FLORIDA DEPARTMENT OF TRANSPORTATION

Traffic Incident Management

2026 STRATEGIC PLAN

FDOT

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EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) 2026 Traffic Incident Management (TIM) Strategic Plan is developed under the leadership of the State Traffic Engineering and Operations Office (STEOO), Traffic Incident Management/Commercial Vehicle Operations (CVO) Program Division. District-level TIM Managers and support personnel also contributed significantly with input, guidance, and representation of stakeholder interests.

The state of Florida enjoys a mature traffic incident management (TIM) program. Examples of the more than three decades of investment and successes that set the stage for envisioning a future include:

Technology – Regional or Satellite Traffic Management Centers (RTMCs/STMCs) integrate data from Intelligent Transportation System (ITS) field devices, state law enforcement computer-aided dispatch (CAD), and other sources to detect and verify incidents, coordinate response activities, and provide information to responders and motorists. Advanced warning alert on navigation applications to motorists using automated vehicle location data or third-party alert service providers is already mainstreamed by several FDOT Districts. Incorporating technology to enhance safety for motorists and FDOT's service patrols is identified as one of the TIM priorities.

Resources – FDOT's service patrol program, known as the Road Rangers, patrols more than 2,100 centerline miles of freeways proactively identifying incidents, clearing roadways, and assisting motorists. The Rapid Incident Scene Clearance (RISC) incentive-based, heavy-duty, wrecker program and Safe Tow value-added, towing program are available in several districts to support quick clearance of major incidents.

Institutional – FDOT is a leader nationally in providing a well-established structure to support TIM. This structure includes a full-time, statewide TIM Program Manager in FDOT's Central Office, TIM Program Managers in each district, a statewide TIM Working Group to facilitate continued collaboration amongst TIM partner disciplines, and multiagency, multidiscipline stakeholder representation in twenty-two (22) active local TIM Teams in all seven FDOT Districts and Florida's Turnpike.

Safety – FDOT prioritizes safety not only for motorists but also for Road Rangers. FDOT tracks and analyzes all crash incidents while Road Rangers are involved in any TIM activities. Safety strategies have been developed that initiate the use of advanced technology and equipment along with Road Ranger specific training to ensure safe and quick road clearance.

These examples and FDOT's recognition and reinforcement of TIM as a critical Transportation Systems Management and Operations (TSM&O) Program element have positioned the state for continued and future success. However, even with existing investments and innovations in TIM, much work remains to enhance TIM in Florida. An agency-wide strategic plan, at its core, is designed to set priorities, focus energy and resources, strengthen operations, and ensure that stakeholders are working toward common goals.

TIM STRATEGIC PLAN ORGANIZATION AND TOPICS

For the last 20 years, the Federal Highway Administration (FHWA) has utilized the TIM Capability Maturity Self-Assessment (TIM CMSA) as a tool to evaluate the state of practice in traffic incident management across the country. The TIM CMSA provides a systematic and structured approach for assessing and benchmarking existing TIM capabilities, and, upon completion each year, provides an Action Plan with tangible actions for increasing capability and sophistication levels. Florida has been a longstanding participant in the TIM CMSA since it was initiated in 2003. As such and given FDOT's and its partner stakeholders' familiarity with the CMSA content, the Florida TIM Strategic Plan is purposely structured according to the following primary TIM program areas. Under each TIM program area are the numbered subsections of the strategic plan that address specific topics.

Strategic

Programmatic activities of TIM cover formal policies, partnerships, and understandings among agencies, measuring and evaluating TIM performance.

Section Topic

- Formal TIM Programs
- TIM Training
- After-Action Reviews
- TIM Performance Measures

Tactical

The on-scene activities address responder and motorist safety, response, traffic control, and clearance.

Section Topic

- TIM Law Outreach and Public Education
- Policies and Procedures for Incident Response and Clearance
- Responder and Motorist Safety

Support

Effective TIM enabling activities such as interagency communications, data sharing, ITS, and traveler information.

Section Topic

- Data Collection/Integration/Sharing

Additionally, to emphasize the importance of TIM in the context of other stand-alone TSM&O strategies, the Strategic Plan also includes sections on the priority focus areas of Integrated Corridor Management and Arterial TIM; TIM for Express Lanes; and TIM Supplement for Transportation Management Plans.

In each section, subsections are presented as strategies. For each strategy, the State of the Practice and Strategic Direction are described followed by "Steps to Get There" and a timeline for implementation. This Strategic Plan is an updated version of TIM Strategic Plan 2019. In total and as summarized in Table ES-1, 23 strategies, and 65 corresponding action items have been identified to advance Florida's TIM Program. The new action items are identified with symbols.

Table ES-1 2026 FDOT TIM Strategic Plan Summary

ID	Action Item	Timeline
2	**Formal TIM Programs**	
2.1	**Statewide TIM Working Group** Strategic Direction: Maintain as a permanent entity for providing guidance to FDOT, its partners, and other stakeholders on policy matters and issues impacting TIM needs in the state of Florida.	
2.A	Formalize the FL TIM Working Group to evolve into a Statewide TIM Coalition with TIM stakeholders. Consider membership structure to include FHP, Fire, DEP, Road Ranger, Towing industries, and FDOT.	< 1 year
2.B	Meet at least annually with the TIM Stakeholder Group to provide updates on matters concerning TIM and key activities in progress. Continually review Working Group membership and consider additional associations. Other ongoing TIM Working Group Meeting considerations: – Solicitation of key issues and concerns – Discussion of outreach to Organization and/or Association membership – Conducting a meeting at an RTMC	< 1 year
2.C	Develop a plan for participating in the TIM Working Group member association's annual meetings/conferences through presentations, training sessions, and/or booth space in vendor areas.	< 1 year
2.D	Publish statewide TIM newsletters.	Ongoing
2.E	Share Road Ranger location data with third-party navigation applications for sending advanced warning alerts to motorists.	1-3 years
2.2	**TIM Teams** Strategic Direction: Provide value to stakeholders while continuously improving TIM in their respective areas.	
2.F	Identify key partners who have not been participating in TIM Team meetings and conduct one-on-one meetings. Encourage participation (e.g., emergency traffic control equipment) for participation and a focus on the development of arterial TIM plans.	Ongoing
2.G	Approach local and regional fire and police chiefs' associations about adopting the Florida Open Roads Policy.	Ongoing
2.H	Maintain enhancements and keep the FDOT TIM website updated. Publish all the documents, and guidelines developed through TIM.	< 1 year
2.3	**TIM Program Support** Strategic Direction: Establish organizational mechanisms to facilitate staff transitions and ensure knowledge transfer. Consider developing a standard set of duties and responsibilities that can be utilized by FDOT TIM Program Managers to establish consistent practices within the program itself as well as facilitate continuity with future successors. Implement mechanisms that facilitate timely information sharing between the districts.	
2.I	Conduct regular FDOT TIM Program Manager webinars and hold at least one, in-person 2-3-day meeting annually.	Ongoing
2.J	Engage key partners and districts to utilize TIM SharePoint for storing TIM Program support materials.	< 1 year

2.K	Document any topics in local TIM meetings and share them during quarterly TIM Program Manager meetings.	< 1 year

ID	Action Item	Timeline
3	**TIM Training**	
3.1	**SHRP2 National TIM Responder Training Program** Strategic Direction: As a top stakeholder identified focus is, to continue promoting and conducting TIM training via the Florida version of the FHWA SHRP2 National TIM Responder training curriculum.	
3.A	Identify potential avenues for encouraging TIM Program stakeholders to have their incident response personnel attend the National TIM Responder Training.	< 1 year
3.B	Conduct TIM trainer outreach efforts at least twice a year to keep them engaged in the National TIM Responder Training Program. Maintain an updated Statewide TIM trainer list.	Ongoing
3.C	Provide formal Central Office support for local trainers that includes online registration, printed materials, and certificate distribution. For future sessions, consider location and responder schedule/potential conflicts.	Ongoing
3.D	Propose Integrating the National TIM Responder Training as a requirement for workers/employees involved in all future Asset Maintenance (AM) contracts.	1-3 years
3.E	Identify outreach opportunities for fire/rescue, EMS, and law enforcement leadership to promote involvement in the National TIM Responder Training Program.	1-3 years
3.F	Integrate other TIM-related and focus topics in developing a comprehensive training program for Florida. Consider training for: – Road Rangers – RISC – TIM Response in Express Lanes – Incidents Involving Electric and Hybrid Vehicles – Incidents involving highway infrastructure (e.g. bridges, overhead sign structures, toll gantry structures, high-mast light poles, etc.) – Cable Barrier	< 1 year
3.G	Integrate Road Ranger-specific tactical training and annual refresher tactical training as mandatory in Road Ranger contracts.	< 1 year

ID	Action Item	Timeline
4	**After-Action Reviews**	
4.1	**After-Action Reviews (AARs)** Strategic Direction: Continued recognition of AARs as central to the overall, ongoing TIM enhancement process. Establish formats for conducting AARs and sharing lessons learned and best practices.	
4.A	Maintain Statewide consistency in documenting AAR.	< 1 year

ID	Action Item	Timeline
5	**TIM Performance Measures**	
5.1	**TIM Performance Measures** Strategic Direction: TIM data collection and performance monitoring and measuring are critical to improving TIM, demonstrating program effectiveness, and justifying future planning and investments.	
5.A	Improve and enhance TIM data collection efforts.	Ongoing
5.B	Develop TIM training TIM Performance measures data analysis, reporting, and visualization guidance document.	Ongoing
5.C	Establish district-by-district goals relative to TIM Performance Measures for routes and route segments where TIM measures are employed. Establish consistency among RTMCs for data collection.	Ongoing
5.D	Report TIM outcomes relative to performance measures goals established in the 2014 Open Roads Policy Agreement between FDOT and FHP.	Ongoing

ID	Action Item	Timeline
6	**TIM Law Outreach and Public Education**	
6.1	TIM Law Outreach and Public Education Strategic Direction: As a top stakeholder-identified focus area, seek TIM law outreach and education opportunities such as participation in the annual National Traffic Incident Response Week, advertisements, partnerships, and use of dynamic message signs (DMS).	
6.A	Actively participate in Crash Responder Safety Week.	Annually
6.B	Utilize Community Traffic Safety Teams (CTSTs) to identify opportunities to partner on TIM law public outreach efforts and determine if funding may be available.	1-3 years
6.C	Work with the Florida Department of Highway Safety and Motor Vehicles (FLHSMV) to develop a TIM law strategic communications plan that includes the identification of outreach opportunities and specific actions for implementation.	1-3 years
6.D	Conduct awareness campaigns and education regarding the public's role in the Move Over law.	Ongoing

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.1	**Road Ranger Service Patrol Program** Strategic Direction: Address program identity issues related to branding, sponsorships, and public perception of the services being provided as a "courtesy." Emphasize Road Rangers' importance as an FDOT-backed TIM/safety program. Address operational concerns, such as uniforms and emergency vehicle lighting.	
7A	Evaluate Road Ranger standardization (with flexibility), emphasize safety, and address other operational needs based on data analysis and Road Rangers' needs.	< 1 year
7.B	Conduct Statewide Road Ranger Survey for Incident Responders and correlate them to roadways, districts, counties, and regions.	Annually
7.C	Focus Road Ranger branding to safe incident response and TIM.	1-3 years
7.2	**Severe Incident Response Vehicle (SIRV)**	

