Washington State Department of Transportation

Memorandum

October 3, 2001

TO: Jerry Lenzi, Eastern Region; Don Senn, North Central Region; Dave Dye, Northwest Region; Randy Hain, Olympic Region; Don Whitehouse, South Central Region; Don Wagner, Southwest Region

FROM: Brian Zeigler, 705-7801

SUBJECT: Maintenance Work Zone Sign Size Requirements

The Work Zone Safety Task Force has completed a review and discussion on the use of 36" signs vs. 48" signs in work zones. This issue has remained unresolved for some time and the Task Force felt it was necessary to resolve the issue to ensure compliance with standards and to eliminate statewide inconsistencies.

The OSC Maintenance Office conducted a statewide survey to generally determine the sizes of signs currently in use. There survey indicated a mixture of the two sign sizes across the state. Feedback from the survey and input from the maintenance and operations members of the Task Force identified the following issues:

- 48" signs can be more difficult to place in narrow or no shoulder locations, but it can be done.
- New portable sign stands may be needed in some cases to allow 48" sign placement.
- Many of the new NCHRP 350 approved sign stands have adjustable "all terrain" bases and legs.
- 48" signs may require more ballast than 36" signs used in windy areas.
- Current use of 36" signs may be due to long standing procedures that inadvertently were not updated or use by specialized crews that felt the smaller signs were needed due to site conditions. Also, the 48" standard may not have been consistently communicated across the state.

Current state and federal standards were reviewed to determine the correct standard. In this case the standards of the MUTCD apply, specifically part VI, 6F-1(2) paragraphs 4 and 5 as follows:

> *Where any part of the roadway is obstructed or closed, advance warning signs are required to alert traffic well in advance of these obstructions or restrictions. These signs may be used singly or in combination. Because of their importance, they* ***shall have a standard size of 48 inches square*** *and shall be the standard diamond shape for warning signs, except as provided above (allowance for larger signs). Signs larger than 48 inches square may be used for additional emphasis of the temporary traffic control zone.*

DOT Form 700-008 EF
Revised 5/99

BZ:frn

cc: J. Conrad

> *Where speeds and volumes are moderately low, a minimum size of 36 inches square may be used for advance warning signs, if they have a minimum letter size of 5 inches.*

Any use of 36" signs would have to meet the "low speed and volume" criteria stated in paragraph 5. Although not specifically stated, low speed is generally limited to 40 mph. Low volume is a relative term, but for application to state routes 2000 ADT could be considered the upper limit. The new "Millennium Edition" of the MUTCD (MUTCD 2000) maintains the same standard as the current MUTCD and references the 48" signs as a *standard* condition, which is the new terminology equivalent of the *shall* condition.

The Work Zone Traffic Control Guidelines Book, M54-44 also refers to "standard 48" x 48" signs".

The Task Force was in general agreement that 48" signs should be the WSDOT standard. This also fits well with our current direction to increase the visibility and conspicuity of our work zone signs by using the new fluorescent orange sign sheeting material.

Please ensure that Region crews are aware of this standard and initiate action to replace existing 36" (or smaller) signs with 48" signs as needed.

Also, this requirement is for all work zones, including construction projects, utility work, survey crews, developers and others. Construction projects are already generally covered by specifications and plans. Other work zones may require further oversight to ensure compliance to this requirement.

Let me know if you have any questions or concerns.

BZ:frn

cc: J. Conrad
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