Moving Maryland

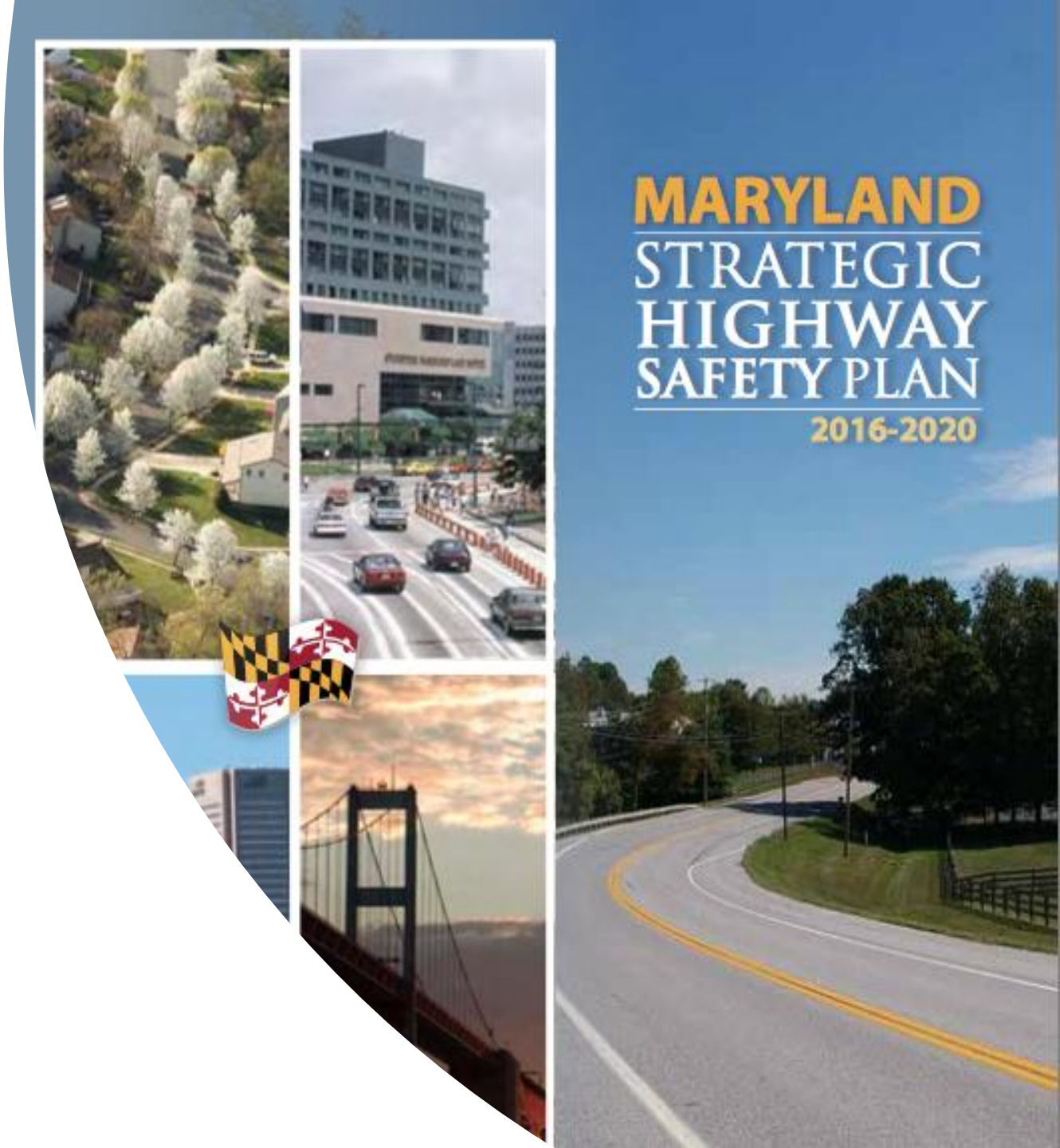
Toward Zero Deaths

MARYLAND DEPARTMENT OF TRANSPORTATION

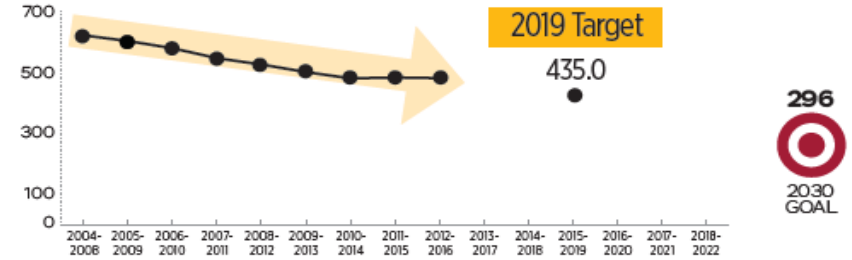
Item 3

Maryland's Strategic Highway Safety Plan

- **TOWARDS ZERO DEATH**
- Goal: To ensure a safe, secure, and resilient transportation system for all users
- Objective: Reduce the number of lives lost and injuries sustained on Maryland roads
- Strategy: Build partnerships to strengthen state and local efforts to improve safety

