



MODOT STRATEGIC TRAFFIC INCIDENT MANAGEMENT PLAN SUPPLEMENT



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1. OVERVIEW

Traffic incident management (TIM) is a planned and coordinated multi-disciplinary process to detect, respond to, and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible. TIM partners include law enforcement, fire and rescue, emergency management services (EMS), public safety, and towing and recovery. Effective TIM improves the safety of emergency responders, crash victims, and motorists, as well as reduces the duration and impacts of traffic incidents. As part of transportation systems management and operations (TSMO), traffic incident management is consistent with MoDOT's mission and strategic initiatives by providing a safe and reliable transportation system.

MoDOT and its partners have successfully implemented a number of TIM strategies and practices on Interstates and highways in Missouri over the years. In order to further advance TIM in Missouri, this plan identifies goals, objectives, strategies, and action items that can be practically implemented and prioritized by MoDOT. Best practices including the National Unified Goal (NUG) established by the National Traffic Incident Management Coalition (NTIMC) are used to guide the content of this document.

1.1. How This Supplement/Update Supports the 2021 Strategic TIM Plan

The MoDOT Strategic Traffic Incident Management (TIM) Plan Supplement builds upon the strong foundation of the original [2021 statewide Strategic TIM plan](#), which remains a valuable and highly relevant guide for responder coordination, safe and quick clearance, and statewide TIM program development.

This supplement is intended to:

- Refresh key statistics
- Update priority focus areas, and
- Reflect current operational needs and trends across Missouri's transportation network.

It does not replace the 2021 plan; rather, it serves as an enhancement and companion document, offering new data, refined objectives, and practical adjustments that support continued growth, improved responder safety, and more consistent TIM practices statewide.

1.2. Vision, Goals, and Objectives

TSMO and TIM are integral to support MoDOT's overall mission and strategic initiatives.

MoDOT's TIM vision ***is to enhance the safety and efficiency of Missouri's transportation system for travelers and incident responders***. Broken down further, there are five goals to achieve this vision in Missouri, each with specific objectives:

