

# CONGESTION REPORT

## 1<sup>st</sup> Quarter 2019

A quarterly update of the National Capital Region's traffic congestion, travel time reliability, top-10 bottlenecks and featured spotlight

April 16, 2019



National Capital Region  
**Transportation Planning Board**



## **ABOUT TPB**

Transportation planning at the regional level is coordinated in the Washington area by the National Capital Region Transportation Planning Board (TPB). Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia, and the District of Columbia, local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning of the Metropolitan Washington Council of Governments.

## **CREDITS**

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## **ACCOMMODATIONS**

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1<sup>st</sup> Quarter 2019

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# CONGESTION – TRAVEL TIME INDEX (TTI)

## Interstate System

TTI 1<sup>st</sup> Quarter 2019: **1.34** ↑3.3% or 0.043<sup>1</sup>  
 TTI Trailing 4 Quarters: **1.38** ↑1.5% or 0.02<sup>2</sup>

## Non-Interstate NHS<sup>3</sup>

TTI 1<sup>st</sup> Quarter 2019: **1.18** ↑0.1% or 0.001  
 TTI Trailing 4 Quarters: **1.19** ↓0.7% or -0.009

## Transit-Significant<sup>4</sup>

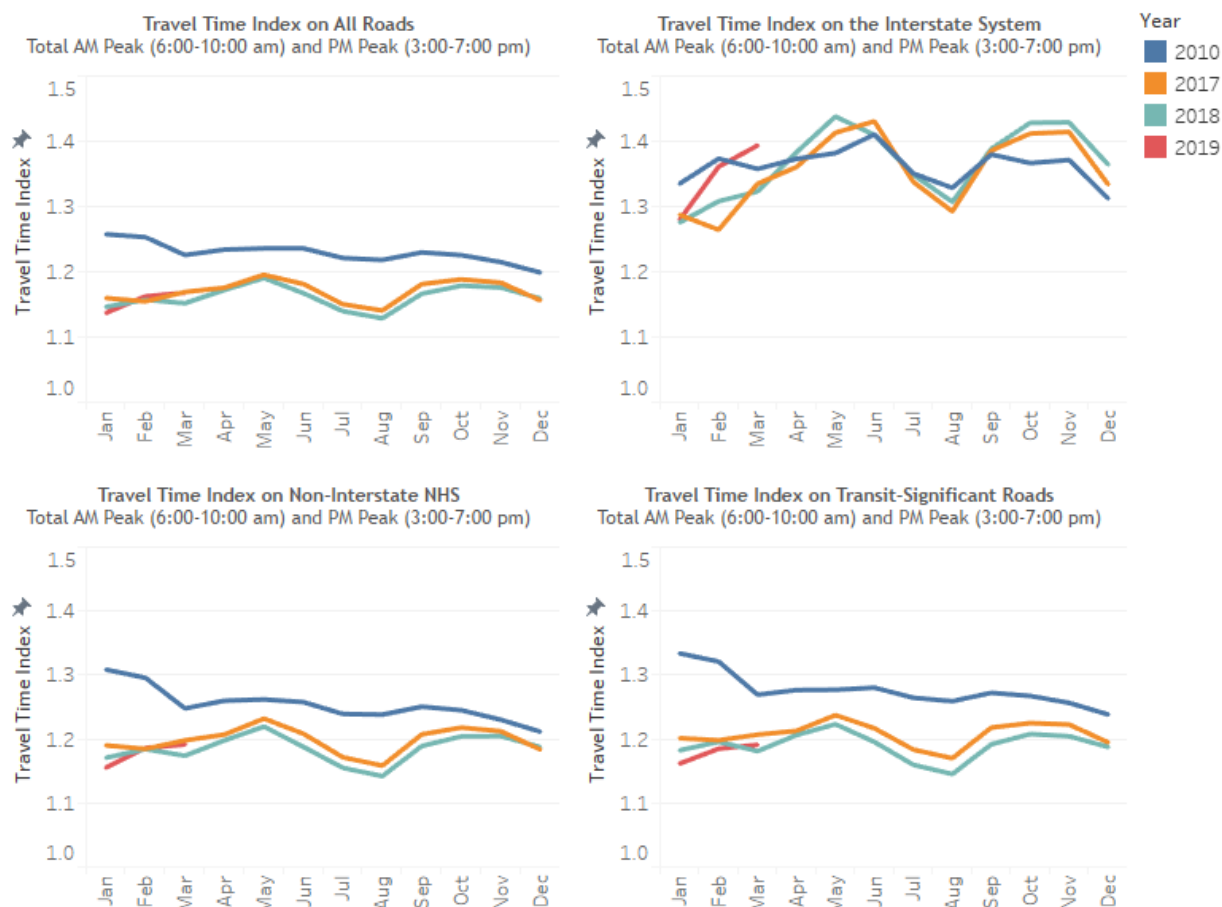
TTI 1<sup>st</sup> Quarter 2019: **1.18** ↓0.6% or -0.007  
 TTI Trailing 4 Quarters: **1.19** ↓1.3% or -0.02

