OREGON TRAFFIC CONTROL DEVICES COMMITTEE

Meeting Agenda

November 20, 2015

ODOT TLC Bldg., Alsea Conf. Room,
4040 Fairview Industrial Dr., Salem

9:00 – 9:10	Welcome / Building Orientation / Introductions / Approve Previous Minutes	Jeff Wise
9:10 – 9:15	Business from the Audience *Public Comment on Non-Agenda Topics*	Jeff Wise
9:15 – 9:30	Fixed Photo Radar Camera Guidelines for State Highways *Information / Discussion*	Doug Bish
9:30 – 9:40	NACTO Urban Street Design Guide *Information*	Mike Kimlinger
9:40 – 10:00	Bike Lane Regulatory Signs *Information / Discussion*	Scott McCanna
10:00 – 10:10	BREAK	
10:10 – 10:40	Implementation of HB3402, Increased Speeds *Information*	Mike Kimlinger
10:40 – 10:45	Select Chair & Vice-Chair for 2016 / Review Proposed Meeting Schedule for 2016 *Decision*	Jeff Wise
10:45 – 11:00	Roundtable *Local Jurisdiction Issues - Discussion*	All Committee Members
11:00 – 11:10	Not-on-Agenda Items	Jeff Wise
11:10 – 11:15	Agenda Items for Future Meetings	Jeff Wise

Proposed 2016 OTCDC Meeting Schedule

Date	*Location*
January 15	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem
March 18	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem
May 20	(w/ITE), TBD
July 15	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem
September 16	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem
November 18	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem

Oregon Traffic Control Devices Committee

July 17, 2015

Meeting Minutes

ODOT Technical Leadership Center, 4040 Fairview Industrial Drive SE, Salem, Oregon

Members Present: Jeff Wise, ODOT Region 5, Chairperson; Bob Pappe, Secretary, ODOT State Traffic Engineer; Brian Barnett, City of Springfield; Mike Caccavano, City of Redmond; Ed Chastain, Lane County Joseph Marek, Clackamas County; Cynthia Schmitt, Marion County

Members Present via join.me: Alex Georgevitch, City of Medford; Jeff Lewis, OSP

Members Absent: Pam O'Brien, DKS Associates, Vice Chair

Others Present: Scott Beaird, Kittelson & Associates; Terry Hockett, Kevin Hottman, City of Salem; Jabra Khasho, City of Beaverton; Eric Niemeyer, City of Springfield; Doug Bish, Craig Black, Scott Cramer; Kevin Haas, Katie Johnson, Mike Kimlinger, Kathi McConnell, Gary Obery, Heidi Shoblom, ODOT Traffic/Roadway Section; Bert Hartman, ODOT Bridge Section

Introduction – Approval of Minutes – Additional Agenda Items

Chair Jeff Wise called the meeting to order at 9:00 a.m. and called for introductions from all attending, including via join.me (see attendance above). Bob Pappe introduced Jeff Lewis, the new representative for the Oregon State Police and gave some information on his career to date. Joe Marek then moved, Mike Caccavano seconded, and the committee approved the March 20, 2015 OTCDC meeting minutes.

Business from the Audience/Public Comment on Non-Agenda Topics

None to report.

Signal Policy and Guidelines Update

Craig Black reported back on further refinements of this draft, summarizing from his Revision List for the March_2015_Signal Policy and Guidelines draft. He's received two comments from committee members, which are among the things being addressed.

In Section 1.2.5 on Temporary and Portable Signals – Craig added language as a safety aspect as follows to be sure sight distance is considered in case of windy roads, etc.:

> When considering the use of temporary or portable traffic signals, a site visit to observe field conditions should be conducted when investigating their possible use in work zones. Sight distance to the potential signal display locations shall be per MUTCD, Table 4D-2 "Minimum Sight Distance for Signal Visibility"

In Section 4.1.1 on Left-Turn Signal Modes, addition was made as follows:

> According to Section 4D.05 of the MUTCD, it is required to install a W25 - 2 sign (ONCOMING TRAFFIC MAY HAVE EXTENDED GREEN) if preemption is allowed for an approach from where drivers are allowed to make left turn movements permissively. Historically, base d on engineering judgement, ODOT never installed this sign on state highways and no safety and operational problems have been reported due to the absence of this sign. Besides, this sign doesn't provide clear message to the drivers. Based on these factor s, this sign is not used on state highways.

This is needed as railroad consultants are bringing up this sign required by the MUTCD which Oregon has never used on state highways. We need to formalize this policy in the Signal Policy.

In Section 4.3 on U-Turns, several sentences were added and removed in the first two bullets to move language from the Sign Policy to the Signal Policy so the description of the U-Turn sign will reference the signal policy, which Heidi is taking care of in the Sign Policy.

