Appendix C. Summary of Existing Literature, Policies, and Guidance for RSAs

Table C-1. Summary of general literature and guidance for RSAs.

Topic	Title	Reference	URL	Summary
Implementation of RSA Recommendations	Implementation of Road Safety Audit Recommendations: Case Study in Salt Lake City, Utah	Heaslip et al. 2010	https://doi.org/10.3141/2182-14	This paper focuses on the fast implementation of recommendations, such as the addition of a bike lane and signalized crosswalks, from an RSA conducted by the Utah Local Transportation Assistance Program (LTAP) on an arterial segment. The process included an inventory of all signs and features as a variation of the FHWA RSA guidelines. In addition, the public involvement process was used to encourage stakeholder involvement in the process.
Implementation of RSA Recommendations	RSAs and Major P-3 Freeway Projects: Comparing the Benefits and Costs	Lougheed and Hildebrand 2016	https://www.itecanada.org/wpdm-package/2016-kelowna-compendium/	This assessment of RSAs for three freeway projects in New Brunswick determined an average benefit-cost ratio of 55:1

Topic	Title	Reference	URL	Summary
Implementation of RSA Recommendations	Road Safety Audits: An Evaluation of RSA Programs and Projects	Nabors et al. 2012	https://rosap.ntl.bts.gov/view/dot/29457/dot_29457_DS1.pdf	This FHWA resource provides an overview of RSA programs for nine agencies and a review of five RSA projects which led to implementation of safety countermeasures. These agencies emphasize different aspects of RSAs, such as developing comprehensive processes for site selection, establishing RSA champions, and connecting RSAs to the Highway Safety Improvement Program. Benefit-cost ratios for the implemented countermeasures at each project site ranged from 1.2:1 to 116:1.
International Guidance for RSAs	CIHT SoRSA Road Safety Audit Guidelines	Chartered Institution of Highways & Transportation (CIHT) 2021	https://www.ciht.org.uk/sorsa/manual-home/	This supplemental resource provides additional guidance for conducting RSAs in the United Kingdom. It provides information regarding ways to accomplish RSA tasks.
International Guidance for RSAs	GG 119: Road safety audit (Revision 2)	Highways England 2020	https://www.standardsforhighways.co.uk/search/710d4c33-0032-4dfb-8303-17aff1ce804b	This document provides the RSA guidelines for the United Kingdom. Various resources are included, such as a template for an exemption note, training requirements for competency certification, prompt lists, and report templates.
International Guidance for RSAs	Guide to Road Safety: Part 6: Road Safety Audit	Hillier 2022	https://austroads.com.au/publications/road-safety/agrs06/media/AGRS06-22_Guide_to_Road_Safety_Part-6_Road_Safety_Audit.pdf	This document presents the RSA guidelines for Australia. Topics covered include an RSA overview, RSA benefits, use of Safe System principles in the RSA process, development of RSA policy, and the RSA process. Various resources are provided, such as an example RSA policy, examples of safety risks for different RSA types, prompt lists, and an example code of conduct for an RSA team member.

Topic	Title	Reference	URL	Summary
International Guidance for RSAs	Contemporary Guidance on Management of Road Safety Audits	Karndacharuk and Hillier 2019	https://doi.org/10.33492/JACRS-D-18-00064	This paper provides supplemental guidance for RSAs in Australia and New Zealand with a focus on incorporating Safe System principles into RSAs.
International Guidance for RSAs	Road Safety Audit Guidelines	Hildebrand and Wilson 1999	https://www.unb.ca/research/transportation-group/_resources/pdf/rsa-guidelines.pdf	This document presents guidance for the use of RSAs in Canada. Topics covered include RSA principles and processes and economic considerations for RSAs. Example checklists and four case studies are also included.
International Guidance for RSAs	Safe System Audit Guidelines for Transport Projects	Waka Kotahi NZ Transport Agency 2022	https://www.nzta.govt.nz/resources/safe-system-audit-guidelines-for-transport-projects	This document provides guidance for the use of Safe System audits in New Zealand. An overview of the Safe System audit process and guidance for scoring Safe System audits are provided.
RSA Applications in Safety Analysis	Analysis and Comparison Between Two-lane Roundabouts and Turbo Roundabouts: Based on a Road Safety Audit Methodology and Microsimulation	Bulla and Castro 2011	https://onlinepubs.trb.org/onlinepubs/conferences/2011/RSS/2/Bulla,L.pdf	Researchers applied an RSA methodology to compare safety benefits of roundabouts and turbo roundabouts. Risk scores based on hazard and vulnerability were developed for different intersection features, such as intersection configuration and pedestrian crossings.
RSA Applications in Safety Analysis	Risk Analysis of Rural Four Lane Divided Highway Based on Risk Index Determination by Road Safety Audit	Dhankute and Mnoranjan 2019	https://doi.org/10.11175/easts.13.1927	This paper presents the development of risk index using RSAs for rural four lane divided highways in India. Various factors were considered, such as exposure, crash severity and probably of a crash. The researchers found that the most significant factors in the risk index were exposure (e.g., AADT) and speed.

Topic	Title	Reference	URL	Summary
RSA Applications in Safety Analysis	Spatial Analysis of Road Traffic Accident Hotspots: Evaluation and Validation of Recent Approaches Using Road Safety Audit	Zahran et al. 2021	https://doi.org/10.1080/19439962.2019.1658673	This paper presents the evaluation of four methods to analyze crash hotspots. Results from the methods were compared with RSA results for a road section in Brunei.
RSA Examples	Road Safety Audit as a Tool for Improving Safety on the Intercity Road Network	Baklanova et al. 2021	https://doi.org/10.1016/j.trpro.2021.02.121	This paper describes an RSA conducted on a federal highway section in Siberia. The section was selected based on causing the highest socioeconomic damage due to a fatality or injury from one crash. Countermeasures were developed and evaluated using accident simulation and reconstruction software.
RSA Examples	Using Road Safety Audits in Kansas to Focus on High Risk Rural Roads	Buckley 2012	https://highways.dot.gov/sites/fhwa.dot.gov/files/sc_vol6_is2.pdf	This article provides an overview of several RSA conducted on high risk rural roads by Kansas DOT. Funds from the High Risk Rural Road Program were utilized to implement the recommended countermeasures.
RSA Examples	El Paseo Road Safety Audit (RSA) Exemplifies How Livability Starts with Safety	Crowe 2011	https://highways.dot.gov/sites/fhwa.dot.gov/files/spring11.pdf	This article provides an overview of an RSA conducted on the El Paseo Road Corridor in Las Cruces, New Mexico as part of a livability project. The corridor was selected for a technical assistance grant from the Environmental Protection Agency. Proposed improvements from the RSA included replacement of signage and mast arms at signals as well as median improvements at intersections.