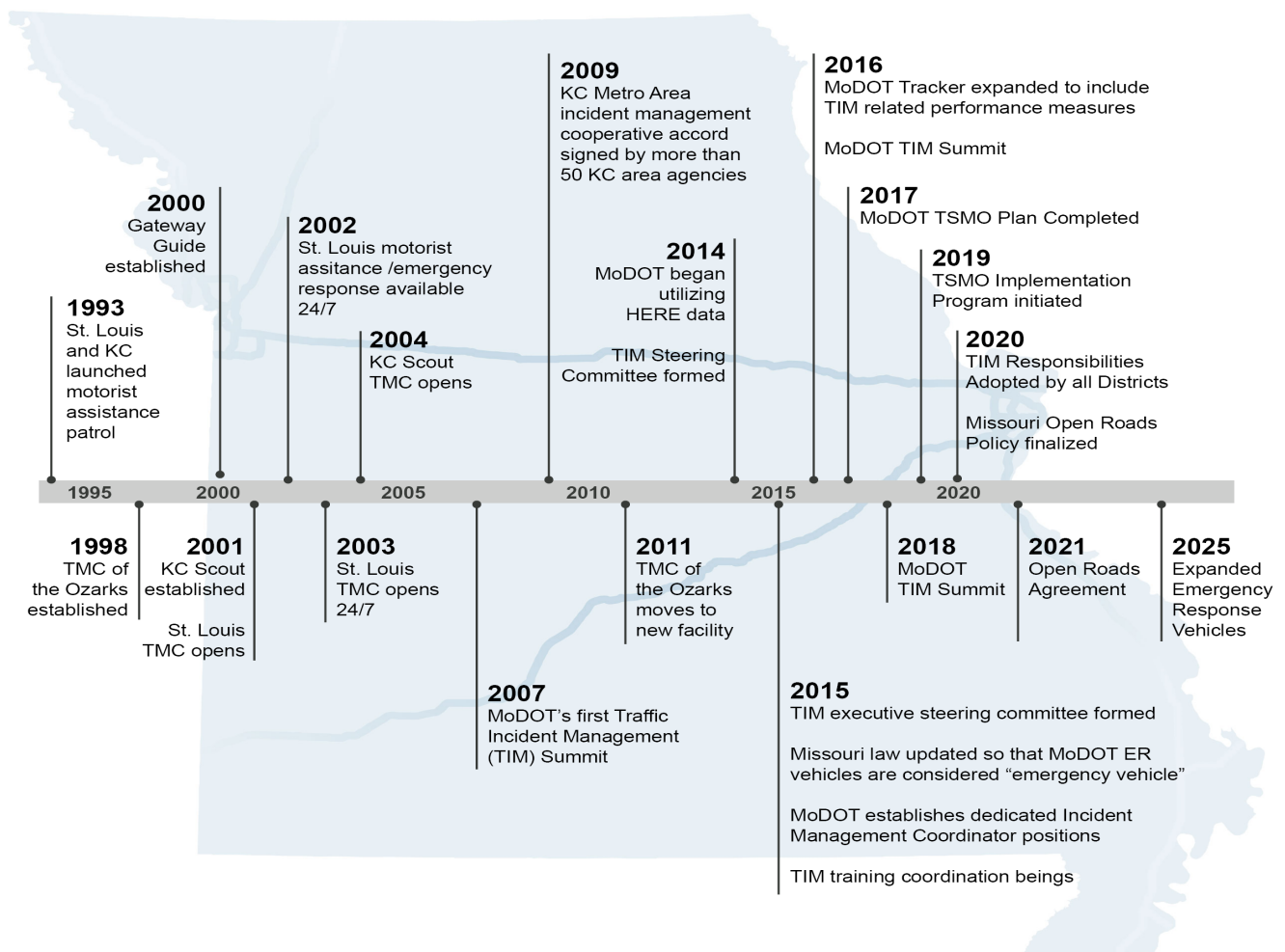
Goal #1	Enhance safety of traveling public and incident responders • Objective 1.1: Reduce number and severity of secondary crashes • Objective 1.2: Record and track secondary crashes • Objective 1.3: Reduce number and severity of responders struck
Goal #2	Enhance reliability and efficiency of Missouri's transportation system • Objective 2.1: Reduce clearance times based on Missouri Performance Measures through strategic mitigation strategies for crashes over two hours in duration • Objective 2.2: Clear incidents quickly, focusing on the guidance within the Missouri Open Roads agreement
Goal #3	Strengthen coordination, communication, and collaboration between MoDOT and TIM partners • Objective 3.1: Utilize and expand understanding of existing formal agreements with TIM partners, such as the 2021 Missouri Open Roads agreement • Objective 3.2: Regularly meet with TIM partners at state, regional, and local levels through new and existing TIM Coalitions; and provide guidance tools to encourage TIM leadership at all levels • Objective 3.3: Conduct regular TIM exercises, ideally every two years, with the goal of educating partners and maintaining a high level of understanding of TIM within the incident responder community.
Goal #4	Establish TIM as a core TSMO program at MoDOT • Objective 4.1: Continue to establish and refresh TIM policies, procedures, and protocols within MoDOT, and meet internally to exercise Incident Response Plans (IRP) in each District • Objective 4.2: Fill MoDOT TIM coordinator positions in every District with a clearly defined set of duties that are consistent across the Department and empower staff to determine TIM-related needs.

2. EXISTING TIM PRACTICES IN MISSOURI

2.1. History of TIM in Missouri

MoDOT has made significant progress in recent years implementing TIM strategies in Missouri with its partners. While TIM strategies were first implemented in major metro areas in Missouri in the 1990s with the establishment of motor assistance patrols and traffic management centers, additional accomplishments to advance TIM have been made within the last 15 to 20 years. A timeline of the major TIM accomplishments to date in Missouri is provided in Figure 1.

Figure 1. Timeline of Missouri TIM Efforts



2.2. Status of Missouri TIM Practices

Missouri's current Traffic Incident Management (TIM) practices reflect a mature, well-established program supported by active regional TIM coalitions and strong multi-agency participation across law enforcement, fire/EMS, towing and recovery, emergency management, and MoDOT district offices. Consistent with the framework outlined in the original TIM Plan, Missouri continues to organize its capabilities around the Strategic, Tactical, and Support categories, which collectively address policy and performance tracking, on-scene operational procedures, and communications/technology functions essential to safe and efficient incident response.