Among the things he researched was the history of the road widths used to determine if U-turns may be permitted. It was an evolving process ODOT staff went through from the AASHTO Manual 56 foot width. Through rule-making, an exception was made in 1976 down to 52-feet based upon an intersection in Salem and several other locations. While smaller cars don't need as big of a turning radius as a larger vehicle, generally, you need to design for the largest vehicle but there is still a need to allow for design exceptions on an individual location basis. There was discussion of the desirability of allowing for more exceptions; perhaps with a smaller minimum radius jurisdictions could adhere to if there was a history of this working well in many cases. There is a certain amount of leeway as it is which should be helpful if a jurisdiction does the work to document it and ODOT will look into this further as time permits without making changes to the Signal Policy draft at this time.

Eric asked about allowing permissive U-turns at intersections to prevent build-up above capacity in left turn lanes. Craig said ODOT could look at this down the road but for now, we're not ready to allow other than protected-only phasing. ODOT will need to look at how this works for the State before adjusting this. The same would go for allowing U-turns on flashing yellow turn signals. Local jurisdictions are encouraged to advise ODOT of locations where drivers are already making some of these turns and it seems to be working. The committee was interested in seeing June Ross's 2005 study report for the Legislature, which legislators had asked for in preparation for possibly allowing U-Turns unless otherwise signed to see what all she looked at.

In Section 8.1 on Railroad Preemption (Heavy Rail), ODOT wanted to add to the first bullet in order to incorporate a tech bulletin which talks about protective green clear-out phasing in order to have it in the Signal Policy in accordance with current practice.

> When a vehicle clear-out interval (VCOI) is required, the indication for the clearance phases shall be green. VCOI operation shall include a green left-turn arrow if a left turn movement exists, even if the left-turn movement operates permissively. Under normal operation, if the left-turn movement is permissive only, the display of the left-turn green arrow shall be used during rail preemption only. The use of green arrow is not allowed for use by emergency vehicle preemption and transit priority users.

Doug thought it might clarify to add "normally" to the phrase above so it reads "even if the left-turn movement *normally* operates permissively". Craig said he'd look at the wording on this again.

In Appendix C, under Traffic Signal Operational Approval, Pam noted one area in the flow chart where "Traffic Signal Approval Request Form or" is still in a box under the State Traffic Engineer. This will be removed.

Brian wanted to return to Section 4.1 on Protected Only Left Turn Signal Modes, suggesting more flexibility should be written in. Eric suggested under b) the word "provided" be replaced with "considered" for cases where protected-only left turn mode isn't needed. Craig said the document as written already provides sufficient flexibility if the traffic engineer just documents the situation and the decision. Bob said this needs further consideration by ODOT because the current wording works well for ODOT and ODOT needs time to further consider any such change. Bob expressed willingness to look if we can further accommodate Brian's needs without damaging ODOT's desire to have clearer guidance in most circumstances. Doug Bish suggested "considered" may bring up legal issues in court if everything which should have been "considered" wasn't properly documented as having been considered. Eric suggested "provided" might also be a legal issue.

Scott Cramer sought to clarify how ODOT uses the policy for local jurisdictions. Each case is considered separately and if the policy doesn't apply, this is documented and adjusted for. The policy is not chiseled in stone. Bob reiterated ODOT is willing to take more time internally to look into this further.

Decision: Joe moved, Brian seconded and the committee agreed to recommend approval of the Signal Policy and Guidelines with minor edits discussed and with a commitment to examine the issue of the protective-permissive left turn phasing and the language, as well as the U-turn issues discussed and bring it back to the Committee within the next six months.

Traffic Signal Systems Engineering

Scott Cramer reported on the current status of ODOT's planning and activities moving forward towards the next generation of hardware, software systems engineering. One of

the goals is to be able to integrate with local agency systems where they will be able to adopt to and make use of our engineering, software packaging as much as possible. It's still on the 170/2070 ATC style. Architecture in the cabinet is going away from individual wires to serial busses and more communications with other systems. Towards the beginning of 2016, ODOT hopes to start having something to move forward in the field with. We have nothing solid from FHWA on connected vehicle systems, they are expected to have something out in 2016, at which ODOT will be looking closely at what/how this can be integrated in a tiered approach to our system. It likely will not even involve the vehicle to infrastructure phase which is expected to be developed using signal systems data by the technology engineers of vehicle manufacturers.

Single Hauling Vehicle Signs

Heidi Shoblom and Bert Hartman brought back two new versions of weight limit signs: Weight Sign 1 (6 X 4.5 ft.) and Weight Sign 2 (6 X 5 ft.). The larger sign includes a note single-trip permitted loads are not subject to weight limits. The signs are extruded aluminum and as stand-alone signs, they may be placed on wood posts at about $700 when installed by state forces. If not stand alone, they will require a TBB frame for from $3,000-5,000 each. Advance warning signs would also be needed. Most would go on local roads. The committee still felt the signs would not work because they are too big to fit, too complex to easily enforce and too expensive. Local jurisdictions would find it impossible to comply with such weight sign requirements. The market is driving a need for these signs so something needs to be worked out.

Action Item: The committee suggested a working group (including county traffic engineering and enforcement personnel) look for more workable signs. Volunteering for a working group were Joe Marek and Cindi Schmitt. The League of Oregon Cities may also be asked if they have someone available. Bert will coordinate setting this up.