Topic	Title	Reference	URL	Summary
RSA Examples	Road Safety Audits: Building a Culture of Safety in Ohio	Crowe et al. 2010	https://trid.trb.org/view/921396	This paper provides an overview of the use of RSAs in Ohio. Ohio DOT staff coordinated with MPOs to help identify project sites that would benefit from RSAs.
RSA Examples	PA 412 – Road Safety Audit	Delaware Valley Regional Planning Commission 2007	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-07/rsa_delvalley_rpts_07042b.pdf	This RSA report provides suggested safety improvements for an 8-mile section of PA 412 in Bucks County, Pennsylvania. The corridor experienced 127 crashes between 2004 and 2006.
RSA Examples	Road Safety Audits: Case Studies	Gibbs et al. 2006	https://highways.dot.gov/safety/data-analysis-tools/rsa/road-safety-audits-case-studies	This document presents case studies for ten RSAs conducted through the FHWA case study program. The RSAs were conducted by various agencies, including state DOTs, local agencies, tribal governments, and federal lands. As noted by the RSA teams, components to facilitate successful RSAs include providing sufficient project background to the RSA team; encouraging a collaborative relationship between the RSA team, design team, and owner; identifying a local champion; and visiting the project site during typical conditions.
RSA Examples	Federal and Tribal Lands Road Safety Audits: Case Studies	Gross et al. 2009	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-07/rsa-casestudiesflh.pdf	Presents case studies for eight RSAs conducted on Federal and tribal lands. The authors suggest that coordination with multiple agencies involved in the design, operation, and maintenance of roads on Federal and tribal lands can help to ensure the success of the RSA. In addition, the authors note that traffic volumes for roadways on Federal and tribal lands are often greater than the original intended use when these roadways were designed.

Topic	Title	Reference	URL	Summary
RSA Examples	Road Safety Audit: Findings from Successful Applications in Arizona	Kar and Blankenship 2010	https://doi.org/10.3141/2182-15	This paper describes Arizona DOT's initial experience with conducting RSAs. Based on information provided by RSA owners for 14 of 24 RSAs, the average rate of implementation of RSA recommendations was 86 percent. Arizona DOT has found nighttime reviews to be beneficial in identifying safety concerns at night.
RSA Examples	Local Rural Road Safety Audit Guidelines and Case Studies	Mahgoub and Marshall 2010	https://rosap.ntl.bts.gov/view/dot/64141	This report presents case studies for eight RSAs conducted on local agency roads in South Dakota. Primary concerns identified during the RSAs included intersection sight distance, roadway alignment, and readability of signs. Countermeasures included general maintenance, delineation, and improved signage. The researchers found that some local agencies were hesitant to conduct RSAs and identified a need for RSA champions.
RSA Examples	Road Safety Audit for the Intersection of US 59 and IA 9 in Osceola County, Iowa	McDonald 2012	http://publications.iowa.gov/13636/1/US_59-IA_9_RSA_w_cvr.pdf	This report describes an RSA conducted at the US 59/IA 9 intersection in northwestern Iowa. In addition to field reviews conducted during daytime and nighttime, the RSA incorporated video observation and analysis of traffic conflicts. Various countermeasures were suggested, such as replacement of flashing red beacons, replacement of signs, and an automated warning system for stopped vehicles on the US 59 approach.

Topic	Title	Reference	URL	Summary
RSA Examples	Road Safety Audit for IA 28 from the South Corporate Limits of Norwalk in Warren County through the IA 5 Interchange in Polk County, Iowa	McDonald and Vortherms 2012	https://rosap.ntl.bts.gov/view/dot/25587	This report describes an RSA conducted on IA 28 in Warren and Polk Counties in Iowa. Field reviews were conducted during daytime and nighttime. Suggested countermeasures included traffic signal upgrades, median barrier, and enhanced lighting.
RSA Examples	Road Safety Audit: Route 9 at Otis Street, Westborough, MA	MDM Transportation Consultants Inc. 2020	https://gis.massdot.state.ma.us/arcgis/rest/services/Roads/RoadSafetyAudits/MapServer/0/30167/attachments/30518	This report documents the processes and findings for an RSA conducted at the intersection of Route 9 and Otis Street in Westborough, Massachusetts. The RSA was conducted virtually due to the Covid-19 pandemic. There were 124 reported crashes at this intersection during a three-year period. Suggested safety countermeasures included considering alternative intersection designs, replacing worn signs and pavement markings, considering the prohibition of right turns on red, adding pedestrian refuge areas in the Route 9 medians, and assessing possible installation of bicycle accommodations such as a shared use path or separate bike lanes.
RSA Examples	Road Safety Audit: Major Highway Median Cross-Over Crashes, Route 6 Sandwich	MS Transportation Systems Inc. 2009	https://gis.massdot.state.ma.us/arcgis/rest/services/Roads/RoadSafetyAudits/MapServer/0/372/attachments/349	This report documents the processes and findings for an RSA conducted on a six-mile corridor on US 6 in Sandwich, Massachusetts. The corridor experienced 74 median related crashes from January 2004 to August 2008. Suggested safety measures to reduce cross-median crashes included installing median barrier, adding inside shoulders, increasing speed enforcement, and improvements to signage.

Topic	Title	Reference	URL	Summary
RSA Examples	Road Safety Audit: Milestone Road, Nantucket, MA	Toole Design Group 2017	https://gis.massdot.state.ma.us/arcgis/rest/services/Roads/RoadSafetyAudits/MapServer/0/425/attachments/399	This report documents the processes and findings for an RSA conducted on a six-mile corridor on Milestone Road in Nantucket, Massachusetts. The corridor experienced 65 crashes from 2010 to 2016. Suggested safety investments include widening the travel lanes and shoulders, adding NO PASSING ZONE signs, adding street lighting, adding more frequent speed limit signs, adding high-visibility crosswalk markings at bike path crossings, and converting a rotary to a modern roundabout.
RSA Guidance	FHWA Road Safety Audit Guidelines	FHWA 2006	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-08/FHWA_SA_06_06.pdf	This FHWA resource provides guidance for conducting RSAs. Topics covered include an RSA overview, project selection, legal issues, the 8-step RSA process, various project stages for RSAs, and prompt lists. Seven case studies are also presented.
RSA Guidance	A Model Road Safety Audit Policy	FHWA 2014a	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-07/modelpolicyrsa053014.pdf	This FHWA resource provides a template RSA policy with three components: standard language, optional supplemental language, and additional resources. The template policy is divided into five sections that cover these topics: RSA overview, criteria for selecting RSA projects, the RSA process, assessing the RSA program, and sources for RSA funding.
RSA Guidance	Road Safety Audits / Inspections: A Promise Unfulfilled	Speier and Campos 2020	https://trid.trb.org/view/1692553	The authors provide several suggestions for ways to promote greater use of RSAs, such as addressing negative connotations of the word “audit,” preapproval of RSA checklists, validation of training and experience of RSA team members, and seeking long-term solutions to address the safety concerns identified in RSAs.

