

Presented to: BRTB Technical Committee

Eileen Singleton October 4, 2016





## **Overview of New Task**

At the request of the Technical Committee, BMC staff has prepared and BRTB has approved a new task in the FY 2017 Unified Planning Work Program under the Operations Planning project.

#### Purpose of new task:

Identify potential congestion management strategies for corridors that have significant operational issues.

Congestion management strategies include items such as:

- geometric improvements
- adaptive traffic signal control and other low-cost operational strategies that could reduce recurring as well as non-recurring congestion
- transportation system management strategies that manage demand and reduce single occupant vehicle usage





## **Actions for This Task**

- 1. Collect data on system performance to define the extent and duration of congestion and determine the causes of congestion. This task will use state-of-the-art tools, technologies and data (e.g., from ITS, CHART, I-95 Corridor Coalition Vehicle Probe Project suite, and corridor modeling);
- 2. Identify congestion management strategies. Possible congestion mitigation strategies could include geometric improvements, adaptive traffic signal control, and other low-cost operational strategies that reduce recurring and non-recurring congestion;
- 3. Implement selected strategies, including development of an implementation schedule and identification of possible funding sources for each selected strategy; and
- **4. Evaluate effectiveness** of the implemented strategy using similar performance data as collected in Task 1.





## **Draft Schedule**

| Tasks   | FY201 | 7   | g Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | FY2018 | Sep |
|---|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
|   | Jul   | Aug |       |     |     |     |     |     |     |     |     |     | Jul    |     |
| 1. Identify corridor                            |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| a. initial identification                       |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| b. meet with jurisdiction/state                 |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| 2. Collect system perf data                     |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| a. collect data                                 |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| b. develop and run corridor model               |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| c. meet with project team                       |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| 3. Identify congestion management strategies    |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| a. identify potential strategies                |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| b. run corridor model with potential strategies |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| c. select best strategies                       |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| d. develop costs for selected strategies        |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| e. meet with project team                       |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| 4. Implement selected strategies                |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| a. develop implementation schedule              |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| b. identify funding sources                     |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| c. implement strategies                         |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| 5. Evaluate effectiveness                       |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| a. collect data                                 |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| b. run corridor model                           |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| c. prepare report on before/after               |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
| d. meet with project team                       |       |     |       |     |     |     |     |     |     |     |     |     |        |     |
|   |       |     |       |     |     |     |     |     |     |     |     |     |        |     |





### **Corridor Selection**

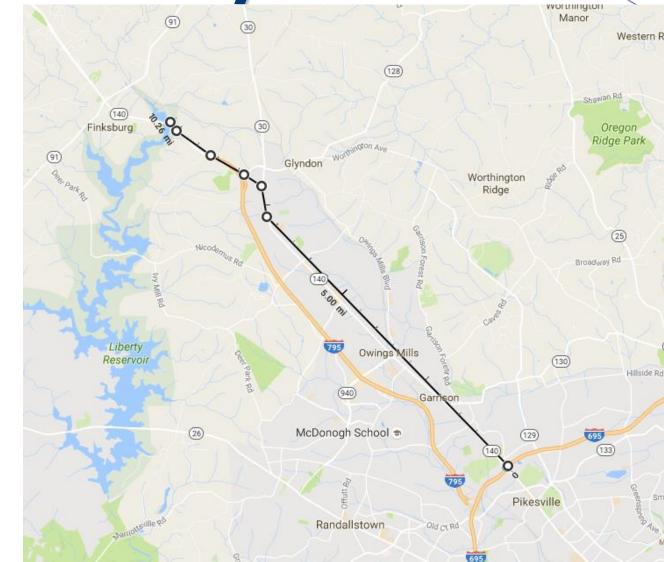
- Considerations for corridor selection includes:
  - level of congestion
  - need for study of the corridor
  - data availability
  - connection to projects in the TIP and LRTP
  - inclusion in previous corridor studies looking at alternatives that improve access to jobs
  - included in the projects submitted by the public during the public outreach process for *Maximize2040*
- Close coordination between staff, jurisdiction, SHA
- Replicate the process in each jurisdiction





Pilot Corridor -MD 140 Baltimore County

- I-695 to Carroll County line
- Approx.10 miles





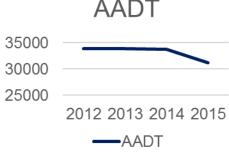
# **Characteristics of MD 140 in Baltimore County**

