

CRISES AND DISASTER MANAGEMENT FOR TRAFFIC PLANNERS



GENTEX[®]
TRAINING CENTER



Introduction

Crises and Disaster Management for Traffic Planners prepares transport professionals to keep road networks moving when normal conditions collapse. Floods, fires, major collisions, protests, and infrastructure failures force rapid decisions about diversions, signal control, access, and public information. This Crises and Disaster Management for Traffic Planners Training Course builds the planning and command skills those moments demand. Participants examine emergency planning frameworks, incident command structures, traffic incident management practice, and evacuation modelling. Furthermore, the course covers resilience assessment, network contingency planning, and coordination with police, emergency services, and media. It also addresses recovery and post-event review. As a result, participants leave able to plan for disruption before it happens and manage the network through it.

Crises and Disaster Management for Traffic Planners Course Objectives

- Apply emergency management phases (mitigation, preparedness, response, recovery) to transport networks.
- Build incident command structures using the ICS and JESIP joint working principles.
- Plan traffic incident management responses for major collisions and blockages.
- Design diversion routes and temporary traffic management schemes.
- Model evacuation and network demand using transport modelling tools.
- Apply resilience assessment frameworks and criticality analysis to road networks.
- Develop network contingency plans for severe weather and infrastructure failure.
- Coordinate multi-agency response with police, fire, ambulance, and highway authorities.
- Manage public information, travel advice, and media messaging during disruption.
- Conduct post-incident reviews and update plans from lessons learned.



Course Methodology

The course applies interactive, practice-based methods:

- Facilitated workshops using real incident timelines.
- Tabletop and map-based scenario exercises.
- Simulation of diversion design and traffic management layouts.
- Case studies of major incidents and network failures.
- Group work building contingency and recovery plans.
- Action planning that converts each framework into a planning commitment.

Who Should Take This Course

- Traffic and transport planners.
- Network managers and traffic control centre staff.
- Highway and road authority engineers.
- Emergency planning and resilience officers.
- Traffic police and incident response coordinators.
- Consultants working on transport contingency planning.

Crises and Disaster Management for Traffic Planners Course Outlines

Day 1: Foundations of Crisis and Disaster Management

- Defining crisis, emergency, and disaster in transport terms.
- Reviewing the four emergency management phases.
- Understanding risk, vulnerability, likelihood, and impact.

LEARN BOLD. LEAD BEYOND

GENTEX Training Center LLC | Orlando - FL, USA
Info@gentextraining.com



- Examining transport system dependencies and cascading failures.
- Reviewing legal duties and statutory responsibilities.
- Assessing your network's current resilience baseline.
- Mapping key stakeholders and response partners.

Day 2: Incident Command and Multi-Agency Response

- Applying the Incident Command System (ICS) structure.
- Using JESIP principles for joint emergency response.
- Defining roles: incident commander, traffic manager, and liaison officers.
- Running structured situation reports and briefings.
- Managing communications across agencies and control rooms.
- Handling conflicting priorities under time pressure.
- Practicing command decisions in tabletop exercises.

Day 3: Traffic Incident Management and Diversions

- Applying traffic incident management (TIM) principles.
- Classifying incidents by severity and clearance time.
- Designing diversion routes and alternative corridors.
- Planning temporary traffic management and lane closures.
- Managing signal timing, ramp metering, and variable message signs.
- Restoring capacity quickly after clearance.
- Designing a diversion plan in a live exercise.

Day 4: Evacuation, Modelling, and Network Resilience

- Planning evacuation routes and reception capacity.





- Using transport modelling tools such as SUMO and macrosimulation packages.
- Forecasting demand under disruption scenarios.
- Conducting criticality and resilience assessment of network links.
- Identifying single points of failure and vulnerable assets.
- Planning contingency for severe weather, flooding, and utility failure.
- Building a network contingency plan outline.

Day 5: Communication, Recovery, and Continuous Improvement

- Managing public information and travel advice.
- Working with media and social platforms during disruption.
- Supporting vulnerable road users and communities during evacuation.
- Planning recovery and network restoration sequencing.
- Conducting post-incident reviews and debriefs.
- Applying lessons learned to plans, training, and exercises.
- Finalizing a crisis management action plan for your network.

Conclusion

By successfully completing Crises and Disaster Management for Traffic Planners, participants will have acquired practical knowledge for managing road networks through disruption, covering emergency phases, incident command, traffic incident management and diversions, evacuation modelling, resilience assessment, and recovery planning. They will have gained skills in network contingency planning, multi-agency coordination, diversion design, and crisis communication, plus a personal action plan. Gentex Training Center designed this program to help planners keep networks moving when it matters most.



FAQs

Q1 What is the "Crises and Disaster Management for Traffic Planners" course about?

It prepares transport professionals to plan for and manage network disruption. Participants study emergency phases, incident command, traffic incident management, diversion design, evacuation modelling, resilience assessment, crisis communication, and recovery planning.

Q2 What are the key benefits of the "Crises and Disaster Management for Traffic Planners" course?

Participants gain faster, better-structured incident response, clearer diversion planning, and stronger multi-agency coordination. Authorities also reduce network downtime, communicate travel advice more effectively, and shorten recovery times after major incidents.

Q3 What skills will I gain from the "Crises and Disaster Management for Traffic Planners" course?

You will develop four core skills: transport crisis and incident command, traffic incident management and diversion design, evacuation planning and network resilience assessment, and crisis communication with post-incident review.



Q4 What tools, methods, or standards are covered in the "Crises and Disaster Management for Traffic Planners" course?

The course covers the four emergency management phases, the Incident Command System (ICS), JESIP joint working principles, traffic incident management (TIM) practice, diversion and temporary traffic management design, variable message signs and ramp metering, transport modelling tools such as SUMO, criticality and resilience assessment, and post-incident review methods.

Q5 How is the "Crises and Disaster Management for Traffic Planners" course applied in real-world practice?

Participants apply the methods to live planning tasks, such as building an incident command structure, designing a diversion route, modelling evacuation demand, drafting a contingency plan, and running a post-incident debrief. Each module ends with an action commitment, so learning transfers directly into planning practice.