green	Red	Red	Yellow	Green	I	I	

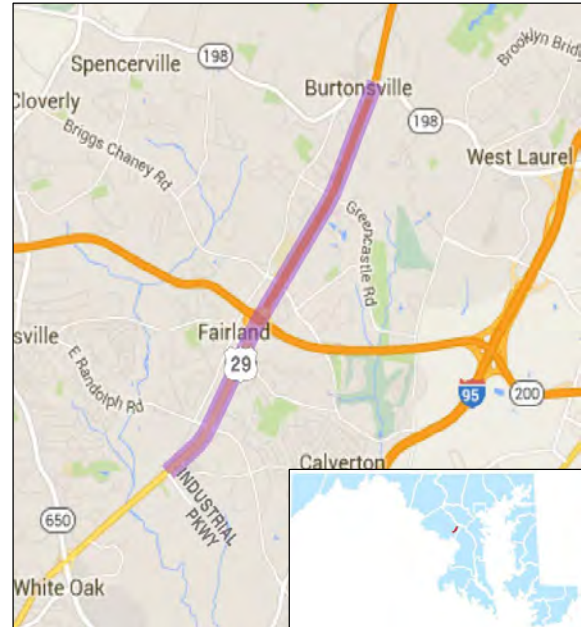
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

US 29

Limits:	Industrial Pkwy to MD 198	
Corridor Length:	4.4 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 Z8	2,966
	METRO Z11	1,135



2016 AADT	Trucks	Peak Hour Traffic
62,000 - 68,000 vpd	3%	8% - 8.5%

Segment Operations

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better	3	3
LOS E	0	1
LOS F	2	1

Level of Service	Northbound AM / PM (Miles of Roadway)	Southbound AM / PM (Miles of Roadway)
LOS D or Better	3.6 / 2.4	2.4 / 4.2
LOS E	0.8 / 1.8	0.0 / 0.2
LOS F	0.0 / 0.2	2.0 / 0.0

LOS 'E' Intersections

US 29 at Blackburn Rd (PM)

LOS 'F' Intersections

US 29 at Blackburn Rd (AM)
US 29 at Greencastle Rd (AM,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 Freeway Expressway	MD198 - Greencastle Rd.	1.2											
	Greencastle Rd. - Fairland Rd.	1.8											
	Fairland Rd. - Musgrove Rd.	0.6											
	Musgrove Rd. - Tech Rd./old Columbia Pike	0.6											
	Tech Rd./old Columbia Pike - Industrial Pkwy.	0.2											

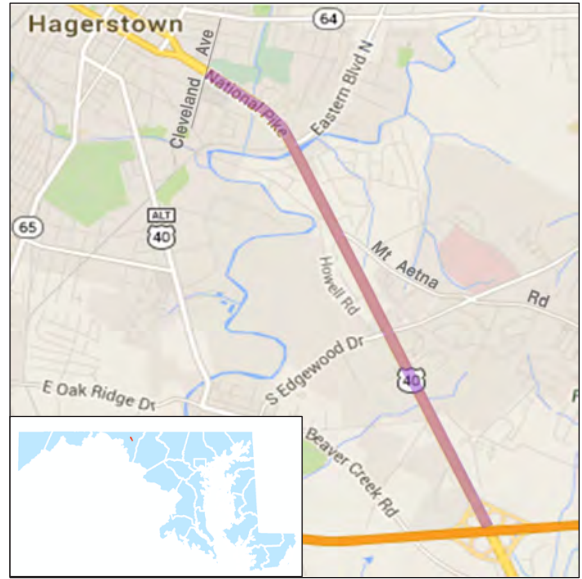
I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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



2016 AADT	Trucks	Peak Hour Traffic
26,000 - 39,000 vpd	3%	8% - 8.5%

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	Eastbound AM / PM (Miles of Roadway)	Westbound AM / PM (Miles of Roadway)
LOS D or Better	2.7 / 1.3	3.4 / 2.4
LOS E	0.7 / 2.1	0.0 / 0.7
LOS F	0.0 / 0.0	0.0 / 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 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						I		
	Cleveland Ave. - Eastern Blvd.	0.6								
	Eastern Blvd. - Mt. Aetna Rd./ Birch Knoll Rd.	0.5								
	Mt. Aetna Rd./ Birch Knoll Rd - Edgewood Dr.	0.7								
	Edgewood Dr. - I-70	1.3								

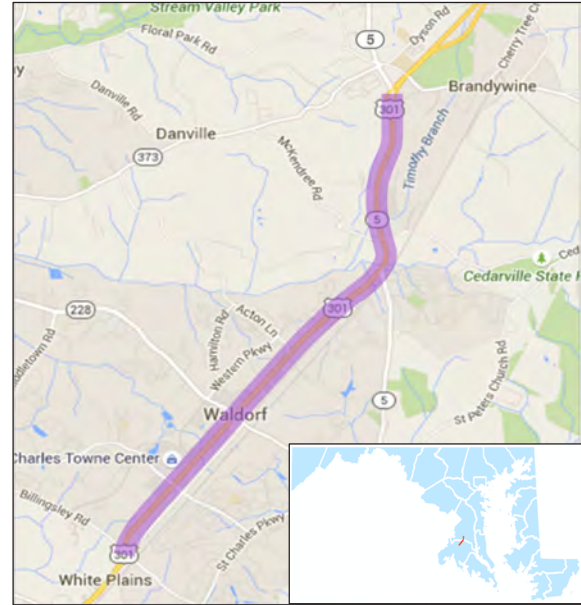
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PTI: planning time index (95th percentile travel time / freeflow travel time)

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

US 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:	0	
Major Cross Streets:	Billingsley Rd, Smallwood Dr, MD 228, Acton Ln, MD 5, Cedarville Rd/McKendree Rd	
Routes and Ridership	Routes	Avg. Daily Ridership
	MTA 715	639
	MTA 725	261
	MTA 735	464



2016 AADT	Trucks	Peak Hour Traffic
38,000 - 97,000 vpd	4% - 6%	6.5% - 7.5%

Intersection Operations

Signalized Intersections*:	AM Peak Hour	PM Peak Hour
LOS D or Better		
LOS E	1	2
LOS F	0	3

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	7.8 / 5.9
LOS E	1.9 / 0.4	0.0 / 0.0
LOS F	0.0 / 1.3	0.0 / 1.9

LOS 'E' Intersections

- US 301 at MD 5BU/MD 228 (AM)
- US 301 at Chadds Ford Dr (PM)
- US 301 at Smallwood Dr (PM)

LOS 'F' Intersections

- US 301 at Cedarville / McKendree Rd (PM)
- US 301 at Clymer Dr / Matapeake Business Dr (PM)
- US 301 at MD 5BU/MD 228 (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									
	TimothyBranch/ChaddsFordDr-CedarvilleRd/McKendreeRd	0.8									
	CedarvilleRd./McKendree Rd.-MattawmnBeantownRd(MD-5)	0.5									
Urban Other Principal Arterial	Mattawoman Beantown Rd. (MD-5) - Sub-Station Rd.	0.4									
	Sub-Station Rd. - Acton Ln.	1.3									
	Acton Ln. - Berry Rd. (MD-228)/Leonardtown Rd. (Bus-5)	1.2									
	Berry Rd. (MD-228)/Leonardtown Rd. (Bus-5)-St Patricks Dr.	0.7									
	St Patricks Dr. - Smallwood Dr.	0.6									
	Smallwood Dr. - Billingsley Rd.	1.2									

I = Improvement from 2016 W = Worsened from 2016 (blank) = No significant change from 2016

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

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

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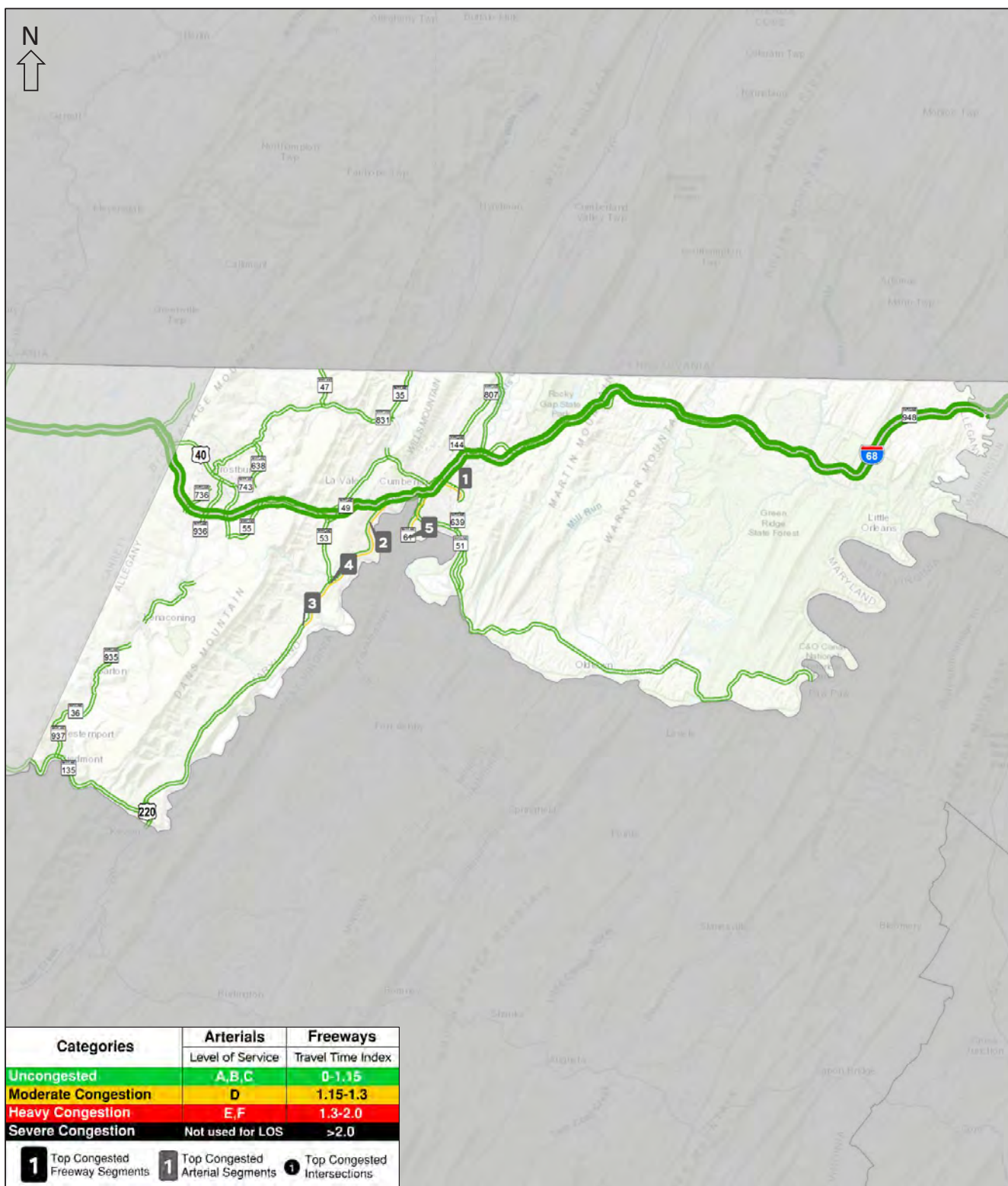


Appendix B

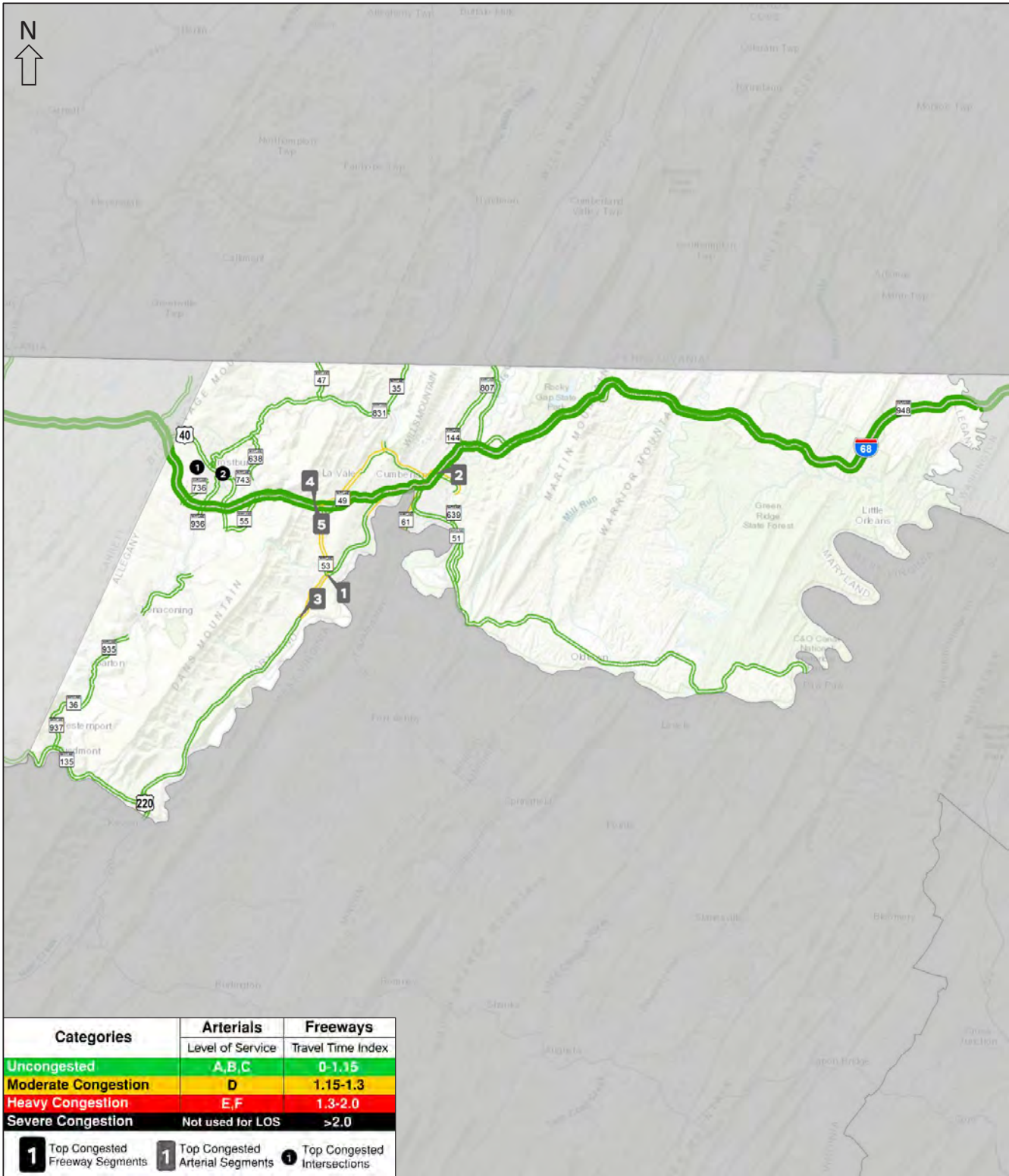
Countywide Congestion Maps

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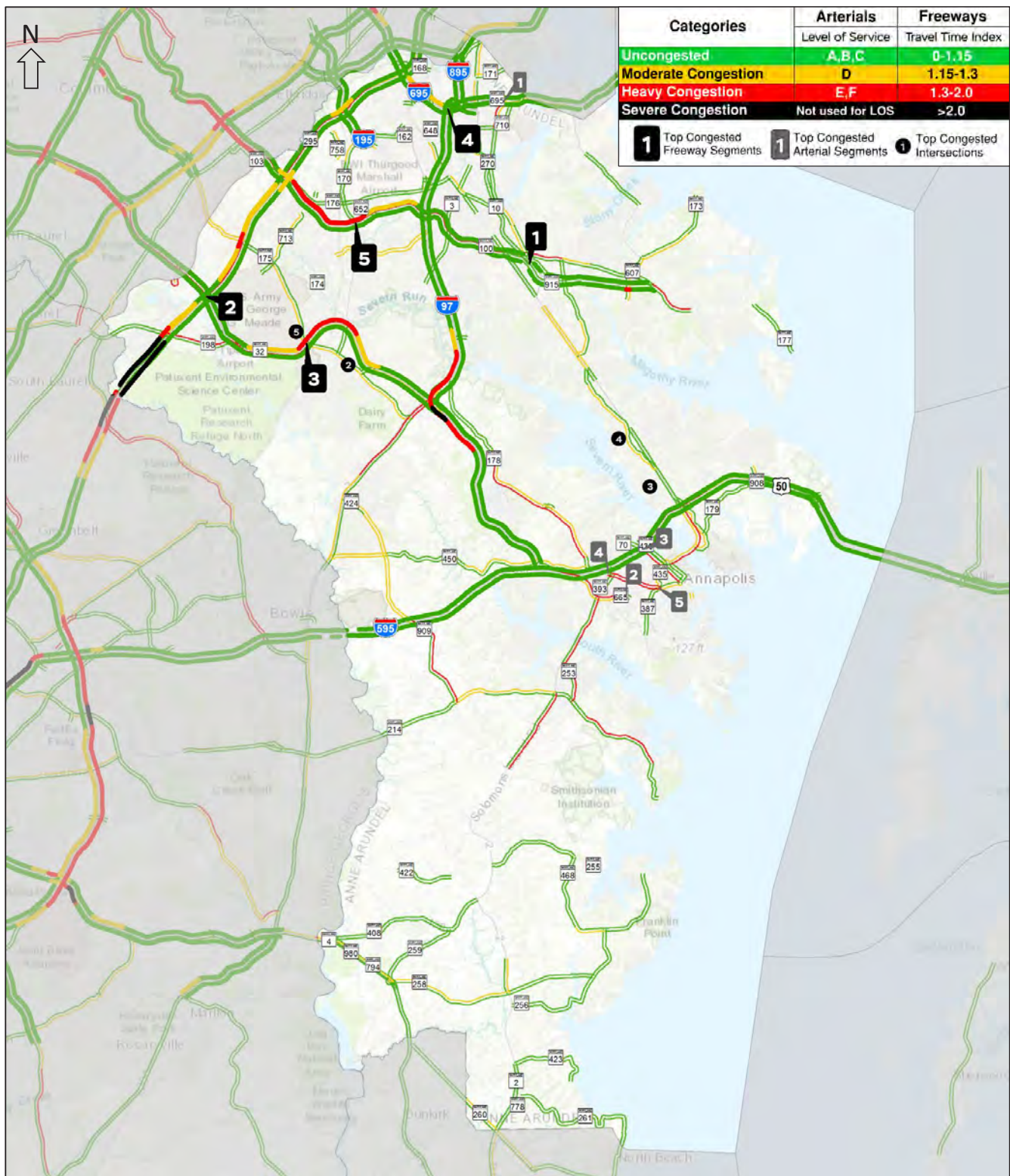
Allegany County Congestion Map 2016 AM Peak Hour (8-9) AM



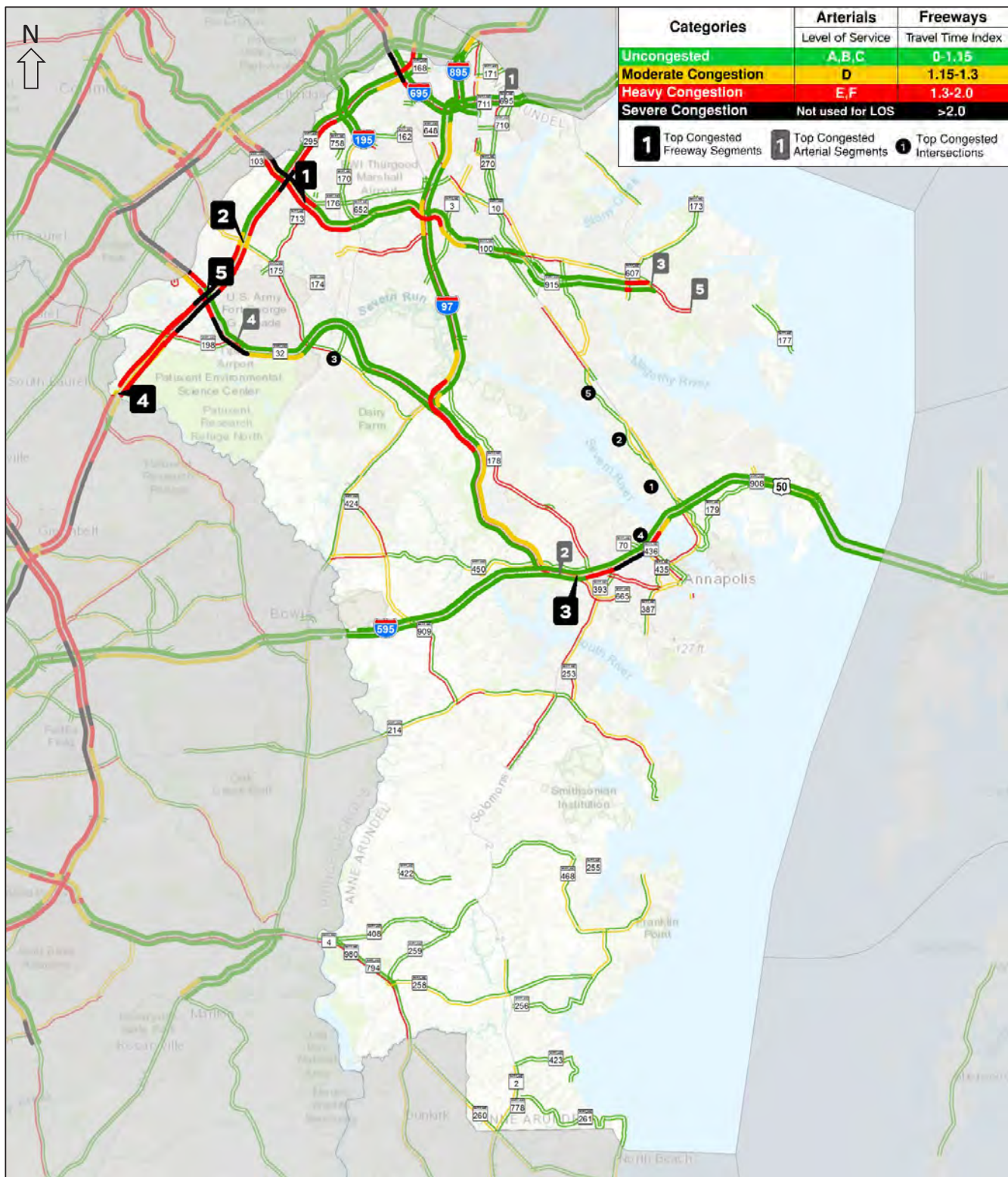
Allegheny County Congestion Map 2016 PM Peak Hour (5-6) PM



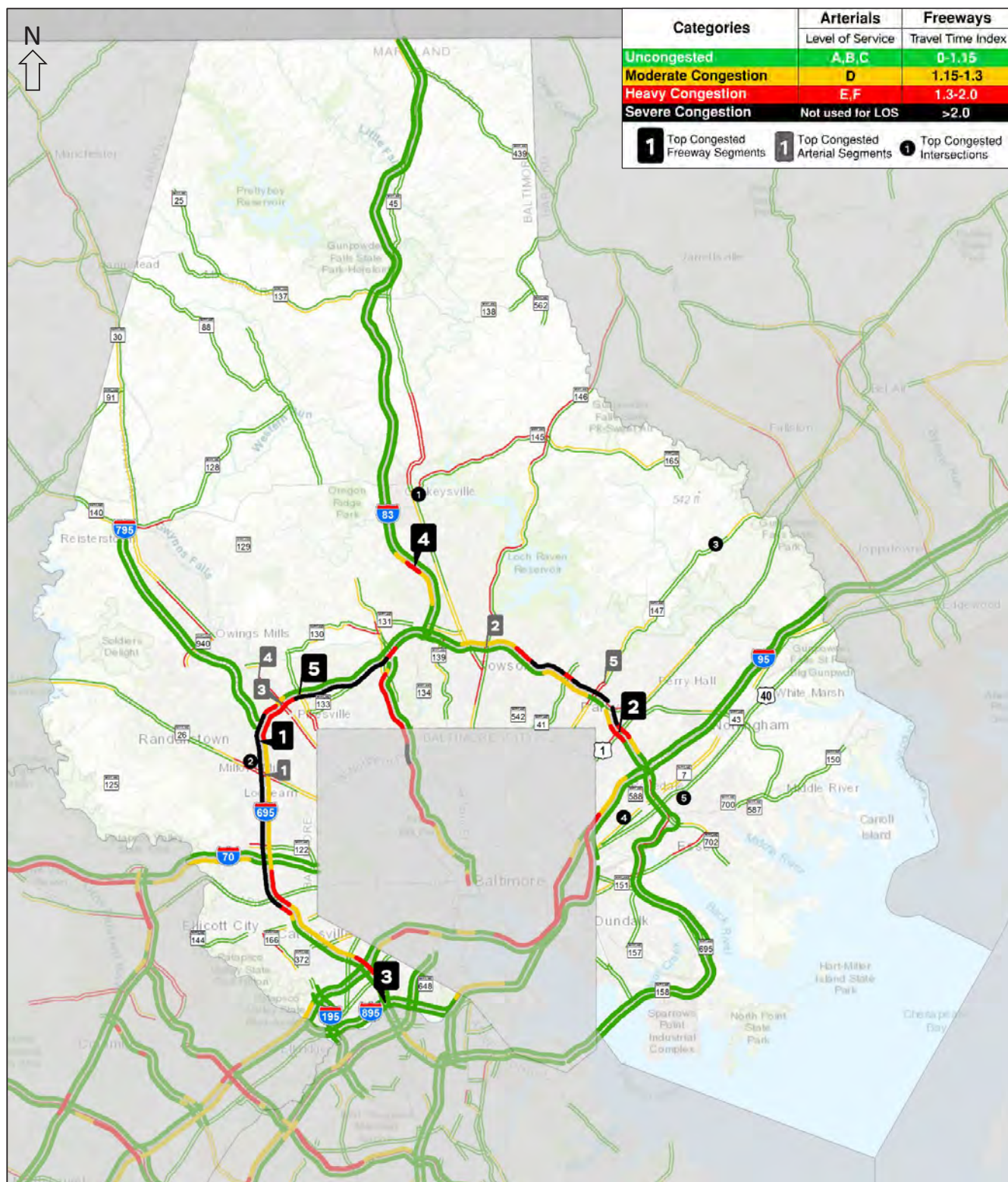
Anne Arundel County Congestion Map 2016 AM Peak Hour (8-9) AM



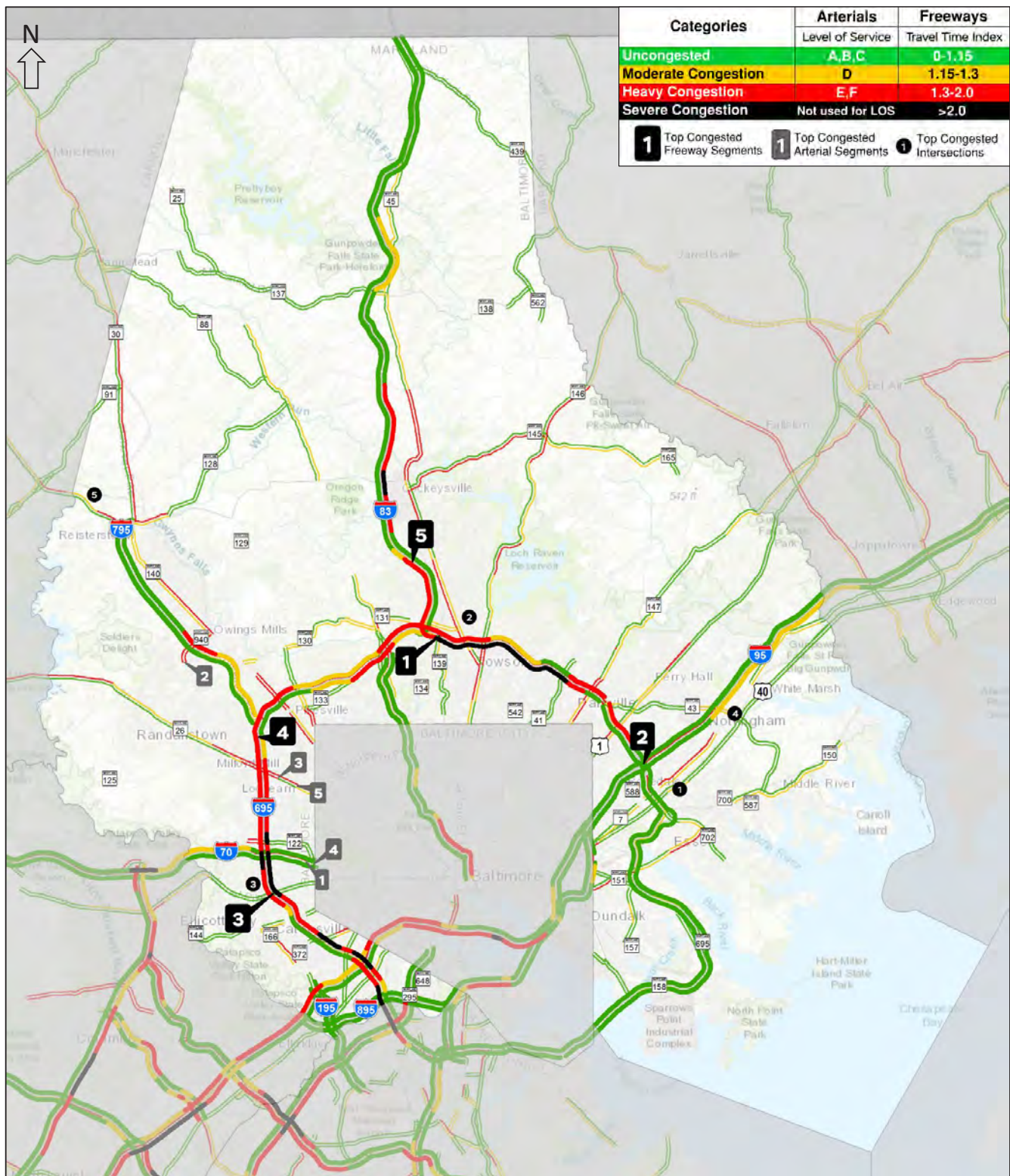
Anne Arundel County Congestion Map 2016 PM Peak Hour (5-6) PM



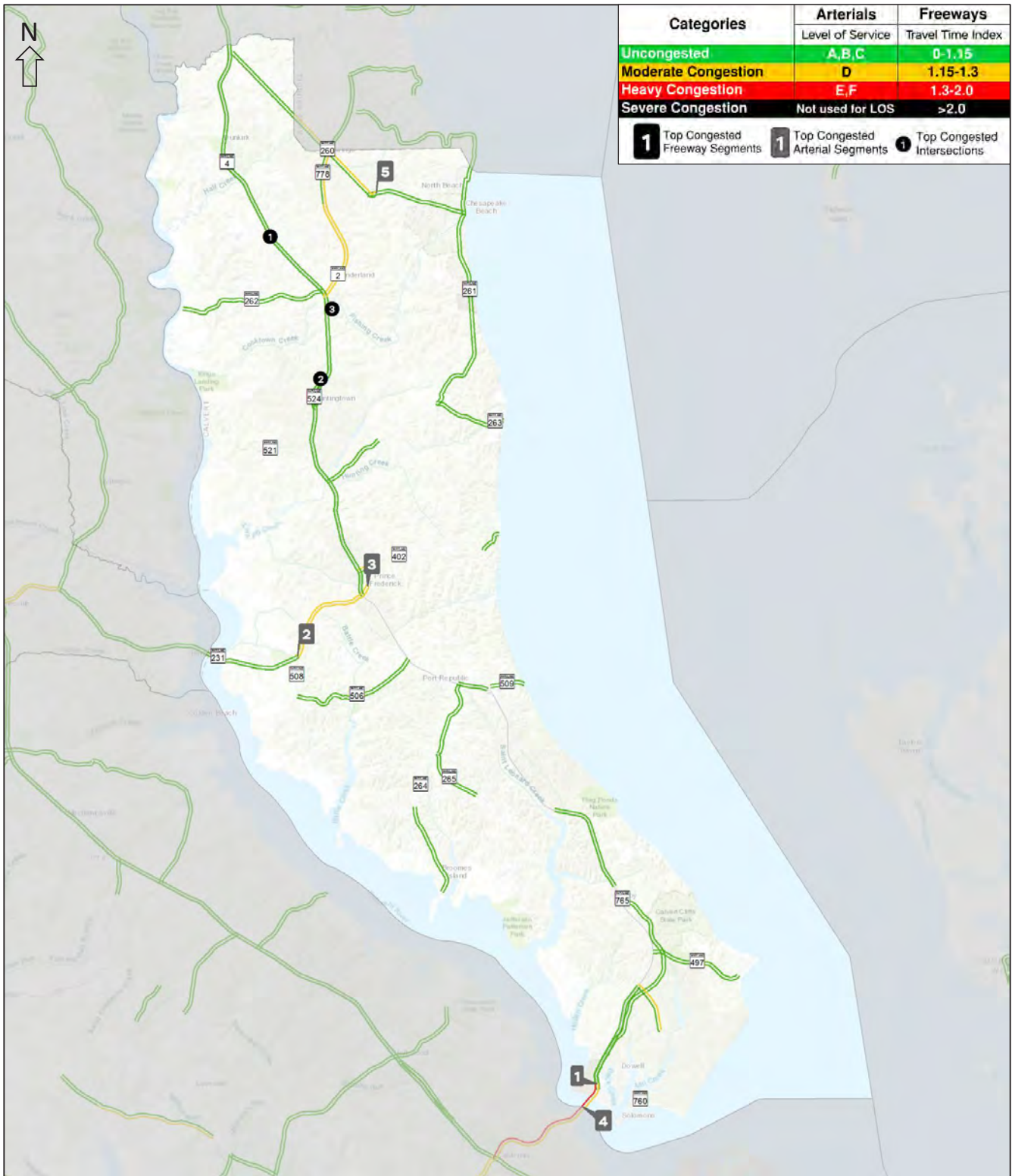
Baltimore County Congestion Map 2016 AM Peak Hour (8-9) AM