## All Roads

TTI 1<sup>st</sup> Quarter 2019: **1.16** ↑0.3% or 0.004  
 TTI Trailing 4 Quarters: **1.16** ↓0.4% or -0.01

<sup>1</sup> Compared to 1<sup>st</sup> Quarter 2018; <sup>2</sup> Compared to one year earlier; <sup>3</sup> NHS: National Highway System; <sup>4</sup> See “Background” section.

Figure 1 Monthly Travel Time Index for Total AM peak (6:00-10:00 am) and PM peak (3:00-7:00 pm)



**Travel Time Index (TTI)**, defined as the ratio of actual travel time to free-flow travel time, measures the intensity of congestion. The higher the index, the more congested traffic conditions it represents, e.g., TTI = 1.00 means free flow conditions, while TTI = 1.30 indicates the actual travel time is 30% longer than the free-flow travel time.

# RELIABILITY – PLANNING TIME INDEX (PTI)

### Interstate System

PTI 1<sup>st</sup> Quarter 2019: **1.85** ↑4.7% or 0.08<sup>1</sup>  
 PTI Trailing 4 Quarters: **1.92** ↑2.7% or -0.05<sup>2</sup>

### Non-Interstate NHS<sup>3</sup>

PTI 1<sup>st</sup> Quarter 2019: **1.40** ↓0.6% or -0.008  
 PTI Trailing 4 Quarters: **1.43** ↓1.1% or -0.02

### Transit-Significant<sup>4</sup>

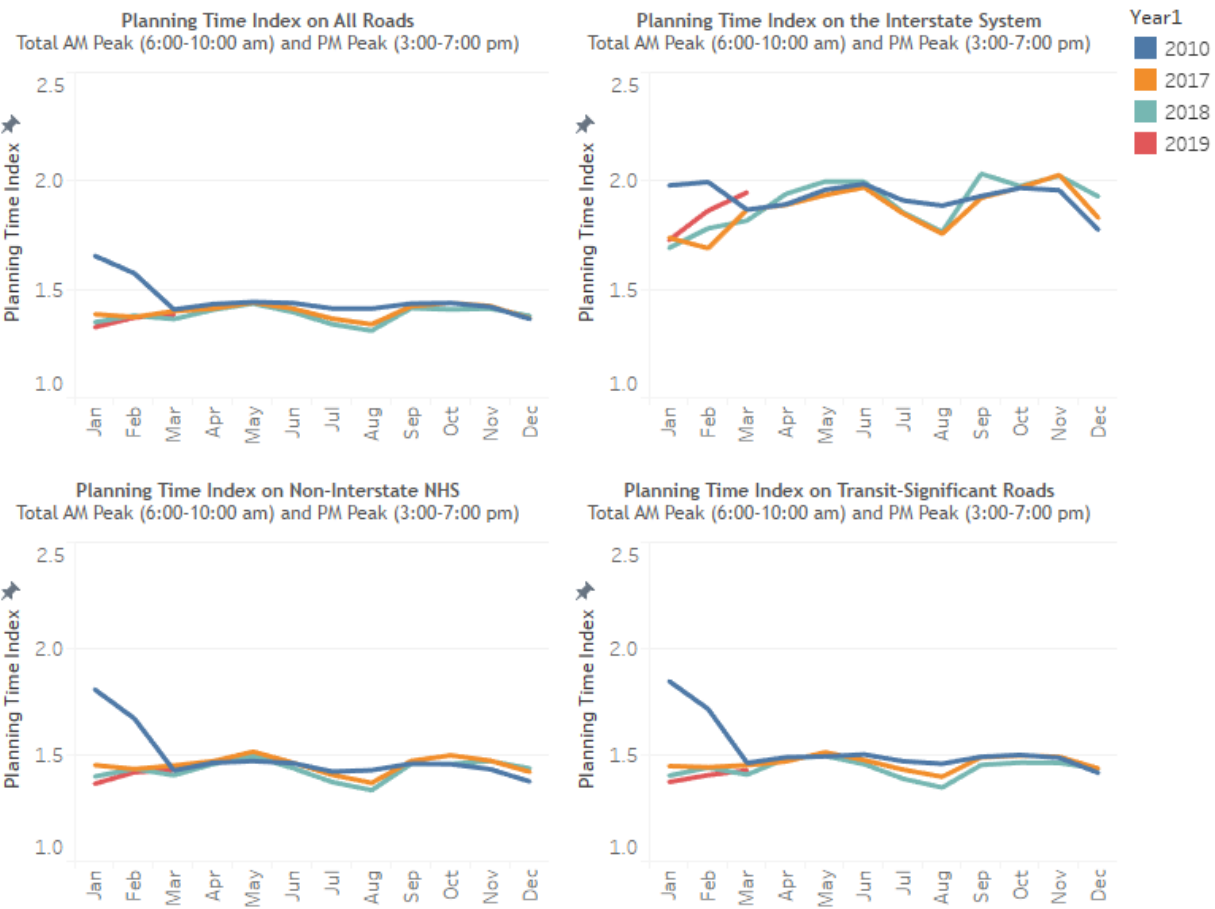
PTI 1<sup>st</sup> Quarter 2019: **1.40** ↓1.0% or -0.02  
 PTI Trailing 4 Quarters: **1.43** ↓1.5% or -0.02

