Notice

This module was prepared by the City College of New York and New York City Department of Transportation in the course of performing work contracted for and sponsored by the New York State Energy Research and Development Authority (hereafter “NYSERDA”). The opinions expressed in this module do not necessarily reflect those of NYSERDA or the State of New York, and reference to any specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of it. Further, NYSERDA, the State of New York, and the contractor make no warranties or representations, expressed or implied, as to the fitness for particular purpose or merchantability of any product, apparatus, or service, or the usefulness, completeness, or accuracy of any processes, methods, or other information contained, described, disclosed, or referred to in this module. NYSERDA, the State of New York, and the contractor make no representation that the use of any product, apparatus, process, method, or other information will not infringe privately owned rights and will assume no liability for any loss, injury, or damage resulting from, or occurring in connection with, the use of information contained, described, disclosed, or referred to in this module.

NYSERDA makes every effort to provide accurate information about copyright owners and related matters in the reports we publish. Contractors are responsible for determining and satisfying copyright or other use restrictions regarding the content of reports that they write, in compliance with NYSERDA’s policies and federal law. If you are the copyright owner and believe a NYSERDA document has not properly attributed your work to you or has used it without permission, please email print@nyserda.ny.gov.

Information contained in this document, such as web page addresses, are current at the time of publication.
Guidebook

Topics discussed in this module are detailed in **Chapter 2** of:

*Complete Streets Considerations for Freight and Emergency Vehicle Operations*
Module 2 Outline

• Demand for Emergency Services
• Emergency Service Providers
• Emergency Service Vehicles
• Emergency Response Infrastructure
• Emergency Service Regulations
• Common Emergency Operator Challenges
Demand for Emergency Services
Medical Emergencies

• Life threatening
• Non-life threatening
Fires

• Structural fires
• Non-structural fires
Crimes

- Critical
- Serious
- Non-critical
Emergency Service Providers
Emergency Medical Services

- Basic life support (BLS)
- Advanced life support (ALS)
- Government
- Private
- Volunteer
Fire Protection

• Fire Department
• Fire District
• Professional
• Volunteer
Typical Fire Department Structure

- **Fire Department**
  - **Fire Chief** (Fire Commissioner)
  - **Battalions**
    - **Battalion Chief**
  - **Stations**
    - **Captain**
    - **Engine/Truck /Ladder Companies**
    - **Lieutenant Chauffer Firefighters**

- **Specialized Units**
Police

- Public safety
- Traffic control & parking enforcement
- Municipal Police
- County Sheriff
- State Police
Other Emergency Service Providers

- Corrections officers
- Military and civil defense authorities
- Blood transporters
- Environmental/Hazmat response
- Sanitation patrols
Stakeholder Engagement

• Fire chief – fire lane regulation
• Chauffer – vehicle/apparatus operations

<table>
<thead>
<tr>
<th>Methods of Outreach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted invitations to public meetings</td>
</tr>
<tr>
<td>Regular inter-departmental meetings</td>
</tr>
<tr>
<td>Technical advisory committee</td>
</tr>
</tbody>
</table>
Emergency Service Vehicles
Ambulances

• Chassis w/ integrated cab
• Cab-chassis w/ modular body
• Cutaway van w/ modular body
Fire Apparatus

- Engine
- Foam pumper
- Tanker
- Aerial ladder
- Aerial platform
- Tiller
Police Vehicles

• Sedans
• SUVs
• Passenger vans
• Pedestrian-friendly vehicles
• Specialized vehicles
Buildings

• Hospitals
• Fire stations
• Police stations
Roads

- Fire lane
- Fire access road
Fire Hydrants
Frontage Space

• Parking
• Staging and operations
  – Opening doors
  – Accessing equipment and ladders
  – Connecting hoses
  – Deploying ladders and stabilizers
Emergency Service Regulations
Local Fire Code

- Access roads design
- Frontage space
- Authorities granted to fire commissioner/chief
  - Turning radius requirements
  - Parking restrictions
Traffic Regulations

• Operating exceptions for vehicles responding to an emergency
  – Stopping location
  – Turning movements
  – Directionality
  – Speed Limit

• Operator must still maintain public safety
Performance Standards

• National Fire Protection Association (NFPA) Standards
  – 1710: Professional
  – 1720: Volunteer

• Establish minimum response times
  – Emergency medical services – cardiac arrest
  – Fire response – flashover
Adherence to Performance Standards

• Debate in medical community regarding response time as a performance measure
• May be contractually obligated
• Even if voluntary, provider may be subject to litigation for failure to meet “expected standard of care”
Parking Regulations

• Maintain minimum travel width on fire lanes/fire access roads
• Maintain fire hydrant access
Truck Size and Weight Regulations

- Fire apparatus frequently exempted from truck size and weight regulations
- Independent regulations may exist (e.g. wider vehicle width)
Common Emergency Operator Challenges on Complete Streets
Navigation Challenges

1. Navigating restricted turns.
2. Conflicts with vulnerable roadway users.
4. Maintaining reasonable route access on everyday and alternative paths.
Curbside Challenges

1. Finding adequate space for parking, firefighting operations, and deployment of aerial ladders and platforms.

2. Finding safe and efficient paths to access sidewalks and buildings.
Approaches to Address Challenges

• Discussed in detail in *Module 3: Street Design and Management Considerations*