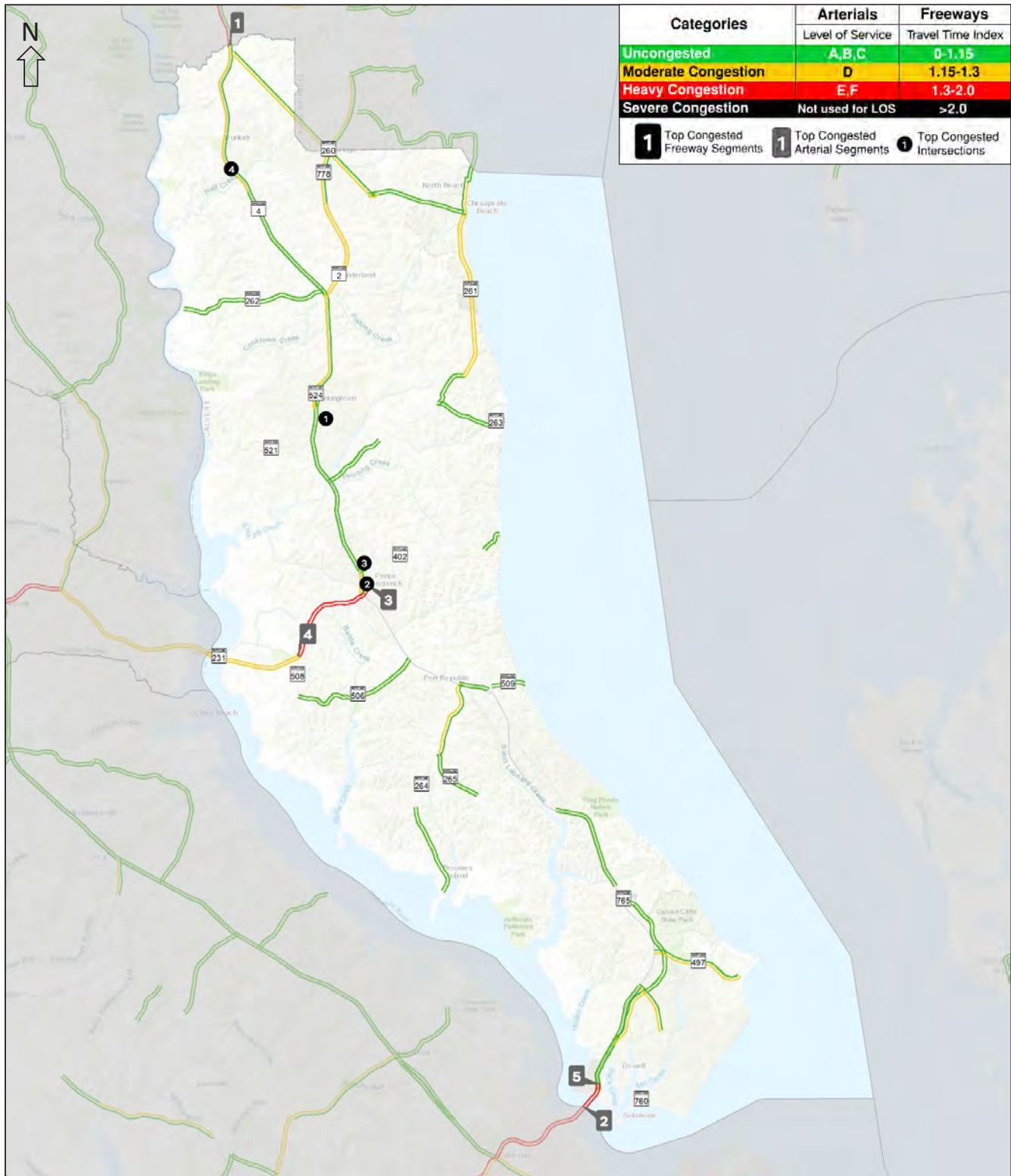
Baltimore County Congestion Map 2016 PM Peak Hour (5-6) PM



Calvert County Congestion Map 2016 AM Peak Hour (8-9) AM



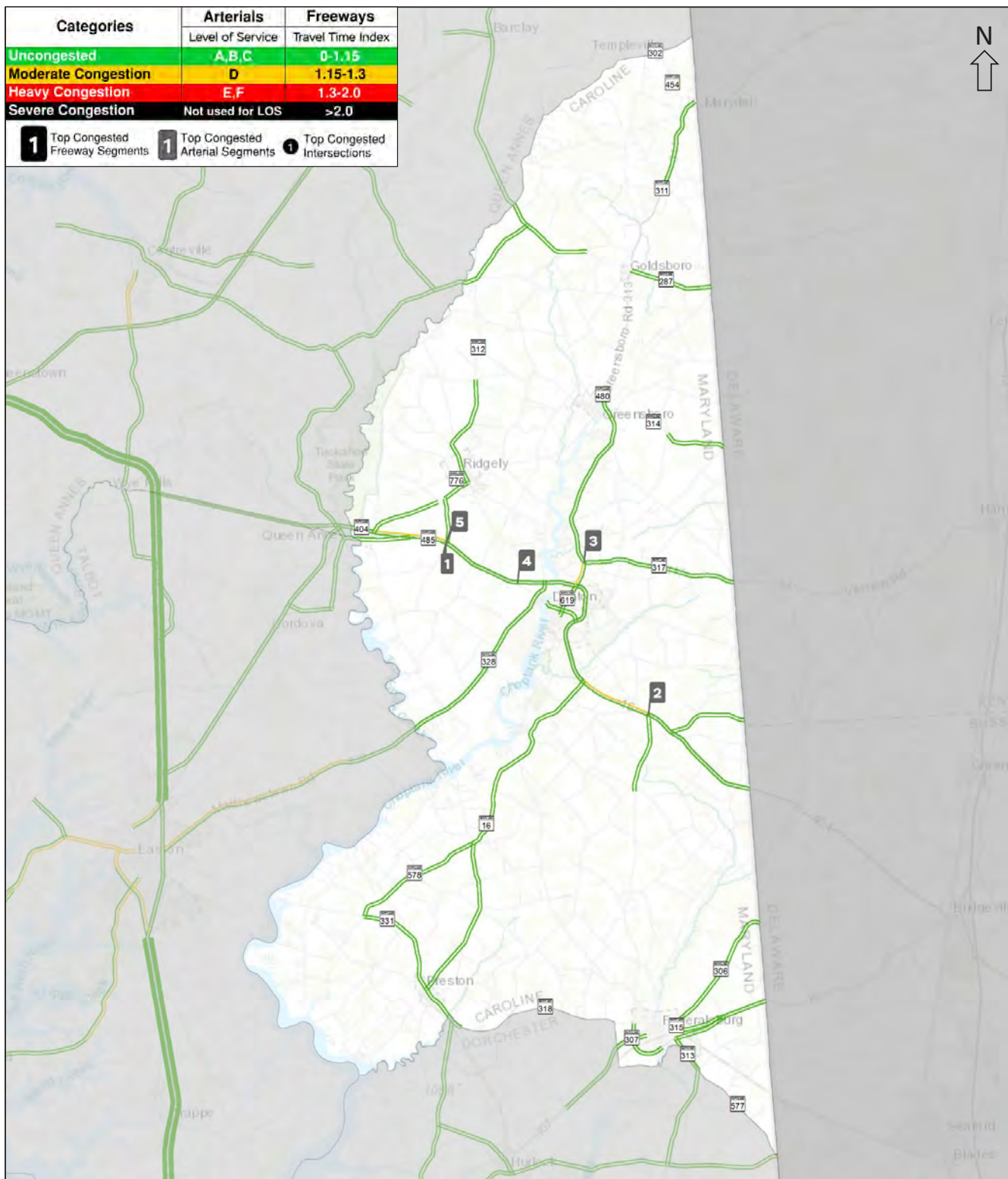
Calvert County Congestion Map 2016 PM Peak Hour (5-6) PM



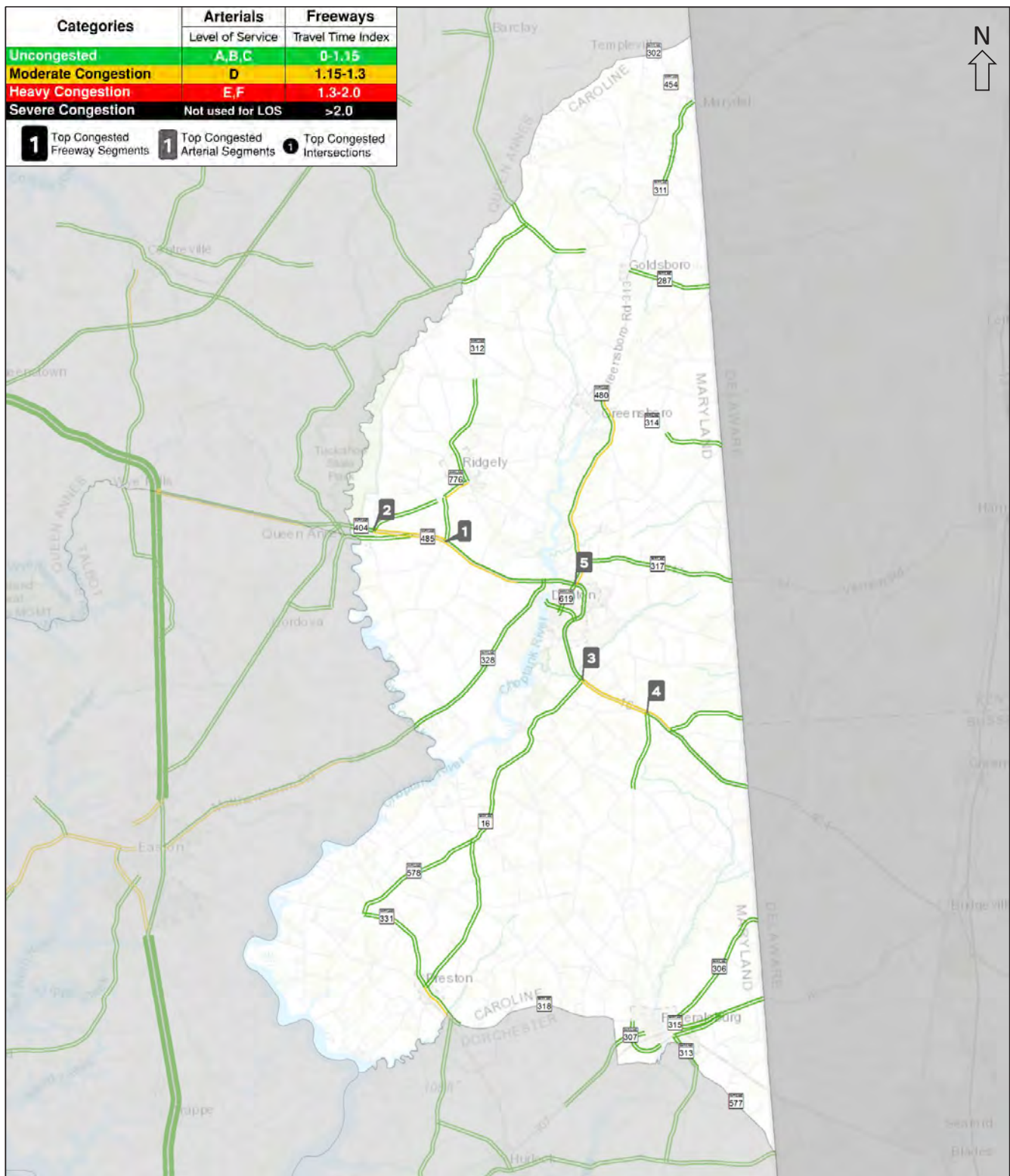
Caroline County Congestion Map 2016 AM Peak Hour (8-9) AM

Categories	Arterials	Freeways
	Level of Service	Travel Time Index
Uncongested	A, B, C	0-1.15
Moderate Congestion	D	1.15-1.3
Heavy Congestion	E, F	1.3-2.0
Severe Congestion	Not used for LOS	>2.0

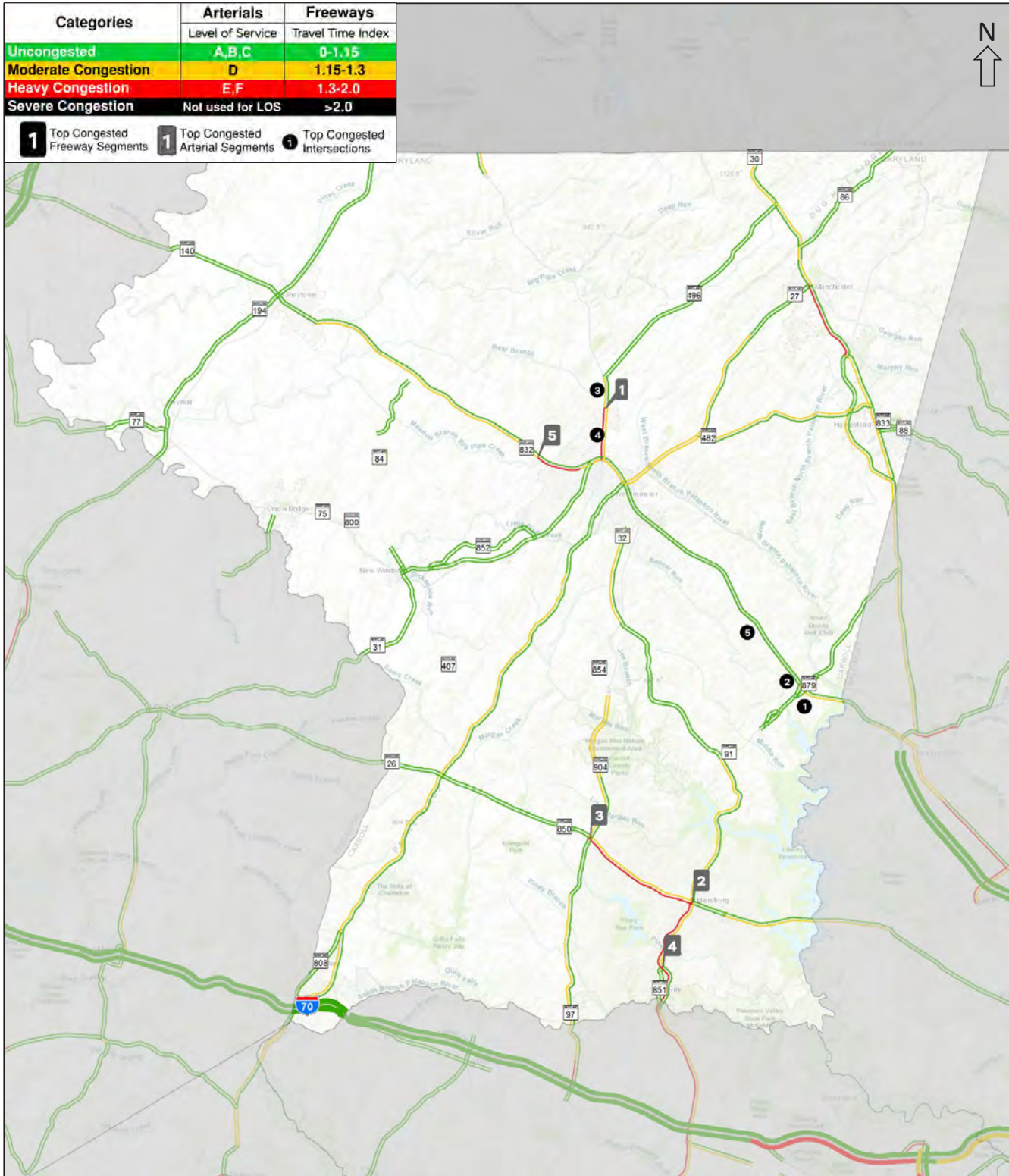
1 Top Congested Freeway Segments	1 Top Congested Arterial Segments	1 Top Congested Intersections
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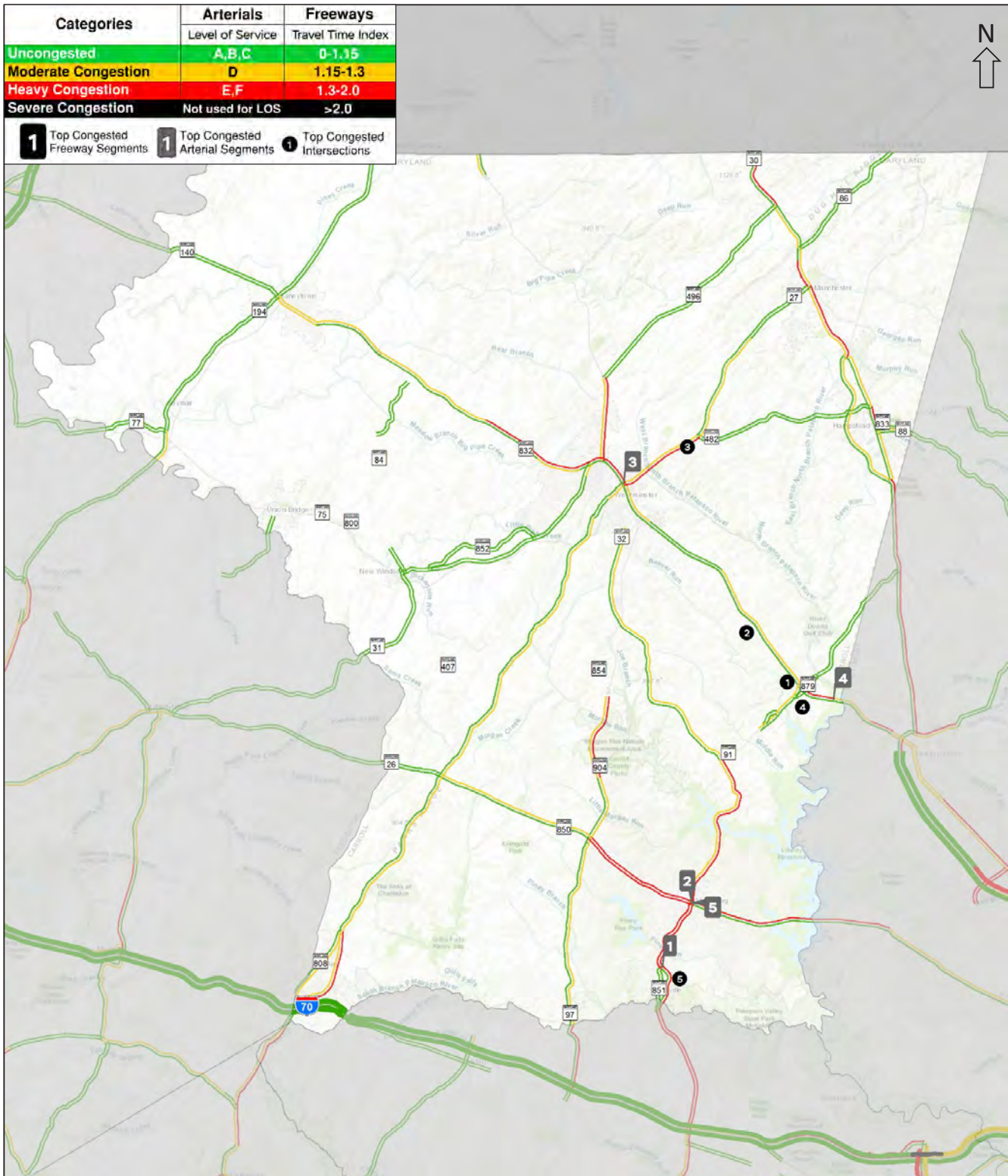
Caroline County Congestion Map 2016 PM Peak Hour (5-6) PM



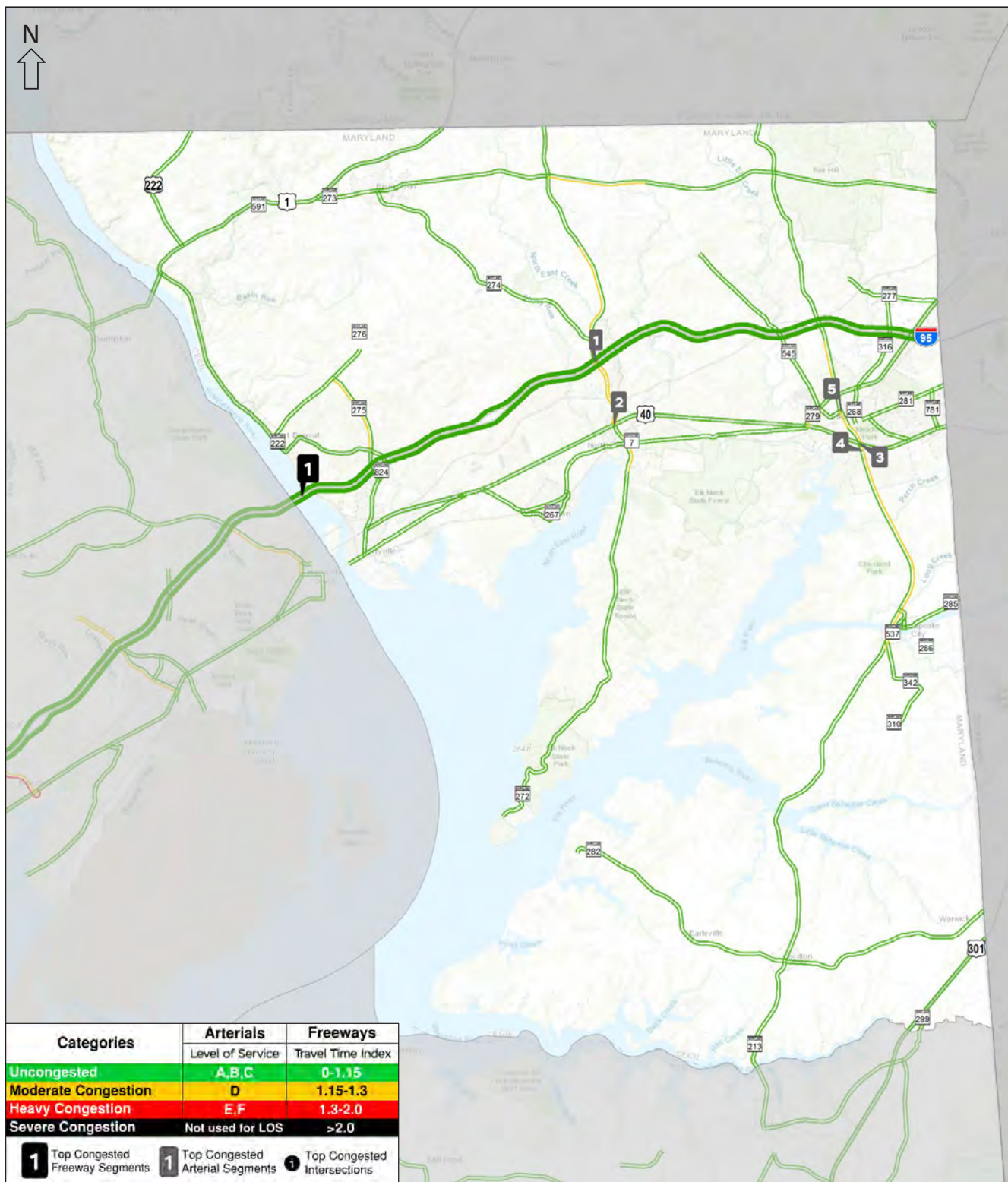
Carroll County Congestion Map 2016 AM Peak Hour (8-9) AM



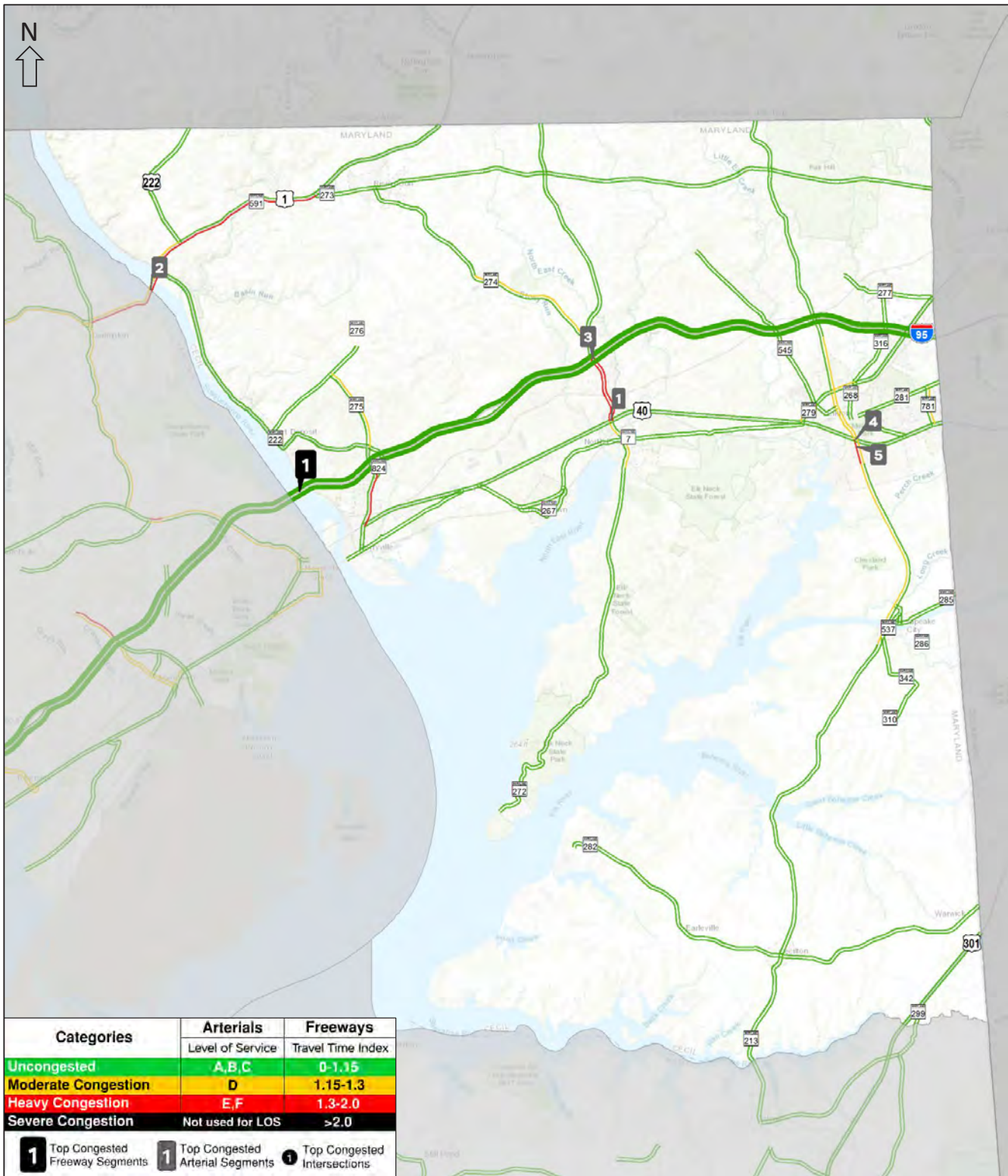
Carroll County Congestion Map 2016 PM Peak Hour (5-6) PM



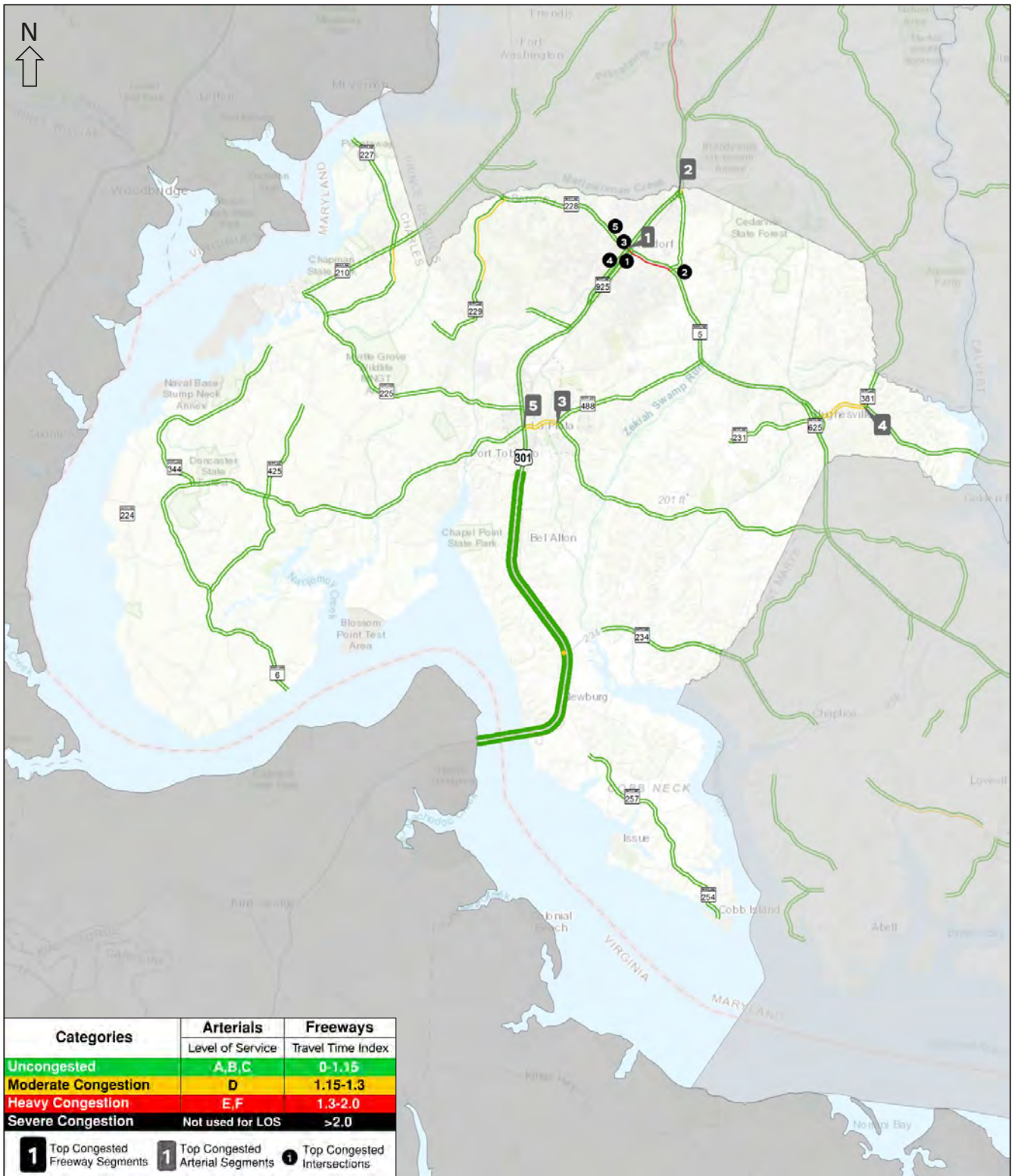
Cecil County Congestion Map 2016 AM Peak Hour (8-9) AM