- **Strategic** – Questions covering formal policies and understandings among agencies and TIM partners including performance measure and program evaluation.
- **Tactical** – Questions covering on-scene response and clearance practices, traffic control, and responder and motorist safety.
- **Support** – Questions on interagency communications, data sharing, ITS for TIM and traveler information.

As documented in the state's most recent TIM Capability Maturity Self-Assessment (updated 2025), Missouri demonstrates advanced proficiency in several core areas, including performance measurement, safety service patrol coverage, and traffic management support. The self-assessment also continuously identifies opportunities for improvement in multi-agency coordination, after-action processes, and data sharing. Overall, Missouri's TIM program remains robust and collaborative, with statewide and regional partners working together to advance responder safety, improve clearance times, and strengthen the reliability of the transportation system.

In Missouri, TIM self-assessments are conducted for the St. Louis, Kansas City, and Southwest Missouri regions. Each of these regions is covered with an emergency response program.

A summary of the emergency response programs in each region is provided in Table 1.

Table 1. Regional Emergency Response Programs

Region	Safety Service Patrol Availability	Emergency Response Availability	Traffic Management Center
St. Louis Gateway Guide	24/7/365 (limited holiday coverage)	24/7/365	St. Louis Region
Kansas City KC Scout	24/7/365 (limited holiday coverage)	24/7/365	Kansas City Region
Southwest	7 days per week: 7am – 6pm	24/7/365	Springfield

Self-assessment scores are given for each question on a scale from 1 to 4, with 4 being the highest capability level. See Figure 2 for descriptions of each maturity level. These scores are in turn converted into a percentage. The national average scores, as well as the Missouri regional scores, are provided in Table 2.

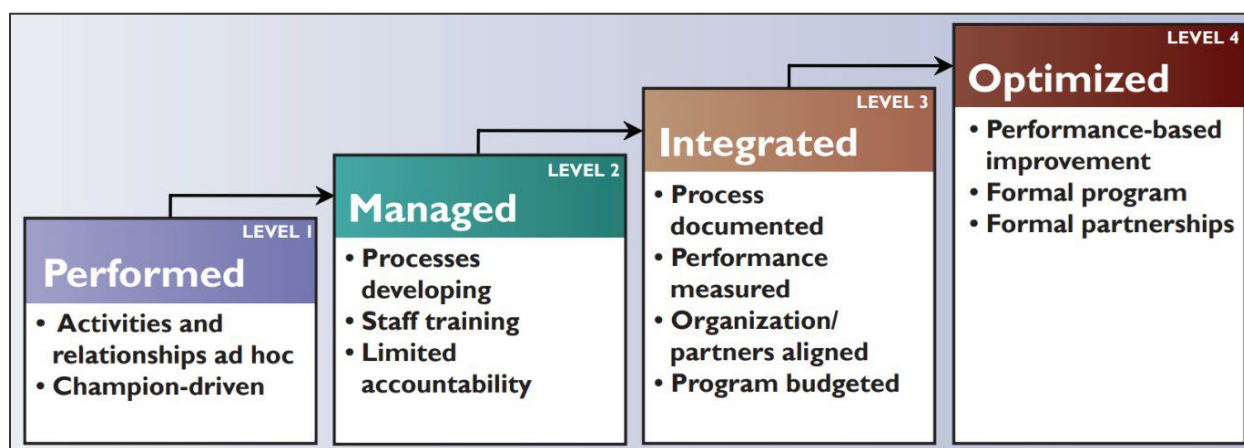
Figure 2. Capability Maturity Model Levels¹

Table 2. Historical and 2025 TIM Capability Maturity Self-Assessment

Category	2019 National Average	2020 Missouri Average	2025 National Average
Strategic	68.50%	68%	70.70%
Tactical	77.50%	71%	76.90%
Support	74.00%	67%	71.10%
Overall	73.30%	69%	73.60%

2025 St. Louis	2020 St. Louis	2025 Kansas City	2020 Kansas City	2025 Southwest	2020 Southwest
21.4%	50%	28.9%	71%	26.3%	81%
24.5%	69%	33.8%	69%	25.2%	75%
3.3%	58%	5.8%	58%	7.5%	83%
49.3%	59%	68.5%	70%	58.9%	79%

3. TIM PROGRAM ASSESSMENT

The TIM Program Assessment (Table 3) in this supplement represents a significant evolution from the format used in the 2021 Missouri Strategic TIM Plan, offering a more streamlined and accessible way to evaluate the state's current Traffic Incident Management capabilities. While the assessment continues to draw from the same foundational resources, national guidance, and capability maturity concepts that shaped the 2021 plan, the ranking and categorization approach has been simplified to make strengths, gaps, and priorities easier to interpret and apply.

