

POLICY FOR WORK ZONE SAFETY AND MOBILITY

DECEMBER 2015

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
ARKANSAS DIVISION OFFICE OF THE FEDERAL HIGHWAY ADMINISTRATION**

TABLE OF CONTENTS

Section	Page
1. Introduction.....	1
2. Policy Applicability	1
3. Exceptions.....	1
4. Policy Objectives and Performance Monitoring.....	1
A. Policy Objectives.....	1
B. Performance Monitoring	2
5. Policies and Procedures	2
A. Identification of Significant Projects	2
B. Procedures to Assess and Mitigate Work Zone Impacts in Project Development	3
(1) General.....	3
(2) Development of Transportation Management Plan (TMP)	4
(a) Requirements for Significant and Non-significant Projects	4
(b) Temporary Traffic Control (TTC) Plan.....	5
(c) Transportation Operation (TO) Component.....	6
(d) Public Information (PI) Component	6
(e) Exposure Control (EC) Component	7
(f) Documentation	8
C. Procedures to Manage Safety and Mobility During Project Implementation.....	9
(1) General.....	9
(2) TMP Implementation.....	9
(3) TMP Monitoring.....	10
D. Work Zone Field Review.....	10
E. Process Review	10
F. Training.....	11
G. Worker Visibility: Use of High-Visibility Safety Apparel.....	11

APPENDICES

Definitions.....	A-1
Transportation Management Plan Document Guidelines for Federal Oversight Projects.....	B-1
Transportation Management Plan Document Guidelines for State Oversight Projects.....	B-12
23 CFR Part 630 Work Zone Safety and Mobility Final Rule	C-1
23 CFR Part 630 Temporary Traffic Control Devices.....	D-1
23 CFR Part 634 Worker Visibility	E-1

1. Introduction

This policy was developed in compliance with the Final Rule on Work Zone Safety and Mobility as published by the Federal Highway Administration in the Federal Register (69 FR 54562) on September 9, 2004 which broadened the former regulation on “Traffic Safety in Highway and Street Work Zones” (23 CFR 630 Subpart J), and the Final Rule on Temporary Traffic Control Devices Final (23 CFR 630 Subpart K) as published by the Federal Highway Administration in the Federal Register (72 FR 68480) on December 5, 2007.

As a minimum, this policy will be reviewed in conjunction with the bi-annual process review (described herein in Section 5.E.) and updated as necessary. Guidance from FHWA, implementation information from other states, and lessons learned from implementation of this policy shall be the basis for policy updates.

This policy is referenced in the FHWA Arkansas Division and AHTD Stewardship and Oversight Agreement on Project Assumption and Program Oversight in Attachment C: Manuals and Operating Agreements.

Titles used herein (Assistant Chief Engineer, Engineer of Roadway Design, etc.) refer to the current AHTD officer or his/her designee.

2. Policy Applicability

This policy applies to all highway projects financed in whole or in part with Federal-aid highway funds. This includes minor highway projects located in the ROW such as railroad signals, traffic signals, landscaping, pavement markings, etc. Proper documentation should be completed for all applicable projects. AHTD will coordinate with local agencies to ensure the policy is implemented for locally administered projects. All Federal-aid projects that are scheduled to be let to contract on or after October 12, 2007 shall comply with this policy, unless an exception is granted in accordance with the provisions herein.

3. Exceptions

Requests for exceptions shall be made in writing to the FHWA Division Office on a project-by-project basis (described herein in Section 5.A.).

4. Policy Objectives and Performance Monitoring

A. Policy Objectives

The overall objectives of this policy in addressing work zone safety and mobility impacts on roadway improvement projects are:

- Provide a safe environment for highway workers and the traveling public.
- Provide the Contractor adequate access to the work area in order to complete the work in an efficient manner.
- Minimize congestion to the extent practicable.
- Improve public satisfaction.

B. Performance Monitoring

In order to measure the effectiveness of this policy, the following work zone safety and mobility measures shall be monitored:

- Work zone related crashes, fatalities and injuries, including highway worker injuries caused by interaction with traffic on all projects.
- Percentage of significant project work zones meeting acceptable thresholds for work zone congestion as documented in the project Transportation Management Plans (TMPs).

Data to track these measures shall be collected as described in Section 5.C.(3). More specific work zone safety and congestion measures will be considered as work zone crash data and performance data are gathered in accordance with this policy. The measures will be reviewed in conjunction with the bi-annual policy reviews described herein in Section 5.E. and revised as deemed necessary based on historical data.

5. Policies and Procedures

A. Identification of Significant Projects

A Transportation Management Plan (TMP) is required for all Federal-aid highway projects. The scope, content and degree of detail in the TMP are dependent upon whether the project is identified as a *significant* or *non-significant* project. For a project to be considered a significant project, it must satisfy at least one of the following criteria:

- The project, alone or in combination with other concurrent projects nearby, is anticipated to cause sustained work zone impacts that are greater than what is considered tolerable based on engineering judgment.
- The project is located on the Interstate Highway System within the boundaries of a Transportation Management Area (TMA) and will occupy a location for more than three (3) days with either intermittent or continuous lane closures. Exceptions to this requirement may be requested in writing from the FHWA Division Office for projects or classes of projects (e.g., minor maintenance, mobile operations, pavement markings, and nighttime, off-peak or weekend work, etc.) if it is determined that those projects would not have a high level of sustained work zone impacts. These exception requests must be made early in the project development process – usually when the scope of a project is being defined.

Identification of projects as being either significant or non-significant shall be done as the projects appear in the AHTD Staff Minutes. The Engineer of Roadway Design shall make a preliminary finding as to whether a project is significant using the following criteria:

- Roadway classification
- Traffic volumes
- Nature of work
- Expected level of safety impacts
- Expected level of operational impacts
- Expected impacts on the traveling public at the metropolitan or regional level
- Expected project duration
- Anticipated level of public interest

- Level of safety and operational effects expected to occur as a result of interaction with adjacent or nearby projects

Traffic analysis tools such as the Highway Capacity Manual, Synchro, VISSIM, WISE, and sketch tool software may be used to aid in determining whether a project is significant.

The criteria above will be reviewed in conjunction with the bi-annual policy reviews described herein in Section 5.E. These reviews shall focus on establishing thresholds for the criteria using available historical data.

The Engineer of Roadway Design shall note the project classification for all projects (i.e. “significant work zone impacts” or “non-significant work zone impacts”) as they are added to the Staff Minutes. Roadway Design will develop and maintain a list of federally funded projects that are classified as “significant” or “non-significant”. This list will be provided to the members of the Work Zone Committee (including FHWA) for review and comment as it is revised. In addition, Roadway Design, with assistance from FHWA, will use this list to monitor TMP development for significant projects.

As more information becomes available during the project development stage, the Department may determine that a project previously identified as significant may be non-significant, or vice-versa. Other AHTD Divisions and FHWA may initiate a request for a change in project classification by contacting the Engineer of Roadway Design.

B. Procedures to Assess and Mitigate Work Zone Impacts in Project Development

(1) General

The scope of procedures to assess and mitigate work zone impacts in project development shall be based on individual project characteristics. When deemed appropriate, available traffic, operational and crash data for the project location and for similar projects will be considered in both the project environmental, planning and design phases in the evaluation of project alternatives and in the development of the TMP. The TMP strategies in sections 5.B.(2)(b), 5.B.(2)(c), 5.B.(2)(d) and 5.B.(2)(e) may be used to assist in the assessment and mitigation of work zone impacts.

Traffic analysis tools may be used during project development to analyze congestion and safety impacts and to aid in the development of the project TMP. The TMP shall contain discussion that documents the project’s “acceptable level” of congestion impacts to aid in project monitoring as described in Section 5.C.(3).

Potential cumulative impacts to the traveling public shall be considered in the planning and scheduling of multiple projects on a particular route or in a particular region. When the associated TMP costs are expected to represent an inordinate portion of the overall project cost, an estimate of these costs shall be included in preliminary cost estimates for budgeting purposes.

(2) Development of Transportation Management Plan (TMP)

(a) Requirements for Significant and Non-significant Projects

Roadway Design, in coordination with Transportation Planning & Policy, Construction, District personnel, Public Information (and FHWA on Federal Oversight projects), shall be responsible for TMP development. In addition, input from other potential stakeholders may also be used, including:

- Local government officials
- Metropolitan Planning Organizations
- Local Law enforcement
- Railroad agencies/operators
- Transit providers
- Freight movers
- Utility suppliers
- Emergency responders (fire, EMS, etc.)
- School officials
- Business community

The TMP strategies in sections 5.B.(2)(b), 5.B.(2)(c), 5.B.(2)(d) and 5.B.(2)(e) shall be used as the basis for TMP development for all projects.

For significant projects, the TMP shall consist of a Temporary Traffic Control (TTC) plan, as well as Transportation Operation (TO), Public Information (PI) and Exposure Control (EC) components. Roadway Design shall initiate TMP development for significant projects at approximately 20%-30% plan development by holding a meeting with representatives from Transportation Planning & Policy, Construction, the affected District, Highway Police, Public Information (AHTD Bridge Division) if applicable and FHWA on Federal Oversight projects (Projects of Division Interest – PODI) to discuss the possible TMP scope and contents. If applicable, the project design consultant should be included in this review.

For non-significant projects, the TMP shall normally consist of a TTC plan and Exposure Control (EC) component. However, Transportation Operation (TO) and/or Public Information (PI) components may also be included if considered beneficial.

Coordination with the appropriate Department Divisions and Districts (and FHWA on Federal Oversight projects (Projects of Division Interest (PODI)) shall be exercised throughout the project development process to ensure that all TMP components are properly developed.

Project contracts shall include the necessary pay items and provisions for implementing all aspects of the TMP that will be the responsibility of the Contractor.

(b) Temporary Traffic Control (TTC) Plan

A TTC plan shall be developed specifically for each project. The scope of the TTC plan shall be determined by the specific project characteristics, and the details of the TTC plan shall be commensurate with the complexity of the project. For some projects, (i.e. Traffic Signal Projects), the use of Department Standard Drawings or commonly used details and reference to Part 6 of the MUTCD will often be sufficient.

The TTC plan shall be consistent with Department Standard Drawings and Specifications, Appendix F of the Roadway Design Plan Development Guidelines, the provisions under Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD), and with the work zone hardware recommendations in Chapter 9 of the AASHTO Roadside Design Guide. TTC plans shall ensure that pre-existing roadside safety hardware either be maintained at an equivalent or better level than existed prior to project implementation, or be replaced with approved temporary or permanent devices, as appropriate.

The following traffic control strategies shall be considered in the development of the TTC plan:

- Use of stage construction to provide for passage of traffic through the work area.
- Lane shifts/closures
 - Lane shifts to maintain pre-existing number of lanes
 - Reduced lane widths to maintain pre-existing number of lanes
 - Lane closures
 - Reduced shoulder widths
 - Shoulder closures
- Construction of temporary detours (diversions) to divert traffic around the work area
- Full road closures with no designated detour route
- Full road closures with diversion of traffic to an approved detour route
- Alternating one-way operation with appropriate traffic control
- Closure of one side of a divided roadway with two-way traffic on the opposite lanes
- Temporary interchange ramps
- Ramp closures
- Construction of adequate temporary acceleration lanes for freeway on-ramps to provide for a yield condition in lieu of a stop condition
- Brief, intermittent traffic stoppages for specific operations such as erecting bridge beams, blasting, and moving equipment

(c) Transportation Operation (TO) Component

The TO component shall include identification of strategies that will be used to mitigate impacts of the work zone on the operation and management of the transportation system within the work zone impact area. The scope of the TO component shall be determined by the project characteristics and the transportation operation and safety strategies that are considered appropriate. Examples of strategies to be considered are:

- Limiting lane closures and/or work to off-peak or nighttime hours on roadways with heavy peak-hour traffic volumes
- Allowing short-term (e.g., night or weekend) road closures to allow for increased productivity and to reduce overall construction time
- Requiring the project Contractor to alter work schedules or suspend work during special events and/or holiday periods
- Use of incentive-based contracts (e.g., Fixed Completion Date, A+B, A+C, A+B+C Bidding) to expedite completion of the work
- Promoting construction innovation through the inclusion of Value Engineering contract provisions in projects with estimated cost exceeding \$2 million
- Use of temporary traffic signals where warranted to control traffic movements due to changing traffic patterns created by construction activities
- Use of mobile speed notification units to encourage compliance with work zone speed limits
- Use of Intelligent Transportation System (ITS) technology (queue detection, 511, etc.)
- Routing permitted oversize vehicles around work zones, when possible
- Use of dedicated law enforcement
- Use of dedicated wreckers and/or motorist assistance patrols to minimize disruption caused by disabled vehicles

Appropriate provisions shall be included in the project contract plans and specifications as necessary to implement the selected strategies.

(d) Public Information (PI) Component

The PI component shall include communication strategies that seek to inform affected road users, the general public, area residents and business operators, and appropriate public entities about the project and expected work zone impacts. The scope of the PI component shall be determined by the project characteristics and the information and outreach strategies that are considered appropriate. When possible, this communication should begin in conjunction with the project public involvement process.

Public information should be provided through methods best suited for the project. Appropriate measures shall be utilized to reach Limited English Proficiency (LEP) individuals and/or communities. Special consideration shall be given underserved communities. The following are examples:

- Brochures and mailers
- Project public meetings and public hearings
- Press releases/media alerts
- Web-based project information
- Coordination with media, schools, businesses, law enforcement, emergency services, etc.
- Work zone education and safety campaigns
- Providing information for trucking company safety meetings

The following contract measures shall be considered to provide information to road users regarding changing project conditions:

- Portable Changeable Message Signs
- Highway Advisory Radio
- Automated Work Zone Information System
- IDrive Website

(e) Exposure Control (EC) Component

The EC component shall include factors and characteristics to be considered to avoid or minimize exposure for workers and the road users. The scope of the EC component shall be determined by the project characteristics and the transportation and safety strategies that are considered appropriate. Examples of strategies to be considered are:

- Roadway classification
- Scope and duration of the project
- Phasing of the project
- Anticipated traffic speeds through the work zone
- Anticipated traffic volumes and Vehicle Mix through the work zone
- Type of work
- Distance between traffic and workers, and extent of worker exposure
- Escape paths available for workers to avoid a vehicle intrusion into the work space
- Time of day (e.g., night work)
- Work area restrictions
- Potential hazard to workers and road users presented by device itself and during device placement and removal
- Geometrics that may increase crash risks
- Impacts on project cost and duration
- Safe entry /exit of work vehicles onto/from the travel lanes
- Consequences from/to road users resulting from roadway departure

(f) Documentation

Roadway Design, in coordination with Transportation Planning & Policy, Construction, District personnel, Highway Police, Public Information and FHWA for Federal Oversight projects (Projects of Division Interest (PODI)), shall prepare a TMP Document for all Federal-aid highway projects. If applicable, the project design consultant should be included in the TMP development activities. All components and strategies of the TMP shall be described, and all coordination activities that occurred during the project development process shall be documented including any work zone impact analysis efforts.

The guidelines in Appendix B will guide the development of the TMP Documents for both Federal and State Oversight projects. The complexity and level of impacts for each project will determine the extent of supporting documentation required for the TMP Document. This Policy will apply to Locally Administered Projects (LAP). AHTD will assist the local agencies in complying with this Policy and properly documenting TMP development efforts.

For significant projects, Roadway Design shall initiate TMP development for significant projects at approximately 20%-30% plan development by holding a meeting with representatives from Transportation Planning & Policy, Construction, the affected District, Highway Police, Public Information, AHTD Bridge Division if applicable, identified stakeholders, and FHWA on Federal Oversight projects (Projects of Division Interest (PODI)) to discuss the possible TMP scope and contents. If applicable, the project design consultant should be included in this review. A draft TMP Document, which shall include comments and disposition of comments from the 20%-30% TMP plan development meeting, shall be provided to Construction and the affected District and FHWA for Federal Oversight projects (Projects of Division Interest (PODI)) for review and comment at the initial plan review meeting (approximate 50% plan stage). The draft TMP Document shall also be provided to Transportation Planning & Policy, Highway Police, and Public Information for review and comment. Roadway Design will document the disposition of TMP comments/issues raised from the 50% plan review. These comments shall be included as part of the final TMP documentation.

For Federal Oversight projects (Projects of Division Interest (PODI)), the final TMP Document shall be compiled by the Engineer of Roadway Design, submitted to FHWA as part of the PS&E submittal and a copy placed in the permanent project files.

For State Oversight projects, the final TMP Document shall be compiled by the Engineer of Roadway Design and a copy placed in the permanent project files.

For significant projects, a copy of the final TMP Document shall be provided by Roadway Design to Construction, the affected District, Highway Police, Transportation Planning & Policy and Public Information.

C. Procedures to Manage Safety and Mobility During Project Implementation

(1) General

During the construction phase, the project Resident Engineer will be responsible for implementing all Department aspects of the TMP and for coordination with the Contractor, FHWA and other Department Divisions as necessary to fulfill all requirements of the TMP. The Contractor and his designated Traffic Control Supervisor will be responsible for fulfilling the contract requirements of the TMP.

(2) TMP Implementation

Some aspects of the TMP may be implemented prior to the initiation of construction activities. Typically, these will be Department PI activities such as providing information via the web and the news media about impending construction activities and the associated traffic impacts, and notifying residents and business operators within the project when construction is expected to commence.

After construction activities commence, Department PI activities, such as direct contact with residents and business operators within the project and presentation of project information via news releases and the web, may be utilized when considered appropriate to provide information concerning activities such as lane and/or road closures, detours and construction phase changes that will have a significant affect on traffic patterns.

(3) TMP Monitoring

For all projects (both significant and non-significant), work zone crashes shall be documented by the project Resident Engineer in accordance with Sections 107.02(a) and 107.09(d) of the Resident Engineer's Manual. In addition, FHWA will be notified of all fatal crashes that are related to all Federal-Aid projects. Any mitigation efforts or changes in traffic control will be coordinated with FHWA.

In addition, work zone operations shall be monitored for all projects by the project Resident Engineer and documented in accordance with Section 107.02(a) of the Resident Engineer's Manual. At the project preconstruction conference for significant projects, the Resident Engineer will discuss with the Contractor what the project TMP documents as "acceptable" congestion levels and how congestion will be monitored and documented in accordance with the Resident Engineer's Manual.

The Resident Engineer will rely on field observations, available work zone crash data, and operational information to manage work zone impacts. Changes in the TMP should be considered when the Resident Engineer determines work zone impacts have exceeded acceptable levels. Traffic analysis tools may be used to evaluate proposed changes in the TMP. Changes shall be documented in accordance with Section 603.01(a) of the Resident Engineer's Manual.

D. Work Zone Field Review

A Work Zone Field Review shall be conducted every two years by the joint AHTD/FHWA Work Zone Traffic Control Committee. The Committee shall select projects throughout the State to be reviewed. Additional Department personnel shall participate as needed. The emphasis of this review is safety and operations, including:

- General conformity with the project TMP
- Condition and placement of signing, pavement markings and traffic control devices
- Overall traffic operations
- Analysis of safety and operational performance

A report will be prepared for the Director, Deputy Director and Chief Operating Officer, Deputy Director and Chief Engineer, and Assistant Chief Engineers summarizing the findings of the review.

Information gathered in the Work Zone Field Reviews shall be used to improve the planning, development, and management of TMPs for future projects.

E. Process Review

A Process Review shall be conducted every two years, alternating with the Work Zone Field Review. The scope of this review will be determined by the Chairman, Co-Chairman and FHWA representative, but should include the evaluation of available crash data and performance data for specific projects. In addition, the scope of the review may address focus areas and issues identified through on-going work zone efforts. Field reviews will be performed when the focus areas of the review necessitate the collection of field data. The joint AHTD/FHWA Work Zone Traffic Control Committee shall conduct this review and additional AHTD personnel shall participate as needed. Traffic analysis tools may be used in performing this review. Areas of emphasis shall include:

- Safety of motorists and workers
- Mobility
- Construction efficiency
- Public perception and satisfaction

In addition, available crash data and performance data for completed and ongoing Federal-aid highway projects shall be compiled and reviewed. One goal of the review is to further refine the criteria shown in Section 5.A. for making significant versus non-significant project determinations.

A report will be prepared for the Director, Deputy Director and Chief Engineer, Assistant to the Director, Assistant Chief Engineers, and FHWA summarizing the findings of the review and any best practices identified.

Information gathered in the process reviews shall be used to evaluate the effectiveness of this policy and to aid in the planning, development, and management of TMPs for future projects.