- ADT
  - Slightly decreased since 2012; will increase once development is complete
- Crashes
  - 379 crashes in 2015
- Peak congestion:
  - Increased in corridor from 2013 to 2015
    - AM and PM peak, peak direction
    - weekends, 8 AM to 6 PM
  - Will increase before roadway improvements are completed (Source: Traffic Impact Analysis, Foundry Row, Revised July 12, 2013)
- Various projects in LRTP, TIP, and priority letter
- Bus service on MD 140, metro in corridor
- Significant economic development taking place in the corridor
- Concerns about mobility on I-795

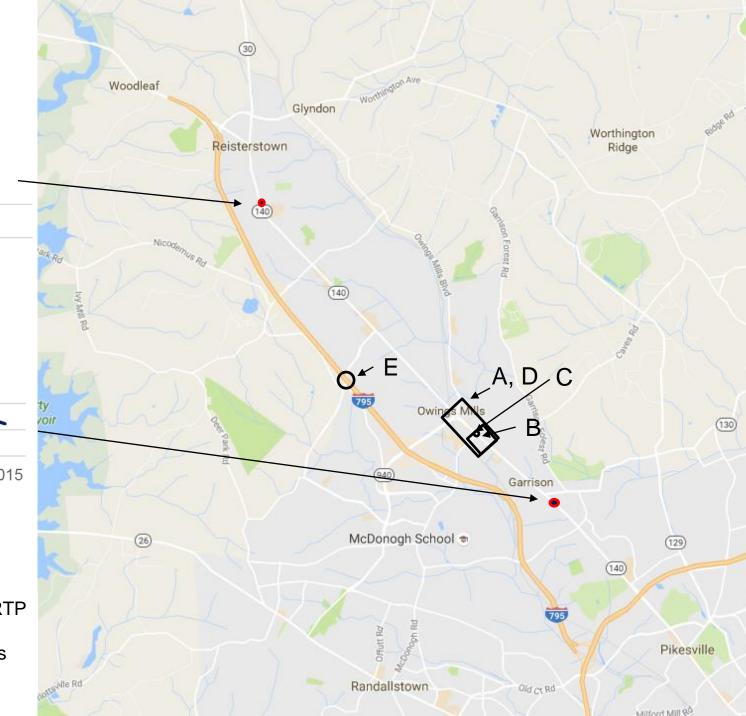




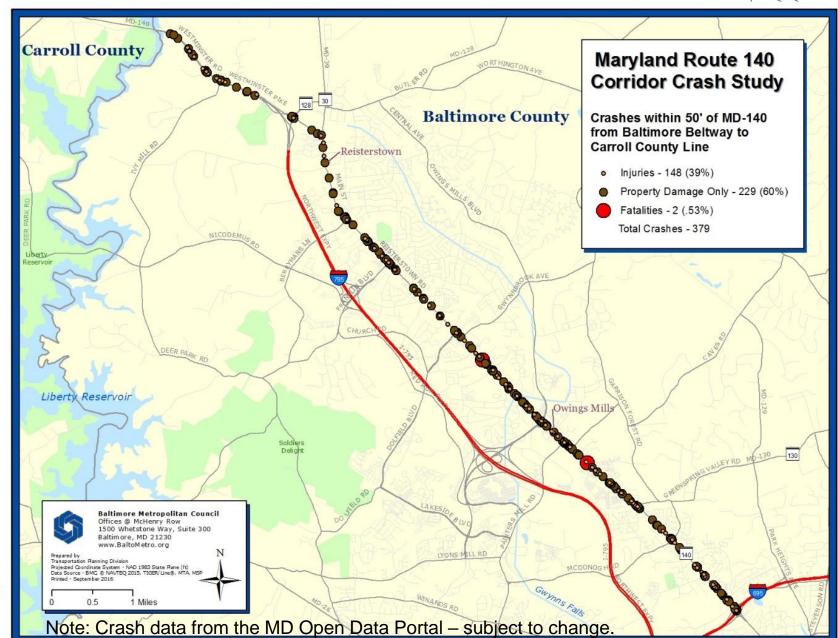




Note: Letters refer to LRTP (A, B), TIP (C, D), and priority letter (E) projects noted on slide 13.



