

Traffic Accidents and Vehicle Fire Response

407.1 PURPOSE AND SCOPE

This document provides procedures for Eulesse Fire Department personnel responding to motor vehicle collisions and vehicle fires. This procedure identifies traffic safety practices for Eulesse Fire Department apparatus and vehicles that will provide maximum protection and safety for personnel operating in or near moving vehicle traffic. It shall be the policy of the Eulesse Police and Fire Department to position apparatus and other emergency vehicles at an incident on any street, road, highway or expressway in a manner that best protects the incident scene and the work area.

Always consider moving vehicles as a threat to your safety.

Corresponding Policies:

- Emergency Response
- Fireground Accountability
- High-Visibility Safety Vests
- Incident Management
- Staging
- Traffic Incident Management System and Roadway Incidents

407.2 DEFINITIONS

The following terms shall be used during incident operations, post-incident analysis, and training activities related to working in or near moving traffic.

1. Advance Warning - Notification procedures that advise approaching motorists to transition from normal driving status to that required by the temporary emergency traffic control measures ahead of them.
2. Block - Positioning a fire department apparatus on an angle to the lanes of traffic creating a physical barrier between upstream traffic and the work area. Includes "block to the right" or "block to the left".
3. Buffer Zone - The distance or space between personnel and vehicles in the protected work zone and nearby moving traffic.
4. Downstream - The direction that traffic is moving as it travels away from the incident scene.
5. Flagger - A fire department member assigned to monitor approaching traffic and activate an emergency signal if the actions of a motorist do not conform to established traffic control measures in place at the highway scene.
6. Shadow - The protected work area at a vehicle-related roadway incident that is shielded by the block from apparatus and other emergency vehicles.
7. Taper - The action of merging several lanes of moving traffic into fewer moving lanes.

Traffic Accidents and Vehicle Fire Response

8. Temporary Work Zone - The physical area of a roadway within which emergency personnel perform their fire, EMS and rescue tasks at a vehicle-related incident.

9. Transition Zone - The lanes of a roadway within which approaching motorists change their speed and position to comply with the traffic control measures established at an incident scene.

10. Upstream - The direction that traffic is traveling from as the vehicles approach the incident scene.

11. Intermediate Traffic Accidents – Incidents that will affect lanes of travel for a period of 30 minutes to 2 hours.

Intermediate incidents will include the use of cones to create a taper at the SECONDARY BLOCK, with the utilization of an advanced warning sign, approximately 500 feet upstream with a mandatory "Flagger" position.

12. Major Traffic Incidents – Incidents involving hazardous materials, fatalities, and those with numerous vehicles. Incidents that last 2 hours or more.

Major incidents include the use of all temporary traffic control devices as previously stated as well as notifying TXDOT for assistance.

407.3 APPARATUS VEHICLE BENCHMARKS

Listed below are benchmarks for Safe Parking of apparatus and emergency vehicles when operating in or near moving traffic.

1. Assign a parking location for all ambulances, as well as later-arriving apparatus. Many times additional apparatus should be parked off of the roadway. Lanes of traffic shall be identified numerically as "Lane 1", "Lane 2", etc., beginning from the left (inside) to the right (outside) when right and left are considered from the approaching motorist's point of view.

2. Always position first-arriving apparatus to protect the scene, patients, and emergency personnel. (PRIMARY BLOCKER)

a. Angle apparatus on the roadway with a "block to the left" or a "block to the right" to create a physical barrier between the scene and approaching traffic. Keep in mind that the direction of your block will influence the flow of traffic.(If you want traffic to move right, block right.)

b. Use fire apparatus to block at least one additional traffic lane more than that already obstructed by the incident.

c. When practical, position apparatus in such a manner to protect the pump operator position from being exposed to approaching traffic.

d. The position of this apparatus shall take into consideration all factors that limit sight distance of the approaching traffic including ambient lighting conditions, weather-related conditions, road conditions, design curves, bridges, hills and over- or underpasses.