F. Training

Personnel involved in the development, design, implementation, operation, inspection, and enforcement of work zone related transportation management and traffic control shall receive periodic training in their respective areas of responsibility. Training updates are required for Department personnel as necessary to reflect changing industry practices and standards. Documentation of training for Department personnel shall be maintained in the Division or District office, as applicable.

Consultants employed by the Department for development, design, implementation, operation or inspection of work zone related transportation management and traffic control will be required to certify that their personnel have received proper training in their respective areas of responsibility, and these individuals may be required to participate in Department training sessions.

Contractor and AHTD personnel responsible for fulfilling the responsibilities of Traffic Control Supervisor shall be certified as a worksite traffic control supervisor by either the American Traffic Safety Services Association (ATSSA) or the Arkansas Associated General Contractors in accordance with Subsection 603.02(b) of the Standard Specifications.

The Department will maintain a list of appropriate/required training courses for AHTD personnel and other partners (including consultants, contractors, enforcement, utility providers, local jurisdictions, etc.). The AHTD Training and Safety Section of the Human Resource Division will assist in the implementation and tracking of work zone training. The Local Technology Assistance Program (LTAP) will assist with work zone training, particularly with local agencies.

G. Worker Visibility: Use of High-Visibility Safety Apparel

Use of high-visibility safety apparel is needed in order to comply with 23 CFR 634 (see Appendix E) and to decrease the likelihood of worker fatalities or injuries caused by motor vehicles and construction vehicles and equipment while working within a Federal-aid highway's right-of-way in Arkansas. All workers within the right-of-way who are exposed either to traffic (vehicles using the roadway for travel purposes) or to construction equipment within the work area shall wear high-visibility safety apparel meeting the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled "American National Standard for High – Visibility Safety Apparel and Headwear."

APPENDIX A

DEFINITIONS

Highway workers include, but are not limited to, personnel of the contractor, subcontractor(s), Department, utilities, and law enforcement performing work within the right-of-way of a transportation facility.

Mobility is the ability to move from place to place and is significantly dependent on the availability of transportation facilities and on system operating conditions. With specific reference to work zones, mobility pertains to moving road users efficiently through or around a work zone area with a minimum delay compared to baseline travel when no work zone is present, while not compromising the safety of highway workers or road users. The commonly used performance measures for the assessment of mobility include delay, speed, travel time and queue lengths.

Safety is a representation of the level of exposure to potential hazards for users of transportation facilities and highway workers. With specific reference to work zones, safety refers to minimizing potential hazards to road users in the vicinity of a work zone and highway workers at the work zone interface with traffic. The commonly used measures for highway safety are the number of crashes or the consequences of crashes (fatalities and injuries) at a given location or along a section of highway during a period of time. Highway worker safety in work zones refers to the safety of workers at the work zone interface with traffic and the impacts of the work zone design on worker safety. The number of worker fatalities and injuries at a given location or along a section of highway, during a period of time are commonly used measures for highway worker safety.

Transportation Management Area (TMA) is an urbanized area with a population more than 200,000 as determined by the latest census, or other area when the TMA designation is requested by the Governor and the MPO, and officially designated by the Administrators of the FHWA and FTA. (Refer to Appendix C.)

Work zone is an area of a highway with construction, maintenance, or utility work activities. A work zone is typically marked by signs, channelizing devices, barriers, pavement markings, and/or work vehicles. It extends from the first warning sign or high-intensity rotating, flashing, oscillating, or strobe lights on a vehicle to the END ROAD WORK sign or the last temporary traffic control (TTC) device.

Work zone crash is a traffic crash in which the first harmful event occurs within the boundaries of a work zone or on an approach to or exit from a work zone, resulting from an activity, behavior, or control related to the movement of the traffic units through the work zone. This includes crashes occurring on approach to, exiting from or adjacent to work zones that are related to the work zone.

Work zone impacts refer to work zone-induced deviations from the normal range of transportation system safety and mobility. The extent of the work zone impacts may vary based on factors such as, road classification, area type (urban, suburban, and rural), traffic and travel characteristics, type of work being performed, time of day/night, and complexity of the project. These impacts may extend beyond the physical location of the work zone itself, and may occur on the roadway on which the work is being performed, as well as other highway corridors, other modes of transportation, and/or the regional transportation network.

APPENDIX B

TRANSPORTATION MANAGEMENT PLAN DOCUMENT GUIDELINES FOR FEDERAL OVERSIGHT PROJECTS – PROJECTS OF DIVISION INTEREST (PODI)

(Date)

Mr. Angel Correa
Division Administrator
Federal Highway Administration
700 West Capitol, Room 3130
Little Rock, Arkansas 72201

Job Number:
F.A.P.:
Job Name:
County:

Dear Mr. Correa:

A Transportation Management Plan (TMP) has been developed for this project in accordance with the provisions of the Department's Policy for Work Zone Safety and Mobility for a **significant [non-significant]** project. The TMP to Master File for this project includes the following components:

_____ Temporary Traffic Control Plan Component
_____ Traffic Operation Component
_____ Public Information Component
_____ Exposure Control Component

Note: A Temporary Traffic Control Plan and Exposure Control Component shall be provided for all projects. Significant projects will contain all four components.

Temporary Traffic Control Plan

The Temporary Traffic Control Plan has been developed using the following strategies. Additional documents for strategies/countermeasures discussed or used is attached:

_____ Use of stage construction to provide for passage of traffic through the work area
_____ Lane shifts to maintain pre-existing number of lanes
_____ Reduced lane widths to maintain pre-existing number of lanes
_____ Lane closures

- _____ Reduced shoulder widths
- _____ Shoulder closures
- _____ Construction of temporary detours (diversions) to divert around the work area
- _____ Full road closures with no designated detour route
- _____ Full road closures with diversion of traffic to an approved detour route
- _____ Alternating one-way operation with appropriate traffic control
- _____ Closure of one side of a divided roadway with two-way traffic on the opposite lanes
- _____ Temporary interchange ramps
- _____ Ramp closures
- _____ Construction of adequate temporary acceleration lanes for freeway on-ramps to provide for a yield condition in lieu of a stop condition
- _____ Brief, intermittent traffic stoppages for specific operations such as erecting bridge beams, blasting, and moving equipment

COMMENTS:

Traffic Operation Component

The Traffic Operation Component has been developed using the following strategies. Additional documents for strategies/countermeasures discussed or used is attached:

- _____ Limiting lane closures and/or work to off-peak or nighttime hours on roadways with heavy peak-hour traffic volumes
- _____ Allowing short-term (e.g., night or weekend) road closures to allow for increased productivity and to reduce overall construction time
- _____ Requiring the project Contractor to alter work schedules or suspend work during special events or holiday periods
- _____ Use of incentive-based contracts (e.g., Fixed Completion Date, A+B, A+C or A+B+C Bidding) to expedite completion of the work
- _____ Promoting construction innovation through the inclusion of Value Engineering contract provisions in projects with estimated cost exceeding \$2 million
- _____ Use of temporary traffic signals where warranted to control traffic movements at intersections due to changing traffic patterns created by construction activities
- _____ Use of mobile speed notification units to encourage compliance with work zone speed limits
- _____ Use of Intelligent Transportation System (ITS) technology (queue detection, 511, etc.)
- _____ Routing permitted oversize vehicles around work zones, when possible
- _____ Use of dedicated wreckers and/or motorist assistance patrols to minimize disruption caused by disabled vehicles

COMMENTS:

Public Information Component

The following Public Information measures have been utilized on this project. Additional documentation for strategies/countermeasures discussed or used is attached:

- ☐ Brochures and mailers
- ☐ Public meetings (list):
- ☐ Press releases/media alerts
- ☐ Web-based project information
- ☐ Coordination with media, schools, businesses, emergency services, etc. (list):
- ☐ Work zone education and safety campaigns
- ☐ Providing information for trucking company safety meetings

COMMENTS:

The following contract measures will be utilized on this project to provide information to road users regarding changing project conditions. Additional documentation for strategies/countermeasures discussed or used is attached:

- ☐ Portable Changeable Message Signs
- ☐ Highway Advisory Radio
- ☐ Automated Work Zone Information System
- ☐ iDrive Website

COMMENTS:

Exposure Control Component

The following factors and characteristics are to be considered during the development of the Exposure Control Component:

- Roadway classification
- Scope and duration of the project
- Phasing of the project
- Anticipated traffic speeds through the work zone
- Anticipated traffic volumes and Vehicle Mix through the work zone
- Type of work
- Distance between traffic and workers, and extent of worker exposure
- Escape paths available for workers to avoid a vehicle intrusion into the work space
- Time of day (e.g., night work)
- Work area restrictions
- Potential hazard to workers and road users presented by device itself and during device placement and removal
- Geometrics that may increase crash risks
- Impacts on project cost and duration
- Safe entry /exit of work vehicles onto/from the travel lanes
- Consequences from/to road users resulting from roadway departure
- Other (list): _____

The Exposure Control Component has been developed using the following strategies. Additional documentation for strategies/countermeasures discussed or used is attached:

_____ Use of positive protection devices that contain and/or redirect vehicles to prevent intrusions into the work zone (i.e. temporary precast concrete barrier wall):

Considerations for positive protection:

- _____ Work zone provides workers no means of escape from motorized traffic
- _____ Substantial worker exposure to traffic for long duration
- _____ Projects high anticipated operation speeds
- _____ Work operations placed workers close to travel lanes open to traffic
- _____ Roadside hazard will remain in place overnight or longer
- _____ Other (list): _____

COMMENTS:

_____ Use of exposure control measures to avoid or minimize exposure:

Exposure control measures:

- _____ Road closures
- _____ Ramp closures
- _____ Median crossovers
- _____ Detours
- _____ Work during off peak hours
- _____ Accelerated construction techniques
- _____ Other (list): _____

COMMENTS:

_____ Use of traffic control measures to minimize exposure and/or crashes:

Traffic control measures:

- _____ Static Signing
- _____ Changeable message signs
- _____ Arrow panels
- _____ Longitudinal and lateral buffer space
- _____ Trained flaggers and spotters
- _____ Pace or pilot vehicle
- _____ Construction pavement markings
- _____ Channelizing devices
- _____ Reduced speed through the work zone
- _____ Temporary signal
- _____ Shadow vehicle with attenuator
- _____ Other (list): _____

COMMENTS:

Entry/exit of work vehicles onto/from travel lanes

_____ Safe entry /exit of work vehicles onto/from the travel lanes

Measures to address entry/exit of work vehicles:

- _____ Static Signing
- _____ Changeable message signs
- _____ Trained flaggers and spotters
- _____ Breaks in temporary precast concrete barrier wall
- _____ Pace or pilot vehicle
- _____ Acceleration and deceleration lanes

_____ Reduced speed through the work zone

_____ Other (list): _____

COMMENTS:

Use of uniformed law enforcement

_____ Use of uniformed law enforcement (normal hours)

or

_____ Use of uniformed law enforcement (paid overtime hours)

Considerations for use of uniformed law enforcement:

- _____ Frequent worker presence adjacent to high-speed traffic without positive protection devices
- _____ Traffic control setup or removal that presents significant risks to workers and road users
- _____ Complex or very short term changes in traffic patterns
- _____ Night work operations
- _____ Crash histories that indicate a potential for substantial safety and congestion
- _____ Work zone operations that require brief stoppage of all traffic in one or both directions
- _____ High-speed roadways where unexpected or sudden traffic queuing is anticipated
- _____ Other (list): _____

COMMENTS:

Attachments

The following information is incorporated as attachments:

<hr/>	Traffic capacity analysis
<hr/>	Crash data analysis
<hr/>	Road user cost and/or calculations
<hr/>	Project specific plan sheets
<hr/>	List _____
<hr/>	Project special provisions
<hr/>	Maintenance of Traffic
<hr/>	Sequence of Construction
<hr/>	Site Use (A+B)
<hr/>	Site Use (A+C)
<hr/>	Special Safety Requirements for Bridges
<hr/>	Special Safety Requirements for Overhead Sign Structures
<hr/>	Other (list): _____

Stakeholders

The following stakeholders were consulted during the development of the TMP:

<hr/>	Local government officials (list): _____
<hr/>	Metropolitan Planning Organizations (list): _____
<hr/>	Law enforcement (list): _____
<hr/>	Railroad agencies/operators (list): _____
<hr/>	Transit providers (list): _____
<hr/>	Freight movers (list): _____
<hr/>	Utility suppliers (list): _____
<hr/>	Emergency responders (fire, EMS, etc.) (list): _____
<hr/>	School officials (list): _____
<hr/>	Business community (list): _____

COMMENTS:

This document helped guide the development of the project TMP. The complexity and level of impacts expected determined the extent of supporting documentation required in the TMP. All components and strategies of the TMP were described, and all coordination activities that occurred during the project development process have been documented.

TMP implementation will be accomplished in accordance with the provisions of the Department's Policy for Work Zone Safety and Mobility.

Sincerely,

Trinity D. Smith
Engineer of Roadway Design

Significant Project

c: Construction
District Engineer
Highway Police
Transportation Planning and Policy
System Information and Research
Public Information
Master File "B"
Job File

Non-Significant Project

c: Master File "B"
District Engineer
Public Information
Job File

TRANSPORTATION MANAGEMENT PLAN REVIEW

DESCRIPTION OF PROJECT:

JOB NUMBER _____ F.A.P. _____
TITLE _____
ROUTE _____ SECTION _____
COUNTY _____
DATE OF REVIEW _____ SCHEDULED LETTING DATE _____
PERCENTAGE PLAN COMPLETION _____

A review of the Transportation Management Plan was made this date. Those in attendance or providing comments were:

SIGNATURE REPRESENTING

SIGNATURE REPRESENTING

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

1

JOB NUMBER _____ F.A.P. _____
TITLE _____
ROUTE _____ SECTION _____
COUNTY _____
DATE OF REVIEW _____ SCHEDULED LETTING DATE _____
PERCENTAGE PLAN COMPLETION _____

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

COPY OF THIS REPORT FORWARDED TO FHWA _____

**DOCUMENTATION OF STRATEGIES AND/OR ACTIVITIES EVALUATED
DURING PROJECT DEVELOPMENT**

JOB NUMBER _____

CURRENT LETTING DATE _____

DATE	TOPIC OF DISCUSSION	RECOMMENDATION

APPENDIX B
INTEROFFICE MEMORANDUM

Month dd, yyyy

TO: Master File "B"

SUBJECT: Transportation Management Plan
Job Number:
F.A.P.:
Job Name:
County:

A Transportation Management Plan (TMP) has been developed for this project in accordance with the provisions of the Department's Policy for Work Zone Safety and Mobility for a **significant [non-significant]** project. The TMP for this project includes the following components:

_____ Temporary Traffic Control Plan Component
_____ Traffic Operation Component
_____ Public Information Component
_____ Exposure Control Component

Note: A Temporary Traffic Control Plan and Exposure Control Component shall be provided for all projects. Significant projects will contain all four components.

Temporary Traffic Control Plan

The Temporary Traffic Control Plan has been developed using the following strategies. Additional documentation for strategies/countermeasures discussed or used is attached:

_____ Use of stage construction to provide for passage of traffic through the work area
_____ Lane shifts to maintain pre-existing number of lanes
_____ Reduced lane widths to maintain pre-existing number of lanes
_____ Lane closures
_____ Reduced shoulder widths
_____ Shoulder closures
_____ Construction of temporary detours (diversions) to divert around the work area
_____ Full road closures with no designated detour route
_____ Full road closures with diversion of traffic to an approved detour route
_____ Alternating one-way operation with appropriate traffic control
_____ Closure of one side of a divided roadway with two-way traffic on the opposite lanes
_____ Temporary interchange ramps
_____ Ramp closures
_____ Construction of adequate temporary acceleration lanes for freeway on-ramps to provide for a yield condition in lieu of a stop condition
_____ Brief, intermittent traffic stoppages for specific operations such as erecting bridge beams, blasting, and moving equipment

COMMENTS:

Traffic Operation Component

The Traffic Operation Component has been developed using the following strategies. Additional documentation for strategies/countermeasures discussed or used is attached:

- ☐ Limiting lane closures and/or work to off-peak or nighttime hours on roadways with heavy peak-hour traffic volumes
- ☐ Allowing short-term (e.g., night or weekend) road closures to allow for increased productivity and to reduce overall construction time
- ☐ Requiring the project Contractor to alter work schedules or suspend work during special events or holiday periods
- ☐ Use of incentive-based contracts (e.g., Fixed Completion Date, A+B, A+C or A+B+C Bidding) to expedite completion of the work
- ☐ Promoting construction innovation through the inclusion of Value Engineering contract provisions in projects with estimated cost exceeding \$2 million
- ☐ Use of temporary traffic signals where warranted to control traffic movements at intersections due to changing traffic patterns created by construction activities
- ☐ Use of mobile speed notification units to encourage compliance with work zone speed limits
- ☐ Use of Intelligent Transportation System (ITS) technology (queue detection, 511, etc.)
- ☐ Routing permitted oversize vehicles around work zones, when possible
- ☐ Use of dedicated wreckers and/or motorist assistance patrols to minimize disruption caused by disabled vehicles

COMMENTS:

Public Information Component

The following Public Information measures have been utilized on this project. Additional documentation for strategies/countermeasures discussed or used is attached:

- ☐ Brochures and mailers
- ☐ Public meetings (list): _____
- ☐ Press releases/media alerts
- ☐ Web-based project information
- ☐ Coordination with media, schools, businesses, emergency services, etc. (list): _____
- ☐ Work zone education and safety campaigns
- ☐ Providing information for trucking company safety meetings

COMMENTS:

The following contract measures will be utilized on this project to provide information to road users regarding changing project conditions. Additional documentation for strategies/countermeasures discussed or used is attached:

- ☐ Portable Changeable Message Signs
- ☐ Highway Advisory Radio
- ☐ Automated Work Zone Information System
- ☐ iDrive Website

COMMENTS:

Exposure Control Component

The following factors and characteristics are to be considered during the development of the Exposure Control Component:

- Roadway classification
- Scope and duration of the project
- Phasing of the project
- Anticipated traffic speeds through the work zone
- Anticipated traffic volumes and Vehicle Mix through the work zone
- Type of work
- Distance between traffic and workers, and extent of worker exposure
- Escape paths available for workers to avoid a vehicle intrusion into the work space
- Time of day (e.g., night work)
- Work area restrictions
- Potential hazard to workers and road users presented by device itself and during device placement and removal
- Geometrics that may increase crash risks
- Impacts on project cost and duration
- Safe entry /exit of work vehicles onto/from the travel lanes
- Consequences from/to road users resulting from roadway departure
- Other (list): _____

The Exposure Control Component has been developed using the following strategies. Additional documentation for strategies/countermeasures discussed or used is attached:

_____ Use of positive protection devices that contain and/or redirect vehicles to prevent intrusions into the work zone (i.e. temporary precast concrete barrier wall):

Considerations for positive protection:

- _____ Work zone provides workers no means of escape from motorized traffic
- _____ Substantial worker exposure to traffic for long duration
- _____ Projects high anticipated operation speeds
- _____ Work operations placed workers close to travel lanes open to traffic
- _____ Roadside hazard will remain in place overnight or longer
- _____ Other (list): _____

COMMENTS:

_____ Use of exposure control measures to avoid or minimize exposure:

Exposure control measures:

- _____ Road closures
- _____ Ramp closures
- _____ Median crossovers
- _____ Detours
- _____ Work during off peak hours
- _____ Accelerated construction techniques
- _____ Other (list): _____

COMMENTS:

_____ Use of traffic control measures to minimize exposure and/or crashes:

Traffic control measures:

- _____ Static Signing
- _____ Changeable message signs
- _____ Arrow panels
- _____ Longitudinal and lateral buffer space
- _____ Trained flaggers and spotters
- _____ Pace or pilot vehicle
- _____ Construction pavement markings
- _____ Channelizing devices
- _____ Reduced speed through the work zone
- _____ Temporary signal
- _____ Shadow vehicle with attenuator
- _____ Other (list): _____

COMMENTS:

Entry/exit of work vehicles onto/from travel lanes

_____ Safe entry /exit of work vehicles onto/from the travel lanes

Measures to address entry/exit of work vehicles:

- _____ Static Signing
- _____ Changeable message signs
- _____ Trained flaggers and spotters
- _____ Breaks in temporary precast concrete barrier wall
- _____ Pace or pilot vehicle
- _____ Acceleration and deceleration lanes

_____ Reduced speed through the work zone

_____ Other (list): _____

COMMENTS:

Use of uniformed law enforcement

_____ Use of uniformed law enforcement (normal hours)

or

_____ Use of uniformed law enforcement (paid overtime hours)

Considerations for use of uniformed law enforcement:

- _____ Frequent worker presence adjacent to high-speed traffic without positive protection devices
- _____ Traffic control setup or removal that presents significant risks to workers and road users
- _____ Complex or very short term changes in traffic patterns
- _____ Night work operations
- _____ Crash histories that indicate a potential for substantial safety and congestion
- _____ Work zone operations that require brief stoppage of all traffic in one or both directions
- _____ High-speed roadways where unexpected or sudden traffic queuing is anticipated
- _____ Other (list): _____

COMMENTS:

Attachments

The following information is incorporated as attachments:

<input type="checkbox"/>	Traffic capacity analysis
<input type="checkbox"/>	Crash data analysis
<input type="checkbox"/>	Road user cost and/or calculations
<input type="checkbox"/>	Project specific plan sheets
<input type="checkbox"/>	List _____
<input type="checkbox"/>	Project special provisions
<input type="checkbox"/>	Maintenance of Traffic
<input type="checkbox"/>	Sequence of Construction
<input type="checkbox"/>	Site Use (A+B)
<input type="checkbox"/>	Site Use (A+C)
<input type="checkbox"/>	Special Safety Requirements for Bridges
<input type="checkbox"/>	Special Safety Requirements for Overhead Sign Structures
<input type="checkbox"/>	Other (list): _____

Stakeholders

The following stakeholders were consulted during the development of the TMP:

<input type="checkbox"/>	Local government officials (list): _____
<input type="checkbox"/>	Metropolitan Planning Organizations (list): _____
<input type="checkbox"/>	Law enforcement (list): _____
<input type="checkbox"/>	Railroad agencies/operators (list): _____
<input type="checkbox"/>	Transit providers (list): _____
<input type="checkbox"/>	Freight movers (list): _____
<input type="checkbox"/>	Utility suppliers (list): _____
<input type="checkbox"/>	Emergency responders (fire, EMS, etc.) (list): _____
<input type="checkbox"/>	School officials (list): _____
<input type="checkbox"/>	Business community (list): _____

COMMENTS:

This document helped guide the development of the project TMP. The complexity and level of impacts expected determined the extent of supporting documentation required in the TMP. All components and strategies of the TMP were described, and all coordination activities that occurred during the project development process have been documented.