	Strategic Direction: Recognize as a valuable link between FDOT and other responder disciplines including asset maintenance contractors. Identify elements and activities to standardize the program statewide.	
7.E	Explore a standardized, scalable approach for replicating select SIRV functions and activities in other districts. Evaluate SIRV duties and responsibilities for standardization (with flexibility) and possible implementation in other districts.	1-3 years
7.3	**Rapid Incident Scene Clearance (RISC) Program** Strategic Direction: Conduct routine training of FHP and FDOT personnel and clarify coordination requirements through a joint operating statement. Maintain procedural boilerplate to accommodate industry needs and program cost changes.	
7.F	Develop a statewide Joint Operating Program Statement or MOU between FDOT and FHP to strengthen understanding of RISC.	< 1 year
7.G	Establish a plan to refresh and conduct training to familiarize FHP and RTMC operators with RISC activation protocols.	< 1 year
7.H	Review and revise RISC procedure and clearance time goals to address changing operational needs and incentive structure of the program.	< 1 year
7.4	**Instant Dispatch Tow** Strategic Direction: FHP may seek to have F.S. 321.051(4) changed to lane-blocking events, since delaying requests for towing and recovering services further delays incident clearance and increases the exposure of responders and motorists to hazards. FHP may also consider making administrative rule changes that support implementing a plan where they simultaneously dispatch a trooper and tow truck when RTMC cameras or other on-scene responders provide information that a tow is required. Such a system would expedite lane clearance and promote safety.	
7.I	Establish an understanding with FHP on the procedure of instant dispatch tow.	< 1 year
7.5	**Staged Towing Vehicles** Strategic Direction: FDOT should consider including staged tow trucks in major roadway work zones where there are extended lane restrictions or limited to no shoulders. Stage towing arrangements should be considered in Transportation Management Plans (TMPs) required under the Federal Work Zone Safety and Mobility Rule for all major projects.	
7.J	Develop warrants for when staged tow vehicles should be included in Express Lanes and Work Zone TMPs.	< 1 year
7.6	**Safe Tow** Strategic Direction: FDOT should consider the implementation of the strategy beyond District 2 as a means to alleviate the problems created by the FHP "owner request" requirement and facilitate timely dispatch and removal of vehicles to the shoulder or other safe locations away from travel lanes.	
7.K	Create a standard template for contracting Safe Tow in any FDOT District.	< 1 year
7.7	**Florida Guidelines for the Mitigation of Accidental Discharges of Motor Vehicle Fluids** (Non-Cargo) Direction: FDOT should continue to market the guidelines as a resource for incident responders in Florida, focusing attention on the reportable quantities' component of the guideline. Reinforcement of the guidelines should also be made during statewide responder training.	
7.L	Conduct reminder activities related to the *Florida Guidelines for the Mitigation of Accidental Discharges of Motor Vehicle Fluids (Non-Cargo)* to maintain awareness by responders.	Ongoing
7.8	**Crash Investigations**	

	Strategic Direction: FDOT has purchased photogrammetry, total station, and other types of technology to assist FHP in expediting crash scene processing. To keep pace with rapid advancements in these and other emerging technologies it will be important to maintain awareness of how they may apply to crash reconstruction and to articulate benefits.	
7.M	Maintain an awareness of new/emerging technologies related to crash investigations.	Ongoing
7.N	Streamline coordination with FHP on current crash investigation technologies.	Ongoing
7.9	**Tagging of Abandoned Vehicles** Strategic Direction: Safety is advanced by removing disabled vehicles that are stopped on freeways or in the "clear zone". FHP should review their procedures to more aggressively check and subsequently tow abandoned vehicles left on the shoulder since they present a potential safety hazard. FHP should also enlist the help and support of Road Rangers in this important practice by allowing them to "Red Tag" vehicles in all troops.	
7.O	Develop a standard operating policy or MOU that specifies FHP and FDOT roles in, and procedures for, tagging abandoned vehicles.	< 1 year
7.10	**Designated Incident Response Coordinator (IRC)** Strategic Direction: Establishing a designated Incident Response Coordinator (IRC) will help ensure that FDOT is properly represented at traffic incident scenes under the Incident Command System (ICS). This position would be filled by a manager from an AM contractor, RTMC operations contractor, FDOT on-call supervisor, or FDOT District TSM&O Office.	
7.P	Require IRC position in future Asset Maintenance (AM) contracts and/or renewals (as appropriate).	Future contract or renewal dependent

ID	Action Item	Timeline
8	**Responder and Motorist Safety**	
8.1	**TIM Response Procedures/Guidelines** Strategic Direction: Model policies or procedures consistent with the FHWA SHRP2 National TIM Responder Training Program are needed for: High-Visibility Safety Apparel Use; Emergency-Vehicle Lighting Use at Incident Scenes; Vehicle Positioning at Incident Scenes; and Traffic Control at Incident Scenes.	
8.A	Implement the FDOT Road Ranger Safety Initiatives, including five required (vehicle lighting, smart LED flares, advanced warning alerts, DMS messaging, in-person and CBT training) and two optional (TMAs and automated debris removal) recommendations to improve responder safety.	1-3 years
8.B	Update TIM Response Guidelines based on updated procedures and identified safety initiatives and strategies.	1-3 years

ID	Action Item	Timeline
9	**Data Collection/Integration/Sharing**	
9.1	**Regional Traffic Management Centers** Strategic Direction: Consideration should be made by FDOT and FHP to move beyond simple RTMC operator and FHP dispatcher co-location and more formally integrate the operations of key personnel. Reintroducing an FHP uniformed supervisor in urban communications centers during peak periods may serve to strengthen operations between field units and the RTMC.	
9A	Ensure RTMC designs consider physical integration of RTMC operator and public safety dispatcher, including FHP, and workspace.	< 1 year
9.2	**Data Sharing** Strategic Direction: Given the importance of real-time data and information to traffic incident response, a statewide consistent policy and approach to sharing this data, including RTMC video, with TIM partners are needed. This will ensure that the investment in video infrastructure is maximized.	
9.B	Identify opportunities to facilitate sharing of TMC video and data with local responders.	< 1 year
9.C	Develop a statewide policy for data and video sharing.	1-3 years
9.D	Develop a standard MOU for agencies that have access to the video that includes a commitment to participating in the local TIM program.	1-3 years
9.E	Share Road Ranger location data with third-party navigation applications for sending advanced warning alerts to motorists.	Ongoing

ID	Action Item	Timeline
10	**TIM Actions for Priority Focus Areas**	
10.1	**Integrated Corridor Management and Arterial TIM** Strategic Direction: The objective for arterial TIM and an integrated corridor approach seeks to promote safe, efficient travel on both arterials and freeways. Many stakeholder organizations, such as local agency police, fire, and EMS that do not routinely provide freeway traffic incident response, need to be familiarized with TIM on arterials, notably for responder safety and safe quick clearance of incidents.	
10.A	Continue to leverage the FHWA SHRP2 National TIM Training Program to properly train local agencies (police, fire, EMS, towing) on arterial TIM.	1-3 years
10.B	In coordination with TSM&O Program efforts, measure and monitor arterial performance and use data to support a business case for arterial TIM.	1-3 years
10.C	Explore and potentially deploy TIM strategies such as Road Rangers, RISC, and SIRV to support non-freeways and toll roads.	1-3 years
10.D	Identify Funding Requirements for Arterial TIM	< 1 year
10.E	Identify Existing Arterial TIM Strategies	< 1 year
10.F	TIM Performance Measures and Routing Reporting Arterials	< 1 year

10.G	Develop Performance Measures Dashboard and Summary Report for Arterials	1-3 years
10.H	Develop SUN-ex Activation Criteria	< 1 year
10.2	**TIM for Express Lanes** Strategic Direction: A scalable, dedicated TIM approach for facilities utilizing express lanes is needed to balance the needs of a "premium" service with operating revenue constraints. The approach would prioritize resources, based on available funding, to maximize investments.	
10.I	Monitor the development of and provide TIM-specific input to Express Lane Operations Plans/ Manuals/Guidelines/staffing and associated costs. Recognize unique requirements for Express Lane incident response.	Ongoing
10.J	Develop guidelines for TIM operational practices on managed lanes.	1-3 years
10.K	Conduct training with all responders, including RTMC operators and dispatchers in conjunction with new managed lane project openings.	1-3 years
10.L	Review strategies such as dedicated Crash Investigation Sites to enhance Express Lane TIM and safety.	Ongoing
10.M	Add Managed Lanes to RRSP Scope Template	< 1 year
10.N	TIM Performance Measures and Routing Reporting for Managed Lanes	< 1 year
10.3	**TIM Plan Supplement for Transportation Management Plans (TMPs)** Strategic Direction: TIM is a critical operational strategy to mitigate many of the negative impacts of roadway construction projects. Accordingly, there needs to be a better general awareness of the FDOT TMP requirements with a specific emphasis on TIM and operations. In addition, process enhancements are needed to ensure that TIM is considered and integrated both early in the project development process and throughout the design and construction life cycle.	
10.O	Explore opportunities such as annual FDOT Maintenance, Design, and Construction conferences to promote awareness of work zone TIM in the context of TMP development.	1-3 years
10.P	Assemble conference sessions, talking points, PowerPoint slides, and other documentation to facilitate work zone TIM dialogue.	1-3 years
10.Q	Develop strategies/requirements for TIM for work zones and coordinate with Design and Construction Offices.	1-3 years
10.R	Include TIM-related items in the FDOT Design Manual (FDM)	1-3 years

1 INTRODUCTION

1.1 Background

The state of Florida enjoys a mature traffic incident management (TIM) program. Nearly four decades of investment in technology, resources, and institutional support have positioned the state for continued and future success. Understanding the current state of TIM in Florida sets the stage for envisioning a future.

Technology investments enable Florida to detect and verify incidents, coordinate response activities, and provide information to responders and motorists. Freeways and other limited-access roadways in Florida are monitored with traffic detectors, cameras, and dynamic message signs (DMS) that feed into Regional or Satellite Transportation Management Centers (RTMCs/STMCs) in each of the seven Florida Department of Transportation (FDOT) Districts and Florida's Turnpike Enterprise. The RTMC's use state-of-the-art advanced traffic management system (ATMS) software, referred to as SunGuide®, to manage data, measure system performance, and record incidents. Florida was among the first states in the nation where a statewide integration of state police computer-aided dispatch (CAD) and RTMC software occurred, and that integration continues to this day.

Other resource investments enable Florida to respond to and clear incidents expeditiously. FDOT's service patrol program, known as the Road Rangers, patrols more than 2,100 centerline miles of freeways proactively identifying incidents and clearing roadways. They are also an important part of incident response, providing temporary traffic control at incident scenes. Asset and routine maintenance contractors, under contract to FDOT, or the FTE are also available to provide long-term traffic control, debris removal, and transportation infrastructure damage repairs. Finally, the Rapid Incident Scene Clearance (RISC) incentive-based, heavy-duty, wrecker program is available in several districts to support quick clearance of major incidents. Created on Florida's Turnpike in 2004, the state of Florida was among the first to develop and implement the RISC concept. Since its inception, the program has spread to all FDOT Districts and has been replicated by DOTs across the nation.