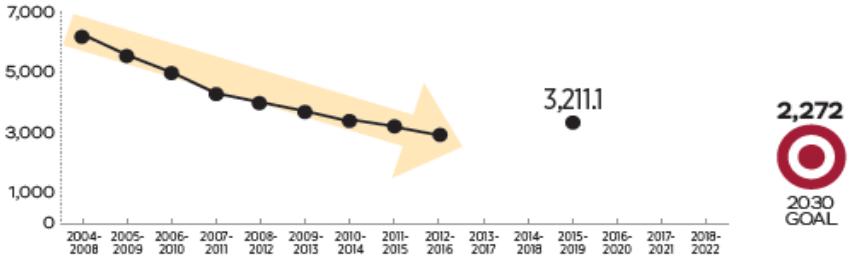


Total Fatalities



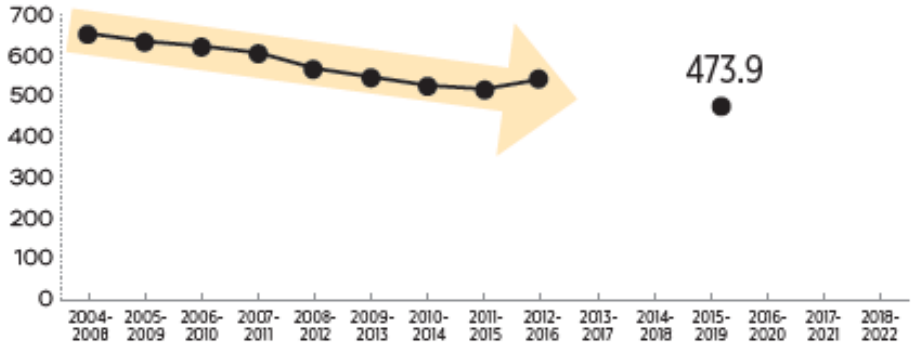
296
2030 GOAL

Total Serious Injuries

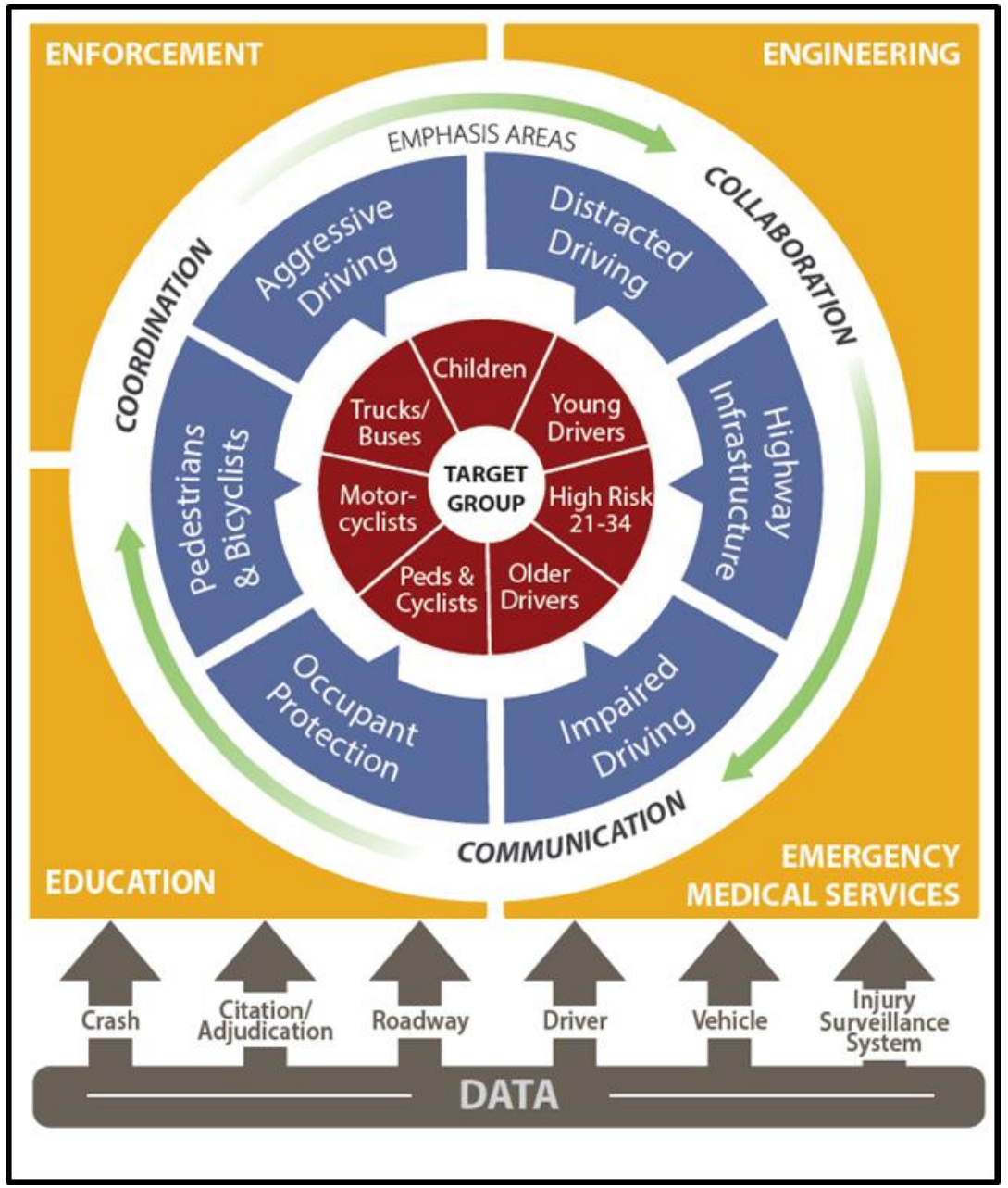


2,272
2030 GOAL

Non-motorized Fatalities & Serious Injuries

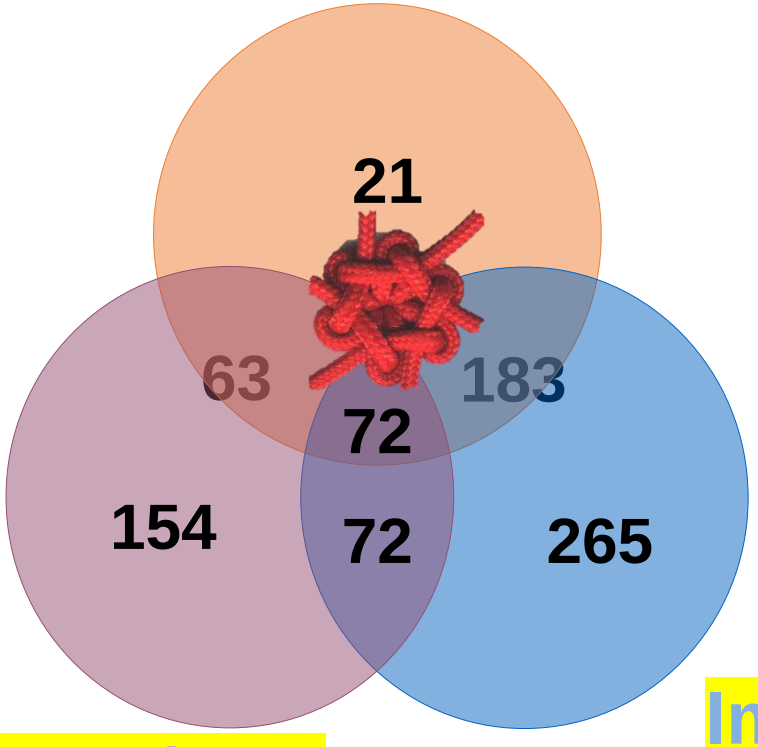


326
2030 GOAL



Motor Vehicle Occupant Fatality Causes

Unbelted = 530 /30%



Speed = 361/20%

Impaired = 592/34%

1,763 motor vehicle occupant deaths for the period 2012-2016.

58% involved speeding, impairment, or lack of belt use.

Our Observed Belt Use….**92.1%**

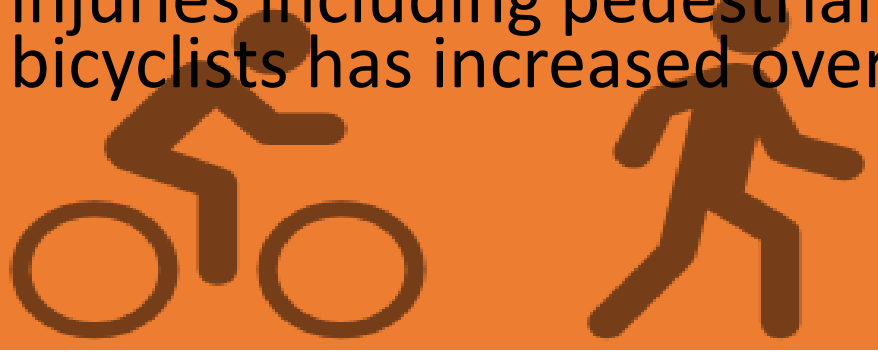
Engineering Emphasis Areas

Highway Infrastructure

- An average of **276** fatalities and **2,169** serious injuries occurred in crashes involving infrastructure-related issues.