TMP implementation will be accomplished in accordance with the provisions of the Department's Policy for Work Zone Safety and Mobility.

Trinity D. Smith
Engineer of Roadway Design

Date

Significant Project

c: Construction Division
District Engineer
Highway Police
Transportation Planning and Policy
System Information and Research
Public Information
Job File

Non-Significant Project

c: District Engineer
Public Information
Job File

TRANSPORTATION MANAGEMENT PLAN REVIEW

DESCRIPTION OF PROJECT:

JOB NUMBER _____ F.A.P. _____
TITLE _____
ROUTE _____ SECTION _____
COUNTY _____
DATE OF REVIEW _____ SCHEDULED LETTING DATE _____
PERCENTAGE PLAN COMPLETION _____

A review of the Transportation Management Plan was made this date. Those in attendance or providing comments were:

SIGNATURE REPRESENTING

SIGNATURE REPRESENTING

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

TRANSPORTATION MANAGEMENT PLAN REVIEW

DESCRIPTION OF PROJECT:

JOB NUMBER _____ F.A.P. _____
TITLE _____
ROUTE _____ SECTION _____
COUNTY _____
DATE OF REVIEW _____ SCHEDULED LETTING DATE _____
PERCENTAGE PLAN COMPLETION _____

MAJOR ITEMS OF DISCUSSION

DISPOSITION OF ABOVE ITEMS

COPY OF THIS REPORT FORWARDED TO THE FILE _____

ATTACHMENTS

**DOCUMENTATION OF STRATEGIES AND/OR ACTIVITIES EVALUATED
DURING PROJECT DEVELOPMENT**

JOB NUMBER _____

CURRENT LETTING DATE _____

DATE	TOPIC OF DISCUSSION	RECOMMENDATION

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

23 CFR Part 630

[FHWA Docket No. FHWA-2001-11130]

RIN 2125-AE29

Work Zone Safety and Mobility

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Final rule.

SUMMARY: The FHWA amends its regulation that governs traffic safety and mobility in highway and street work zones. The changes to the regulation will facilitate comprehensive consideration of the broader safety and mobility impacts of work zones across project development stages, and the adoption of additional strategies that help manage these impacts during project implementation. These provisions will help State Departments of Transportation (DOTs) meet current and future work zone safety and mobility challenges, and serve the needs of the American people.

DATES: *Effective Date:* October 12, 2007.

The incorporation by reference of certain publications listed in this rule is approved by the Director of the Federal Register as of October 12, 2007.

FOR FURTHER INFORMATION CONTACT:

Mr. Scott Battles, Office of Transportation Operations, HOTO-1, (202) 366-4372; or Mr. Raymond Cuprill, Office of the Chief Counsel, HCC-30, (202) 366-0791, Federal Highway Administration, 400 Seventh Street, SW., Washington, DC 20590-0001. Office hours are from 7:45 a.m. to 4:15 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:**Electronic Access**

This document and all comments received by the U.S. DOT Docket Facility, Room PL-401, may be viewed through the Docket Management System (DMS) at <http://dms.dot.gov>. The DMS is available 24 hours each day, 365 days each year. Electronic submission and retrieval help and guidelines are available under the help section of this Web site.

An electronic copy of this document may be downloaded by using a computer, modem, and suitable communications software from the Government Printing Office's Electronic Bulletin Board Service at (202) 512-1661. Internet users may reach the Office of the Federal Register's home page at: <http://www.archives.gov> and the

Government Printing Office's Web site at: <http://www.access.gpo.gov/nara>.

Background*History*

Pursuant to the requirements of Section 1051 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), (Pub. L. 102-240, 105 Stat. 1914; Dec. 18, 1991), the FHWA developed a work zone safety program to improve work zone safety at highway construction sites. The FHWA implemented this program through non-regulatory action by publishing a notice in the **Federal Register** on October 24, 1995 (60 FR 54562). This notice established the National Highway Work Zone Safety Program (NHWZSP) to enhance safety at highway construction, maintenance, and utility sites. In this notice, the FHWA indicated the need to update its regulation on work zone safety (23 CFR 630, Subpart J).

As a first step in considering amendments to its work zone safety regulation, the FHWA published an advance notice of proposed rulemaking (ANPRM) on February 6, 2002, at 67 FR 5532. The ANPRM solicited information on the need to amend the regulation to better respond to the issues surrounding work zones, namely the need to reduce recurrent roadwork, the duration of work zones, and the disruption caused by work zones.

The FHWA published a notice of proposed rulemaking (NPRM) on May 7, 2003, at 68 FR 24384. The regulations proposed in the NPRM were intended to facilitate consideration and management of the broader safety and mobility impacts of work zones in a more coordinated and comprehensive manner across project development stages, and the development of appropriate strategies to manage these impacts. We received a substantial number of responses to the NPRM. While most of the respondents agreed with the intent and the concepts proposed in the NPRM, they recommended that the proposed provisions be revised and altered so as to make them practical for application in the field. The respondents identified the need for flexibility and scalability in the implementation of the provisions of the proposed rule; noted that some of the terms used in the proposed rule were ambiguous and lent themselves to subjective interpretation. Respondents also commented that the documentation requirements in the proposal would impose undue time and resource burdens on State DOTs.

In order to address the comments received in response to the NPRM, the

FHWA issued a supplemental notice of proposed rulemaking (SNPRM) on May 13, 2004, at 69 FR 26513. The SNPRM addressed the comments related to flexibility and scalability of provisions, eliminated ambiguous terms from the language, and reduced the documentation requirements. We received several supportive comments in response to the SNPRM. Most respondents noted that the SNPRM addressed the majority of their concerns regarding the originally proposed rule. However, they did offer additional comments regarding specific areas of concern. In the final rule issued today, the FHWA has addressed all the comments received in response to the SNPRM that are within the scope of this rulemaking.

The regulation addresses the changing times of more traffic, more congestion, greater safety issues, and more work zones. The regulation is broader so as to recognize the inherent linkage between safety and mobility and to facilitate systematic consideration and management of work zone impacts. The regulation can advance the state of the practice in highway construction project planning, design, and delivery so as to address the needs of the traveling public and highway workers. The key features of the final rule are as follows:

- A policy driven focus that will institutionalize work zone processes and procedures at the agency level, with specific language for application at the project level.
- A systems engineering approach that includes provisions to help transportation agencies address work zone considerations starting early in planning, and progressing through project design, implementation, and performance assessment.
- Emphasis on addressing the broader impacts of work zones to develop transportation management strategies that address traffic safety and control through the work zone, transportation operations, and public information and outreach.
- Emphasis on a partner driven approach, whereby transportation agencies and the FHWA will work together towards improving work zone safety and mobility.
- Overall flexibility, scalability, and adaptability of the provisions, so as to customize the application of the regulations according to the needs of individual agencies, and to meet the needs of the various types of highway projects.

Summary Discussion of Comments Received in Response to the SNPRM

The following discussion provides an overview of the comments received in response to the SNPRM, and the FHWA's actions to resolve and address the issues raised by the respondents.

Profile of Respondents

We received a total of 33 responses to the docket. Out of the 33 total respondents, 27 were State DOTs; 4 were trade associations; and 2 provided comments as private individuals. The 4 trade associations were namely, the Laborers' Health and Safety Fund of North America (LHSFNA), the American Traffic Safety Services Association (ATSSA), the Associated General Contractors (AGC) of America, and the Institute of Transportation Engineers (ITE). We classified the American Association of State Highway and Transportation Officials (AASHTO) as a State DOT because they represent State DOT interests. The AASHTO provided a consolidated response to the SNPRM on behalf of its member States. Several State DOTs provided their comments individually.

The respondents represented a cross-section of job categories, ranging from all aspects of DOT function, to engineering/traffic/safety/design, to construction and contracting.

Overall Position of Respondents

We received several supportive comments in response to the SNPRM. Most State DOTs, the AASHTO, and all private sector respondents greatly appreciated the FHWA's continued effort to receive input during the development of the proposed rule, and particularly in issuing the SNPRM. Most respondents also noted that the SNPRM addressed the majority of their concerns regarding the originally proposed rule.

The respondents also offered comments on specific areas of concern, and recommended changes to improve the rule's language. The State DOTs and the AASHTO offered comments, which relate to their continued concern that the rule allow for adequate flexibility and scalability while limiting unintended liability and cost. Private sector respondents also offered specific comments on certain areas of concern. Details regarding these issues and FHWA's specific response are discussed in the following section, which provides a section-by-section analysis of the comments.

The level of support for the SNPRM is indicated by the fact that 23 of the 33 respondents expressed overall support for the provisions proposed in the

SNPRM. It is to be noted that these respondents were not necessarily supportive of all the provisions, but rather that, their overall position on the SNPRM was supportive. Many of these respondents provided suggestions on modifications and revised language for specific provisions as they deemed appropriate. Of the 23 respondents who were supportive, 21 represented State DOTs and 2 represented trade associations.

Of the remaining respondents, 2 opposed the issuance of the rule, 2 agreed with the intent and the concepts but did not agree with many of the mandatory provisions, and the remaining 6 did not expressly indicate their overall position.

One of the two respondents who opposed the issuance of the rule was the Iowa DOT. It expressed that it supports the goals of improved safety and reduced congestion, but opposes the proposed rule as it would not necessarily help achieve these goals. It believes that its current work zone policies are sufficient to provide for a high standard of safety and mobility. It noted that the rule is not flexible enough, and that it would require significant commitments from its limited staff.

The other respondent that opposed the rule was the Kansas DOT. It suggested that the FHWA retract the rule and, instead, issue the information on work zone safety and mobility as a guide for use by State DOTs. It believes that encouraging State DOTs to review and improve their current practices on work zone safety and mobility, through closer contact with FHWA and other partners, would be more effective than mandating specific processes. It also suggested changes to specific sections, and recommended that the FHWA implement the AASHTO's recommendations, if retraction of the rule was not an option.

Section-by-Section Analysis of SNPRM Comments and FHWA Response

Section 630.1002 Purpose

There were no major comments in response to this section. The overall sentiment of the respondents was supportive of the language as proposed in the SNPRM, and therefore, we will retain the language as proposed in the SNPRM.

Section 630.1004 Definitions and Explanation of Terms

Most respondents were supportive of this section. Some respondents offered specific comments on some of the

definitions proposed in the SNPRM. They are discussed as follows:

- **Definition for "Mobility."** The AGC of America remarked that the definition for mobility seems to imply a greater emphasis on mobility than on safety. It recommended that we change the second sentence of the definition to imply that work zone mobility should be achieved without compromising the safety of highway workers or road users. To address this comment the FHWA has amended the definition by adding the words, "while not compromising the safety of highway workers or road users" at the end of the second sentence. In addition, the word "smoothly" after the phrase, "mobility pertains to moving road users," has been replaced by the word "efficiently."

- **Definition for "Safety."** The AASHTO and several DOTs recommended that the term, "road worker(s)" be changed to "highway worker(s)" for the sake of consistency. We agree with this observation, and made this change. The Georgia DOT recommended that the term "danger" be changed to "potential hazards" to reduce potential liability. We agree with this recommendation, and therefore, replaced the word "danger" with "potential hazards" in the first sentence. In the second sentence, we rephrased "minimizing the exposure to danger of road users" with "minimizing potential hazards to road users."

- **Definition for "Temporary Traffic Control (TTC) Plan."** We moved the definition for the TTC plan from § 630.1004, Definitions and Explanation of Terms, to § 630.1012(b), Transportation Management Plan (TMP), where the requirements for the TTC plan are laid out. This is in response to a comment from the Georgia DOT that the language under the TTC plan section of § 630.1012(b) was not consistent with the Manual On Uniform Traffic Control Devices (MUTCD).¹ Since the definition for the TTC plan was referenced from the MUTCD, it was removed from the definitions section and placed in § 630.1012(b)(1), where TTC plans are discussed.

- **Definitions for "Work Zone" and "Work Zone Crash."** There were several comments recommending changes to certain terminology in both these definitions. For example, the AASHTO

¹ The MUTCD is approved by the FHWA and recognized as the national standard for traffic control on all public roads. It is incorporated by reference into the Code of Federal Regulations at 23 CFR part 655. It is available on the FHWA's Web site at <http://mutcd.fhwa.dot.gov> and is available for inspection and copying at the FHWA Washington, DC Headquarters and all FHWA Division Offices as prescribed at 49 CFR part 7.

and several DOTs suggested that the term, "traffic units," in the first sentence of the Work Zone Crash definition be changed to "road users." However, we have decided not to adopt the changes in order to maintain consistency with other industry accepted sources—the definition for "work zone" being referenced from the MUTCD, and that for "work zone crash," from the Model Minimum Uniform Crash Criteria Guideline (MMUCC).²

Section 630.1006 Work Zone Safety and Mobility Policy

The majority of the respondents supported the proposed language in this section. The AASHTO and several DOTs recommended the removal of the second clause in the second to last sentence, "representing the different project development stages." These respondents believe that this change would grant the States maximum flexibility to implement the most appropriate team for each project. The FHWA agrees with this observation and has deleted the phrase in question.

The ATSSA recommended that we specifically include or encourage the participation of experienced industry professionals in the multi-disciplinary team referenced in the second to last sentence. The FHWA believes that States will solicit the participation of industry representatives if required for the specific project under consideration.

The Kansas DOT commented that the use of the words "policy" and "guidance" in the same sentence could be confusing, as policies usually carry more weight than guidance. This comment refers to the second sentence, the first part of which reads, "This policy may take the form of processes, procedures, and/or guidance * * *". The FHWA disagrees because we believe that policies do not necessarily have to be mandates. For example, it may be a State DOT policy that it "shall" consider and manage work zone impacts of projects, but the actual

methods to do so may be provided as guidance to its district/region offices which may vary according to the different types of projects that they encounter. The underlying purpose of the work zone safety and mobility policy section is to require State DOTs to implement a policy for the systematic consideration and management of work zone impacts, so that such consideration and management becomes a part of the mainstream of DOT activities. How a State chooses to implement the policy is its prerogative—and it may take the form of processes, procedures, and/or guidance, and may vary upon the work zone impacts of projects.

The Virginia DOT commented on the second sentence of this section that it does not agree with the "shall" requirement to address work zone impacts through the various stages of project development and implementation. It justified its objection by saying that "addressing work zone impacts through the various stages of project development and implementation" will not work from a practical standpoint due to unforeseen field conditions and circumstances, and that the shall clause could result in potential litigation. The FHWA disagrees with the Virginia DOT. We would like to mention that the second sentence by itself, when taken out of context, doesn't quite convey the message of the entire section. The preceding sentence and the following sentence need to be considered in interpreting what the second sentence means. The first sentence requires that State DOTs implement a policy for the systematic consideration and management of work zone impacts on all Federal-aid highway projects. The second sentence further qualifies the term "systematic" by saying that the policy shall address work zone impacts throughout the various stages of project development and implementation—this implies that the consideration and management of work zone impacts progresses through the various stages. The third sentence further clarifies that the methods to implement this policy may not necessarily be absolute requirements, but rather be implemented through guidance. Further, the third sentence provides a more specific delineator by saying that the implementation of the policy may vary based upon the characteristics and expected work zone impacts of individual projects or classes of projects.

Section 630.1008 Agency-Level Processes and Procedures

The AASHTO and several State DOTs remarked that there is inconsistency with the use of "Agency" and "State Agency," and that this needs to be resolved. Further, a few State DOTs sought clarification as to whether "agency" applies to the State transportation agency or other entities that might be involved in the project development process (i.e., county and/or local governments and authorities). In response to this comment, we changed all instances of the terms "State Agency" and "Agency" in the entire subpart to the term "State," as referenced in the rule.

Section 630.1008(a), Section Introduction. There were no specific comments in response to the language in this paragraph. In the second sentence, to remove ambiguity and for clarity, we replaced the words "well defined data resources" with the words, "data and information resources."

The North Carolina DOT observed that the language in this paragraph is an introduction to the section, and that it should not be labeled as "(a)." We did not make this change because the Office of the Federal Register (OFR) requires paragraph designations on all text in a rule.

Section 630.1008(b), Work Zone Assessment and Management Procedures. Most respondents were supportive of the language in this paragraph.

Section 630.1008(c), Work Zone Data. Most State DOTs and the AASHTO opposed the mandatory requirement to use work zone crash and operational data towards improving work zone safety and mobility on ongoing projects, as well as to improve agency processes and procedures. One of the key reasons cited for this opposition was the difficulty and level of effort involved in obtaining and compiling data quickly enough to take remedial action on ongoing projects. A few DOTs also stated that using data to improve State-level procedures was feasible but not at the individual project level. The AASHTO also observed that there is already a reference to data in § 630.1008(e), "Process Review," where the use of data is optional and not mandatory. Some States recommended that we clarify the term "operational data," whether it is observed or collected data. They also noted that the "shall" clauses in the first two sentences are inconsistent with the "encouraged to" in the last sentence, and questioned as to how the use of data

² "Model Minimum Uniform Crash Criteria Guideline" (MMUCC), 2d Ed. (Electronic), 2003, produced by National Center for Statistics and Analysis, National Highway Traffic Safety Administration (NHTSA). Telephone 1-(800)-934-8517. Available at the URL: <http://www-nrd.nhtsa.dot.gov>. The NHTSA, the FHWA, the Federal Motor Carrier Safety Administration (FMCSA), and the Governors Highway Safety Association (GHSA) sponsored the development of the MMUCC Guideline which recommends voluntary implementation of the 111 MMUCC data elements and serves as a reporting threshold that includes all persons (injured and uninjured) in crashes statewide involving death, personal injury, or property damage of \$1,000 or more. The Guideline is a tool to strengthen existing State crash data systems.

can be mandated when the data resources themselves are optional. The California Transportation Department (CalTrans) questioned the objective of developing TMPs and conducting process reviews if appropriate performance measures and data collection standards are not identified for determining success.

The FHWA provides the following comments and responses to the above stated concerns:

- The purpose of the provisions in this section is not to require States to collect additional data during project implementation, but rather, to improve the use of available work zone field observations, crash data, and operational information to: (1) Manage the safety and mobility impacts of projects more effectively during implementation; and (2) provide the basis for systematic procedures to assess work zone impacts in project development.

For example, most agencies maintain field diaries for construction projects. These field diaries are intended to provide a log of problems, decisions, and progress made over the duration of a project. In many States, these diaries log incidents and actions such as the need to replace channelization devices into their proper positions after knockdown by an errant vehicle, or to deal with severe congestion that occurred at some point during the day. These log notes, when considered over time, may provide indications of safety or operational deficiencies. To address such deficiencies, it may be necessary and prudent to improve the delineation through the work zone to prevent future occurrences of knockdown events, or to alter work schedules to avoid the congestion that recurs at unexpected times due to some local traffic generation phenomena.