Topic	Title	Reference	URL	Summary
RSA Guidance	Development of Iowa Road Safety Assessment (RSA) Guidelines	Veneziano and Knapp 2018	https://intrans.iastate.edu/app/uploads/2018/02/Iowa_RSA_guidelines_w_cvr.pdf	This report describes the process used to develop RSA guidelines for Iowa. Results from a review of RSA practices of four states indicated that the states mostly used the FHWA RSA guidelines. The process developed for Iowa also generally followed the FHWA guidelines with these exceptions: no formal presentation of findings to the owner, use of a brief memorandum in lieu of a full report to convey RSA findings to the owner, and a suggested informal response to RSA findings for the owner's internal files instead of a formal written response.
RSA Practices	FHWA Study Tour for Road Safety Audits Part 1 – Final Report	Trentacoste et al. 1997	https://rosap.ntl.bts.gov/view/dot/15542	This report summarizes a FHWA study tour of Australia and New Zealand that was conducted to learn more about their practices for RSAs. The report included suggestions for advancing implementation of RSAs in the United States, such as increasing awareness of the RSA process and conducting pilot RSAs.
RSA Practices	Road Safety Audits (NCHRP Synthesis 336)	Wilson and Lipinski 2004	https://doi.org/10.17226/23343	This NCHRP synthesis report described the state of the practice for RSAs in the United States in 2004. Concerns noted as affecting RSA processes included institutional issues and the composition of the RSA team. Identifying safety concerns during early project stages was described as beneficial to the RSA process. At the time of the synthesis, five states (Iowa, Pennsylvania, New York, South Carolina, and South Dakota) had developed programmed approaches for conducting RSAs. The synthesis found that 17 DOTs were conducting RSAs or road safety audit reviews.

Topic	Title	Reference	URL	Summary
RSA Resources	Wrong Way Driving RSA Prompt List	FHWA 2020	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/fhwasa13032.pdf	This document provides RSA prompt lists for wrong way driving, including a master prompt list and the following detailed prompt lists: scope of project function, traffic mix, road users; design; signs and markings; time of day conditions; and seasonal and temporary conditions. The report suggests careful consideration of conditions that can affect the potential for wrong way driving crashes, such as impaired driving, older drivers, and inexperienced drivers.
RSA Resources	Road Safety Audits	FHWA 2022	https://safety.fhwa.dot.gov/rsa/	FHWA webpage for RSAs which provides an overview of RSAs and links to resources and additional topics, such as RSA benefits, legal issues, the RSA process, and training.
RSA Resources	Kentucky LTAP Road Safety Video - How to Conduct a Road Safety Assessment	KTC Technology Transfer 2022	https://www.youtube.com/watch?v=Bmg81mO7Aus	This video from the Kentucky LTAP program provides an overview of the RSA process.
RSA Resources	Road Safety Audit Toolkit for Federal Land Management Agencies and Tribal Governments	Nabors et al. 2010	https://highways.dot.gov/safety/data-analysis-tools/rsa/road-safety-audit-toolkit-federal-land-management-agencies-and	This FHWA resource provides guidance on conducting RSAs for federal land management agencies and tribal governments. Topics such as how to establish an RSA program, potential countermeasures, and ways to include RSAs in the planning process are covered. Various resources such as sample reports and worksheets and information on safety countermeasures for wildlife are also provided.
RSA Resources	Tennessee Division Hosts Road Safety Assessments for Law Enforcement	Rich 2018	https://highways.dot.gov/sites/fhwa.dot.gov/files/sc_vol12_is2.pdf	This article describes two pilot RSA workshops for law enforcement that were conducted in Tennessee. Topics included crash causes and countermeasures and an overview of the RSA process.

Topic	Title	Reference	URL	Summary
RSAs for VRUs	Maine to Mississippi: STEP Supports Pedestrian Safety Through Road Safety Assessments	Crowe 2019	https://highways.dot.gov/sites/fhwa.dot.gov/files/sc_vol13_is2.pdf	The article describes several RSAs for VRUs in Maine and Mississippi. The RSAs were conducted by FHWA as part of the STEP program. Various improvements were suggested in the RSA reports, such as an education program for pedestrian safety, the extension of sidewalks and shoulders, addition or relocation of midblock crosswalks, and additional speed enforcement.
RSAs for VRUs	Planning for Safe Routes to School Pedestrian Road Safety Audit	Delaware Valley Regional Planning Commission 2008	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-07/rsa_delvalley_rpts_07056.pdf	This report documents an RSA focusing on schoolchildren at an elementary school. Concerns identified included high vehicle speeds and shortcomings in sidewalk conditions, crosswalks, and access for wheelchairs. Suggested improvements included sidewalk repair, repair and replacement of curb rams, and warning signs with flashers.
RSAs for VRUs	Improving Access to Transit Using Road Safety Audits: Four Case Studies	Goughnour et al. 2016	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/fhwasa16120.pdf	This report presents four case studies of RSAs with a focus on transit. Some of the general issues with transit RSAs as identified in the report include marked and unmarked crossings for pedestrians, conflicts between motorists and VRUs, pavement markings, and pedestrian behavior. Suggested countermeasures included increasing ADA compliance, assessing possible needs for pedestrian crossing measures, access management, and greater separation of modes. The report also identified a need for additional data on transit incident reports, VRU crash data, and origins and destinations for transit users.

Topic	Title	Reference	URL	Summary
RSAs for VRUs	Pedestrian and Bicyclist Road Safety Audit (RSA) Guide and Prompt Lists	Goughnour et al. 2020	https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa20042.pdf	This guide provides various resources for RSAs for VRUs, such as an overview of the RSA process, sample RSA materials, a prompt list, and links to documents on performance measurement, behavioral issues, policy considerations, and other issues.
RSAs for VRUs	Timing Right for Pedestrian and Bicycle Road Safety Assessment	Isebrands et al. 2017	https://highways.dot.gov/sites/fhwa.dot.gov/files/sc_vol11_is2.pdf	This article provides an overview of an RSA focused on VRUs that was conducted at an intersection in Albuquerque, New Mexico. At the time the RSA was conducted, a bus rapid transit project along the corridor was under design. Recommended safety countermeasures included incorporation of Public Right-of-Way Accessibility Guidelines (PROWAG), reducing turning radii, providing adequate crossing time for pedestrians, additional wayfinding for bicyclists, and additional coordination with the regional transit authority.
RSAs for VRUs	Motorcycle Road Safety Audit Case Studies	Nabors et al. 2016	https://safety.fhwa.dot.gov/rsa/resources/docs/fhwasa16026.pdf	This FHWA document presents three case examples for RSAs that were conducted at locations with high frequencies of crashes involving motorcyclists. The RSA teams included members with expertise on issues related to motorcycle safety. Limited data on motorcyclists was available for the RSAs. Various countermeasures were suggested from these RSAs, such as motorcycle-specific signage to delineate curves, paving shoulders on the inside of horizontal curves, and applying access management along the corridor.

