2011 Oregon Temporary Traffic Control Handbook
Major Changes List

The 2006 Oregon Temporary Traffic Control Handbook (OTTCH) has been revised for clarity, grammar, spelling, and formatting, and to be in compliance with the 2009 Manual on Uniform Traffic Control Devices (MUTCD). Beyond these revisions, this change list highlights major modifications between the 2006 edition and the 2011 edition. Not all changes are included in this list.

For clarity, changes included in this list are referenced to the 2011 OTTCH section number, the section title, and the 2006 OTTCH section number in parentheses, in this format:

[2011 Section Number] [Section Title] – ***(2006 Section Number)***

Specific bullet items or paragraph numbers are listed in the subsequent text.

Chapter 1 – General Standards and Principles

Much of the flagging language was moved from Chapter 1 to a new flagging chapter, Chapter 3.

1.1 Scope – *(2006 Edition Section 1.0)*

Added Transit Authority to the list of road jurisdictions.

Removed OR-OSHA reference. OR-OSHA is enforcing the 2000 edition of the MUTCD, per statute. This may cause conflicts with the teachings, guidance, and requirements in the 2011 OTTCH, as the 2011 OTTCH is written to reflect the 2009 edition of the MUTCD.

1.4 Worker Safety Apparel – *(2006 Edition Section 1.1)*

Changed guidance to requirement that all workers within the right of way who are exposed either to traffic or to work vehicles or construction equipment within the work zone **shall** wear high-visibility safety apparel upon adoption of the 2009 MUTCD by ODOT. The 2009 MUTCD was adopted by ODOT through the Oregon Transportation Commission on December 21, 2011.

Changed high-visibility safety apparel requirements from ANSI 107-1999 to ANSI 107-2004, per 2009 MUTCD Part 6, Section 6D.03, paragraph 04.

1.5 Surveying and Similar Work – *(2006 Edition Section 1.2)*

Removed list of traffic control techniques for surveying and similar work. The 2011 OTTCH now directs readers to the ODOT *Survey Safety Manual* for more information on this kind of work.

1.8 Roundabouts – *(2006 Edition Section 1.6)*

Added direction to notify emergency services prior to conducting work in a roundabout that will affect response times or if using a detour.

1.9 Pavement Markings – *(2006 Edition Section 1.7)*

Removed the engineering study option for using temporary pavement markings longer than two weeks. An engineering study for this purpose is not a standard ODOT maintenance practice. Replaced this option by allowing the use of temporary pavement markings longer than two weeks if it is impractical to place permanent markings.

Removed reference to the ODOT Standard Specifications for Construction for pavement markings on state highways. The standards in the Standard Specifications for Construction do not apply to the OTTCH. Readers are instead referenced to the ODOT Traffic Line Manual for pavement markings on state highways.

1.12 Spotter Performance and Training Guidelines – *(2006 Edition Section 1.54)*

Added more guidance for spotter training requirements. Added training and re-training requirements.

1.13 Unpaved Roads *(NEW to 2011 Edition)*

New section to address work on unpaved public roads. The section directs local road authorities to guidance from Part 5 and Part 6 of the 2009 MUTCD.

Chapter 2 – Setting Up The Work Zone

2.2 Tapers – *(2006 Edition Section 2.0)*

Clarified flagger and downstream taper lengths as 50-100 feet, per 2009 MUTCD Table 6C-3.

Table 2-1 Taper Length Formulas *(2006 Edition Table 2-2)* – Clarified speed as the posted speed.

2.5 Signs – *(2006 Edition Section 2.3)*

Table 2-4 Sign Spacing and Buffer Lengths *(2006 Edition Table 2-3)* – The table now differentiates between freeway and non-freeway facilities and lists a buffer space dimension for each posted speed.

Sign Spacing Examples – This section was added for clarification. It gives two examples in two figures.

Chapter 3 – Flagging

This new chapter is mostly taken from the flagging text in Chapter 1 of the 2006 OTTCH and was added for clarity.

3.5 Flagger Station Practices – *(2006 Edition Section 1.512)*

This is a new section based on the Flagger Stations section of 1.512 of the 2006 OTTCH.

3.6 Flagging Signs & Equipment – *(2006 Edition Section 1.513)*

Added guidance that the FHWA *Standard Highway Signs* Flagger symbol sign (W20-7a), showing a flagger holding a flag, not a stop/slow paddle, should not be used.

Added option for emergency applications to use a flag to control traffic.

3.7 Flagging Through Intersections – *(2006 Edition Section 1.515)*

Added option to use one flagger to control entire intersection if the intersection has an approach ADT of 400 vehicles per day or less.

3.10 Pilot Car Operation – *(2006 Edition Section 1.52)*

#8 – Added WAIT FOR PILOT CAR (CR4-20) sign option and with criteria for controlling side roads and accesses. This is a new sign that has been added to the Oregon Sign Policy and Guidelines.

3.11 Automated Flagger Assistance Devices Operations – *(NEW to 2011 Edition)*

This is a new section that was added to accommodate the 2009 MUTCD. Most language in this section is taken straight from the MUTCD with minor modification to cover current practices in Oregon.

Chapter 4 – Equipment Specifications

This chapter was renumbered from Chapter 3 to Chapter 4 because the new flagging chapter was added as Chapter 3.

Added the Manual for Assessing Safety Hardware (MASH) to the documents supporting crashworthiness. This document is the new federal standard practice. National Cooperative Highway Research Program (NCHRP) Report 350 is still listed as a document supporting crashworthiness.