Traffic Accidents and Vehicle Fire Response

3. Positioning of large apparatus must create a safe parking area for EMS units and other fire vehicles. Operating personnel, equipment and patients should be kept within the "shadow" created by the blocking apparatus at all times.
4. When blocking with apparatus to protect the emergency scene, establish a sufficient size work zone that includes all damaged vehicles, roadway debris, the patient triage and treatment area, the extrication work area, personnel and tool staging area and the ambulance loading zone.
5. Ambulances should be positioned within the protected work area with their rear patient loading door area angled away from the nearest lanes of moving traffic.
6. Staging of additional companies off the highway may be required.
7. At all intersections, or where the incident may be near the middle lane of the roadway, two or more sides of the incident will need to be protected. Request additional resources early.
 - a. Police vehicles must be strategically positioned to expand the initial safe work zone for traffic approaching from opposing directions. The goal is to effectively block all exposed sides of the work zone. The blocking of the work zone must be prioritized, from the most critical or highest traffic volume flow to the least critical traffic direction.
 - b. For first arriving engine or truck companies where a charged hose line may be needed, additional blocking resources should be requested to protect the pump panel.
 - c. At intersection incidents, consider requesting police response. Provide specific directions to the police officers as to exactly what your traffic control needs are. Ensure that police vehicles are parked in a position and location that provides additional protection of the scene.
8. Personnel shall place cones and flares and retrieve cones while facing oncoming traffic. An additional spotter is very beneficial when retrieving cones.
9. Traffic cones shall be deployed at an approximate interval dependent on the posted speed limit of the roadway, 60mph = 60 feet spacing between cones, 45mph = 45 feet spacing between cones. This will create adequate advance warning to drivers.
10. Traffic cones shall be tapered from the rear of the blocking apparatus toward approaching traffic to increase the advance warning provided for approaching motorists. Cones identify and only suggest the transition and tapering actions that are required of the approaching motorist.
 - (a) Consider extending the cones downstream to clearly indicate where normal traffic can resume.
11. Traffic cones shall be deployed at an approximate interval dependent on the posted speed limit of the roadway.

60mph = 60 feet spacing between cones
45mph = 45 feet spacing between cones
This will create adequate advance warning to drivers.

Traffic Accidents and Vehicle Fire Response

12. Additional traffic cones shall be retrieved from PD units to extend the advance warning area for approaching motorists.

13. The termination of the incident must be managed with the same aggressiveness as initial actions. Crews, apparatus, and equipment must be removed from the highway promptly, to reduce exposure to moving traffic and minimize traffic congestion.

407.4 FIRST FIVE MINUTES

The first arriving Eules Fire Department unit should:

#Contact Dispatch and provide the following information:

- Unit on-scene
- Initial scene size-up
- Unit Establishing Incident Command (IC)

The IC should:

#Establish the department accountability system for all personnel on scene.

#Perform or direct another member to perform a 360 assessment to identify:

- Hazardous materials (HAZMAT) placards.
- Badges or labels indicating hybrid, electric, or alternative fuel vehicles such as:
 - Hybrid
 - High Voltage
 - Zero Emission
 - Compressed natural gas ("CNG" in blue diamond, passenger side rear)
 - Liquid natural gas ("LNG" in black diamond on fuel tank and/or rear of vehicle)
 - Liquid Propane Gas ("LPG" in blue diamond, rear of vehicle)
 - Liquid/compressed hydrogen ("H2" in blue diamond, rear of vehicle)
- Overhead wires or other involved utility equipment.
- Leaking or venting motor fuel, liquid propane (LP) or compressed natural gas (CNG), or other HAZMAT conditions.
- Vehicle stability.
- Total number of victims and initial triage.
- Fallen utility lines.
- Any other conditions that could interfere with extrication operations or create an immediately dangerous to life and health environment.

Traffic Accidents and Vehicle Fire Response

#If a commercial vehicle is involved, reasonable efforts to locate the driver should be made to determine what is being carried and the presence of hazardous materials.