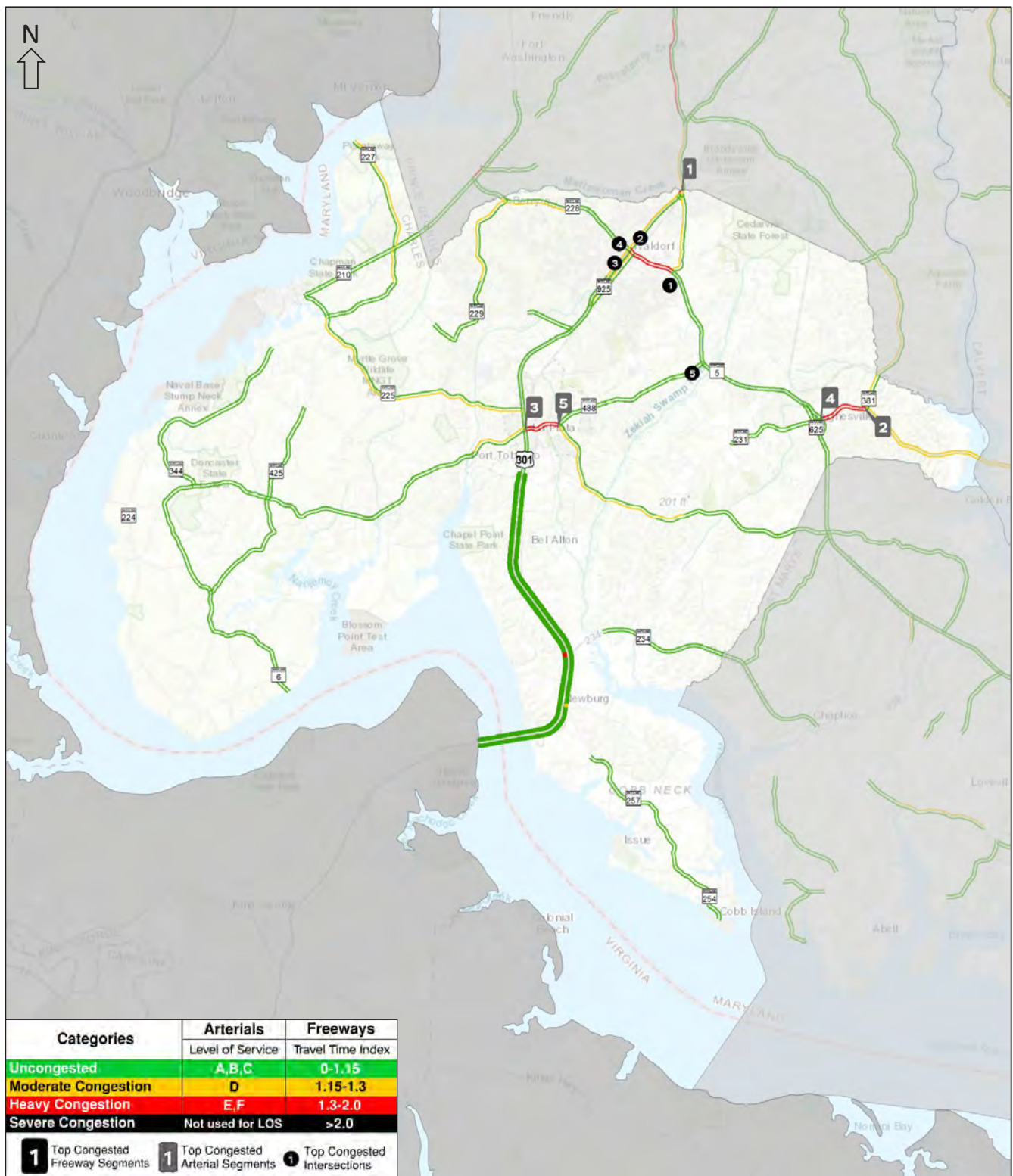
Cecil County Congestion Map 2016 PM Peak Hour (5-6) PM



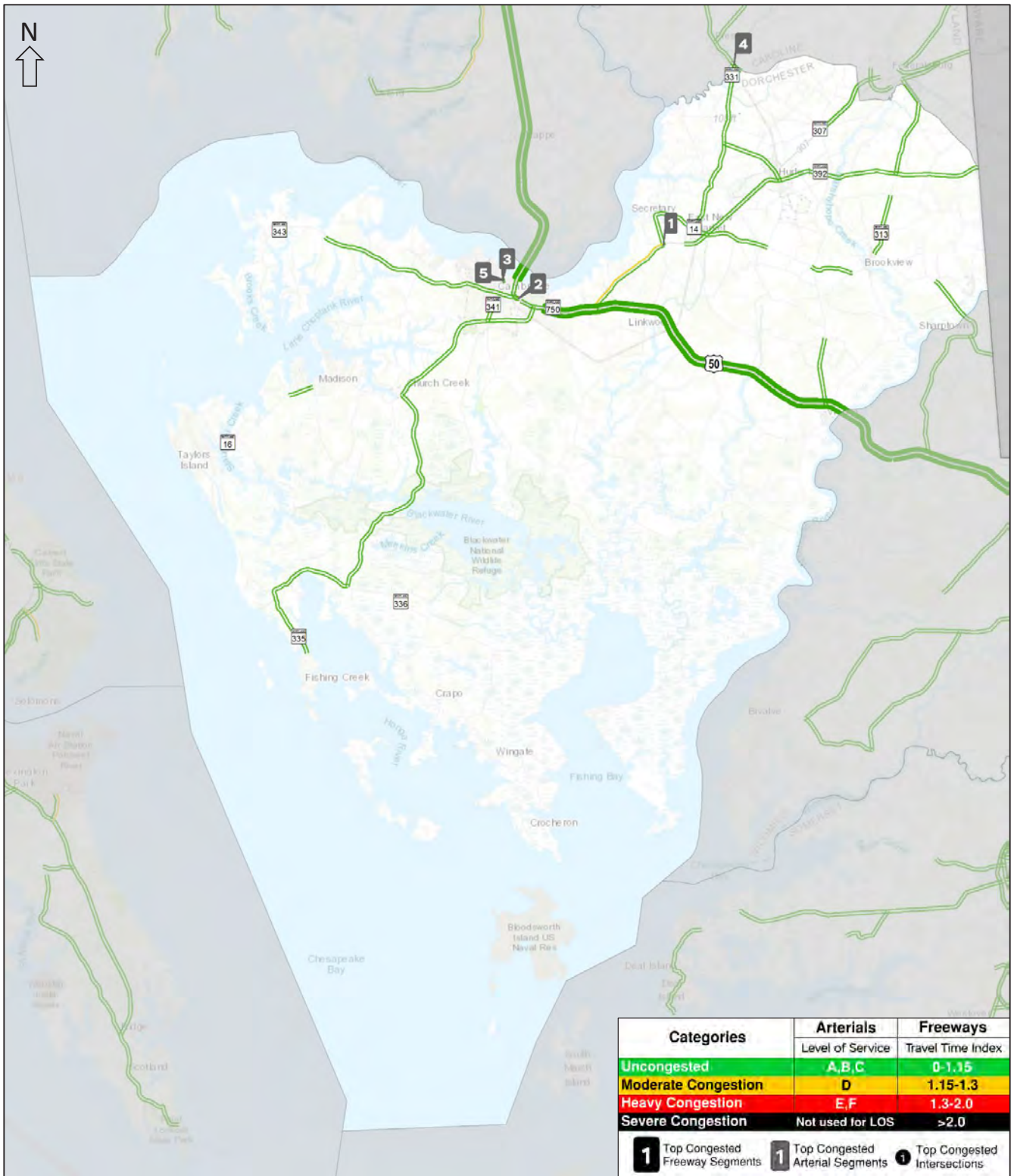
Charles County Congestion Map 2016 AM Peak Hour (8-9) AM



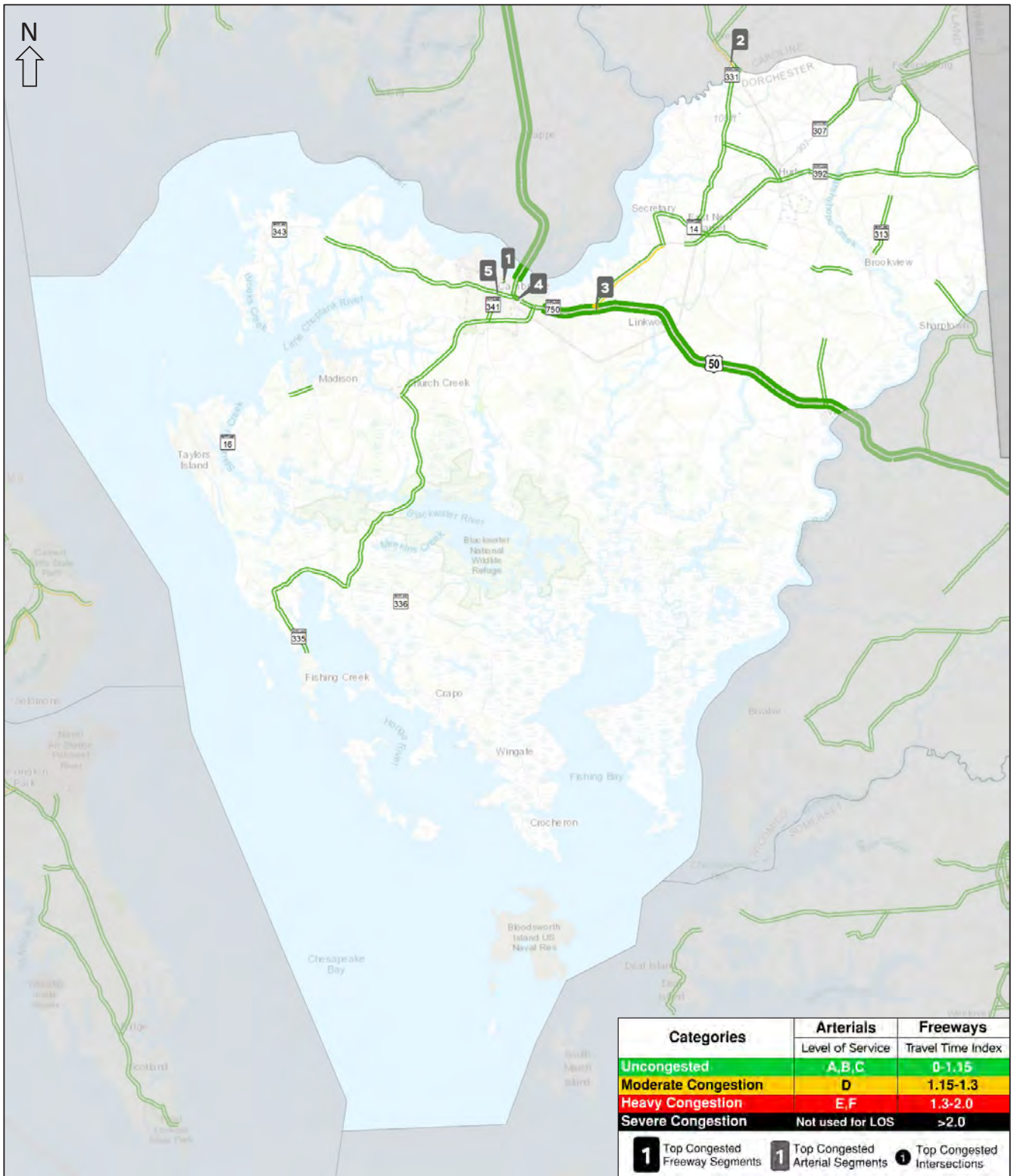
Charles County Congestion Map 2016 PM Peak Hour (5-6) PM



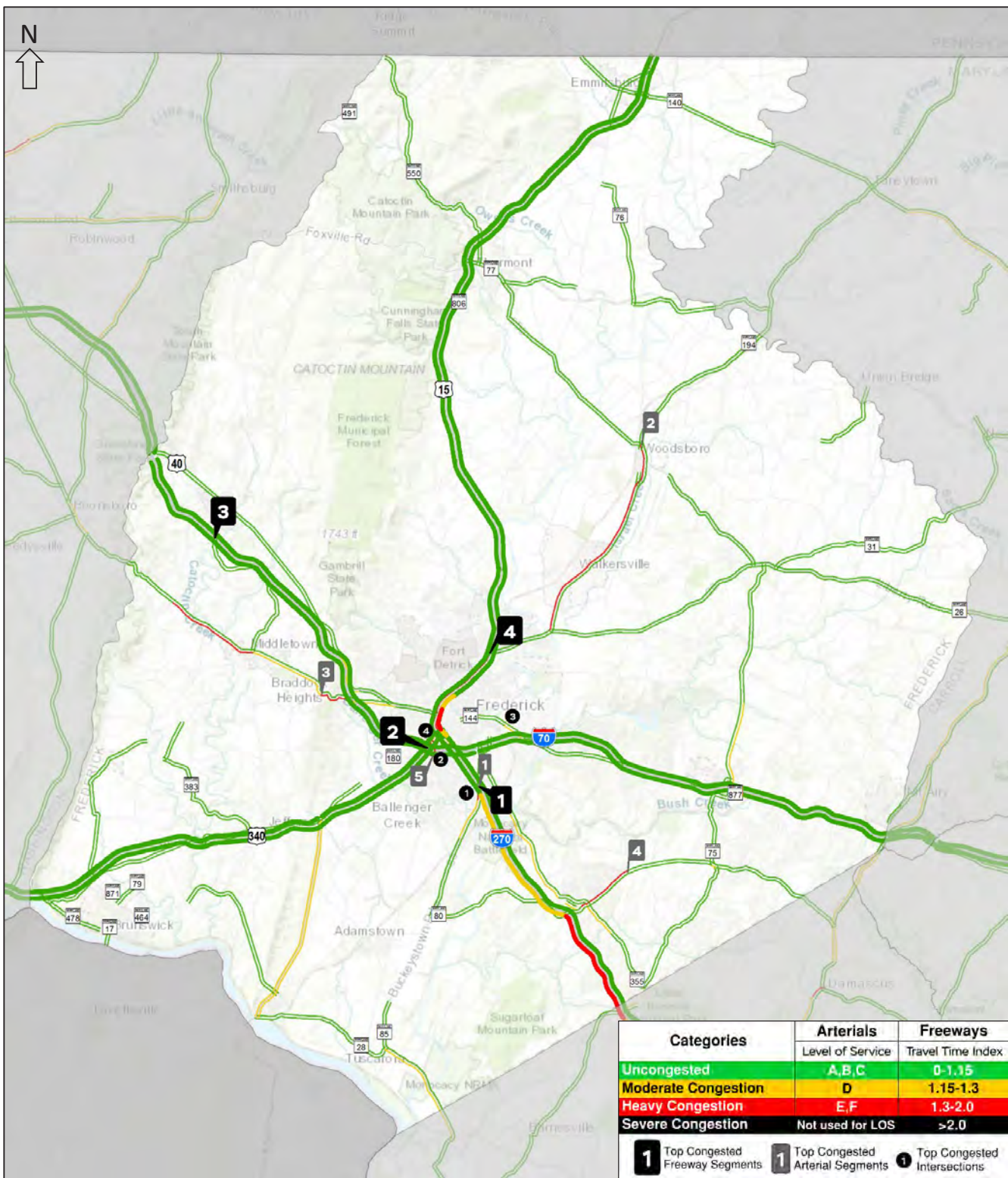
Dorchester County Congestion Map 2016 AM Peak Hour (8-9) AM



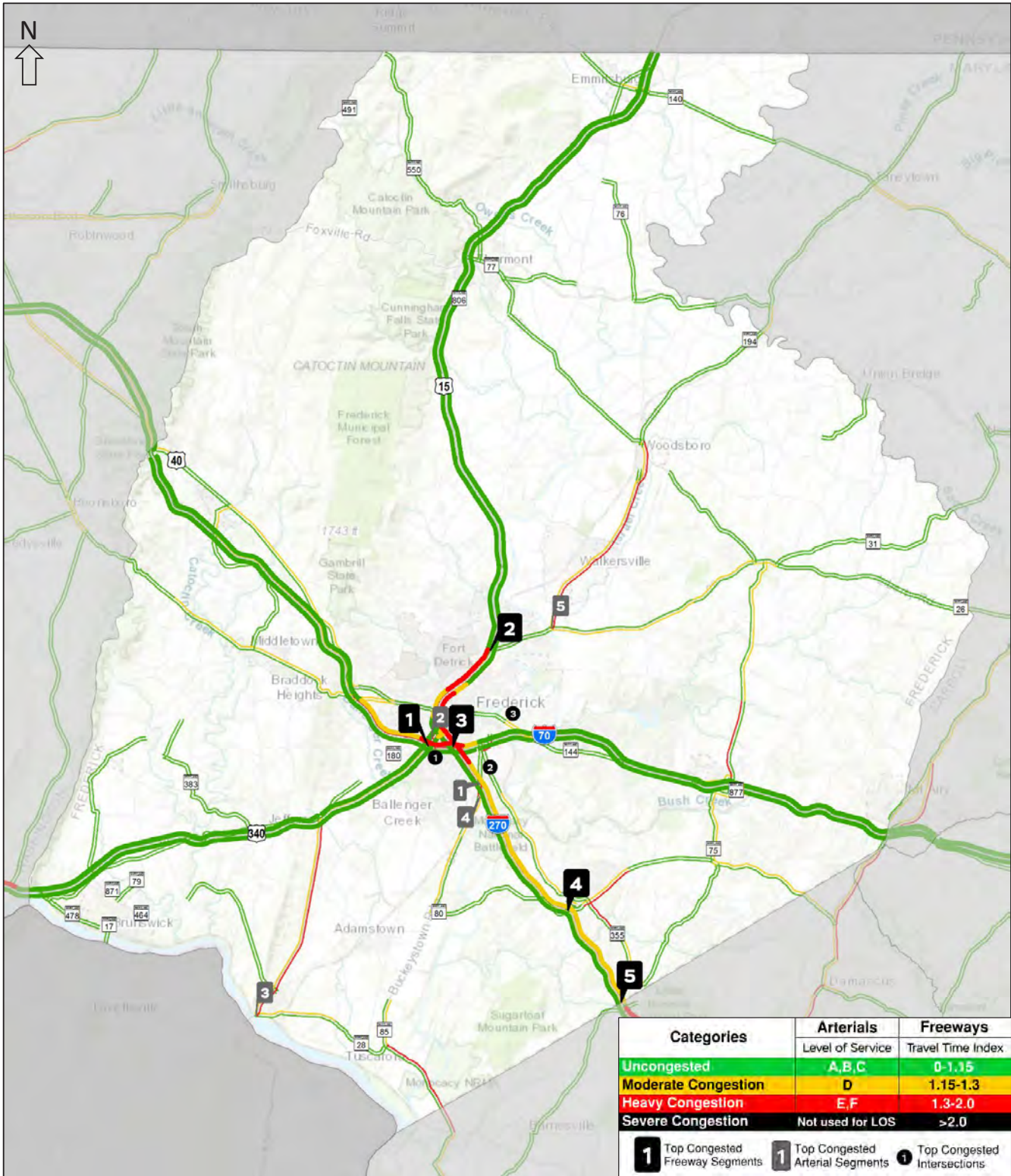
Dorchester County Congestion Map 2016 PM Peak Hour (5-6) PM



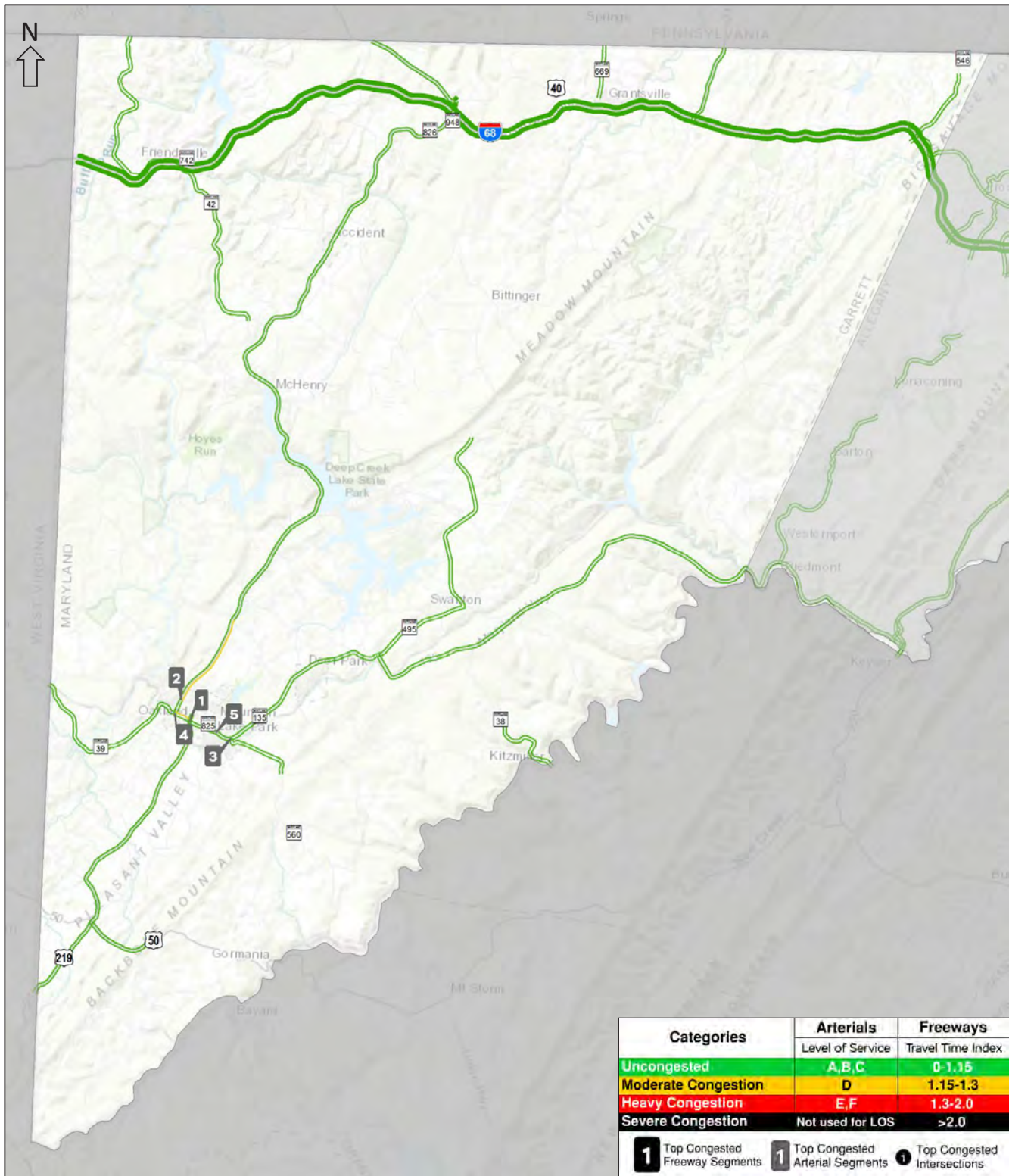
Frederick County Congestion Map 2016 AM Peak Hour (8-9) AM



Frederick County Congestion Map 2016 PM Peak Hour (5-6) PM



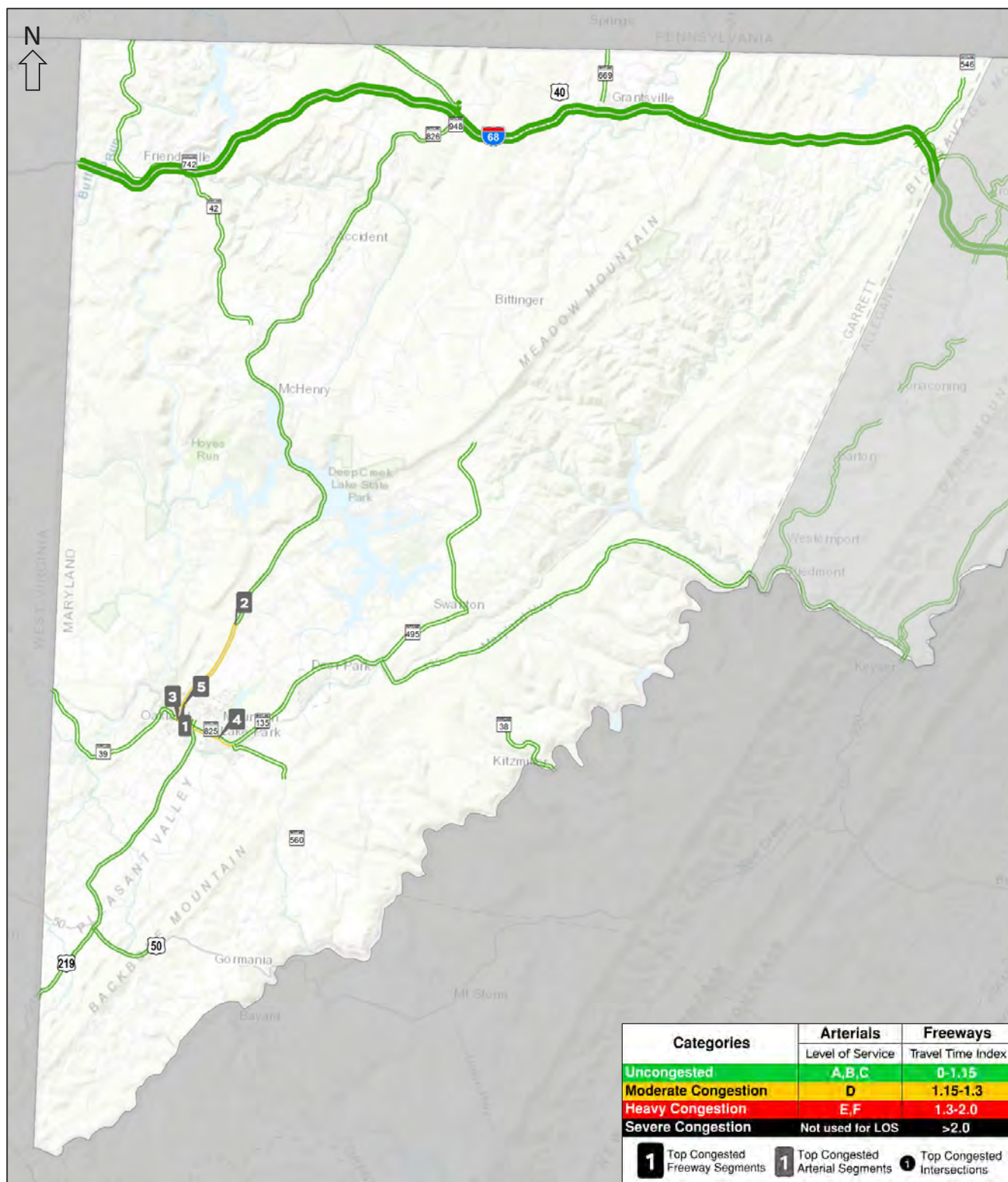
Garrett County Congestion Map 2016 AM Peak Hour (8-9) AM



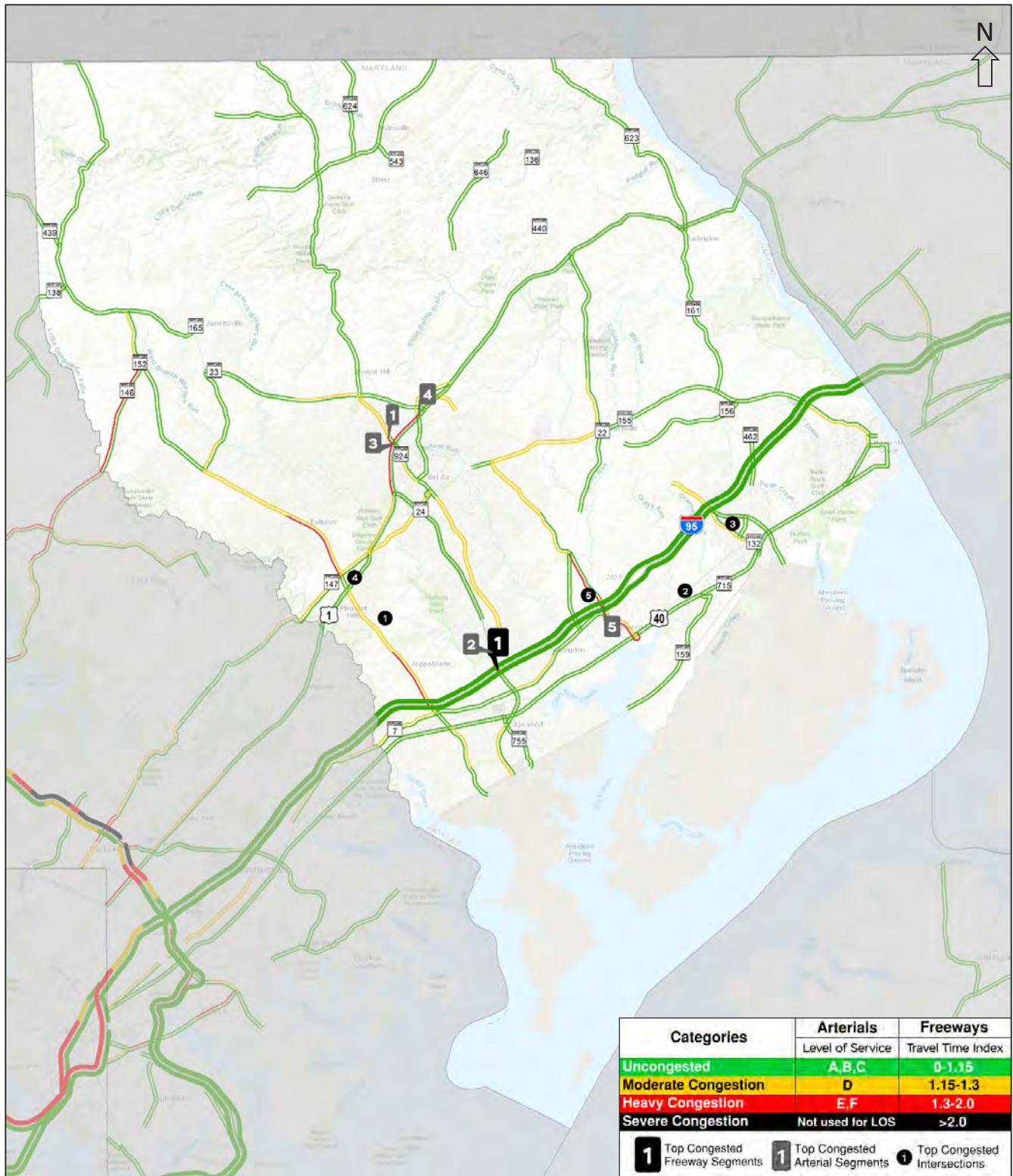
Categories	Arterials	Freeways
	Level of Service	Travel Time Index
Uncongested	A, B, C	0-1.15
Moderate Congestion	D	1.15-1.3
Heavy Congestion	E, F	1.3-2.0
Severe Congestion	Not used for LOS	>2.0

1 Top Congested Freeway Segments	1 Top Congested Arterial Segments	1 Top Congested Intersections
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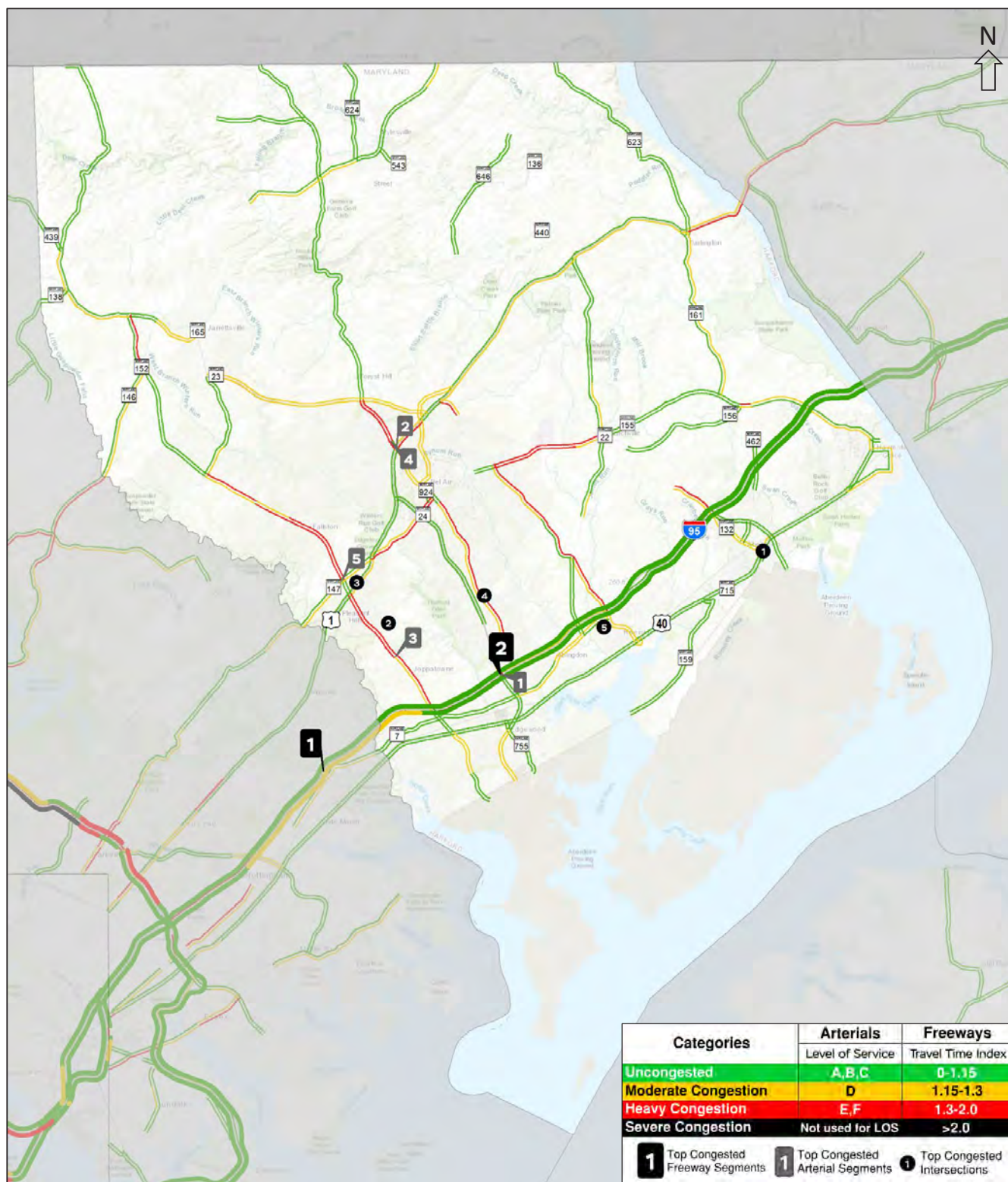
Garrett County Congestion Map 2016 PM Peak Hour (5-6) PM



