

Road Safety Audits in Massachusetts

February 13, 2024



Why RSAs?

- FHWA proven safety countermeasure - 10% to 60% reduction in total crashes.
- Helps prioritize projects and clarify issues for politicians and decision makers.
- Strengthens connections between participants (different areas maintenance, enforcement, design also different agencies local, state, advocacy, etc.)
- Helps incorporation of safety enhancements into project (ideally before conceptual and preliminary design).



Safety Benefits:
10-60%
reduction in total crashes¹.

MASSDOT PROJECT SCOPING CHECKLIST

IV. SAFETY

A. Top Crash Locations

Intersections: [Top Crash Locations](#)

☐ Top 200 Intersection Crash Cluster

Top 5% Clusters: ☐ Crash ☐ Bicycle Crash ☐ Pedestrian Crash [IMPACT Screening Tools](#)

☐ Primary MPO/RPA Risk Site for Intersections based on the Network Screening - Risk Based Tool

Describe High Crash and Risk Locations in Project Area:

Corridors: [IMPACT Screening Tools](#)

☐ Top 5% Crash MPO/RPA for Fatal & Injury based on the Network Screening - Crash Based Tool

Primary MPO/RPA Risk Site based on the Network Screening - Risk Based Tool, select all:

☐ Lane Departure ☐ Bicyclist Related ☐ Pedestrian ☐ Speeding ☐ Other, describe below

Describe Network Screening Locations and potential proposed countermeasures:

B. Safety Analysis Required/Completed

☐ All Intersections ☐ Entire Length of Corridor

☐ Crash Diagrams Required *If completed, for what years?*

☐ Corridor Crash Mapping Required *If completed, for what years?*

☐ Road Safety Audit Required (prior to 25%) *If completed, date?*

[RSA Template & Guidelines](#)

☐ Safety Alternative Analysis Required (If Top-5% Crash Location; also required for ICE Stage 2)