- Intersection-related and run-off-the-road crashes are the prime indicators of roadway infrastructure opportunities for improvement.
- Work zone crashes are also included in this emphasis area.

Pedestrian and Bicyclist

- An average of **105** fatalities and **362** serious injuries occurred in crashes involving pedestrians.
- An average of **7** fatalities and **68** serious injuries occurred in crashes involving bicyclists.
- Non-motorized road users tend to be the most vulnerable, and the proportion of fatalities and serious injuries including pedestrians and bicyclists has increased over time.



Highway Infrastructure Crash Mitigation

Spot Improvements

Identify intersections where the Crash Severity Index is high and implement safety improvements.

Identify and target safety improvements along corridors where the Crash Severity Index is high and address roadway elements that contribute to crashes.

Systemwide Improvements

Develop and implement system-wide improvements to reduce the number and severity of infrastructure-related crashes.

Identify, develop, and implement system-wide improvements that address the safety of vulnerable user groups.

Commercial Vehicle Improvements

Identify and implement recommended safety initiatives for commercial motor carriers.

Spot Improvements

A list of Candidate Safety Improvement Locations (CSIL) is prepared by the Office of Traffic and Safety yearly for study by District Traffic Engineers, identifying intersections and sections of roadway based on crash numbers, rates, and severity.