Topic	Title	Reference	URL	Summary
RSAs for VRUs	Preparing for a Virtual Road Safety Audit (RSA)	Seymour et al. 2020	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/FHWA-SA-21-025_RSA_FHWA_STEP_preparation_packet_v4.pdf	This FHWA resource provides guidance for conducting virtual or hybrid RSAs focused on pedestrians, including an overview of the virtual RSA process and example resources, such as an example agenda and example map packet.
RSAs for Work Zones	Highway Work Zone Safety Audits for Safety Improvements	Li 2010	https://doi.org/10.1108/09699981011074592	This paper provides an overview of practices for RSAs in work zones. A practitioner survey was conducted. Survey respondents identified conducting periodic work zone safety reviews and public outreach on work zone safety as the most effective ways to improve work zone safety. The researcher proposed a framework for work zone RSAs, including an eight-step process. The framework generally follows the FHWA 8-step process with some customizations for work zones. For example, the researcher suggested that the RSA analysis for work zones could incorporate the following: safety for construction workers, transportation operations management plans, public information plans, temporary traffic control plans, safety and operational impacts, and work zone coordination, management, and monitoring.

Topic	Title	Reference	URL	Summary
RSAs for Work Zones	Development of a Work Zone Safety Audit Risk Assessment Tool	Lindheimer et al. 2012	https://trid.trb.org/view/1130718	This paper provides an overview of findings from eight RSAs conducted at active work zones in Utah. The use of measures for positive protection to separate traffic streams and pedestrian pathways were noted as primary areas of concern. The implementation of concrete barriers on freeways and protected, delineated pathways for pedestrians were identified as safety investments to help address these concerns. A safety risk assessment tool for work zones was developed. The tool estimates overall safety risk for work zones and facilitates the analysis of work zone safety improvements.
Tools for Conducting RSAs	Human Factors Guidelines for Road Systems: Second Edition	Campbell et al. 2012	https://nap.nationalacademies.org/catalog/22706/human-factors-guidelines-for-road-systems-second-edition	This report provides guidance for incorporating human factors into various aspects of highway design and traffic engineering, such as horizontal curves, interchanges, and pavement markings.
Tools for Conducting RSAs	Applying the Human Factors Guidelines for Road Systems (HFG) to the Road Safety Audit (RSA) Process	Campbell et al. 2016	https://trid.trb.org/view/1393165	This pilot study provides results from 12 RSAs conducted in three states (Arizona, Nevada, and Wisconsin) using the *Human Factors Guidelines for Road Systems (Second Edition)*. Feedback from the participating states indicated that the guide facilitated the development of implementable solutions to safety concerns.
Tools for Conducting RSAs	Crash Modification Factors in Practice: Quantifying Safety in the Road Safety Audit Process	FHWA 2013	https://rosap.ntl.bts.gov/view/dot/49413	This document provides guidance, including examples, for the use of CMFs in the following stages of the RSA process: conducting RSA analysis and preparing the RSA report, presenting the RSA findings, preparing a formal response, and implementation of RSA findings.

Topic	Title	Reference	URL	Summary
Tools for Conducting RSAs	Experimental Variables Assessment for Virtual Road Safety Audit Using Analytic Hierarchy Process	Jun et al. 2022	https://doi.org/10.1080/19439962.2021.1883169	This paper presents a decision-making model for the design of virtual RSA experiments to be conducted in a driving simulator. A survey of experts was administered to help prioritize experimental variables. The highest ranked variables were “work zone and crash handling” and “sign and marking,” while “pavement and drainage” was the lowest ranked variable.
Tools for Conducting RSAs	Road Safety Audit Case Studies: Using Three-Dimensional Design Visualization in the Road Safety Audit Process	Nabors and Soika 2013	https://safety.fhwa.dot.gov/rsa/case_studies/fhwasa14003/fhwasa14003.pdf	This FHWA report presents four case examples of planning and design stage RSAs that utilized 3-D visualization. 3-D models were developed and exported to PDF format. The authors described types of RSA projects suitable for 3-D visualization, such as complex projects, innovative designs, notable elevation differences, and locations that are not readily accessible. Benefits of 3-D visualization, as indicated by the authors, include allowing the proposed design to be viewed from multiple vantage points, facilitating comprehension of roadway improvements, and promoting time efficiencies for RSA team members.
Tools for Conducting RSAs	Road Safety Audit Case Studies: Using IHSDM in the RSA Process	Nabors and Goughnour 2014	https://safety.fhwa.dot.gov/rsa/case_studies/fhwasa14071/#top	This FHWA resource provides guidance for incorporating the IHSDM into the RSA process. Three case examples of RSAs that utilized IHSDM are presented. IHSDM was applied to determine possible crash factors before the RSA was conducted and to determine the impacts of possible countermeasures. As noted by the authors, use of IHSDM can facilitate a systemic approach to safety, but compiling geometric data for existing facilities can be challenging.

Topic	Title	Reference	URL	Summary
Tools for Conducting RSAs	Virtual Road Safety Audits: Recommended Procedures for Using Driving Simulation and Technology to Expand Existing Practices	Noyce et al. 2018	https://rosap.ntl.bts.gov/view/dot/35567	This report provides guidance for conducting virtual RSAs, including a proposed workflow for virtual RSAs, site selection, and creation of scenarios. Two types of scenarios are presented: a driving simulator or dynamic survey in which subjects are shown rendered videos. The authors suggest the use of expert feedback and crash data to help identify candidate sites for virtual RSAs.
Tools for Conducting RSAs	Evaluating Road Safety Audit Procedures: Some Questions and a New Method of Study	Pietrantonio and Bornsztein 2015	https://doi.org/10.1080/03081060.2015.1079390	The authors proposed a new RSA method based on two analyses: an assessment of alternative RSA results and a comparison of RSA results versus an accident analysis diagnosis. The method was demonstrated using a case example in Brazil. Based on the case example, the authors noted the potential of the method, although the method was data and resource intensive.
Tools for Conducting RSAs	Virtual Road Safety Audits Using Driving Simulators: A Framework	Santiago-Chaparro et al. 2011	http://onlinepubs.trb.org/onlinepubs/conferences/2011/RSS/2/Santiago-Chaparro,K.pdf	This paper presents a framework for the use of virtual RSAs using driving simulators. The authors present a set of streamlined procedures to accelerate the process of creating scenarios.
Tools for Conducting RSAs	Multiresolution Visualization Tools to Aid in Conducting Road Safety Audits	Shelton et al. 2013	https://doi.org/10.3141/2392-07	This paper presents the incorporation of visualization tools into the RSA process using a case example of a diamond interchange in Texas. Multiresolution modeling methods (i.e., use of different model resolutions – macroscopic, mesoscopic, and microscopic) were utilized to help evaluate the effectiveness of proposed countermeasures by considering the effects of drivers seeking alternative routes.

Topic	Title	Reference	URL	Summary
Tools for Conducting RSAs	A Study of Applying Mobile Mapping Result for Road Safety Audit on Rural Roads in Thailand	Bamrungwong et al. 2017	https://onlinepubs.trb.org/onlinepubs/circulars/ec220.pdf	This article presents the use of a mobile mapping system on rural roads on Thailand due to limited availability of staff to conduct RSAs. The system collects road inventory data such as signage, pavement markings, bridges and culverts, and lighting posts. Drive through videos are also recorded. These data are used to help screen for locations for further analysis on rural roads on Thailand which can be further reviewed by staff in the field.