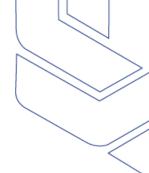
## Crashes in 2015

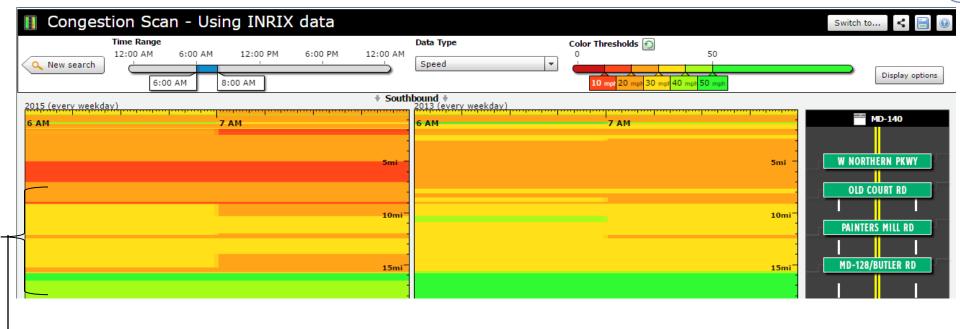




#### **AM Peak Speed Southbound 2013 & 2015**

(speed limit in most of corridor is 40 MPH)





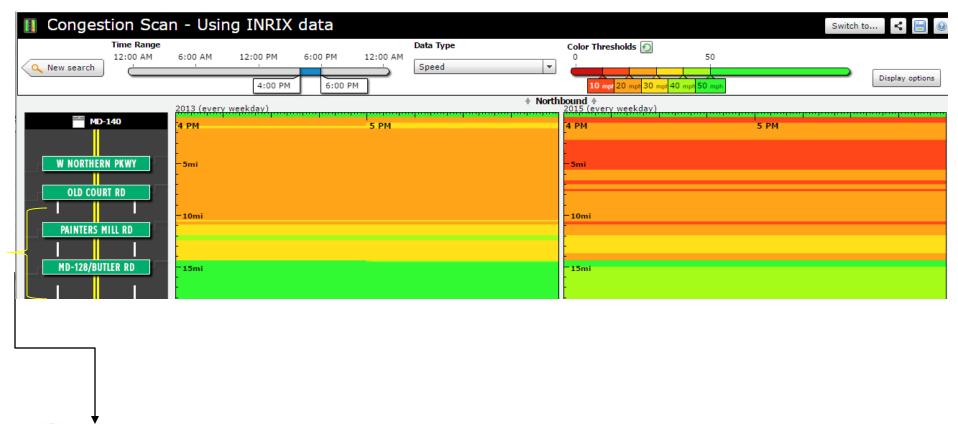




#### PM Peak Speed Northbound 2013 & 2015

(speed limit in most of corridor is 40 MPH)

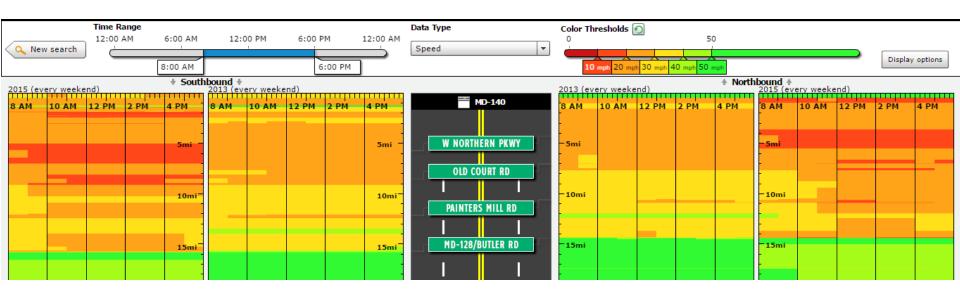








## Weekends from 8 AM to 6 PM, 2013 & 2015







## Planned Projects in the Corridor

- Baltimore County projects in the long-range plan:
  - A. MD 140 from Garrison View Rd to north of Owings Mills Blvd, widen from 4 to 6 lanes, remove bottlenecks.
  - B. MD 140 / Painters Mill Rd intersection. Intersection improvements, additional left turn lane, parallel access roads east and west of MD 140
- Baltimore County projects in the TIP:
  - C. Phase 1: Garrison View Rd to Painters Mill Rd. Year of operation: 2017. Widen northbound MD 140 to provide a third through lane and 5-foot raised median, with 5-foot-wide ADA-compliant sidewalks.
  - D. Phase 2: Garrison View Road to north of Owings Mills Painters Mill Road. Year of operation: 2020. Widen southbound MD 140 to provide a third through lane, with addition of left and right turn lanes and added width to better accommodate bicycles.
- 2015 Priority Letter
  - E. Request for funding of new interchange on I-795 at Dolfield Blvd to alleviate congestion due to increased development nearby (Owings Mills Metro Center Transit Oriented Development and Foundry Row Shopping Center)



## **Status and Next Steps**

- Received approval from Baltimore County of pilot corridor selection
- Identified Baltimore County and state representatives to work with staff
- Begin work





### Contact

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