Programmatic investments have helped to reinforce TIM as a strategically critical element of Transportation Systems Management and Operations (TSM&O). FDOT's 2017 TSM&O Strategic Plan recognizes TIM as an important component of FDOT's freeway management system. By designating a full-time statewide TIM Program Manager in FDOT's Central Office, as well as TIM Program Managers in each district, FDOT leads the nation in providing programmatic support that is critical for continued and future TIM success. Organizationally across the state, there are twenty-five (25) local TIM Teams that are active across all seven FDOT Districts and the Turnpike, as well as a statewide TIM Working Group whose role is to facilitate continued collaboration amongst TIM partner disciplines. Additionally, FDOT and the Florida Highway Patrol (FHP) have co-located operations at multiple RTMCs statewide to promote cohesive operations. This level of support has allowed Florida to focus on the multiagency, multidiscipline relationships that are foundational to TIM's success.

However, even with existing investments and innovations in TIM, much work remains to enhance TIM in Florida. An agency-wide strategic plan, at its core, is designed to set priorities, focus energy and resources, strengthen operations, and ensure that stakeholders are working toward common goals.

1.2 Approach

The strategic plan development team used several methods to obtain input from stakeholders for the TIM Strategic Plan, including:

Survey Research – An online survey was created to obtain insight into several TIM topics. Opened on

March 13, 2017, the web-based survey was distributed to local TIM responders and other stakeholders through the FDOT District TIM Program Managers. A total of 164 individuals participated in the survey, representing law enforcement, fire/rescue, EMS, transportation, and towing and recovery professionals. The survey was closed on April 30, 2017, and the data obtained was utilized to guide discussion at subsequent stakeholder meetings.

Stakeholder Meetings – The team conducted meetings with every FDOT District Program Manager and, in many cases, their consultants. TIM Team meetings were also attended in five districts as well as individual meetings with the FDOT Statewide Program Manager and the Director of FHP.

TIM Capability Maturity Self-Assessment (CMSA) – The TIM Capability Maturity Self-Assessment (TIM CMSA) tool was developed by the Federal Highway Administration (FHWA) with input from state DOTs, law enforcement, and other TIM responders. The TIM CMSA provides a systematic and structured approach for assessing and benchmarking existing TIM capabilities, and, upon completion, provides an Action Plan with tangible actions for increasing capability and sophistication levels. Florida has been a longstanding participant in the TIM CMSA since it was initiated in 2003. The team reviewed information gathered from 12 cities/regions in Florida for the 2016 CMSA for integration into the strategic plan.

Additionally, the TIM Strategic Plan was developed to be consistent with, and to support the vision and mission outlined in FDOT's 2017 TSM&O Strategic Plan:

Vision – To increase the delivery rate of fatality-free and congestion-free transportation systems supporting the FDOT vision and Florida Transportation Plan goals.

Mission – To identify, prioritize, develop, implement, operate, maintain, and update TSM&O program strategies and measure their effectiveness for improved safety and mobility.

For reference, the following is a link to the FDOT 2017 TSM&O Strategic Plan:

http://www.fdot.gov/traffic/Doc_Library/PDF/2017%20FDOT 2017 TSM&O Strategic Plan FINAL.pdf

1.3 TIM Strategic Plan Organization

As stated above, the FHWA TIM CMSA provides a structured approach for reviewing the complex institutional framework, technologies, and business processes required to make TIM a success. As such, and given FDOT's and its partner stakeholders' familiarity with the CMSA content, the Florida TIM Strategic Plan is purposely structured according to three main TIM program areas:

Strategic – the programmatic activities of TIM covering formal policies, partnerships, and understandings among agencies, measuring and evaluating TIM performance.

Tactical – the on-scene activities addressing responder and motorist safety, response, traffic control, and clearance.

Support – Effective TIM enabling activities such as interagency communications, data sharing, ITS, and traveler information.

The three main TIM program areas are further organized into more detailed TIM CMSA topics:

Strategic

- Formal TIM Programs
- TIM Training
- After-Action Reviews
- TIM Performance Measures

Tactical

- TIM Law Outreach and Public Education
- Policies and Procedures for Incident Response and Clearance
- Responder and Motorist Safety

Support

- Data Collection/integration/Sharing

Additionally, to emphasize the importance of TIM in the context of other stand-alone TSM&O strategies, the Strategic Plan also includes sections on the following priority focus areas:

- Integrated Corridor Management and Arterial TIM
- TIM for Express Lanes
- TIM Supplement for Transportation Management Plans

In each section, subsections are presented as strategies. For each strategy, the State of the Practice and Strategic Direction are described followed by "Steps to Get There." Accordingly, each "Step to Get There" includes an identification number (e.g., 2. A, 3. B, 4. C, etc.), the action item title/topic, and the timeline for implementation.

2 | FORMAL TIM PROGRAMS

2.1 Statewide TIM Working Group

State of the Practice

FDOT established a statewide TIM Working Group in early 2017 with its first, in-person meeting conducted on February 6, 2017. The Working Group includes policy-level representatives from the following organizations:

- Florida Department of Transportation
- Florida Highway Patrol
- Florida Department of Health
- Florida Sheriffs Association (FSA)
- Florida Police Chiefs Association (FPCA)
- Florida Fire Chiefs Association (FFCA)
- Professional Wrecker Operators of Florida (PWOF)
- Sunshine State Towing Association (SSTA)
- Florida Association of County Engineers and Road Superintendents (FACERS)
- Florida Forest Service
- Florida Division of Emergency Management
- Florida Trucking Association
- Florida Department of Environmental Protection
- Florida Metropolitan Planning Organization Advisory Council (MPOAC)
- Federal Highway Administration

To promote and gain support for TIM, the Working Group is focusing on understanding and promoting the benefits of TIM as they relate to the safety of incident responders and motorists, as well as to commerce and productivity.

Strategic Direction

The Working Group is expected to serve as a permanent entity for providing guidance to FDOT, its partners, and other stakeholders on policy matters and issues impacting TIM needs in the state of Florida. Ongoing Working Group functions include:

- Consider and coordinate the views of Florida's multidiscipline TIM partners and stakeholders
- Provide policy recommendations to partners and stakeholders, including FDOT, on selected responder training and safety issues
- Provide advice and input to partners and stakeholders, including FDOT, on traffic incident management training issues
- Support TIM stakeholders in identifying and promoting best practices
- Support TIM stakeholders in collecting and analyzing TIM performance measures
- Provide a conduit for information, education, and policy recommendations between FDOT, its partners, and TIM stakeholders

One initial action is to obtain institutional support by documenting, communicating, and reinforcing objectives with the individual agencies/organizations represented by the Working Group.

Steps to Get There

ID	Action Item	Timeline
2	**Formal TIM Programs**	
2.1	**Statewide TIM Working Group** Strategic Direction: Maintain as a permanent entity for providing guidance to FDOT, its partners, and other stakeholders on policy matters and issues impacting TIM needs in the state of Florida.	
2.A	Formalize the FL TIM Working Group to evolve into a Statewide TIM Coalition with TIM stakeholders. Consider membership structure to include FHP, Fire, DEP, Road Ranger, Towing industries, and FDOT.	< 1 year
2.B	Meet at least annually with the TIM Stakeholder Group to provide updates on matters concerning TIM and key activities in progress. Continually review Working Group membership and consider additional associations. Other ongoing TIM Working Group Meeting considerations: Solicitation of key issues and concerns Discussion of outreach to Organization and/or Association membership Conducting a meeting at an RTMC	< 1 year
2.C	Develop a plan for participating in the TIM Working Group member association's annual meetings/conferences through presentations, training sessions, and/or booth space in vendor areas.	< 1 year
2.D	Publish statewide TIM newsletters.	Ongoing
2.E	Share Road Ranger location data with third-party navigation applications for sending advanced warning alerts to motorists.	1-3 years

2.2 TIM Teams

State of the Practice

FDOT is a decentralized organization with seven geographic districts and the Florida Turnpike Enterprise is responsible for carrying out the policies of the agency. Within these districts and the Turnpike, twenty-three (23) active TIM Teams exist and are active. The teams consist of representatives from all TIM disciplines, including law enforcement, fire/rescue, EMS, towing and recovery, and transportation, as well as other contract service providers. The meeting frequency is specific to each TIM Team and ranges from monthly to semi-annually. The teams use meetings to review past response actions and explore ways that incident management can be improved on the highways they serve. The TIM Teams also conduct training for incident responders and are active in traffic management planning for special events.

Originally established in 2002 and revised in January 2014 the *State of Florida Open Roads Policy Agreement* (*http://www. fdot.gov/traffic/traf_incident/pdf/_Open_Roads_Policy_ FDOT FHP.pdf*) was established and entered into by FDOT and FHP. The Agreement "establishes a policy for FHP and FDOT personnel to expedite the removal of vehicles, cargo, and debris from the roadways on the State Highway System to restore, in an URGENT MANNER, the safe and orderly flow of traffic following a motor vehicle crash or other incidents on Florida's roadways." Many TIM Teams have used the open roads policy, or a slightly modified version, to obtain local agency commitment to TIM efforts.

Strategic Direction

All TIM Teams have the common goal to provide value to their stakeholders and to continuously improve TIM activities in their respective areas. This effort requires regular contact with all local responders, including those agencies that may not be regularly participating in TIM Team meetings.

During the 2016 and 2017 statewide TIM workshops, each district provided valuable suggestions and recommendations based on their experiences facilitating local TIM Team meetings. Compiling this information in one location, along with support documents such as sample agendas, successful presentations, and meeting summaries will serve to enhance TIM Team efforts statewide.

Steps to Get There

ID	Action Item	Timeline
2.2	**TIM Teams** Strategic Direction: Provide value to stakeholders while continuously improving TIM in their respective areas.	
2.F	Identify key partners who have not been participating in TIM Team meetings and conduct one-on-one meetings. Encourage participation (e.g., emergency traffic control equipment) for participation and a focus on the development of arterial TIM plans.	Ongoing
2.G	Approach local and regional fire and police chiefs' associations about adopting the Florida Open Roads Policy.	Ongoing
2.H	Maintain enhancements and keep the FDOT TIM website updated. Publish all the documents, and guidelines developed through TIM.	< 1 year

2.3 TIM Program Support

State of the Practice

The state of Florida is among the nation's leaders in programmatic support for TIM. Not only does FDOT provide for a full-time, statewide TIM Program Manager in its Central Office, but each of the districts and the Turnpike also have a TIM Program Manager. In addition, consultant support is provided in districts and the Central Office for individual program areas including TIM, ITS, and RTMC operations. The combination of FDOT staff and consultant support helps reinforce TIM as a prominent part of TSM&O.

Despite TIM programs being well staffed, information gathered during the Strategic Plan development process indicated that currently there is little to no documentation of institutional knowledge among TIM practitioners, leaders, and advocates. As a result, when TIM program staff changes positions or there is a change in consultant support, there often is a loss of program understanding and historical knowledge, creating a significant learning curve for new staff. Similarly, there is a lack of information sharing occurring between practitioners at the districts, which has resulted in some duplication of efforts.

Strategic Direction

Organizational mechanisms should be put in place to facilitate staff transitions and ensure knowledge transfer. Consideration should be given to developing a standard set of duties and responsibilities that can be utilized by FDOT TIM Program Managers to establish consistent practices within the program itself as well as facilitate continuity with future successors. In addition, mechanisms that facilitate timely information sharing between the districts need to be implemented.

