Event Management Strategies

ICM Functional Area / Tactic	ICM Category	ICM High-Level Benefits								
		Safety / Response	Mobility / Accessibility	Demand Reduction / Shift	Travel choice / Decision Making	Return on / Use of Existing Investment	Efficiency / Productivity	Institutional Cooperation	Environmental Impact	Customer Experience / DOT Perception
Event Management										
Traffic Incident Management	Fundamental	•	•	•	•	•	•	•	•	•
Planned Special Event Management	Fundamental	•	•	•	•	•	•	•	•	•
Work Zone Management	Fundamental	•	•	•	•	•	•	•	•	•
Weather Responsive Traffic Management	Fundamental	•	•	•	•	•	•	•	•	•
Freight Operations and Management	Fundamental	•	•	•	•	•	•	•	•	•

Traffic Incident Management

	Traffic Incident Management (TIM)
Description	Planned and coordinated multi-disciplinary process to detect, respond to, and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible. This coordinated process involves several public and private sector partners, including law enforcement, fire and rescue, emergency medical services, transportation, public safety communications, emergency management, towing and recovery, hazardous materials contractors, and traffic information media. Benefits of traffic incident management include congestion reduction, economic savings, fuel savings, increased incident clearance times, secondary crash reduction, increased responder safety, and reduced morbidity rates. This strategy builds upon strategies already employed by the Iowa DOT and their partner agencies, where appropriate, such as: • Corridor/regional specific TIM plans • Reoccurring, multi-agency TIM training • Regularly scheduled TIM coordination meetings • After action reviews • Highway Helper Freeway Service Patrol Additional strategies that could potentially be investigated dependent on needs include: • Towing and recovery call lists – These lists are prepared, distributed and readily available to use when traffic incidents occur. Their use help to improve emergency response times, reducing overall incident duration and impact on traffic flow. • Towing incentives - Towing incentives are effectively bonuses that towing and wreckers can obtain by quickly removing incidents from travel lanes. The incentive amount varies based on how quickly the agency responds to and/or removes vehicles from the roadway. These incentives help improve incident clearance times. • Pre-staged ITS and TIM equipment – This strategy consists of deploying equipment at locations near trouble spots or where incidents may occur (e.g., work zones) so that emergency responders can use or deploy them more quickly than if they were stored at a centralized location. • Mile reference markers - This strategy consists of deploying mile post markers at frequent intervals (one tenth or two tenths mile) along the freeway so that drivers and/or motorists can quickly and accurately report the location of incidents. This reduces response time in that emergency responders can travel directly to the location rather than traveling more slowing or requesting assistance to find it.
ICM Category	• Fundamental strategy
Anticipated Benefits	• Improved safety and emergency response • Improved accessibility and mobility

	• Reduced or shifted demand • Enhanced traveler choice and decision making • Increased return on and use of existing investment • Improved transportation efficiency and productivity • Improved institutional cooperation • Reduced environmental impact • Improved customer experience and perception
Provided Functionality	• TMC incident detection • TMC incident dispatch coordination • Emergency response management
Prerequisite Functionality Required	• Network surveillance • Traffic information dissemination
Complementary and/or Supported Strategies	• Connected and automated vehicles • Smart cities • Work zone management • Predictive traveler information
Examples	• Iowa Traffic Incident Management Service Layer Plan • Kansas Traffic Incident Management Program • Wisconsin Traffic Incident Management Enhancement Program • Metro Atlanta TIME Task Force

Planned Special Event Management

	Planned Special Event Management
Description	Planned special events (PSEs) include sporting events, concerts, festivals, and conventions occurring at permanent multi-use venues. They also include less frequent public events such as parades, fireworks displays, bicycle races, sporting games, motorcycle rallies, seasonal festivals, and milestone celebrations at temporary venues. Managing travel for planned special events involves advanced operations planning, stakeholder coordination and partnerships, developing a multi-agency transportation management plan, raising awareness of public and event patrons of potential travel impacts, and coordinating agency services and resource sharing. Operational phases of planned special event management include Program Planning, Event Operations Planning, Implementation Activities, Day of Event Activities, and Post-Event Activities.
ICM Category	• Fundamental strategy
Anticipated Benefits	• Improved safety and emergency response • Improved accessibility and mobility • Reduced or shifted demand • Enhanced traveler choice and decision making • Increased return on and use of existing investment • Improved transportation efficiency and productivity • Improved institutional cooperation • Reduced environmental impact • Improved customer experience and perception
Provided Functionality	• Event coordination and management
Prerequisite Functionality Required	• Network surveillance • Traffic Information Dissemination (pre-trip and en-route)
Complementary and/or Supported Strategies	• Ramp closure • Ramp metering • Adaptive ramp metering • Network surveillance • Traffic information dissemination • Traffic incident management • Traffic signal improvements • Park and ride lots • Carpooling / vanpooling • Transportation management associations • Transit lanes • Transit incentives • Connected and automated vehicles
Examples	• G-20 Summit (Pittsburgh, PA) • 2008 Democratic National Convention (Denver, CO)