### All Roads

PTI 1<sup>st</sup> Quarter 2019: **1.36** ↓0.3% or -0.004  
 PTI Trailing 4 Quarters: **1.38** ↓0.8% or -0.01

<sup>1</sup> Compared to 1<sup>st</sup> Quarter 2018; <sup>2</sup> Compared to one year earlier; <sup>3</sup> NHS: National Highway System; <sup>4</sup> See “Background” section.

Figure 2 Monthly Planning Time Index for Total AM peak (6:00-10:00 am) and PM peak (3:00-7:00 pm)



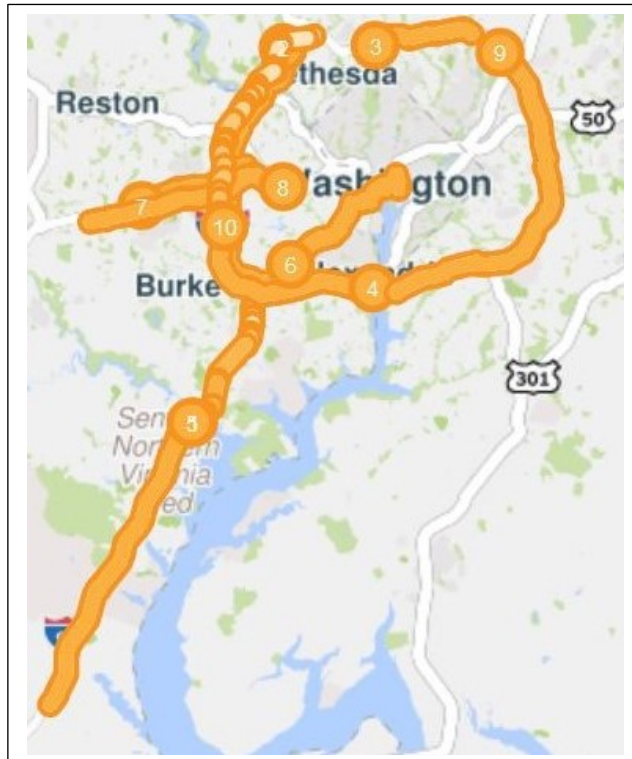
**Planning Time Index (PTI)**, defined as the ratio of 95th percentile travel time to free flow travel time, measures travel time reliability. The higher the index, the less reliable traffic conditions it represents, e.g., PTI = 1.30 means a traveler must budget 30% longer than the uncongested travel time to arrive on time 95% of the instances (i.e., 19 out of 20 trips).

# TOP 10 BOTTLENECKS

Rank (Last Quarter Rank)	Location	Average duration	Average max length (miles)	Total duration	Impact factor
1 (**) *	I-95 S @ VA-123/EXIT 160	7 h 3 m	3.59	26 d 11 h 32 m	157,294
2 (**)	I-495 CW @ I-270-SPUR	2 h 31 m	3.92	9 d 11 h 22 m	90,895
3 (**)	I-66 W @ VA-234/VA-234-BR/EXIT 47	1 h 50 m	7.37	6 d 21 h 20 m	76,052
4 (**)	I-66 E @ SYCAMORE ST/EXIT 69	5 h 17 m	2	19 d 20 h 18 m	70,594
5 (**)	I-495 CCW @ MD-97/GEORGIA AVE/EXIT 31	2 h 26 m	2.99	9 d 3 h 39 m	70,310
6 (**)	I-395 S @ VA-236/DUKE ST/EXIT 3	3 h 1 m	2.4	11 d 7 h 26 m	63,498
7 (**)	I-495 CW @ MD-450/ANNAPOLIS RD/EXIT 20	2 h 24 m	3.45	9 d 52 m	61,792
8 (**)	I-95 N @ VA-123/EXIT 160	2 h 32 m	3.19	9 d 12 h 48 m	60,674
9 (**)	I-495 CCW @ WOODROW WILSON MEMORIAL BRIDGE	2 h 16 m	2.71	8 d 13 h 22 m	57,727
10 (**)	VA-28 S @ VA-620/BRADDOCK RD/WALNEY RD	3 h 38 m	2.04	13 d 15 h 35 m	51,498