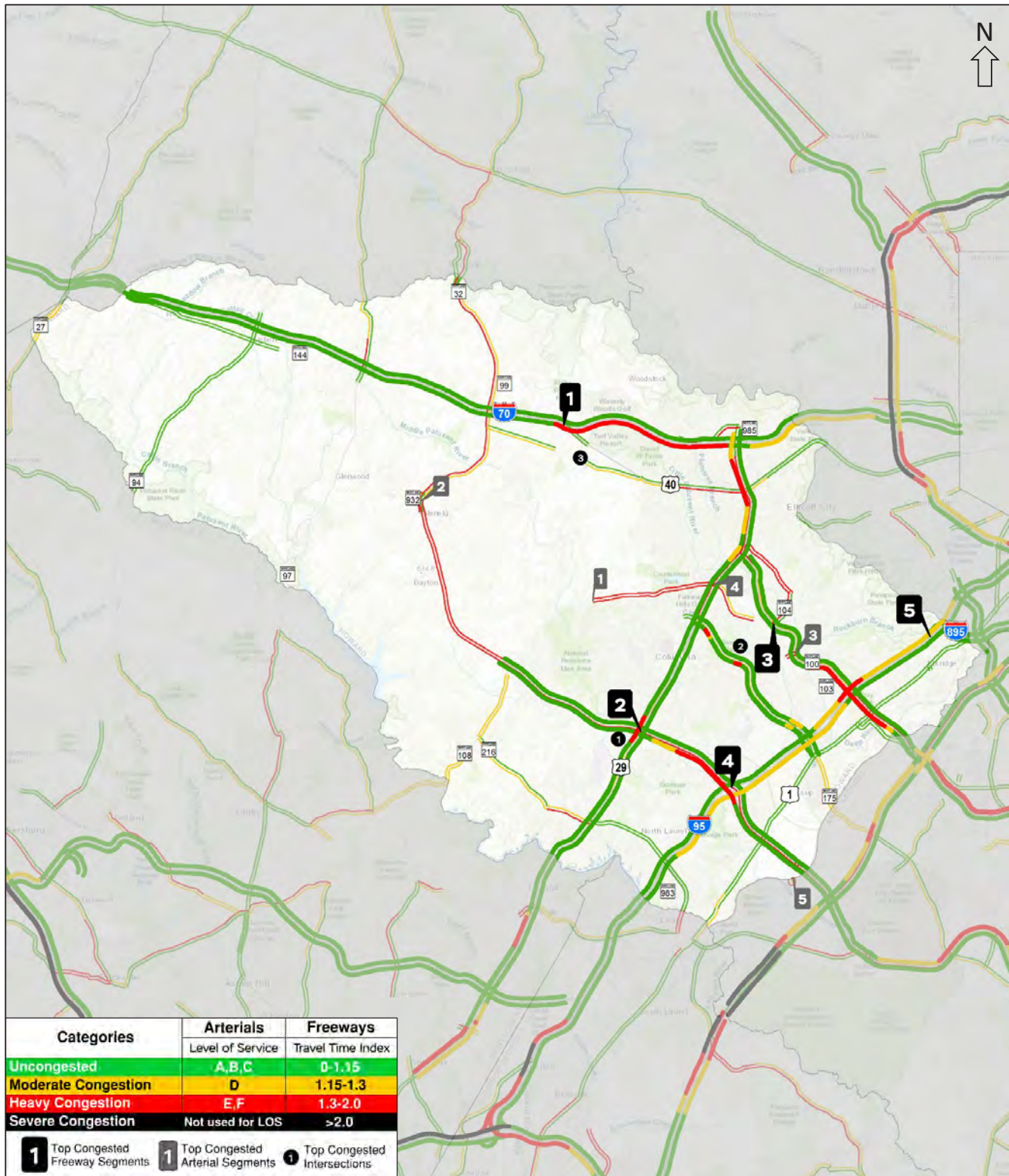
Harford County Congestion Map 2016 AM Peak Hour (8-9) AM



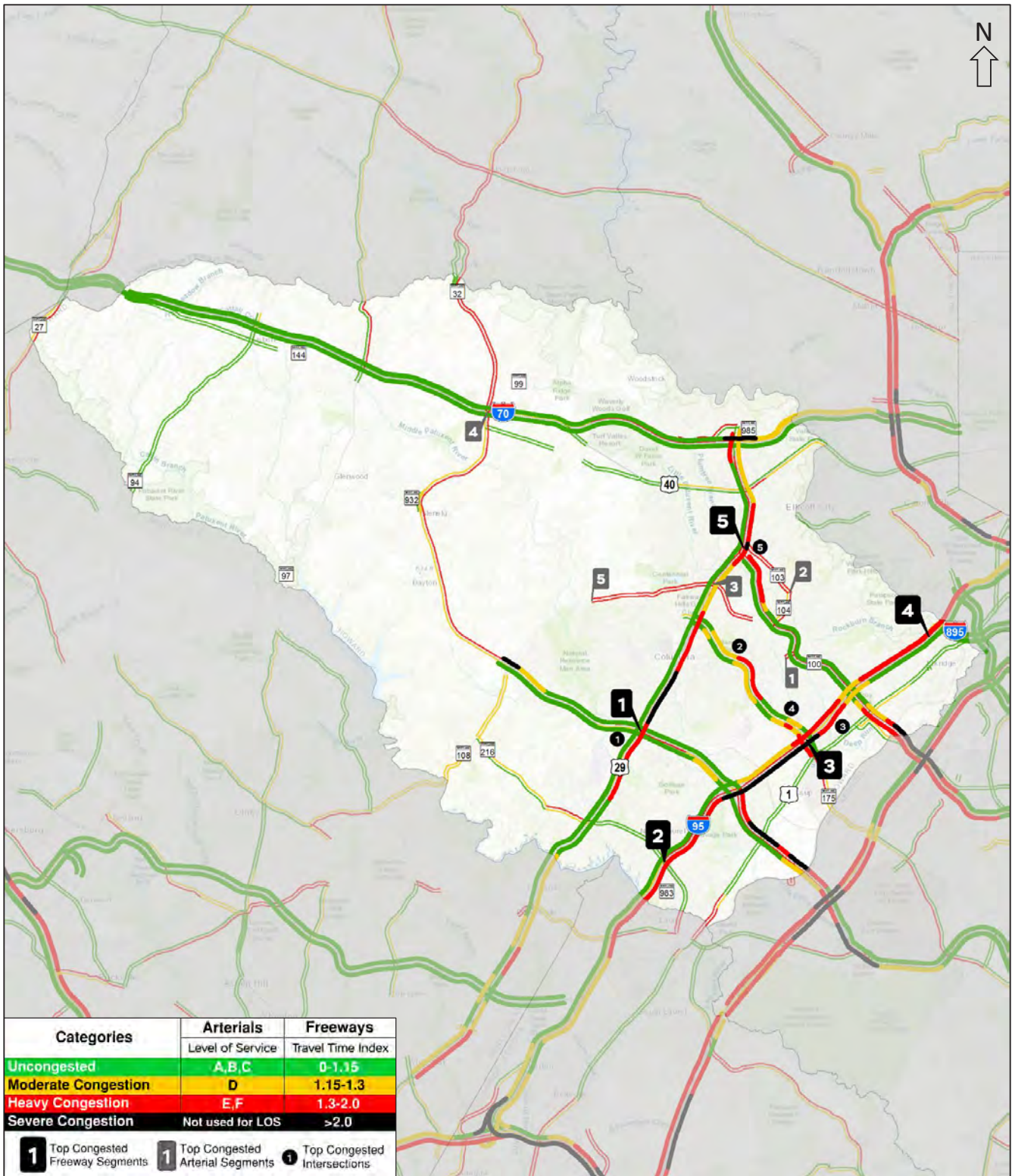
Harford County Congestion Map 2016 PM Peak Hour (5-6) PM



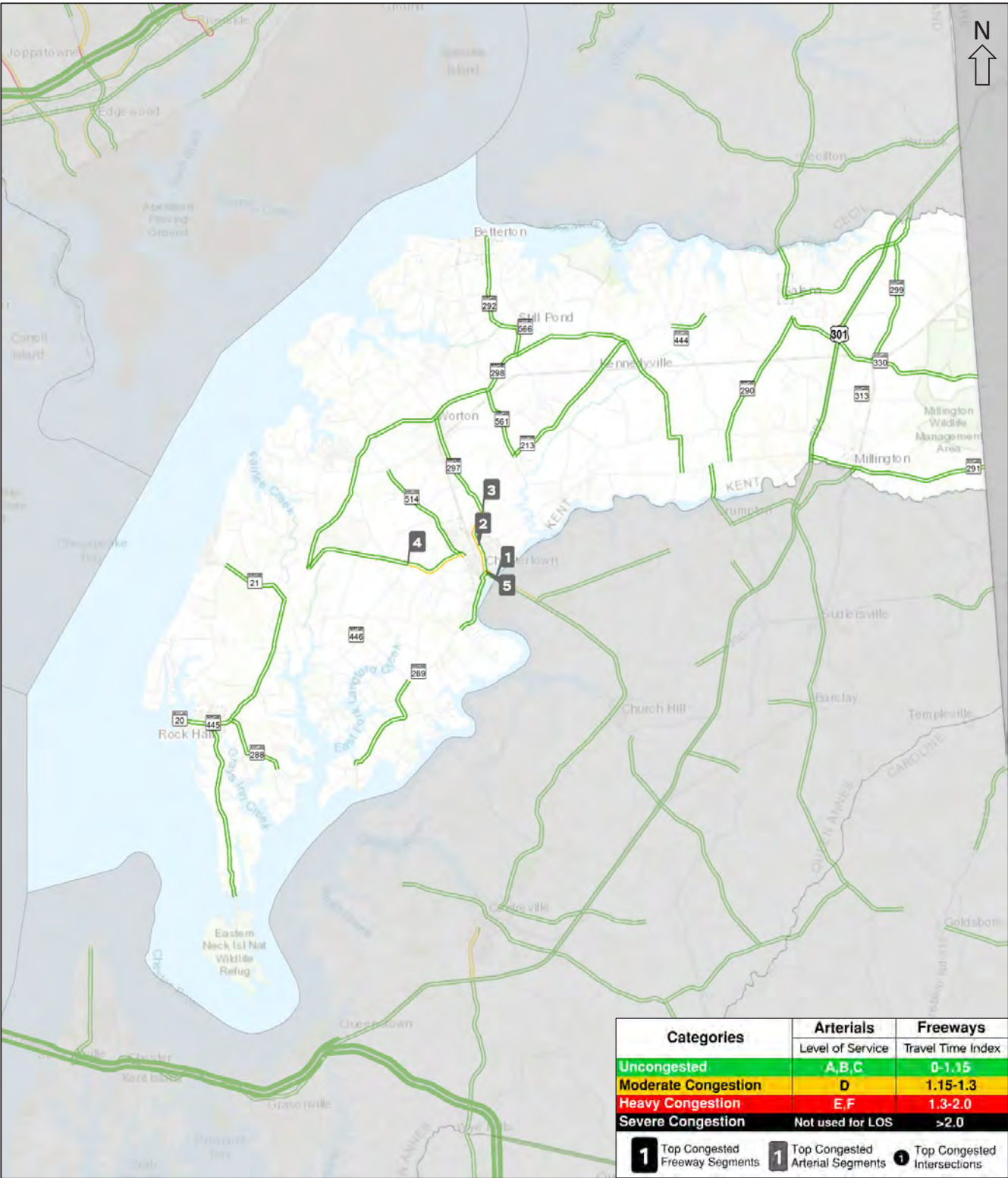
Howard County Congestion Map 2016 AM Peak Hour (8-9) AM



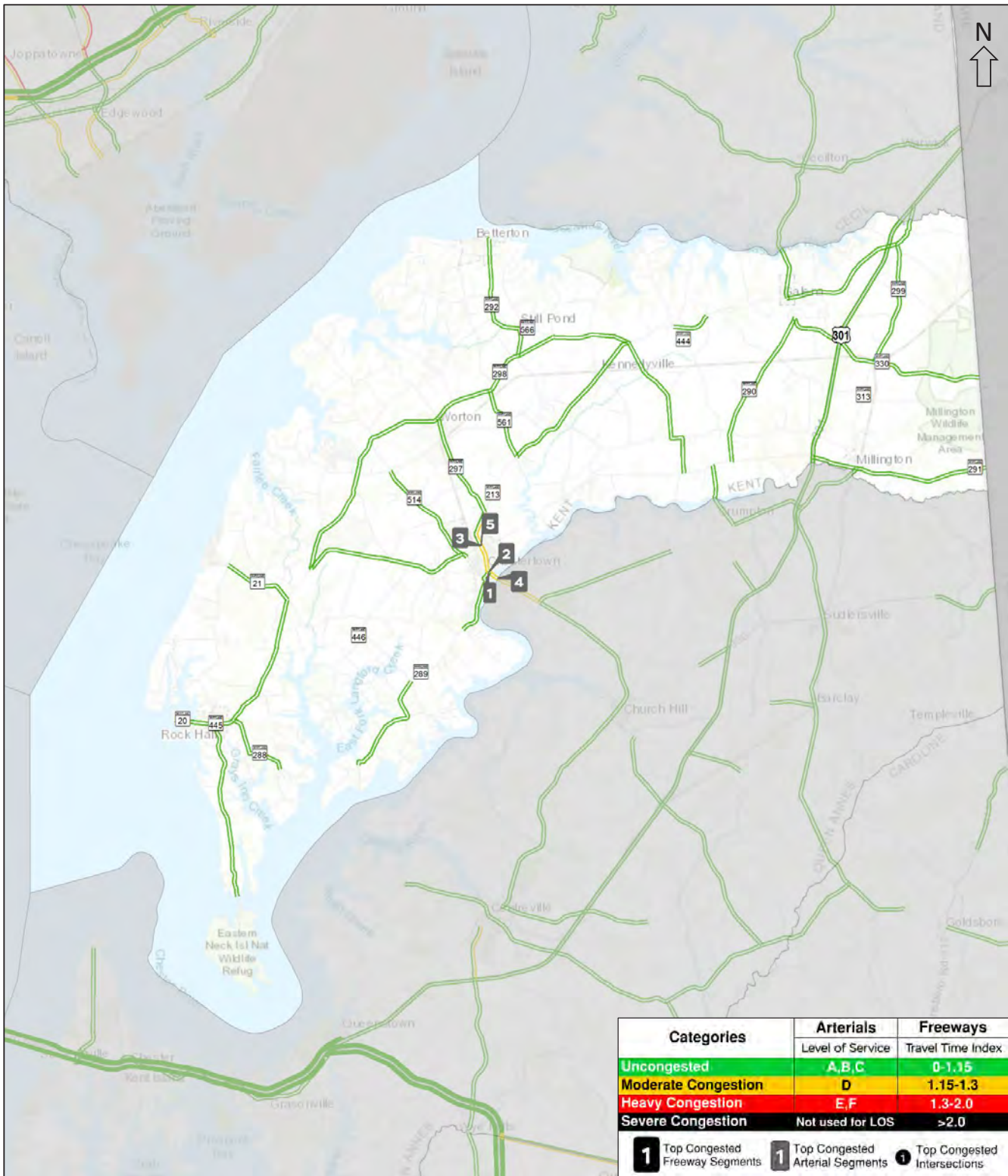
Howard County Congestion Map 2016 PM Peak Hour (5-6) PM



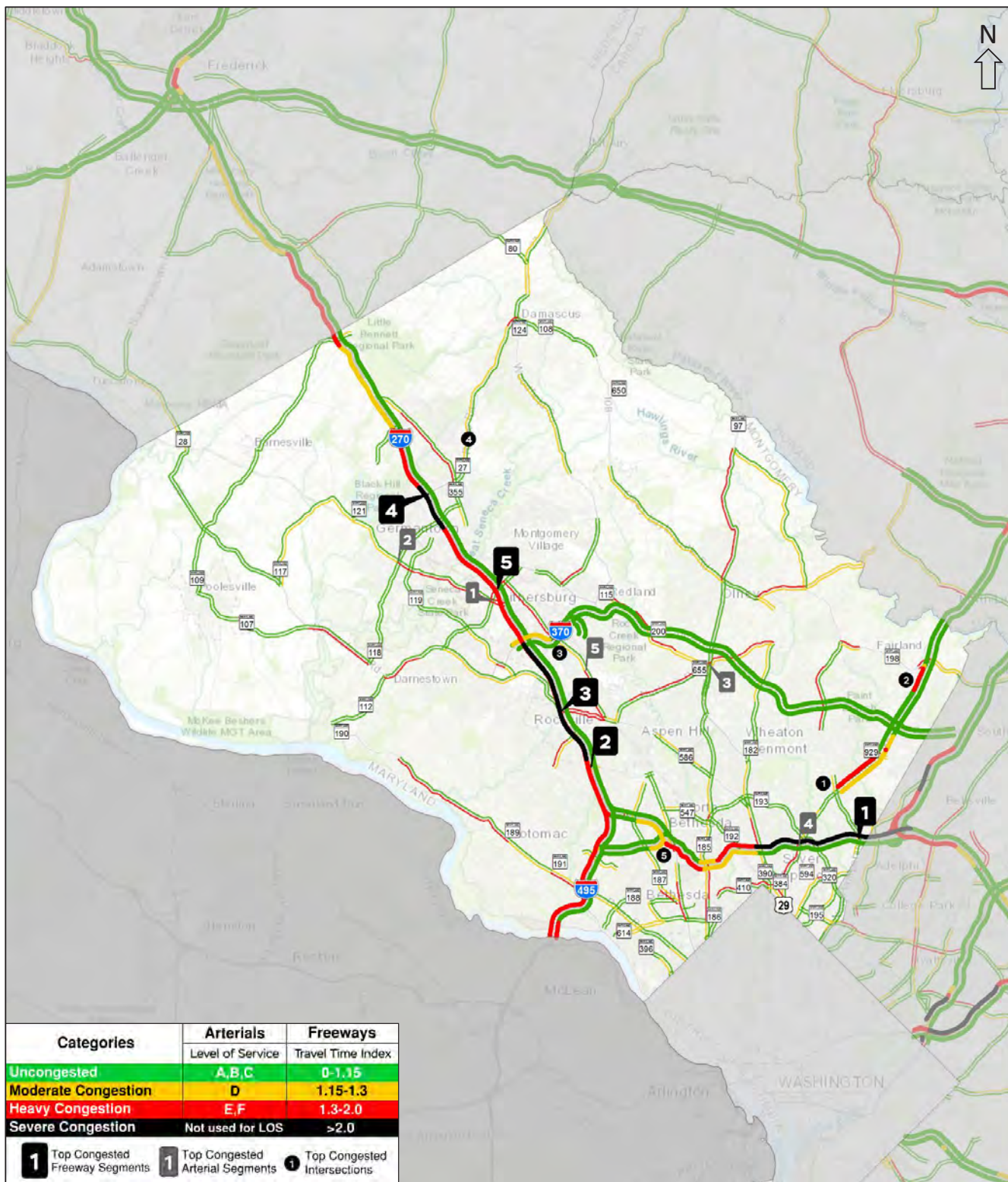
Kent County Congestion Map 2016 AM Peak Hour (8-9) AM



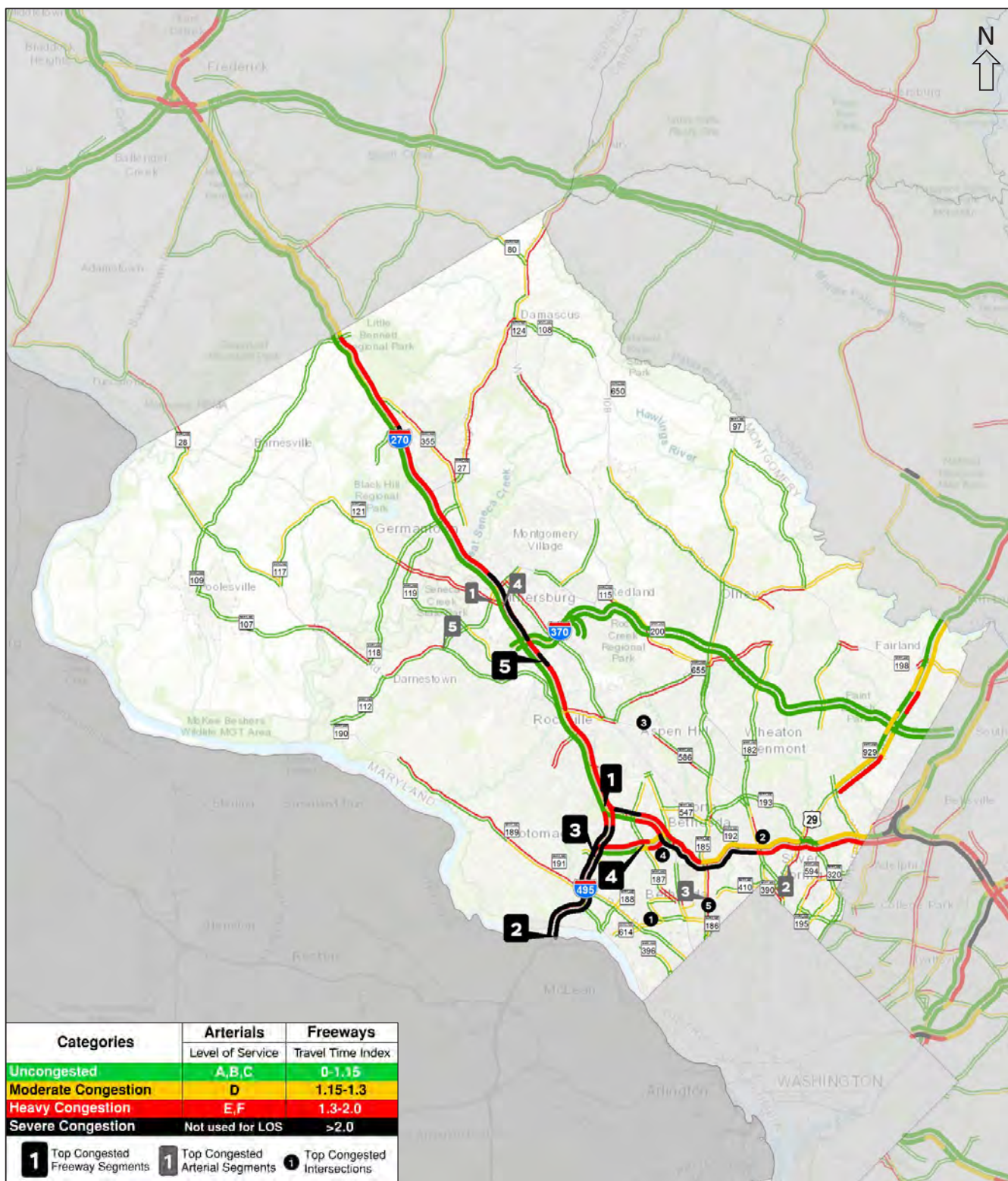
Kent County Congestion Map 2016 PM Peak Hour (5-6) PM



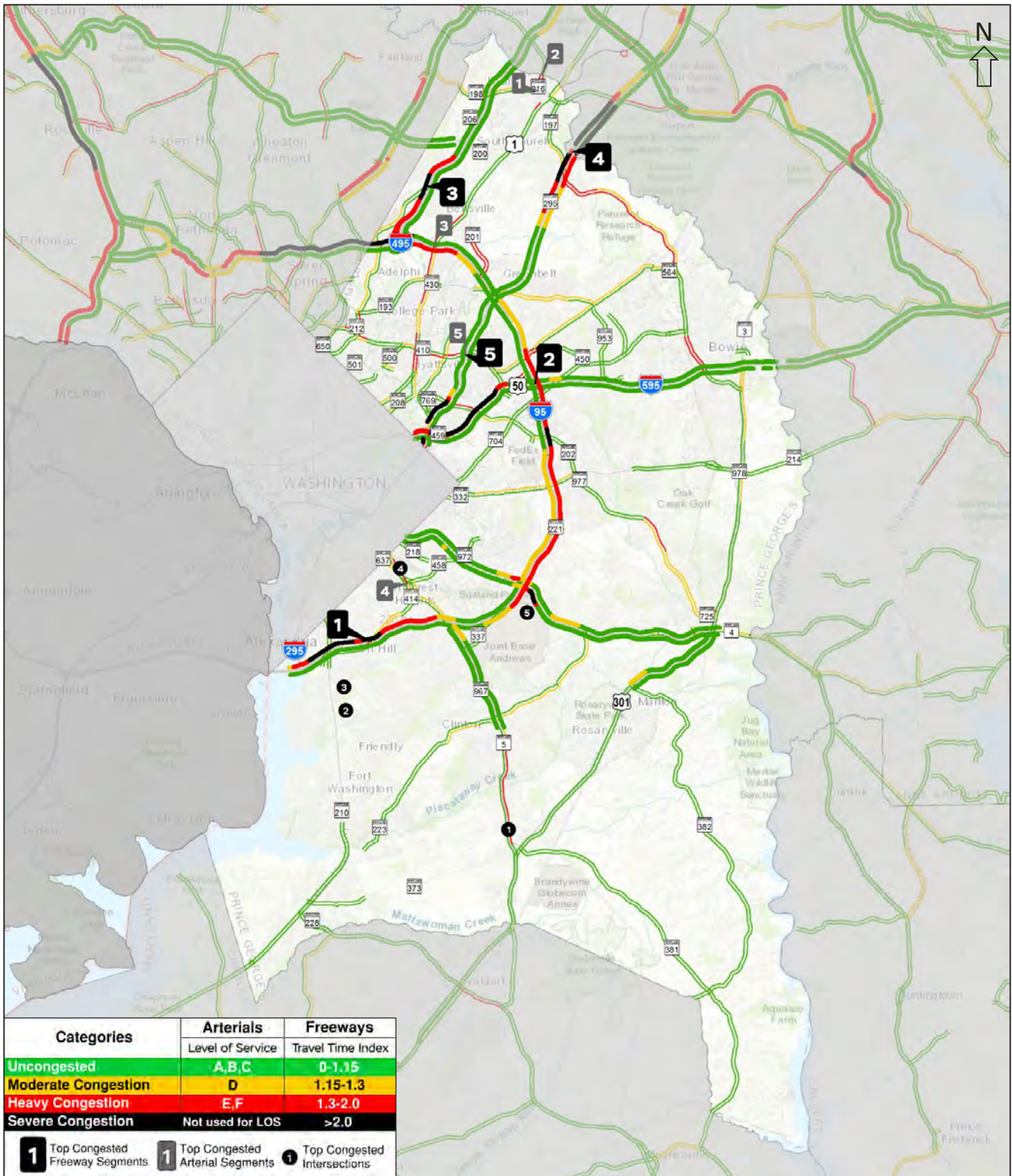
Montgomery County Congestion Map 2016 AM Peak Hour (8-9) AM



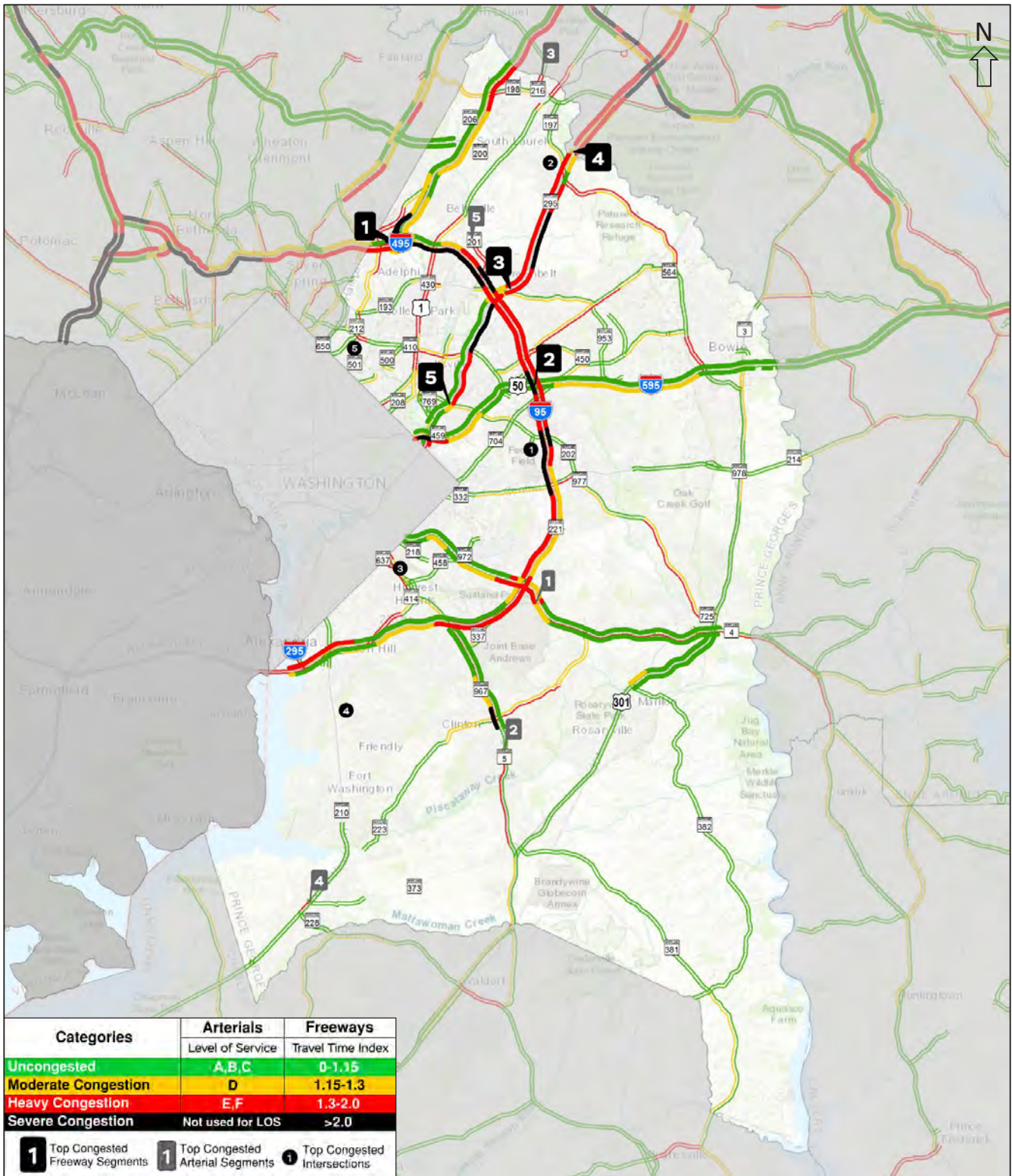
Montgomery County Congestion Map 2016 PM Peak Hour (5-6) PM



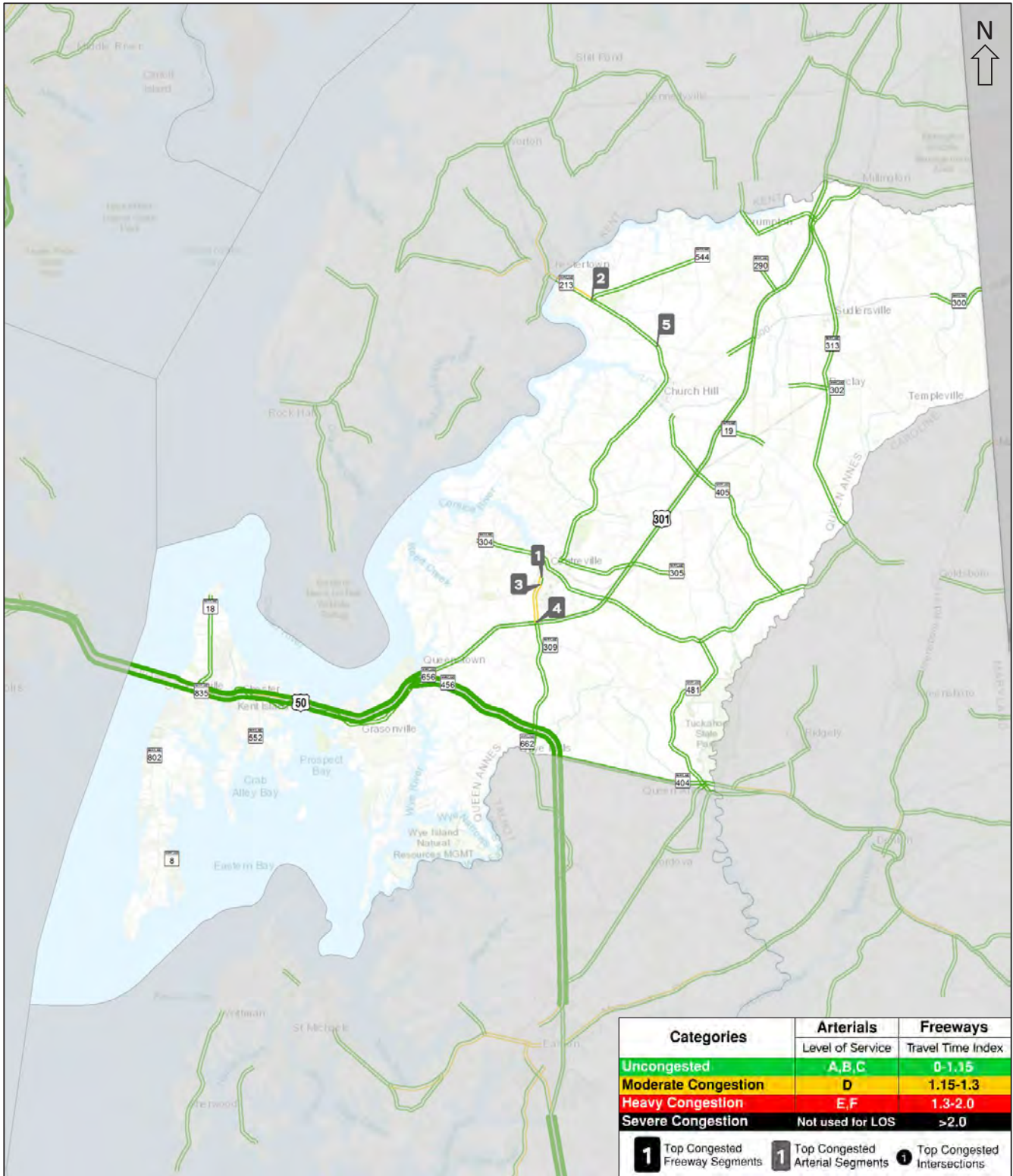
Prince George's County Congestion Map 2016 AM Peak Hour (8-9) AM