#If any of the following indicators or conditions are present, develop an initial incident action plan and respond in accordance with the DOT Emergency Action Guide, alternative fuels emergency field guide used by the department, and the Hazardous Materials Initial Incident Response Procedure:

- A HAZMAT placard, material safety data sheet or notice
- A visible HAZMAT
- Presence of leaking motor fuel
- Leaking or venting LP or CNG tanks
- Badges or other indicators that the vehicle is alternative fuel, electric, or hybrid

#If it reasonably appears hazardous materials are present, including leaking or venting motor fuel, LP, or CNG, suppression operations should not begin until the IC or the Incident Safety Officer approves.

#Call for any additional resources required.

407.5 PROCEDURES

All emergency personnel are at great risk of injury or death while operating in or near moving traffic. There are several specific tactical procedures that should be taken to protect all crewmembers and emergency service personnel at the incident scene including:

1. Never trust approaching traffic.
2. Avoid turning your back to approaching traffic.
3. Establish an initial "block" with the first arriving emergency vehicle or fire apparatus.
(PRIMARY BLOCKER)
4. The initial company officer and/or Incident Commander must operate as the Scene Safety Officer until this assignment is delegated.
5. All personnel should wear appropriate protective clothing outfitted with high visibility reflective striping and high visibility reflective vests.
 - a. Students and observers arriving on an apparatus or emergency vehicle must don high visibility reflective vest prior to exiting the vehicle.
6. All personnel should wear structural firefighting helmet. A minor, low speed impact can cause life altering injuries without the simple protection of a helmet and bunker gear.
7. Always look before opening doors and stepping out of apparatus or emergency vehicle into any moving traffic areas.

Traffic Accidents and Vehicle Fire Response

8. Turn off all sources of vision impairment to approaching motorists at nighttime incidents including vehicle headlights and spotlights. Scene lights should be used; however, care should be given to directing them toward the scene and not oncoming traffic. All white lights that can be seen by oncoming traffic should be turned off. This is done automatically on newer apparatus (per NFPA 1901).
9. Use fire apparatus and police vehicles to initially redirect the flow of moving traffic.
10. Establish advance warning and adequate transition area traffic control measures upstream of incident to reduce travel speeds of approaching motorists.
11. Use approved cones of at least 28" in height with 2 reflective bands. Pop up cones should have flasher turned on during low light times. Small utility cones should be reserved for non-roadway traffic redirection.

[See attachment: Blocking](#) Diagrams

407.5.1 RESOURCE DEPLOYMENT

Resources deployed during response to a traffic collision or vehicle fire should use the following procedures:

- (a) Apparatus
 1. The lane or lanes of traffic that are occupied by an accident should be closed to traffic as well as one additional lane to allow room for safely working around the accident scene.
- (b) Personnel
 1. Personnel should be in personal protective equipment (PPE) that is appropriate for the on-scene hazards unless otherwise advised by the IC.
 - For a vehicle fire, PPE should include a self-contained breathing apparatus (SCBA).
 - High visibility garments approved for roadway use should be worn by all personnel when not directly engaged in fire suppression activities.

407.5.2 OPERATIONS

If the vehicle is alternative, electric, or hybrid, carry out all operations according to the alternative fuel vehicle emergency field guide used by the department.

Traffic [collision] and vehicle fire response may involve the following operations:

- (a) Vehicle disabling and immobilization.
 1. When practicable and reasonable, the vehicle should be disabled:
 - (a) Place vehicle in park and turn off ignition.
 - (b) Disconnect the 12-volt battery

