

Next-Generation Traffic Incident Management



Local Programs



Training



Data



Technology

Header Photos Source: Enforcement Engineering, Inc

BRINGING TRAFFIC INCIDENT MANAGEMENT TO LOCAL ROADS

Traffic incident management (TIM) has proven to be an effective way to mitigate the risks associated with roadway incidents for response personnel, as well as drivers approaching the scenes. Effective TIM clears roadways faster, removes visual distractions more quickly, and ultimately restores commerce and mobility. The key concepts, principles, and strategies of TIM apply to anywhere an incident might occur.

Next-Generation (NextGen) TIM advances the idea that managing roadway incidents is not just reserved for urban freeways during rush hour. TIM is an important part of daily roadway operations for all responder disciplines on all classifications of roadways, including rural roads, arterials, and local streets, as well as Federal lands and Tribal roadways.

WHAT IS LOCAL TIM?

When all responders are trained to a common set of objectives, effective TIM is realized. This makes it critical that local responder agencies, like municipal law enforcement, fire, and public works embrace TIM as a core competency. A basic awareness and understanding of TIM supports mutual goals of public safety and community quality of life.

The first step in bringing TIM to local roads is implementing policies and procedures at the agency level that require use of TIM procedures. Training together, sharing equipment, and debriefing major roadway incidents are all ways that local responder groups can cooperate. Having local agency personnel attend TIM team or coalition meetings can further working relationships and an understanding of respective needs and concerns. Interagency agreements and management support can make sure that everyone is pulling in the same direction.

There is no one-size-fits-all approach for local TIM. There are no cost and low-cost program elements that agencies can implement to establish a local TIM program, and more advanced program elements that can be implemented when funding opportunities become available. Typically, local TIM programs start small and grow over time. The key is to get started!

A Specialized Response-Based Model for TIM

Once foundational TIM program elements are in place, local agencies can consider implementing specialized TIM elements. For example, some locations have designated incident response units that respond to more serious traffic incidents on arterial streets to help responders get the job done more safely and quickly.

A dedicated incident response vehicle can ensure that sufficient temporary traffic control devices, including cones and advance warning signs, are available. The vehicles may also be equipped with items like spill absorbent and roadway repair materials to support incident response and cleanup activities. Additionally, a knowledgeable incident response operator can help on-scene personnel negotiate command and establish strategic actions to facilitate safe, quick clearance.



Source: Enforcement Engineering, Inc



TIM on Local Roads is a Scalable Proposition

Coordination

- ▶ Regular stakeholder meetings
- ▶ After-action reviews
- ▶ Interagency agreements

Policies/Procedures

- ▶ Written TIM policies
- ▶ Unified command

Tactics

- ▶ Multi-disciplinary training
- ▶ Pre-established detour routes

Tools

- ▶ Specialty tow programs
- ▶ Incident response vehicles
- ▶ Safety service patrols
- ▶ Intelligent transportation systems
- ▶ Adaptive signal control
- ▶ Arterial dynamic message signs

STATE OF THE PRACTICE

- ▶ In Ft. Lauderdale, Florida, during the first 6 months of operation, the Severe Incident Response Vehicles (SIRV) responded to 193 lane-blocking events, saving nearly 5,000 minutes of arterial lane blockage, equating to an estimated savings of \$1.2-\$1.8 million.¹
- ▶ The Maricopa County, Arizona Regional Emergency Action Coordinating Team (REACT) responds to about 175 incidents per year and conservatively estimates a benefit cost ratio of 6.4:1.²
- ▶ An evaluation in San Antonio, Texas found that integrating incident management, dynamic message signs, and arterial traffic control helped achieve a two percent reduction in crashes.³
- ▶ In simulation studies, arterial incident management approaches reduced blockage of all lanes from 30 to 15 minutes, which reduced fuel consumption by 22 percent and emissions by 20 percent.⁴

Resources

[FHWA EDC-6 Next-Generation TIM](#)

[FHWA Traffic Incident Management Site](#)

¹ Smith, Daniel and A. Hossam. FDOT District Four Arterial Management Program. https://flprite.org/uploads/4/8/0/1/48016965/5_-_2020_winter_workshop_d4_abdel_all.pdf. Winter 2020.

² Hauser, Barbara. The Importance of Arterial Traffic Incident Management. https://www.westernite.org/annualmeetings/13_Phoenix/Presentations/Session%203B%20-%20Hauser.pdf. 7/15/13.

³ Carter, M. Metropolitan Move! Development Initiative: San Antonio Evaluation Report – Final Draft. FHWA-OP-00-017. <https://rosap.ntl.bts.gov/view/dot/2893>. May 1, 2000.

⁴ Dia, H. and N. Cottman. Evaluation of Arterial Incident Management Impacts Using Traffic Simulation. IET Digital Library. Volu 153, Issue 3, September 2006, p. 242-252.

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