Police reports are another example of an available source of data that may be useful in increasing work zone safety. Provisions are made in many agencies for a copy of each crash report to be forwarded to the engineering section immediately upon police filing of the crash report. Where a work zone is involved, a copy of this report should be forwarded as soon as possible to the project safety manager to determine if the work zone traffic controls had any contribution to the crash so that remedial action can be taken.

These applications do not necessarily require that agencies gather new data, but there may be a need to improve processes to forward such reports to the appropriate staff member for review during project implementation and/or to provide guidance or training to facilitate

interpretation of these reports. Agencies may choose to enhance the data they capture to improve the effectiveness of these processes by following national crash data enhancement recommendations and/or linking it with other information (e.g., enforcement actions, public complaints, contractor claims). This same data and information can be gathered for multiple projects and analyzed by the agency to determine if there are common problems that could be remedied by a change in practices. The information may also be used for process reviews.

- The first sentence of this paragraph was revised to convey that States are required to use field observations, available work zone crash data, and operational information at the project level, to manage the work zone impacts of specific projects during project implementation. This provision requires States to use data and information that is available to them, so as to take appropriate actions in a timely manner to correct potential safety or mobility issues in the field. Operational information refers to any available information on the operation of the work zone, be it observed or collected. For example, many areas have Intelligent Transportation Systems (ITS) in place, and many others are implementing specific ITS deployments to manage traffic during construction projects. The application of this provision to a project where ITS is an available information resource, would result in the use of the ITS information to identify potential safety or mobility issues on that project.

- The second sentence was also revised to convey that work zone crash and operational data from multiple projects shall be analyzed towards improving State processes and procedures. Such analysis will help improve overall work zone safety and mobility. Data gathered during project implementation needs to be maintained for such post hoc analyses purposes. Such data can be used to support analyses that help improve State procedures and the effectiveness of future work zone safety and mobility assessment and management procedures.

- The respondents indicated that the use of "encouraged to" in the last sentence is inconsistent with the "shall" clauses in the first two sentences. Further, the phrase, "establish data resources at the agency and project levels" does not clearly convey the message of the provision. This provision does not require States to embark on a massive data collection, storage, and analysis effort, but rather to promote

better use of elements of their existing/available data and information resources to support the activities required in the first two sentences. Examples of existing/available data and information resources include: Project logs, field observations, police crash records, operational data from traffic surveillance devices (e.g., data from traffic management centers, ITS devices, etc.), other monitoring activities (e.g., work zone speed enforcement or citations), and/or public complaints. We revised the last sentence to convey that States should maintain elements of their data and information resources that logically support the required activities.

- In response to CalTrans' comment regarding establishing performance measures and data collection standards, we appreciate the value of the input, but we believe that we do not have adequate information at this time to specify performance measures for application at the National level. State DOTs may establish such performance measures and data collection standards as applicable to their individual needs and project scenarios. For example, the Ohio-DOT mandates that there shall always be at least two traffic lanes maintained in each direction for any work that is being performed on an Interstate or Interstate look-alike. We believe that such policies need to be developed and implemented according to individual State DOT needs, and hence we maintain a degree of flexibility in the rule language.

Section 630.1008(d), Training. Most State DOTs and the AASHTO opposed the mandatory requirement that would require training for the personnel responsible for work zone safety and mobility during the different project development and implementation stages. These respondents noted that the proposed language implied that State DOTs would be responsible for training all the listed personnel, including those who do not work for the DOT itself, and that this would create a huge resource burden, as well as increase the liability potential for the DOTs. These commenters also ratified their opposition by quoting the MUTCD training requirement, which does not mandate training, but suggests that personnel should be trained appropriate to the job decisions that they are required to make. Some DOTs, including the New York State DOT (NYSDOT), requested that the reference to personnel responsible for enforcement of work zone related transportation management and traffic control be clarified as to whether it refers to law enforcement officers or to field construction/safety inspectors.

The FHWA provides the following comments and responses to the above stated concerns:

- The FHWA agrees that the first sentence in the training section seems to imply that the State would be responsible for training all mentioned personnel; therefore, we changed the sentence to convey that the State shall "require" the mentioned personnel be trained. This change will require the State to train direct State employees only, and takes away the burden from the State to train personnel who are not direct employees. We believe that personnel responsible for the development, design, operation, inspection, and enforcement of work zone safety and mobility need to be trained, and this requirement will allow for training to be provided by the appropriate entities. The responsibility of the State would be to require such training, either through policy or through specification. For example, the Florida DOT has developed and required work zone training of their designers and contractors by procedure and by specifications. Similarly, the Maryland State Highway Administration (MD-SHA) provides a maintenance of traffic (MOT) design class to personnel responsible for planning and designing work zones, including consultants and contractors.

- Further, in keeping with the MUTCD language on training, we added the phrase, "appropriate to the job decisions each individual is required to make" to the end of the first sentence. This clarifies that the type and level of training will vary according to the responsibilities of the different personnel. For example, Maryland State Highway Police officers attend a 4-hour work zone safety and traffic control session at the Police Academy.

- We also revised the second sentence to convey that States shall require periodic training updates that reflect changing industry practices and State processes and procedures. Since we revised the first sentence to convey that training of non-State personnel is not a State responsibility, in the second sentence, we deleted the phrase, "States are encouraged to keep records of the training successfully completed by these personnel."

- In response to the request that "personnel responsible for enforcement" of work zone related transportation management and traffic control be clarified, we believe that this group is inclusive of both law enforcement officers and field construction/safety inspectors.

Section 630.1008(e), Process Review. Most respondents were supportive of

the language in this section. The AASHTO and several State DOTs recommended that States should have maximum flexibility to implement the most appropriate team for each project. These commenters suggested that the fourth and the fifth sentences of the section be deleted, and that the clause, "as well as FHWA" be added to the end of the third sentence.

The FHWA agrees with the observation made by the AASHTO and State DOTs that States should have maximum flexibility to implement the most appropriate review team for each project. Therefore, as suggested, we deleted the fourth and the fifth sentence of the section, and added the clause, "as well as FHWA" to the end of the third sentence. Further, in the third sentence, we changed the phrase "are encouraged to" to "should."

Section 630.1010 Significant Projects

All respondents agreed with the concept of defining significant projects, and the requirement to identify projects that are expected to have significant work zone impacts; however, most State DOTs and the AASHTO opposed the requirement to classify Interstate system projects that occupy a location for more than three days with either intermittent or continuous lane closures, as significant. They cited that all Interstate system projects that occupy a location for more than three days would not necessarily have significant work zone impacts, particularly on low-volume rural Interstate sections. Several DOTs remarked that designation of significant projects purely based on the duration would not be prudent, and that the volume of traffic on that Interstate should be taken into account. They also noted that such classification is not consistent with the MUTCD. They remarked that this provision could not be effectively applied to routine maintenance activities performed by State DOT maintenance crews, and that requesting exceptions to such routine work would be unreasonably arduous.

These respondents also objected to the associated exemption clause for the same provision, commenting that it would be very cumbersome to implement. Some States also requested clarification on whether general exceptions would be granted for work categories for defined segments of Interstate projects where the work would have little impact.

The DOTs of Idaho, Montana, North Dakota, South Dakota, and Wyoming commented that the threshold for designating the reference Interstate projects as significant was too low. They suggested that low volume Interstates

and rural Interstates should be excluded, and that, the duration should be extended well above the three-day duration.

The AASHTO and the State DOTs also remarked that the identification of significant projects in "cooperation with the FHWA" should be changed to "in consultation with the FHWA."

The FHWA provides the following responses and proposed action in response to the referenced concerns:

- We agree with the majority of the concerns raised by the respondents.

- We changed the significant projects clause as applicable to Interstate system projects, to require States to classify as significant projects, all Interstate system projects within the boundaries of a designated Transportation Management Area (TMA), that occupy a location for more than three days with either intermittent or continuous lane closures. We believe that this change addresses all the concerns raised by the respondents. The delineation of projects by the boundaries of a designated TMA will address the work zone impacts of lane-closures on Interstate segments in the most heavily traveled areas with recurring congestion problems. We believe that in general, areas with recurring congestion tend to be severely impacted by lane closures as compared to those without recurring congestion. We also believe that the areas that are already designated as TMAs tend to exhibit patterns of recurring congestion on their Interstates due to heavy traffic demand and limited capacity. This revision, in most cases, would also not require low-volume rural Interstate segments to be classified as significant projects.

- We revised the exemption clause provisions related to the applicable Interstate system projects to allow for exemptions to "categories of projects." This will provide for blanket exemptions for specific categories of projects on Interstate segments that are not expected to have significant work zone impacts. This will eliminate the burdensome procedural aspect of seeking exemptions for Interstate projects on an individual project basis.

- We also reorganized this section to consist of paragraphs (a), (b), (c), and (d). Paragraph (a) provides the general definition for a significant project, with no changes in language from what was proposed in the SNPRM. Paragraph (b) enumerates the purpose of classifying projects as significant, and lays out the requirements for States to classify projects as significant. This language is also the same as what was proposed in the SNPRM. Paragraph (c) provides the revised definition of significant projects

as applicable to Interstate system projects. Paragraph (d) provides the revised exemption clause as applicable to significant projects on the Interstate system.

- In keeping with the overall recommendation of respondents, we changed all instances of "Agency" and "State Agency" to "State."

- We do not agree with the recommendation that the identification of significant projects should be done in "consultation" with the FHWA rather than "cooperation with the FHWA." We believe that this is a cooperative process, rather than requiring just consultation. Therefore, we did not make any change to this terminology.

Section 630.1012 Project-Level Procedures

Section 630.1012(a). The North Carolina DOT observed that the language in this section is an introduction to the section, and that it should not be labeled as "(a)." We did not make this change because the OFR requires paragraph designations on all text in a rule.

The ITE recommended that the FHWA should encourage consideration of work zone impacts prior to project development, at the corridor and Transportation Improvement Program (TIP) and program development stage. It provided examples of decisions that would be made at the earlier stages, such as, life-cycle cost decisions, and project scheduling decisions. We appreciate ITE's input and agree with the general intent of its suggested content. We believe that the language in §§ 630.1002, Purpose and 630.1010, Significant Projects covers some of the issues to which the ITE refers. Specifically, the following two sentences from the respective sections address the ITE's concerns:

- From § 630.1002, Purpose: "Addressing these safety and mobility issues requires considerations that start early in project development and continue through project completion."

- From § 630.1010, Significant Projects: "This identification of significant projects should be done as early as possible in the project delivery and development process, and in cooperation with the FHWA."

Section 630.1012(b), Transportation Management Plan (TMP). Most respondents were supportive of the provisions in this section.

The Florida DOT requested further definition for the phrase "less than significant work zone impacts." We believe that the definition for "work zone impacts" as provided in § 630.1004 and the clauses for identification of

projects with significant work zone impacts, as stated in § 630.1010 adequately describe the phrase "less than significant work zone impacts." We did not take any action in response to this comment.

The New Jersey DOT recommended that, in order to facilitate maximum flexibility to States, the term "typically" be introduced before the word "consists" in the third sentence of this section. We do not agree with the suggested edit because for significant projects, a TMP shall always consist of a TTC plan, and address Transportation Operations (TO) and Public Information (PI) components, unless an exemption has been granted for that project. We did not take any action in response to this comment.

Section 630.1012(b)(1), Temporary Traffic Control (TTC) Plan. In general, most respondents were supportive of the provisions in this section, except the provision regarding maintenance of pre-existing roadside safety features.

Most State DOTs and the AASHTO were opposed to the provision, which required the maintenance of pre-existing roadside safety features in developing and implementing the TTC plan. They recommended that the FHWA either remove the requirement or change the mandatory "shall" to a "should."

Several DOTs stated that maintenance of all pre-existing roadside safety features would be very difficult, especially, in urban areas. Other DOTs requested clarification on what "pre-existing roadside safety features" would entail—whether it would include items like signs, guardrail, and barriers, or it would include features like shoulders, slopes and other geometric aspects. On that note, several DOTs mentioned that maintenance of pre-existing roadside safety "hardware" would be more practical than maintaining pre-existing roadside safety features.

The Laborers Health and Safety Foundation of North America (LHSFNA) continued to stress the requirement for Internal Traffic Control Plans (ITCPs) for managing men and materials within the work area, so as to address worker safety issues better, and to level the playing field for contractors.

The FHWA offers the following in response to the comments and concerns raised above:

- The FHWA agrees with most of the concerns raised by the respondents.

- In the fourth sentence of paragraph (b)(1), we changed the term "pre-existing roadside safety features," to "pre-existing roadside safety hardware." We believe that this change will address all the concerns raised by the

respondents, and eliminate ambiguity and subjectivity from the requirement.

- In response to the LHSFNA's comment regarding ITCPs, we agree that ITCPs are important for providing for worker safety inside the work area, but we still believe that this issue is outside the purview of this rulemaking effort and this subpart.

- In order to be consistent with the remaining sections of this subpart, and to eliminate ambiguity, we deleted the first sentence of this section, and replaced it with the definition for TTC plan as stated in § 630.1004. Consequently, we removed the definition for TTC plan from § 630.1004.

Section 630.1012(b)(2), Transportation Operations (TO) Component. Most respondents were supportive of the provisions in this section. The AASHTO and several DOTs suggested that "traveler information" be removed as a typical TO strategy because "traveler information" fits more logically in the PI component. The New Jersey DOT recommended that the phrase "transportation operations and safety requirements" be changed to "transportation operations and safety strategies," so as to soften the tone of the language.

We agree with both of the above observations; therefore, we removed "traveler information" from the listing of typical TO strategies in the second sentence. We also changed the phrase "transportation operations and safety requirements" to "transportation operations and safety strategies" in the last sentence.

Section 630.1012(b)(3), Public Information Component. Most respondents were supportive of the provisions in this section. The AASHTO and several DOTs suggested that "traveler information" be included as a typical PI strategy rather than a TO strategy, because "traveler information" fits more logically in the PI component. The New Jersey DOT recommended that the phrase "public information and outreach requirements" be changed to "public information and outreach strategies," so as to soften the tone of the language.

We agree with both of the above observations; therefore, we added a new sentence after the first sentence, to indicate that the PI component may include traveler information strategies. We also changed the phrase "public information and outreach requirements" to "public information and outreach strategies" in the third sentence.

Section 630.1012(b)(4), Coordinated Development of TMP. Most respondents were supportive of the provisions in this section. The AASHTO and several DOTs

recommended that the terminology, "coordination and partnership" in the first sentence, be changed to "consultation," so that it doesn't imply active and direct participation from all the subjects. They explained that the term "coordination" implies that all participants have veto/negative powers which may delay project delivery as it is impossible to satisfy everybody. Further, the DOTs of Idaho, Montana, North Dakota, South Dakota, and Wyoming commented that the use of "i.e." for the list of stakeholders implies that all those stakeholders are required for all projects. So they recommended that we change the "i.e." to "e.g." so that it would imply that the list provides examples of possible stakeholders, and that all of them need not be involved in all projects.

The FHWA agrees with both of the above observations and recommendations; therefore, we changed the phrase "partnership and coordination" to "consultation" in the first sentence of this section. We also changed "i.e." to "e.g." for the list of stakeholders.

Section 630.1012(c), Inclusion of TMPs in Plans, Specifications, and Estimates (PS&Es). Most respondents were supportive of the provisions in this section. The DOTs of Idaho, Montana, North Dakota, South Dakota, and Wyoming noted that the last sentence in this section could imply that the State shall approve any TMP that is developed by the contractor, irrespective of whether it meets the standards or not. They recommended that the sentence be revised for clarity.

The FHWA agrees with the above observation. We revised the last sentence of this section to convey that contractor developed TMPs shall be subject to the approval of the State, and that the TMPs shall not be implemented before they are approved by the State. This clarifies the language and explicitly states the notion that it is the State that is ultimately responsible for approving any contractor developed TMP.

Section 630.1012(d), Pay Items. Most respondents were supportive of the provisions in this section. However, the ATSSA and the AGC of America opposed the option in § 630.1012(d)(1) for States to use lump sum pay items for implementing the TMPs. The ATSSA believes that unit bid items provide greater specificity and are a better indicator of the direct cost of work zones. Conversely, the use of a lump sum pay item provides less comprehensive data, and may, in some cases, limit, or eliminate the contractor's ability to make a profit on certain

projects due to unknown equipment or device requirements either during bidding or project implementation. It cited that unit pay items, especially for the TTC plan, would require that all the identified work zone safety and mobility strategies/equipment/devices be provided for by the contractor. This would level the playing field, and not place conscientious contractors (those who lay emphasis on work zone safety and mobility and include them in their bids) at a disadvantage.

The FHWA recognizes ATSSA's and AGC's concerns, but we believe that States have the required understanding of when to use unit pay items and when not to, and that the requirement for unit pay items on all projects is not practical for real-world application. Therefore, we did not remove the option for DOTs to use lump sum contracting.

We changed "i.e." to "e.g." for the list of possible performance criteria for performance specifications in § 630.1012(d)(2), to remove the implication that the list is an exhaustive list of performance criteria.

Section 630.1012(e), Responsible Persons. Most respondents were supportive of the provisions in this section. A few State DOTs remarked that the terms "qualified person," "assuring," and "effectively administered," in § 630.1012(e) were ambiguous and lent themselves to subjective interpretation.

The FHWA agrees with the above observations. We changed the term "qualified" to "trained," as specified in § 630.1008(d) so as to clarify the requirement for the responsible person. We also changed the phrase "assuring that" to "implementing," and deleted the phrase, "are effectively administered."

Section 630.1014 Implementation

Most respondents were supportive of the provisions in this section. We did not make any changes to the language in this section.

Section 630.1016 Compliance Date

Most respondents were supportive of the provisions in this section. We did not make any changes to the language in this section.

Rulemaking Analyses and Notices

Executive Order 12866 (Regulatory Planning and Review) and U.S. DOT

Regulatory Policies and Procedures

The FHWA has determined that this action is not a significant regulatory action within the meaning of Executive Order 12866 or significant within the meaning of the U.S. Department of

Transportation regulatory policies and procedures.

This final rule is not anticipated to adversely affect, in a material way, any sector of the economy. In addition, these changes will not create a serious inconsistency with any other agency's action or materially alter the budgetary impact of any entitlements, grants, user fees, or loan programs; nor will the changes raise any novel legal or policy issues. Therefore, a full regulatory evaluation is not required.

Regulatory Flexibility Act

In compliance with the Regulatory Flexibility Act (RFA) (Pub. L. 96-354, 5 U.S.C. 601-612), the FHWA has evaluated the effects of this final rule on small entities and has determined that it will not have a significant economic impact on a substantial number of small entities.

This rule applies to State departments of transportation in the execution of their highway program, specifically with respect to work zone safety and mobility. The implementation of the provisions in this rule will not affect the economic viability or sustenance of small entities, as States are not included in the definition of small entity set forth in 5 U.S.C. 601. For these reasons, the RFA does not apply and the FHWA certifies that the final rule will not have a significant economic impact on a substantial number of small entities.

Unfunded Mandates Reform Act of 1995

This final rule will not impose unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4, March 22, 1995, 109 Stat. 48). The final rule will not result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$120.7 million or more in any one year (2 U.S.C. 1532).

Executive Order 13132 (Federalism)

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 13132, dated August 4, 1999, and it has been determined that this action does not have a substantial direct effect or sufficient federalism implications on States that would limit the policymaking discretion of the States. Nothing in this document directly preempts any State law or regulation or affects the States' ability to discharge traditional State governmental functions.

Executive Order 12372 (Intergovernmental Review)

Catalog of Federal Domestic Assistance Program Number 20.205,

Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.

Paperwork Reduction Act of 1995

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct, sponsor, or require through regulations.

The FHWA has determined that this final rule contains a requirement for data and information to be collected and maintained in the support of design, construction, and operational decisions that affect the safety and mobility of the traveling public related to highway and roadway work zones. This information collection requirement was submitted to and approved by the OMB, pursuant to the provisions of the PRA. In this submission, the FHWA requested the OMB to approve a single information collection clearance for all of the data and information in this final rule. The requirement has been approved, through July 31, 2007; OMB Control No. 2125-0600.

The FHWA estimates that a total of 83,200 burden hours per year would be imposed on non-Federal entities to provide the required information for the regulation requirements. Respondents to this information collection include State Transportation Departments from all 50 States, Puerto Rico, and the District of Columbia. The estimates here only include burdens on the respondents to provide information that is not usually and customarily collected.

