

## General Operating Guideline:

# Roadway & Highway Operations

**Purpose:** To provide responders with a uniform guide for safe operations while working incidents on Manchester's roadway and highway systems.

**Policy:** MFRE responders will utilize all safety equipment and methods available to provide a safe working area while operating on Manchester's roadway and highway systems.

- **General** – Providing a safe working area is a priority at every scene. MFRE personnel should understand and appreciate the high risk while operating at an incident on a roadway and/or highway system. Personnel must operate in a defensive posture, always considering moving vehicles as a threat to safety. Personnel must be aware that our own actions, inactions and practices can make a scene a more hazardous workplace (i.e. white strobe lights, headlights, non-reflective wear, failure to properly identify and block temporary work zone areas, saturation of work area with non-task assigned personnel).
  - **Assignment** – Any incident (fire, medical, rescue, etc) where the work area is a roadway will receive a minimum of a Level-II response; Code-2 unless otherwise defined. Any call on a limited access highway will receive a minimum Level II response Code 3.
  - **Terminology** – Observe the following:
    1. **Advanced warning** – Notification procedures that advise approaching motorists to transition from normal driving status to that required by the temporary emergency traffic control measured ahead of them.
    2. **Block** – Positioning fire department apparatus on an angle to the lanes of traffic creating a physical barrier between upstream traffic and the work area.
    3. **Buffer zone** – The distance or space between personnel and vehicles in the protected work zones and nearby moving traffic.
    4. **Shadow** – The protected work area at a roadway incident that is shielded by the block from apparatus.
    5. **Downstream** – The direction that traffic is moving as it travels away from the incident scene.
    6. **Upstream** – The direction that traffic is traveling from as the vehicles approach the incident scene.
    7. **Temporary work zone** – The physical area of a roadway, within which emergency personnel perform the fire, EMS and rescue tasks.
  - **Response** – Responding units will make every effort to minimize risk of injury to themselves, customers and those who are using the roadway or highway system:
    1. Use visible and audible warning devices appropriately for mode of response.
    2. Median strip crossovers (usually marked "Authorized Vehicles Only") shall be used for turning around and crossing to other travel lanes only when emergency vehicles can complete the turn without unreasonable risk to the responders or other vehicles in either travel direction.
    3. Use of U-turn in "Jersey" barriers is extremely hazardous and shall be utilized only when the maneuver is necessary (and without unreasonable risk) for immediate lifesaving measure.
    4. Response in the opposing direction on one-way entrance or exit ramps shall not be permitted, unless it is confirmed a public safety agency has stopped opposing traffic from ramp use and the on-board officer has determined that it is a reasonable and safe act to commit based on immediate conditions of the ramp and proximity of the emergency scene. If no officer is on-board, the shift commander (or incident commander) must grant authorization to a specific request by the apparatus/unit operator when the operator has determined it is a reasonable and safe act to commit.
  - **Apparatus positioning** – The initial officer on the scene must assess the parking needs of later arriving apparatus and specifically direct the parking and placement of these vehicles as they arrive to provide protective blocking of the scene. This officer is also the initial safety officer for the incident.
- Responding apparatus, upon arrival, shall position as follows unless circumstances prohibit this guide in which case the incident commander (or operator, if command has not yet been established) shall position apparatus in such a manner as to provide the safest work area possible.
1. First-arriving apparatus shall park to create a temporary work zone that protects personnel from on coming traffic in at least one direction. Block the most critical or highest volume direction first. The apparatus should be placed at a 45-degree angle to the curb. The buffer zone should be no closer than 50 feet to the incident action area. Whenever possible, the angle of the apparatus should protect

anyone at the pump panel or control area. Operators should have front wheels rotated away from the incident. First arriving apparatus will block only those travel lanes necessary to provide a safe working area.

2. Second-arriving apparatus shall position at the next critical position, either further blocking the first arriving apparatus with appropriate distancing, widening the initial blocked area, at least one lane wider than the width of the incident, or "boxing" in the work area, leaving room on the downside for an appropriately sized work area. A 45-degree angle is preferred. The position of the apparatus shall take into consideration all factors that limit the sight distance of the approaching traffic including ambient lighting conditions, road conditions, weather related conditions, curves, bridges, hills and overpasses/underpasses.
- Exiting apparatus – All responders shall take the following precautions:
    1. Always maintain an acute awareness of the high risk of working around moving traffic.
    2. Exit on curb side, or non-traffic side, if possible.
    3. Before exiting the apparatus check to assure you are safely entering the roadway.
    4. Look down to recognize debris that could injure you or be projected into the work zone. Remove debris hazard if/when safe to do so.
    5. NEVER turn your back on traffic.
    6. NEVER trust the traffic.
    7. Don PPE or high-visibility reflective vests once outside apparatus.
  - Parking of support vehicles – Responding support vehicles (shift commander, fly-car, ambulance) should not be used as blocking units and should position downstream and in the shadow of the blocking apparatus. The same precautions and requirements, as applied above to apparatus, shall be observed by personnel assigned to support vehicles.
  - Temporary work zone – The temporary work zone could be considered the "hot zone," in which all personnel are considered to be at risk of being struck by a moving vehicle. The temporary work zone includes the path of travel from apparatus or support vehicles to the area of operations. Personnel staging (unassigned human resources) shall stay within the temporary work zone. Incident commanders and personnel must remain vigilant at all times; even with proper actions personnel remain at risk from moving vehicles. Safety within the temporary work zone must be continually monitored and safety needs must be addressed as they arise.
  - Scene safety – Observe the following:
    1. During daytime operations, all visible warning devices shall be on to provide warning to drivers of vehicles approaching the scene.
    2. During nighttime operations, white strobes should be shut-off and

response apparatus/units headlights, if facing oncoming traffic, should be turned off, emergency lighting should be reduced as much as possible and consideration must be given to overall scene lighting.

3. Staging of vehicles, not involved in the temporary work zone or used for blocking, shall be outside of the immediate work area, generally downstream of the work area or otherwise where opposing traffic is not a significant concern.
4. For anticipated prolonged operations, traffic cones may be utilized to give drivers of opposing vehicles early warning they are approaching a temporary work zone. Utilize the following chart:

POSTED SPEED LIMIT	DISTANCE
35 mph	100 feet
45 mph	150 feet
55 mph	200 feet
Over 55 mph	250 feet

5. Remain vigilant during all phases of highway operations.
6. The Fire-Police are not a viable option for maintaining scene safety on highways.
  - Clearing traffic lanes – Once operational phases are completed, apparatus may be repositioned to allow traffic to flow on as many lanes as possible. Unnecessary closing or restricting lanes increases the risk of a secondary incident. Crews, apparatus and equipment should be removed promptly to reduce exposure to traffic.
  - Terminating the incident – Termination of the incident must be managed with the same aggressiveness as initial actions.
  - PPE and high-visibility vests – Any MFRE personnel on scene (assigned, solicited or self-initiated) shall be required to wear a full PPE ensemble or high-visibility reflective vest while in the temporary work zone or immediate area of incident. This includes line or staff personnel from any division. Apparatus and response vehicles are issued a supply of code compliant high visibility vests and all shift commanders and staff officers have been issued personal vests for use. The incident commander or safety officer is required to challenge any MFRE personnel not in compliance with this requirement.