This revised assessment forms the core of the updated content in this supplement and highlights the most actionable areas for improvement across Missouri's Strategic, Tactical, and Support practices.

Readers are encouraged to refer to the full 2021 plan for a comprehensive list of all TIM initiatives and supporting strategies; although this supplement highlights a focused set of priority needs, every element of the original plan remains relevant and essential to sustaining a safe and coordinated statewide TIM program.

The assessment utilized the following resources:

- **TIM Gap Analysis** – Previous MoDOT TIM Gap Analysis and the FHWA TIM Gap Analysis Primer².
- **Self-Assessment** – 2020 Missouri TIM Capability Maturity Self-Assessments (SA) and the 2019 FHWA Capability Maturity Self-Assessment National Analysis Report.
- **National Unified Goal (NUG)** – The National Traffic Incident Management Coalition NUG for TIM³.

Table 3. Missouri TIM Program Assessment 2026

No.	TIM Program Component	Achievable?	Not Achievable?	Achieved?	Ongoing?	NOTES
STRATEGIC						
1	Funding for TIM	X			Y	Current budgets are sufficient for existing needs, though additional staffing and vehicle funding would be beneficial through district and leadership support, and while districts are responsible for establishing additional service patrols, baseline guidance from TIM program managers could help inform when, where, and how many SSP deployments are recommended.
2	Have a TIM multi-agency team or task force that meets regularly to discuss and plan for TIM activities	X		X	Y	Statewide Subcommittee meets regularly to discuss TIM initiatives. A regional subcommittee is being organized at this time.
3	Conduct multiagency TIM training	X		X	Y	MoDOT is working with the Missouri State Highway Patrol (MSHP) to offer ongoing TIM training. The current level of statewide training is 62.9%. MUTCD awareness is included in the 4-hour TIM Training.
4	Conduct multiagency post-incident debriefings (after action reviews)	X		X	Y	This currently occurs with major incidents and is ad hoc. This practice should be standardized, perhaps through the TIM Subcommittee.
5	Conduct special event planning	X		X	Y	MoDOT is functioning in a leadership role, however consistent and ongoing assistance from partner agencies is needed to be successful.
6	Review work zones for TIM	X				This effort should focus on Traffic Incident Management for crashes occurring in work zones and be addressed through the TSMO Work Zone team, with traffic control plans required to be submitted to MoDOT and reviewed at pre-construction meetings, including communication of access procedures for EMS. The role of TIM in this area may be limited but should be clearly defined within existing processes.
7	Have multiagency agreements for quick clearance with clearly defined roles and responsibilities, focusing on RCT and ICT. Have methods to collect and analyze and routinely review progress.	X			Y	The Open Roads Agreement is a foundational document that is helping to raise awareness and meet goals. Some Districts have progress towards quick clearance times, however there are variables from the statewide level for meeting clearance times for incidents and debris removal. It is recommended that this topic be discussed within the TIM Coalition meetings. Metrics for this exist in the MoDOT Data Dashboard. It is recommended that TIM Coalitions work on a combined approach to address this.
8	Have a position that has TIM as primary job function		X	N	Y	Funding, staffing, and organizational constraints currently limit this function, with existing “duties as assigned” roles. Current ad hoc support has been consistently high-quality. It is recommended to explore other position descriptions to institutionalize this function.
9	Track performance in reducing secondary incidents and develop secondary incident targets		X		Y	Although secondary crash fields exist on the new crash report, inconsistent officer use and limited outreach have hindered data quality, indicating a need for a clearer, more actionable framework for capturing secondary crash information, a challenge also being discussed at the national level. It is recommended that a target goal be established for tracking secondary crashes.
10	Deploy technology to support TIM activities (e.g. incident detection & responder notification)	X		Y	Y	TITAN has been deployed, generating increased interest and momentum for TIM activities, with further development ongoing. Additional pilots are underway or being explored, including HAAS Alert, debris-removal devices such as Lane Blade, and continued advancement of V2V technology as a cross-cutting TSMO strategy.
11	24/7 availability of responders and equipment	X			Y	Faster incident notification and callouts are needed through additional education for TMC staff and local law enforcement, while maintenance response team improvements are underway, including development of equipment lists, call-out protocols, and response scenarios. Existing plans are also being updated and consolidated into All Hazards response plans, replacing legacy efforts such as the winter-focused TRAP plan.
12	Multiagency resource management	X			Y	MoDOT is working on maintenance response teams, including development of equipment lists, call-out lists, and response scenarios and objectives.
13	Education and awareness partnerships for TIM	X		Y	Y	Ongoing efforts continue to support TIM Coalitions, a new TIM Toolkit resource is now available, and FF1 training has been updated to include TIM training.