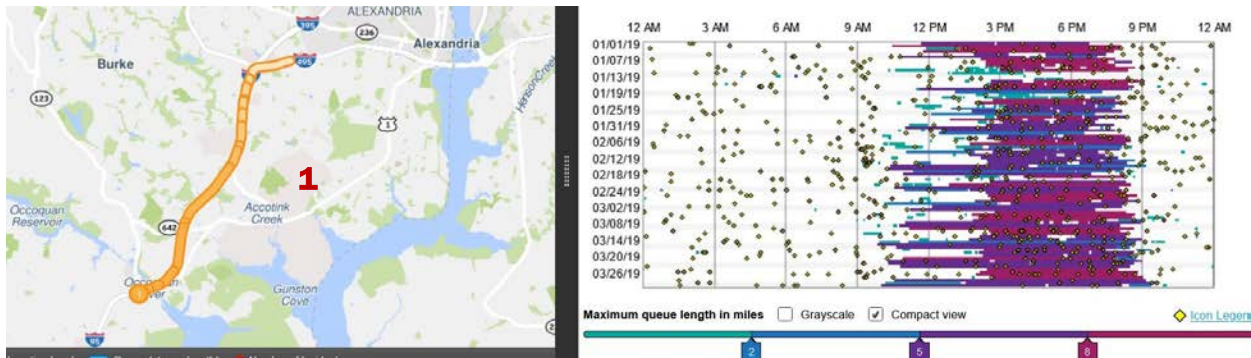
\* The ranking method was different from the previous reports. Starting with this report (first quarter of 2019), the improved built-in Bottlenecks Ranking Tool in the University of Maryland's Probe Data Analytics Suite has been used for bottleneck analysis, superseding the previous COG in-house methodology. This report omits comparison with last quarter's rankings because of the differing methodologies.

\*\*Bottleneck rankings from the previous report not included due to methodology change starting this quarter.

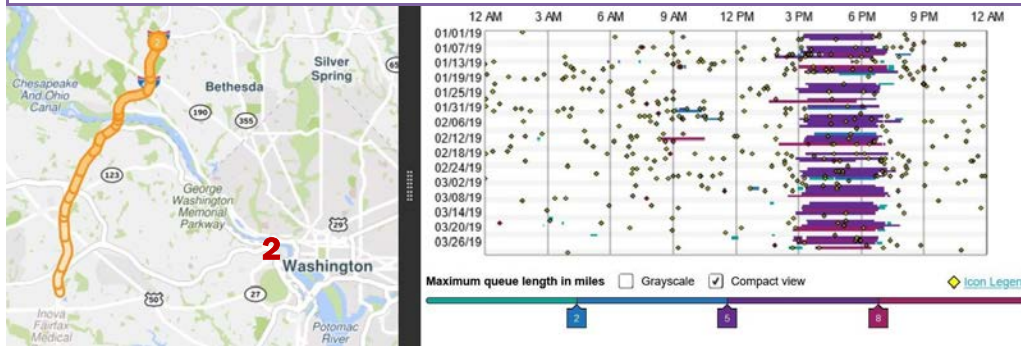


Rank	Location	Average duration	Average max length (miles)	Total duration	Impact factor*
1 *	I-95 S @ VA-123/EXIT 160	7 h 3 m	3.59	26 d 11 h 32 m	157,294

\* The Impact Factor of a bottleneck is simply the product of the Average Duration (minutes), Average Max Length (miles) and the number of occurrences.

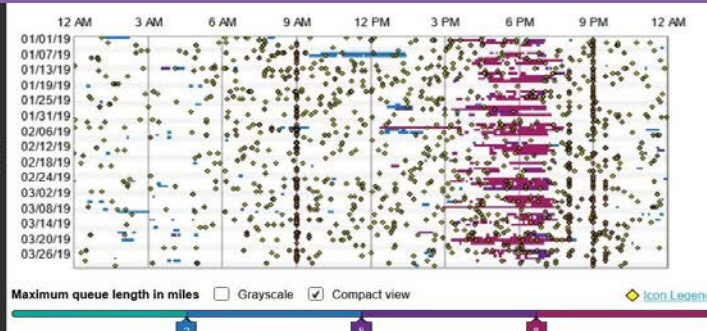
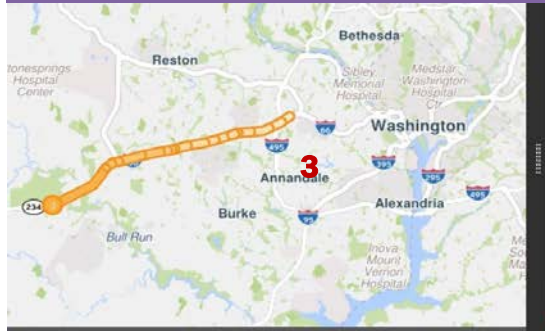