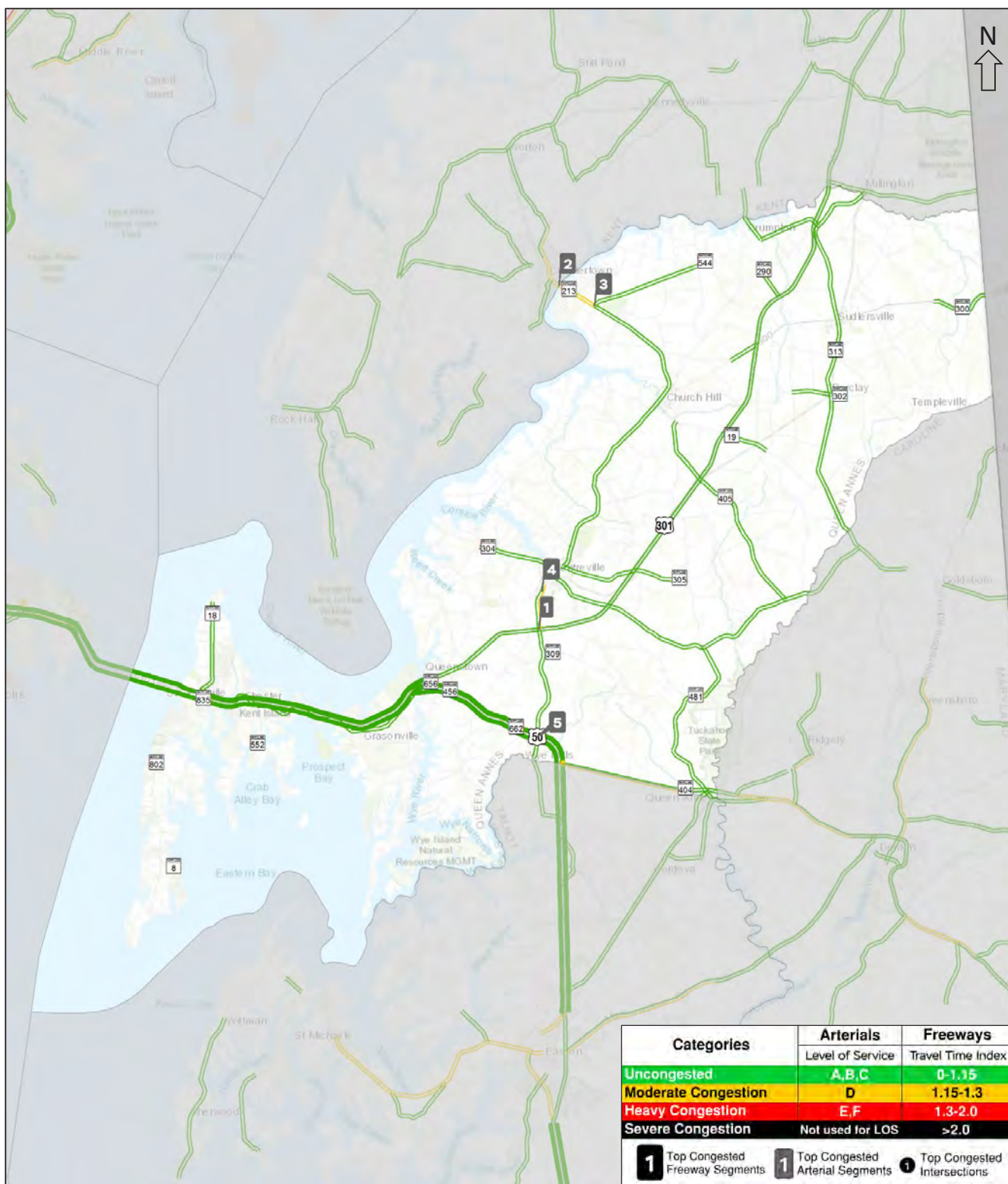
Prince George's County Congestion Map 2016 PM Peak Hour (5-6) PM



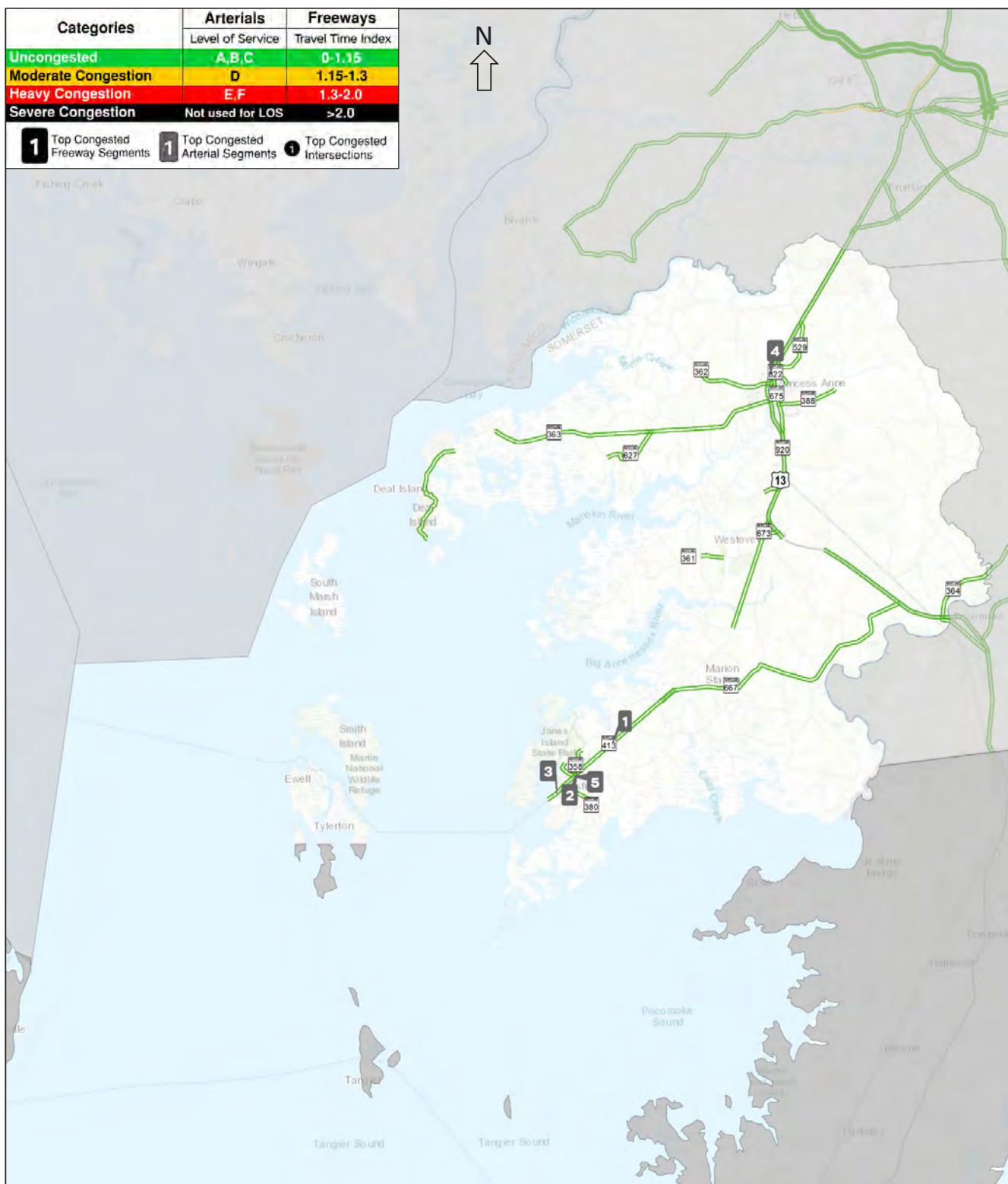
Queen Anne's County Congestion Map 2016 AM Peak Hour (8-9) AM



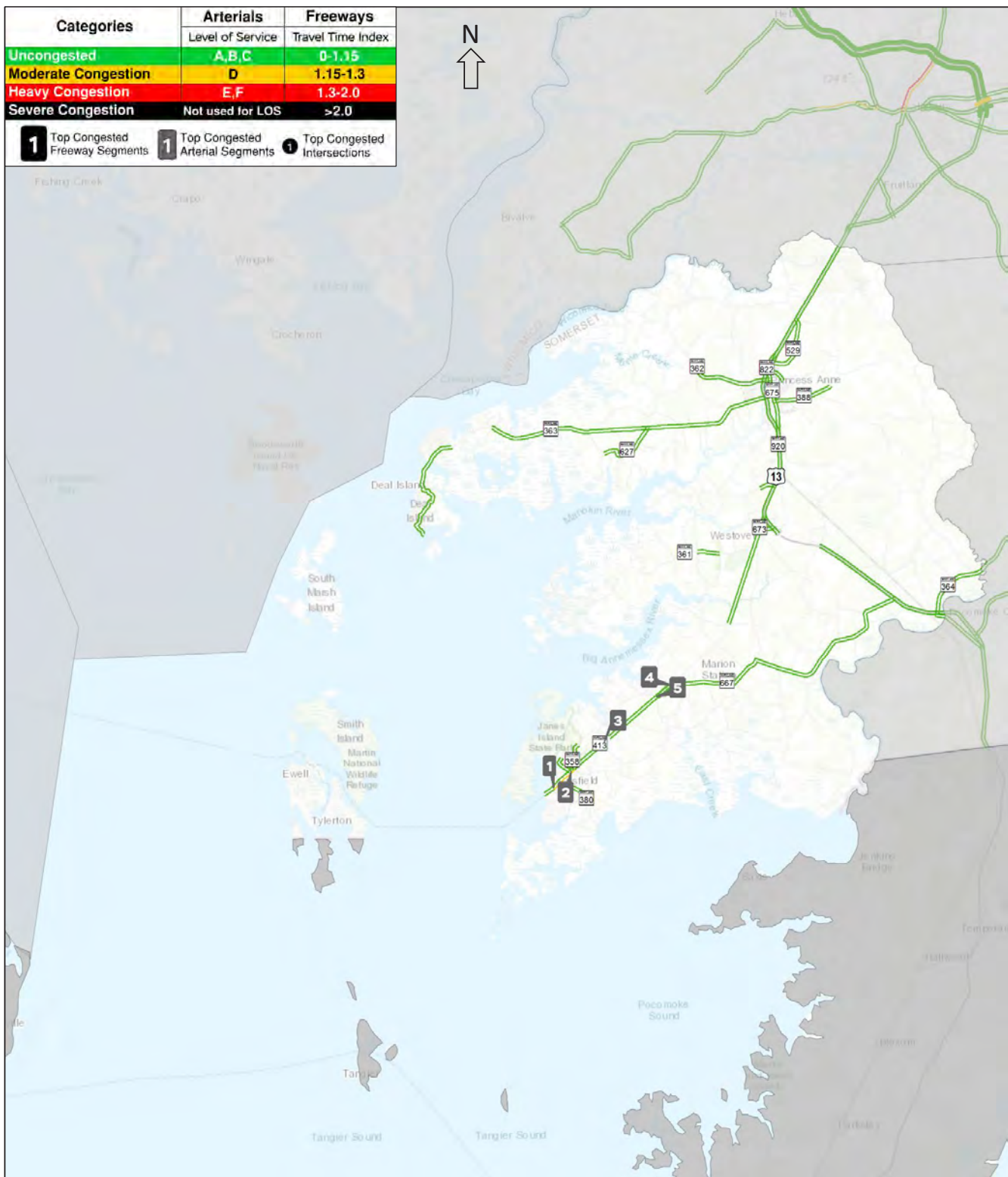
Queen Anne's County Congestion Map 2016 PM Peak Hour (5-6) PM



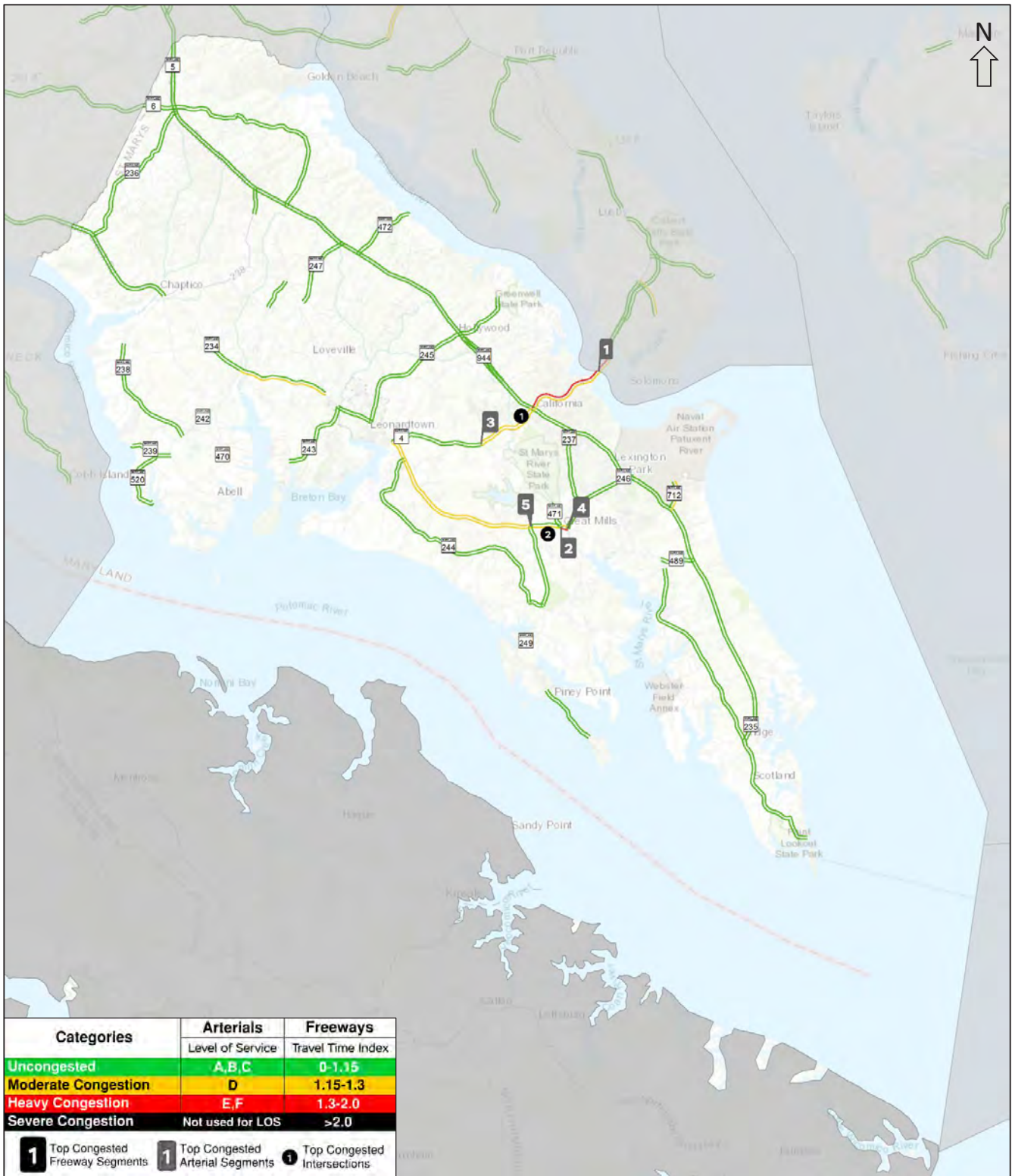
Somerset County Congestion Map 2016 AM Peak Hour (8-9) AM



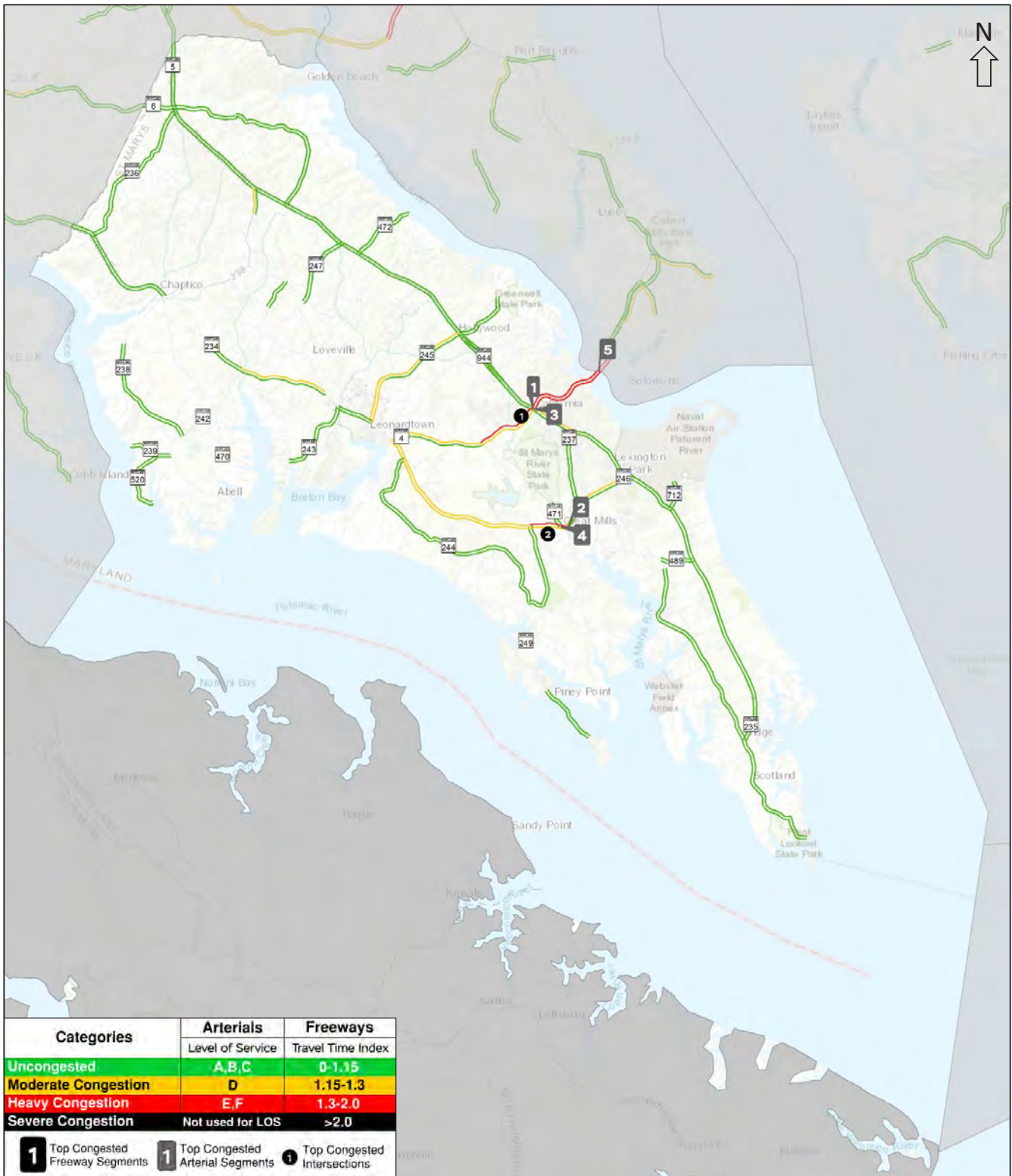
Somerset County Congestion Map 2016 PM Peak Hour (5-6) PM



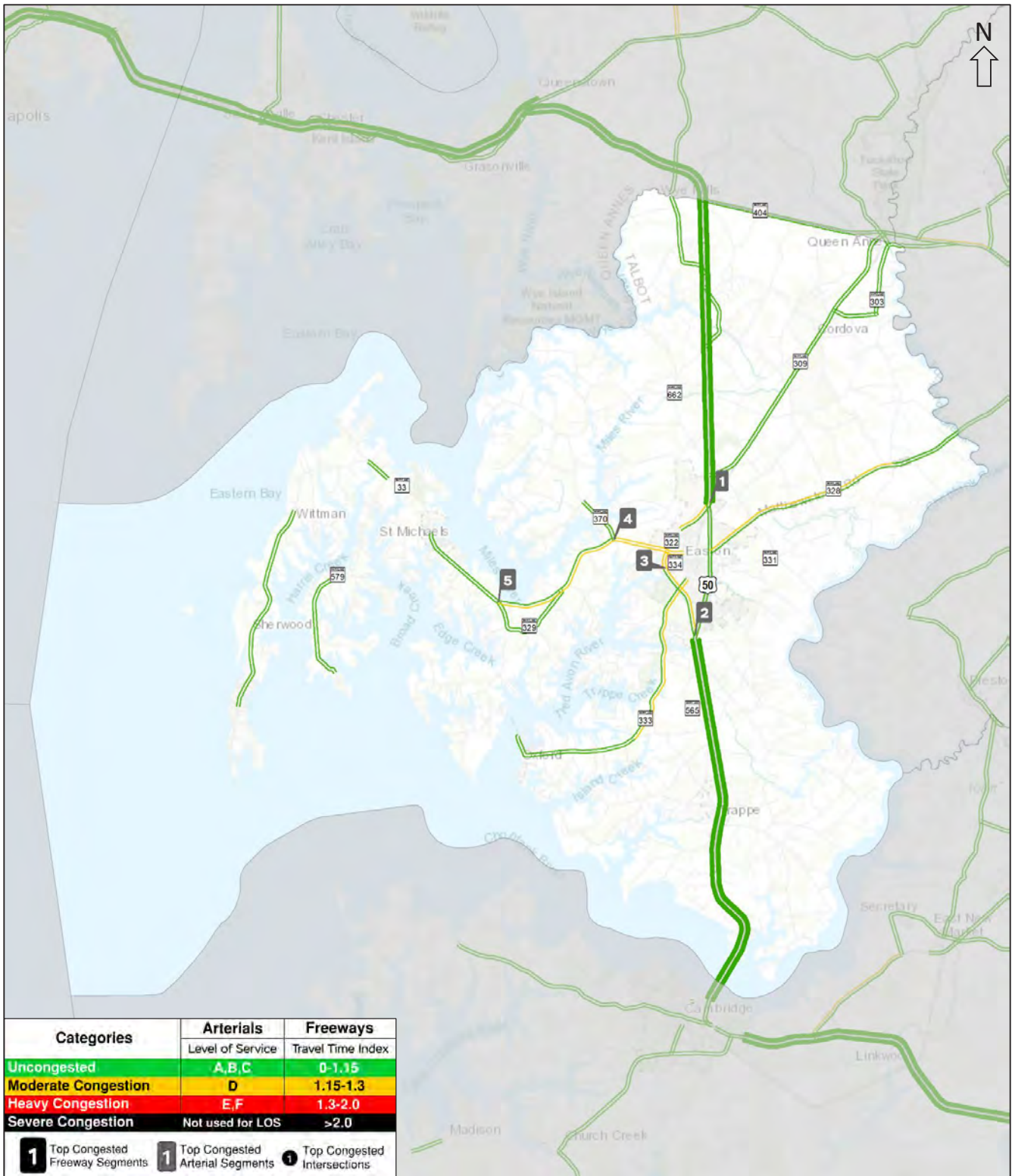
St. Mary's County Congestion Map 2016 AM Peak Hour (8-9) AM



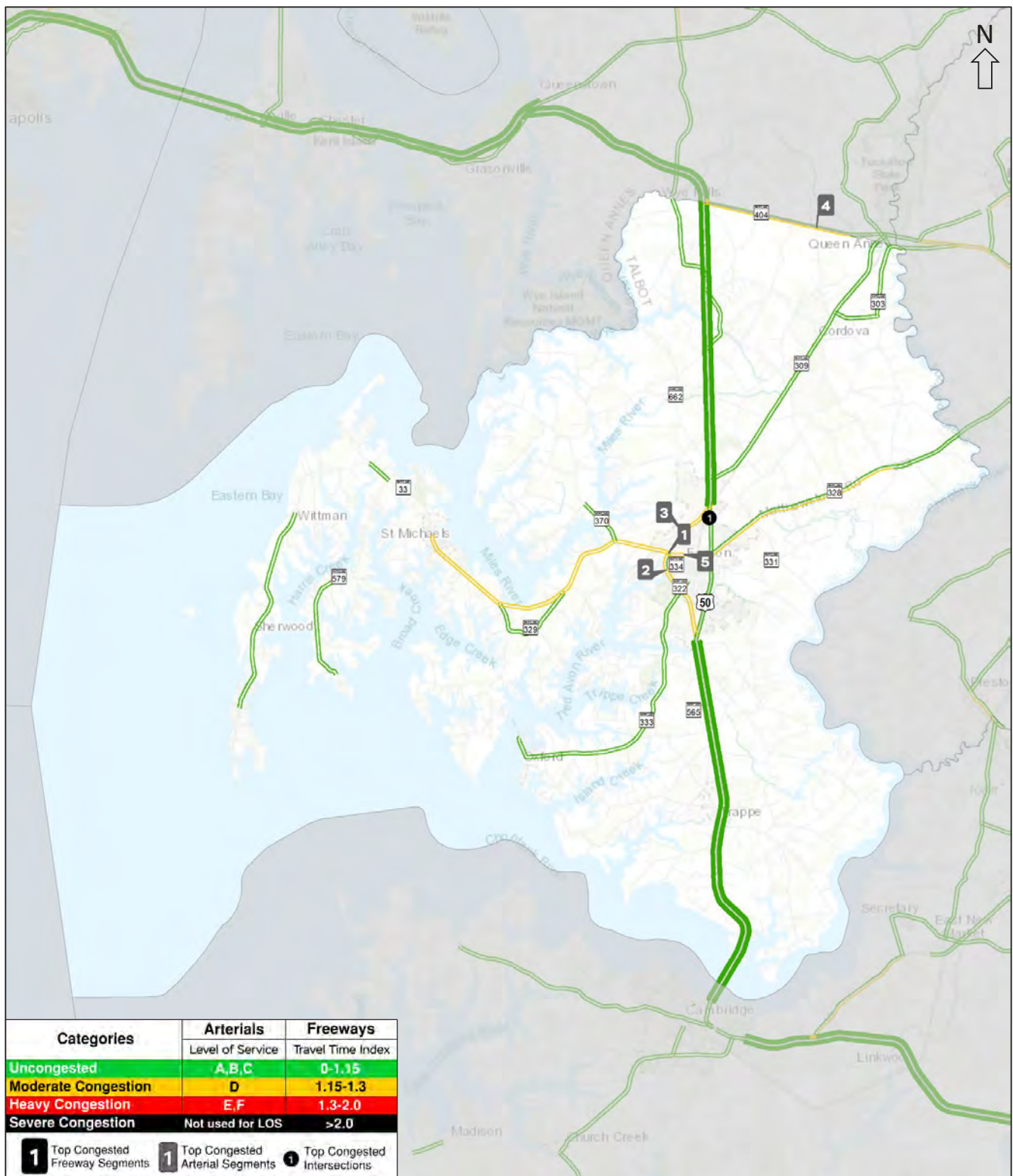
St. Mary's County Congestion Map 2016 PM Peak Hour (5-6) PM



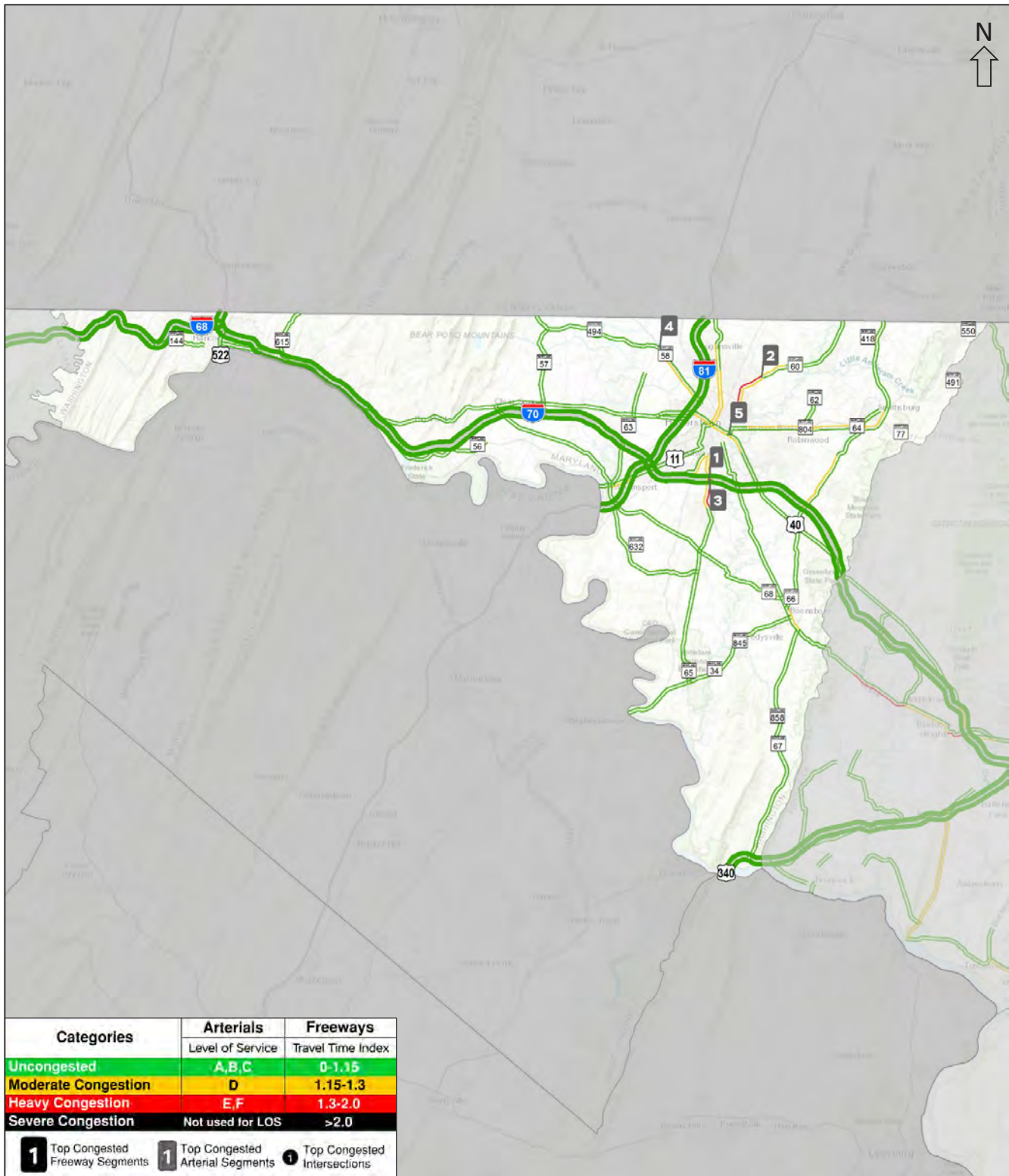
Talbot County Congestion Map 2016 AM Peak Hour (8-9) AM