Table C-2. Summary of DOT guidance for RSAs

DOT	Title	References	Key Links	Summary
Alabama	ALDOT Guidance for Road Safety Assessments & Reviews, Alabama Strategic Highway Safety Plan	Alabama DOT 2016, Alabama DOT 2017	https://www.dot.state.al.us/publications/Design/pdf/TrafficSafetyOp/GuidanceforRoadSafetyAssessmentsandReviews.pdf https://www.dot.state.al.us/publications/Design/pdf/TrafficSafetyOp/SHSP.pdf	Key RSA Elements Addressed: • Project Selection • Assessment Teams • RSA and Road Safety Review (RSR) Process Guides • Application of RSAs in Project Development Stages • RSAs with Special Cases • HSM Methodologies • Countermeasure Selection Supplemental Materials: • Sample Crash Diagrams • Sample Documents • Sample Tools • Sample Calculations • RSA and RSR Examples • Prompt Lists for Project Stages • Prompt Lists for Special Conditions Other notes: • Differentiates between a Road Safety Assessment and RSR • Covers RSAs during different phases of project development and situations where the typical RSA process does not work
Alaska	-	-	-	-

DOT	Title	References	Key Links	Summary
Arizona	Road Safety Assessments, Arizona Strategic Traffic Safety Plan	Arizona DOT n.d., Arizona DOT 2019	https://azdot.gov/business/transportation-systems-management-and-operations/operational-traffic-safety/road-safety https://azdot.gov/about/transportation-safety/arizona-strategic-traffic-safety-plan-stsp	• Follows FHWA approach. There is an RSA template to assist with documentation of process and outcomes and application.
Arkansas	Arkansas Strategic Highway Safety Plan	Arkansas DOT 2022	https://www.ardot.gov/divisions/transportation-planning-policy/traffic-safety/shsp/	• Mentioned in SHSP to target high crash locations, roadway departure crashes, promotes statewide training of RSAs • Indicated in survey that agency does not perform RSAs
California	Roadway Safety Training and Materials	California DOT 2023	https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program/roadway-safety-training-materials	• No DOT-specific process identified
Colorado	Colorado Strategic Transportation Safety Plan	Colorado DOT 2020	https://www.codot.gov/safety/traffic-safety/assets/stsp/strategictransportationsafetyplan.pdf	• No DOT-specific process identified

DOT	Title	References	Key Links	Summary
Connecticut	Connecticut Strategic Highway Safety Plan, Road Safety Audits (RSA), CT Safety Academy	Connecticut DOT 2017, Connecticut DOT 2023, University of Connecticut 2023	https://portal.ct.gov/-/media/DOT/documents/dsafety/SHSPpdf.pdf https://portal.ct.gov/DOT/PP_Intermodal/CTConnectivity/CT-Connectivity-RSA#:~:text=Road%20Safety%20Audits%20(RSA)&text=An%20RSA%20is%20a%20process,hinder%20safe%20bike%2Fped%20travel https://www.cti.uconn.edu/cti/Safety_Academy.asp	• There are a lot of examples of RSAs on the website which generally follow FHWA guidance.
Delaware	Delaware Strategic Highway Safety Plan	Delaware DOT 2021	https://deldot.gov/Programs/DSHSP/index.shtml?dc=project-pedestrian-safety-audit	• There are a lot of examples of pedestrian RSAs on the website. • No DOT-specific process identified
District of Columbia	DDOT Highway Safety Office Procedures Manual	District of Columbia DOT 2020	https://visionzero.dc.gov/pages/highway-safety-office#Procedures	• Mentioned in Highway Safety Plan
Florida	Florida Strategic Highway Safety Plan, Road Safety Audits	Florida DOT 2021, Florida LTAP Center 2022	https://www.fdot.gov/Safety/shsp/shsp.shtm https://floridaltap.org/road-safety-audits/	• No DOT-specific process identified • Florida LTAP has RSA Training that follows FHWA

DOT	Title	References	Key Links	Summary
Georgia	Georgia Strategic Highway Safety Plan, Road Safety Audits and Road Safety Audit Reviews	Georgia DOT 2022, Georgia DOT 2010	https://www.gahighwaysafety.org/shsp/ https://www.dot.ga.gov/PartnerSmart/Local/Documents/Courses/RSA-Aug10.pdf	• According to HSIP Report, they are writing a Road Safety Audit Manual, but it is not currently published.
Hawaii	-	-	-	-
Idaho	Road Safety Audit Manual, Roadway Safety Audits	Idaho DOT 2011, LHTAC T2 Center 2018	https://apps.itd.idaho.gov/apps/manuals/SafetyAudit/SafetyAudit.pdf https://t2.lhtac.org/ClassInformation.aspx?classid=3443	• Generally follows FHWA guidelines • Provides examples • Provides prompt lists
Illinois	Roadway Safety, 2022 -2026 Illinois Highway Safety Plan	Illinois DOT 2022a, Illinois DOT 2022b	https://idot.illinois.gov/transportation-system/safety/roadway/index https://idot.illinois.gov/transportation-system/transportation-management/planning/SHSP	• No DOT-specific process identified • Mentions RSAs and pedestrian safety audits in SHSP
Indiana	Roadway Safety, LTAP Roadway Safety Audit Webinar August 13, 2020	Purdue University 2022, Purdue University 2020	https://www.purdue.edu/inltap/safety/roadway.php https://www.youtube.com/watch?v=mIbnSglZEak	• Indiana DOT appears to conduct RSAs. • No DOT-specific process identified

DOT	Title	References	Key Links	Summary
Iowa	Development of Iowa Road Safety Assessment (RSA) Guidelines, 2019-2023 Iowa Strategic Highway Safety Plan	Veneziano and Knapp 2018, Iowa DOT 2019	https://intrans.iastate.edu/app/uploads/2018/02/Iowa_RSA_guidelines_w_cvr.pdf https://iowadot.gov/traffic/shsp/home	• Outlines the 8 steps of an RSA 1.) Project Identification 2.) Assemble RSA team 3.) Compile Background Data 4.) Pre-Assessment Meeting 5.) Field Review Recommended Post Assessment Meeting 6.) Develop Memorandum 7.) Optional Draft Report Meeting 8.) Incorporate Suggestions • Has example memo template and example field notes template
Kansas	Road Safety Audit (RSA) Introduction, Kansas Strategic Highway Safety Plan 2020-2024	Kansas DOT n.d., Kansas DOT 2020	https://www.ksdot.org/burTrafficSaf/brochures/RoadSafetyAuditBrochure.asp https://www.ksdot.gov/Assets/wwwksdotorg/bureaus/burTrafficSaf/reports/reportspdf/SHSP2020.pdf	• Kansas DOT has a one-page brochure briefly explaining the process. • Complete RSA by County (not specific to a location - more systemic) • Mentioned several times in SHSP
Kentucky	State of Kentucky Pedestrian and Bicyclist Safety Program Technical Assessment, Road Safety Champion Program	Cynecki et al. 2022, University of Kentucky 2023	https://transportation.ky.gov/BikeWalk/Documents/KY%20Pedestrian%20and%20Bicyclist%20Safety%20Program%20Assessment.pdf https://www.kyt2.com/training/road-safety-champion-program	• Mentioned in State of Kentucky Pedestrian and Bicyclist Safety Program Technical Assessment • Kentucky Transportation Cabinet wants to extend RSAs to local agencies