Road Safety Audits are conducted by independent teams along roadways where safety concerns have been expressed or where patterns of crashes have been identified.

Fatal crash locations are reviewed by District Traffic office soon after the crash to determine if all traffic control devices are up to current standards.

District Traffic office responds to customer concerns about traffic safety and conduct studies as requested.

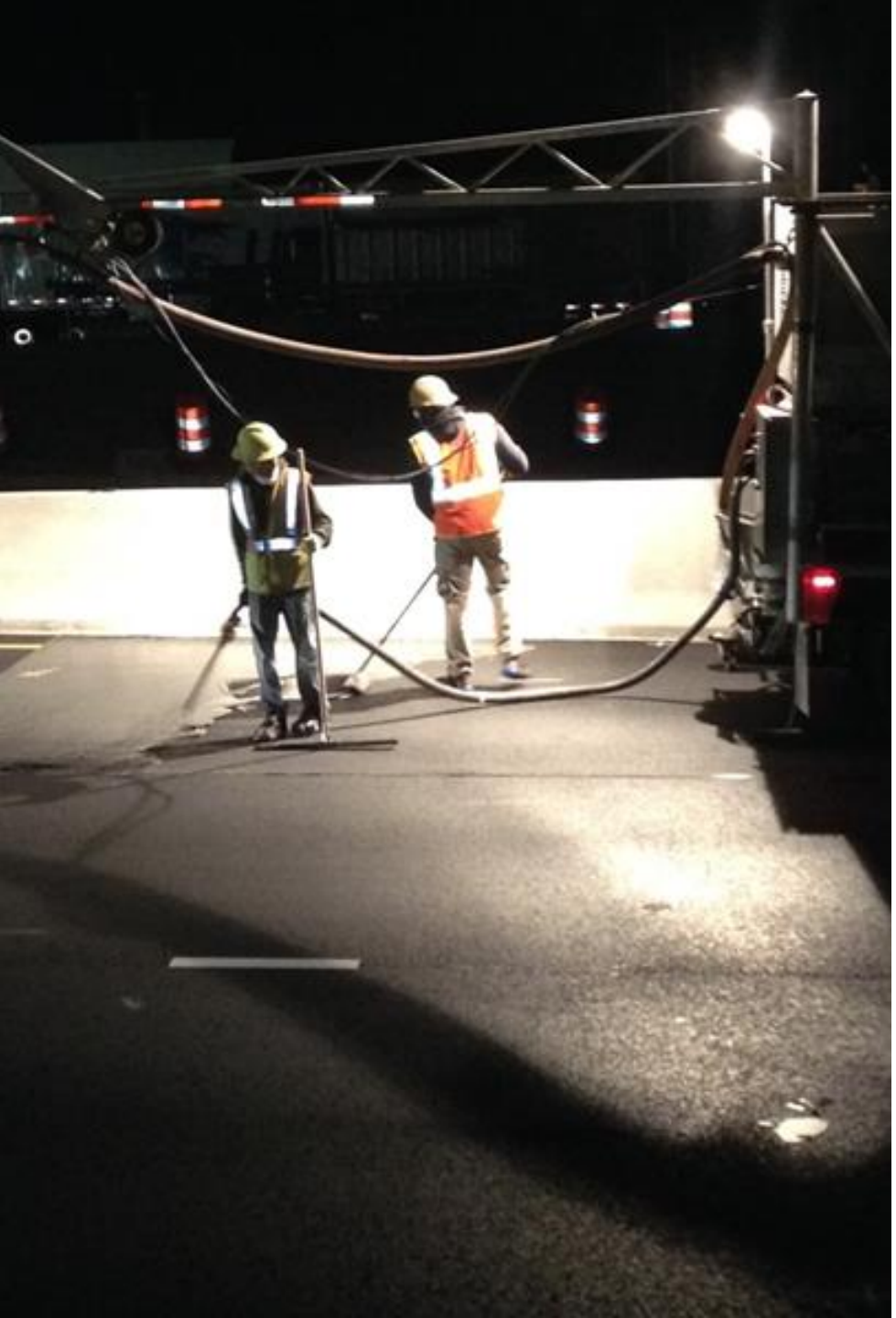
Candidate Safety Improvement Locations

Data Driven Approach to Target Specific Crash Trends

- Geometric Modifications – ADA, Curb Radii, Turn Lanes, Roundabouts
- Traffic Signal Modifications – No Turn on Red, Leading Pedestrian Intervals
- LED Lighting
- Rumble Strips
- Raised Pavement Markers
- Road Diet, Lane Width Reductions
- Bike lanes
- Sidewalks, Shared use paths