Steps to Get There

ID	Action Item	Timeline
2.3	**TIM Program Support** Strategic Direction: Establish organizational mechanisms to facilitate staff transitions and ensure knowledge transfer. Consider developing a standard set of duties and responsibilities that can be utilized by FDOT TIM Program Managers to establish consistent practices within the program itself as	

	well as facilitate continuity with future successors. Implement mechanisms that facilitate timely information sharing between the districts.	
2.I	Conduct regular FDOT TIM Program Manager webinars and hold at least one, in-person 2-3-day meeting annually.	Ongoing
2.J	Engage key partners and districts to utilize TIM SharePoint for storing TIM Program support materials.	< 1 year
2.K	Document any topics in local TIM meetings and share them during quarterly TIM Program Manager meetings.	< 1 year

3 | TIM TRAINING

3.1 SHRP2 National TIM Responder Training Program

State of the Practice

In 1987, the U.S. Congress passed the Surface Transportation and Uniform Relocation Act, which authorized the Strategic Highway Research Program (SHRP). The first, five-year, SHRP authorization was an applied research initiative to develop and evaluate techniques to address deteriorating conditions of the nation's highways and to improve their performance, durability, safety, and efficiency. In 2006 Congress passed a second, five-year authorization of the program (SHRP2) to focus on three national transportation challenges: improving highway safety, reducing congestion, and improving methods for renewing roads and bridges.

The National TIM Responder Training Program was developed "by responders, for responders" under SHRP2. The program was designed to establish the foundation for and promote consistent training of all responders to achieve the three objectives of the TIM National Unified Goal (NUG):

1. Responder Safety
2. Safe, Quick Clearance
3. Prompt, Reliable, Interoperable Communications

The course was successfully pilot tested in four U.S. cities, including Fort Lauderdale, Fla., and was subsequently adopted by the Federal Highway Administration (FHWA) for national rollout in 2012.

The national program utilizes a Train-the-Trainer (TtT) approach to provide each state with a cadre of TIM trainers who are responsible for delivering the four-hour version of the training to local responders.

However, based on current training records, a small percentage of those individuals are providing training to others. There are several factors that likely contributed to this low percentage, including initial difficulties related to accessing the FHWA TIM Training Program SharePoint site, a lack of understanding of the expectation for TtT participants to conduct training, and staff turnover. FDOT keeps track of the active trainers in Florida.

In addition to the in-person training, there are two online options for the training available:

1. National Highway Institute (NHI) – https://www.nhi. fhwa.dot.gov/ – Free online version of the course that takes approximately four hours to complete. (Course: FHWA- NHI-133126)
2. ResponderSafety.com Learning Network – https://learning.respondersafety.com – FHWA worked closely with the Emergency Responder Safety Institute (ERSI) to review the training modules they have available through the Responder Safety Learning Network (RSLN). Ultimately, FHWA and ERSI identified 10 modules that cover all 33 lesson objectives of the National TIM Responder Training course. Once an individual completes all 10 modules, which are offered at no cost, a special certificate may be downloaded that is equivalent to completing the National TIM Responder Training course.

FDOT has also integrated TIM training requirements into stand-alone contracts for both the Road Ranger and the RISC programs. TIM training requirements are being incorporated in the FDOT Road Ranger procedure to address when Road Ranger support is included in an asset maintenance contract. Additionally, a requirement has been proposed for TIM training to be integrated into the pending update to the Wrecker Rules (Florida Administrative Code 15B-9).

Strategic Direction

Training is identified as a fundamental item for improving Road Ranger safety and TIM operations. FDOT

shall focus on getting Road Rangers trained on FDOT Road Ranger Tactical Training and Annual Refresher Training. These two trainings have been developed by FDOT capturing Road Ranger-focused operations. FDOT shall work with other external stakeholders to improve training attendance for SHRP2 training.

Steps to Get There

ID	Action Item	Timeline
3	**TIM Training**	
3.1	**SHRP2 National TIM Responder Training Program** Strategic Direction: As a top stakeholder identified focus is, to continue promoting and conducting TIM training via the Florida version of the FHWA SHRP2 National TIM Responder training curriculum.	
3.A	Identify potential avenues for encouraging TIM Program stakeholders to have their incident response personnel attend the National TIM Responder Training.	< 1 year
3.B	Conduct TIM trainer outreach efforts at least twice a year to keep them engaged in the National TIM Responder Training Program. Maintain an updated Statewide TIM trainer list.	Ongoing
3.C	Provide formal Central Office support for local trainers that includes online registration, printed materials, and certificate distribution. For future sessions, consider location and responder schedule/potential conflicts.	Ongoing
3.D	Propose Integrating the National TIM Responder Training as a requirement for workers/employees involved in all future Asset Maintenance (AM) contracts.	1-3 years
3.E	Identify outreach opportunities for fire/rescue, EMS, and law enforcement leadership to promote involvement in the National TIM Responder Training Program.	1-3 years
3.F	Integrate other TIM-related and focus topics in developing a comprehensive training program for Florida. Consider training for: – Road Rangers – RISC – TIM Response in Express Lanes – Incidents Involving Electric and Hybrid Vehicles – Incidents involving highway infrastructure (e.g. bridges, overhead sign structures, toll gantry structures, high-mast light poles, etc.) – Cable Barrier	< 1 year
3.G	Integrate Road Ranger-specific tactical training and annual refresher tactical training as mandatory in Road Ranger contracts.	< 1 year

4 | AFTER-ACTIONS REVIEWS

State of the Practice

The purpose of multiagency, multidiscipline After-Action Reviews (AARs) is to collectively evaluate the decisions made and actions taken during an incident and to identify both best practices and opportunities for improvement. Elements of after-AARs are incorporated into most Florida TIM Team meetings and discussions. In some districts, the AARs are referred to as Post Incident Analysis (PIA). Typically, AARs or PIAs are occurring for all RISC activations and for major or significant incidents (those that last more than 90 minutes). Florida's Turnpike uses a STEALTH report to document AARs for each RISC activation. The STEALTH acronym stands for:

> ***S**et the time of the incident, **T**one of discussion (e.g., nameless, rankless, etc.), **E**xecution of incident, **A**nalyze incident execution, determine **L**essons learned, **T**ie lessons learned to future improvement, and end on a **H**igh note.*

The STEALTH AAR process includes the identification of lessons learned, which are shared with all Turnpike TIM Team members.

Strategic Direction

AARs are central to the overall, ongoing TIM enhancement process and thus are an essential component of Florida's statewide TIM Program. They provide a constructive forum to identify best practices, conflicts, and inefficiencies and enable participants to work together to take deliberate steps to resolve or eliminate issues. AARs also facilitate open lines of communication and foster relationships among responders. From the results of the TIM Strategic Plan survey and discussions with District TIM Managers, the majority agreed that AARs are important and that their documented results also serve as an excellent mechanism for sharing lessons learned, regardless of where the incident and corresponding AAR took place.

Steps to Get There

ID	Action Item	Timeline
4	**After-Action Reviews**	
4.1	**After-Action Reviews (AARs)** Strategic Direction: Continued recognition of AARs as central to the overall, ongoing TIM enhancement process. Establish formats for conducting AARs and sharing lessons learned and best practices.	
4.A	Maintain Statewide consistency in documenting AAR.	< 1 year

5 | TIM PERFORMANCE MEASURES

State of the Practice

According to FHWA's Using Data to Improve TIM, a project that is part of the agency's fourth round of Every Day Counts (EDC-4) initiatives:

(https://www.fhwa.dot.gov/ innovation/everydaycounts/edc_4/timdata.cfm),

> *"An ideal TIM program must rely on efficient data collection, analysis, and reporting to measure performance and identify where and when it can be improved. However, performance management through enhanced data collection remains elusive in many jurisdictions that either do not collect TIM data or collect data for a small percentage of traffic incidents."*

This EDC-4 project is promoting low-cost, off-the-shelf technologies such as computer-aided dispatch (CAD) integration, electronic crash reporting, traffic management center software, and a host of smart mobile devices that make data collection easier. Tools such as these enable agencies to expand the amount and quality of TIM data they collect so that trends can be recognized, areas of improvement identified, benefits measured, and programs institutionalized. In other words, data drives improvements and outcomes.

In Florida, responder agencies are well-positioned with technology where police, fire, EMS, and Road Rangers use mobile computing to capture data associated with various activities. For example, nearly 400 law enforcement agencies are approaching 100% electronic crash reporting and more than 90% electronic citation collection. The three principal TIM performance measures, defined below, are collected at the RTMC level as well as on the FHP traffic crash report.

1. **Roadway Clearance Time (RCT)** – The time between the first recordable awareness of an incident by a responsible agency and the first confirmation that all lanes are available for traffic flow
2. **Incident Clearance Time (ICT)** – The time between the first recordable awareness of an incident by a responsible agency and the time at which the last responder has left the scene
3. **Secondary Crashes** – The number of unplanned crashes beginning with the time of detection of the primary crash where a collision occurs either a) within the incident scene or b) within the queue, including the opposite direction, resulting from the original incident

The next version of the statewide traffic crash report used by all agencies will contain these metrics as well.