Rank	Location	Average duration	Average max length (miles)	Total duration	Impact factor
2	I-495 CW @ I-270-SPUR	2 h 31 m	3.92	9 d 11 h 22 m	90,895

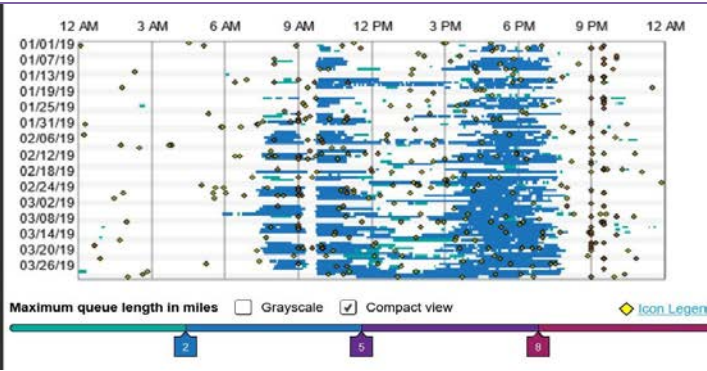
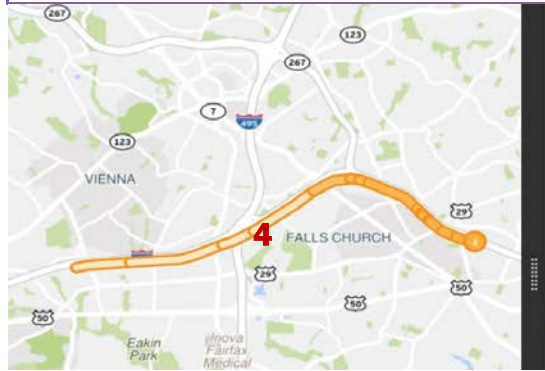