TACTICAL						
14	Utilize traffic control procedures for back of queue		X	N	Y	This effort is achievable, with current MoDOT SSP and responder teams already well positioned to lead, though additional training and protocol development are needed to support full implementation. Existing truck communications and radio systems will enable effective coordination at the scene.
15	Have laws that assist with incident clearance and scene safety, including an "authority removal" law, a "driver removal"/STEER IT CLEAR IT law, and a "MOVE OVER" law	X		N (authority removal), Y (Steer It and Move Over)	Y	CVO legislative and policy efforts could be strengthened, as TRIP work has begun but further advancement will require MoDOT legislative support; proposed towing legislation was put forward for 2026 and involves many key stakeholders, including owner-operators, towing providers, and legislative partners. Outreach is ongoing through crash flyers, with implementation actions coordinated through the traffic and safety division, and opportunities exist to partner with driver education programs to incorporate this content into the Missouri driver manual as part of the broader Missouri TIM training curriculum. An "authority removal" law has not been achieved. MoDOT participates in national awareness weeks for TIM safety and has ongoing education efforts for drivers ed and law enforcement collaboration.
16	Have Safety Service Patrol (SSP) Program	X		Y	Y	Determining appropriate expansion opportunities and establishing policies and procedures for existing efforts remains a key consideration.
17	Utilize Incident Command System (ICS) on scene	X		Partial, depends on the size and scale of the incident.	Y	Required and incorporated into the TIM training, education/outreach is ongoing.
18	Have pre-staged response equipment for timely response	X			Y	Aligns with item 17 (strategic)
19	Tow operator/rotation list policies deploy resources based on type/severity of incident	X			Y	This topic can be sensitive from a policy perspective, and continued education and outreach will be important; while the Highway Patrol is not able to maintain a tow rotation, there may be opportunities for a third party to manage a rotation, although enforcement mechanisms such as penalties for non-compliance with response criteria are unlikely to be implemented or applied in Missouri.
20	Identify and document tow operator capabilities and hazmat operator capabilities	X		N	Y	At present, this is handled on a case-by-case basis by individual law enforcement officers, but development of a standardized rotation list along with clear equipment and compliance policies could allow this to be advanced more formally, recognizing that even the tow truck association may not currently have such a framework in place.
21	Authority to override hazmat contractor to call in other resources	X		Y	N	DNR has a policy for this.
22	Medical examiner response clearly defined for incidents involving fatalities	X		Y, depends on location	N	Local responder responsibility and varies by location.
23	Have procedure for removing deceased prior to medical examiner arrival	X		Y, depends on location	N	Local responder responsibility and varies by location.
24	Electric utility companies' role clearly defined for incidents involving downed electrical wires	X		N	Y	Coordination on these responses can be inconsistent, particularly with respect to response times, and while this is not a priority area for MoDOT and is more appropriately the responsibility of utility companies, coordination with SEMA is already taking place; although largely outside MoDOT's direct purview, existing contact lists are available to help expedite issue resolution when needed.
25	Have procedures for expedited CRASH/incident reconstruction/investigation	X		Y	N	MSHP has these capabilities in place and currently uses drones for incident documentation, though the limited number of reconstruction teams statewide means response times can vary. Clearance efforts should focus on opening available lanes as quickly as possible while awaiting drone deployment and reconstruction support.
26	Have policy for removal of abandoned vehicles	X		Y	N	MoDOT proactively removes vehicles that pose a safety concern ahead of winter weather or special events, though there is room for improvement in consistency and overall effectiveness of these efforts.
27	Utilize resources to conduct traffic control procedures for various levels of incidents	X		Y	Y	Training efforts are ongoing as resources continue to evolve, equipment carried by partner agencies varies, and improvements to traffic control procedures and evaluation of emerging technologies such as sequential lighting and smart flares remain active areas of focus; pilot funding opportunities are always beneficial to support these efforts.
28	Have procedures/guidelines for safe vehicle positioning	X		Y	N	Education efforts are ongoing through tools such as visor cards and are incorporated into the four-hour TIM training curriculum.
29	Have procedures for equipment staging and emergency lighting	X		Y	Y	MoDOT emergency lighting standards are established and available, while each agency maintains its own policies governing lighting use, and any changes to those individual agency policies would require legislative action.
30	Have multidisciplinary communication practices and procedures	X		Y	Y	This capability has been established, though its consistent application is unclear, and additional outreach and periodic check-ins are needed to verify it is being regularly used in practice.
31	Have procedures for prompt responder notification	X		Y	Y	Each agency currently has its own dispatch function, but no standardized procedure exists for call-outs to notify the coroner, DOT, or other responders, leaving these decisions largely to the judgment of responders on the ground. It is recommended that a clear call-out flow chart be developed.