Executive Order 13175 (Tribal Consultation)

The FHWA has analyzed this action under Executive Order 13175, dated November 6, 2000, and believes that this action will not have substantial direct effects on one or more Indian tribes; will not impose substantial direct compliance costs on Indian tribal governments; and will not preempt tribal law. This rulemaking primarily applies to urbanized metropolitan areas and National Highway System (NHS) roadways that are under the jurisdiction of State transportation departments. The purpose of this final rule is to mitigate the safety and mobility impacts of highway construction and maintenance projects on the transportation system, and would not impose any direct compliance requirements on Indian tribal governments and will not have any economic or other impacts on the

viability of Indian tribes. Therefore, a tribal summary impact statement is not required.

Executive Order 13211 (Energy Effects)

The FHWA has analyzed this action under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution or Use. We have determined that this is not a significant energy action under that order because it is not a significant regulatory action under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we believe that the implementation of the final rule by State departments of transportation will reduce the amount of congested travel on our highways, thereby reducing the fuel consumption associated with congested travel. Therefore, the FHWA certifies that a Statement of Energy Effects under Executive Order 13211 is not required.

National Environmental Policy Act

The FHWA has analyzed this action for the purposes of the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347 *et seq.*) and has determined that this action will not have any effect on the quality of the environment. Further, we believe that the implementation of the final rule by State departments of transportation will reduce the amount of congested travel on our highways. This reduction in congested travel will reduce automobile emissions thereby contributing to a cleaner environment.

Executive Order 12630 (Taking of Private Property)

The FHWA has analyzed this final rule under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights. The FHWA does not anticipate that this action will affect a taking of private property or otherwise have taking implications under Executive Order 12630.

Executive Order 12988 (Civil Justice Reform)

This action meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

Executive Order 13045 (Protection of Children)

The FHWA has analyzed this action under Executive Order 13045, Protection of Children from

Environmental Health Risks and Safety Risks. The FHWA certifies that this action will not cause an environmental risk to health or safety that may disproportionately affect children.

Regulation Identification Number

A regulation identification number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross reference this action with the Unified Agenda.

List of Subjects in 23 CFR Part 630

Government contracts, Grant programs—transportation, Highway safety, Highways and roads, Incorporation by reference, Project agreement, Traffic regulations.

Issued on: September 1, 2004.

Mary E. Peters,
Federal Highway Administrator.

■ In consideration of the foregoing, the FHWA amends title 23, Code of Federal Regulations, Part 630, as follows:

PART 630—PRECONSTRUCTION PROCEDURES

■ 1. The authority citation for part 630 continues to read as follows:

Authority: 23 U.S.C. 106, 109, 115, 315, 320, and 402(a); 23 CFR 1.32; and 49 CFR 1.48(b).

■ 2. Revise subpart J of part 630 to read as follows:

Subpart J—Work Zone Safety and Mobility

Sec.	
630.1002	Purpose.
630.1004	Definitions and explanation of terms.
630.1006	Workzone safety and mobility policy.
630.1008	State-level processes and procedures.
630.1010	Significant projects.
630.1012	Project-level procedures.
630.1014	Implementation.
630.1016	Compliance date.

§ 630.1002 Purpose.

Work zones directly impact the safety and mobility of road users and highway workers. These safety and mobility impacts are exacerbated by an aging highway infrastructure and growing congestion in many locations. Addressing these safety and mobility issues requires considerations that start early in project development and continue through project completion. Part 6 of the Manual On Uniform Traffic

Control Devices (MUTCD)¹ sets forth basic principles and prescribes standards for the design, application, installation, and maintenance of traffic control devices for highway and street construction, maintenance operation, and utility work. In addition to the provisions in the MUTCD, there are other actions that could be taken to further help mitigate the safety and mobility impacts of work zones. This subpart establishes requirements and provides guidance for systematically addressing the safety and mobility impacts of work zones, and developing strategies to help manage these impacts on all Federal-aid highway projects.

§ 630.1004 Definitions and explanation of terms.

As used in this subpart:

Highway workers include, but are not limited to, personnel of the contractor, subcontractor, DOT, utilities, and law enforcement, performing work within the right-of-way of a transportation facility.

Mobility is the ability to move from place to place and is significantly dependent on the availability of transportation facilities and on system operating conditions. With specific reference to work zones, mobility pertains to moving road users efficiently through or around a work zone area with a minimum delay compared to baseline travel when no work zone is present, while not compromising the safety of highway workers or road users. The commonly used performance measures for the assessment of mobility include delay, speed, travel time and queue lengths.

Safety is a representation of the level of exposure to potential hazards for users of transportation facilities and highway workers. With specific reference to work zones, safety refers to minimizing potential hazards to road users in the vicinity of a work zone and highway workers at the work zone interface with traffic. The commonly used measures for highway safety are the number of crashes or the consequences of crashes (fatalities and injuries) at a given location or along a section of highway during a period of time. Highway worker safety in work zones refers to the safety of workers at the work zone interface with traffic and the impacts of the work zone design on

worker safety. The number of worker fatalities and injuries at a given location or along a section of highway, during a period of time are commonly used measures for highway worker safety.

Work zone² is an area of a highway with construction, maintenance, or utility work activities. A work zone is typically marked by signs, channelizing devices, barriers, pavement markings, and/or work vehicles. It extends from the first warning sign or high-intensity rotating, flashing, oscillating, or strobe lights on a vehicle to the END ROAD WORK sign or the last temporary traffic control (TTC) device.

Work zone crash³ means a traffic crash in which the first harmful event occurs within the boundaries of a work zone or on an approach to or exit from a work zone, resulting from an activity, behavior, or control related to the movement of the traffic units through the work zone. This includes crashes occurring on approach to, exiting from or adjacent to work zones that are related to the work zone.

Work zone impacts refer to work zone-induced deviations from the normal range of transportation system safety and mobility. The extent of the work zone impacts may vary based on factors such as, road classification, area type (urban, suburban, and rural), traffic and travel characteristics, type of work being performed, time of day/night, and complexity of the project. These impacts may extend beyond the physical location of the work zone itself, and may occur on the roadway on which the work is being performed, as well as other highway corridors, other modes of transportation, and/or the regional transportation network.

§ 630.1006 Work zone safety and mobility policy.

Each State shall implement a policy for the systematic consideration and management of work zone impacts on all Federal-aid highway projects. This policy shall address work zone impacts

throughout the various stages of the project development and implementation process. This policy may take the form of processes, procedures, and/or guidance, and may vary based on the characteristics and expected work zone impacts of individual projects or classes of projects. The States should institute this policy using a multi-disciplinary team and in partnership with the FHWA. The States are encouraged to implement this policy for non-Federal-aid projects as well.

§ 630.1008 State-level processes and procedures.

(a) This section consists of State-level processes and procedures for States to implement and sustain their respective work zone safety and mobility policies. State-level processes and procedures, data and information resources, training, and periodic evaluation enable a systematic approach for addressing and managing the safety and mobility impacts of work zones.

(b) **Work zone assessment and management procedures.** States should develop and implement systematic procedures to assess work zone impacts in project development, and to manage safety and mobility during project implementation. The scope of these procedures shall be based on the project characteristics.

(c) **Work zone data.** States shall use field observations, available work zone crash data, and operational information to manage work zone impacts for specific projects during implementation. States shall continually pursue improvement of work zone safety and mobility by analyzing work zone crash and operational data from multiple projects to improve State processes and procedures. States should maintain elements of the data and information resources that are necessary to support these activities.

(d) **Training.** States shall require that personnel involved in the development, design, implementation, operation, inspection, and enforcement of work zone related transportation management and traffic control be trained, appropriate to the job decisions each individual is required to make. States shall require periodic training updates that reflect changing industry practices and State processes and procedures.

(e) **Process review.** In order to assess the effectiveness of work zone safety and mobility procedures, the States shall perform a process review at least every two years. This review may include the evaluation of work zone data at the State level, and/or review of randomly selected projects throughout

¹ The MUTCD is approved by the FHWA and recognized as the national standard for traffic control on all public roads. It is incorporated by reference into the Code of Federal Regulations at 23 CFR part 655. It is available on the FHWA's Web site at <http://mutcd.fhwa.dot.gov> and is available for inspection and copying at the FHWA Washington, DC Headquarters and all FHWA Division Offices as prescribed at 49 CFR part 7.

² MUTCD, Part 6, "Temporary Traffic Control," Section 6C.02, "Temporary Traffic Control Zones."

³ "Model Minimum Uniform Crash Criteria Guideline" (MMUCC), 2d Ed. (Electronic), 2003, produced by National Center for Statistics and Analysis, National Highway Traffic Safety Administration (NHTSA). Telephone 1-(800)-934-8517. Available at the URL: <http://www-nrd.nhtsa.dot.gov>. The NHTSA, the FHWA, the Federal Motor Carrier Safety Administration (FMCSA), and the Governors Highway Safety Association (GHSA) sponsored the development of the MMUCC Guideline which recommends voluntary implementation of the 111 MMUCC data elements and serves as a reporting threshold that includes all persons (injured and uninjured) in crashes statewide involving death, personal injury, or property damage of \$1,000 or more. The Guideline is a tool to strengthen existing State crash data systems.

their jurisdictions. Appropriate personnel who represent the project development stages and the different offices within the State, and the FHWA should participate in this review. Other non-State stakeholders may also be included in this review, as appropriate. The results of the review are intended to lead to improvements in work zone processes and procedures, data and information resources, and training programs so as to enhance efforts to address safety and mobility on current and future projects.

§ 630.1010 Significant projects.

(a) A significant project is one that, alone or in combination with other concurrent projects nearby is anticipated to cause sustained work zone impacts (as defined in § 630.1004) that are greater than what is considered tolerable based on State policy and/or engineering judgment.

(b) The applicability of the provisions in §§ 630.1012(b)(2) and 630.1012(b)(3) is dependent upon whether a project is determined to be significant. The State shall identify upcoming projects that are expected to be significant. This identification of significant projects should be done as early as possible in the project delivery and development process, and in cooperation with the FHWA. The State's work zone policy provisions, the project's characteristics, and the magnitude and extent of the anticipated work zone impacts should be considered when determining if a project is significant or not.

(c) All Interstate system projects within the boundaries of a designated Transportation Management Area (TMA) that occupy a location for more than three days with either intermittent or continuous lane closures shall be considered as significant projects.

(d) For an Interstate system project or categories of Interstate system projects that are classified as significant through the application of the provisions in § 630.1010(c), but in the judgment of the State they do not cause sustained work zone impacts, the State may request from the FHWA, an exception to §§ 630.1012(b)(2) and 630.1012(b)(3). Exceptions to these provisions may be granted by the FHWA based on the State's ability to show that the specific Interstate system project or categories of Interstate system projects do not have sustained work zone impacts.

§ 630.1012 Project-level procedures.

(a) This section provides guidance and establishes procedures for States to manage the work zone impacts of individual projects.

(b) *Transportation Management Plan (TMP).* A TMP consists of strategies to manage the work zone impacts of a project. Its scope, content, and degree of detail may vary based upon the State's work zone policy, and the State's understanding of the expected work zone impacts of the project. For significant projects (as defined in § 630.1010), the State shall develop a TMP that consists of a Temporary Traffic Control (TTC) plan and addresses both Transportation Operations (TO) and Public Information (PI) components. For individual projects or classes of projects that the State determines to have less than significant work zone impacts, the TMP may consist only of a TTC plan. States are encouraged to consider TO and PI issues for all projects.

(1) A TTC plan describes TTC measures to be used for facilitating road users through a work zone or an incident area. The TTC plan plays a vital role in providing continuity of reasonably safe and efficient road user flow and highway worker safety when a work zone, incident, or other event temporarily disrupts normal road user flow. The TTC plan shall be consistent with the provisions under Part 6 of the MUTCD and with the work zone hardware recommendations in Chapter 9 of the American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide. Chapter 9 of the AASHTO Roadside Design Guide: "Traffic Barriers, Traffic Control Devices, and Other Safety Features for Work Zones" 2002, is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 and is on file at the National Archives and Record 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. The entire document is available for purchase from the American Association of State Highway and Transportation Officials (AASHTO), 444 North Capitol Street, NW., Suite 249, Washington, DC 20001 or at the URL: <http://www.aashto.org/bookstore>. It is available for inspection from the FHWA Washington Headquarters and all Division Offices as listed in 49 CFR Part 7. In developing and implementing the TTC plan, pre-existing roadside safety hardware shall be maintained at an equivalent or better level than existed prior to project implementation. The scope of the TTC plan is determined by the project characteristics, and the traffic safety and

control requirements identified by the State for that project. The TTC plan shall either be a reference to specific TTC elements in the MUTCD, approved standard TTC plans, State transportation department TTC manual, or be designed specifically for the project.

(2) The TO component of the TMP shall include the identification of strategies that will be used to mitigate impacts of the work zone on the operation and management of the transportation system within the work zone impact area. Typical TO strategies may include, but are not limited to, demand management, corridor/network management, safety management and enforcement, and work zone traffic management. The scope of the TO component should be determined by the project characteristics, and the transportation operations and safety strategies identified by the State.

(3) The PI component of the TMP shall include communications strategies that seek to inform affected road users, the general public, area residences and businesses, and appropriate public entities about the project, the expected work zone impacts, and the changing conditions on the project. This may include traveler information strategies. The scope of the PI component should be determined by the project characteristics and the public information and outreach strategies identified by the State. Public information should be provided through methods best suited for the project, and may include, but not be limited to, information on the project characteristics, expected impacts, closure details, and commuter alternatives.

(4) States should develop and implement the TMP in sustained consultation with stakeholders (e.g., other transportation agencies, railroad agencies/operators, transit providers, freight movers, utility suppliers, police, fire, emergency medical services, schools, business communities, and regional transportation management centers).

(c) The Plans, Specifications, and Estimates (PS&Es) shall include either a TMP or provisions for contractors to develop a TMP at the most appropriate project phase as applicable to the State's chosen contracting methodology for the project. A contractor developed TMP shall be subject to the approval of the State, and shall not be implemented before it is approved by the State.

(d) The PS&Es shall include appropriate pay item provisions for implementing the TMP, either through method or performance based specifications.

(1) For method-based specifications individual pay items, lump sum payment, or a combination thereof may be used.

(2) For performance based specifications, applicable performance criteria and standards may be used (e.g., safety performance criteria such as number of crashes within the work zone; mobility performance criteria such as travel time through the work zone, delay, queue length, traffic volume; incident response and clearance criteria; work duration criteria).

(e) Responsible persons. The State and the contractor shall each designate a trained person, as specified in § 630.1008(d), at the project level who has the primary responsibility and sufficient authority for implementing the TMP and other safety and mobility aspects of the project.

§ 630.1014 Implementation.

Each State shall work in partnership with the FHWA in the implementation of its policies and procedures to improve work zone safety and mobility. At a minimum, this shall involve an FHWA review of conformance of the State's policies and procedures with this regulation and reassessment of the State's implementation of its procedures at appropriate intervals. Each State is encouraged to address implementation of this regulation in its stewardship agreement with the FHWA.

§ 630.1016 Compliance Date.

States shall comply with all the provisions of this rule no later than October 12, 2007. For projects that are in the later stages of development at or about the compliance date, and if it is determined that the delivery of those projects would be significantly impacted as a result of this rule's provisions, States may request variances for those projects from the FHWA, on a project-by-project basis.

[FR Doc. 04-20340 Filed 9-8-04; 8:45 am]

BILLING CODE 4910-22-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 100

[CGD05-04-155]

RIN 1625-AA08

Special Local Regulations for Marine Events; Hampton River, Hampton, VA

AGENCY: Coast Guard, DHS.

ACTION: Notice of implementation of regulation.

SUMMARY: The Coast Guard is implementing the special local regulations at 33 CFR 100.508 during the Hampton Bay Days Festival to be held September 10-12, 2004, on the waters of the Hampton River at Hampton, Virginia. These special local regulations are necessary to control vessel traffic due to the confined nature of the waterway and expected vessel congestion during the festival events. The effect will be to restrict general navigation in the regulated area for the safety of event participants, spectators and vessels transiting the event area.

DATES: 33 CFR 100.508 will be enforced from 12 p.m. e.d.t. on September 10, 2004 through 6 p.m. e.d.t. on September 12, 2004.

ADDRESSES: Comments and material received from the public, as well as documents mentioned in this preamble as being available in the docket, are part of docket CGD05-04-155 and are available for inspection or copying at Coast Guard Group Hampton Roads, 4000 Coast Guard Blvd., Portsmouth, VA 23703-2199.

FOR FURTHER INFORMATION CONTACT: Chief Petty Officer Michael Bowling, at (757) 483-8521.

SUPPLEMENTARY INFORMATION: Hampton Bay Days, Inc. will sponsor the Hampton Bay Days Festival on September 10-12, 2004 on the Hampton River, Hampton, Virginia. The festival will include water ski demonstrations, personal watercraft and wake board competitions, paddle boat races, classic boat displays, fireworks displays and a helicopter rescue demonstration. A fleet of spectator vessels is expected to gather nearby to view the festival events. In order to ensure the safety of participants, spectators and transiting vessels, 33 CFR 100.508 will be enforced for the duration of the festival activities. Under provisions of 33 CFR 100.508, vessels may not enter the regulated area without permission from the Coast Guard Patrol Commander. Spectator vessels may enter and anchor in the special spectator anchorage areas if they proceed at slow, no wake speed. The Coast Guard Patrol Commander will allow vessels to transit the regulated area between festival events. Because these restrictions will be in effect for a limited period, they should not result in a significant disruption of maritime traffic.

In addition to this notice, the maritime community will be provided extensive advance notification via the Local Notice to Mariners, marine

information broadcasts, and area newspapers, so mariners can adjust their plans accordingly.

Dated: August 19, 2004.

Ben R. Thomason, III,
Captain, U.S. Coast Guard, Acting
Commander, Fifth Coast Guard District.
[FR Doc. 04-20454 Filed 9-8-04; 8:45 am]

BILLING CODE 4910-15-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 117

[CGD01-04-114]

Drawbridge Operation Regulations: Fore River, ME

AGENCY: Coast Guard, DHS.

ACTION: Notice of temporary deviation from regulations.

SUMMARY: The Commander, First Coast Guard District, has issued a temporary deviation from the drawbridge operation regulations for the Casco Bay Bridge, mile 1.5, across the Fore River between Portland and South Portland, Maine. This temporary deviation allows the bridge owner to require a four-hour advance notice for bridge openings from September 7, 2004 through November 5, 2004. Additionally, this deviation also allows the bridge to remain in the closed position, Monday through Friday, 9 p.m. to 5 a.m. from September 13, 2004 through October 1, 2004, and again, Monday through Friday, 6 a.m. to 6 p.m. from October 4, 2004 through October 22, 2004. This temporary deviation is necessary to facilitate structural modifications at the bridge.

DATES: This deviation is effective from September 7, 2004 through November 5, 2004.

FOR FURTHER INFORMATION CONTACT: John McDonald, Project Officer, First Coast Guard District, at (617) 223-8364.

SUPPLEMENTARY INFORMATION: The bridge owner, Maine Department of Transportation, requested a temporary deviation from the drawbridge operating regulations to facilitate structural modifications designed to improve reliability of the operating system at the bridge. The Coast Guard coordinated these requested closures with the mariners that normally use this waterway in order to minimize any disruption to the marine transit system.

Under this temporary deviation a four-hour advance notice for bridge openings shall be required from September 7, 2004 through November 5,

feed to lactating goats. Type C feeds may be manufactured from monensin liquid Type B feeds. The liquid Type B feeds have a pH of 4.3 to 7.1 and their labels must bear appropriate mixing directions, as defined in paragraph (d)(12) of this section. See special labeling considerations in paragraph (d) of this section.

* * * * *

Dated: November 20, 2007.

Bernadette Dunham,

Deputy Director, Center for Veterinary Medicine.

[FR Doc. E7-23517 Filed 12-4-07; 8:45 am]

BILLING CODE 4160-01-S

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

23 CFR Part 630

[FHWA Docket No. FHWA-2006-25203]

RIN 2125-AF10

Temporary Traffic Control Devices

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Final rule.

SUMMARY: The FHWA is adding a new Subpart K to 23 CFR part 630 to supplement existing regulations that govern work zone safety and mobility in highway and street work zones to include conditions for the appropriate use of, and expenditure of funds for, uniformed law enforcement officers, positive protective measures between workers and motorized traffic, and installation and maintenance of temporary traffic control devices during construction, utility, and maintenance operations. These regulations are intended to decrease the likelihood of fatalities and injuries to road users, and to workers who are exposed to motorized traffic (vehicles using the highway for purposes of travel) while working on Federal-aid highway projects. The regulations are issued in accordance with section 1110 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Public Law 109-59, 119 Stat. 1227, codified at 23 U.S.C. 109(e) and 112(g).