DOT	Title	References	Key Links	Summary
Louisiana	Road Safety Assessments, Louisiana Strategic Highway Safety Plan	Louisiana LTAP 2023, Louisiana Department of Transportation and Development 2022	https://www.ltrc.lsu.edu/ltap/ST_rsa.html https://destinationzerodeaths.com/Images/Site%20Images/ActionPlans/SHSP.pdf	• No DOT-specific process identified • Mentions RSAs in SHSP
Maine	Maine's 2017 Strategic Highway Safety Plan, Road Safety Audit of Preliminary Design: US Route 1 - Grading, Drainage, Base, and Sidewalk, Camden, Maine	Maine DOT 2017, FWHA 2006	https://www.maine.gov/mdot/safety/docs/Strategic-Highway-Safety-Plan_2017.pdf https://safety.fhwa.dot.gov/rsa/guidelines/documents/FHWA_SA_06_06.pdf	• Example RSA in FHWA RSA guidelines, no mention on Maine's website • Mentioned in SHSP
Maryland	2021-2025 Maryland Strategic Highway Safety Plan, Strategic Highway Safety Plan Implementation Process Model Case Studies (Supplement Number 1)	Maryland DOT 2020, FHWA 2010	https://zerodeathsmd.gov/highway-safety-office/strategic-highway-safety-plan/ https://rspcb.safety.fhwa.dot.gov/noteworthy/html/ipm_rsas.aspx	• Maryland DOT has an RSA program, but unable to find the documentation. • Maryland DOT established a Roadway Safety Audit Committee. • Mentions pedestrian RSA in SHSP

DOT	Title	References	Key Links	Summary
Massachusetts	2023 Strategic Highway Safety Plan, Road Safety Audit Guidelines, Road Safety Audits	Massachusetts DOT 2023a, Massachusetts DOT 2015, Massachusetts DOT 2023b	https://www.mass.gov/service-details/strategic-highway-safety-plan https://www.mass.gov/doc/massdot-road-safety-audit-guidelines/download https://www.mass.gov/service-details/road-safety-audits	Key RSA Elements Addressed: • Step by Step Process, including how to: 1. Prepare Background Materials 2. Assemble the Audit Team] 3. Conduct RSA Meeting 4. Prepare RSA Report • Supplemental Materials: • Recommended Email Invite • Sample Agenda • Safety Review Prompt List • Agency Contact Information • RSA Report Template • Sample Crash Data Summary
Michigan	Road Safety Audit Guidance, 2019-2022 State of Michigan Strategic Highway Safety Plan	Michigan DOT 2016, Michigan DOT 2019	https://mdotcf.state.mi.us/public/tands/Details_Web/10241.pdf https://www.michigan.gov/-/media/Project/Websites/msp/ohsp/pdfs6/shsp_2019-2022_25_web.pdf?rev=5d76f9f64a3f47dfb63d5b6e06de71ef	• Customized to Michigan • Covers topics such as conditions that warrant an RSA, funding, and RSA program management
Minnesota	Road Safety Audits	Minnesota DOT 2023	http://www.dot.state.mn.us/trafficeng/safety/rsa/	• Have examples on their website • No DOT-specific process identified
Mississippi	Local Technical Assistance Program (LTAP)	Mississippi DOT 2023	https://mdot.ms.gov/portal/ltap	• Mentions RSAs on LTAP training center • Has reference to FWHA road safety audit guidelines on LTAP • Indicated in survey that agency does not perform RSAs

DOT	Title	References	Key Links	Summary
Missouri	907.2 Road Safety Assessment (RSA), Welcome to the Missouri Coalition for Roadway Safety	Missouri DOT 2011, Missouri Coalition for Roadway Safety 2023	https://epg.modot.org/index.php/907.2_Road_Safety_Assessment_(RSA) https://www.savemolives.com/mcrs	• Generally follows FHWA guidelines
Montana	Vision Zero Plans and Programs, Fort Belknap Indian Community Road Safety Audit - Montana Highway 66	Montana Department of Transportation 2021, Montana Department of Transportation 2007	https://mdt.mt.gov/visionzero/plans/ https://highways.dot.gov/safety/data-analysis-tools/rsa/summary-rsa-report-montana-highway-66	• No DOT-specific process identified • Link to the FWHA RSA guidance on their website
Nebraska	Nebraska Strategic Highway Safety Plan	Nebraska DOT 2022	https://dot.nebraska.gov/safety/shsp/	• No DOT-specific process identified • Indicated in survey that agency does not perform RSAs
Nevada	2021-2025 Nevada Strategic Highway Safety Plan	Nevada DOT 2021	https://www.dot.nv.gov/safety/nevada-strategic-highway-safety-plan	• No DOT-specific process identified • Completing RSAs is a strategy highlighted in SHSP

DOT	Title	References	Key Links	Summary
New Hampshire	New Hampshire DOT Road Safety Audits, Road Safety Audit (RSA) Process, Road Safety Audit Criteria, 2022-2026 New Hampshire Strategic Highway Safety Plan	New Hampshire DOT n.d., New Hampshire DOT 2014, New Hampshire DOT 2017, New Hampshire DOT 2022	Overview: https://www.nh.gov/dot/org/projectdevelopment/highwaydesign/hwysafetyimprovements/documents/hsip_rsa_handout_3182016.pdf RSA Flow Chart: https://www.nh.gov/dot/org/projectdevelopment/highwaydesign/hwysafetyimprovements/documents/hsip_rsa_flowchart_62014.pdf RSA Criteria: https://www.nh.gov/dot/org/projectdevelopment/highwaydesign/hwysafetyimprovements/documents/hsip_roadsafetyauditcriteria_2017.pdf https://www.nh.gov/dot/org/projectdevelopment/highwaydesign/hwysafetyimprovements/documents/43246-nh-hsip-08042022.pdf	• Generally follows FHWA process • A detailed flow chart is located on their website to outline process. 1) RSA Application Process 2) Conducting the RSA 3) RSA Approval Process 4.) RSA becomes a project • New Hampshire has an application process for RSAs • The locations must have a fatal or serious injury crash • Crashes should show a pattern of infrastructure-related issues (not behavioral issues) • Application includes crash reports, AADT, Turning Movement Counts, crash diagram, signatures • If approved the RSA will be conducted and if at the end of the process the B/C ratio is greater than 1, can be applied for HSIP funding
New Jersey	New Jersey 2020 Strategic Highway Safety Plan	New Jersey DOT 2020	https://www.state.nj.us/transportation/about/safety/pdf/NJ+2020+SHSP+Final+Report+-+09-08-2020.pdf	• New Jersey DOT has RSA recommendations in their SHSP • No DOT-specific process identified