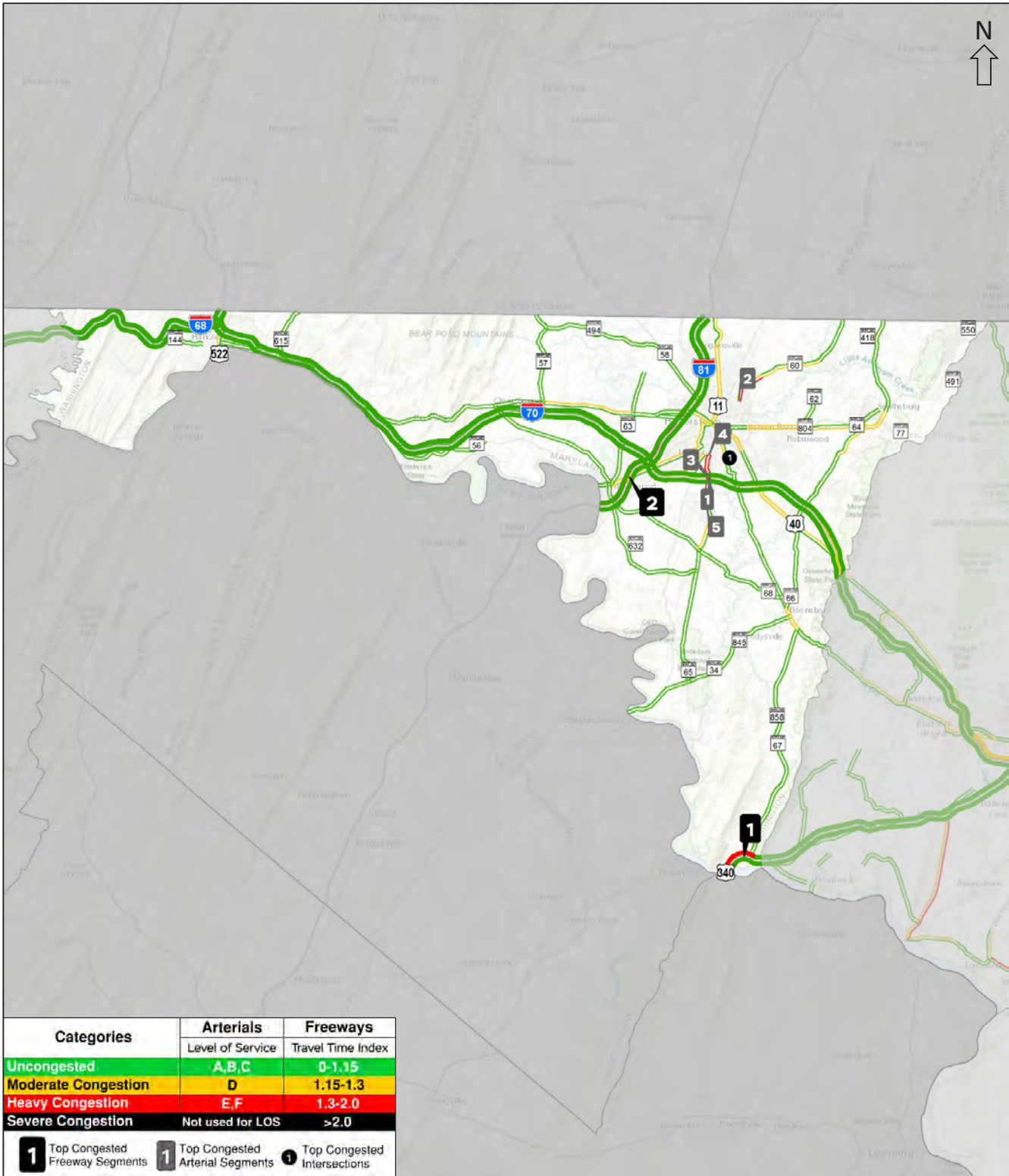
Talbot County Congestion Map 2016 PM Peak Hour (5-6) PM



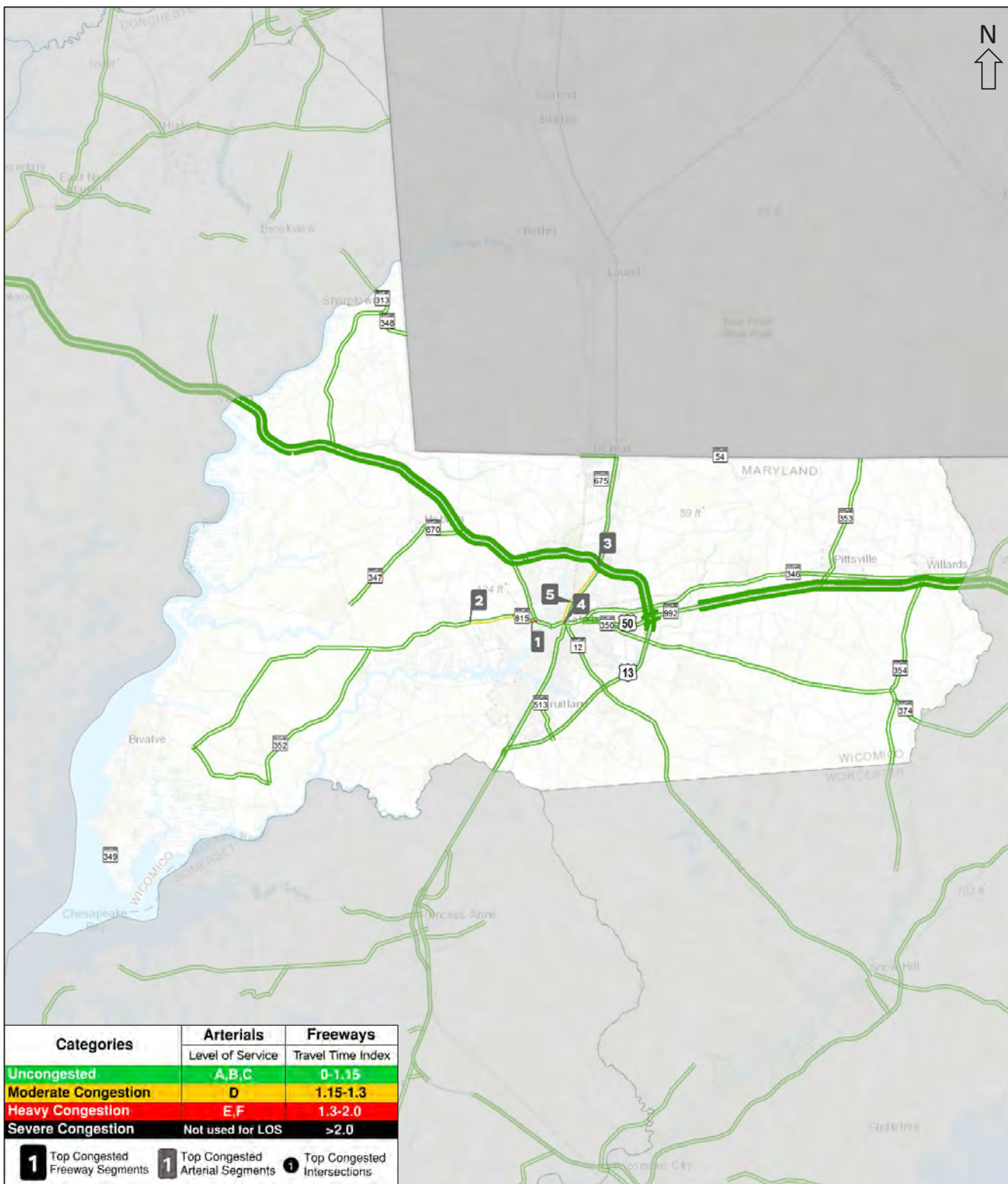
Washington County Congestion Map 2016 AM Peak Hour (8-9) AM



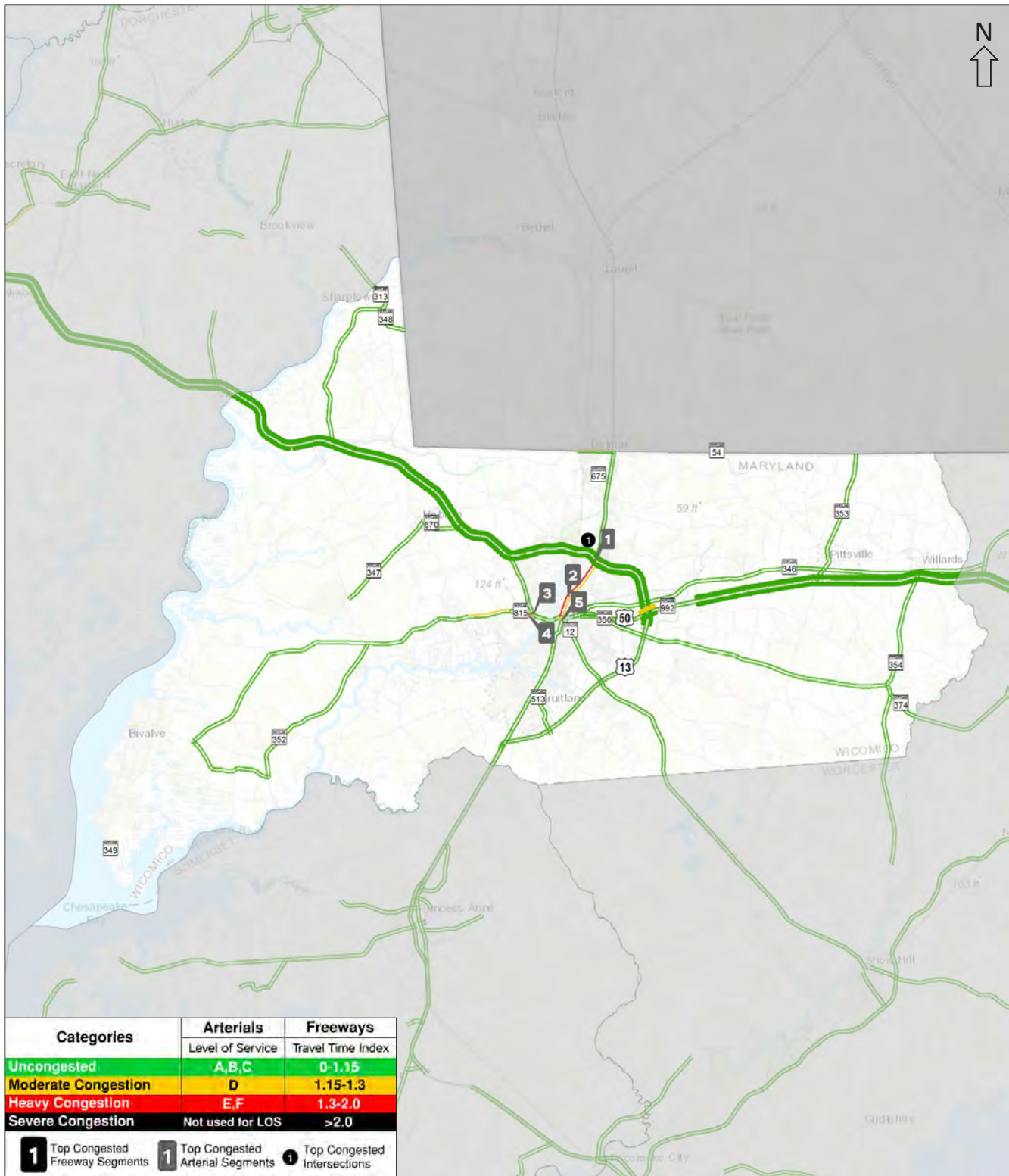
Washington County Congestion Map 2016 PM Peak Hour (5-6) PM



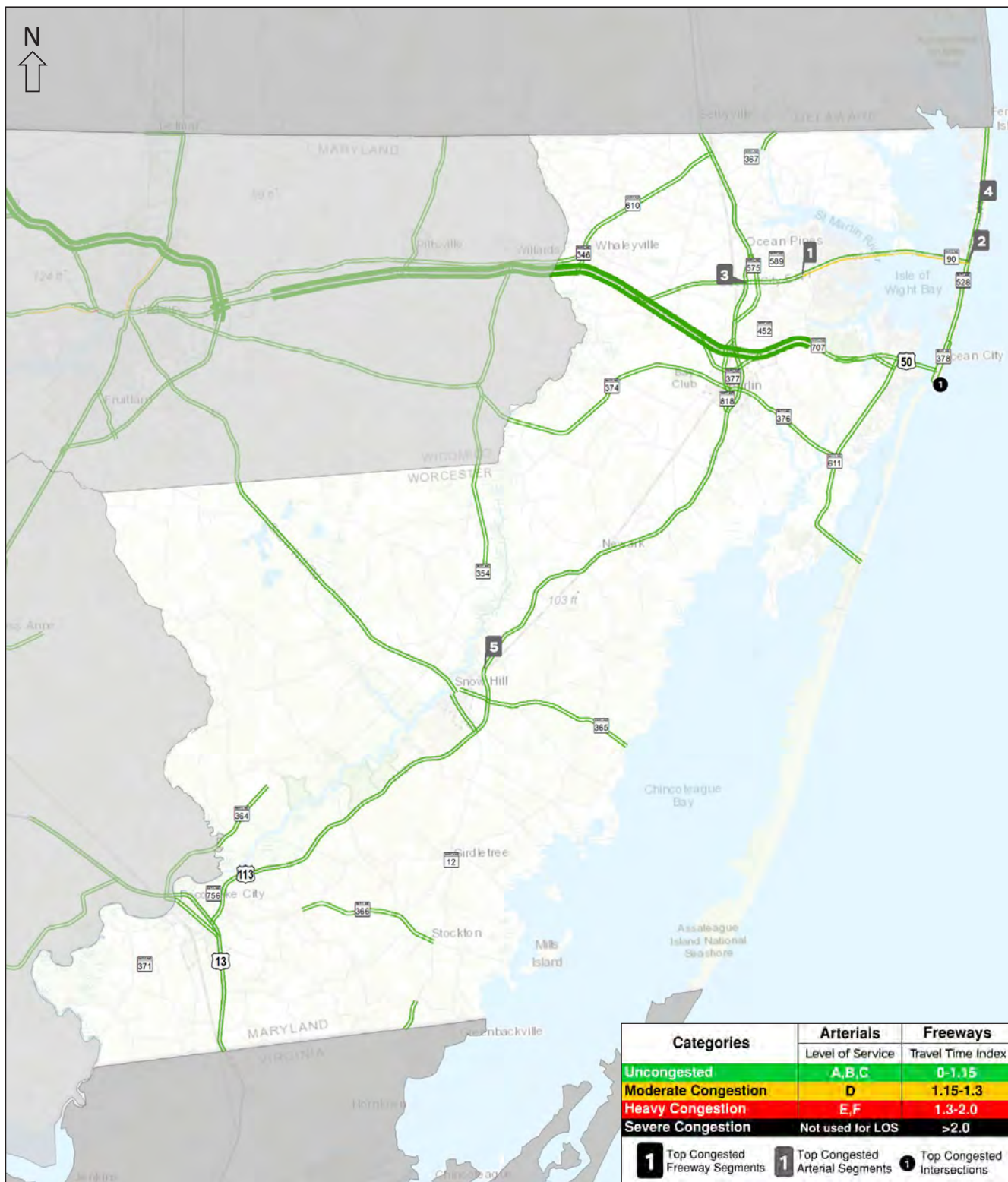
Wicomico County Congestion Map 2016 AM Peak Hour (8-9) AM



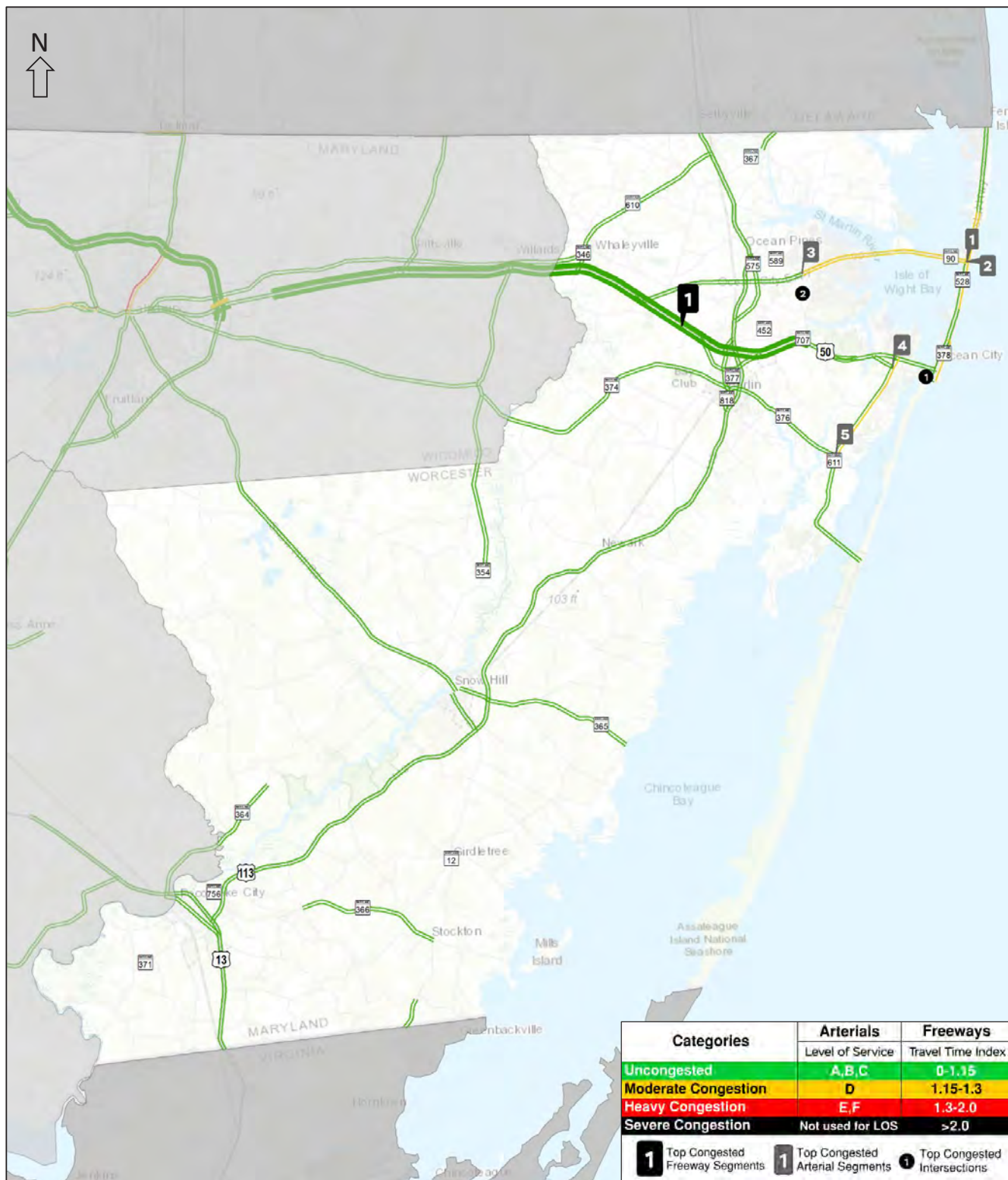
Wicomico County Congestion Map 2016 PM Peak Hour (5-6) PM



Worcester County Congestion Map 2016 AM Peak Hour (8-9) AM



Worcester County Congestion Map 2016 PM Peak Hour (5-6) PM





Appendix C

Capital Projects Before/After

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BEFORE

AFTER

US 220 at Louise Drive

LOCATION: CUMBERLAND, ALLEGANY COUNTY

This project provided a 400-foot left turn lane on US 220 northbound (McMullen Highway) between Louise Drive and Cedarwood Drive, south of Cumberland. Signage and pavement markings were upgraded to current standards. This project will help ease congestion by removing the left turn movement from the through traffic.

Intersection Background

- The stop controlled approach LOS for Louise Drive was LOS D during both the AM and PM peak hours.
- There was one crash reported during the three-year study period.
- US 220 has an ADT of approximately 17,000 vehicles per day.

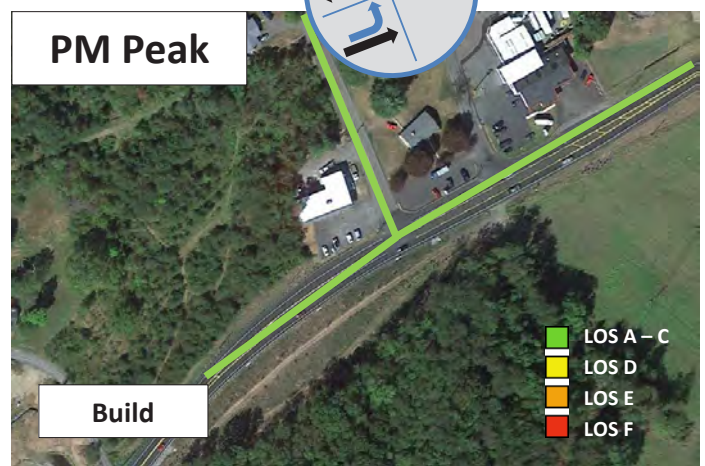
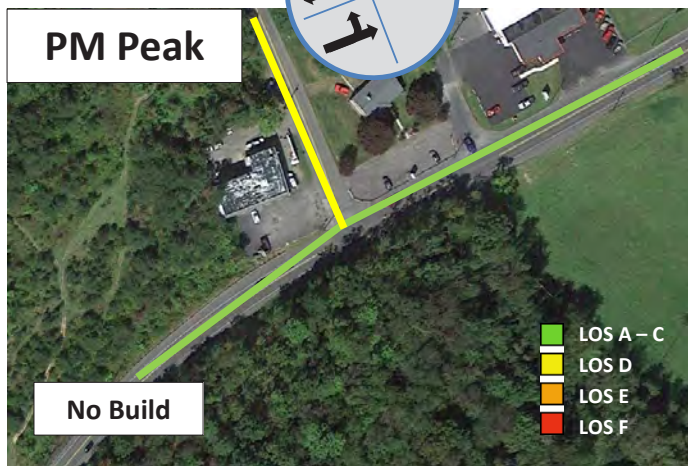
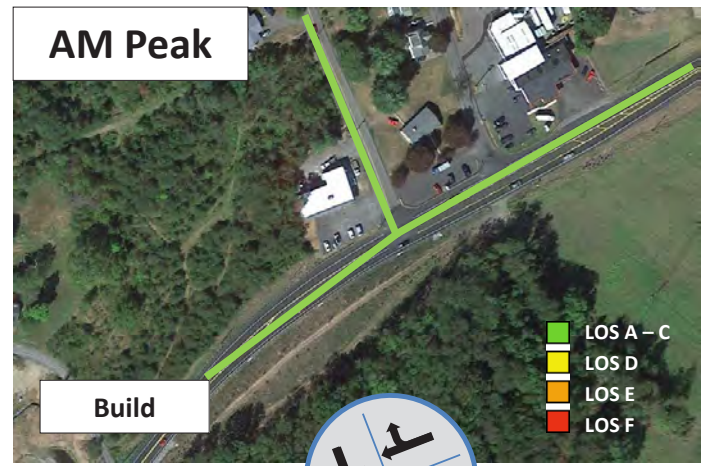
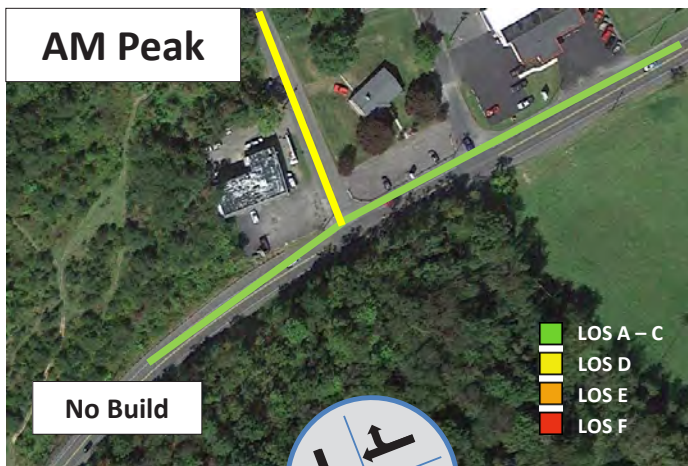
Project Scope

- Provide a 400-foot left turn lane on US 220 northbound.

Benefits

- The addition of the left turn lane will improve safety at the intersection by reducing congestion and conflicts.
- The reduction in delay between the existing and proposed improvements is expected to be 14% during the AM peak hour.
- The left turn lane provides a storage area for turning vehicles. Removing stopped motorists will improve the flow for US 220 northbound traffic.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$11.0	\$0.2	\$5.8	\$1.8	0.2





BEFORE



AFTER

MD 2 at MD 255

LOCATION: HARWOOD, ANNE ARUNDEL COUNTY

This intersection improvement project was constructed to improve safety by providing MD 2 southbound motorists with a dedicated left turn lane. This project also channelized the MD 2 northbound right turn lane, as well as lengthened it by 450 feet. An acceleration lane was added onto MD 2 northbound for vehicles making a right from MD 255 onto MD 2. These improvements will allow better traffic flow through the corridor during the AM and PM peak travel periods. This project will also reduce vehicular delays and enhance safety.

Intersection Background

- The ADT on MD 2 is approximately 21,000 vehicles per day with 660 left turning vehicles from MD 2 southbound to MD 255 eastbound.
- There were 3 crashes during the 3-year study period.
- Prior to construction, the intersection operated at LOS A in both the AM and PM peak hours.

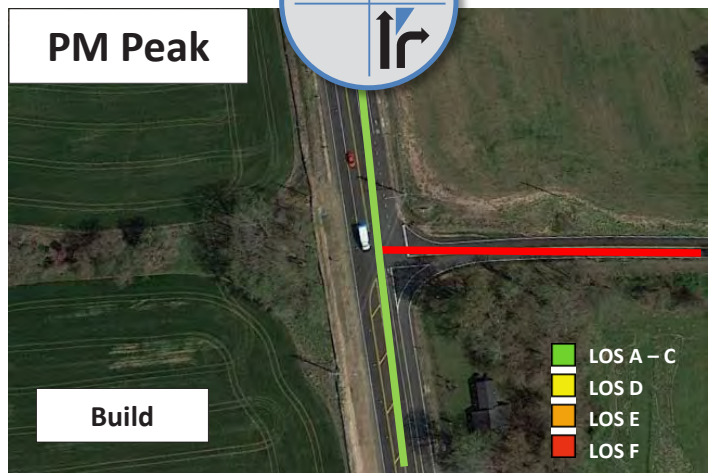
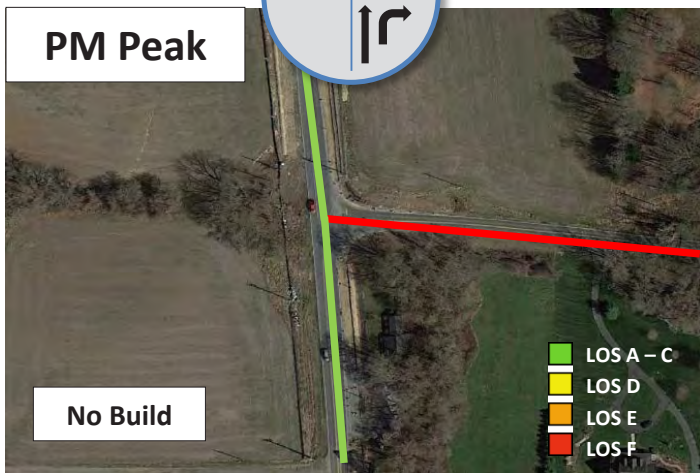
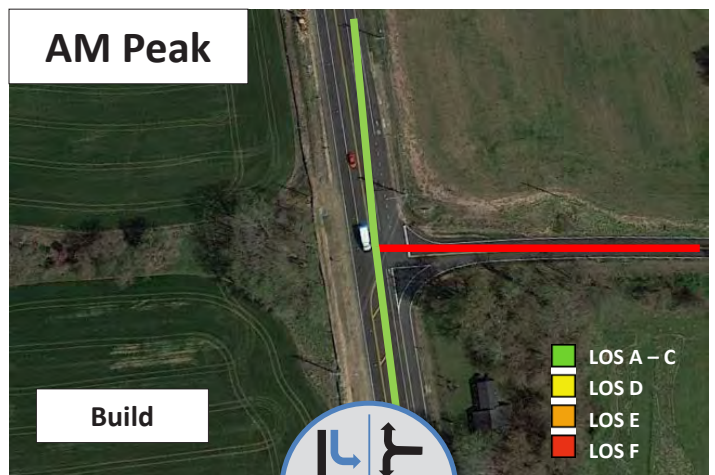
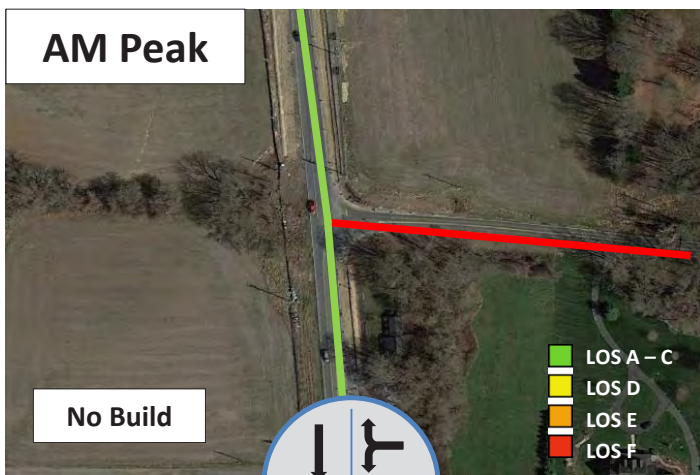
Project Scope

- Provide a single left turn lane along southbound MD 2 onto MD 255.
- Construct bicycle lanes along MD 2.
- Channelize and lengthen the northbound right turn lane.
- Add a northbound acceleration lane for vehicles turning right from MD 255 to MD 2.

Benefits

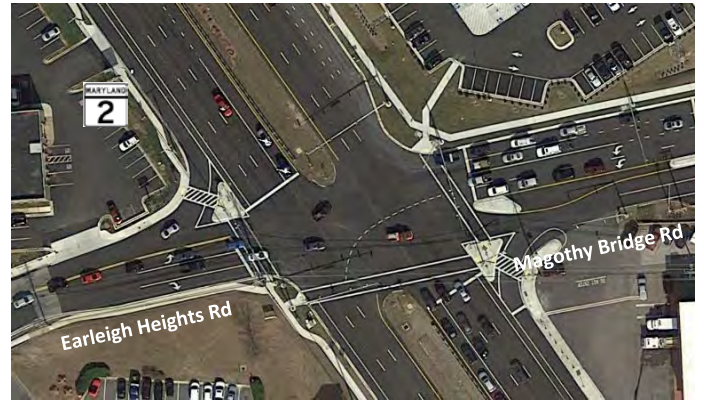
- The dedicated left turn lane should decrease the number of rear end crashes at the intersection.
- The additional capacity will improve traffic operations along MD 2.
- The AM and PM peak hour delay decreased by 11% and 5%, respectively.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$16.0	\$0.3	\$2.0	\$2.5	0.1





BEFORE



AFTER

MD 2 at Earleigh Heights Road/Magothy Bridge Road

LOCATION: PASADENA, ANNE ARUNDEL COUNTY

This project aimed to increase capacity along MD 2 with the addition of a third through lane in each direction for approximately a 0.55-mile segment. The northbound and southbound right turn lanes on MD 2 were channelized and ADA compliant pedestrian facilities were added on the south, west, and east legs of the intersection. The Earleigh Heights Voluntary Fire Station is located in the southeast quadrant of the intersection and additional signals and signing were added to allow emergency vehicles to exit the station quickly.

Intersection Background

- The signal controlled intersection operated at LOS D and LOS E for the AM and PM peak hours, respectively.
- There were 28 crashes recorded during the three-year study period.
- Rear end collisions accounted for 64% of the crashes at the intersection.
- The ADT along MD 2 is 51,000 vehicles per day with 43,000 vehicles per day making the northbound and southbound through movements.

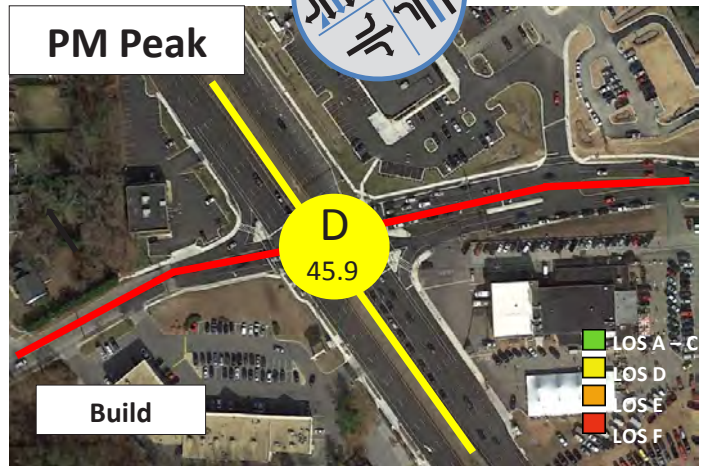
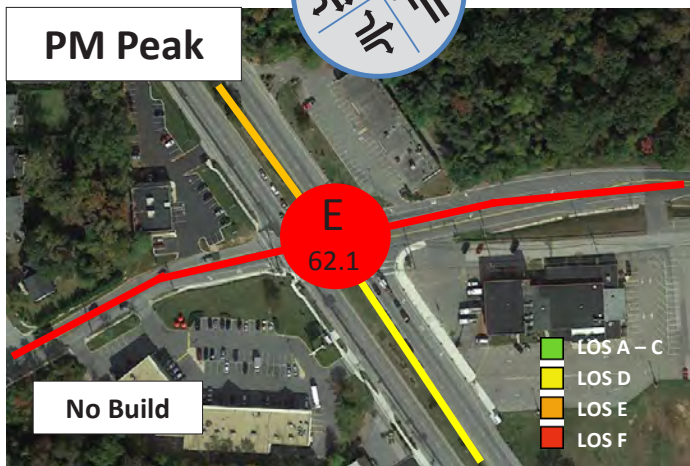
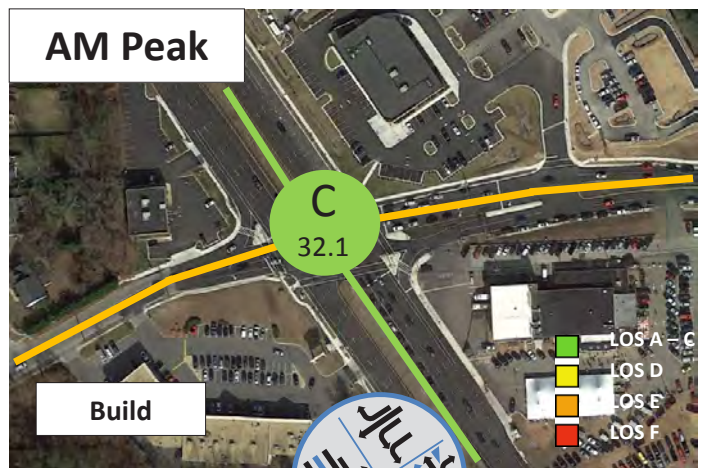
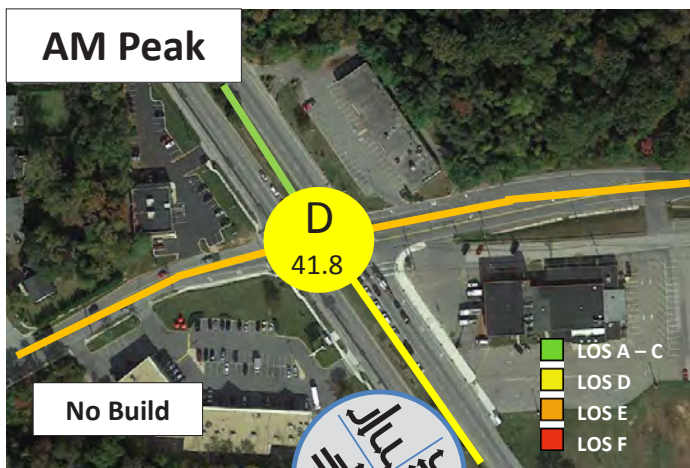
Project Scope

- Install a third through lane for the northbound and southbound movements on MD 2.
- Channelize the right turn lanes for northbound and southbound MD 2.
- Install ADA compliant pedestrian facilities and bicycle lanes.