DATES: *Effective Date:* December 4, 2008.

The incorporation by reference of certain publications listed in this rule is approved by the Director of the Federal Register as of December 4, 2008.

FOR FURTHER INFORMATION CONTACT: Mr. Chung Eng, Office of Transportation Operations, HOTO-1, (202) 366-8043;

or Mr. Raymond W. Cuprill, Office of the Chief Counsel, HCC-30, (202) 366-0791, U.S. Department of Transportation, Federal Highway Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590. Office hours are from 7:45 a.m. to 4:15 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Electronic Access

This document, the notice of proposed rulemaking (NPRM), and all comments received may be viewed online through the Federal eRulemaking portal at: <http://www.regulations.gov>. The Web site is available 24 hours each day, 365 days each year. Electronic submission and retrieval help and guidelines are available under the help section of the Web site.

An electronic copy of this document may also be downloaded from the Office of the Federal Register's home page at: <http://www.archives.gov> and the Government Printing Office's Web page at: <http://www.access.gpo.gov/nara>.

Background

History

In 2004, the FHWA published a final rule updating its regulations on Work Zone Safety and Mobility (23 CFR 630, subpart J). Section 630.1006 of subpart J (Work Zone Safety and Mobility Policy) stated that "Each State shall implement a policy for the systematic consideration and management of work zone impacts on all Federal-aid highway projects. This policy shall address work zone impacts throughout the various stages of the project development and implementation process. This policy may take the form of processes, procedures, and/or guidance, and may vary based on the characteristics and expected work zone impacts of individual projects or classes of projects. The States should institute this policy using a multidisciplinary team and in partnership with the FHWA. The States are encouraged to implement this policy for non-Federal-aid projects as well." This final rule on Temporary Traffic Control Devices provides additional guidance on the development of such Work Zone Safety and Mobility Policies, and specifically addresses the requirements of section 1110 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Public Law 109-59, 119 Stat. 1227, which have been codified at 23 U.S.C. 109(e) and 112(g).

Section 109(e)(2) of title 23, United States Code, states that no funds shall be approved for expenditure on any

Federal-aid highway "unless proper temporary traffic control devices to improve safety in work zones will be installed and maintained during construction, utility, and maintenance operations on that portion of the highway with respect to which such expenditures are to be made. Installation and maintenance of the devices shall be in accordance with the Manual on Uniform Traffic Control Devices." Additionally, section 112(g)(1) requires that "[t]he Secretary, after consultation with appropriate Federal and State officials, shall issue regulations establishing the conditions for the appropriate use of, and expenditure of funds for, uniformed law enforcement officers, positive protective measures between workers and motorized traffic, and installation and maintenance of temporary traffic control devices during construction, utility, and maintenance operations."

A NPRM proposing the creation of a new Subpart K of 23 CFR part 630 was published on November 1, 2006, at 71 FR 64173. The purpose was to emphasize the need to appropriately consider and manage worker safety as part of the project development process by providing guidance on key factors to consider in reducing worker exposure and risk from motorized traffic. The FHWA proposed to require that each agency's policy for the systematic consideration and management of work zone impacts be established in accordance with the recently updated 23 CFR part 630 subpart J (effective October 12, 2007), and address the consideration and management of worker safety as follows:

1. Avoid or minimize worker exposure to motorized traffic through the application of appropriate positive protective strategies including, but not limited to, full road closures; ramp closures; crossovers; detours; and rolling road blocks during work zone setup and removal;
2. Where exposure cannot be adequately managed through the application of the above strategies, reduce risk to workers from being struck by motorized traffic through the use of appropriate positive protective devices;
3. Where exposure and risk reduction is not adequate, possible, or practical, manage risk through the application of appropriate intrusion countermeasures including, but not limited to, the use of uniformed law enforcement officers; and
4. Assure that the quality and adequacy of deployed temporary traffic control devices are maintained for the project duration.

The FHWA received a substantial number of comments in response to the NPRM. On December 19, 2006, at 71 FR 75898, the comment period was extended to February 16, 2007, in response to a concern expressed by the National Committee on Uniform Traffic Control Devices (NCUTCD) that the closing date did not provide sufficient time for discussion of the issues in committee and a subsequent comprehensive response to the docket. The extension provided the NCUTCD and other interested parties additional time to discuss, evaluate, and submit comments to the docket.

A major focus of the comments to the rule as proposed was the need for greater flexibility in selecting and applying the specific strategies advanced for the required policies and procedures. There was also a general interest in providing a balance between the need for ensuring the safety of construction and maintenance workers as they carry out their tasks in work zones, and the safety of road users as they traverse highway work zones.

In developing this final rule the FHWA has carefully considered the comments and suggestions of respondents. Some changes have been made to the overall structure of the rule in order to enhance the clarity and consistency of each section. Other changes have been made to revise the terminology, making it more consistent with the stated intent of section 1110 of SAFETEA-LU, and adjusting the language to clarify the rule's intent.

Among the key issues addressed in the development of this final rule were the following:

- Revisions to terms and definitions to address all treatments and traffic control devices;
- Presentation of treatments as options, not in priority order;
- Provision of appropriate pay items for all traffic control treatments and operations;
- Flexibility on pay items, acknowledging that either lump sum or unit pricing may be appropriate, depending upon circumstances; and
- Reference to the need to manage risks associated with work vehicles and equipment when they are exiting or entering travel lanes.

Summary Discussion of Comments Received in Response to the NPRM

The following discussion provides an overview of the comments received in response to the NPRM, and the FHWA's actions to resolve and address the issues raised by the respondents.

Profile of Respondents

Comments were submitted by a broad cross-section of organizations and individuals, including national organizations representing the interests of State departments of transportation and contractors, respectively; other industry groups representing manufacturers and suppliers of highway construction safety equipment; State and local departments of transportation and public authorities; and law enforcement agencies, as well as private consultants and other individuals. The trade associations providing comments were the Associated General Contractors (AGC) of America; the Association of Road and Transportation Builders of America (ARTBA); the Laborers' Health and Safety Fund of North America (LHSFNA) and the New Jersey State Laborers Health and Safety Fund (NJSLSHF); the NCUTCD; the American Traffic Safety Services Association (ATSSA); the Water Barrier Manufacturers' Association (WBMA); the American Highway Users' Alliance (AHUA); the National Association of County Engineers (NACE); Advocates for Highway and Auto Safety (AHAS); the Maryland Highway Contractors Association (MHCA); and the Colorado Association of Traffic Control Professionals (CATCP). FHWA categorized the comments of the American Association of State Highway and Transportation Officials (AASHTO) with those of State Departments of Transportation (DOTs), because AASHTO represents State DOTs. The AASHTO comments noted that their submission was a consolidated response to the NPRM on behalf of its member States. Many State DOTs provided additional comments individually.

Overall Position of Respondents

Taken as a whole, the responses to the NPRM were supportive of the intent of the rule, noting the vulnerability of highway workers in work zones and the need to reduce work zone hazards to workers and road users alike. Some respondents thought that the rule as proposed went too far in imposing requirements on agencies undertaking highway construction projects, while others felt that the rule as proposed did not go far enough in protecting workers.

In all, there were 80 entries into the docket for comments on the proposed rule. Of these entries, 4 were posted by FHWA (the proposed rule, two background documents providing supporting information to respondents, and a notice extending the comment period for the NPRM). An additional three comments were requests for an

extension of the comment period. Thirteen entries into the docket were duplicates of previous entries, or comments that were substantially the same but provided some additional information in support of the comments. Of the 60 remaining responses to the NPRM, 29 respondents supported the proposed rule; in general, these respondents supported the rule as proposed and agreed with the overall purpose, structure, and language, though their comments may have included specific recommendations for clarification or revisions. Another 27 respondents indicated opposition to the NPRM. These respondents generally opposed the rule as proposed; most of these respondents agreed with the overall purpose of the proposed rule, but may have opposed the structure and language of the NPRM (e.g., most State DOTs agreed with the intent of the rule, but disagreed with some specific language). Other respondents may have been neutral toward the rule as a whole, but had some specific recommendations for changes.

Most respondents restricted their comments to the proposed regulatory language. However, some addressed material contained in the preamble. One respondent suggested that the approach described in the NPRM would have the potential for increased congestion, inconvenience, and increased travel time and cost to deliver goods and services, which would seem inconsistent with the goals set forth in the National Strategy to Reduce Congestion on America's Transportation Network, and that project characteristics, system capacity, and mobility needs may dictate other approaches. FHWA concurs with the comments that safety measures should be implemented on the basis of project characteristics and that agencies should take into consideration the possible impacts of such measures on system capacity and mobility. However, FHWA feels that the final rule provides sufficient flexibility for operating agencies to select measures that will provide an appropriate level of protection both to road users and to workers in work zone activity areas, while maintaining adequate levels of mobility.

Section-by-Section Analysis of the NPRM Comments and FHWA Response

Because of the restructuring of the rule in response to FHWA's review of the comments received, the numbering of sections in the final rule is not entirely consistent with the proposed rule. Therefore, comments will be

addressed below as they relate to the applicable section of the final rule.

Section 630.1102 Purpose

Most State DOTs agreed in general terms with the purpose as written. Twenty State DOTs (out of 26 submitting comments) explicitly endorsed AASHTO's response, which included suggested changes to the language. Among AASHTO's suggestions was that the purpose recognize that road user safety should not be compromised by the implementation of any of the rule's requirements. The Maryland State Highway Administration (SHA) noted that the "section-by-section" discussion in the NPRM for the "Purpose" section says, "[b]y emphasizing worker safety, the proposed rule would attempt to enhance the safety of both the motorist and worker during the project." However, the SHA felt that the proposed rule seems to be tilted in favor of worker safety, and the balance between the safety of workers and those of the traveling public has not been attained.

The FHWA agrees that the objective is to ensure both worker and road user safety. In emphasizing worker safety in the purpose of the proposed rule, the FHWA attempted to provide a better balance between consideration of the safety of workers and those of the traveling public. The FHWA recognizes that the safety of both workers and road users are equally important and has revised the purpose to clearly reflect that this regulation is intended to improve work zone safety for workers and road users alike.

AASHTO's comments also proposed that the final rule should not apply to "all State and local highway agencies that receive Federal-aid highway funding," but rather make the rule applicable to all "Federal-aid projects." AASHTO also suggested that the FHWA consider including a statement encouraging States to implement these requirements on non-Federal-aid projects as well. In the proposed rule, the first and second sentences under "Purpose" were meant to be taken together, thus indicating applicability to Federal-aid highway projects and recipients of Federal-aid highway funding. The language in the purpose section has been clarified to indicate that this final rule applies only to Federal-aid projects. Language has also been added to encourage application of this rule to non-Federal-aid projects as well.

One respondent argued that a primary intent of the rule is to get State DOTs and other agencies to ensure adequate funding to promote worker and road

user safety in the work zone planning and design process. While acknowledging that FHWA and the Occupational Safety and Health Administration (OSHA) have different responsibilities, the respondent suggested that this rule should "strike a common ground between the two." The respondent went on to urge that FHWA take a more expansive view of worker safety, addressing safety within the work space as well as the interface between workers and motorized traffic. Another respondent suggested that the purpose statement should be changed to "establish requirements and provide guidance for addressing worker safety by limiting the exposure to hazards and risks inside the work zone as well as to hazards and risks from motorized traffic." This change would expand the scope of the rule to include worker safety inside the work zone, whether or not there is an intrusion. In response to the comments regarding worker safety from hazards and risks inside the work area, the FHWA agrees that worker safety related to internal operations is important, but believes that workplace safety requirements are outside the scope of this rulemaking effort and this subpart, and fall under the purview of OSHA.

Some respondents observed that the proposed rule would require changes to the Manual on Uniform Traffic Control Devices (MUTCD). The FHWA agrees that some of the provisions included in the regulation may be appropriate for consideration to be added to the MUTCD; the criteria and provisions for positive protection and law enforcement are, for the most part, good information that can be made more readily available by adding it as guidance or support to the MUTCD. Inclusion of such provisions in the MUTCD may be addressed by the FHWA in a separate and future rulemaking action.

Section 630.1104 Definitions

The FHWA made several changes to the terms used throughout the final rule to clarify the meaning of the term "positive protective measures." Changes have been made to the structure of the rule and definitions to strengthen and clarify the intent of the rule, based on the statutory language.

One respondent suggested that all definitions should be consistent with existing definitions in the MUTCD, while at the same time ensuring that new terms are not so similar to existing terms as to cause confusion. It was also suggested that any term not in the current MUTCD should be included in the next MUTCD. The FHWA generally agrees, and inclusion of appropriate

terminology in the MUTCD may be addressed in a separate and future rulemaking action.

In reference to a term used elsewhere in the proposed rule, a respondent suggested that "[t]he term 'live travel lane' as referenced in section 630.1106 should be defined under this section." This wording has been revised in the final rule, now under section 630.1108, to read "travel lanes open to traffic" to better convey its meaning and as a result, the FHWA does not believe a definition is now required.

The terms appearing in the final rule are discussed below:

Agency. The definition for "Agency" was revised to include public authorities.

Exposure Control Measures. This definition was added to address concerns expressed by a number of respondents that terms as presented in the NPRM were somewhat confusing and potentially misleading. "Exposure Control Measures" was added in place of "Positive Protective Strategies" to reflect the fact that strategies were not aimed solely at preventing vehicles from entering the work space, but to reduce worker and road user exposure through a variety of strategies.

Federal-aid Highway Project. This definition was left unchanged.

Motorized Traffic. This definition was modified to clarify the reference to "construction or maintenance vehicles and equipment," and to emphasize that, while protection of workers and road users is equally important, the strategies used to address road users may be different from strategies primarily affecting construction vehicles and equipment, particularly when they are entering or exiting the protected area of the work zone. We declined to accept a comment suggesting that the term "motorized traffic" be expanded to include work vehicles in favor of describing in more detail the need to draw distinctions between vehicles passing through the work zone and vehicles operating within the work zone and its protected areas.

Other Traffic Control Measures. This definition was added to reflect structural changes in the rule that changed the nomenclature for different activities, and to underscore the distinction between the "exposure control measures," "positive protection devices," and any other strategies used to improve worker safety. The term "Intrusion Countermeasures" was eliminated because the measures listed were broader than simply reducing intrusion risk, and the term "Other Traffic Control Measures" is more descriptive of these measures.

Positive Protection Devices. A minor change in the wording was made to clarify that such devices may either contain or redirect vehicles, or perform both functions. The FHWA agrees that the term "contain and redirect" may be confusing, because some devices do not redirect impacting vehicles. Many types of crash cushions and arrestor nets contain vehicles, but do not redirect.

The terms "Positive Protective Strategies" and "Positive Protective Measures" were eliminated, based on the potential confusion involved in using three closely related terms with different meanings. While 23 U.S.C. 112(g)(4) refers to "Positive Protective Measures," the FHWA felt that the intent would be best served by using somewhat different terminology in the final rule.

Work Zone Safety Management. The term "Work Zone Safety Management" was added as an "umbrella" encompassing all actions taken by an agency to ensure the protection of workers and road users in work zones, including the development of policies, procedures, and guidelines for individual projects or programs. This term was added to respond to comments that the terminology in the NPRM was ambiguous and inconsistent with both current practice and the language of section 1110 of SAFETEA-LU.

Section 630.1106 Policy and Procedures for Work Zone Safety Management

Section 630.1106 was reorganized and refined from the proposed rule, largely in response to comments submitted to the docket. Material in the proposed rule was rearranged to separate elements related to overall policies and procedures to be developed by State DOTs from specifics related to particular traffic control strategies and the implementation of work zone safety measures.

Subsection (a) of section 630.1106 describes the nature of the required work zone safety measures and traffic control strategies, and encourages State DOTs to work in partnership with FHWA in developing policies and procedures. This use of the term "partnership" is consistent with existing language in Subpart J—Work Zone Safety and Mobility.

Subsection (b) refers to the MUTCD and the AASHTO Roadside Design Guide (RDG) as sources of information on work zone safety methods and traffic control strategies, and presents some of the project and highway characteristics and factors that the State DOTs should take into consideration when

determining which measures and strategies should be employed.

Several respondents to the NPRM were concerned about the specificity of some of the language in the proposed rule, commenting that the proposed rule imposed requirements without any supporting research indicating that the proposed criteria were appropriate. The FHWA acknowledges that there is no definitive research supporting specific criteria. The language in the final rule has been modified to clarify the intent of the rule, which is to require appropriate consideration and management of worker and road user safety when planning highway construction, maintenance, and utility operations. The new language retains and expands the listing, previously located in subsection (a), of some of the characteristics and factors that should be considered when deciding what work zone safety measures should be used, while giving agencies flexibility in determining the criteria and thresholds that would affect decisions about the use of different strategies.

A comment relating to the specificity of the proposed rule noted that the original language "contains three specific requirements for the use of longitudinal barrier that cause significant concern, as they are restrictive and will have unintended negative consequences if applied unilaterally to all work zones. These requirements include: (1) Stationary work zones lasting two weeks or more; (2) with a design speed of 45 mph or higher; and (3) where workers are within one-lane-width of a live travel lane." In specifying these specific thresholds in the proposed rule, the intent was to use them as triggers for requiring an analysis on the need for positive protection devices rather than as direct requirements for the use of positive protection devices. These factors are now part of a more comprehensive set of considerations, and are not characterized as "requirements." As modified, the final rule still requires consideration of worker and road user safety, but provides more flexibility to agencies along with guidance on the factors that should be taken into account in selecting work zone safety measures.

Several respondents expressed concern about the term "project design speed." The FHWA concurs that "project design speed" is inappropriate. While the intended meaning of this term was the work zone design speed rather than the design speed of the completed project, it may still not reflect the actual traffic speeds through the work zone. The language in the final rule has been

modified to refer to anticipated traffic speeds through the work zone rather than the project design speed.

A respondent to the NPRM observed that "the material in the AASHTO Roadside Design Guide is intended to serve as guidance, not as requirements." The respondent indicated some discomfort with provisions that seem to suggest that the Guide is to be treated as a specific regulation (e.g., actions shall be "consistent with" or "in accordance with" that Guide). The commenter believes that such wording suggests that FHWA will be determining whether a State has acted in accordance with the Guide, even though the Guide itself is, as FHWA stated, a "resource document." Language in the final rule has been modified to make clear that guidance included in the AASHTO Roadside Design Guide is not, and should not be construed as a "regulation."

Another respondent expressed concern that the requirements in section 630.1106 are "arbitrary and overly prescriptive." The respondent believes that States should be required to develop policies that help protect highway worker safety and that they should begin by examining the application of strategies that would avoid or minimize worker exposure, even though in many, if not most cases, these strategies will not be practical. However, the respondent felt that section 630.1106(a) should be "softened," and that this section should be written more as recommendations rather than as requirements. The FHWA has modified the language in this section to emphasize that States have the flexibility to develop policies and procedures that are appropriate to the circumstances of a given project or program.

Subsection (c) deals with law enforcement, directing State DOTs and other agencies undertaking construction projects with Federal-aid funds to develop a policy addressing the use of uniformed law enforcement on such projects. The policy may consist of processes, procedures, and/or guidance, as appropriate.

Overall, there is good support and little or no opposition to the concept of agencies developing a policy for work zone law enforcement. The most significant concerns related to the manner of FHWA involvement in development of the policy, and some of the individual provisions to be included. One respondent argued that the language in the proposed rule, which "states that 'Each agency in cooperation with FHWA, shall develop a policy * * *'" suggests a possible

interpretation of some type of joint authority for FHWA to decide how States utilize and pay for law enforcement. This would lead to FHWA involvement in a State's internal management, which is not appropriate." In response to this concern, the FHWA changed the term "cooperation" to "partnership." This is the same terminology currently used in Subpart J. Some respondents expressed concern that the proposed rule would have required operating agencies to take responsibility for an area over which they had no control—that is, the integration of law enforcement with work zone safety measures. Another respondent noted the difficulty of ensuring compliance due to the numerous entities involved in law enforcement, including State law enforcement agencies, sheriff departments in multiple counties, and a host of local agencies. The respondent suggested that the rule should include accommodations with numerous and widespread layers of law enforcement involved in safeguarding their roads.