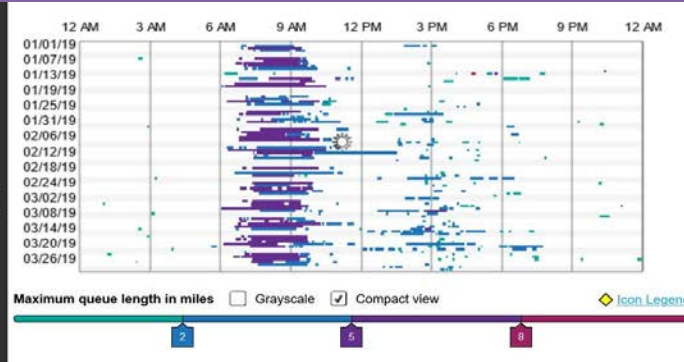
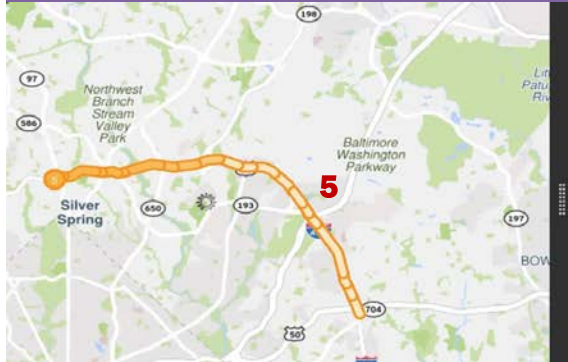
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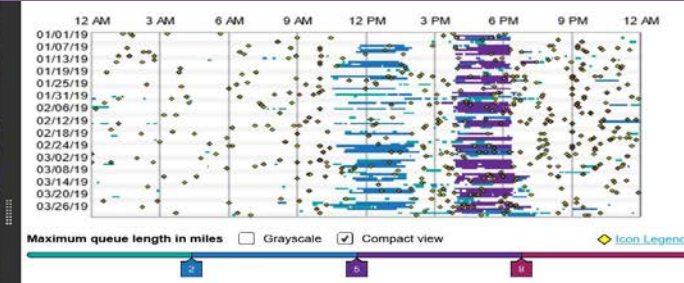
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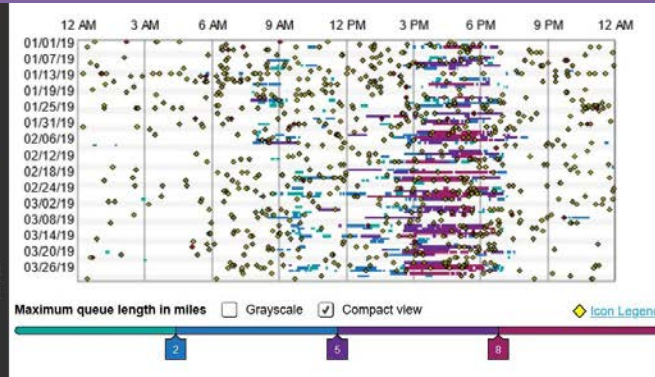
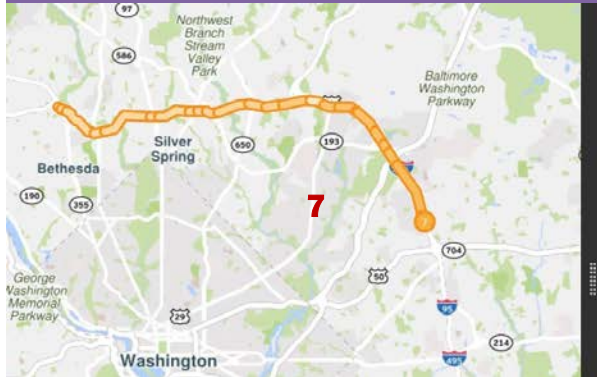
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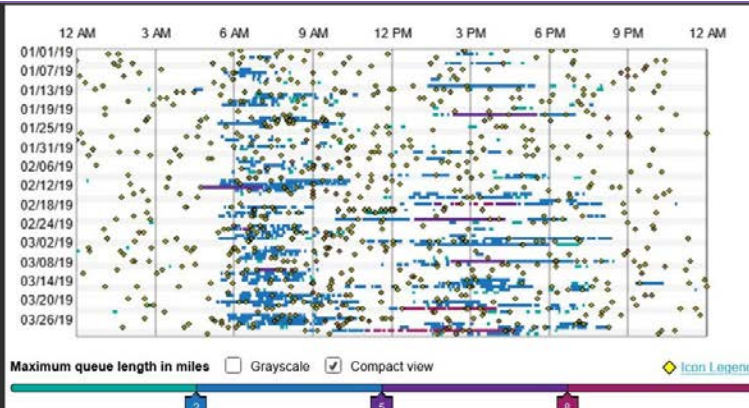
