

Baltimore MPO

Update on MDOT SHA Implementation of Vision Zero Act

December 15, 2022



What We'll Cover

- Overview
- The approach
- The tools



Article – Transportation §8–204.2

- (a) The Administration shall conduct an infrastructure review of each pedestrian or bicyclist fatality that occurs:
 - (1) On a State highway; or
 - (2) At an intersection of a State highway and another highway or a municipal street.
- (b) The Administration's infrastructure review shall identify:
 - (1) Deficiencies in engineering, traffic control, and traffic operations; and
 - (2) Appropriate corrective actions and crash reduction countermeasures that are consistent with the United States Department of Transportation's best practices and the State's Vision Zero program established under Subtitle 10 of this title, if warranted.
- (c) In conducting an infrastructure review, the Administration shall consider:
 - (1) Highway context, such as proximity of the highway to mass transit and whether the highway is in an urban or rural area;
 - (2) The different modes of transportation using the highway; and
 - (3) Prior crashes in the vicinity.
- (d) The Administration shall:
 - (1) Complete an infrastructure review within 6 months after being notified by law enforcement of a pedestrian or bicyclist fatality; and
 - (2) Publish the review on its website.

What MDOT SHA will do....

(a) The **Administration shall conduct an infrastructure review** of each pedestrian or bicyclist fatality that occurs:

(1) On a **State highway**; or

(2) **At an intersection of a State highway and another highway** or a municipal street.



Specific items of review....

- (b) The Administration's **infrastructure review shall identify:**
- (1) **Deficiencies in engineering, traffic control, and traffic operations;** and
 - (2) **Appropriate corrective actions and crash reduction countermeasures** that are consistent with the United States Department of Transportation's best practices and the State's Vision Zero program established under Subtitle 10 of this title, if warranted.

Fatality Infrastructure Review - form....

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
MDOT SHA Fatality Infrastructure Review Form

Name of person performing inspection: _____ Date of onsite inspection: _____
Date of Crash: _____ County: _____
District: _____ Route number: _____
Route Prefix: _____ ACRS Report #: _____
Date of initial crash report: _____ Number of injuries: _____
Number of fatalities: _____

Does the crash involve a pedestrian? Yes or No
If not, please skip to next section.

Was there a pedestrian fatality? Yes or No
Is a crosswalk present? Yes or No
Crosswalk is not in need of maintenance if 100% of existing markings are functioning as intended. Functioning as intended is defined as 75% of each marking (90% of school crossing) is intact with minimal fading.
Is the crosswalk signalized? Yes or No
Is the crosswalk in of maintenance? Yes or No
Is the crosswalk markings are functioning as intended. Functioning as intended is defined as 75% of each marking (90% of school crossing) is intact with minimal fading.
Is the signalized crosswalk operations? Yes or No
What is the approximate distance (ft) between the crash and the nearest crosswalk? _____

Does the crash involve a bicyclist? Yes or No
If not, please skip to the next section.

Was there a bicyclist fatality? Yes or No
Is a bike lane present? Yes or No
What separates the bike lane from the travel lane? (circle)
Concrete Barrier Delineators Curb On-Street Parking Other
If other, please describe. _____

Please describe the junction relationship and/or lane configuration.
Examples: Intersection, Non-intersection, Two lanes in each direction

Please describe the geometry.
Level and curve right, grade downhill and straight, hill uphill and curve left
Did the crash occur at an intersection? Yes or No
Is the intersection signalized? Yes or No
What is the posted speed limit? _____
Is a median present? Yes or No
Is there visible evidence that the guardrail has been hit? Yes or No
Is there visible evidence that the curb has been hit? Yes or No
Are there any markings? Yes or No
eg. stop bar, crosswalk
eg. one direction, two directions

Fatality Infrastructure Review - application

Date of the incident?

Date notified?

Date of this investigation?

Source of notification?

Law Enforcement

Traffic Operations Center

News M

District?

District 1

District 2

District 3

District 4

District 5

District 6

District 7

Route (eg. MD 100, US 50, I-97)?