SCOTE Meeting Update

Mike Kimlinger reported on the AASHTO Subcommittee on Traffic Engineering conference held in San Antonio, Texas June 14-17. The link above links through to presentations and a summary of these.

Sinusoidal rumble strips and progress towards finding a location and vendors for testing them were briefly discussed.

Mike reported on the pooled fund annual meeting in Atlanta last month including:

- TCD Pooled Fund has Two reports published:
    - Elongated Pavement Markings
    - Warning Sign Legends for emergency Incident
- Current Projects
    - Countdown Pedestrian Signals Legibility and Comprehension without Flashing Hand

    - Lane Line Markings in Advance of Lane Reduction Transitions
    - Human Factors Evaluation of Intersection Conflict Warning Systems
- Next Up
    - Symbol Sign Evaluation
    - Lane Reduction vs Lane Drop
    - Guide Signing for U-Turn Intersections
    - Enhancing Conspicuity for Standard Signs and Retroreflective Stripes on Posts
    - Simplification of Channelizing Device Delineation Patterns
    - Signing for Pedestrians for Pedestrian Activated Beacons (instructions)

June NCUTCD Meeting Update

Scott Beaird reported on the June NCUTCD Meeting held June 17-19 in San Antonio, Texas. Attending from Oregon with Scott were Mike Kimlinger, Randy McCourt, Tom Lancaster and Lee Rodegerdts. It was a fairly light meeting given the delay in publishing the next MUTCD.

Scott summarized activity of the Roundabouts Task Force

- Pedestrian treatments at roundabouts
    - NCHRP 3-78B – Develop guidelines for pedestrian treatments at roundabouts
    - FHWA – Final report on RRFBs at multilane roundabouts is nearly final
- Signalization
    - January meeting – discuss language on how to do signalization at roundabouts
- Developing research needs statement for 3rd edition of Roundabout Guide

Scot also summarized the Signals Technical Committee, including Update on RRFB research (above/below), update on PBH research, and a Research need statement (automated pedestrian detection for activation of APS locator tone and walk activation).

Finally, the bulk of the summary was on FHWA

- Kevin Sylvester is the new team leader
- Advertising for two openings
- Next edition of MUTCD
    - Not included in FHWA's Priority Rulemakings for 2015
    - Draft NPA unlikely to be advanced to OM&B this year
        - Economic impact analysis already done will likely need to be expanded
    - Tentative timeline:
        - May 2016: NPA published in Federal Register
        - Nov 2016: End of 6 month comment period
        - Oct 2017: FHWA finalizes MUTCD
        - Nov 2017 – Apr 2018: Internal and OM&B reviews
        - May/June 2018: Publish next MUTCD
- Proceeding with RFC on future direction of the MUTCD (Sept 2015)

Legislative Update

Kevin Haas gave a legislative update on bills of interest passed during the 2015 Session.

- Senate Bill 192 — Work group to study allowing ATVs to operate on state highways
- Senate Bill 533 — Allows bicyclists and motorcyclists to violate traffic signals
- Senate Bill 921 — Directs ODOT to close all freeway medians 100 feet or less in width
- House Bill 2621 — Allows City of Portland to operate permanent photo radar
- House Bill 3035 — Flashing beacons in rural school zones
- House Bill 3402 — Increases speed limit on several central and eastern Oregon highways

There were clarifying questions and some discussion on most of these bills, particularly HB 3402 and its implications. (Note: Governor Brown signed the bill July 20th and the new speed limits will be effective March 1st, 2016.)

Roundtable

Brian said as a result of a triple-fatality to pedestrians on Main Street (Hwy 126B), Springfield has received an inquiry from Red Flex offering to provide automated red light enforcement, he'd like to hear from anybody who has experience with this after the meeting. Alex said Medford runs these cameras and suggested Brian talk to the Medford Police.

Alex said Medford is still looking to hire a Transportation Manager so if anybody knows anyone who might be a candidate, please pass this on.

He also asked about having a supervising electrician do the design work for a signal cabinet removal/relocation. The consensus was if there is trenching, a new base installed, etc., it would be considered engineering and require an engineer to do the designing. OSBEELS would be a good resource.

Not On Agenda

Bob noted there is a Transportation Safety Conference October 19th and 20th at the Embassy Suites at Washington Square after a several-year hiatus. The OTCDC has in past rescheduled the September meeting to be held in conjunction with the Conference. Bob said he'd like to hear if members are interested in doing the joint meeting this year. There was general approval with the idea. ODOT will check for any conflicts and get further information out to the committee regarding a final decision.

Mike Kimlinger noted ODOT has acquired 5 new CARS Ball Banking tools they will be willing to loan out on a first-come-first-serve basis. Eric Leaming will be the contact for this

opportunity and Mike will be working on what kind of intergovernmental agreement needs to be formulated.

Agenda Items for Future Meetings

None surfaced.

Adjournment

Jeff Wise adjourned the meeting at about 12:10 pm.

