

Memorandum

April 25, 2019

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SUBJECT: Project Delivery Memo #19-01 – Freeway Work Zone Variable Regulatory Speed Limit

and Advisory Speed Implementation

PURPOSE AND DIRECTION

Purpose

To establish a strategy for using reduced variable regulatory speed limit and advisory speeds in work zones with freeway lane closures, including shifts onto paved shoulders, for short-term and intermediate-term work zones.

This memo does not address continuous regulatory speed limit reductions for the duration of a project or stage of work.

Background

On May 11, 2018 Executive Order E1060.02 "Speed Limit Reductions in Work Zones" was updated to provide approval authority information for continuous regulatory, variable regulatory, and advisory speed in work zones.

This memo is intended to improve consistency in variable regulatory speed limit and advisory speed applications for similar freeway lane closure configurations.

- A variable regulatory speed limit reduction is placed and removed for active work operations.
- An advisory speed limit associated with a warning sign for a work zone condition in place continuously or variably.

This memo is effective immediately, and will be incorporated into the next version of the Traffic Manual.

Project Delivery Memo 19-01 April 25, 2019 Page 2

Direction

For all new construction projects, the variable regulatory speed limit and advisory speeds shall be as follows:

Freeway Shoulder Closures:

Reduced variable regulatory speed limits shall not be used for freeway shoulder closures.

Advisory speeds are allowable when unique conditions are present.

Typical Freeway Lane Closures; No Shifts onto Shoulder:

Maintaining existing posted speed limit for lane closures without shifts onto the shoulder is allowable. However, reduced work zone speed limits are recommended in certain situations, including but not limited to:

- Workers have no means of escape from motorized traffic (e.g., tunnels, bridges, etc.)
- Workers actively present within one-half lane width of adjacent open lane(s) not protected by barriers
- High operation speeds combined with high traffic volumes are anticipated

If used, the reduced variable regulatory work zone speed limit and advisory speeds are as follows:

Typical Freeway Lane Closures; No Shifts onto Shoulder					
Existing Speed Limit	(One or more lanes open to traffic Reduced Variable Regulatory Work Zone Speed Limit	Advisory Speed At Work Crew			
70 mph	60 mph	See Note [1]			
60 mph	50 mph	See Note [1]			
[1] Advisory speeds are allowable when unique conditions are present.					

<u>Note</u>: Work zone variable regulatory speed limit and advisory speed approvals are per <u>WSDOT Executive Order E1060.02</u>.

When using reduced variable regulatory work zone speed limits, projects should consider using a radar speed display sign (RSDS) with a speed limit sign prior to the work area as shown in <u>WSDOT</u> <u>Work Zone Typical Traffic Control Plans</u>. Additional RSDSs, including its speed limit sign, may be placed prior to each work crew based on engineering judgement.

It is understood there will be unique situations that may warrant adjustments, based on engineering judgement, to the variable regulatory work zone speed limit or advisory speed. These adjustments should be case-by-case decisions to maximize consistency statewide.

Typical Freeway Lane Closures; Single Lane Shifted onto Shoulder:

Both work zone variable regulatory speed limit and advisory speed shall be used when a single open freeway lane is shifted onto the shoulder.

This traffic shift configuration is necessitated by work operations including but not limited to:

- **Two-lane freeway** with the work area extending up to the lane line adjacent to traffic for work including HMA pavement, concrete pavement, and/or expansion joint rehabilitation.
- Three-lane freeway with the work area including both lanes and extending up to the lane line adjacent to traffic for work including HMA pavement, concrete pavement, and/or expansion joint rehabilitation.

The reduced variable regulatory work zone speed limit and advisory speeds are as follows:

Single Open Freeway Lane Shifted onto Shoulder					
Existing Speed Limit	Variable Regulatory Work Zone Speed Limit	Advisory Speed At Work Crew			
70 mph	55 mph	40 mph			
60 mph	45 mph	40 mph			

Note: Work zone variable regulatory speed limit and advisory speed approvals are per WSDOT Executive Order E1060.02.

A radar speed display sign (RSDS) with an advisory speed sign shall be located prior to the work area as shown in <u>WSDOT Work Zone Typical Traffic Control Plans</u>. In addition, an advisory speed ahead sign shall be placed in advance of each RSDS. Additional RSDSs, including its advisory speed sign and the advisory speed ahead signs in advance, may be placed prior to each work crew based on engineering judgement.

It is understood there will be unique situations that may warrant adjustments to the variable regulatory work zone speed limit or advisory speed, based on engineering judgement. These adjustments should be case-by-case decisions to maximize consistency statewide.

Project Delivery Memo 19-01 April 25, 2019 Page 4

ACTIONS REQUIRED

Project Development

• Incorporate this policy into contract plans for projects utilizing freeways lane closures. Obtain reduced variable regulatory work zone speed limit and/or advisory speed approval as required per WSDOT Executive Order E1060.02.

Contract Ad and Award

• For projects currently being advertised for bids utilizing freeway lane closures, on a case-by-case basis evaluate the ad schedule and, if appropriate, add a special provision and plan details that incorporate this policy. Obtain reduced variable regulatory work zone speed limit and/or advisory speed approval as required per WSDOT Executive Order E1060.02.

Construction

- Projects currently under contract that utilize freeway lane closures should be evaluated on a
 case-by-case basis to determine if the change to reduced variable regulatory work zone speed
 limit and/or advisory speeds is appropriate.
- The evaluation should consider the additional costs associated with additional temporary signage, radar speed display trailers, and additional traffic control labor if the project is lump sum traffic control. Make the modification by change order. This memo constitutes Headquarter Construction approval of the change.
- Obtain reduced variable regulatory work zone speed limit and advisory speed approval as required per <u>WSDOT Executive Order E1060.02</u>.

HQ Development Division

• Update the WSDOT Design Manual Chapter 1010.

HQ Traffic Operations

- Update the Work Zone Traffic Control Plan Library with new typical plans.
- Update the WSDOT Traffic Manual.
- Provide expertise to Regions to implement this policy.
- Lead FHWA work zone process reviews with Regions including several projects using reduced variable regulatory work zone speed limit and advisory speeds.

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