Nearest intersection or cross road?

Mile point?

Pavement marking type?

Longitudinal Markings (eg. broken, double solid, etc.)

Transverse Markings (eg. stop bar, crosswalk, etc.)

Arrow Markings (eg. one direction, two directions)

Hazard Markings (eg. hatch markings, chevrons, etc.)

Directional Markings or Word Messages (eg. Stop, Slow, School, etc.)

Facility Markings or Parking (eg. Bus Stop, Fire Hydrant, etc.)

Other

Pavement marking condition?

1 Poor

2 Bad

3 Good

4 Very Good

5 Excellent

Delineation present (eg. rail riders, snow guide steaks, etc.)?

Yes

No



Other

Contextually painting the picture....

- (c) In conducting an infrastructure review, the **Administration shall consider:**
- (1) **Highway context**, such as **proximity** of the highway **to mass transit** and whether the highway is in an **urban or rural area**;
 - (2) The **different modes** of transportation **using the highway**; and
 - (3) **Prior crashes** in the vicinity.

Legend

Maryland Transit - MTA Bus Stops - MTA Bus Stops





-  Bus
-  Commuter Bus
-  Bus/Commuter Bus

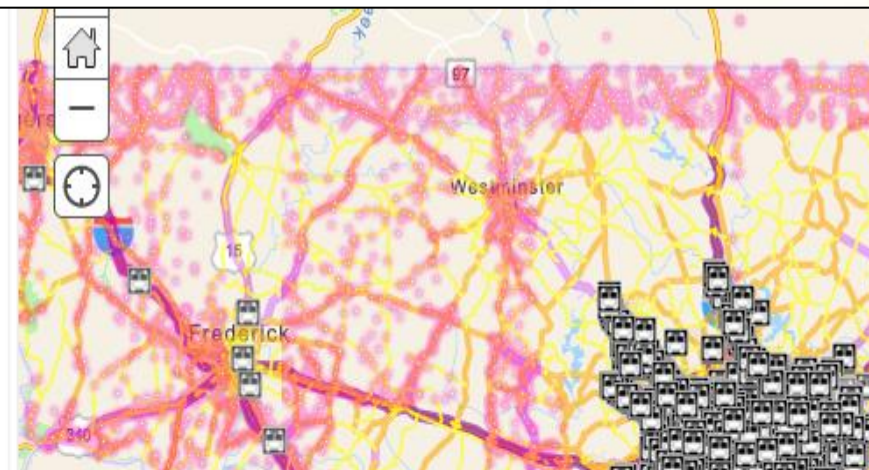
MSCAN Accident Locations



MDOT SHA Annual Average Daily Traffic (AADT) - MDOT SHA Annual Average Daily Traffic (AADT) Segments








AADT (Current)