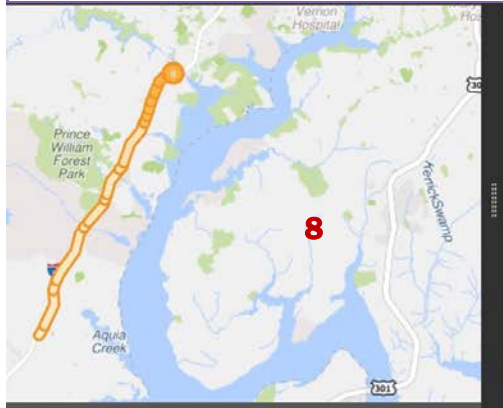
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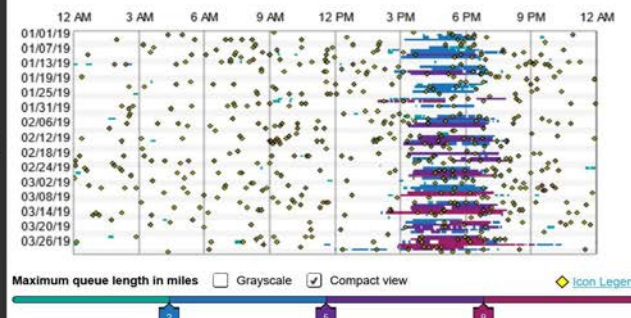
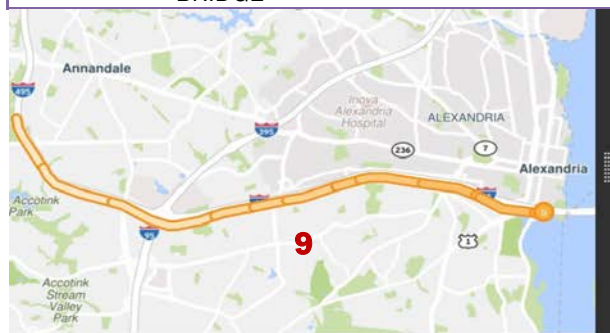
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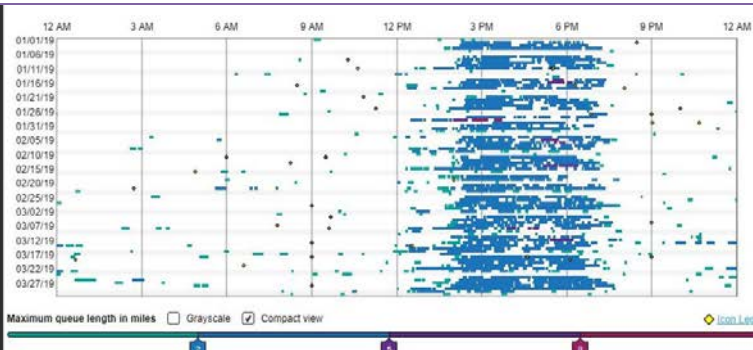
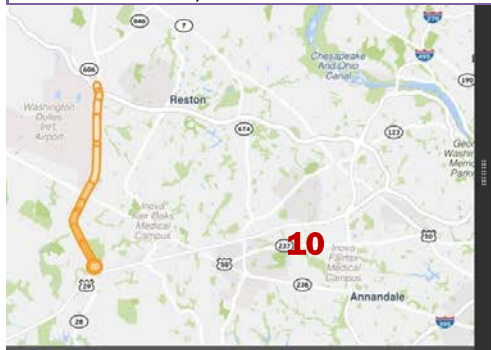
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10	VA-28 S @ VA-620/BRADDOCK RD/WALNEY RD	3 h 38 m	2.04	13 d 15 h 35 m	51,498