Benefits

- The total intersection delay for the PM peak hour improved from 409 hours to 82 hours.
- The AM LOS improved from LOS D to LOS C; The PM LOS improved from LOS E to LOS D.
- The increased capacity is expected to reduce collisions by 31%.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$7,500.0	\$137.0	\$254.0	\$4.2	39.2





BEFORE



AFTER

MD 2 at Harwood Drive

LOCATION: HARWOOD, ANNE ARUNDEL COUNTY

The project provided for a 500-foot left turn lane for vehicles travelling from MD 2 southbound to Harwood Drive eastbound. Also, the existing northbound right turn lane was lengthened by 250 feet. A minimum 6-foot wide shoulder on each side of MD 2 for bicyclists was also constructed.

Intersection Background

- The unsignalized intersection experienced one rear end crash during the three-year study period.
- Prior to the improvement, the Harwood Drive approach LOS was D in the AM peak hour and F in the PM peak hour.
- The ADT along MD 2 is approximately 24,000 vehicles per day.

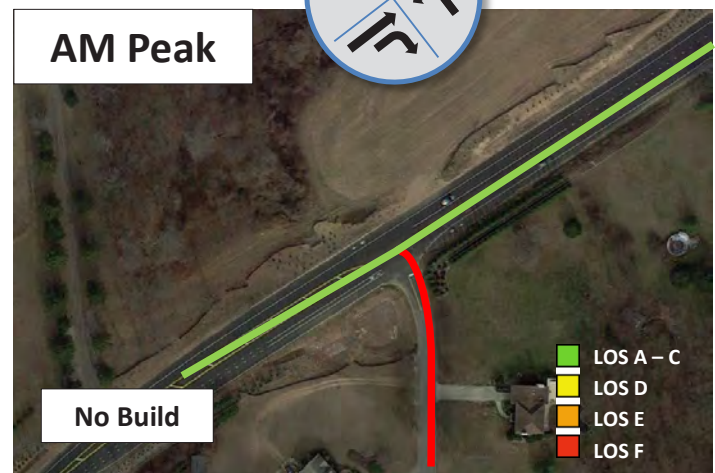
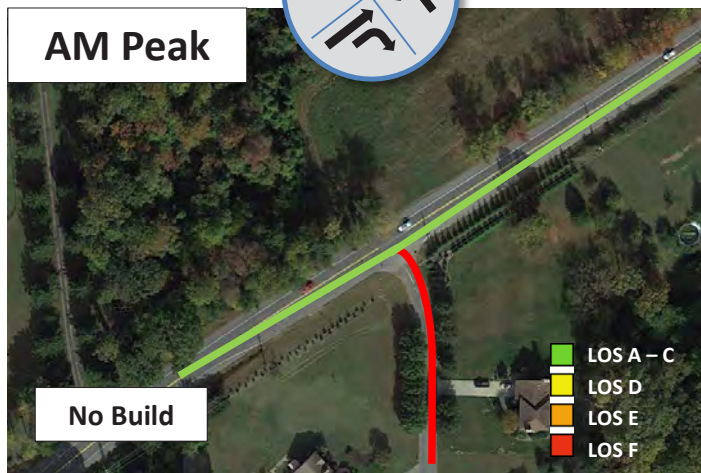
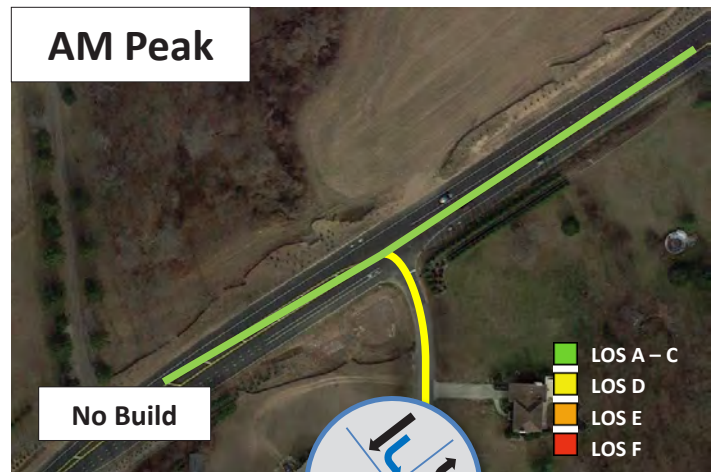
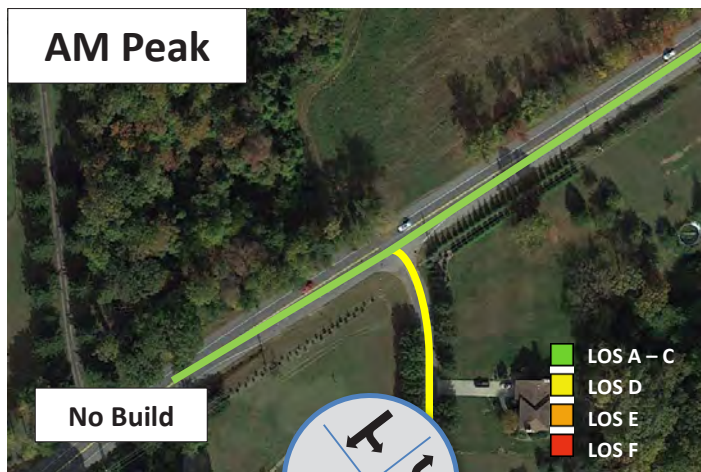
Project Scope

- Widen section of MD 2 at Harwood Drive to provide a dedicated 500-foot left turn.
- Extend the existing right turn lane along northbound MD 2 for motorists making a right turn onto Harwood Drive.
- Construct a minimum 6-foot wide shoulder on each side of MD 2 at Harwood Drive for bicycle traffic.

Benefits

- The new left turn lane will enhance safety by reducing potential rear-end and angle collisions by an estimated 44%.
- Signed bicycle lanes should improve awareness of cyclists and improve safety.
- Traffic flow along southbound MD 2 will no longer be delayed by southbound left turning motorists.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$20.0	\$0.4	\$5.8	\$2.4	0.2





BEFORE



AFTER

MD 2 at Mount Harmony Road

LOCATION: OWINGS, CALVERT COUNTY

This signalized intersection improvement project was constructed to add capacity and improve safety through the MD 2/Mount Harmony Road intersection. A dedicated southbound left turn lane was constructed for vehicles turning from MD 2 to Mount Harmony Road eastbound. A northbound left turn lane was also added for vehicles travelling from MD 2 northbound to Mount Harmony Road westbound. Along with the addition of the left turn lanes, both the northbound and southbound MD 2 right turn lanes were channelized to reduce delay and the number of stops at the intersection.

Intersection Background

- Prior to the installation of the improvements, the intersection operated at LOS D in the AM and LOS E in the PM peak hours.
- The ADT on MD 2 is approximately 17,000 vehicles per day.
- There were 19 crashes over the three-year study period.

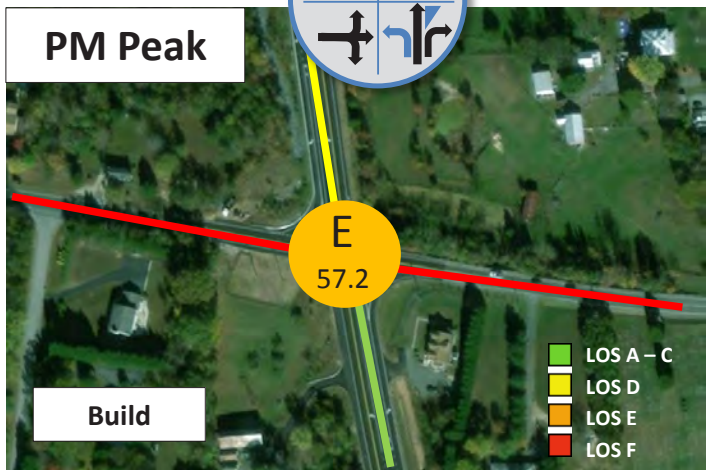
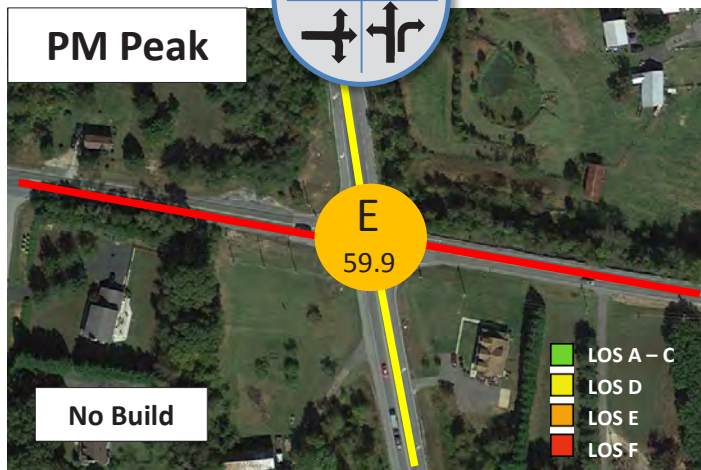
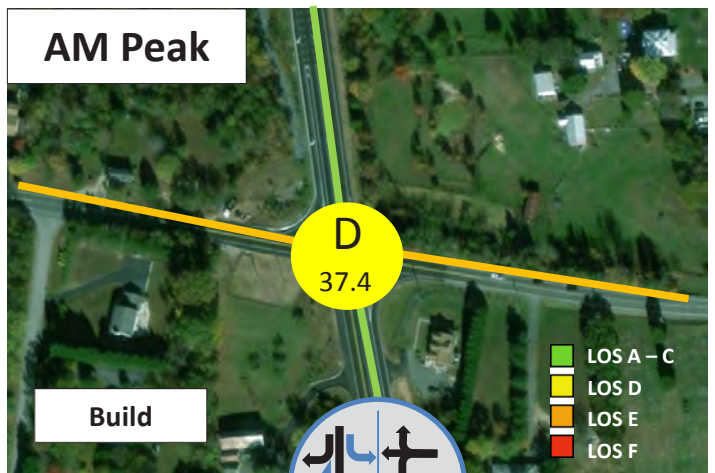
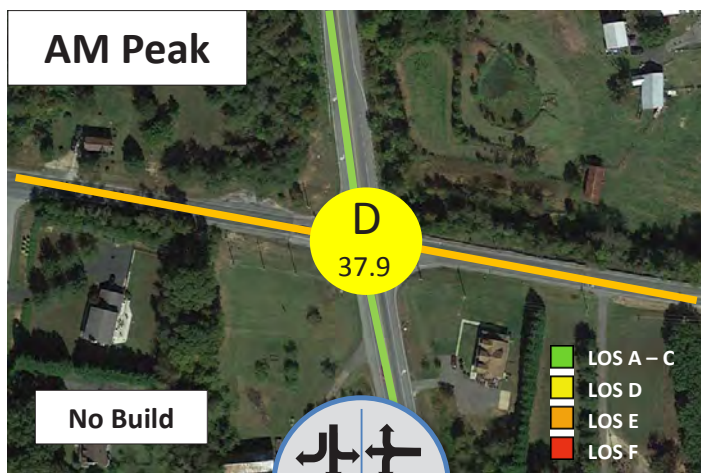
Project Scope

- Widen MD 2 to add an exclusive northbound and southbound left turn lane.
- Channelize the existing northbound and southbound right turn lanes.
- Install bike lanes along MD 2.

Benefits

- There is an expected 20% decrease in the network delay in the AM peak hour, and 49% in the PM peak hour.
- The additional capacity should decrease the travel time through the intersection by 9% in the AM peak hours and by 33% in the PM peak hour.
- The implementation of the left turn lane should decrease rear end collisions.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$166.0	\$3.0	\$105.0	\$3.5	1.4





BEFORE

AFTER

MD 32 at MD 97

LOCATION: WESTMINSTER, CARROLL COUNTY

The MD 32 at MD 97 signalized intersection improvements were implemented to improve operations and increase capacity. The improvements included installing exclusive left turn lanes from eastbound and westbound MD 32 to MD 97 and installing channelization islands in three quadrants for improving right turn operations.

Intersection Background

- The ADT on MD 32 is approximately 12,000 vehicles per day with over 1,000 left turns.
- Prior to improvement, the rights turns were non-channelized at the approximately 30-degree skew intersection.
- There were 31 crashes during the three-year study period, including one fatal collision on MD 97.
- Thirteen (13) of the 31 crashes (42%) involved motorists on MD 32 making a left turn.

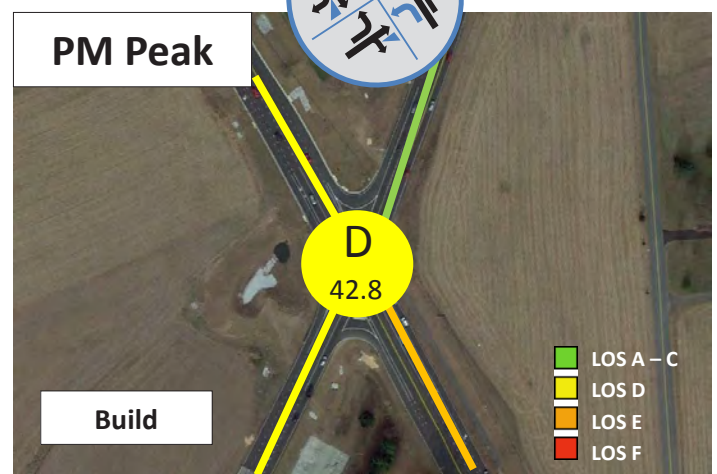
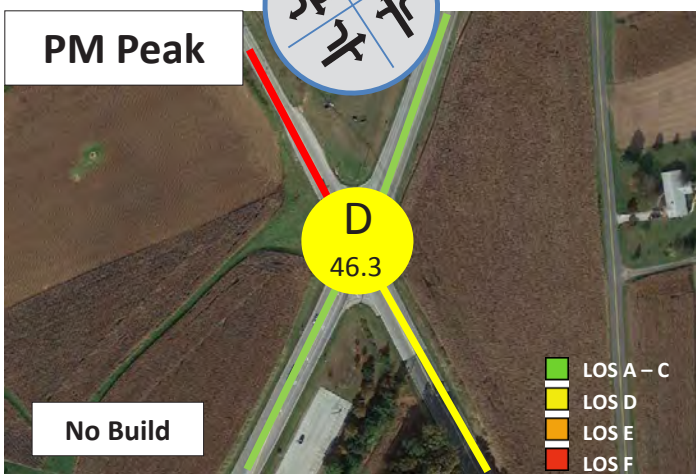
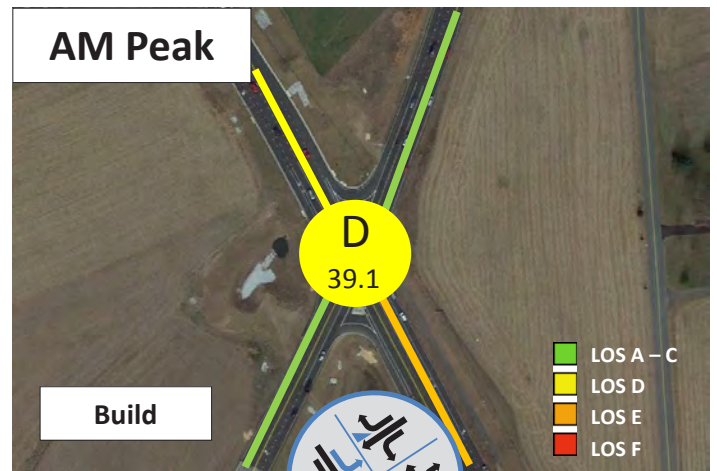
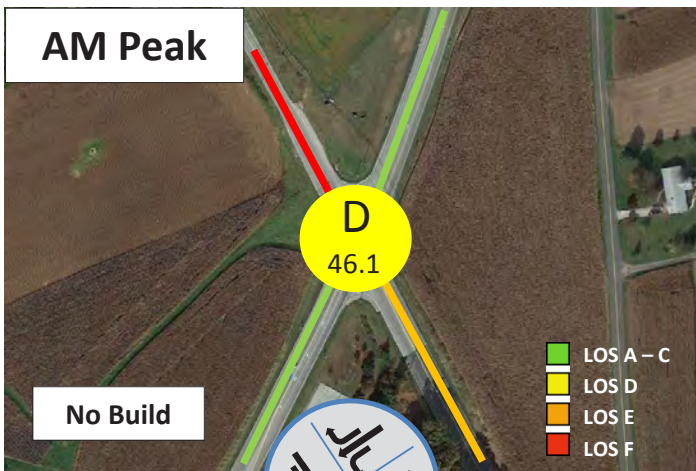
Project Scope

- Construct a left turn lane along MD 32 northbound and southbound.
- Install bike lanes along MD 32 and add channelization islands for motorists turning right on three approaches.

Benefits

- The addition of the exclusive left turn lanes and the protected/permissive left turn phasing for MD 32 northbound and southbound should decrease crashes by an estimated 48%.
- The channelized right turns are expected to increase capacity, reduce delay and decrease the number of stops. Due to the skew of the MD 32/MD 97 intersection, the channelized right turns will also improve safety and better accommodate trucks with larger turning radii.
- AM and PM peak hour delay decreased by 73% and 76%, respectively.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$2,400.0	\$45.0	\$560.0	\$2.8	21.3





BEFORE

AFTER

MD 140 at Pleasant Valley Road South

LOCATION: WESTMINSTER, CARROLL COUNTY

This project was developed to increase capacity and improve safety through the addition of left turn lanes along MD 140 in both directions. The project also extended the acceleration and deceleration lanes on MD 140 to enhance traffic flow. Channelization of the right turns from the major roadway were accomplished through pavement markings. Bicycle lanes were also added along MD 140.

Intersection Background

- The ADT along MD 140 is 15,000 vehicles per day, with about 500 vehicles making a left turn onto Pleasant Valley Road South.
- There were five crashes during the 3-year study period.
- Of the five crashes, three (60%) involved a left turning vehicle.

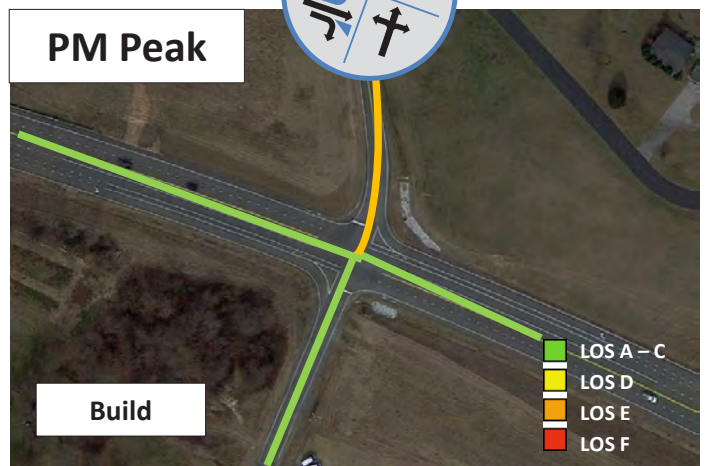
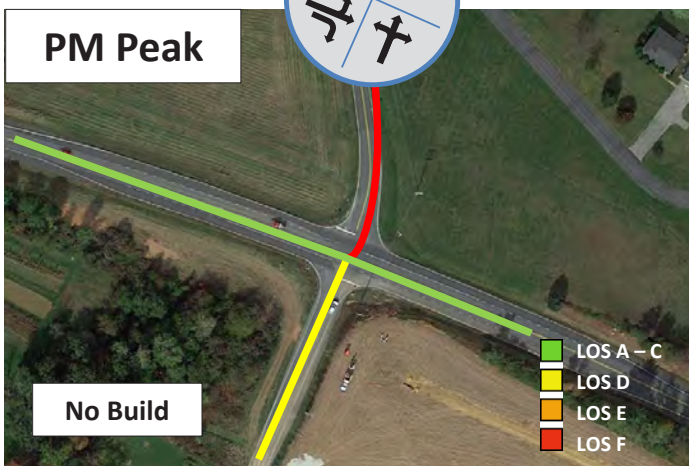
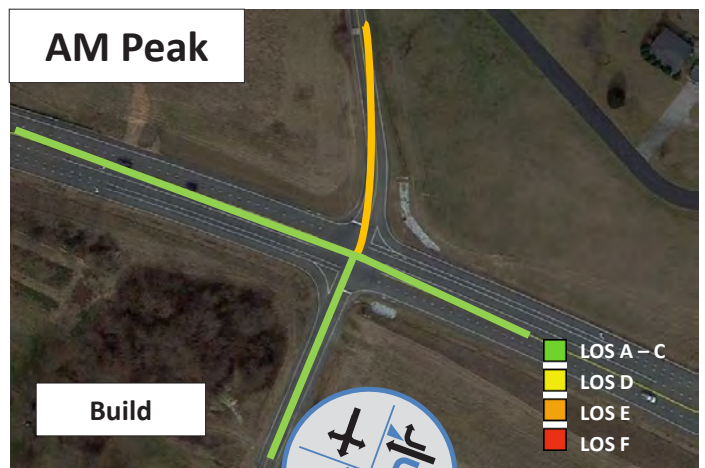
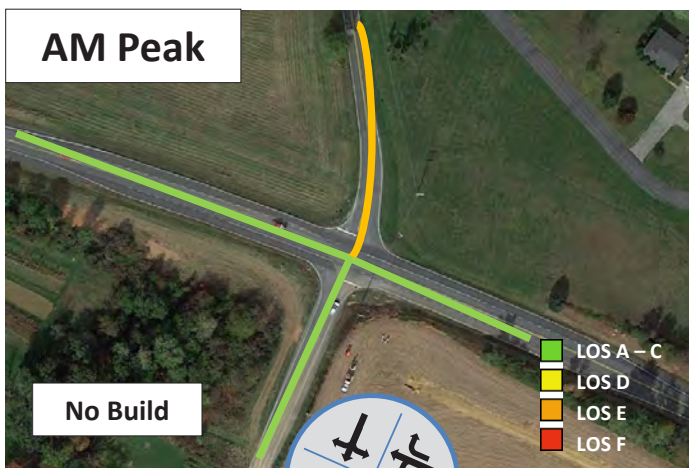
Project Scope

- Construction of a left turn lane, for both directions along MD 140.
- Installation of bike lanes on MD 140.
- Lengthen the acceleration and deceleration lanes for vehicles travelling to and from MD 140.

Benefits

- The addition of the exclusive left turn lanes along MD 140 northbound and southbound should decrease crashes in the future by an estimated 48%.
- The implementation of left turn lanes is expected to decrease rear-end crashes.
- By adding the left turn lanes, turning vehicles will no longer impede through traffic.
- AM and PM peak hour delay is anticipated to decrease by 5% and 25%, respectively.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$15.0	\$0.3	\$60.0	\$3.7	0.3





BEFORE



AFTER

MD 22 at Old Post Road

LOCATION: ABERDEEN, HARFORD COUNTY

This project was a continuation of the Base Realignment and Closure (BRAC) program to improve access to Aberdeen Proving Grounds. The purpose of this project was to add a third through-lane on MD 22 eastbound and westbound. An additional left turn lane from MD 22 eastbound to Old Post Road was added to increase capacity and improve safety. Also, the right turn from Old Post Road westbound to MD 22 northbound was channelized to reduce the number of stops.

Intersection Background

- The intersection operated at LOS C during AM peak hour and LOS F during PM peak hour.
- There were 7 crashes at this intersection in the 3-year study period, including 1 fatality.
- MD 22 carries an ADT of 23,000 vehicles per day with over 2,000 vehicles per day turning from MD 22 eastbound to Old Post Road.

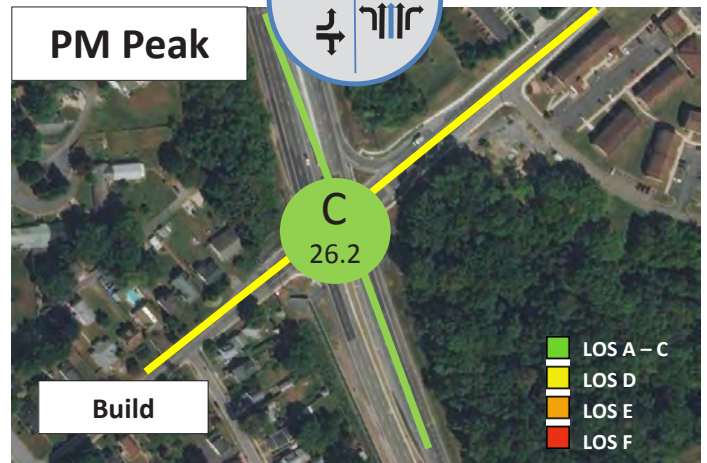
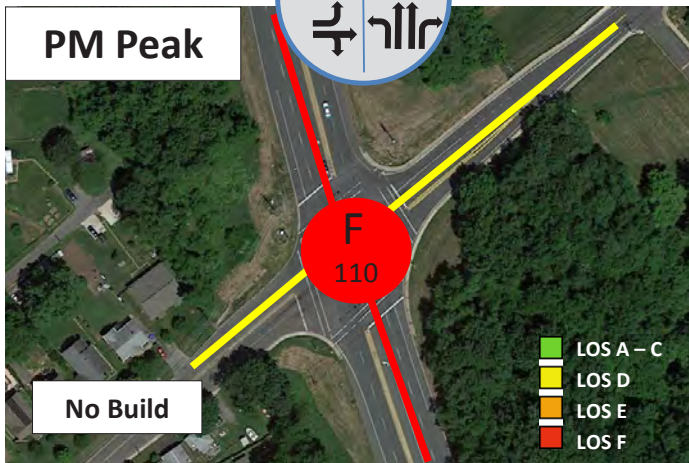
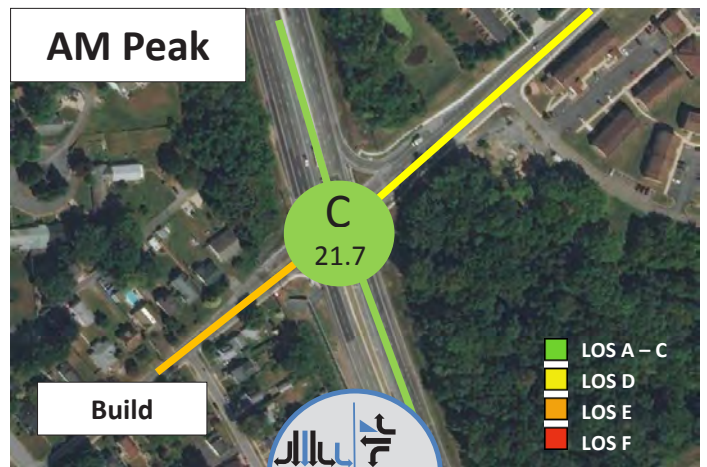
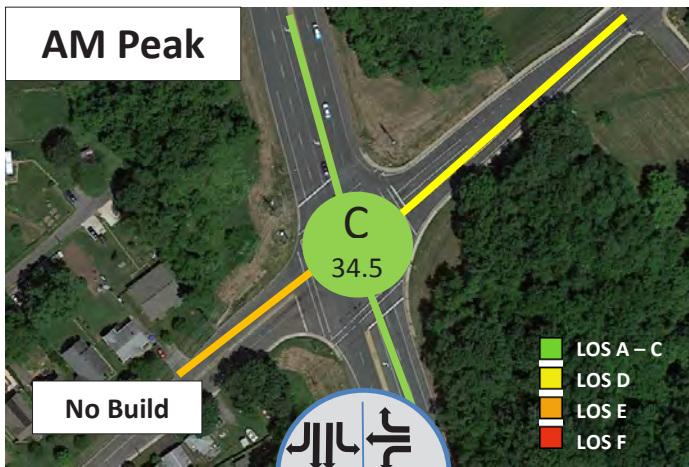
Project Scope

- Add an additional through-lane on both MD 22 eastbound and westbound.
- Construct an additional left turn lane on MD 22 eastbound.
- Build bicycle lanes on Old Post Road.

Benefits

- PM peak hour LOS improves from F to C.
- AM and PM peak hour delay decreased by 37% and 76%, respectively.
- Decreased crash severity due to the increase in capacity at the intersection.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$5,400.0	\$97.0	\$550.0	\$7.0	17.6





BEFORE



AFTER

MD 119 at Orchard Ridge Drive and Kentlands Boulevard

LOCATION: GAITHERSBURG, MONTGOMERY COUNTY

This improvement project consisted of lengthening the left turn lane along Orchard Ridge Drive westbound by 350 feet. Also, the raised median along Orchard Ridge Drive was reconstructed to provide better alignment for MD 119 southbound left turning traffic. The crosswalk on the northern leg of the intersection was also realigned to improve pedestrian visibility. This project will reduce congestion with longer turn lanes along Orchard Ridge Drive and increase pedestrian safety.

Intersection Background

- The intersection operated at LOS D during both the AM and PM peak hour.
- There were 21 crashes during the 3-year study period, one of which involved a pedestrian.
- There are over 1,100 left turns from Orchard Ridge Drive per day.

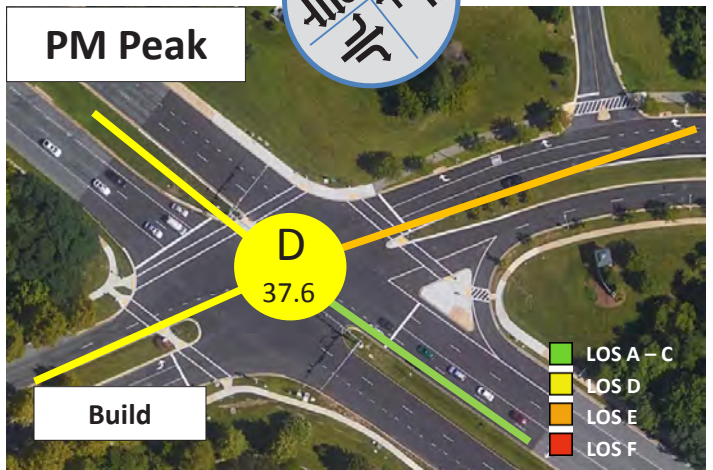
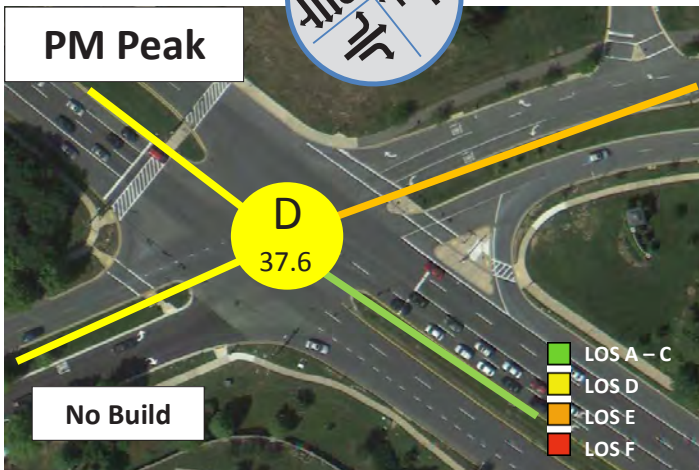
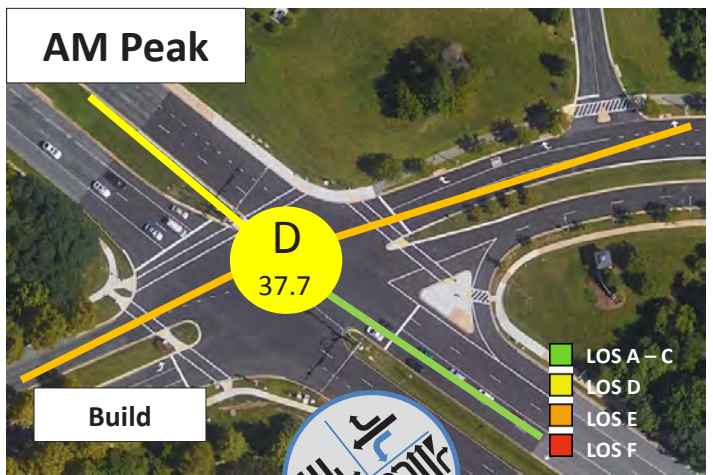
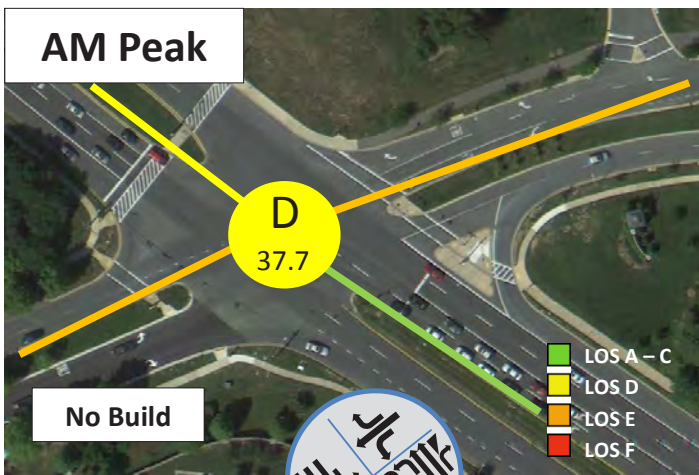
Project Scope

- Extend the left turn lane along Orchard Ridge Drive westbound by approximately 350-feet.
- Reconstruct the raised median along Orchard Ridge Drive to provide better alignment for MD 119 southbound left turn traffic.