Oregon Traffic Control Devices Committee

August 26, 2015
Special Telephone-Join Me Meeting
Meeting Minutes

ODOT Technical Leadership Center, 4040 Fairview Industrial Drive SE, Salem, Oregon

Members Present: Bob Pappe, Secretary, ODOT State Traffic Engineer;

Members Present via join.me: Jeff Wise, ODOT Region 5, Chairperson; Brian Barnett, City of Springfield; Mike Caccavano, City of Redmond; Ed Chastain, Lane County; Alex Georgevitch, City of Medford; Joseph Marek, Clackamas County; Pam O'Brien, DKS Associates, Vice Chair; Cynthia Schmitt, Marion County

Members Absent: Jeff Lewis, OSP

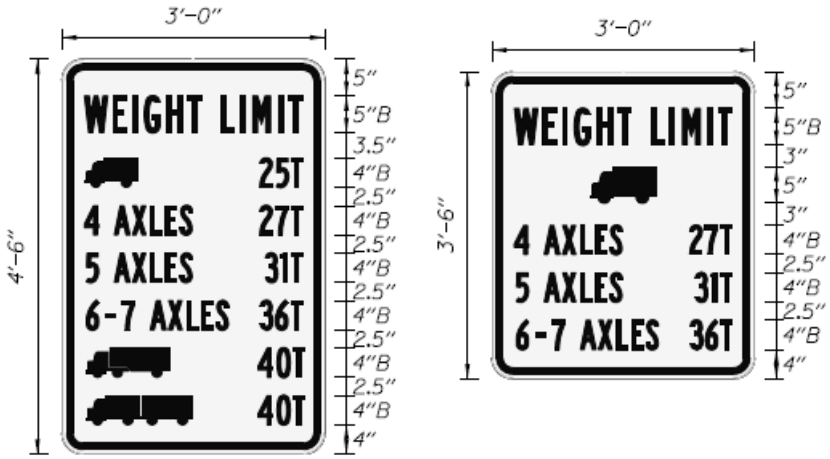
Others Present: Mike Kimlinger, Kathi McConnell, Chris Rowland, ODOT Traffic/Roadway Section; Bert Hartman, ODOT Bridge Section

Others Present via join.me: Emily Ackland, Association of Oregon Counties; Sarah Owens, Washington County; Julia Wellner, City of Bend

Introduction

Chair Jeff Wise called the meeting to order at 9:00 a.m. and called for introductions from all attending, including via join.me (see attendance above).

Single Hauling Vehicle Signs



Mike Kimlinger and Bert Hartman presented the latest WEIGHT LIMIT sign designs for committee review. Bert explained the reaction of the trucking industry through the Motor Carrier Transportation Advisory Committee. The first is for standard and SHV trucks, which received a positive response from the committee. They did suggest adding a horizontal line to separate single-unit trucks from the (silhouetted) combination vehicles (under the "6-7 AXLES 36T"). This would make it more clear the axle delineations apply just to

single unit vehicles. The added horizontal line would increase the height of the combined sign to about 5'. The consensus was the clarity the line provides is useful.

Of the three draft signs covering only Special Hauling Vehicles (SHV) weight limits, Bert said the third, smallest sign was preferred by the MCTA Committee. It is consistent with the Standard and SHV sign in the silhouette. The other two aren't going to be considered.

Bert made clear the industry would prefer to have uniform signing statewide with the most flexibility for axel-weight ranges up to 7 axels on SHV's. There was general agreement the preferred signs are more of more reasonable size than previous versions. There was discussion around the fact the local road authorities may have their own policies on what trucks/weights are going to be permitted on their bridges so they may want to have fewer lines, combining weights/axles on their signs. The committee wanted to have wording added to the Sign Policy which clarifies the new signs are templates depicting the maximum amount on signs and noting local jurisdictions will have some flexibility in exactly how many lines they put on their signs. It was also suggested the text advise anyone with questions to contact the State Sign Engineer for advice.

Decision/Action Item: The committee consensus was for Heidi Shoblom and Chris Rowland to work up a draft with the changes agreed to and proposed wording to be sent to the committee for email vote for final approval.

Thanks to Cynthia Schmitt

Jeff noted this is Cynthia's last meeting as an Association of Oregon Counties representative for the committee. Everyone present expressed appreciation for her participation and support of traffic control device policy.

Agenda Items for Future Meetings

Kathi asked for any agenda items for the October meeting. She only has one agenda item scheduled thus far regarding bike on road vs. share the road signing. She also noted there will be no join-me option at the October meeting because it will not be at ODOT and there would be an additional cost to use the service at Embassy Suites.

Adjournment

Jeff Wise adjourned the meeting at about 9:45 am.

Oregon Department of Transportation
and
Oregon Traffic Control Devices Committee

Fixed Photo Radar (FPR) Camera Guidelines For State Highways

2015

OREGON DEPARTMENT of TRANSPORTATION
TRANSPORTATION OPERATIONS DIVISION
TECHNICAL SERVICES
TRAFFIC MANAGEMENT SECTION
http://www.odot.state.or.us/traffic

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Approved by the State Traffic-Roadway Engineer, in consultation with the Oregon Traffic Control Devices Committee for use on State Highways and adopted by the Oregon Traffic Control Devices Committee as a guide to assist Oregon cities in the deployment of Fixed Photo Radar (FPR) Cameras.