4.4 Shadow and Protection Vehicles – *(2006 Edition Section 3.2)*

Copied guidance from Section 4.420 of the 2006 OTTCH that when the posted speed is 45 mph or greater, a protection vehicle should be considered.

4.5 Truck-Mounted Attenuators (TMAs) – *(2006 Edition Section 3.3)*

Copied guidance from Section 4.700 of the 2006 OTTCH that on freeways, a TMA is required on the first vehicle exposed to approaching traffic in, or partially in, the travel lane.

Chapter 5 – Typical Applications

This chapter was renumbered from Chapter 4 to Chapter 5 because the new flagging chapter was added as Chapter 3.

5.0 Detail Drawings – *(2006 Edition Section 4.001)*

The PCMS Installation, Bicycle Signing, and Extended Traffic Queues have been broken out into individual sections with individual diagrams for clarity.

Diagram 5-10 Temporary Pavement Markers – *(NEW to 2011 Edition)*

Added new diagram providing guidance and requirements for temporary pavement markers.

Diagram 130 Mobile Operation on Multi-Lane Roads – *(2006 Edition Diagram 120)*

Added additional sign options.

Diagram 140 Striping on Multi-Lane Road and Freeways – *(2006 Edition Diagram 135)*

Shadow Vehicle 3 TMA no longer optional.

Changed following distance requirement between Shadow Vehicle 3 and first warning vehicle.

Moved first warning vehicle to the same side of the roadway as the operation due to conflicts with the Move Over law.

Diagram 325 Operations with Moving Flagger Stations – ***(2006 Edition Diagram 325)***

#4 – Added requirement that a flagger is required at each end if the work space is over 200 feet in length.

Diagram 330 Lane Closure with Portable Traffic Signals – ***(2006 Edition Diagram 330)***

Changed temporary "STOP" line width from 24 inches to 12 inches.

Diagram 340 Lane Closure with Pilot Car – ***(2006 Edition Diagram 340)***

#5 – Added WAIT FOR PILOT CAR (CR4-20) sign option with criteria for controlling side roads and accesses. This is a new sign that has been added to the Oregon Sign Policy and Guidelines.

Diagram 360 Work in Center of Low-Speed Road – ***(2006 Edition Diagram 360)***

#4 – Added the Manual for Assessing Safety Hardware (MASH) crash testing criteria to the qualified crashworthiness testing criteria.

Diagram 370 Work with In-Street Running Transit Tracks – ***(NEW to 2011 Edition)***

New diagram to accommodate work within or adjacent to two-way streets which include in-street running transit tracks.

Diagram 500 Right Lane Closure, Multi-Lane Non-Freeway – ***(2006 Edition Diagram 500)***

Added paragraph addressing closure of more than one lane on a multi-lane road.

Diagram 605 Left Turn Refuge Closure – ***(2006 Edition Diagram 605)***

Copied section from 4.600 in the 2006 OTTCH addressing speeds over 40 mph and work in place more than 15 minutes.

Changed LANE CLOSED sign to LEFT TURN LANE CLOSED sign for clarity for drivers.

Diagram 640B Roundabout Detour Alternative – ***(2006 Edition Diagram 640)***

New diagram based on Diagram 640 in the 2006 OTTCH. Added signing guidance.

Diagram 700 Freeway Mobile Operations – ***(2006 Edition Diagram 700)***

Added notes for striping operations.

Diagram 720 Freeway Lane Closures – ***(2006 Edition Diagram 720)***

Example PCMS messages added to diagram.

Clearance between work area to channelizing device increased so traffic straddles shoulder rumble strip for single lane closure.

Diagram 730 Work Near an Exit Ramp – ***(2006 Edition Diagram 730)***

Changed exit taper length from (2L) to (L/2) per 2009 MUTCD TA-42.

Diagram 740 Work On an Exit Ramp – ***(2006 Edition Diagram 740)***

Added protection vehicle with TMA to the diagram.

Diagram 750 Exit Ramp Closure – ***(2006 Edition Diagram 750)***

ROAD CLOSED sign no longer an option for closing an exit ramp. The RAMP CLOSED or EXIT CLOSED signs are now used for closing an exit ramp.

Chapter 6 – Incident Traffic Control

This chapter was renumbered from Chapter 5 to Chapter 6 because the new flagging chapter was added as Chapter 3.

6.1 Incident Traffic Control – *(2006 Edition Section 5.0)*

Added "Incident Response temporary signing may be made using retroreflective fluorescent coral (pink) sign sheeting."

6.4 Safety Apparel – *(2006 Edition Section 5.3)*

Changed guidance to requirement that all personnel within the right of way who are exposed to traffic, with the exception of law enforcement, shall wear high-visibility safety apparel upon adoption of the 2009 MUTCD by ODOT.

Appendix A – Glossary of Terms

Added the following definitions:

- Advance Warning Area
- At Grade Crossing (Mixed and Cross Traffic)
- At Grade Crossing (Cross Traffic Only)
- Catenary
- Grade Crossing
- Railway Right Of Way
- Traffic Control Device
- Work Vehicle

Removed sentence saying the Clear Zone does not extend beyond the right-of-way.

Added clarification of Work Zone definition using ORS 811.230 and MUTCD.

Appendix B – ODOT Short Term Traffic Control Plan

No major changes.

Appendix C – Checklist for Work Zone Layout and Operation

No major changes.