Systemwide Improvements

- High Friction Surface Treatment.
- Low Cost Improvements at Ramp Termini to target Wrong Way Driving Crashes.
- Automated Flagger Assistance Device(AFAD) tested and approved for use.
- Guardrail Upgrades
- Revamped Pedestrian Roadway Safety Audit (PRSA) program.
- Pedestrian Best Practices Guidelines
  - Pedestrian Hybrid Beacon or HAWK
  - Rectangular Rapid Flashing Beacon (RRFB)



What is High Friction Surface Treatment (HFST)?

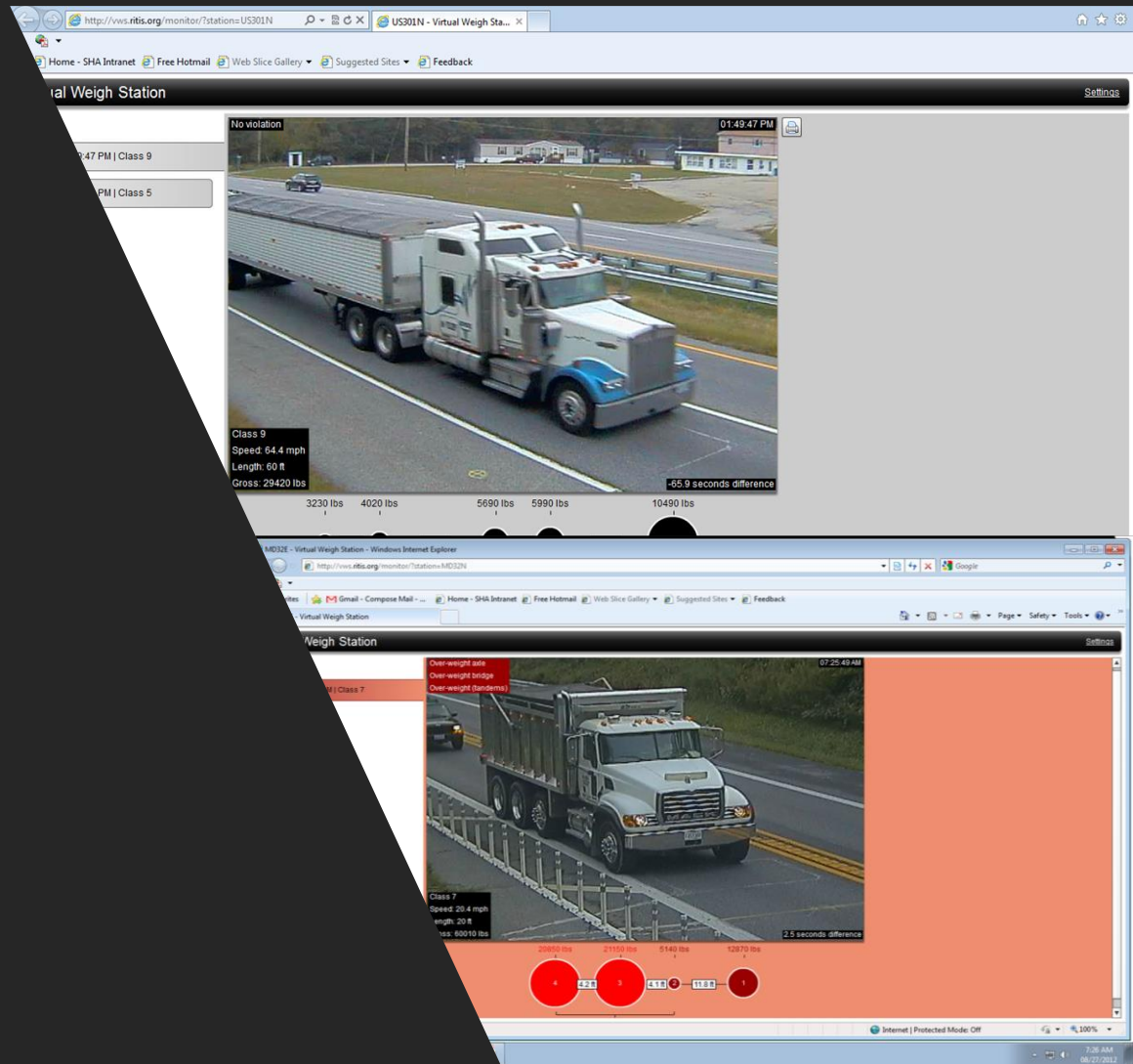
- Pavement treatment to improve friction to avoid run off the road crashes.
- Calcined Bauxite Aggregate + Polymer Resin Binder
- Shown to have 70-75% crash reductions
- FHWA Every Day Counts (EDC) Initiatives
- Refine and redevelop model/site selection methodology
  - **In development – Deployment anticipated Spring 2019**