Traffic Accidents and Vehicle Fire Response

- (c) If the key is located, remove from the ignition. If equipped with a keyless start, move the key at least 20 feet from the vehicle to prevent unintended engagement of any proximity functions.
- 2. When practicable and reasonable, the vehicle should be immobilized:
 - (a) Approach the vehicle at an angle to avoid bumpers and other parts launched by high pressure systems and tires that may explode.
 - (b) Chock the wheels.
 - (c) Set the parking brake.
 - (d) Place vehicle in park transmission in park.
- (b) Traffic [collision] with injuries
 - 1. Standard EMS protocols for patient treatment and transport should be followed.
 - 2. Responders should avoid placing themselves between the patient and any undeployed airbags that may be located within the vehicle passenger compartment.
 - 3. Personnel should be aware of and look for cracked or overheated high voltage batteries as they can release toxic materials and fumes.
- (c) Vehicle Fire
 - 1. A water supply should be established before beginning operations. At least one 1¾-inch hoseline should be deployed.
 - 2. Personnel should approach the vehicle from the side or at an angle to avoid bumpers and other parts launched by high-pressure systems and exploding tires.
 - 3. EVs may contain lithium-ion batteries, which are prone to thermal runaway. In cases of thermal runaway involving a battery that cannot be removed from a vehicle, personnel should use copious amounts of water to cool adjacent batteries, enclosures, and exposures to allow time for the battery to burn out. Some batteries may take several hours, or even days, to fully burn out.
 - 4. Batteries that can be removed safely from a vehicle should be submerged in water or placed in a containment device designed for that purpose.
 - 5. Fires involving lithium-ion batteries or mobility devices where there is not runaway should be extinguished by using copious amounts of water.
 - 6. Due to the danger of reignition, full PPE including SCBA with facepiece should be worn at all times when working around lithium-ion that have been involved in fire or exposed to high temperatures.
- (d) Extrication
 - 1. If extrication is required, personnel should refer to the Vehicle Extrication Operations Procedure.

Traffic Accidents and Vehicle Fire Response

407.6 UNIVERSAL PRACTICES

1. All department vehicles should have a current alternative fuel emergency field guide stored with the DOT Emergency Response Guidebook (ERG). This guide should be used to develop an initial incident action plan and for ongoing operations.
2. The scene should be surveyed with a thermal imaging camera (TIC) to determine the location of any victims. For example, victims may have been ejected from a vehicle, landing away from the crash scene or hidden by trees and brush.
3. When practicable, scene preservation practices should be used to preserve evidence in case law enforcement determines a criminal investigation is required. Personnel should disturb only what is necessary to complete rescue and fire suppression operations. For example, liquor bottles or drug paraphernalia found in a vehicle should be left undisturbed or moved only to complete operations.
4. The IC should take reasonable steps to ensure that adequate gross decontamination is performed before releasing units from any scene where personnel were exposed to potentially harmful substances including:
 - Smoke.
 - Soot.
 - Body fluids.
 - Hazardous Materials.