The FHWA recognizes that some highway agencies do not have direct connections to law enforcement agencies. However, the FHWA does not believe that is a valid reason for not developing an agency enforcement policy and procedures as stated in the final rule under section 630.1106(c). The final rule does not impose specific requirements on the use of law enforcement and is not prescriptive. While section 630.1108(e) requires the agency to develop a law enforcement policy, it does not dictate what the policy is to contain. Each operating agency has the flexibility to develop a policy suitable for its situation in consideration of the factors listed. Numerous options can be used to acquire law enforcement services. The rule does not limit the required agency policy to consideration of only the State law enforcement agency. In fact, a number of State highway agencies currently have agreements in place with various local law enforcement agencies as well as State law enforcement agencies. Contractors can hire off-duty officers using contract funds as another alternative. Officer training is one of the issues that need to be addressed when developing whatever inter-agency accords may be needed to implement the agency policy.

A number of States have good policies and programs in place for use of law enforcement in work zones. For example, a comment by the California Highway Patrol (CHP) describes its approach. "California's work zone law enforcement program, the Construction/

Maintenance Zone Enhanced Enforcement Program (COZEEP/MAZEEP), is based on CHP policy and interagency agreements between the California Department of Transportation (Caltrans) and the CHP. The current policy and agreements adequately meet the issues addressed in this proposed rulemaking. However, to improve communication and interaction, CHP and Caltrans are currently working toward joint training for CHP officers and Caltrans staff to clarify the roles and responsibilities of Caltrans and CHP at the COZEEP/MAZEEP details."

Section 630.1108 Work Zone Safety Management Measures and Strategies

Section 630.1108 is reorganized and refined in this final rule. One comment that was made repeatedly by respondents to the NPRM was that the proposed rule was arbitrary and too prescriptive, and that the proposed rule did not permit State DOTs and other affected agencies to make judgments about which work zone safety measures and traffic control strategies would be most appropriate for a given situation. Respondents generally supported a decision process based on an engineering study including consideration of specific work zone factors and existing guidance in the MUTCD and the RDG. An approach that appears to have support from both agencies and industry is to provide a clear listing of the available options, along with a discussion of the factors and existing guidelines that should be considered. Such an approach would also include the specific requirement that the agency policy developed in response to 23 CFR 630.1006 must address both worker and road user safety, and include consideration of the safety options presented in this final rule. FHWA agrees with these observations and has modified the language in the final rule to better reflect the intent of the rule, which is to require appropriate consideration and management of worker and road user safety when planning highway construction, maintenance, and utility operations, while giving agencies flexibility in determining the criteria and thresholds that would affect decisions about the use of different strategies. Throughout the final rule, many of the proposed "shall" statements were modified to emphasize that the proposed strategies or measures represented the types of actions that should be considered, and to make clear that the suggested actions were not being presented in a prescriptive priority order.

Comments from one group of respondents focused on the use of portable concrete barriers (PCB) as a form of positive protection. The respondents observed that, "According to the Roadside Design Guide, 'As with all types of traffic barriers, a median barrier should be installed only if striking the barrier is less severe than the consequences that would result if no barrier existed.' This is due to the fact that the PCB has such high Occupant Risk Values when impacted." The respondents continued, "Due to the fact that the Occupant Risk Values are much greater when impacting PCB than when impacting water-filled barriers, a significant margin of safety could be made available to the motoring public, if water-filled barriers were utilized in place of PCB.... Based on the serious and fatal injuries to vehicle occupants resulting from a number of crashes involving PCBs, we recommend that language be inserted in this section that would disallow PCBs from being installed on the NHS; or installed only in extreme situations. Instead of PCBs, we recommend that water ballast barriers be used exclusively according to accepted design guidelines and only where needed to shield work zone hazards." The FHWA does not agree with the comment or the suggested change. The FHWA does not believe that any significant overall advantage exists for water-filled barrier and it offers some disadvantages such as freezing and icing in cold temperatures. As worded, the rule allows agencies to select from any positive protection devices that meet the performance criteria set forth in NCHRP Report 350, "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

Another respondent enumerated other concerns with respect to the use of PCBs as positive protection devices, expressing concern about the impact of strict requirements on primary roadway widening construction in their State. The respondent noted that in general, PCBs are utilized where there is a grade elevation change and where drop-offs (greater than two inches) adjacent to a travel lane are necessary, for a period of longer than one work day or work shift. The respondent felt that a literal reading of the proposed rule would necessitate placement of PCB at all edges of the roadway adjacent to construction activities. The PCB would occupy roadway width normally available for use as part of the adjacent travel lane, reducing the average 24-foot wide road to only 20 feet of available travel area. The respondent indicated that this

would eliminate opportunities for simultaneous construction on each side of the roadway. Currently, the agency submitting the comment requires construction of temporary pavement in locations adjacent to temporary concrete barrier wall to maintain 12 foot travel lanes. The requirements proposed in this rule would necessitate the construction of miles of temporary pavement to maintain 12 foot travel lanes. Without the temporary pavement, traffic would be restricted to 10 foot travel lanes with a longitudinal barrier on one side of the roadway. The respondent noted that such conditions could be especially hazardous on roadways with substantial truck traffic. Furthermore, the respondent noted that it would be necessary to install breaks in the temporary concrete barrier wall to maintain driveway access, and each break would require the installation of a portable terminal impact attenuator. The respondent felt that in areas with multiple driveways in close proximity to one another, maintenance of a safe installation of temporary concrete barrier wall would be problematic at best. The FHWA agrees that project characteristics need to be considered in decisions involving the use of barriers and language in the final rule requires that the need for positive protection devices be based on an engineering study.

Some respondents commented that the proposed rule did not go far enough, and suggested that the final rule should be strengthened to require minimum work zone safety measures or traffic control measures, based on specific criteria. Others proposed that the final rule should provide a "preference of controls," beginning with consideration of positive protection strategies, followed by consideration of positive protection devices, and then use of intrusion countermeasures. This runs counter to many other comments, which argued for greater flexibility in selection of appropriate work zone safety measures. FHWA concurs with the respondents who argued that there is no definitive research available to support highly prescriptive criteria for when specific work zone safety measures should be deployed. Neither is there evidence that there should be a rigid hierarchy or preference of controls. Instead, FHWA believes that the types of controls appropriate for any given work zone depend on the circumstances (location, volume and speed of adjacent traffic, availability of escape routes for workers, duration of the construction project) and the characteristics of the construction activity (drop-offs,

proximity of workers to travel lanes, etc.). Agencies responsible for the construction project should determine the appropriate traffic control measures either on the basis of an engineering study for the individual project, or based on policies adopted by the agency for certain classes of projects. Traffic control strategies that provide for the safety of both workers and road users may be selected alone or in combination, after considering the characteristics and circumstances of the construction project.

One respondent argued that without permanent barriers, most maintenance workers are left unprotected from vehicle intrusions. The respondent expressed a preference that all work should be performed behind a permanent barrier, but acknowledged that this would not be possible. When permanent barriers could not be used, the respondent stated that the following measures should be mandated: Uniformed on-duty law enforcement officers in marked cars; marked law enforcement cars to pace traffic to reduce vehicular speeds adjacent to the work zone; buffer lanes between workers and the traveling public (Interstate highways with posted speed limits 55 mph or greater should have at least one buffer lane, and those in excess of 70 mph should have a minimum of two buffer lanes); water-filled barriers; and light towers around the work area to alert the public of highway work. FHWA does not agree, nor do most of the other commenters, that all work should be performed behind a permanent barrier. This is unrealistic and does not necessarily provide the best overall safety for all concerned. The suggestions of alternative measures that should be mandated would appear arbitrary in many respects and would limit an agency's ability to consider the entire range of safety treatments in order to obtain the best balance of worker and road user safety, mobility, constructability, and cost.

Another respondent suggested that FHWA should develop its own guidelines or reference non-proprietary products. The respondent also suggested that State agencies should be required to first look to deploy the most protective devices before being allowed to use a less protective measure. The FHWA strongly supports continued research to develop improved guidelines for application of the various treatments. However, the FHWA believes that such research is most appropriate under the National Cooperative Highway Research Program (NCHRP). In fact, NCHRP just recently released a study on the Design

of Construction Work Zones on High-Speed Highways (NCHRP Report 581), which is an excellent example of the kind of emerging research that can guide agencies in designing work zones that will help ensure the safety of both road users and construction or maintenance workers. It appears that by "most protective," the commenter means temporary traffic barrier. The FHWA does not agree that this should always be the priority. The preferred approach is one that would provide the best overall management of safety, mobility, constructability, and cost. Requiring the highest level of positive protection does not necessarily result in the highest level of any of these objectives.

Some respondents provided extensive comments on such issues as the desirability of full road closures, and the need for Federal funding to encourage such actions; requiring "Type I and Type II barricades" in place of plastic or rubber cones and delineators; requiring the use of "pennant flagging or similar durable warning tape" to sequester sections of Portland concrete cement (PCC) that have been freshly laid; requiring the presence of an ATSSA Work Zone Supervisor-qualified person on projects; and to require training for contractors on the use of rolling road blocks. While some of these comments have merit, they are generally beyond the scope of this rulemaking action. However, it should be noted that Subpart J does require that both the contractor and State DOT designate a person responsible for implementing the project TMP and that said individual be properly trained in accordance with Subpart J.

The FHWA agrees with many of the suggestions offered by commenters and has substantially revised section 630.1108 as described below.

Section 630.1108(a) requires that agencies undertaking highway construction projects with Federal-aid funding determine the need for positive protection devices on the basis of an engineering study. This responds in part to comments from respondents that the term "engineering analysis" used in the proposed rule was not in common use among State DOTs and other agencies, but that the term "engineering study" is used in the MUTCD and is well-understood by such agencies. It also serves to address the language in 23 U.S.C. § 109(e)(2), which states that the "[i]nstallation and maintenance of the [proper temporary traffic control] devices shall be in accordance with the Manual of Uniform Traffic Control Devices." Section 630.1108(a) also emphasizes that the conditions enumerated in section 630.1106 should

be considered when agencies establish what work zone safety measures should be deployed, and identifies some circumstances under which the use of positive protection measures are required to be considered.

In section 630.1108(a), the FHWA also responds to concerns that undertaking an engineering study for every work zone, including situations where routine maintenance of facilities is to be undertaken, would be cost-prohibitive. The final rule notes that an 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." In other words, agencies may establish a policy, supported by an engineering study, that dictates the types of work zone safety measures and traffic control strategies that must be implemented at a minimum for certain types of work. Engineering studies could also be undertaken for a specific project based on characteristics of the project or of the circumstances surrounding the project. Factors to be considered in developing a policy for providing traffic control measures for different types of projects, or that might trigger an engineering study for a particular project, are enumerated in this subsection. Such characteristics and factors include duration of the construction zone, site characteristics that would provide workers no means of escape from motorized traffic (e.g., tunnels, bridges, etc.), operating speeds of traffic in lanes adjacent to the work zone, and other elements.

Section 630.1108(b) discusses the use of "Exposure Control Measures." This term was added in place of "Positive Protective Strategies" to reflect the fact that strategies were not aimed solely at preventing vehicles from entering the work space, but to reduce worker exposure through a variety of strategies. One respondent suggested that the use of the phrase "during work zone set up and removal" following "rolling road blocks" should be clarified to indicate that it only refers to rolling road blocks, and not to the other strategies suggested to minimize worker exposure in the proposed rule. Another respondent suggested adding off-peak or night work as another strategy to be considered. The FHWA agrees with these suggestions. Each suggested strategy has been itemized in the final rule for clarity and night or off-peak work, as well as accelerated construction techniques, have been added as additional strategies.

Section 630.1108(c) addresses "Other Traffic Control Measures," which are designed to reduce the number of work

zone crashes or to minimize the risks and consequences of intrusion of motorized vehicles into the work space. Several respondents to the NPRM took exception to the use of the term "Intrusion Countermeasures" in the proposed rule. Several respondents noted that some of the measures or strategies included under the rubric of "Intrusion Countermeasures" did not have anything to do with preventing a vehicle from "intruding" or penetrating barriers into the work space. FHWA has changed the title of this section and the wording to reflect the fact that this class of measures or strategies includes actions that relate to increased driver awareness and alertness in work zones, as well as improvements in worker training, improved worker visibility, and the use of law enforcement personnel. This section clarifies that no single measure or strategy will be effective in all circumstances, and that strategies should be considered in combination in order to provide the maximum protection reasonably available to protect workers and road users alike.

With respect to specific measures, respondents expressed various levels of support (or opposition) for several strategies. One respondent encouraged FHWA to "strongly recommend automated speed enforcement rather than merely suggesting it." Automated speed enforcement is one of the available traffic control measures and is included in the list of strategies for consideration. However, the FHWA recognizes that implementation of this strategy would require legislative action by most States. Another respondent noted that "[a]utomated intrusion alarms present a concern due to problems in linking devices in miles-long, drum-protected work zones." FHWA agrees that intrusion alarms, like most of the other tools listed, may not be suitable for all situations. However, the wording in section 630.1108(c) simply lists it as a tool that may be considered. Several additional measures were added in response to comments, including public and traveler information, and temporary traffic signals.

Section 630.1108(d) provides guidance on the use of law enforcement personnel to increase work zone safety. This subsection emphasizes that, while the use of law enforcement personnel can be effective in increasing driver awareness of work zones and compliance with posted warnings, such law enforcement presence is not a substitute for temporary traffic control devices required by the MUTCD. This subsection describes a number of

circumstances under which the use of law enforcement personnel may be appropriate, particularly "on projects with high traffic speeds and volumes, and where the work zone is expected to result in significant disruption to or changes in normal traffic flow patterns."

This subsection also addresses the issue of pay items for law enforcement, as required by 23 U.S.C. 112(g). Language from the proposed rule on Federal-aid participation in costs associated with the provision of law enforcement personnel for work zone safety is retained, including the stipulation that "law enforcement activities that would normally be expected in and around highway problem areas requiring routine or ongoing law enforcement traffic control and enforcement activities" are excluded from eligibility for Federal-aid.

Section 630.1108(e) was added to address concerns expressed by a number of respondents to the NPRM noting that there are hazards associated with the entry or exit of construction vehicles and equipment from the protected area of the work zone, whether for delivery of supplies and material or for other purposes. The new section 630.1108(e) acknowledges this situation, which poses risks to both workers and travelers, and states that agency processes, procedures, and/or guidance should "address safe means for work vehicles and equipment to enter and exit traffic lanes and for delivery of construction materials to the work space, based on individual project characteristics and factors."

Section 630.1108(f) addresses the issue of pay items. FHWA strongly supports the concept of providing appropriate payment for all work zone traffic control features needed to address both safety and mobility impacts of a highway project. Most highway agencies (but not all) and contractors also support this concept. However, the real issue is in how best to accomplish this. The FHWA believes that this issue arose because, even at this time, some agencies provide little or no specific payment for work zone safety features, and in extreme cases, provide only minimal information as to what features are required. Any payment provided is either incidental to other items of work, or is grouped into a single item for traffic control. This approach is unacceptable in that conscientious contractors are at a significant disadvantage because they provide more safety, without payment, than other contractors that choose to neglect safety to achieve a cost advantage. This problem gives rise to

the frequent complaint of the "lack of a level playing field." The FHWA believes that this is the issue that the wording in the Federal statute attempts to address, and the final rule requires that payment for work zone traffic control features and operations "shall not be incidental to the contract, or included in payment for other items of work not related to traffic control and safety". A related concern is that contractors may need to include a "contingency factor" in bids to make sure they cover the costs of safety requirements that are not clearly defined in project plans, specifications, and estimates (PS&Es), thus resulting in higher bid prices.

Many agencies include a range of pay items in their project PS&Es that provide adequate payment for traffic control, and provide a range of payment items (both lump sum and unit price) for the various safety features needed. Lump sum and unit price payments represent two different approaches to reimbursing contractors for costs associated with construction activities. In deciding whether to use unit price or lump sum payment methods, agencies generally consider the following:

- Unit price payment should be limited to those items where the quantity can either be quantified in advance, or closely controlled by the agency during construction. If the quantity cannot be predicted and controlled, it gives rise to the potential for unbalanced bidding. Both agencies and many responsible contractors realize these risks, and do not generally support unit price pay items where quantities cannot be predicted and controlled by the agency.

- Lump sum payment reduces the risks of unbalanced bids for features where the actual quantity is dependent upon the manner the contractor selects to accomplish the work. However, to reduce risks to contractors of uncontrolled costs (which may result in higher bids), allowance for contingency payments on lump sum items when the overall quantity or nature of the work changes is desirable and is provided by some agencies.

Section 112(g)(2) of title 23, United States Code, requires "separate pay items for the use of uniformed law enforcement officers, positive protective measures between workers and motorized traffic, and installation and maintenance of temporary traffic control devices", but does not require unit price pay items. In an attempt for clarity, "positive protective measures" was broken down into "positive protective devices" and "positive protective measures" in the proposed rule. The proposed rule addressed payment for

positive protective devices and uniformed law enforcement officers, but did not require a separate pay item for the installation and maintenance of temporary traffic control devices because the FHWA felt that doing so would not be substantially different from current practice. Separate payment for positive protective strategies was not specifically addressed in the proposed rule as strategies ultimately translate to devices. Based on comments received and a broader interpretation of the language in section 112(g)(2), the final rule addresses pay items in a more comprehensive fashion by supplementing the requirements of 23 CFR 630.1012(d) with additional requirements as well as guidance. This includes the requirement that separate pay items be provided for major categories of traffic control devices, safety features, and work zone safety activities, including but not limited to positive protection devices, and uniformed law enforcement activities when funded through the project.

Section 630.1110 Maintenance of Temporary Traffic Control Devices

This section was relatively non-controversial, and retains most of the wording of the proposed rule. One recurring comment is worth mention again here—numerous suggestions called for use of the term "Guidelines" in lieu of "Standards," as stated in the language of the proposed rule. Some argued that "The term 'quality standards' will result in significant liability for State DOTs, leading to the need for constant inspection and maintenance." After further consideration, and recognizing that the ATSSA reference noted in the NPRM is a guideline, FHWA agrees that the use of the term "guidelines" in lieu of "standards" would be preferable.

One comment took exception to the use of the term "assure" in the proposed rule. The respondent contended that use of the term "assure" means to put beyond all doubt, and asserted that maintenance of quality standards to the level of certainty would be cost-prohibitive. The language in the final rule has been revised to eliminate use of the term "assure."

Several comments were made about the use of certain colors on warning signs. The FHWA believes that such recommendations are beyond the scope of the rule and the requirements of section 1110 of SAFETEA-LU.

National Congestion Initiative

The final rule includes measures that could further the goals of the Secretary of Transportation's National Strategy to

Reduce Congestion on America's Transportation Network, announced on May 16, 2006.¹ By requiring the development and implementation of guidelines to help maintain the quality and adequacy of temporary traffic control devices on Federal-aid highway projects, the FHWA anticipates that the proposed rule will help reduce congestion by ensuring that road users are always provided with positive guidance while traveling through work zones.

Rulemaking Analysis and Notices

Executive Order 12866 (Regulatory Planning and Review) and U.S. DOT Regulatory Policies and Procedures

The FHWA has determined that this action would not be a significant regulatory action within the meaning of Executive Order 12866 or significant within the meaning of U.S. Department of Transportation regulatory policies and procedures. A recent synthesis of positive protection practices in highway work zones indicates that a wide range of positive protection devices and other safety treatments are already being used by State highway agencies.² This synthesis found that among positive protection devices, portable concrete barriers and shadow vehicles equipped with truck mounted attenuators (SV/TMAs) were being used by nearly every State highway agency. The final rule emphasizes the need to consider worker and road user safety as an integral part of each State highway agency's process for considering and managing the overall impacts due to work zones. As such, any additional usage of positive protection devices resulting from the proposed action would be incremental to what many State highway agencies are already using to address work zone safety. In addition, consideration of exposure control and other traffic control measures that would avoid or minimize worker exposure to motorized traffic may decrease the overall need for positive protection devices. Accordingly, it is anticipated that the

¹ Speaking before the National Retail Federation's annual conference on May 16, 2006, in Washington, DC, former U.S. Transportation Secretary Norman Mineta unveiled a new plan to reduce congestion plaguing America's roads, rail, and airports. The National Strategy to Reduce Congestion on America's Transportation Network includes a number of initiatives designed to reduce transportation congestion. The transcript of these remarks is available at the following URL: <http://www.dot.gov/affairs/minetasp051606.htm>.

² Transportation Research Board (TRB), National Cooperative Highway Research Program (NCHRP) Project 20-7(174), A Synthesis of Highway Practice—Positive Protection Practices in Highway Work Zones, June 17, 2005. Available in the docket.

economic impact of this rulemaking would be minimal.