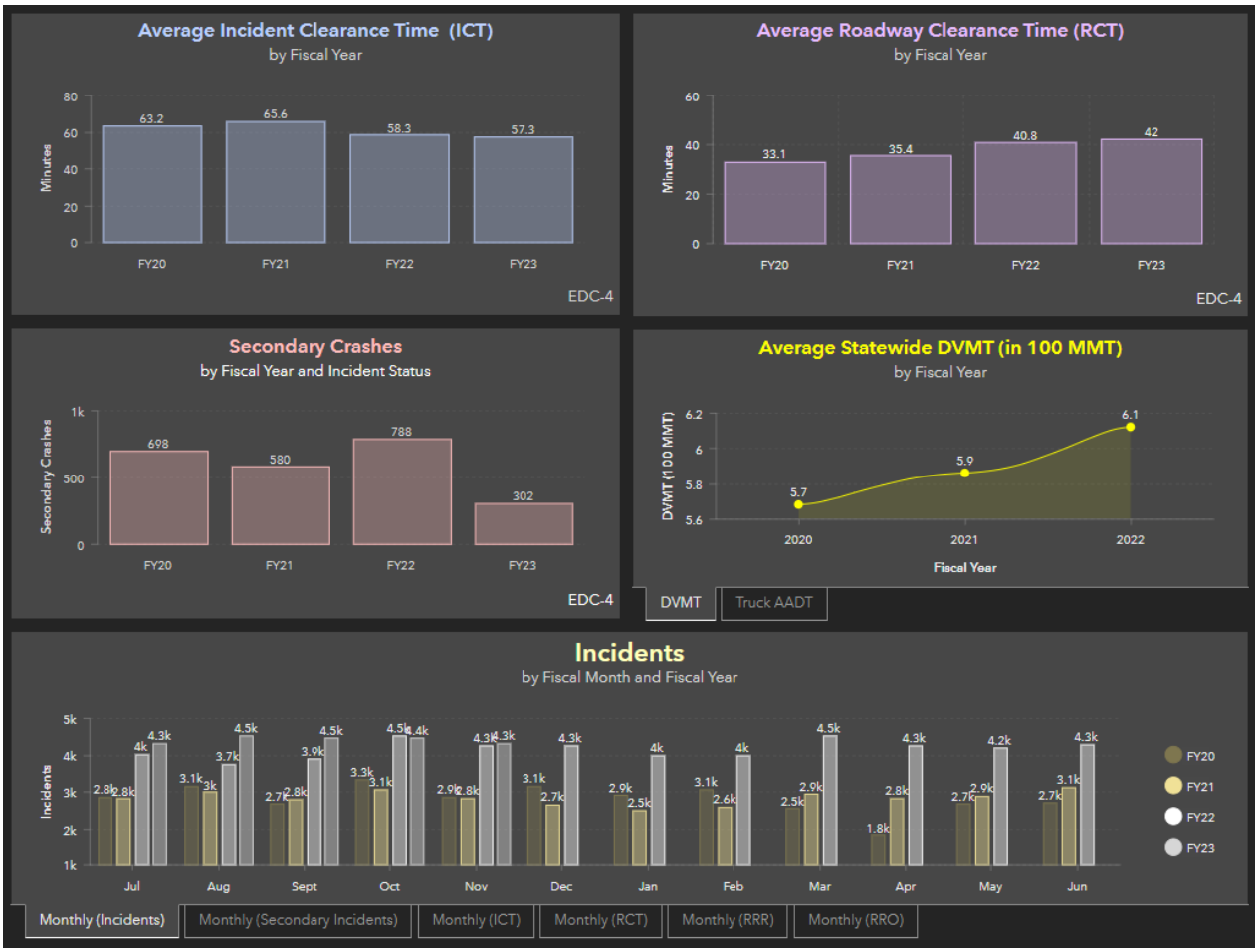
Strategic Direction

In Florida and nationwide, TIM data collection and performance monitoring and measuring are critical to advancing TIM. Data drives improvements and outcomes, demonstrates program effectiveness, and helps justify future planning and investments. Also, there is a need to increase the quantity and quality of TIM data and the application of descriptive analytics will enable the presentation of primary performance measures to stakeholders in an easy-to-digest format. Lastly, measuring TIM performance is consistent with FDOT's 2017 TSM&O Strategic Plan that identifies the need to establish goals to reduce all lanes cleared time (i.e., RCT) and to reduce secondary crash rates in order to measure improvements to mobility and safety, respectively.

Steps to Get There

ID	Action Item	Timeline
5	**TIM Performance Measures**	
5.1	**TIM Performance Measures** Strategic Direction: TIM data collection and performance monitoring and measuring are critical to improving TIM, demonstrating program effectiveness, and justifying future planning and investments.	
5.A	Improve and enhance TIM data collection efforts.	Ongoing
5.B	Develop TIM training TIM Performance measures data analysis, reporting, and visualization guidance document.	Ongoing
5.C	Establish district-by-district goals relative to TIM Performance Measures for routes and route segments where TIM measures are employed.	Ongoing
5.D	Report TIM outcomes relative to performance measures goals established in the 2014 Open Roads Policy Agreement between FDOT and FHP.	Ongoing
5.E	Establish consistency among RTMCs for data collection.	Ongoing

Specific dates were provided for consistency with FDOT's 2017 TSM&O Strategic Plan.



6 | TIM LAW OUTREACH AND PUBLIC EDUCATION

State of the Practice

There are two laws in Florida involving TIM. The Move Over Law (Florida Statute 316.126(1)(b) requires drivers to move over one lane, when it is safe to do so, for stopped law enforcement, emergency, sanitation, utility service vehicles, and tow trucks or wreckers. If it is unsafe to move over one lane, or when on a two-lane road, the driver must slow to a speed that is 20 mph less than the posted speed limit. House Bill (HB) 425 amended the Move Over Law to include disabled vehicles, effective January 2024. The Driver Removal Law (Florida Statutes 316.027, 316.061, 316.063, 316.071) requires that if a damaged or disabled vehicle is obstructing traffic, the driver of the vehicle must make every reasonable effort to move the vehicle or have it moved so as not to obstruct the regular flow of traffic. If the driver cannot move the vehicle alone, he/she should solicit help and move the vehicle. If there are no injuries, motorists involved in a traffic incident or attending to a disabled vehicle are required to move their vehicle off the roadway when the vehicle is movable.

Florida's Move Over Law Florida Statute 316.126(1)(c) proactively recognizes the importance of public outreach and education of the law by including the following provision:

> *The Department of Highway Safety and Motor Vehicles shall provide an educational awareness campaign informing the motoring public about the Move Over Act. The department shall provide information about the Move Over Act in all newly printed driver's license educational materials.*

Additionally, January is designated as "Move Over Law Awareness Month" during which FHP focuses on both public outreach and enforcement efforts. As part of day-to-day operations, RTMC operators also place move-over messages on dynamic message signs (DMS) in response to incidents.

Both the Move Over and the Driver Removal Laws are promoted with highway signage, as well as through paid media in the form of billboards. The Road Rangers also participate in outreach efforts by distributing a business card that summarizes the two laws to motorists they come in contact with. Finally, FHP duty officers routinely instruct drivers to move their vehicles out of traffic in accordance with the Driver Removal Law when applicable.

FDOT promotes Move Over Law Awareness and keeping roadway responders and the public safe around traffic incidents is the national Crash Responder Safety Week (CRSW). The theme for the November 13-17, 2023 CRSW was "Protect Those Who Protect You." Annually, FDOT joins FHWA, other states, and national TIM organizations to promote CRWS through social and multi-media campaigns, DMS messaging, and information provided at visitor plazas and rest stops.

Strategic Direction

Public outreach and education for TIM laws was the top selection for 2017-18 TIM focus areas by participants of the Florida Statewide Strategic Plan Survey. This topic also generated significant discussion during the 2016 and 2017 statewide TIM workshops, resulting in the following list of potential outreach opportunities:

- Participation in the annual National Traffic Incident Response Week
- Advertisements at gas/fuel stations and/or rest areas
- Partnerships with Waze, rental car companies, AAA, and/or insurance companies
- Inclusion with the license renewal process
- Use of Dynamic Message Signs (DMS) for program public service announcements
- Message placement on the Road Ranger vehicle wraps

- Use of social media, including partner agencies (e.g., many law enforcement agencies have Facebook pages or Twitter accounts that reach a large number of people)

Opportunities to coordinate with Community Traffic Safety Teams (CTSTs) through the Statewide CTST Coalition should be explored to maximize efforts.

Steps to Get There

ID	Action Item	Timeline
6	**TIM Law Outreach and Public Education**	
6.1	TIM Law Outreach and Public Education Strategic Direction: As a top stakeholder-identified focus area, seek TIM law outreach and education opportunities such as participation in the annual National Traffic Incident Response Week, advertisements, partnerships, and use of dynamic message signs (DMS).	
6.A	Actively participate in Crash Responder Safety Week (CRSW).	Annually
6.B	Utilize Community Traffic Safety Teams (CTSTs) to identify opportunities to partner on TIM law public outreach efforts and determine if funding may be available.	1-3 years
6.C	Work with the Florida Department of Highway Safety and Motor Vehicles (FLHSMV) to develop a TIM law strategic communications plan that includes the identification of outreach opportunities and specific actions for implementation.	1-3 years
6.D	Conduct awareness campaigns and education regarding the public's role in the Move Over law.	Ongoing
6.E	Cooperate with and promote safety awareness campaigns conducted by other organizations, such as the PWOF and others.	Ongoing

7 | POLICIES AND PROCEDURES FOR INCIDENT RESPONSE AND CLEARANCE

7.1 Road Ranger Service Patrol Program

State of the Practice

The Florida Department of Transportation, Florida's Turnpike Enterprise, Miami-Dade Expressway Authority, Tampa Hillsborough Expressway Authority, and Central Florida Expressway Authority combine for more than 105 contracted freeway service patrol beats under the well-known branding "Road Rangers."

Road Rangers patrol more than 2,100 centerline miles of freeways proactively identifying incidents and clearing roadways. Road Rangers are "full-function service patrols" and as such they go beyond simple motorist assistance and are actively engaged in supporting other incident responders with temporary traffic control and incident management.

Road Ranger deployment began more than two decades ago, mainly in urban areas during peak traffic hours. Statewide program funding began in December 1999. Since then, the roadways are covered, and hours of operation have expanded greatly. All Florida freeways and limited-access facilities are currently patrolled by Road Rangers and the program is one of the largest safety service patrol programs in the nation.

During Fiscal Year 2021/2022, Road Rangers made over 489,000 assists and since the program's inception, they have made over 8 million assists. In 2021, a study funded by FDOT found that $1 spent on the Road Ranger service patrol program yielded $12.60 in benefits through reduced congestion, reduced delays, and prevention of secondary crashes. Link to the study:

FDOT plans to conduct a Statewide Road Ranger Survey for Incident Responders in the future . In the past, FDOT conducted these surveys annually. The survey has a threefold purpose:

1. Determine incident responders' opinions of the program.
2. Compare results and customer satisfaction to previous years' results;
3. Solicit comments and suggestions to improve the program from the incident responder's perspective

The annual Statewide Road Ranger Survey for Incident Responders continues to be important for continual program and TIM improvement. In addition to the annual survey for responders, Road Ranger services are routinely assessed and promoted through customer surveys and other online/website tools.

Strategic Direction

FDOT ceased allowing sponsorship on Road Ranger Vehicles in 2022 due to diminished identity of Road Rangers as an FDOT-backed TIM/safety program. This in turn has created some confusion with the motoring public receiving Road Ranger emergency services. While motorist assistance is an important part of the services provided, Road Rangers are also a vitally important part of the TIM Program in Florida and routinely assist public safety responders with advanced warning, temporary traffic control, vehicle blocking, and clearance of travel lanes.

Accordingly, FDOT has revised private sponsorship advertising standards to only allow sponsorship recognition to be displayed on signs, publications, and website. The standards will be routinely reviewed to ensure that responders and motorists understand that Road Ranger services are provided by FDOT. FDOT may take other measures to reestablish public recognition that Road Rangers are an FDOT service.

Two other Road Ranger elements that warrant review are uniforms and vehicle lighting. The original Road Ranger uniform were updated about three years ago. FDOT will continue review uniform requirement to ensure they include utility safety features and professional differentiation from private motor-assistance clubs and/or sponsoring companies. Emergency vehicle lighting systems have evolved greatly over the past decade and there is a need to revisit the most effective systems that promote safety for Road Rangers and other responders.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.1	**Road Ranger Service Patrol Program** Strategic Direction: Address program identity issues related to branding, sponsorships, and public perception of the services being provided as a "courtesy." Emphasize Road Rangers' importance as an FDOT-backed TIM/safety program. Address operational concerns, such as uniforms and emergency vehicle lighting.	
7.A	Evaluate Road Ranger standardization (with flexibility), emphasize safety, and address other operational needs based on data analysis and Road Rangers' needs.	< 1 year
7.B	Conduct Statewide Road Ranger Survey for Incident Responders and correlate them to roadways, districts, counties, and regions.	Annually
7.C	Refocus Road Ranger branding to incident response and TIM.	1-3 years

7.2 Severe Incident Response Vehicle (SIRV)

State of the Practice

In Southeast Florida, FDOT created a specialized response to certain freeway incidents to expedite coordination and communication and to provide immediate incident command presence. The Incident Response Vehicle (IRV) on the I-95 Express Lanes in Miami-Dade and the Severe Incident Response Vehicle (SIRV) Team in District 4 (Broward County Region) were created to provide an immediate FDOT Incident Command presence on the scene of major incidents. SIRV negotiates command with public safety, the private sector, FDOT responders, and RTMC operators. SIRV is an important addition to the Road Ranger and asset maintenance programs, particularly on express lane/managed lane facilities where expedited clearance is important.