DOT	Title	References	Key Links	Summary
New Mexico	New Mexico Road Safety Assessment Guidebook (unpublished draft), Highway Safety Improvement Program	New Mexico DOT n.d., New Mexico DOT 2021	https://www.dot.nm.gov/planning-research-multimodal-and-safety/planning-division/multimodal-planning-and-programs-bureau/highway-safety-improvement-program/	• Guidebook is in process of being developed. • Website gives overview of HSIP.
New York	New York State Comprehensive Highway Safety Plan	New York State DOT 2005	https://www.dot.ny.gov/divisions/operating/osss/highway-repository/Highway%20Safety%20Plan.pdf	• New York State Comprehensive Highway Safety Plan mentions their road safety audit program in 2005. • Integrates safety into paving program
North Carolina	Road Safety Reviews (RSR) - The Process	North Carolina DOT 2017	https://connect.ncdot.gov/groups/echs/Documents/2019/2019%20NC%20SHSP.pdf	• Call them RSRs (not Audits or Assessments) • Guidelines written with detailed step-by-step instructions for DOT, not external facing
North Dakota	2018 North Dakota Vision Zero Plan Strategic Highway Safety Plan Update 2018-2023	North Dakota DOT 2018	https://www.dot.nd.gov/divisions/safety/docs/FINAL_NDDOT_SHSP.pdf	• RSAs briefly mentioned in SHSP • No DOT-specific process identified

DOT	Title	References	Key Links	Summary
Ohio	Ohio Strategic Highway Safety Plan, Regional RSA Implementation Guide	Ohio DOT 202, Mid-Ohio Regional Planning Commission 2017	https://www.transportation.ohio.gov/working/publications/strategic-highway-safety-plan https://www.transportation.ohio.gov/wps/wcm/connect/gov/c7810fef-44da-4d1b-b1e9-14e1667be0b5/Regional_RSA_Implementation_Guide_.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-c7810fef-44da-4d1b-b1e9-14e1667be0b5-nnsVUNu	Key RSA Elements Addressed: • Step by Step Process, including how to: 1. Identify Locations 2. Select RSA Team 3. Conduct Start-Up Meeting 4. Perform Field Reviews 5. Conduct Analysis and Prepare Report 6. Present Findings 7. Prepare Formal Response 8. Implementation • Supplemental Materials: • RSA Prompt List • RSA Analysis Worksheet • Recorded Webinar on RSA Basics • Data Analysis Example • Recommendations Example
Oklahoma	LTAP Courses	Oklahoma State University 2023	https://ceat.okstate.edu/extension/ltap/courses.html	• LTAP website includes a training course on RSAs. • Indicated in survey that agency does not perform RSAs

DOT	Title	References	Key Links	Summary
Oregon	Barbur Boulevard Road Safety Audit, RSA Case Studies RSA Number 3 Oregon Department of Transportation RSA of improvements to US 97 (Modoc Point to Shady Pine Road), Oregon Transportation Safety Action Plan	Kittelson and Associates, Inc. 2015, Gibbs et al. 2006, Oregon DOT 2021	https://www.oregon.gov/odot/Projects/Project%20Documents/Barbur%20Road%20Safety%20Audit.pdf https://highways.dot.gov/safety/data-analysis-tools/rsa/road-safety-audits-case-studies https://www.oregon.gov/odot/Safety/Documents/2021_Oregon_TSAP.pdf	• No DOT-specific process identified • RSA in FHWA case example document used IHSDM.
Pennsylvania	Highway Safety Program Guide, Pennsylvania Strategic Highway Safety Plan, LTAP Programs	Pennsylvania DOT 2021, Pennsylvania DOT 2022, Pennsylvania DOT 2023	https://www.dot.state.pa.us/public/pubsforms/Publications/PUB%20638.pdf https://www.penndot.pa.gov/TravelInPA/Safety/Pages/Strategic-Highway-Safety-Plan.aspx https://gis.penndot.gov/ltap/	• Recommends RSAs in SHSP • DOT-specific guidance generally follows FHWA
Rhode Island	Strategic Highway Safety Plan	Rhode Island DOT 2023	https://www.dot.ri.gov/safety/reports/Strategic_Highway_Safety_Plan.php	• Appears to use FWHA's process, no DOT-specific process identified • Has some examples on FWHAs website • No specific RSA information found on Rhode Island DOT's website • RSAs not mentioned in SHSP

DOT	Title	References	Key Links	Summary
South Carolina	Road Safety Assessment Project Prioritization Process, South Carolina Strategic Highway Safety Plan, Road Safety Audits - Webinar Series	South Carolina DOT 2018, South Carolina DOT 2020, South Carolina LTAP 2021	https://fhwaapps.fhwa.dot.gov/hsipp/Attachments/4c5ef75e-b579-4b3b-ab7b-d676aace0b13_ED-74-Road%20Safety%20Assessment%20(RSA)%20project%20selection-%2025JUL18.pdf https://www.scdot.org/performance/pdf/reports/BR1_SC_SHSP_Dec20_rotated.pdf https://www.scltap.org/event/road-safety-audits-3-2021/	• RSA process is generally based on FWHA process. • Prioritization process is based on fatal and serious injury crashes, financial viability, and public safety. • Five years of statewide crash data is divided into one mile segments over the non-interstate highway network. • South Carolina DOT allocates a portion of HSIP funds to perform RSAs at locations with high injuries and fatalities.
South Dakota	South Dakota Strategic Highway Safety Plan, Case Study 4 Road Safety Audit of Preliminary Design: Minnehana County, South Dakota	South Dakota DOT 2019, FHWA 2006	https://dot.sd.gov/media/documents/SHSP_FINAL_Reduced.pdf https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-08/FHWA_SA_06_06.pdf	• Example RSA in FWHA's RSA guidelines, no information found on South Dakota DOT's website • Mentioned in SHSP for high risk rural roads

DOT	Title	References	Key Links	Summary
Tennessee	Road Safety Audits, Tennessee Strategic Highway Safety Plan, Procedures for RSARs, Road Safety Audits - Online Workshop	Tennessee DOT n.d., Tennessee DOT 2020, FHWA 2014c, Tennessee Transportation Assistance Program 2023	https://www.tn.gov/tdot/strategic-transportation-investments/project-safety-office/road-safety-audits.html https://www.tn.gov/content/dam/tn/tdot/strategic/SHSP-2020.pdf https://safety.fhwa.dot.gov/rsa/resources/policies.cfm https://ttap.utk.edu/training/webinar.php?id=829&loc=1	• In SHSP, can get HSIP funding with RSAs • Has webpage on RSAs. They are used for quick improvements to correct safety issues.
Texas	Developing Methodology for Identifying, Evaluating, and Prioritizing Systemic Improvements, 2021 Road Safety Audit Workshop: For Pedestrian and Bicycle Safety	Walden et al 2015, North Central Texas Council of Governments 2021	https://ftp.txdot.gov/pub/txdot-info/trf/trafficsafety/engineering/systemic-improvements.pdf https://www.nctcog.org/trans/plan/bikeped/training-and-workshops/road-safety-audit-workshop	• Not mentioned in SHSP • The North Central Texas Council of Governments has RSA training for ped and bikes. • RSA's are mentioned briefly (once) in the Texas DOT report: Developing Methodology for Identifying, Evaluating, and Prioritizing Systemic Improvements. • Indicated in survey that agency does not perform RSAs
Utah	Strategic Highway Safety Plan, Road Safety Audits	Utah DOT 2020, Utah LTAP Center 2023	https://www.udot.utah.gov/shsp/fivees.html https://www.utahltap.org/roadscholar/workshops/type_details.php?id=54	• RSAs are mentioned in Utah DOT SHSP Rural Road Safety • Has road safety audit training on LTAP website