Bob Pappe

State Traffic-Roadway Engineer

September, 2015

Fixed Photo Radar (FPR) Camera Guidelines

TOPIC **PAGE**

Fixed Photo Radar (FPR) Camera Guidelines

Introduction

This document has been prepared by the Oregon Department of Transportation (ODOT) and the Oregon Traffic Control Devices Committee (OTCDC) to assist the City of Portland in the deployment of Fixed Photo Radar (FPR) Cameras on State Highways.

Supporting Legislation

In response to Safety problems within high crash corridors, the Oregon Legislature enacted a law in 2015 to allow the City of Portland to effectively enforce and reduce speeding within high crash corridors.

These guidelines are based on Oregon Revised Statutes (ORS) XXX.XXX thru XXX.XXX.

FPR Camera System Justification

In urban high crash corridors pedestrians and bicycles are especially vulnerable and susceptible to injury and death from motor vehicles speeding, not to mention motor vehicle involved injuries and fatalities. Studies have shown automated enforcement is an effective tool to prevent crashes and increase safety. Automated speed enforcement can be an effective supplement to traditional speed enforcement to reduce speeding and speed related crashes.

The City of Charlotte, North Carolina conducted a pilot evaluation[1] of the safety effect of speed enforcement cameras. The City selected fourteen key corridors with high collisions, and an automated speed enforcement camera program was implemented in the corridors scattered throughout Charlotte from September 2004 through July 2006. The study showed a reduction of 16.2% of all crashes. Furthermore, the speed camera program appeared to have significant carry-over effects into the “post intervention” period, but collisions were slowly returning to the original levels. The United Kingdom has been using FPR systems extensively throughout the UK. A study[2] done in the UK with 771 FPR sites and nine years of data showed crash reductions in the same range (17% crash reduction for fatal and injury crashes).

[1]Moon, J.P. and J. E. Hummer. "Estimating the Longer-Term Safety Effects of Speed Enforcement Cameras in Charlotte, NC." TRB 89th Annual Meeting Compendium of Papers CD-ROM. Washington, D.C. 2010.

[2]Li, H., D.J.Graham, and A. Majumdar."The impacts of speed cameras on road accidents: An application of propensity score matching methods, Accident Analysis and Prevention, Vol.60, (2013) pp.148-157

FPR Cameras are not a panacea for curing all safety problems and when used, they should be a part of a process that considers education, enforcement and engineering, which are essential to any traffic safety program. Enhanced traffic safety is the principal aim of an FPR Camera enforcement program, but it is important that speeds are set using consistent engineering practice and not set unrealistically low. It is also important that the corridor is periodically reviewed to assure that signs are not obscured or missing.

FPR Camera System Implementation

FPR Cameras monitor the flow of traffic along a corridor. Special equipment, commonly radar or lidar, detect the passage of vehicles and if exceeding a preset speed record pictures of the vehicle, license plate and driver. Upon verification by a police officer, the vehicle owner is issued a citation through the mail.

FPR Camera Systems may be installed under contract, by a commercial firm that specializes in such systems. These contracts can cover the furnishing, installation and operation of the FPR Cameras. The firm may also prepare the evidence for verification by local law enforcement and mail the citation. As compensation, the firm usually collects a predetermined fee for this service when the citation fine is received.

Costs that the local jurisdiction must cover include internal expenses for engineering plan review, site evaluation and field engineering during the installation phase of the FPR Camera System. Local jurisdictions can either custom design or purchase off the shelf systems, and install and operate FPR Camera Systems.

If the candidate location is on a state highway, application to and approval of the Oregon Department of Transportation is required.

Public Information Campaign and Sign Requirements

Educating the public is a critical step in addressing speeding in high crash corridors. In order to effectively change poor driving habits, drivers must be made aware that FPR Cameras are in use. It is recommended that cities hold well-publicized kickoff events and issue periodic press releases about the effectiveness of FPR Camera enforcement within their jurisdictions.

Oregon law also requires that signs be posted indicating that “Traffic Laws Photo Enforced” and provides information on the drivers current rate of speed within 100 to 400 yards before the location of the FPR unit. The signs should be of appropriate size so as to be easily readable at the posted speed. Signs should be placed in such a manner that the motorist can easily see them, without undue visual clutter or obstruction.

There should be signs posted, so far as practicable, on all major routes entering the jurisdiction informing the public that compliance with traffic control devices is enforced through the use of cameras, if not already in place. Signs shall conform to the *Manual on Uniform Traffic Control*

Devices and the Oregon Adopted Supplements.

Site Selection

Most high crash corridors will often occur on major roads (arterials) because they are often the most dangerous roads in a jurisdiction, with high traffic volumes and speeds, multiple lanes, lots of conflicts and different modes of users. The crash data should be analyzed to determine the factors associated with the crashes. Measures such as improved markings and signing, and other features can help mitigate speed related crashes. Education of the public can also be targeted at changing speeding behaviors.