SUPPORT						
32	Use TMC for incident detection, notification, response	X		Y	Y	This is currently handled on a case-by-case basis with a need for improved coordination, and expansion of these efforts is desired, potentially through better integration with TITAN. Districts have also expressed a need for additional ATMS equipment to support improved incident detection, verification, and traveler messaging.
33	Share data/video between agencies	X		Y	Y	MoDOT is actively sharing information, while other agencies are sharing to a more limited extent, with some IS policies restricting certain video sharing or display. Video sharing is generally adequate, but access to CAD data outside of the TMC, and within some TMCs that currently lack it, remains a desired improvement.
34	Have policies/procedures for traffic management during incident response, such as signal timing changes and pre-planned detours	X		Y	Y	Policies and procedures are in place but are applied inconsistently, and improved consistency could be achieved through additional training and education. It is recommended that Incident Response Plans be developed for all Interstate routes.
35	Provide interoperable, interagency communications onsite between incident responders	X		Y	Y	Funding has been secured through January 2028 to support ongoing research, with planned enhancements including the addition of GeoTAB layers and other supplemental data sources such as Citizen Insight.
36	Have real-time motorist information system	X		Y	Y	MoDOT is working with third-party vendors, though challenges remain related to establishing and maintaining reliable emergency contact processes with specific platforms.
37	Provide motorists with travel time estimates	X	X	Y	Y	Dynamic message signs are deployed in targeted locations, but several corridors currently lack DMS coverage; expanding the use of travel time messaging through alternative platforms in areas without DMS should be considered to improve traveler information.
38	Develop and implement cost recovery and management systems	X		Y	N	Costs are recovered from some CVO-related crashes through insurance, but improved consistency is needed to ensure MoDOT staff are using the appropriate crash charge codes, which are not currently standardized.
39	Have partnerships with news media and information providers	X		Y	Y	Reporter turnover makes maintaining consistent engagement challenging, though maintaining the relationship remains important, and scene safety is a priority. Media interviews are not conducted unless approved by communications.

4. RECOMMENDATIONS

The recommendations presented in this supplement are intended to enhance the original recommendations outlined in the 2021 Missouri Strategic TIM Plan. All recommendations from the 2021 plan remain valid and important for supporting a safe, coordinated, and high-performing statewide TIM program. This supplement adds several updated and emerging recommendations based on the revised program assessment, current operational needs, and stakeholder input. Together, the combined recommendations from the 2021 plan and this supplement form a comprehensive, integrated list that should guide Missouri's TIM program development and investment priorities moving forward.

4.1. STRATEGIC:

2021 RECOMMENDATIONS:

1. Within each district form a district or regional TIM multiagency team(s), task force(s), or committee(s) and conduct consistent and regular meetings involving the TIM stakeholders and meet regularly to discuss TIM plan activities and training.
2. Continue and expand multiagency and multidisciplinary TIM training.
 - Classroom
 - Virtual
 - Web-based
3. Establish a process to conduct post-incident after action reviews.
 - Regional TIM committees establish guidelines that identify under what conditions such reviews will be taken in their region, as well as which agency and position will be responsible to lead such efforts.
4. Have a multi-agency agreement for quick clearance within the regional TIM committees.
 - Use the Statewide Open Roads Agreement as a framework for the regional agreement
5. Expand tracking of secondary crashes as a performance measure within the regions, as well as establishing targets.