Work Zone Management

	Work Zone Management
Description	This strategy involves minimizing traffic delays, maintaining motorist and worker safety, completing roadwork in a timely manner, and maintaining access for businesses and residents. Different methods of work zone management include coordinating road projects, incident management, lane closure politics, traffic control, use of ITS, and work zone speed management.
ICM Category	• Fundamental strategy
Anticipated Benefits	• Improved safety and emergency response • Improved accessibility and mobility • Reduced or shifted demand • Enhanced traveler choice and decision making • Increased return on and use of existing investment • Improved transportation efficiency and productivity • Improved institutional cooperation • Reduced environmental impact • Improved customer experience and perception
Provided Functionality	• Work zone management • Work zone traffic control
Prerequisite Functionality Required	Depending on the specific application, could include: • Network Surveillance (portable and fixed location) • Traffic information dissemination (Portable and fixed location) • Variable speed limits • Dynamic routing • Dynamic truck restrictions • Queue warning • Flexible work hours • Carpooling/vanpooling
Complementary and/or Supported Strategies	• Traffic incident management • Active traffic management • Ramp closure • Ramp metering
Examples	Widely implemented, including: • I-75 Ambassador Bridge Gateway Project (Michigan DOT) • I-85 widening (North Carolina DOT) • I-279 Fort Pitt Bridge and Tunnel (Pennsylvania DOT) • I-94/894 (Zoo Interchange) Reconstruction (Wisconsin DOT)

Weather Responsive Traffic Management

	Weather Responsive Traffic Management
Description	Includes strategies that utilize road weather data (using field devices and vehicles) for traveler information, traffic control, and winter maintenance activities. There are three types of road weather management strategies may be employed in response to environmental threats: advisory, control, and treatment strategies. Advisory strategies provide information on prevailing and predicted conditions to both transportation managers and motorists. Control strategies alter the state of roadway devices to permit or restrict traffic flow and regulate roadway capacity. Treatment strategies supply resources to roadways to minimize or eliminate weather impacts. Many treatment strategies involve coordination of traffic, maintenance, and emergency management agencies. These mitigation strategies are employed in response to various weather threats including fog, high winds, snow, rain, ice, flooding, tornadoes, hurricanes, and avalanches.
ICM Category	• Fundamental strategy
Anticipated Benefits	• Improved safety and emergency response • Improved accessibility and mobility • Reduced or shifted demand • Enhanced traveler choice and decision making • Increased return on and use of existing investment • Improved transportation efficiency and productivity • Improved institutional cooperation • Reduced environmental impact • Improved customer experience and perception
Provided Functionality	• Winter weather maintenance management • Maintenance decision support • Roadway environmental monitoring
Prerequisite Functionality Required	• Network surveillance • Traffic information dissemination • Roadway environmental monitoring
Complementary and/or Supported Strategies	• Predictive traveler information • Dynamic routing • Flexible work hours • Telecommuting • Dynamic speed advisories • Queue warning • Connected and automated vehicles • Incident management
Examples	• Road Condition Reporting Application (Wyoming DOT) • Integrating Mobile Applications (Michigan, Nevada, Minnesota DOTs)

Freight Operations and Management

	Freight Operations and Management
Description	The use of technologies deployed to improve freight system efficiency and productivity, increase global connectivity, and enhance freight system security against common threats and terrorism. Freight operational strategies include gateway facilitation, driver identification and validation, compliance facilitation, weigh-in-motion, freight status information, and network status information. Successful implementation of one or more of these strategies could result in increased efficiency and productivity, improved reliability of service, and improved shipment and service integrity.
ICM Category	• Fundamental strategy
Anticipated Benefits	• Improved safety and emergency response • Improved accessibility and mobility • Reduced or shifted demand • Enhanced traveler choice and decision making • Increased return on and use of existing investment • Improved transportation efficiency and productivity • Improved institutional cooperation • Reduced environmental impact • Improved customer experience and perception
Provided Functionality	• Freight mobility • Commercial vehicle administration
Prerequisite Functionality Required	• Network surveillance • Traffic information dissemination • Commercial vehicle administrative and management systems
Complementary and/or Supported Strategies	• Dynamic routing • Dynamic truck restrictions • Queue warning • Connected and automated vehicles • Access control • Freight rail improvements • Intersection improvements • Traffic incident management • Work zone management • Weather responsive traffic management • Adaptive traffic signal systems
Examples	• Seattle, WA (At grade rail crossings near industrial area)