Site selection should be done collaboratively between enforcement and engineering. On State Highways, ODOT region staff should be included in the site selection process. Appropriate site selection is essential to ensure that safety is the top priority for the program. The highest priority sites should be located where there is greatest risk for speed related crashes, especially fatal and serious crashes. Crash risk should be determined from data on crash history, it is generally unwise to select sites where speeding is common and crashes are rare, because the public is likely to perceive these locations as “speed traps”.

Site selection should take into account the factors below, Operational and Site Considerations, Speed Zone Orders, and the Safety and Operations Report.

Operational and Site Considerations

It is critical that FPR cameras be operated in strict adherence to applicable laws, not all requirements of the law are listed below and it is the responsibility of the city implementing the FPR to adhere to the requirements stated in statute. The following include both some requirements from statute and best practices for engineering:

- FPR Cameras shall not obscure existing signing or other traffic controls—this may require the movement of existing signing or the relocations of the camera unit or advance signing.
- Power for FPR Camera equipment and advance signing shall be provided separately from existing equipment already installed on State Highways.
- Any other equipment necessary for FPR operations shall be isolated from other existing traffic controls or equipment operated on the State Highway.
- FPR cameras may not be appropriate on downhill grades or other similar locations, which may increase the possibility of a higher numbers of vehicle violations.
- Traffic control changes or roadway geometric changes may be made by the Oregon Department of Transportation on State Highways and operation of FPR cameras shall not be sufficient reason for delaying such improvements.
- FPR camera installations may not be appropriate where geometric or traffic control changes are scheduled and an engineering evaluation indicates such changes may substantially alter the need for FPR Camera enforcement.
- FPR camera installations may not be appropriate where design, operation or maintenance is inconsistent with state or local standards and practices.
- Plans showing the location of all proposed equipment and signing shall be prepared.

- Signs and locations shall conform to the *Manual on Uniform Traffic Control Devices* and the Oregon Adopted Supplements.
- Signing shall be spaced sufficiently apart so that motorists may make appropriate decisions.
- On State Highways ODOT will review the plans and may require changes before approval.
- All Signing shall meet the requirements of the Manual on Uniform Traffic Control Devices.

Speed Zone Orders

A thorough review of the speed zone orders is required pertaining to the segments which cover the FPR operations. All speed zone orders shall have accompanying investigations. Consideration should be given to reinvestigating speed zone orders if the segment has changed significantly since the last speed zone investigation. The city should determine that all speed zoning is correct as per the speed zone orders prior to instituting a FPR system on city streets.

On State Highways ODOT will establish that the signing is correct and the locations consistent with the orders prior to establishing a FPR system on State Highways. ODOT may choose to perform a new speed zone investigation of the area. All speeds established shall meet the requirements set forth in Oregon Administrative Rules for designating speeds in Oregon.

Safety and Operations Report

A Safety and Operations Report is required to be performed prior to installing FPR Camera Systems on State Highways and is strongly recommended for all locations since it can provide the basis for the process and outcome evaluation required in Oregon law. The report shall be stamped by a Professional Engineer.

In addition to a general project narrative, the Safety and Operations Report should address to the extent practical the following:

Crash History – an engineering study of the crash experience on the FPR corridor shall be conducted on State Highways.

- The study shall identify the relative crash problem for the corridor.
- The study shall identify those target crashes to be impacted by FPR enforcement.
- The study shall include documentation that the corridor meets the definition of an urban high crash corridor as defined in ORS, with at least 25% higher crash rates for highways with the same statutory speed or designated speed within the City of Portland.
- The City shall include documentation of the finding that the governing body of the City finds that speeding has had a negative impact on traffic safety.
- The documentation shall include only reportable crashes between January 1.2006 and January 1, 2016.

Safety Concerns – Documentation detailing other safety concerns should be included in the report:

- Traffic citation data
- Complaints

- Enforcement observations
- Speeds, traffic volumes and grades
    - Speeds should include percentage exceeding 5 mph over posted and 10 mph over posted
- Traffic signal spacing
- Proximity to freeway or expressway ramp terminals
- A review of designated speed zones to assure that all speeds are properly designated, with speed zone orders and posted correctly as per the speed zone order
- A review of statutory speed zones to assure that there are no improper statutory speeds (such as neighborhood speed of 25 mph on an arterial)

Design, Operations, and Maintenance Issues –Copies of plans showing the location of all proposed and existing equipment and signing should be included. A description of how the FPR Camera System will be operated and maintained should be provided. Any design, operations, or maintenance issues that could affect the potential effectiveness of a FPR Camera System should be identified.

Public Information Campaign – A public information and outreach campaign is highly recommended.

Budget – A budget for system implementation and operation should be developed.

PE Certification – A registered Professional Engineer (PE) in Oregon shall confirm that the FPR and associated traffic controls are installed, operated and maintained in accordance with the MUTCD and appropriate state and local guidelines.

Future Changes to the Corridor

Every effort should be made to incorporate appropriate geometric and safety improvements on the corridor prior to the installation of FPR cameras. Over time land use and traffic patterns may change. Such changes may require a road authority to make improvements to the corridor that may impact the operation of the FPR. At no time shall the presence of FPR cameras obstruct an agency from making necessary changes to improve the safety for the driving public.