DOT	Title	References	Key Links	Summary
Vermont	Conduct of Road Safety Audit Reviews at High Crash Locations, Vermont Strategic Highway Safety Plan 2022-2026	Vermont Agency of Transportation 2017, Vermont Agency of Transportation 2022	https://vtrans.vermont.gov/sites/aot/files/planning/documents/planning/2017%20STIC%20Fact%20Sheet%20%20Road%20Safety%20Audits.pdf https://vtrans.vermont.gov/sites/aot/files/highway/documents/Vermont_SHSP_2022-2026-Final.pdf	• RSAs are part of the HSIP Safety Improvement Program to identify locations to fund safety improvements. • Vermont Agency of Transportation has a Road Safety Audit Review (RSAR) process. • This is a formal examination of an existing road in which an independent, multi-discipline team (the Audit Team) reports on potential safety issues. • Generally follows FHWA • Mentioned in the SHSP report once
Virginia	VDOT Road Safety Assessment Guidelines, Virginia 2022-2026 Strategic Highway Safety Plan, Road Safety Audit on US 29 Albemarle County, Virginia, Upcoming Road Safety Champion Program (RSCP) Classes	Virginia DOT 2023b, Virginia DOT 2023c, FHWA 2014b, University of Virginia 2023	https://www.virginiadot.org/business/road_safety_assessments.asp https://www.virginiadot.org/info/hwysafetyplan.asp https://safety.fhwa.dot.gov/rsa/resources/library/samplerpts/samplerptsva.cfm https://engineering.virginia.edu/research/centers-institutes/center-transportation-studies/local-programs/safety-circuit-rider-5	• Virginia DOT is in process of updating its RSA guidelines. • SHSP webpage includes links to Virginia DOT HSIP, crash mapping, and crash data tool. • FHWA website includes example RSA on US 29. • University of Virginia website lists training class that includes overview of RSA process.
Washington	Strategic Highway Safety Plan: Target Zero	Washington State DOT n.d.	https://wsdot.wa.gov/construction-planning/statewide-plans/strategic-highway-safety-plan-target-zero	• RSAs are briefly mentioned in the Washington State SHSP • Indicated in survey that agency does not perform RSAs
West Virginia	-	-	-	• No DOT-specific process identified

DOT	Title	References	Key Links	Summary
Wisconsin	WisDOT: Safety First, Wisconsin Strategic Highway Safety Plan 2017-2020	Wisconsin DOT n.d., Wisconsin DOT 2017	https://wisconsindot.gov/Pages/safety/default.aspx https://wisconsindot.gov/documents/safety/education/frms-pubs/strategichwy-17-20.pdf	• Mentioned on the Wisconsin DOT website and SHSP
Wyoming	Wyoming Rural Road Safety Program, Wyoming Strategic Highway Safety Plan	Ksaibati et al. 2009; Wyoming DOT 2022	https://www.ugpti.org/resources/reports/downloads/mpc09-215.pdf https://www.dot.state.wy.us/files/live/sites/wydot/files/shared/Highway_Safety/Wyoming%20Strategic%20Highway%20Safety%20Plan%20-%202022.pdf	• Mentioned in Wyoming Rural Road Safety Program Report • Not mentioned in Wyoming SHSP

Table C-3. Summary of DOT resources for RSAs.

DOT	Own DOT Guidance / Application	Mentioned in SHSP	Prompt Lists	RSA Training	Generally Follows FHWA Process, No DOT-Specific Guidance Identified
Alabama	X	X	X	X	-
Alaska	-	-	-	-	-
Arizona	-	X	-	X	X
Arkansas	-	X	-	X	-
California	-	-	-	X	X
Colorado	-	X	-	-	X
Connecticut	-	X	-	X	X
Delaware	-	X	-	-	-
District of Columbia	-	X	-	-	-
Florida	-	X	-	X	X
Georgia	-	X	-	X	-
Hawaii	-	-	-	-	-
Idaho	X	-	X	X	-
Illinois	-	X	-	-	X
Indiana	-	-	-	X	X
Iowa	X	X	-	-	-
Kansas	-	X	-	-	-
Kentucky	-	-	-	X	-

DOT	Own DOT Guidance / Application	Mentioned in SHSP	Prompt Lists	RSA Training	Generally Follows FHWA Process, No DOT-Specific Guidance Identified
Louisiana	-	X	-	X	X
Maine	-	X	-	-	X
Maryland	-	X	-	-	X
Massachusetts	X	X	X	X	-
Michigan	X	X	-	-	-
Minnesota	-	-	-	-	X
Mississippi	-	-	-	-	X
Missouri	X	X	-	-	-
Montana	-	X	-	-	X
Nebraska	-	X	-	-	-
Nevada	-	X	-	-	X
New Hampshire	X	X	-	X	-
New Jersey	-	X	-	-	X
New Mexico	X (in process)	X	X (in process)	X (In process)	-
New York	-	-	-	-	-
North Carolina	X	X	-	-	-
North Dakota	-	X	-	-	X
Ohio	X	X	X	X (In process)	-
Oklahoma	-	-	-	X	-

DOT	Own DOT Guidance / Application	Mentioned in SHSP	Prompt Lists	RSA Training	Generally Follows FHWA Process, No DOT-Specific Guidance Identified
Oregon	-	X	-	-	X
Pennsylvania	X	X	-	X	-
Rhode Island	-	-	-	-	X
South Carolina	X	X	-	X	-
South Dakota	-	X	-	-	X
Tennessee	-	X	-	X	X
Texas	-	-	-	X	-
Utah	-	X	-	X	-
Vermont	-	X	-	-	X
Virginia	X	-	X	X	-
Washington	-	X	-	-	-
West Virginia	-	-	-	-	-
Wisconsin	-	X	-	-	-
Wyoming	-	-	-	-	-

NOTE: X indicates information on topic was identified, - indicates information on topic was not identified.

Appendix C was developed under NCHRP Project 20-05, Topic 54-03. More information about this topic can be found in *NCHRP Synthesis 615: DOT Practices on Road Safety Audits.*

The National Cooperative Highway Research Program (NCHRP) is sponsored by the individual state departments of transportation of the American Association of State Highway and Transportation Officials. NCHRP is administered by the Transportation Research Board (TRB), part of the National Academies of Sciences, Engineering, and Medicine, under a cooperative agreement with the Federal Highway Administration (FHWA). Any opinions and conclusions expressed or implied in resulting research products are those of the individuals and organizations who performed the research and are not necessarily those of TRB; the National Academies of Sciences, Engineering, and Medicine; the FHWA; or NCHRP sponsors.