# CONGESTION MAPS

Figure 3. Travel Time Index during weekday 8: 00-9:00 A.M. in 1<sup>st</sup> Quarter of 2019

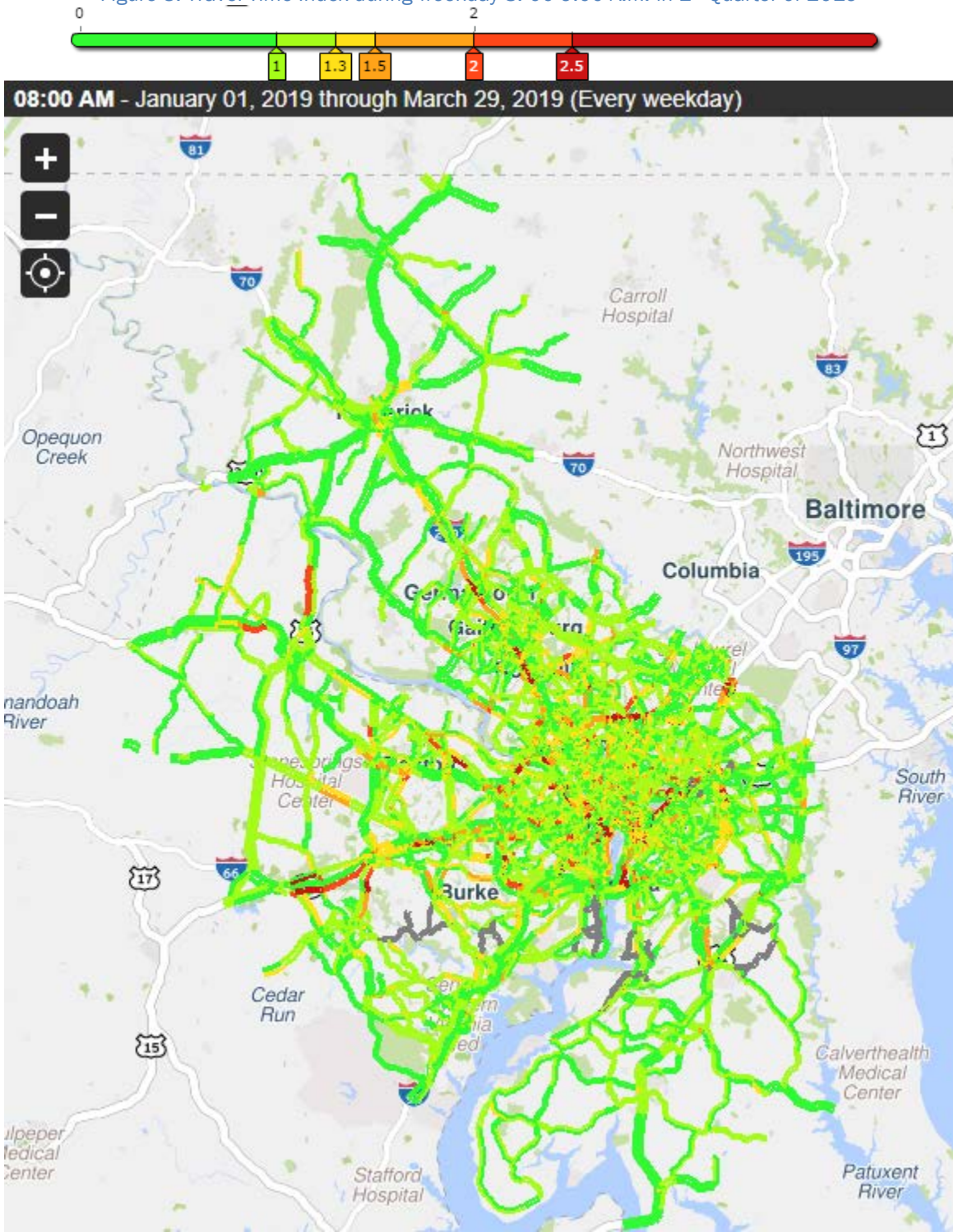
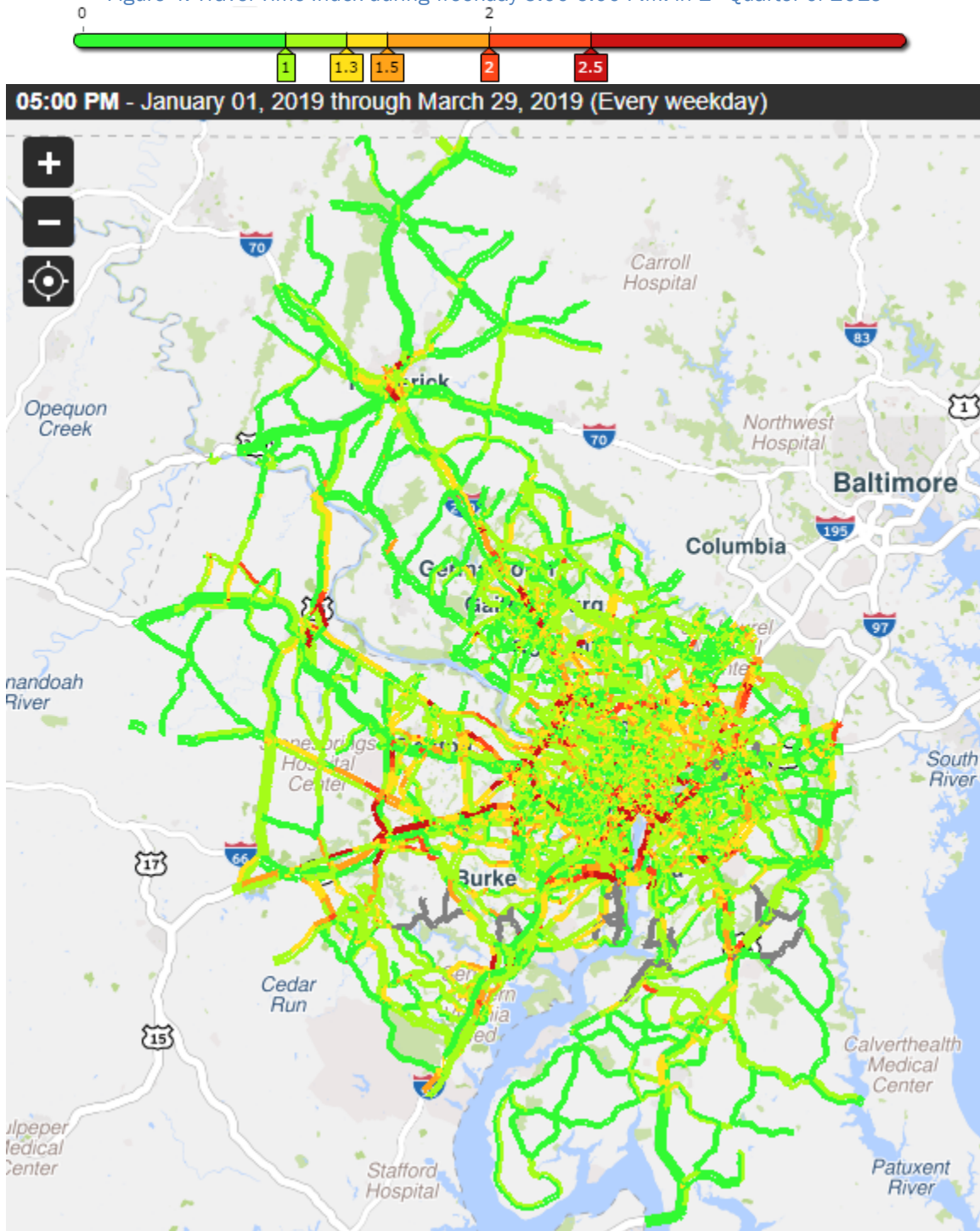


Figure 4. Travel Time Index during weekday 5:00-6:00 P.M. in 1<sup>st</sup> Quarter of 2019



## **2019Q1 SPOTLIGHT**

The SPOTLIGHT section of the Regional Congestion Report is on hiatus for the 1<sup>st</sup> quarter of 2019.



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