When problems affecting the safety of the public arise and solutions to improve geometry, remove or add lanes or change the operational characteristics of the corridor are identified, the FPR camera operations and the associated costs of changing the FPR cameras shall not be taken into account as the reason for not making such changes. Any changes to the FPR cameras and associated costs shall be the responsibility of the commercial firm under contract for operation of the FPR cameras and the jurisdiction overseeing the operation of the FPR camera system, depending on their agreements.

Biennial Report Requirement

Oregon Law requires that by March 1 of each odd-numbered year, the City of Portland shall present to the legislative assembly the outcome evaluation conducted by the city which includes:

- The effect of the use of FPR cameras on traffic safety
- The degree of public acceptance of the use of FPR cameras
- The process of administrating the use of FPR cameras

The Report should include the following information:

- Name, address, and phone number of person who is the main FPR contact.
- Date of implementation.
- Number of FPR Cameras installed.
- Details of signing installed.
- Any other improvements or changes to the corridor.
- FPR contractor name.
- Crash data specific to FPR locations for the 3-year period prior to FPR Camera installation and after FPR camera installation.
- Detail of crash severities and types of crashes and any changes.
- Average crash rate before and after and annual changes.
- Information on the number of citations
- Public information surveys regarding jurisdiction's use of FPR Cameras.
- Copies of media releases sent as a part of the public FPR awareness program.
- Description of areas of concern or difficulty in administering the FPR Camera enforcement program.
- Available information on the local courts ability to handle the increase in citations.

Approval Procedure for State Highways

State Traffic-Roadway Engineer approval is required for FPR Camera installation and operation on all State Highways regardless of operation or maintenance responsibilities. The following procedure should be followed:

- The Applicant:
  - Submits letter to ODOT Region requesting authorization to install and operate a FPR Camera on State Highways.
  - The letter shall identify a responsible party to whom an ODOT permit will be issued and the point of contact responsible for the construction, operation, and public information requirements.
  - The letter shall be accompanied by:
    1. The Safety and Operations Report.
    2. A statement of consistency with the Operational and Site Considerations.
    3. A statement of agreement with the Conditions of Approval.
    4. Copies of all speed zone orders in the corridor.

- (On State Highways) ODOT Region Traffic Manager and staff:
  - Reviews FPR design and supporting documents and works with applicant to ensure the FPR Camera Enforcement Installation Checklist (see page 9) is complete.
  - Prepares all documents for the State Traffic-Roadway Engineer with a recommendation.
  - Receives State Traffic-Roadway Engineer response of approval or denial of the FPR camera and any conditions.
  - If Region Traffic determines an Intergovernmental Agreement (IGA) is needed, Region Traffic leads the development, laying out terms of agreement as to the responsibilities and obligations of each jurisdiction for the FPR camera.

- (If approved by the State Traffic-Roadway Engineer for State Highways) ODOT District Office:
  - Establishes an account number through ODOT Financial Services identifying responsible party and budget in an Order to Render Service.
  - Establishes the amount of deposit to be paid by the applicant. If costs are more than the deposit the applicant will be charged for the additional cost, if less the difference will be reimbursed.
  - Issues Miscellaneous Permit to applicant including conditions of approval by the State Traffic-Roadway Engineer.

- The Applicant:
  - Signs the permit, acknowledging the conditions of approval.
  - Agrees to pay for all actual costs incurred by ODOT relating to the installation, inspection, or repair, and any incidental costs.
  - Pays a monetary deposit as determined by the District office. Below are examples of typical costs and services:
    1. Plan review by ODOT Region Traffic estimated $1000 per corridor for FPR Camera installation.
    2. Oversight and inspection of installation estimated at $1000.

- The ODOT District Office:
  - Upon receipt of signed permit and deposit, forwards plans and supporting documents to the ODOT Region Traffic Manager.
  - Oversight and inspection of the permit work.

For State Highways, the State Traffic-Roadway Engineer approval will be based on review of supporting documents and completion of final, approved plans and may stipulate further conditions of approval.

Removal Procedure for State Highways

A FPR camera may be ordered removed by the State Traffic-Roadway Engineer for a particular location or the entire system.

When considering removal of a FPR camera or system, a study should be performed to determine if the FPR Camera should be removed or remain. If for instance the study shows there is little or no reduction in the number, severity or targeted crashes or if similar results can be obtained from engineering countermeasures such as traffic calming measures or other improvements the Region Traffic Engineer may recommend removal to the State Traffic-Roadway Engineer.

Corridors where engineering or geometric improvements are proposed may result in a request to remove FPR camera equipment. The study may include a determination of changes in conflicts, improvements for pedestrian safety or diversions of traffic patterns that change the operations and safety of the corridor.