Wrong Way Driving Crashes

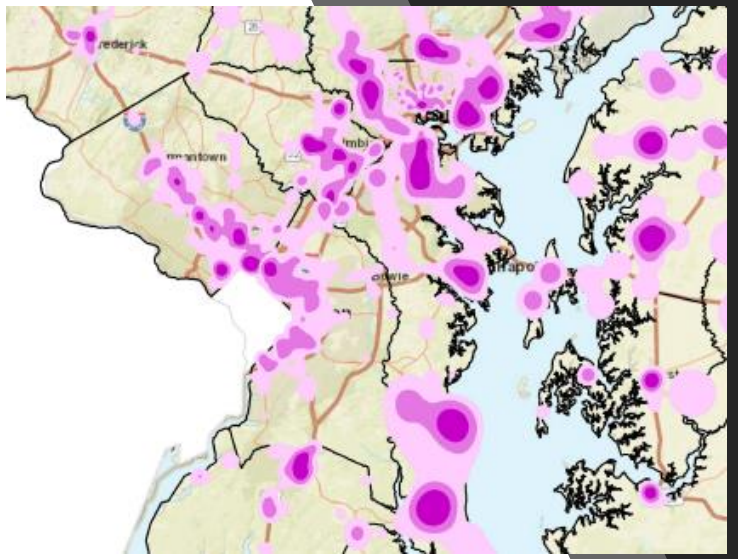
- Wrong Way Crashes are approximately 0.4% of crashes Statewide (compared to 2.8% nationally)
- High percentage of crashes involve alcohol use.
- Most crashes happened at night and involved younger drivers.
- Low cost, innovative improvements identified – signing, pavement marking, signal modifications.

Commercial Vehicle Safety Improvements

- Over 100,000 Inspections conducted yearly.
- Over 1,000,000 Trucks Weighed.
- Maryland Virtual Weigh Station (VWS) Program.
  - 20 VWS deployed statewide since December 2017
- Maryland State Police Inspection of Trucks
  - Out of Service rate at 40 %
- Engaging other Stakeholders
  - Annual Safety Summit
  - Regular meetings with Maryland Transportation Authority, Maryland Port Authority and the Trucking Industry.



Pedestrian and Bicyclist Safety



- Pedestrian Roadway Safety Audits
- Sidewalk programs
- Safe Routes to School Programs
- Urban Mobility Program:
  - Lower speed limits
  - Continental Crosswalks
  - No turn on Red
  - Leading Pedestrian Intervals

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