Strategic Direction

IRVs provide a valuable link between FDOT and other responder disciplines, particularly considering the current trend to use asset maintenance-type contracts as a mechanism to deliver TIM support services. While the IRV and SIRV programs in South Florida are very successful, there should be some standardization of the concept going forward.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.2	**Severe Incident Response Vehicle (SIRV)** Strategic Direction: Recognize as a valuable link between FDOT and other responder disciplines including asset maintenance contractors. Identify elements and activities to standardize the program statewide.	

7.E	Explore a standardized, scalable approach for replicating select SIRV functions and activities in other districts. Evaluate SIRV duties and responsibilities for standardization (with flexibility) and possible implementation in other districts.	1-3 years

7.3 Rapid Incident Scene Clearance (RISC) Program

State of the Practice

The Rapid Incident Scene Clearance (RISC) program is an innovative, incentive-based, heavy-duty, wrecker program. Originally created for the FTE in 2004, the program has spread to all FDOT Districts. Delayed arrival times of wrecker services or arrival with the wrong type of equipment often lead to increased traffic delays and a greater risk of secondary collisions. RISC provides monetary incentives for timely response and expedited clearance of incidents involving large trucks. RISC is implemented and funded by contractual agreements between the FDOT and qualifying private towing and recovery companies. RISC is activated by either the FDOT or the on-scene FHP supervisor, and during Fiscal Year 2022/2023, seven FDOT Districts and the FTE activated RISC 499 times with bonus-incentive payments to vendors totaling $1,470,300.

Strategic Direction

RISC continues to be a national model for incentive-based towing programs. A joint operating statement between FHP and FDOT and regular training updates will benefit the coordination of efforts and the underlying RISC concept for all personnel. The boilerplate statewide RISC procedure should be revisited to accommodate current industry needs and changes in program costs.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.3	**Rapid Incident Scene Clearance (RISC) Program** Strategic Direction: Conduct routine training of FHP and FDOT personnel and clarify coordination requirements through a joint operating statement. Maintain procedural boilerplate to accommodate industry needs and program cost changes.	
7.F	Develop a statewide Joint Operating Program Statement or MOU between FDOT and FHP to strengthen understanding of RISC.	< 1 year
7.G	Establish a plan to refresh and conduct training to familiarize FHP and RTMC operators with RISC activation protocols.	< 1 year
7.H	Review and revise RISC procedure and clearance time goals to address changing operational needs and incentive structure of the program.	< 1 year

7.4 Instant Dispatch Tow

State of the Practice

For all Florida freeways, FHP is the primary response agency for traffic incidents. Like many law enforcement agencies, FHP uses a rotation wrecker allocation system to equitably distribute calls for wrecker companies. Florida Statute 321. 051(4), Florida Highway Patrol wrecker operator system; penalties for operation outside of system, states:

This section does not prohibit, or in any way prevent, the owner or operator of a vehicle involved in a crash or otherwise disabled from contacting any wrecker operator for the provision of towing services, whether the wrecker operator is an authorized wrecker operator or not. Because of this language, FHP has historically waited until a trooper arrives on the scene to establish that the driver of a crash vehicle does not have their

own preference, prior to initiating the rotation tow request. This owner's request requirement conflicts with TIM objectives of safety and quick clearance. Lane-blocking events and cases where quick clearance can benefit safety are not exempted.

Strategic Direction

Due to the requirements of the law, TIM agencies have limited flexibility. A revision of F.S. 321.051(4) could include lane-blocking events, since delaying requests for towing and recovering services further delays incident clearance and increases the exposure of responders and motorists to hazards. Because very few drivers actually make an owner request for a tow company, administrative rule changes could be made that support implementing a plan where they simultaneously dispatch a trooper and tow truck when RTMC cameras or other on-scene responders provide information that a tow is required. Such a system would expedite lane clearance and promote safety. In rare cases where the Trooper arrives to find the driver would like to make their own arrangements, the rotation towing operator could drop the vehicle at a safe location and be compensated a minimal amount, similar to a service call (driver payment) or Safe (Harbor) Tow (FDOT payment) and be placed back on top of the rotation.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.4	**Instant Dispatch Tow** Strategic Direction: FHP may seek to have F.S. 321.051(4) changed to lane-blocking events, since delaying requests for towing and recovering services further delays incident clearance and increases the exposure of responders and motorists to hazards. FHP may also consider making administrative rule changes that support implementing a plan where they simultaneously dispatch a trooper and tow truck when RTMC cameras or other on-scene responders provide information that a tow is required. Such a system would expedite lane clearance and promote safety.	
7.1	Establish an understanding with FHP on the procedure of instant dispatch tow.	< 1 year

7.5 Staged Towing Vehicles

State of the Practice

Staging tow vehicles at strategic locations and times can be an effective quick clearance strategy for certain circumstances. Staging a tow vehicle typically involves contracting those services and compensating the company at an hourly rate, regardless of whether they are used or not. Currently, FDOT uses staged tow trucks on the Howard Frankland Bridge in Tampa, and on the I-95 Express Lanes in Miami.

Strategic Direction

FDOT should consider including staged tow trucks in major roadway work zones where there are extended lane restrictions or limited to no shoulders. Stage towing arrangements should be considered in Transportation Management Plans (TMPs) required under the Federal Work Zone Safety and Mobility Rule for all major projects.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.5	**Staged Towing Vehicles**	

	Strategic Direction: FDOT should consider including staged tow trucks in major roadway work zones where there are extended lane restrictions or limited to no shoulders. Stage towing arrangements should be considered in Transportation Management Plans (TMPs) required under the Federal Work Zone Safety and Mobility Rule for all major projects.	
7.J	Develop warrants for when staged tow vehicles should be included in Express Lanes and Work Zone TMPs.	< 1 year

7.6 Safe Tow

State of the Practice

Clearing travel lanes when an incident occurs is important for safety and mobility. Vehicle disablements, crashes, or long bridges with reduced horizontal clearances/limited shoulders create a need for expedited removal of the vehicle to a safer location. A Safe Tow is a means by which a vehicle is relocated from the scene to a safe location. In Districts 2 and 5, FDOT contracts with towing providers to respond and remove vehicles from travel lanes and/or hazards. The FTE Specialty Towing and Roadside Repair (STARR) program serves a similar function when called upon. In either case, the responding company is compensated at a flat rate, based on vehicle identification. This arrangement does not supersede law enforcement towing arrangements since there is no tow away and only relocation.

Strategic Direction

The Safe Tow strategy is a relatively economical addition to the TIM toolkit and should be implemented in other districts. There is a potential to alleviate the problems created by the FHP "owner request" requirement by timely dispatch and removal to the shoulder or other safe location away from travel lanes.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.6	**Safe Tow** Strategic Direction: FDOT should consider the implementation of the strategy beyond District 2 as a means to alleviate the problems created by the FHP "owner request" requirement and facilitate timely dispatch and removal of vehicles to the shoulder or other safe locations away from travel lanes.	
7.K	Create a standard template for contracting Safe Tow in any FDOT District.	< 1 year

7.7 Mitigation of Accidental Motor Vehicle Fluid Discharges

The Florida Statewide TIM Program developed the multi-agency Guidelines for the Mitigation of Accidental Discharges of Motor Vehicle Fluids (Non-Cargo) to assist incident responders with making sound decisions concerning the handling of those situations. Instrumental to the guidelines are the reportable quantities of motor vehicle fluids and the list of actions to contain spills. The guideline was reviewed and updated in 2021. An accurate assessment of the type and quantity of a spill on the highway can have a dramatic impact on overall incident duration since the response of specialized hazardous materials resources for containment and recovery often involves several hours.

FDOT should continue to market the guide as a resource for incident responders in Florida, focusing attention on the reportable quantities' component of the guideline. Reinforcement of the guidelines should also be made during statewide responder training.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.7	**Florida Guidelines for the Mitigation of Accidental Discharges of Motor Vehicle Fluids** (Non-Cargo) Direction: FDOT should continue to market the guidelines as a resource for incident responders in Florida, focusing attention on the reportable quantities' component of the guideline. Reinforcement of the guidelines should also be made during statewide responder training.	
7.L	Conduct reminder activities related to the *Florida Guidelines for the Mitigation of Accidental Discharges of Motor Vehicle Fluids (Non-Cargo)* to maintain awareness by responders.	Ongoing

7.8 Crash Investigations

State of the Practice

When a fatality or possible fatality occurs, FHP dispatches a Traffic Homicide Investigator (THI) to the scene. The fatal crash investigation conducted by the THI is separate from the traffic crash investigation that is required by law, to avoid issues with criminal procedure should there have been a crime committed like manslaughter or vehicular homicide. The THI investigation generally involves collecting more detailed measurements, photographs, and statements which are often time-consuming.

Strategic Direction

FHP has used various types of technology for measuring fatal crash scenes for more than two decades. FDOT has purchased photogrammetry, electronic elevation/distance measuring and surveying equipment, and other types of technology to assist the agency in expediting scene processing. FHP continues to invest in procuring new robotic electronic measuring and surveying technologies to enhance crash investigation and quick clearance activities.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.8	**Crash Investigations** Strategic Direction: FDOT has purchased photogrammetry, electronic surveying equipment, and other types of technology to assist FHP in expediting crash scene processing. To keep pace with rapid advancements in these and other emerging technologies it will be important to maintain awareness of how they may apply to crash reconstruction and to articulate benefits.	
7.M	Maintain an awareness of new/emerging technologies related to crash investigations.	Ongoing
7.N	Streamline coordination with FHP on current crash investigation technologies.	Ongoing

7.9 Tagging of Abandoned Vehicles

State of the Practice

Florida Statute 316. 1945(1)(a)11, Stopping, standing, or parking prohibited in specified places, states:

> *"On the roadway or shoulder of a limited-access facility, except as provided by regulation of the Department of Transportation, or on the paved portion of a connecting ramp; except that a vehicle*

which is disabled or in a condition improper to be driven as a result of mechanical failure or crash may be parked on such shoulder for a period not to exceed six hours."

During routine patrol duties, FHP checks roadside vehicles to determine if there are any individuals present, identify if the vehicle has been used in a crime, and check the vehicle's registration status. If everything checks out, the trooper places a readily identifiable decal on the vehicle that includes the date, time, and trooper identification. This serves as a time stamp for later towing of the vehicle as abandoned pursuant to law. In many places, FHP allows Road Rangers to assist in tagging abandoned vehicles, since the use of the State Law Enforcement Radio System (SLERS) by Road Rangers provides contact with FHP dispatch. However, in some locations, FHP prohibits the Road Rangers from performing this function.

