#### § 630.1104

work space and motorized traffic, installation and maintenance of temporary traffic control devices, and use of uniformed law enforcement officers during construction, utility, and maintenance operations, and by requiring contract pay items to ensure the availability of funds for these provisions. This subpart is applicable to all Federal-aid highway projects, and its application is encouraged on other highway projects as well.

#### §630.1104 Definitions.

For the purposes of this subpart, the following definitions apply:

Agency means a State or local highway agency or authority that receives Federal-aid highway funding.

Exposure Control Measures means traffic management strategies to avoid work zone crashes involving workers and motorized traffic by eliminating or reducing traffic through the work zone, or diverting traffic away from the work space.

Federal-aid Highway Project means highway construction, maintenance, and utility projects funded in whole or in part with Federal-aid funds.

Motorized Traffic means the motorized traveling public. This term does not include motorized construction or maintenance vehicles and equipment within the work space.

Other Traffic Control Measures means all strategies and temporary traffic controls other than Positive Protection Devices and Exposure Control Measures, but including uniformed law enforcement officers, used to reduce the risk of work zone crashes involving motorized traffic.

Positive Protection Devices means devices that contain and/or redirect vehicles and meet the crashworthiness evaluation criteria contained in National Cooperative Highway Research Program (NCHRP) Report 350, Recommended Procedures for the Safety Performance Evaluation of Highway Features, 1993, Transportation Research Board, National Research Council. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. This document is available for inspection and copying at FHWA, 1200 New Jersey Avenue, SE., Washington, DC 20590, as provided in 49 CFR part 7. You may also inspect a copy at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741 6030, or go to: http://www.archives.gov/federal\_register/code\_of\_federal\_regulations/ibr\_locations.html.

Work Zone Safety Management means the entire range of traffic management and control and highway safety strategies and devices used to avoid crashes in work zones that can lead to worker and road user injuries and fatalities, including Positive Protection Devices, Exposure Control Measures, and Other Traffic Control Measures.

## § 630.1106 Policy and procedures for work zone safety management.

(a) Each agency's policy and processes, procedures, and/or guidance for the systematic consideration and management of work zone impacts, to be established in accordance with 23 CFR 630.1006, shall include the consideration and management of road user and worker safety on Federal-aid highway projects. These processes, procedures, and/or guidance, to be developed in partnership with the FHWA, shall address the use of Positive Protection Devices to prevent the intrusion of motorized traffic into the work space and other potentially hazardous areas in the work zone; Exposure Control Measures to avoid or minimize worker exposure to motorized traffic and road user exposure to work activities: Other Traffic Control Measures including uniformed law enforcement officers to minimize work zone crashes; and the safe entry/exit of work vehicles onto/ from the travel lanes. Each of these strategies should be used to the extent that they are possible, practical, and adequate to manage work zone exposure and reduce the risks of crashes resulting in fatalities or injuries to workers and road users.

(b) Agency processes, procedures, and/or guidance should be based on consideration of standards and/or guidance contained in the Manual on Uniform Traffic Control Devices (MUTCD) and the AASHTO Roadside Design

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Guide, as well as project characteristics and factors. The strategies and devices to be used may be determined by a project-specific engineering study, or determined from agency guidelines that define strategies and approaches to be used based on project and highway characteristics and factors. The types of measures and strategies to be used are not mutually exclusive, and should be considered in combination as appropriate based on characteristics and factors such as those listed below:

- (1) Project scope and duration;
- (2) Anticipated traffic speeds through the work zone;
  - (3) Anticipated traffic volume;
  - (4) Vehicle mix:
- (5) Type of work (as related to worker exposure and crash risks):
- (6) Distance between traffic and workers, and extent of worker exposure:
- (7) Escape paths available for workers to avoid a vehicle intrusion into the work space:
  - (8) Time of day (e.g., night work);
- (9) Work area restrictions (including impact on worker exposure);
- (10) Consequences from/to road users resulting from roadway departure;
- (11) Potential hazard to workers and road users presented by device itself and during device placement and removal;
- (12) Geometrics that may increase crash risks (e.g., poor sight distance, sharp curves):
  - (13) Access to/from work space;
  - (14) Roadway classification; and
- (15) Impacts on project cost and duration.
- (c) Uniformed Law Enforcement Policy. Each agency, in partnership with the FHWA, shall develop a policy addressing the use of uniformed law enforcement on Federal-aid highway projects. The policy may consist of processes, procedures, and/or guidance. The processes, procedures, and/or guidance should address the following:
- (1) Basic interagency agreements between the highway agency and appropriate law enforcement agencies to address work zone enforcement needs;
- (2) Interaction between highway and law-enforcement agency during project planning and development;

- (3) Conditions where law enforcement involvement in work zone traffic control may be needed or beneficial, and criteria to determine the project-specific need for law enforcement:
- (4) General nature of law enforcement services to be provided, and procedures to determine project-specific services;
- (5) Appropriate work zone safety and mobility training for the officers, consistent with the training requirements in 23 CFR 630.1008(d);
- (6) Procedures for interagency and project-level communications between highway agency and law enforcement personnel; and
- (7) Reimbursement agreements for law enforcement service.

# § 630.1108 Work zone safety management measures and strategies.

- (a) Positive Protection Devices. The need for longitudinal traffic barrier and other positive protection devices shall be based on an engineering study. The engineering study may be used to develop positive protection guidelines for the agency, or to determine the measures to be applied on an individual project. The engineering study should be based on consideration of the factors and characteristics described in section 630.1106(b). At a minimum, positive protection devices shall be considered in work zone situations that place workers at increased risk from motorized traffic, and where positive protection devices offer the highest potential for increased safety for workers and road users, such as:
- (1) Work zones that provide workers no means of escape from motorized traffic (e.g., tunnels, bridges, etc.);
- (2) Long duration work zones (e.g., two weeks or more) resulting in substantial worker exposure to motorized traffic;
- (3) Projects with high anticipated operating speeds (e.g., 45 mph or greater), especially when combined with high traffic volumes;
- (4) Work operations that place workers close to travel lanes open to traffic;
- (5) Roadside hazards, such as dropoffs or unfinished bridge decks, that will remain in place overnight or longer.