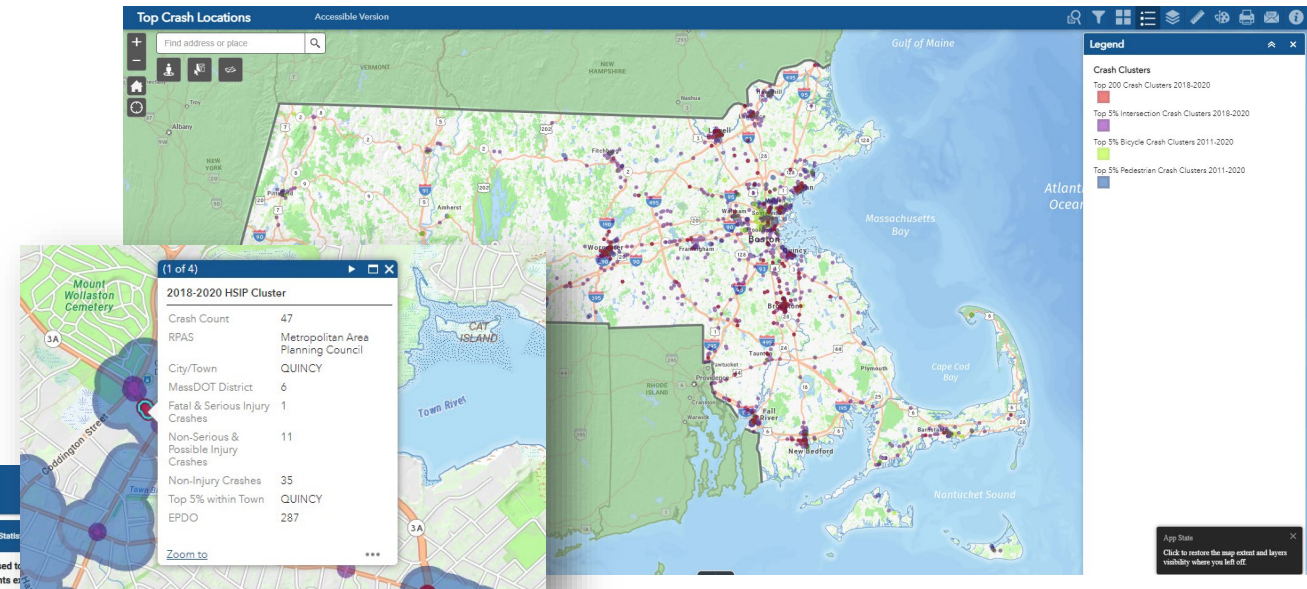
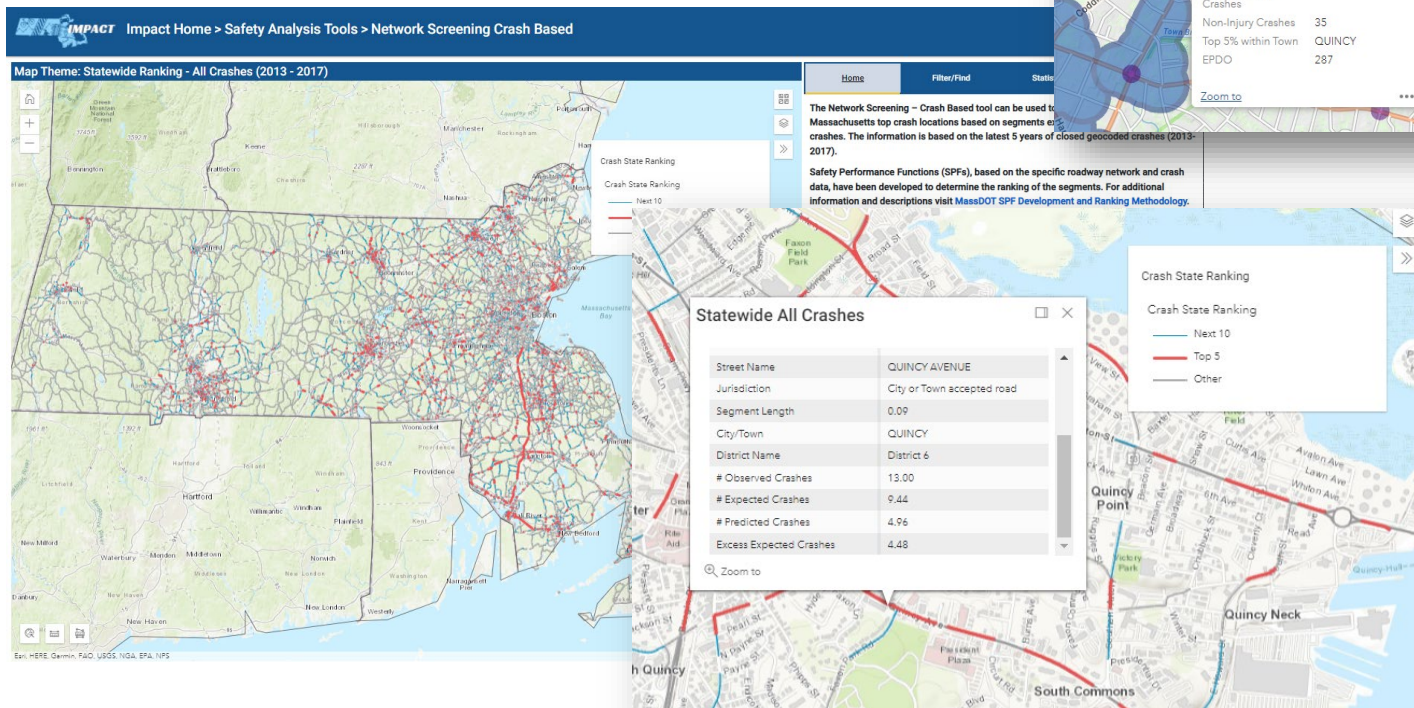
[HSIP Eligibility & Alternative Safety Analysis Guide](#)

1. Road Safety Audits: An Evaluation of RSA Programs and Projects, FHWA-SA-12-037; and FHWA Road Safety Audit Guidelines, FHWA-SA-06-06.

When is RSA required in MA?

- When project area includes high crash locations (Top 5% Vehicle, Bicycle, or Pedestrian Intersections or Segments) of the most recent available years.