Benefits

- PM peak travel time decreased by 2%.
- Storage capacity for westbound left turning vehicles increased by approximately 70%.
- Improved pedestrian visibility and safety.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$51.0	\$1.0	\$0.0	\$0.8	1.4





BEFORE



AFTER

MD 355 (Rockville Pike) Center Drive to West Cedar Lane

LOCATION: BETHESDA, MONTGOMERY COUNTY

This improvement project was related to the BRAC Act, which focused on employment growth at the Walter Reed National Medical Center along MD 355 in Bethesda. The three intersections that received improvements were at Cedar Lane, Wood Road North, and Wilson Drive. At the intersection of MD 355 and Cedar Lane/West Cedar Lane, an additional through lane was provided on MD 355 northbound and southbound. In addition, on MD 355 northbound a separate right turn lane was constructed. On both Cedar Lane approaches an additional lane was provided and the split phasing was removed. At the intersection of MD 355 and Wood Road North an additional southbound through lane was provided, along with a northbound left turn lane to the gated entrance of the National Institute of Health. Also, a right turn lane was added for MD 355 southbound at Wilson Drive.

Intersection Background

- MD 355 at West Cedar Lane operated at LOS E during the AM peak hour and F during the PM peak hour.
- There were 29 reported crashes during the 3-year study period at MD 355 and West Cedar Lane.
- The ADT on MD 355 south of West Cedar Lane is approximately 39,000 vehicles per day. The ADT on MD 355 north of West Cedar Lane is approximately 57,000 vehicles per day.
- During the AM peak hour approximately 700 vehicles made the left turn movement from West Cedar Lane eastbound to MD 355 southbound.

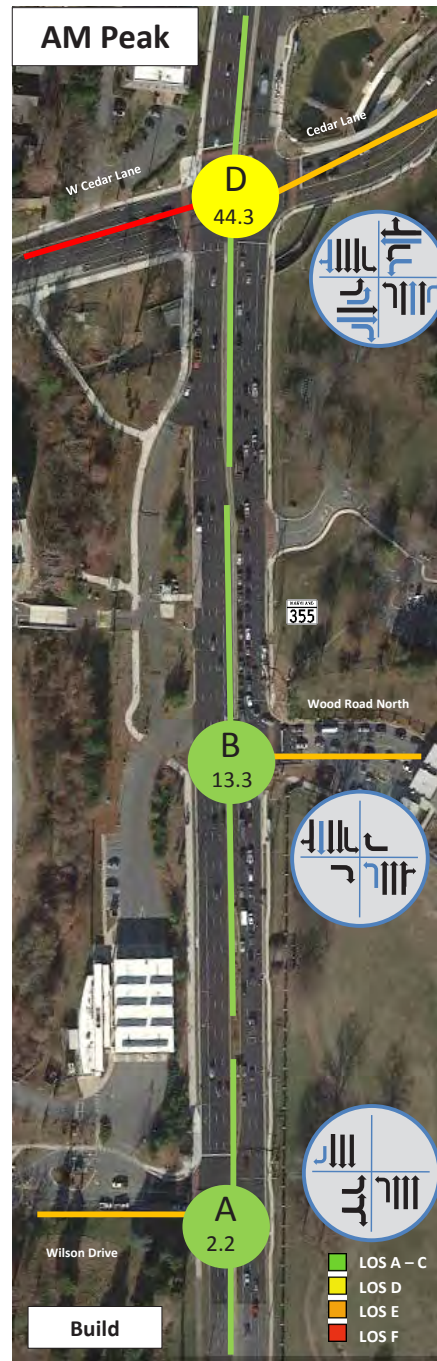
Project Scope

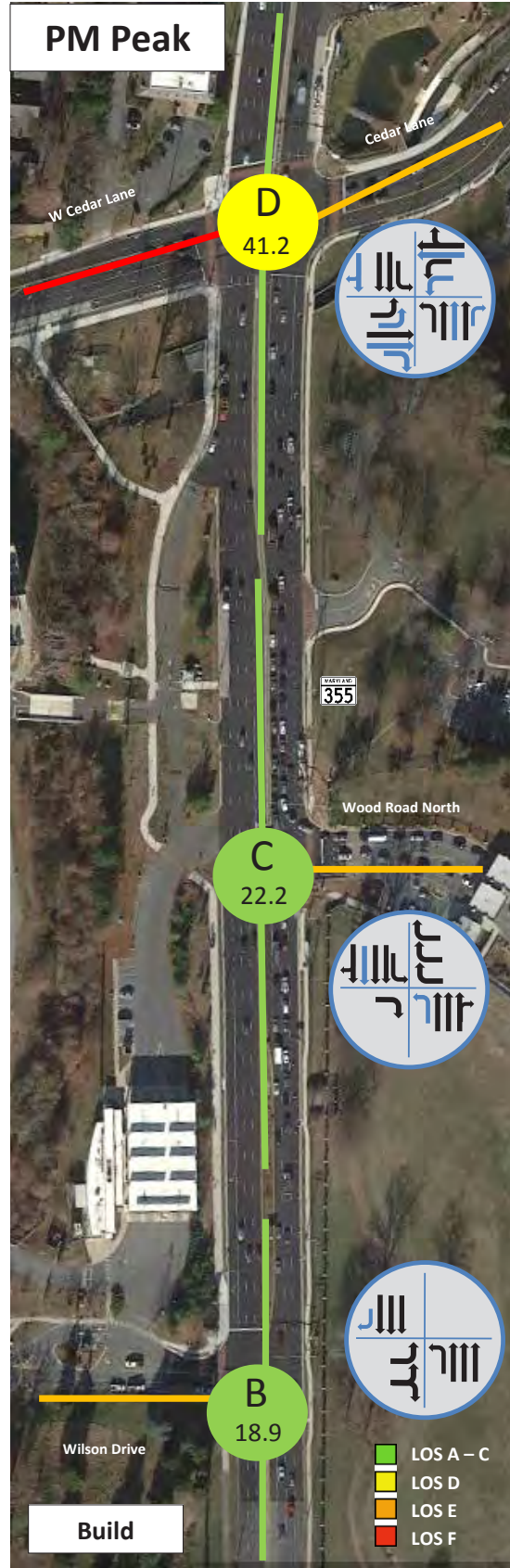
- Provide an additional exclusive left turn lane along both Cedar Lane and West Cedar Lane.
- Add an exclusive right turn lane along MD 355 northbound and West Cedar Lane eastbound.
- Provide an additional through lane along MD 355.

Benefits

- The MD 355/West Cedar Lane intersection LOS improved to LOS D during both the AM and PM peak hour.
- With the addition of the second left turn lane along W. Cedar Lane, the queue decreased 43% in the PM peak hour.
- AM and PM peak delay decreased by 36% and 51%, respectively.
- AM and PM peak travel time decreased by 15% and 51%, respectively.
- The total travel time from Wilson Drive to West Cedar Lane along MD 355 decreased by 32% in the AM peak hour.

Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$10,600.0	\$197.0	\$51.2	\$16.1	14.3





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BEFORE



AFTER

MD 5 (Branch Avenue) from I-95/I-495 to Auth Way

LOCATION: CAMP SPRINGS, PRINCE GEORGE'S COUNTY

This improvement project involved the construction of a new interchange at MD 5 and Woods Way. Woods Way is a new roadway that provides access to/from MD 5 southbound to the Branch Avenue Metro Station. The access road utilizes a new bridge overpass on MD 5 northbound. The left turn movements from MD 5 southbound to Auth Road and from Auth Road onto MD 5 southbound were permanently eliminated by the removal of the previously at-grade signalized intersection at MD 5 and Auth Road. Motorists traveling southbound on MD 5 will now access the Metro Station through Auth Way or Woods Way. Persons traveling from the Branch Avenue Metro Station will continue to use Auth Road or Auth Way to connect to I-95/I-495 Inner Loop. While motorists traveling to I-95/I-495 Outer Loop will need to use Auth Way.

Two signalized intersections were added at Auth Place and Woods Way and at Auth Place and Auth Way. At the intersection of Auth Road and Auth Place, right turn channelization was installed on the south and east legs of the intersection to decrease the number of stops. Also, a new elevated walkway spans over the southbound lanes of MD 5 to better accommodate pedestrians and cyclists.

Network Background

- The ADT along MD 5 from the I-95/I-495 interchange to Auth Way is approximately 64,000 vehicles per day.
- The Branch Avenue Metro Station has an average daily ridership of approximately 5,500 per day.
- Prior to the removal, the MD 5/Auth Road intersection operated at LOS C in the AM and PM peak hours with 2.9 hours of delay in the AM peak hour and 1.2 hours of delay in the PM peak hour.
- There were 64 reported crashes during the 3-year study period. Thirty-four (34) crashes occurred at the MD 5/Auth Way intersection and 26 occurred at MD 5/Auth Road. The remaining collisions occurred at Auth Road and Auth Place.

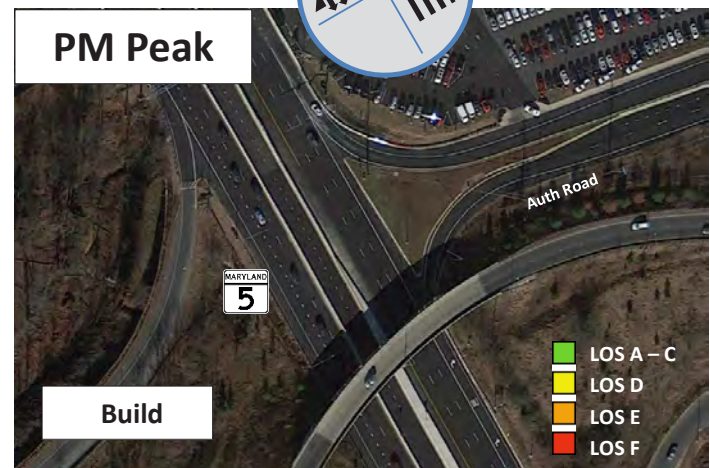
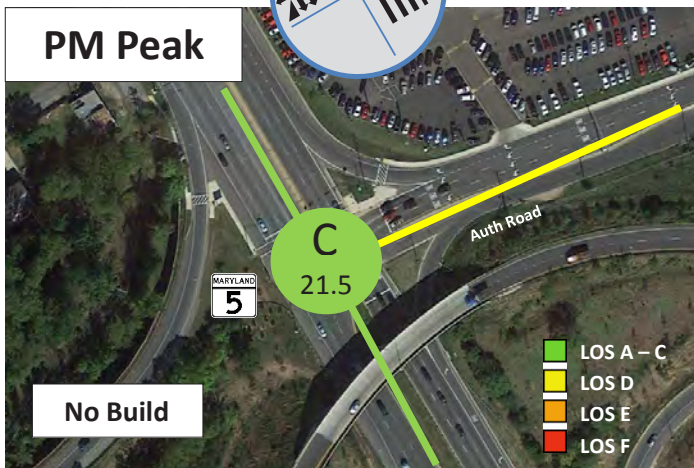
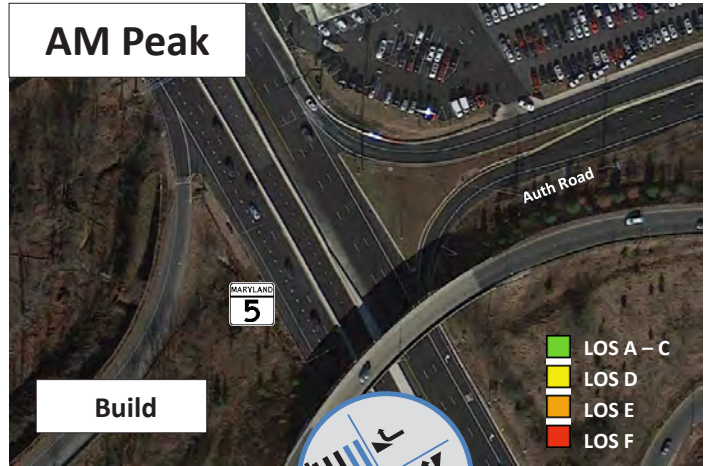
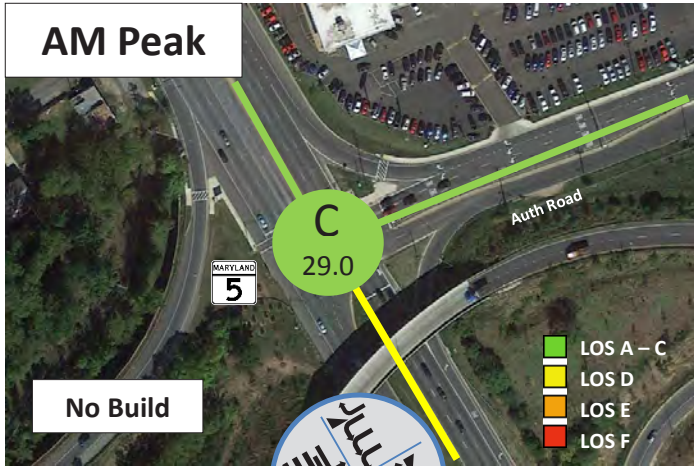
Project Scope

- Construct Woods Way, a new access road to the Branch Avenue Metro Station.
- Install a grade-separated interchange at MD 5 and Woods Way.
- Remove the signalized intersection at MD 5 and Auth Road.
- Install a signalized intersection with protected left turns at Woods Way and Auth Place.
- Convert the Auth Place/Auth Way intersection from stop controlled to full signalization and reconfigure the lane configurations.

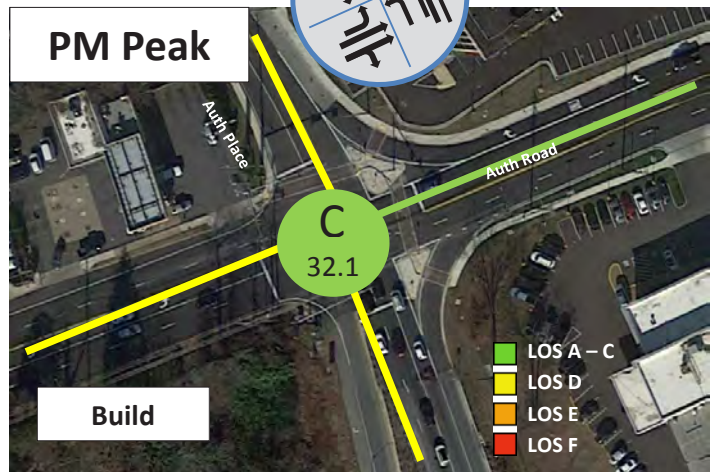
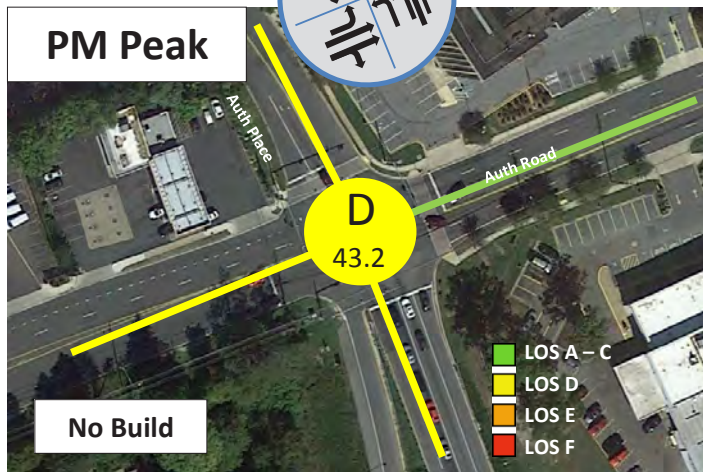
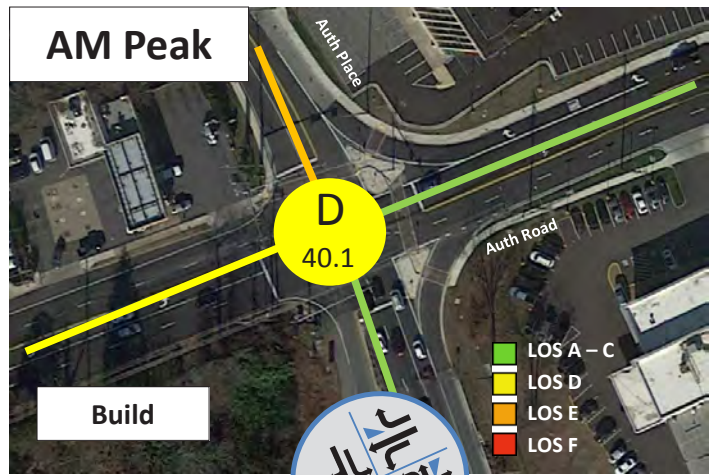
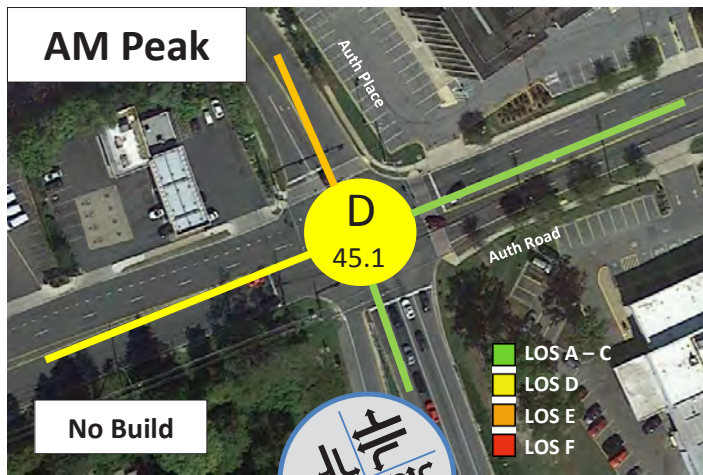
Benefits

- The total network delay in the AM peak hour decreased from 427 to 218 hours.
- The conversion from an at-grade intersection to a grade-separated interchange is expected to reduce collisions by 42%.
- The total network travel time within the network in the PM peak hour decreased from 56 hours to 45 hours.
- The removal of the signalized intersection at MD 5 and Auth Road will alleviate queuing along MD 5.

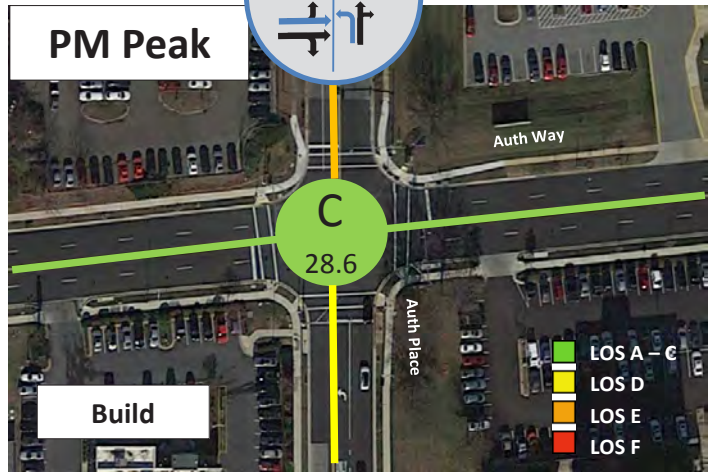
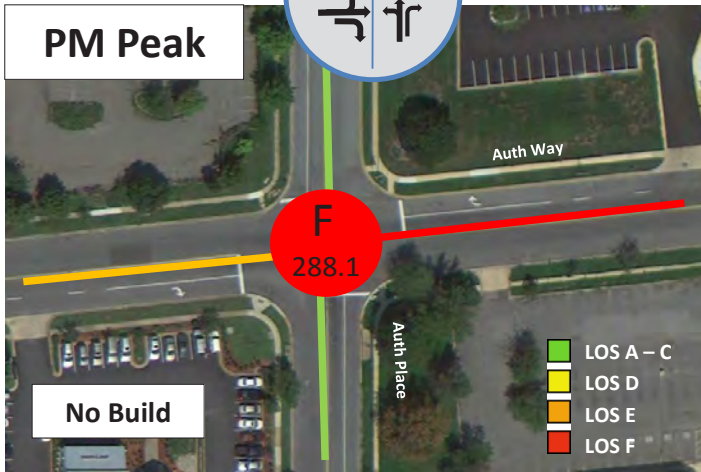
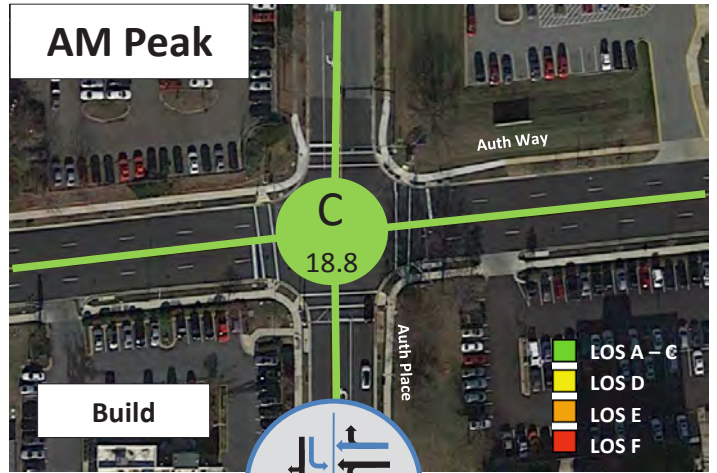
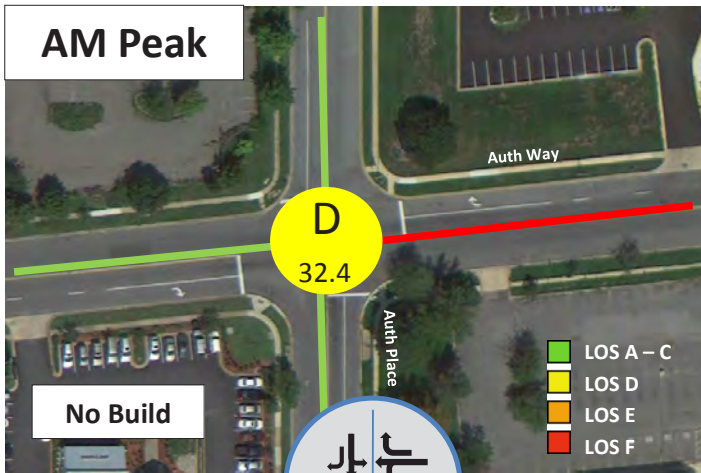
Average Annual Savings (Thousands)			Construction Cost Estimate (Millions)	Benefit/Cost (20 Years)
Reduction in Delay	Reduction in Fuel Consumption	Safety		
\$21,000.0	\$375.0	\$460.0	\$38.0	12.0



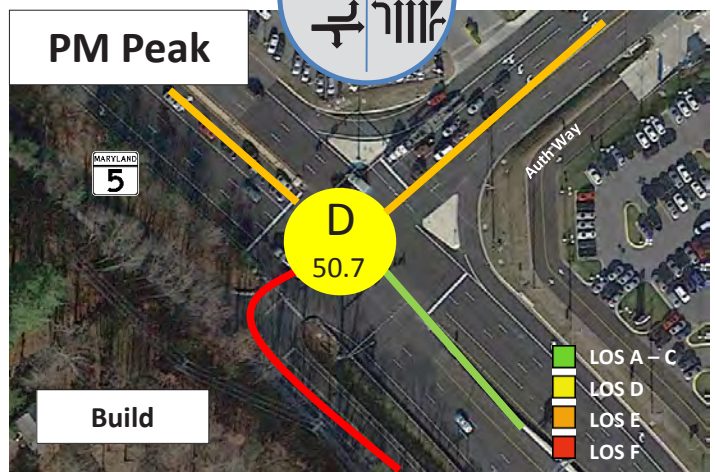
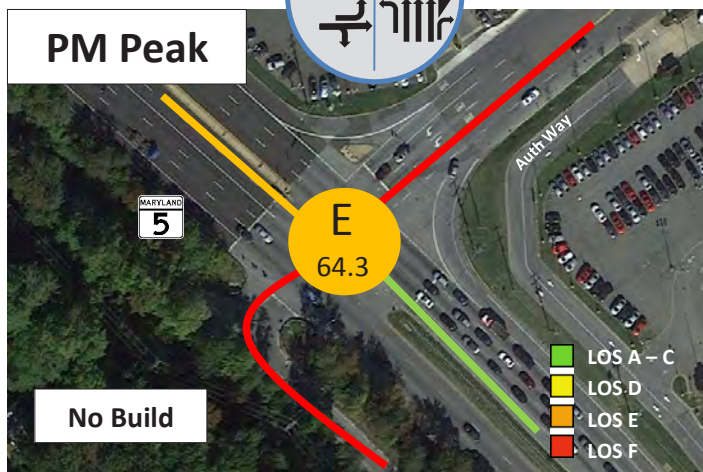
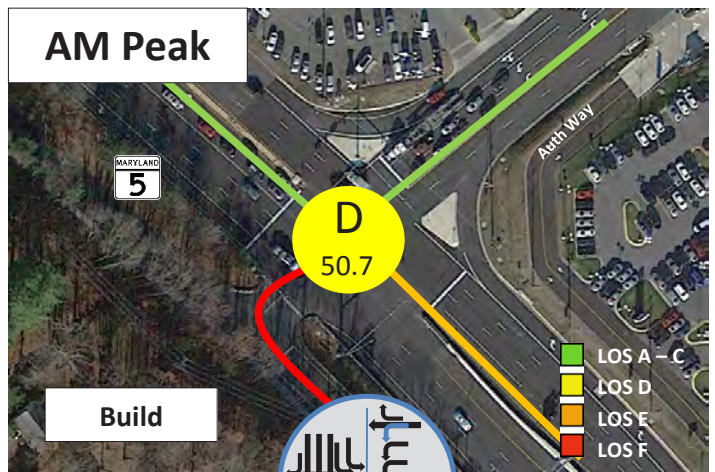
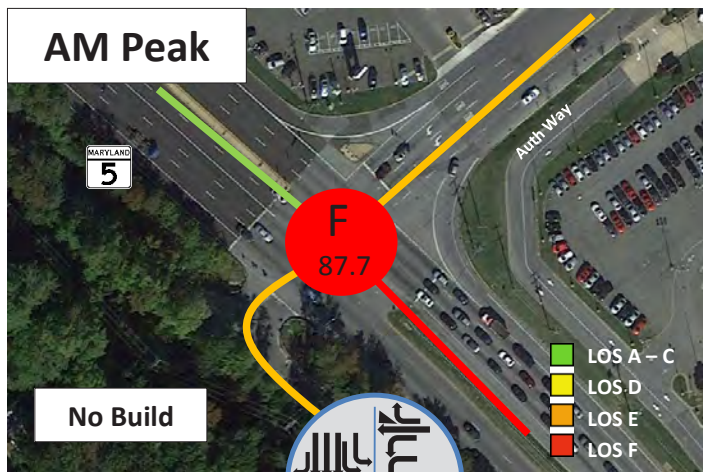
Intersection at MD 5 and Auth Road



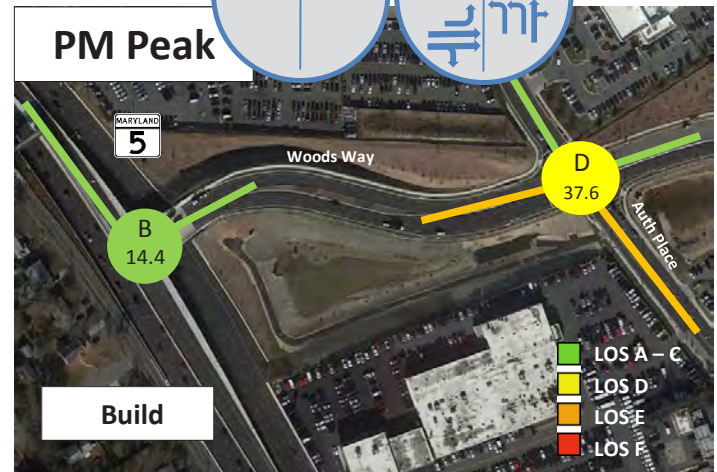
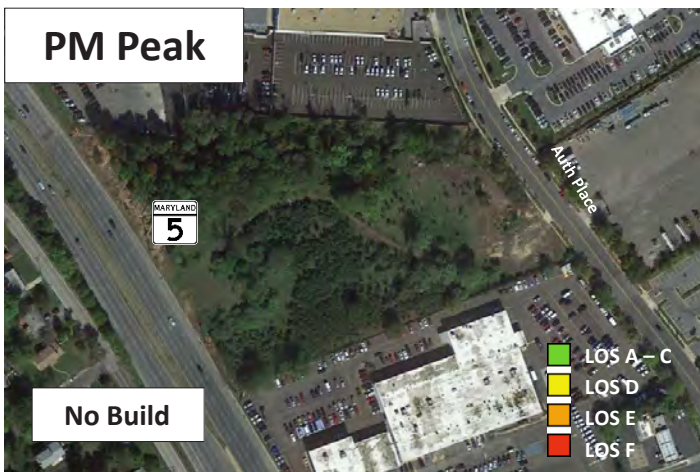
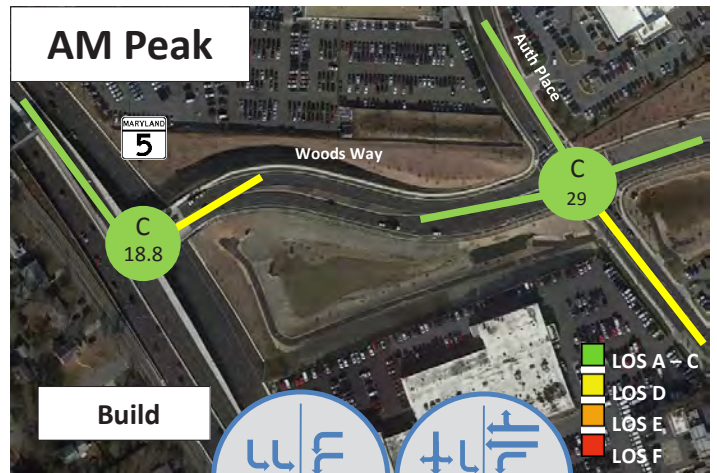
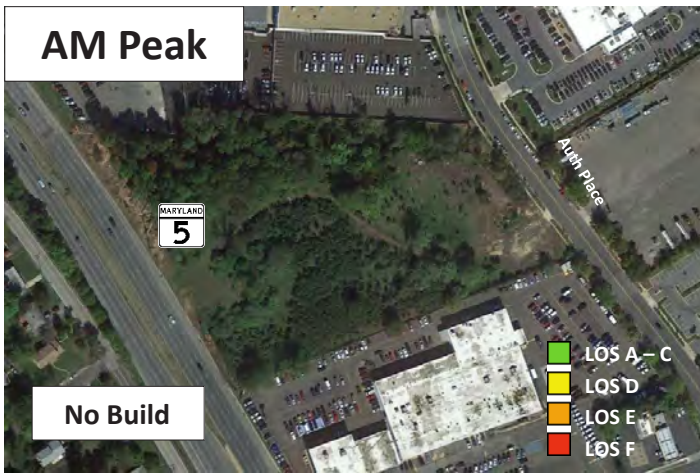
Signalized intersection at Auth Road and Auth Place



Intersection at Auth Way and Auth Place



Signalized intersection at MD 5 and Auth Way



Construction of the intersections at MD 5/Woods Way and Woody Way/Auth Place



**STATE HIGHWAY
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Governor

BOYD K. RUTHERFORD
Lt. Governor

PETE K. RAHN
MDOT Secretary

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