2026 RECOMMENDATIONS:

1. Program Governance and Planning
 - a. Maintain statewide and regional TIM coalitions with regular meetings.
 - b. Standardize post-incident debriefings through the TIM Subcommittee.
2. Performance and Accountability
 - a. Advance quick clearance agreements and coordinated RCT/ICT tracking.
 - b. Improve secondary crash data collection and establish reduction targets.
3. Staffing, Funding, and Technology
 - a. Explore options to formalize TIM roles beyond ad hoc assignments.
 - b. Expand and integrate TIM technologies, including TITAN and pilot deployments.
 - c. Continue education and awareness through coalitions, toolkits, and training.

4.2. TACTICAL

2021 RECOMMENDATIONS:

1. Towing and Recovery within regional TIM collations work with and inform responders and dispatch agencies of their recovery capabilities.
 - Agencies with authority to request and dispatch tow consider type and severity of incidents in addition to recovery procedures to expedite quick clearance and recovery.
 - Agencies with authority to request and dispatch tow to incident scenes ensure they are dispatching/requesting tow and recovery responders that have the capabilities and special equipment to perform the work for the type and severity of the incident they are being requested for.
2. Regional TIM collations discuss and plan for fatal incident procedures including but not limited to discussion and plans for:
 - Expedited accident reconstruction/investigation
 - a. New 'available' technologies or processes for reconstruction/investigation
 - b. Optional concurrent activities for expedited restoration of traffic flow
 - Delayed response by medical examiner or designee procedures
 - a. To prevent secondary incidents and restore traffic flow in incidents involving fatalities. Possible available options for relocating or removing deceased prior to medical examiners arrival to incident scene.

2026 RECOMMENDATIONS:

1. On-Scene Operations
 - a. Expand back-of-queue warning capabilities with added training and protocols.
 - b. Reinforce ICS, safe vehicle positioning, and equipment staging practices.
2. Policy, Laws, and Coordination
 - a. Continue legislative and outreach efforts related to clearance and safety laws.
 - b. Clarify SSP expansion criteria and district-level deployment guidance.
3. Responder and Contractor Management
 - a. Improve documentation of tow and hazmat capabilities.
 - b. Clarify procedures for utilities, medical examiner response, and reconstruction.
 - c. Strengthen abandoned vehicle removal practices ahead of major events.

4.3. SUPPORT

2021 RECOMMENDATIONS:

1. Expand and improve video sharing technologies as camera systems become obsolete and are updated.
2. Have pre-planned detour routes identified and shared between TIM stakeholders for critical corridors.
3. Expand TMCs use of new technologies and remote connectivity for corridor signal timing coordination during incidents and for incident bypass routes
4. As technology and accessibility becomes available to do so.
 - Access and expand CAD feed information at MoDOT TMCs
 - Expand interoperable, interagency communications onsite between responders/agencies

2026 RECOMMENDATIONS:

1. Detection, Communication, and Data
 - a. Improve TMC coordination and expand ATMS and TITAN integration.
 - b. Address gaps in interagency data sharing, including CAD access.
2. Traffic Management and Traveler Information
 - a. Improve consistency of incident traffic management and detour plans.
 - b. Expand travel time messaging beyond DMS-only corridors.
3. Systems, Cost Recovery, and Media
 - a. Strengthen cost recovery practices through standardized crash coding.
 - b. Maintain media relationships with clear safety and communications protocols.
 - c. Continue collaboration with third-party information providers.

REFERENCES

¹ FHWA Creating an Effective Program to Advance TSMO:

<https://ops.fhwa.dot.gov/publications/fhwahop12003/fhwahop12003.pdf>

² FHWA TIM Gap Analysis Primer:

<https://ops.fhwa.dot.gov/publications/fhwahop15007/fhwahop15007.pdf>

³ National Traffic Incident Management Coalition National Unified Goal for TIM:

<http://ntimc.transportation.org/Documents/NUGUnifiedGoal-Nov07.pdf>