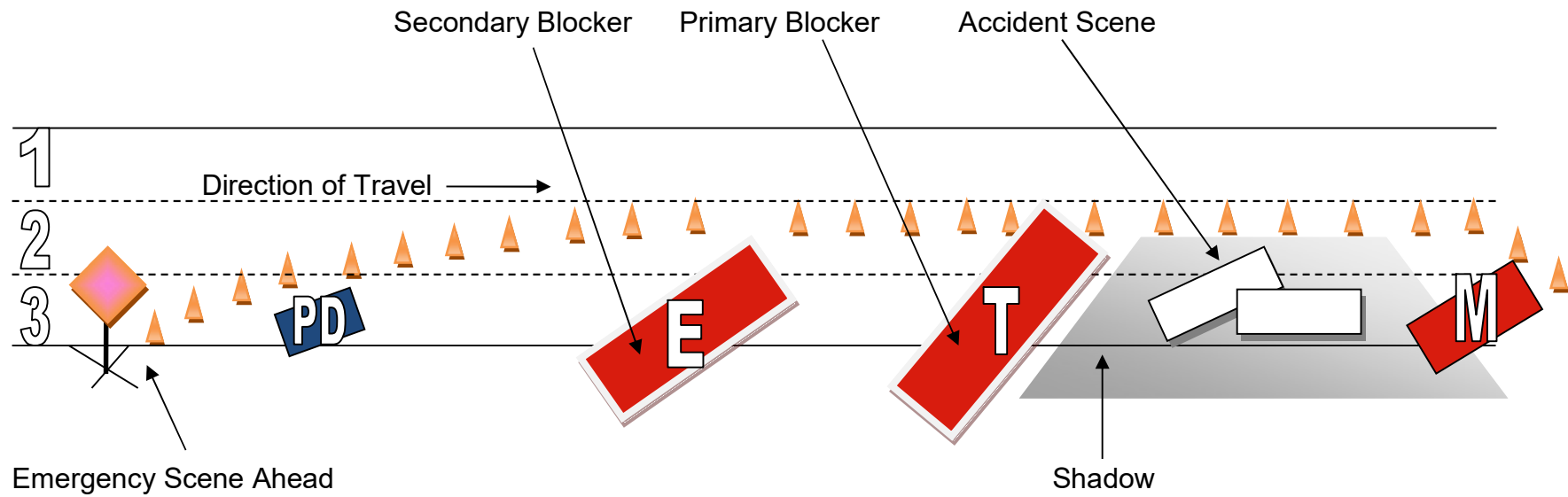
407.7 INCIDENT TERMINATION

The termination of the incident must be managed with the same aggressiveness as initial actions. Crews, apparatus, and equipment must be removed from the highway promptly, to reduce exposure to moving traffic and minimize traffic congestion.

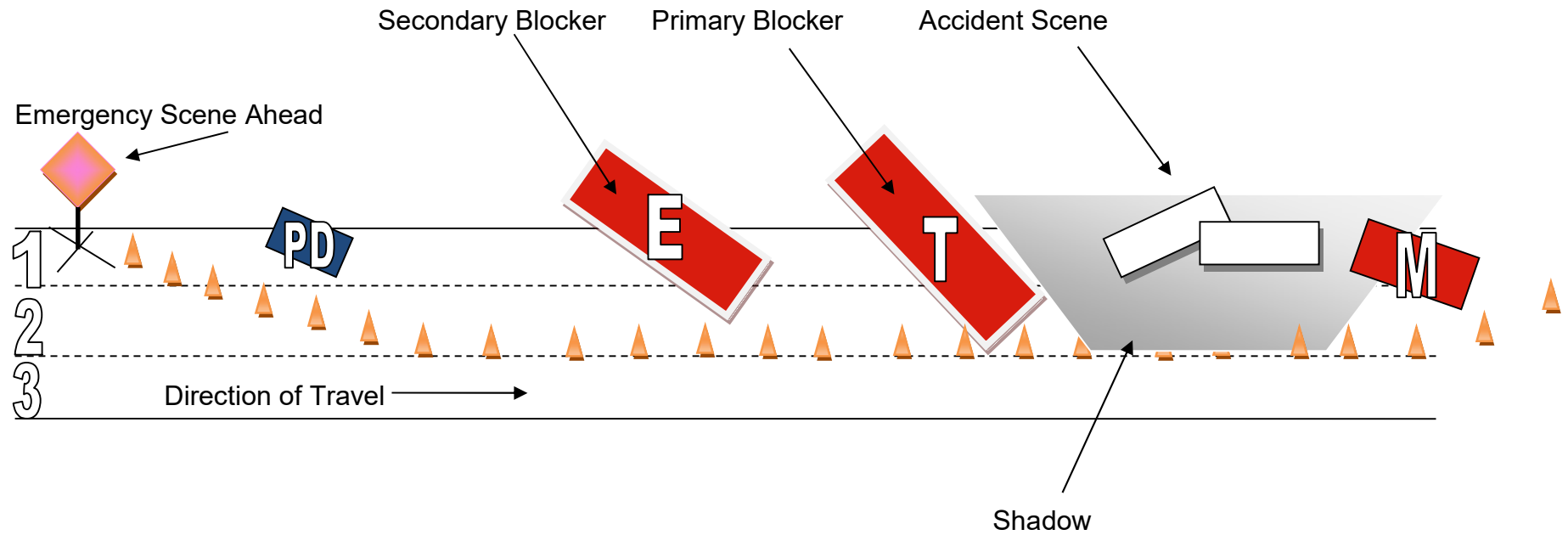
Attachments

Blocking Pictures.pdf

Block Left



Block Right



Incorrect Blocking Placement