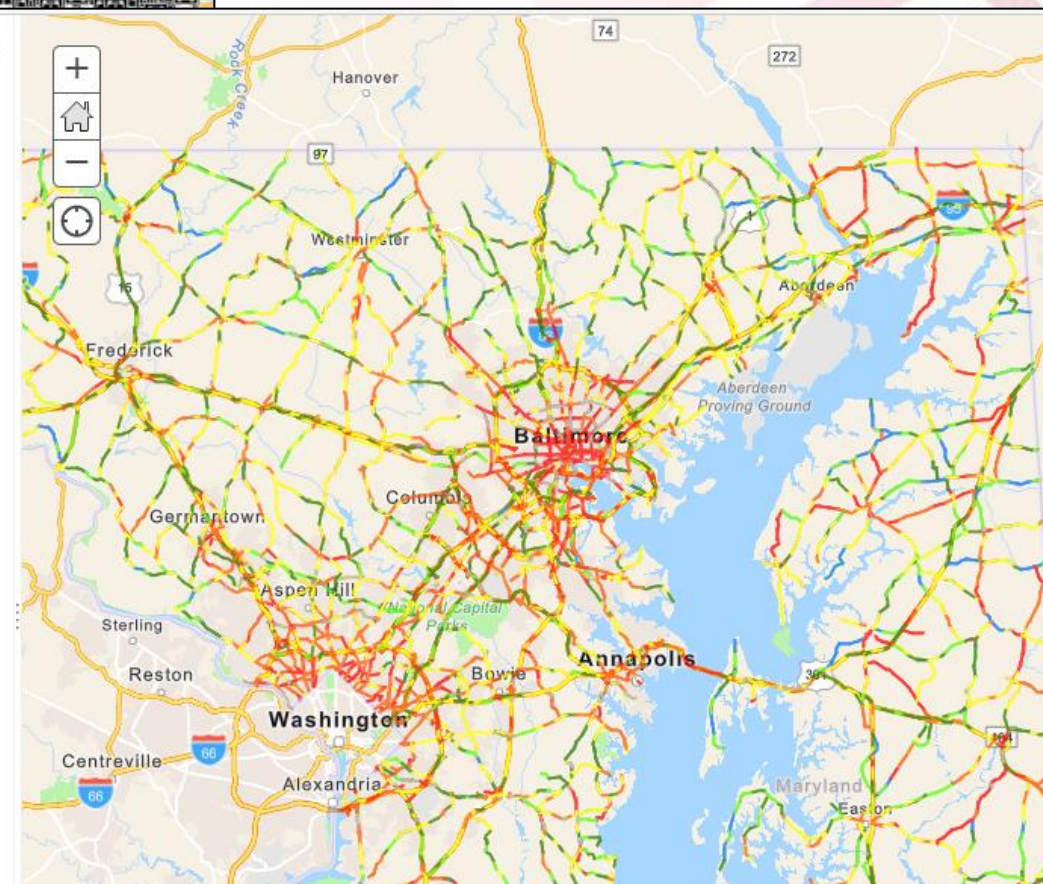
-  > 50,000 +
-  > 20,000 - 50,000
-  > 5,000 - 20,000
-  < 5,000



Legend

MDOT SHA Pavement Condition

-  Excellent (A)
-  Very Good (B)
-  Good (C)
-  Fair (D)
-  Mediocre (E)
-  Poor (F)
-  Unavailable

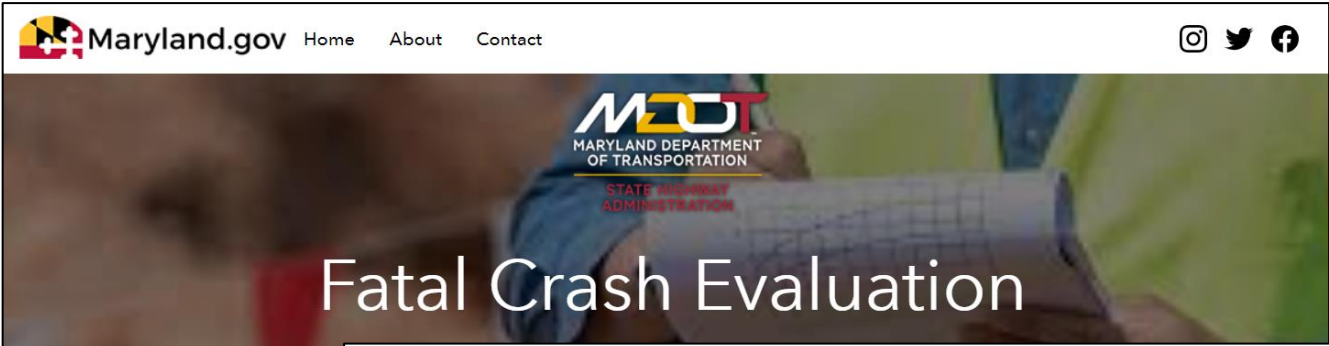


How it will be shared with the public....