The final rule is not anticipated to adversely affect, in a material way, any sector of the economy. In addition, the final rule is not likely to interfere with any action taken or planned by another agency or to materially alter the budgetary impact of any entitlements, grants, user fees, or loan programs.

Regulatory Flexibility Act

In compliance with the Regulatory Flexibility Act (5 U.S.C. 601–612), the FHWA has evaluated the effects of these changes on small entities. This rule applies to all State and local highway agencies that use Federal-aid highway funding in the execution of their highway program. The final rule emphasizes the need to consider worker and road user safety as an integral part of each agency's process for considering and managing the overall impacts due to work zones on Federal-aid highway projects. As noted previously, a recent synthesis of positive protection practices in highway work zones indicates that a wide range of positive protection devices and other safety treatments are already being used by State highway agencies. This synthesis found that among positive protective devices, portable concrete barriers and SV/TMAs were being used by nearly every State highway agency. The FHWA believes that positive protection devices and other safety treatments are also widely used by many local agencies because the FHWA's research indicates that local agencies usually follow State practice with respect to MUTCD guidance. As such, any additional usage of positive protection devices resulting from the proposed action would be incremental to what many local highway agencies are already using to address work zone safety. In addition, consideration of exposure control and other traffic control measures that would avoid or minimize worker exposure to motorized traffic may decrease the overall need for positive protection devices. Accordingly, the FHWA has determined that the final rule will not have a significant economic impact on a substantial number of small entities.

Unfunded Mandates Reform Act of 1995

This final rule would not impose unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4, 109 Stat. 48, March 22, 1995). This action would not result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$128.1 million or more in any one year period to

comply with these changes. Additionally, the definition of “Federal mandate” in the Unfunded Mandate Reform Act excludes financial assistance of the type in which State, local or tribal governments have authority to adjust their participation in the program in accordance with changes made in the program by the Federal government. The Federal-aid highway program permits this type of flexibility to the States.

Executive Order 13132 (Federalism)

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 dated August 4, 1999, and the FHWA has determined that this action will not have a substantial direct effect or sufficient federalism implications on States that would limit the policymaking discretion of the States and local governments. The FHWA has also determined that this final rule will not preempt any State law or State regulation or affect the States' ability to discharge traditional State governmental functions and does not have sufficient federalism implications to warrant the preparation of a federalism assessment. The amendments are in keeping with the Secretary of Transportation's authority under 23 U.S.C. 109(d), 315, and 402(a) to promulgate uniform guidelines to promote the safe and efficient use of highways.

Executive Order 13175 (Tribal Consultation)

The FHWA has analyzed this action under Executive Order 13175, dated November 6, 2000, and believes that it will not have substantial direct effects on one or more Indian tribes; will not impose substantial direct compliance costs on Indian tribal governments; and will not preempt tribal law. The purpose of this final rule is to improve worker and road user safety on Federal-aid highway projects, and will not impose any direct compliance requirements on Indian tribal governments and will not have any economic or other impacts on the viability of Indian tribes. Therefore, a tribal summary impact statement is not required.

Executive Order 13211 (Energy Effects)

The FHWA has analyzed this action under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. It has been determined that it is not a significant energy action under that order because it is not a significant regulatory action under Executive Order 12866 and is not

likely to have a significant adverse effect on the supply, distribution, or use of energy. Therefore, a Statement of Energy Effects under Executive Order 13211 is not required.

Executive Order 12372 (Intergovernmental Review)

Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.

Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, et seq.), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct, sponsor, or require through regulations. The FHWA has determined that this action does not contain information collection requirements for purposes of the PRA.

Executive Order 12988 (Civil Justice Reform)

This action meets applicable standards in Sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

Executive Order 13045 (Protection of Children)

The FHWA has analyzed this action under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. The FHWA certifies that this action would not cause an environmental risk to health or safety that may disproportionately affect children.

Executive Order 12630 (Taking of Private Property)

This action would not affect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

National Environmental Policy Act

The agency has analyzed this action for the purpose of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and has determined that it would not have any effect on the quality of the environment.

Regulation Identification Number

A regulation identification number (RIN) is assigned to each regulatory

action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

List of Subjects in 23 CFR Part 630

Government contracts, Grant programs—Transportation, Highway safety, Highways and roads, Project agreement, Traffic regulations, Incorporation by reference.

Issued on: November 29, 2007.

J. Richard Capka,

Federal Highway Administrator.

■ In consideration of the foregoing, the FHWA adds Subpart K to title 23, Code of Federal Regulations, Part 630, as follows:

Subpart K—Temporary Traffic Control Devices

Sec.

630.1102 Purpose.

630.1104 Definitions.

630.1106 Policy and Procedures for Work Zone Safety Management.

630.1108 Work Zone Safety Management Measures and Strategies.

630.1110 Maintenance of Temporary Traffic Control Devices.

Authority: 23 U.S.C. 109(c) and 112; Sec. 1110 of Pub. L. 109–59; 23 CFR 1.32; and 49 CFR 1.48(b).

§ 630.1102 Purpose.

To decrease the likelihood of highway work zone fatalities and injuries to workers and road users by establishing minimum requirements and providing guidance for the use of positive protection devices between the 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 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; and

(5) Roadside hazards, such as drop-offs or unfinished bridge decks, that will remain in place overnight or longer.

(b) *Exposure Control Measures.* Exposure Control Measures should be considered where appropriate to avoid or minimize worker exposure to motorized traffic and exposure of road users to work activities, while also providing adequate consideration to the potential impacts on mobility. A wide range of measures may be appropriate for use on individual projects, such as:

(1) Full road closures;

(2) Ramp closures;

(3) Median crossovers;

(4) Full or partial detours or diversions;

(5) Protection of work zone setup and removal operations using rolling road blocks;

(6) Performing work at night or during off-peak periods when traffic volumes are lower; and

(7) Accelerated construction techniques.

(c) *Other Traffic Control Measures.* Other Traffic Control Measures should be given appropriate consideration for use in work zones to reduce work zone crashes and risks and consequences of motorized traffic intrusion into the work space. These measures, which are not mutually exclusive and should be considered in combination as appropriate, include a wide range of other traffic control measures such as:

(1) Effective, credible signing;

(2) Changeable message signs;

(3) Arrow panels;

(4) Warning flags and lights on signs;

(5) Longitudinal and lateral buffer space;

(6) Trained flaggers and spotters;

(7) Enhanced flagger station setups;

(8) Intrusion alarms;

(9) Rumble strips;

(10) Pace or pilot vehicle;

(11) High quality work zone pavement markings and removal of misleading markings;

(12) Channelizing device spacing reduction;

(13) Longitudinal channelizing barricades;

(14) Work zone speed management (including changes to the regulatory speed and/or variable speed limits);

(15) Law enforcement;

(16) Automated speed enforcement (where permitted by State/local laws);

(17) Drone radar;

(18) Worker and work vehicle/equipment visibility;

(19) Worker training;

(20) Public information and traveler information; and

(21) Temporary traffic signals.

(d) *Uniformed Law Enforcement Officers.* (1) A number of conditions may indicate the need for or benefit of uniformed law enforcement in work

zones. The presence of a uniformed law enforcement officer and marked law enforcement vehicle in view of motorized traffic on a highway project can affect driver behavior, helping to maintain appropriate speeds and improve driver alertness through the work zone. However, such law enforcement presence is not a substitute for the temporary traffic control devices required by Part 6 of the MUTCD. In general, the need for law enforcement is greatest on projects with high traffic speeds and volumes, and where the work zone is expected to result in substantial disruption to or changes in normal traffic flow patterns. Specific project conditions should be examined to determine the need for or potential benefit of law enforcement, such as the following:

(i) Frequent worker presence adjacent to high-speed traffic without positive protection devices;

(ii) Traffic control setup or removal that presents significant risks to workers and road users;

(iii) Complex or very short term changes in traffic patterns with significant potential for road user confusion or worker risk from traffic exposure;

(iv) Night work operations that create substantial traffic safety risks for workers and road users;

(v) Existing traffic conditions and crash histories that indicate a potential for substantial safety and congestion impacts related to the work zone activity, and that may be mitigated by improved driver behavior and awareness of the work zone;

(vi) Work zone operations that require brief stoppage of all traffic in one or both directions;

(vii) High-speed roadways where unexpected or sudden traffic queuing is anticipated, especially if the queue forms a considerable distance in advance of the work zone or immediately adjacent to the work space; and

(viii) Other work site conditions where traffic presents a high risk for workers and road users, such that the risk may be reduced by improving road user behavior and awareness.

(2) Costs associated with the provision of uniformed law enforcement to help protect workers and road users, and to maintain safe and efficient travel through highway work zones, are eligible for Federal-aid participation. Federal-aid eligibility excludes law enforcement activities that would normally be expected in and around highway problem areas requiring routine or ongoing law enforcement traffic control and enforcement

activities. Payment for the services of uniformed law enforcement in work zones may be included in the construction contract, or be provided by direct reimbursement from the highway agency to the law enforcement agency. When payment is included through the construction contract, the contractor will be responsible for reimbursing the law enforcement agency, and in turn will recover those costs through contract pay items. Direct interagency reimbursement may be made on a project-specific basis, or on a program-wide basis that considers the overall level of services to be provided by the law enforcement agency. Contract pay items for law enforcement service may be either unit price or lump sum items. Unit price items should be utilized when the highway agency can estimate and control the quantity of law enforcement services required on the project. The use of lump sum payment should be limited to situations where the quantity of services is directly affected by the contractor's choice of project scheduling and chosen manner of staging and performing the work. Innovative payment items may also be considered when they offer an advantage to both the highway agency and the contractor. When reimbursement to the law enforcement agency is made by interagency transfer of funds, the highway agency should establish a program-level or project-level budget that is adequate to meet anticipated program or project needs, and include provisions to address unplanned needs and other contingencies.

(e) *Work Vehicles and Equipment.* In addition to addressing risks to workers and road users from motorized traffic, the agency processes, procedures, and/or guidance established in accordance with 23 CFR 630.1006 should also address safe means for work vehicles and equipment to enter and exit traffic lanes and for delivery of construction materials to the work space, based on individual project characteristics and factors.

(f) *Payment for Traffic Control.* Consistent with the requirements of 23 CFR 630.1012, Project-level Procedures, project plans, specifications and estimates (PS&Es) shall include appropriate pay item provisions for implementing the project Transportation Management Plan (TMP), which includes a Temporary Traffic Control (TTC) plan, either through method or performance based specifications. Pay item provisions include, but are not limited to, the following:

(1) Payment for work zone traffic control features and operations shall not be incidental to the contract, or included in payment for other items of work not related to traffic control and safety;

(2) As a minimum, separate pay items shall be provided for major categories of traffic control devices, safety features, and work zone safety activities, including but not limited to positive protection devices, and uniformed law enforcement activities when funded through the project;

(3) For method based specifications, the specifications and other PS&E documents should provide sufficient details such that the quantity and types of devices and the overall effort required to implement and maintain the TMP can be determined;

(4) For method-based specifications, unit price pay items, lump sum pay items, or a combination thereof may be used;

(5) Lump sum payment should be limited to items for which an estimate of the actual quantity required is provided in the PS&E or for items where the actual quantity required is dependent upon the contractor's choice of work scheduling and methodology;

(6) For Lump Sum items, a contingency provision should be included such that additional payment is provided if the quantity or nature of the required work changes, either an increase or decrease, due to circumstances beyond the control of the contractor;

(7) Unit price payment should be provided for those items over which the contractor has little or no control over the quantity, and no firm estimate of quantities is provided in the PS&Es, but over which the highway agency has control of the actual quantity to be required during the project;

(8) Specifications should clearly indicate how placement, movement/relocation, and maintenance of traffic control devices and safety features will be compensated; and

(9) The specifications should include provisions to require and enforce contractor compliance with the contract provisions relative to implementation and maintenance of the project TMP and related traffic control items. Enforcement provisions may include remedies such as liquidated damages, work suspensions, or withholding payment for noncompliance.

§ 630.1110 Maintenance of Temporary Traffic Control Devices.

To provide for the continued effectiveness of temporary traffic control devices, each agency shall develop and

implement quality guidelines to help maintain the quality and adequacy of the temporary traffic control devices for the duration of the project. Agencies may choose to adopt existing quality guidelines such as those developed by the American Traffic Safety Services Association (ATSSA) or other state highway agencies.¹ A level of inspection necessary to provide ongoing compliance with the quality guidelines shall be provided.

[FR Doc. E7-23581 Filed 12-4-07; 8:45 am]

BILLING CODE 4910-22-P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

25 CFR Part 36

RIN 1076-AE51

Homeliving Programs

AGENCY: Bureau of Indian Education, BIA, Interior.

ACTION: Final Rule.

SUMMARY: Under the No Child Left Behind Act of 2001, the Secretary of the Interior is publishing final regulations addressing homeliving programs administered under the Bureau of Indian Education-funded school system.

DATES: *Effective Date:* January 4, 2008.

FOR FURTHER INFORMATION CONTACT: Kevin Skenandore, Director, Bureau of Indian Education, 1849 C Street NW., MS-3609, Washington, DC 20240, phone (202) 208-6123.

SUPPLEMENTARY INFORMATION:

I. Background

A. What Information Does This Section Address?

This section addresses:

—Requirements of the No Child Left Behind Act of 2001 (Pub. L. 107-110; enacted January 8, 2002; "NCLBA" or "the Act"), section 1122.

¹ The American Traffic Safety Services Association's (ATSSA) Quality Guidelines for Work Zone Traffic Control Devices uses photos and written descriptions to help judge when a traffic control device has outlived its usefulness. These guidelines are available for purchase from ATSSA through the following URL: http://www.atssa.com/store/bc_item_detail.jsp?productId=1. Similar guidelines are available from various State highway agencies. The Illinois Department of Transportation "Quality Standards for Work Zone Traffic Control Devices" is available online at <http://dot.state.il.us/workzone/wztc2004r.pdf>. The Minnesota Department of Transportation "Quality Standards—Methods to determine whether the various traffic control devices are Acceptable, Marginal, or Unacceptable" is available online at <http://www.dot.state.mn.us/trafficeng/otepub/fieldmanual2007/FM-2007-QualityStandards.pdf>.

Federal Highway Administration, DOT

the award of the subcontract or consummation of a material supply agreement if such subcontract or agreement exceeds \$10,000 and is not exempt from the provisions of the Equal Opportunity clause.

(b) Subcontractors and material suppliers are cautioned as follows: By signing the subcontract or entering into a material supply agreement, the subcontractor or material supplier will be deemed to have signed and agreed to the provisions of the "Certification of Nonsegregated Facilities" in the subcontract or material supply agreement. This certification provides that the subcontractor or material supplier does not maintain or provide for his employees facilities which are segregated on the basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that the subcontractor or material supplier will not maintain such segregated facilities.

(c) Subcontractors or material suppliers receiving subcontract awards or material supply agreements exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause will be required to provide for the forwarding of this notice to prospective subcontractors for construction contracts and material suppliers where the subcontracts or material supply agreements exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity clause.

II. Implementation of Clean Air Act.

(a) By signing this bid, the bidder will be deemed to have stipulated as follows:

(1) That any facility to be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 *et seq.*, as by Pub. L. 91-604), Executive order 11738, and regulations in implementation thereof (40 CFR part 15, is not listed on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

(2) That the State highway department shall be promptly notified prior to contract award of the receipt by the bidder of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

PART 634—WORKER VISIBILITY

Sec.

634.1 Purpose.

634.2 Definitions.

634.3 Rule.

634.4 Compliance date.

AUTHORITY: 23 U.S.C. 101(a), 109(d), 114(a), 315, and 402(a); Sec. 1402 of Pub. L. 109-59; 23 CFR 1.32; and 49 CFR 1-48(b).

SOURCE: 71 FR 67800, Nov. 24, 2006, unless otherwise noted.

§ 634.1 Purpose.

The purpose of the regulations in this part is to decrease the likelihood of worker fatalities or injuries caused by motor vehicles and construction vehicles and equipment while working within the right-of-way on Federal-aid highways.

§ 634.2 Definitions.

Close proximity means within the highway right-of-way on Federal-aid highways.

High-visibility safety apparel means personal protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage, and that meets the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled "American National Standard for High-Visibility Safety Apparel and Headwear." This publication is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51 and is on file 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. It is available for inspection and copying at the Federal Highway Administration, 400 Seventh Street, SW., Room 4232, Washington, DC, 20590, as provided in 49 CFR Part 7. This publication is available for purchase from the International Safety Equipment Association (ISEA) at 1901 N. Moore Street, Suite 808, Arlington, VA 22209, <http://www.safetysafetyequipment.org>.

Workers means people on foot whose duties place them within the right-of-way of a Federal-aid highway, such as highway construction and maintenance forces; survey crews; utility crews; responders to incidents within the highway right-of-way; firefighters and other emergency responders when they are not directly exposed to flame, fire, heat, and/or hazardous materials; and law enforcement personnel when directing traffic, investigating crashes, and handling lane closures, obstructed

roadways, and disasters within the right-of-way of a Federal-aid highway.

[71 FR 67800, Nov. 24, 2006, as amended at 73 FR 70596, Nov. 21, 2008]

§ 634.3 Rule.

All workers within the right-of-way of a Federal-aid highway who are exposed either to traffic (vehicles using the highway for purposes of travel) or to construction equipment within the work area shall wear high-visibility safety apparel. Firefighters or other emergency responders working within the right-of-way of a Federal-aid highway and engaged in emergency operations that directly expose them to flame, fire, heat, and/or hazardous materials may wear retroreflective turnout gear that is specified and regulated by other organizations, such as the National Fire Protection Association. Firefighters or other emergency responders working within the right-of-way of a Federal-aid highway and engaged in any other types of operations shall wear high-visibility safety apparel.

[73 FR 70596, No. 21, 2008]

§ 634.4 Compliance date.

States and other agencies shall comply with the provisions of this Part no later than November 24, 2008.

PART 635—CONSTRUCTION AND MAINTENANCE

Subpart A—Contract Procedures

- Sec.
- 635.101 Purpose.
- 635.102 Definitions.
- 635.103 Applicability.
- 635.104 Method of construction.
- 635.105 Supervising agency.
- 635.106 Use of publicly owned equipment.
- 635.107 Participation by disadvantaged business enterprises.
- 635.108 Health and safety.
- 635.109 Standardized changed condition clauses.
- 635.110 Licensing and qualification of contractors.
- 635.111 Tied bids.
- 635.112 Advertising for bids and proposals.
- 635.113 Bid opening and bid tabulations.
- 635.114 Award of contract and concurrence in award.
- 635.115 Agreement estimate.

- 635.116 Subcontracting and contractor responsibilities.
- 635.117 Labor and employment.
- 635.118 Payroll and weekly statements.
- 635.119 False statements.
- 635.120 Changes and extra work.
- 635.121 Contract time and contract time extensions.
- 635.122 Participation in progress payments.
- 635.123 Determination and documentation of pay quantities.
- 635.124 Participation in contract claim awards and settlements.
- 635.125 Termination of contract.
- 635.126 Record of materials, supplies, and labor.
- 635.127 Agreement provisions regarding overruns in contract time.

Subpart B—Force Account Construction

- 635.201 Purpose.
- 635.202 Applicability.
- 635.203 Definitions.
- 635.204 Determination of more cost effective method or an emergency.
- 635.205 Finding of cost effectiveness.

Subpart C—Physical Construction Authorization

- 635.301 Purpose.
- 635.303 Applicability.
- 635.305 Physical construction.
- 635.307 Coordination.
- 635.309 Authorization.

Subpart D—General Material Requirements

- 635.401 Purpose.
- 635.403 Definitions.
- 635.405 Applicability.
- 635.407 Use of materials made available by a public agency.
- 635.409 Restrictions upon materials.
- 635.410 Buy America requirements.
- 635.411 Material or product selection.
- 635.413 Guaranty and warranty clauses.
- 635.417 Convict produced materials.

AUTHORITY: Sec. 1503 of Pub. L. 109-59, 119 Stat. 1144; 23 U.S.C. 101 (note), 109, 112, 113, 114, 116, 119, 128, and 315; 31 U.S.C. 6505; 42 U.S.C. 3334, 4601 *et seq.*; Sec. 1041 (a), Pub. L. 102-240, 105 Stat. 1914; 23 CFR 1.32; 49 CFR 1.48(b).

EDITORIAL NOTE: Nomenclature changes to part 635 appear at 67 FR 75924, Dec. 10, 2002.

Subpart A—Contract Procedures

SOURCE: 56 FR 37004, Aug. 2, 1991, unless otherwise noted.