Strategic Direction

Safety is advanced by removing disabled vehicles that are stopped on freeways or in the "clear zone." FHP should review their procedures to more aggressively check and subsequently tow abandoned vehicles left on the shoulder since they present a potential safety hazard. FHP should also enlist the help and support of Road Rangers in this important practice by allowing them to "Red Tag" vehicles in all troops.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.9	**Tagging of Abandoned Vehicles** Strategic Direction: Safety is advanced by removing disabled vehicles that are stopped on freeways or in the "clear zone." FHP should review their procedures to more aggressively check and subsequently tow abandoned vehicles left on the shoulder since they present a potential safety hazard. FHP should also enlist the help and support of Road Rangers in this important practice by allowing them to "Red Tag" vehicles in all troops.	
7.O	Develop a standard operating policy or MOU that specifies FHP and FDOT roles in, and procedures for, tagging abandoned vehicles.	< 1 year

7.10 Designated Incident Response Coordinator (IRC)

State of thePractice

Management of incidents and emergencies is guided by the Incident Command System (ICS). ICS is a standardized approach to the command, control, and coordination of emergency response. ICS can be further characterized by Single and Unified Command. Under Single Command, an Incident Commander has complete responsibility for incident management. For traffic incidents that require a multiagency and multidiscipline response, Unified Command is typically utilized. Unified Command provides a structure for responding agencies and disciplines to establish a common set of incident objectives and to work together without affecting authority, responsibility, or accountability. For traffic incidents under Unified Command, FDOT may only be represented by operators at the RTMC who are not physically present at the incident scene along with other responders. Furthermore, Asset Maintenance (AM) contractors may be requested by FDOT and/or other emergency responders, with little or no notice, to provide TIM personnel and equipment support for activities such as traffic control and debris removal.

Strategic Direction

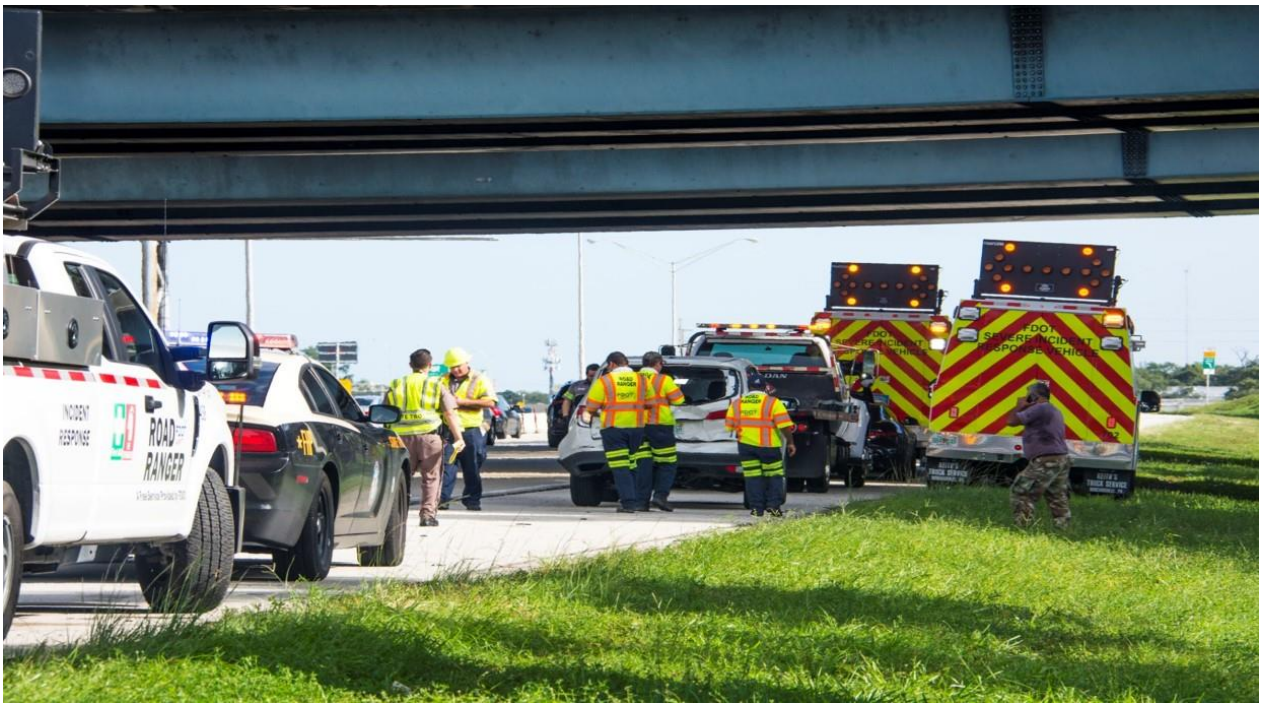
Establishing a designated Incident Response Coordinator (IRC) will help ensure that FDOT is properly represented at traffic incident scenes under ICS. This position would be filled by a manager from an AM contractor, RTMC operations contractor, FDOT on-call supervisor, or FDOT District TSM&O Office. Specific

requirements for this new position will need to be developed for the future but will likely include responsibilities such as:

- Coordination of, and communication with, FDOT TIM assets and strategies including RTMC operations, Road Rangers, and RISC.
- Coordination of detour route traffic signal timing during incidents.
- Participation in incident AARs, TIM team, and related meetings; and
- Adherence to all FDOT/FHP Open Roads Policy Agreement provisions.

Steps to Get There

ID	Action Item	Timeline
7	**Policies and Procedures for Incident Response and Clearance**	
7.10	**Designated Incident Response Coordinator (IRC)** Strategic Direction: Establishing a designated Incident Response Coordinator (IRC) will help ensure that FDOT is properly represented at traffic incident scenes under the Incident Command System (ICS). This position would be filled by a manager from an AM contractor, RTMC operations contractor, FDOT on-call supervisor, or FDOT District TSM&O Office.	
7.P	Require IRC position in future Asset Maintenance (AM) contracts and/or renewals (as appropriate).	Future contract or renewal dependent



8 | RESPONDER AND MOTORIST SAFETY

8.1 TIM Response Procedures/Guidelines

Current Conditions

In 2009, the North Florida Transportation Planning Organization (TPO), located in the FDOT District 2 region, released the TIMe4Safety DVD, which included five video modules, and a TIM handbook. The handbook addressed responder roles and responsibilities, the establishment of TIM areas, and responder safety precautions and equipment. However, aside from this District 2-specific document, existing TIM response procedures and guidelines are largely agency-specific, may not always be consistent, and sometimes not thoroughly documented.

Strategic Direction

Participants of the Florida Statewide Strategic Plan Survey overwhelming supported the need for developing model policies or procedures for the following topics:

- High-Visibility Safety Apparel Use
- Emergency-Vehicle Lighting Use at Incident Scenes
- Vehicle Positioning at Incident Scenes
- Traffic Control at Incident Scenes

These topics are addressed in the FHWA SHRP2 National TIM Responder Training Program and any policies or procedures developed should remain consistent with the training. As part of the national program, FHWA developed a supplemental guide to serve as a reference for responders that had received TIM training. It is anticipated that this document can be used as the foundation for developing a Florida-specific TIM response guideline that addresses the topics listed above.

To further improve the safety of Road Rangers, FDOT established a set of safety initiatives that incorporate modern technologies and protocols aimed at reducing Road Ranger-involved incidents. A total of seven key safety initiatives were identified, five of which are required for implementation. Required initiatives include: (1) deployment of rear-facing red and white light bars, (2) utilizing connected smart LED flares for improved nighttime visibility, (3) integration of advanced warning alerts to navigation apps (e.g., Waze, Google Maps), (4) standardization of safety messaging on DMS, such as "MOVE OVER OR SLOW DOWN FOR FLASHING LIGHTS," to promote statewide consistent messaging, and (5) development of in-person and computer-based training modules focused on daily activities for Road Rangers.

In addition to these required measures, FDOT has recommended two optional safety initiatives: truck-mounted attenuators (TMAs) and automated debris removal systems. TMAs function as mobile crash cushion systems that shield responders from high-speed impacts. Automated debris removal systems address one of the most dangerous activities performed by Road Rangers by allowing responders to remove roadway debris from the vehicle cabin, improving safety while minimizing disruption to traffic flow.

Steps to Get There

ID	Action Item	Timeline
8	**Responder and Motorist Safety**	
8.1	**TIM Response Procedures/Guidelines** Strategic Direction: Model policies or procedures consistent with the FHWA SHRP2 National TIM Responder Training Program are needed for: High-Visibility Safety Apparel Use; Emergency-Vehicle Lighting Use at Incident Scenes; Vehicle Positioning at Incident Scenes; and Traffic Control at Incident Scenes.	

8.A	Implement the FDOT Road Ranger Safety Initiatives, including five required (vehicle lighting, smart LED flares, advanced warning alerts, DMS messaging, in-person and CBT training) and two optional (TMAs and automated debris removal) recommendations to improve responder safety.	1-3 years
8.B	Update TIM Response Guidelines based on updated procedures and identified safety initiatives and strategies.	1-3 years

9 | DATA COLLECTION/INTEGRATION/SHARING

9.1 RTMC Operations and FHP Dispatch Integration

State of the Practice

Freeways in Florida are monitored with an extensive network of traffic detectors, cameras, and DMS. These Intelligent transportation systems (ITS) devices feed into RTMCs that use SunGuide® software to manage data and record incidents. To facilitate data sharing, FHP CAD data has been integrated with the SunGuide® software.

Relationships are an important part of TIM and as such, FDOT and FHP have co-located several operations throughout the state to promote cohesive interagency operations. With FHP dispatch and RTMC operators working side-by-side together, traffic incidents are more quickly identified and cleared through real-time agency coordination.

Steps to Get There

ID	Action Item	Timeline
9	**Data Collection/Integration/Sharing**	
9.1	**RTMC Operations and FHP Dispatch Integration** Strategic Direction: Consideration should be made by FDOT and FHP to move beyond simple RTMC operator and FHP dispatcher co-location and more formally integrate the operations of key personnel. Reintroducing an FHP uniformed supervisor in urban communications centers during peak periods may serve to strengthen operations between field units and the RTMC.	
9.A	Ensure RTMC designs consider physical integration of RTMC operator and public safety dispatcher, including FHP, and workspace.	< 1 year

9.2 Video Sharing

State of the Practice

The ability to access RTMC camera feeds and view incidents in real time is an extremely valuable resource for incident responders. FDOT is providing this service in some districts, but how video is shared with responders varies greatly throughout the state.

Strategic Direction

Given the importance of real-time data and information to traffic incident response, a statewide consistent policy and approach to sharing this data, including RTMC video, with TIM partners are needed. This will ensure that the investment in video infrastructure is maximized. Sharing data/video may also enhance relationships between FDOT and its partner response agencies, particularly when they begin to utilize it and recognize its value.

Steps to Get There

ID	Action Item	Timeline
9	**Data Collection/Integration/Sharing**	
9.2	**Video Sharing** Strategic Direction: Given the importance of real-time data and information to traffic incident response, a statewide consistent policy and approach to sharing this data, including RTMC video, with TIM partners are needed. This will ensure that the investment in video infrastructure is maximized.	

9.B	Identify opportunities to facilitate sharing of TMC video and data with local responders.	< 1 year
9.C	Develop a statewide policy for approval or denial of data and video sharing.	1-3 years
9.D	Develop a standard MOU for agencies that have access to the video that includes a commitment to participating in the local TIM program.	1-3 years
9.E	Share Road Ranger location data with third-party, navigation applications for sending advanced warning alerts to motorists.	Ongoing

10 | TIM CONSIDERATIONS FOR PRIORITY FOCUS AREAS

10.1 Integrated Corridor Management and Arterial TIM

State of the Practice

Florida has been highly successful in creating a statewide approach to TIM for freeways and limited-access facilities. However, incidents that occur on our freeways often have a ripple effect on local arterials, especially those that have direct access to the freeway system via interchanges. It is anticipated that the next generation of TIM in Florida will view TIM and corresponding strategies from an integrated corridor perspective that considers the impact of traffic incidents on both freeways and arterials.