(d) The **Administration** shall:

- (1) **Complete an infrastructure review within 6 months after being notified by law enforcement of a pedestrian or bicyclist fatality; and**
- (2) **Publish the review on its website.**

<https://mdot-sha-fatal-crash-evaluation-maryland.hub.arcgis.com/>



Fatal crashes are pre

At the Maryland State Highway Admini...
uses a multi-disciplinary approach to c...
MDOT SHA-maintained roadways, traffi...

Evaluations

Roadways and intersections are designed and built based upon certain assumptions and standards
Over time, as neighborhoods and transportation needs change, road use also changes. These changes may lead to underperformance of some roadway designs in terms of safety and mobility. Engineers and planners continually evaluate traffic system data and look for ways to address safety and mobility needs in a timely and cost-efficient manner.

Highway Infrastructure Related Crash

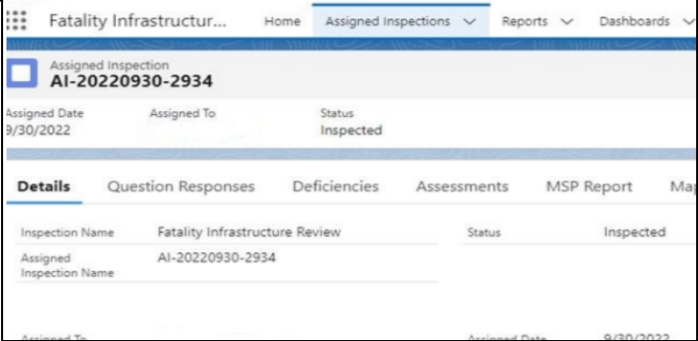
MDOT SHA evaluates all fatal crashes on state highways to determine whether any number of lanes, shoulder condition, width of lanes), junction type (gradient, leng... delineators, pavement markings, streetlights), and work zones.

Context Driven Improvements

MDOT SHA also evaluates fatal crashes to identify whether our streets are design...
Engineers are encouraged to seek out innovative design treatments, especially in...
by standard elements.

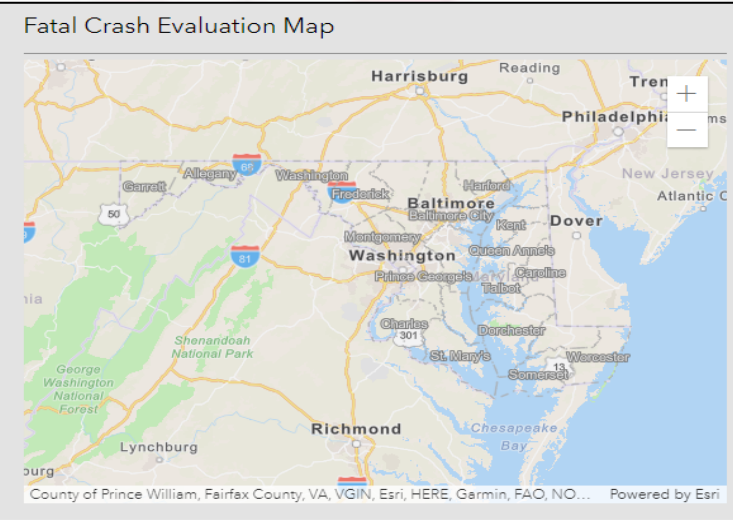
Zero Deaths Marylan

The goal of Zero Deaths Maryland is to...
zero roadway fatalities and serious inju...
problems that are to be solved. MDOT...
proactive elements that enhance safety...



Evaluation Results

MDOT SHA has a long-standing practice in which District Traffic Engineers evaluate MDOT SHA-maintained infrastructure following all crash-related fatalities that occur on MDOT SHA roads. MDOT SHA modernized the approach to these evaluations and deployed a mobile application to field inspection staff. MDOT SHA's evaluation findings will be assembled with official law enforcement crash records and posted on this map.



Schedule	
Implementation Phase	Estimated Schedule
Digital Evaluation Form	October 2022
Integration with Law Enforcement Crash Records	April 2023
Publication of Evaluation Findings	April 2023

Thank you!

