



Enhancing Work Zone Safety and Mobility



"Driving Down Fatalities Through Knowledge Sharing"



Opportunities to Enhance Safety and Mobility in Work Zones

FINAL RULE on
WORK ZONE
Safety and Mobility 23 CFR 630 Subpart J

Final Rule on Work Zone Safety and Mobility

The *Final Rule on Work Zone Safety and Mobility* was published on September 9, 2004, in the *Federal Register*. This rule updates and broadens the former regulation on "Traffic Safety in Highway and Street Work Zones" (23 CFR 630 Subpart J). All state and local governments that receive federal-aid highway funding are affected by this rule and are required to comply with the provisions of this rule no later than October 12, 2007.

The Rule:

- Focuses on a state-level work zone policy approach to institutionalize work zone processes and procedures.
- Reflects changing times to address more traffic, more congestion, greater safety issues, and more work zones.
- Broadens the regulation to address more of the current issues affecting work zone "safety" and "mobility."
- Facilitates customer-focused project development for comprehensive consideration of "work zone impacts."

Why Update the Rule?

- Many of our roads are facing growing traffic volumes and congestion.
 - *Vehicle travel is up, but there has been very little growth in road miles.*
- Our highways are approaching middle age.
 - More construction and repair are needed, which means more work zones.
- A growing portion of this work is rehabilitation done under traffic.
 - More traffic exposed to work zones and more workers exposed to traffic.
 - Compressed contractor schedules.
 - Increasing night work.
- Work zone safety is a concern.
 - More than 41,000 injuries and 1,028 fatalities in 2003.
- Travelers are not happy with work zones.
 - Unexpected road conditions, delays, and inconsistency cause traveler frustration.

Rule Overview

The full text of the rule can be found at http://www.ops.fhwa.dot.gov/wz/docs/wz_final_rule.pdf. A summary of the rule follows.

The new rule was written to be flexible, taking into account different project types. The rule has three primary components, illustrated in the figure below:

PROJECT, PROCESSES, POLICY	Implement a policy for the systematic consideration and management of work zone impacts.
	Develop and implement state-level processes and procedures to implement and sustain the work zone policy.
	Develop and implement project-level procedures to assess and manage work zone impacts of individual projects.

As indicated in the figure, the policy will affect the state- and project-level processes and procedures, and the outcomes of projects may cause states to reassess their processes and procedures and policy.

For each of the components, the rule includes provisions and guidance intended to help transportation agencies address work zone considerations starting early in planning, and progressing through project design, implementation, and performance assessment.

Policy-Level Provisions

- Implement a policy for the systematic consideration and management of work zone impacts. The policy:
 - May take the form of processes, procedures, and/or guidance.
 - Should be customized as appropriate to an individual state's needs.
 - Should be sensitive to varying project characteristics and expected work zone impacts.
- Work in partnership with the FHWA to develop and implement the policy.

State-Level Processes and Procedures

- Develop and implement processes/procedures for systematic work zone impact assessment and management

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Work Zone Safety and Mobility

The needs and control of all road users (motorists, bicyclists, motorcyclists, transits, trucks, and pedestrians) within the highway, or on private roads open to public travel through 4 E's.

- **Look at it from the road users perspective**
- **Provide a clear and defined path**
- **Reduce the number of decisions**

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Review Basic Questions

Is the information provided to all road users standardized (or consistent) throughout the work zone(s) so that it meets their expectations?

- Has critical information been spread out through the approach and work area so that all road users are not overloaded at any given time?
-
- Have information needs been met to allow them to navigate safely through the work zone?
- Are all hazards in the work zone identified so that they are visible, and therefore avoidable, all road users ?

Nominal and Substantive Safety

1st Step



Nominal Safety – Advance Warning Sign + Advisory Speed Plaque

2nd Step



Advance Warning Sign + Advisory Speed + Chevrons = “**Safer**” = **Substantive Safety**



Enhancements Opportunities

Coordination with Local State Agencies
Enforcement – Education – Engineering – EMS
Speed Management
Positive Guidance
Traffic Control Devices
Re-positioning temporary Traffic Control Devices
Signal conspicuous and timing
Markings – Removal and New
Pavement – Condition, Contrast, Uneven

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Enhancements Opportunities

Lane Assignments and Continuity

Exits and Entrances

Transitions

Barriers and End Treatments

Lighting

Transit Stops

Pedestrian Accommodations

Wrong Way Movements

Maintenance of existing roadway –

Lighting/ Vegetation/Traffic Control Device/RLR cameras

Project Staging – Start and Completions

Opening of Completed Sections

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Coordination with Enforcement

Involved in the development of MOT

Participant in Pre-construction and periodic meetings:

On-going informal communications

Enforcement and Project Liaisons

Contract provisions to provide extra enforcement support:

- Lanes closures

- Change over of traffic signals

- Selective Enforcement scheduling

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Emergency Response



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Work Zone Crashes

- Investigation of Crash
 - Notification of Project Staff
 - Assess Issue
 - Make Modifications as appropriate
 - Documentation
 - Identify Systematic District Wide issues
 - Have a Written Policy/Process
-



Proactive Enhancements



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Proactive Enhancements

Lane Drops

Last U-Turnaround before bridge

Replacing or additional signing, RPMs, markings, delineations



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Nighttime Positive Guidance



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Channelizing Devices

Plans and Notes are open to interpretation

Cones

Tubular Markers

Barrels

Barricades: type I, II, and III

Which is best for the conditions, who pays.