FDOT's TSM&O Division has established the Statewide Arterial Management Program (STAMP). Arterial roadways constitute the majority of the State Highway System centerline miles and Daily Vehicle Miles Traveled (DVMT) and therefore arterial management has been designated as a priority focus area in the 2017 TSM&O Strategic Plan (link provided in Section 1.2). FDOT and local agencies are investing in a variety of arterial management technologies including those involving Adaptive Signal Control Technology (ASCT) and Connected Vehicles (CV) that will support the performance-based goal of improving travel times and moving vehicles and pedestrians as quickly, efficiently, and safely as possible along arterial roadways while supporting nearby limited-access facilities. As an early example, through their Arterial Management Program (AMP), District 4 is currently pursuing approaches that will leverage arterial signal control, ITS, and RTMC operations on major arterials, particularly where they intersect with freeways. Responding to traffic incidents is an important capability of the District 4 AMP initiative. Another example of arterial management technology is District 1's development of the SUN-ex smartphone application that enables event notifications to improve traffic incident response efficiency and communication.

Strategic Direction

The objective for arterial TIM and an integrated corridor approach seeks to promote safe, efficient travel on both arterials and freeways. Arterial signal coordination, enhanced signal timing at ramp locations, and systems that adapt to changing traffic patterns/volumes are foundational to seamless transitions between freeways and arterials. Many stakeholder organizations, such as local agency police, fire, and EMS that do not routinely provide freeway traffic incident response, need to be familiarized with TIM on arterials, notably for responder safety and safe quick clearance of incidents. Road Rangers and other incident response capabilities, such as an incident response vehicle can aid responders, facilitate temporary traffic control, and improve safety. It will also be important to monitor conditions on arterials both from the perspective of real-time operations as well as system/roadway performance.

Steps to Get There

ID	Action Item	Timeline
10	**TIM Actions for Priority Focus Areas**	
10.1	**Integrated Corridor Management and Arterial TIM** Strategic Direction: The objective for arterial TIM and an integrated corridor approach seeks to promote safe, efficient travel on both arterials and freeways. Many stakeholder organizations, such as local agency police, fire, and EMS that do not routinely provide freeway traffic incident response, need to be familiarized with TIM on arterials, notably for responder safety and safe quick clearance of incidents.	
10.A	Continue to leverage the FHWA SHRP2 National TIM Training Program to properly train local agencies (police, fire, EMS, towing) on arterial TIM.	1-3 years

10.B	In coordination with TSM&O Program efforts, measure and monitor arterial performance and use data to support a business case for arterial TIM.	1-3 years
10.C	Explore and potentially deploy TIM strategies such as Road Rangers, RISC, and SIRV to support non-freeways and toll roads.	1-3 years
10.D	Identify Funding Requirements for Arterial TIM	< 1 year
10.E	Identify Existing Arterial TIM Strategies	< 1 year
10.F	TIM Performance Measures and Routing Reporting Arterials	< 1 year
10.G	Develop Performance Measures Dashboard and Summary Report for Arterials	1-3 years
10.H	Develop SUN-ex Activation Criteria	< 1 year

10.2 TIM for Express Lanes

State of the Practice

Florida is a leader in the use of managed lanes, particularly express lanes, a type of managed lane. Express lanes are designed with a limited number of entrance and exit points to serve longer more regional trips. Using dynamic pricing, these facilities provide customers with a choice to pay for a more predictable travel time.

The success of 95 Express in Miami-Dade County has resulted in the expansion of similar express lane facilities in Miami-Dade, Broward, Duval, Hillsborough, Pinellas, Orange, Lake, Seminole, Volusia, and Osceola counties. TIM practices for express lanes have been established with the operation of 95 Express in Miami-Dade County, which includes the use of dedicated Road Rangers, staged flatbed tow vehicles, and overtime FHP officers for enforcement.

Express lanes are a travel choice for roadway users, and dynamic pricing is based on the congestion in the express lanes. Accordingly, TIM strategies must focus on providing a reliable trip. Express lanes operating procedures outlining TIM strategies are developed in coordination with first responders, law enforcement, and Road Ranger support.

Strategic Direction

The uniqueness of express lane operations requires a dedicated approach to TIM that prioritizes resources and focuses on minimizing the amount of time that express lanes are obstructed or closed as a result of unplanned, non-recurring events and incidents.

Steps to Get There

ID	Action Item	Timeline
10	**TIM Actions for Priority Focus Areas**	
10.2	**TIM for Express Lanes** Strategic Direction: A scalable, dedicated TIM approach for facilities utilizing express lanes is needed to balance the needs of a "premium" service with operating revenue constraints. The approach would prioritize resources, based on available funding, to maximize investments.	
10.I	Monitor the development of and provide TIM-specific input to Express Lane Operations Plans/Manuals/Guidelines/staffing and associated costs. Recognize unique requirements for Express Lane incident response.	Ongoing
10.J	Develop guidelines for TIM operational practices on managed lanes.	1-3 years
10.K	Conduct training with all responders, including RTMC operators and dispatchers in conjunction with new managed lane project openings.	1-3 years
10.L	Review strategies such as dedicated Crash Investigation Sites to enhance Express Lane TIM and safety.	Ongoing
10.M	Add Managed Lanes to RRSP Scope Template	< 1 year
10.N	TIM Performance Measures and Routing Reporting for Managed Lanes	< 1 year

10.3 TIM Plan Supplement for Transportation Management Plans

State of the Practice

Section 240 of the Florida Design Manual (FDM) (Chapter 10, Volume 1 of the FDOT Plans Preparation Manual) presents requirements for developing a Transportation Management Plan (TMP) for all significant (roadway construction/work zone) projects. The FDM defines significant projects as:

A project that, alone or in combination with other concurrent projects nearby, is anticipated to cause sustained work zone impacts.

All interstate system projects within the boundaries of a designated Transportation Management Area (TMA) that occupy a location for more than three days with either intermittent or continuous lane closures.

TMPs for significant projects require three primary components: (1) Temporary Traffic Control (TTC) plan; (2) Transportation Operations; and (3) Public Information. Within Transportation Operations are TIM strategy considerations that include service patrols, incident/emergency response plans, and contract support for TIM.

TIM in work zones is routinely discussed in the context of District-level TIM Team meetings but resources to address unique needs resulting from the work zone are not consistently available.

Strategic Direction

Improving capacity and rehabilitating Florida's highways has increased the number of construction projects occurring throughout the state at any given time. The safety, mobility, and economic impacts of these dynamic work zones are significant, and TIM is a critical operational strategy to mitigate many of the negative impacts of these construction projects. Accordingly, there needs to be a better general awareness of the FDOT TMP requirements with a specific emphasis on TIM and operations. In addition, process enhancements are needed

to ensure that TIM is considered and integrated both early in the project development process and throughout the design and construction life cycle. Recognizing the importance of operations at these stages will help in leveraging existing TIM investments and program activities while allocating the proper amount of additional capital and human resources necessary for safe, effective TIM in Florida's work zones.

Steps to Get There

ID	Action Item	Timeline
10	**TIM Actions for Priority Focus Areas**	
10.3	**TIM Plan Supplement for Transportation Management Plans (TMPs)** Strategic Direction: TIM is a critical operational strategy to mitigate many of the negative impacts of roadway construction projects. Accordingly, there needs to be a better general awareness of the FDOT TMP requirements with a specific emphasis on TIM and operations. In addition, process enhancements are needed to ensure that TIM is considered and integrated both early in the project development process and throughout the design and construction life cycle.	
10.O	Explore opportunities such as annual FDOT Maintenance, Design, and Construction conferences to promote awareness of work zone TIM in the context of TMP development.	1-3 years
10.P	Assemble conference sessions, talking points, PowerPoint slides, and other documentation to facilitate work zone TIM dialogue.	1-3 years
10.Q	Develop strategies/requirements for TIM for work zones and coordinate with Design and Construction Offices.	1-3 years
10.R	Include TIM-related items in the FDOT Design Manual (FDM).	1-3 years
10.S	Explore opportunities such as annual FDOT Maintenance, Design, and Construction conferences to promote awareness of work zone TIM in the context of TMP development.	1-3 years

11. | CONCLUSION

For nearly four decades, the Florida TIM Program has been instrumental in identifying, implementing, and maintaining effective safety practices for incident responders and travelers. This Strategic Plan is designed to continue that momentum by maintaining and enhancing proven, successful strategies and activities. The plan identifies additional areas where the Florida TIM Program partners can work together to continue improving safety for incident responders and the public.

ACRONYMS

AAR	After-Action Reviews
AM	Asset Maintenance
AMP	Arterial Management Program
ASCT	Adaptive Signal Control Technology
ATMS	Advanced Traffic Management System
CAD	Computer-Aided Dispatch
CMSA	Capability Maturity Self-Assessment
CTST	Community Traffic Safety Team
CV	Connected Vehicles
CVO	Commercial Vehicle Operations
DEP	Department of Environmental Protection
DMS	Dynamic Message Signs
DOT	Department of Transportation
DVMT	Daily Vehicle Miles Traveled
EDC	Everyday Counts (FHWA)
EMS	Emergency Medical Service
ERSI	Emergency Responder Safety Institute
FACERS	Florida Association of County Engineers and Road Superintendents
FAME	Florida Association of Medical Examiners
FDM	FDOT Design Manual
FDOT	Florida Department of Transportation
FFCA	Florida Fire Chiefs' Association
FHP	Florida Highway Patrol
FHWA	Federal Highway Administration
FLHSMV	Florida Department of Highway Safety and Motor Vehicles
FPCA	Florida Police Chiefs' Association
FSA	Florida Sheriffs Association

FTBA	Florida Transportation Builders' Association
FTE	Florida Turnpike Enterprise
ICS	Incident Command System
ICT	Incident Clearance Time
IRC	Incident Response Coordinator
IRV	Incident Response Vehicle
ITS	Intelligent Transportation Systems
MOU	Memorandum of Understanding
MPOAC	Metropolitan Planning Organization Advisory Council
NHI	National Highway Institute
NUG	National Unified Goal
PIA	Past Incident Analysis
PWOF	Professional Wrecker Operators of Florida
RCT	Roadway Clearance Time
RISC	Rapid Incident Scene Clearance
RRSP	Road Ranger Service Patrol
RSLN	Responder Safety Learning Network
RTMC	Regional Traffic Management Centers
SHRP	Strategic Highway Research Program
SIRV	Severe Incident Response Vehicle
SLERS	State Law Enforcement Radio System
SSTA	Sunshine State Towing Association
STAMP	Statewide Arterial Management Program
STARR	Specialty Towing and Roadside Repair
STEALTH	**S**et the time of the incident, **T**one of discussion (e.g., nameless, rankless, etc.), **E**xecution of incident, **A**nalyze incident execution, determine **L**essons learned, **T**ie lessons learned to future improvement, and end on a **H**igh note.
STEOO	State Traffic Engineering and Operations Office

STMC	Satellite Traffic Management Center
THI	Traffic Homicide Investigator
TIM	Traffic Incident Management
TMA	Transportation Management Area
TMP	Transportation Management Plan
TPO	Transportation Planning Organization
TSM&O	Transportation Systems Management and Operations
TTC	Temporary Traffic Control
TtT	Train the Trainer

FDOT