Network Screening - Crash Based Map

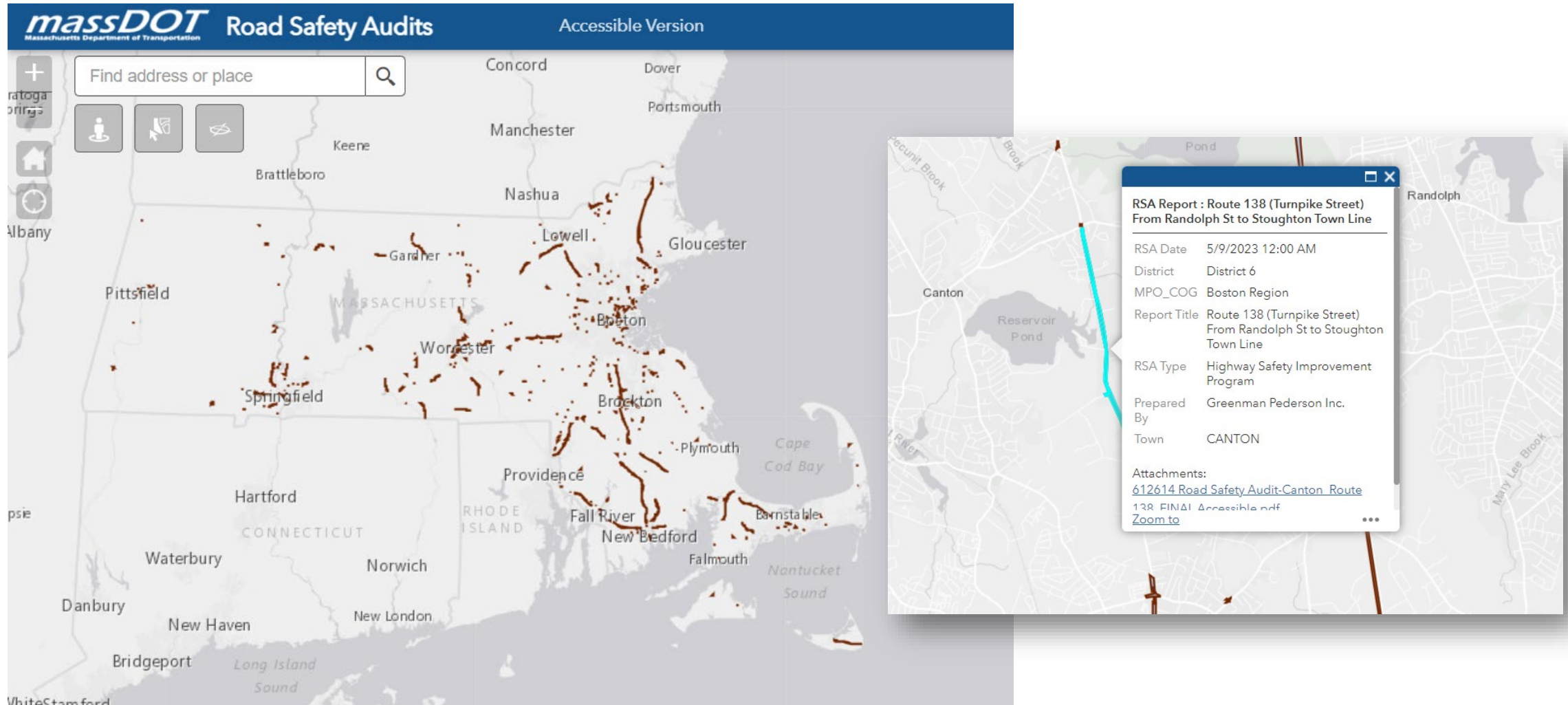


Statewide High Crash (HSIP-Eligible) Cluster Map

- When projects are looking to securing federal funding through the Highway Safety Improvement Program (HSIP) or are anticipated to utilize HSIP funding.

MassDOT Road Safety Audits Interactive Map

<https://gis.massdot.state.ma.us/RoadSafetyAudits/>





2023 MA SHSP Initiative #5 – Double Down on What Works

“The Commonwealth will maintain existing initiatives that have proven effective, while also expanding them in new ways using the Safe System Approach.”

- MA SHSP

5.10 Increase Road Safety Audits

Enhancing Massachusetts RSA Program

Shortly

- Update MassDOT Road Safety Audit Guidance document (<https://www.mass.gov/info-details/road-safety-audits>).
 - Data needs (speed)
 - Timeline
 - High crash location definition (segments)
 - FHWA requests
- Training (if helpful)

Future

- Incorporate CMFs in the RSA Process
- Evaluate Countermeasures through a Safe System Approach Lens



We Need Your Help!



Data Preparation



Facilitating



Quality Control! (throughout process)



Thank you!



Ana.Fill@dot.state.ma.us

Bonnie.Polin@dot.state.ma.us