Temporary Traffic Control Devices



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Temporary Pavement Marking



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Pavement Marking Removal

Milling
Grinding
Water Blasting
Overlay



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Traffic Signals

Checked Weekly
 Re-time as conditions change
 Use of detection systems
 Micro wave
 Video
 Loops

Report Date: 01/20/2015
Run Time: 08:47 AM

Intersection 665
 Main Street: ULMERTON RD
 Side Street: 34TH ST N
 Jurisdiction: STATE/COUNTY
 Section #: 41 MIST
 Comm. Addr: IP: 10.196.100.84 Gateway: Subnet:
 Pre-empt: y

Phase #	Street Name	Direction		Left Turn Type
1	ULMERTON RD	EB	LT	Restricted
2	ULMERTON RD	WB		
3	34TH ST	SB	LAG	
4	34TH ST	NB	LEAD	
5	ULMERTON RD	WB	LT	Restricted
6	ULMERTON RD	EB		
7	34TH ST	NB	LEAD	
8	34TH ST W/PRE-EMPT	SB	LAG	

Timing & Phasing

PHASE	1	2	3	4	5	6	7	8
Min. Green	10	20	20	10	20	20	10	20

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Pedestrian Accommodations

New

When to open sidewalks and crossings

Existing

Crosswalks and sidewalks closing

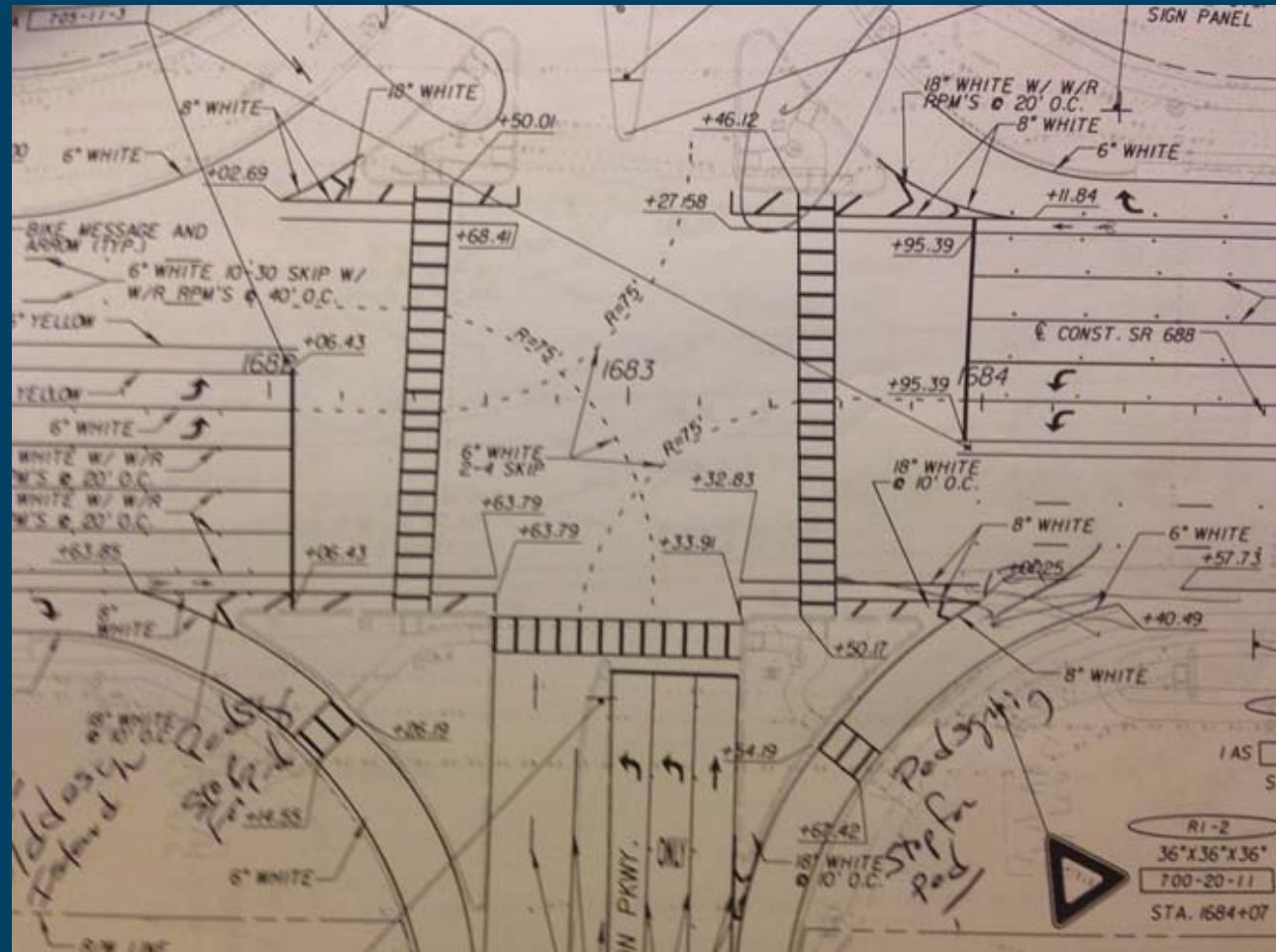
Must provide alternative crossing and walkways

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FDOT
D7 LOCAL AGENCY
TRAFFIC SAFETY ACADEMY
2015

Pedestrian Accommodations



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Pedestrian Accommodations



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Transit

Operations
Stops
Users

Provide information and accessibility (ADA)
Provide more and realistic details in the MOT



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Overhead Guide Signs

Proper alignment
Proper message



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Business Signing

Develop uniform process/policy for providing signing of business.



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Business Signing



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QUESTIONS???

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