





#### PROBLEM IDENTIFICATION

- Severe, recurring, peak hour congestion along the corridor
  - > #3 bottleneck
  - > #30 most congested link (I-95 @ MD 175)

2014 Rank	Location	Road	Direction
1	I-495 IL @ I-270 Spur	I-495	Inner Loop
2	I-95 OL @ Greenbelt Metro Dr/Exit 24**	I-95	Outer Loop
3	I-95 N @ MD-100/Exit 43	I-95	Northbound

- Above average crash patterns at interchanges
  - > Crash density pattern



- Inconsistent travel times unreliability
  - ➤ High Planning Time Index (PTI).



#### CONCEPT DEVELOPMENT

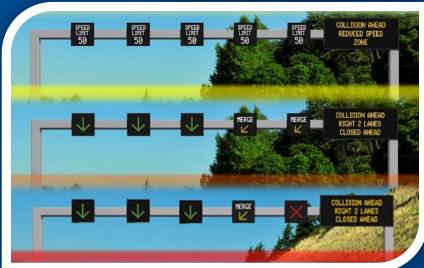
- Collected recommendations from previous studies. (7; '03-'15)
- Evaluated 17 concepts, which came from:
  - > Previous studies; and
  - > New concepts identified based on traffic & <u>crash data</u>.
  - Included both traditional geometric and ATM concepts.
- Pared down to 4 concepts on ability to meet:
  - Cost constraints;
  - > Comparative operational efficiency; and
  - Corridor needs.



### ITS STRATEGIES

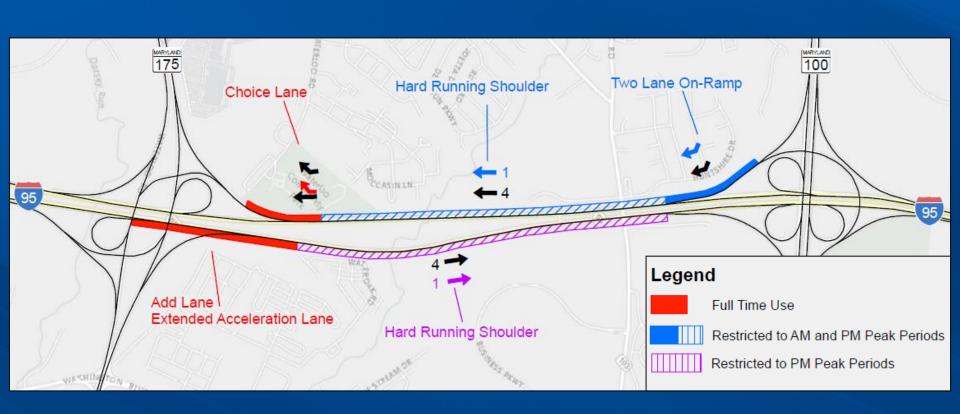
- Considered:
  - > Current state
  - > Level of improvement
  - > User expectancy
- Focus on lower intensity ITS
- Working with internal stakeholders.
- Continuing organization effort.







## Concepts – Group I (2 & 3b)





### Concepts – Group II (2 & 5)





### **DESIGN CONSIDERATIONS**

- Lane operations
  - > Truck Use
- Inside versus Outside
  - > Safety
  - > Operations
  - > Environmental
- Design exceptions
  - > CMF Comparison





### **MOVING FORWARD**

- Continued outreach to stakeholders
- Concurrence on Design Exceptions
- Approx. PE Est. Complete: July 2018
  - Con Ops
  - ≥30% Design



# **Closing Remarks**