The following procedure should be followed when considering removal of FPR cameras:

- ODOT Region Traffic shall conduct a study.
  - The study shall determine the safety effectiveness of the FPR camera at reducing crashes, severity of crashes and/or types of crashes.
  - The study shall recommend continued operation of the camera(s), removal of the camera(s) and/or modifications to the operation of the system.
  - Other safety concerns such as changes in violations and compliance rates may be considered but are not the primary measure of safety.
  - The study shall also consider the extent to which other countermeasures had been implemented prior to implementation of the FPR cameras or proposed changes to the corridor.
  - Other considerations may include traffic volumes and delay, unusual or unique geometry, driver behavior, and other engineering countermeasures to improve safety.
  - The study shall include any proposed engineering or geometric improvements that reduce or eliminate conflicts or improve safety for all users.

- If the recommendation is to remove the FPR Camera, ODOT should work together with the City of Portland to come to agreement for how to proceed with the recommendations of the study.

- Additional input may include the public and/or enforcement to determine support or opposition to the removal.

- Whether or not an agreement can be reached, ODOT Region Traffic will submit a recommendation to the State Traffic-Roadway Engineer along with the study.

- The City of Portland may submit a recommendation with supporting documentation to the State Traffic-Roadway Engineer.

- The State Traffic-Roadway Engineer decisions will be based on review of the study, the recommendations submitted and any other input received.

- The State Traffic-Roadway Engineer may hold a meeting of interested parties to go over the issues.

The State Traffic-Roadway Engineer may approve removal of the FPR Camera, may approve the FPR camera remaining, and/or require engineering countermeasures or other changes to the roadway or cameras. The State Traffic-Roadway Engineer's decision is final and will be based primarily on safety.

Upon request of the City of Portland the State Traffic-Roadway Engineer may approve removal of the FPR Camera without study of the corridor. Typically this occurs under special conditions such as the vendor of the equipment goes out of business, a political entity passes an ordinance to remove the FPR Camera or other circumstances as determined by the State Traffic-Roadway Engineer.

FPR Camera Enforcement Installation Checklist

Location Information

Street Name/Highway Name:

_____

FPR Camera Locations:

_____

☐ Traffic safety need based on crash history and safety concerns has been documented.

☐ A public information contact has been identified.

Contact Name: _____Email: _____

Address:_____Telephone:_____

☐ Locations have been clearly identified.

☐ The signing is clearly visible from an adequate distance based on field observation.

☐ No significant improvement (project) is scheduled or planned that would substantially alter the need for a FPR Camera.

☐ Signs indicating that compliance with traffic control devices is enforced through cameras are posted (or will be provided by this project) on all major routes entering the jurisdiction.

☐ Signs with radar feedback for indicating driver's current rate of speed will be posted on all approach to a camera is to be installed**.**

☐ No known reason why a FPR Camera should not be installed.

Checklist completed by:_____Date:_____

Conditions of Approval

The applicant agrees:

1. The cost of any required changes to the FPR camera equipment as a result of changes or modifications to the corridor or traffic control devices, regardless of who implements the changes, shall be the responsibility of the applicant and/or any commercial firm under contract for operation of the FPR cameras.

2. When problems affecting the safety of the public arise, ODOT has the discretion to modify geometry, remove or add traffic lanes or change the operating characteristics of the corridor to protect the safety of the public, up to and including the ordering of the removal of the FPR camera systems.

3. When ODOT desires to modify a corridor or segment of a corridor with a FPR camera to improve operations or safety it may do so without consideration to the cost of changes to the FPR camera system or impact to revenue generation on FPR camera system or agreements between the applicant and any commercial firm operating the camera system. ODOT shall not be subject to any costs for changes, modifications, or removals of the FPR camera system.

4. Applicant shall make available to ODOT all reasonable requests for records concerning the operations of the FPR cameras, including but not limited to, number of violations by particular cameras, total violations, distribution of violations, percentages of violations within specific time periods, crash records and/or operating parameters of the FPR camera.

5. Applicant shall ensure that signs at each City Limit, informing the public that compliance with traffic control devices is enforced through the use of cameras, are provided if not already in place. A FPR Camera sign and radar feedback sign shall be provided on the approach to the FPR and shown on or as an attachment to the plans.

6. Failure to comply with any of the conditions of approval listed herein or stipulated by the State Traffic-Roadway Engineer shall be sufficient reason for the State Traffic-Roadway Engineer to order removal of the FPR camera system.

Oregon
Kate Brown, Governor

Department of Transportation
Office of the Director
355 Capitol St NE
Salem, OR 97301

The Oregon Department of Transportation (ODOT) is committed to be at the forefront of the integration of sustainable intermodal transportation. Our mission is to develop a safe, efficient transportation system that supports economic opportunity and livable communities for Oregonians.

ODOT officially recognizes the National Association of City Transportation Officials (NACTO) *Urban Street Design Guide* as one of a number of tools that can be applied in conjunction with other state design guides to fulfill our mission of developing and designing streets and public spaces in a safe and sustainable manner.

ODOT engineers, planners and designers are encouraged to make use of the following reference materials as they incorporate bicycle, pedestrian improvements, public transit and urban design elements into their projects:

Organization	**Design Supplement**
Oregon Department of Transportation (ODOT)	Oregon Bicycle and Pedestrian Design Guide
ODOT	Main Street…When a Highway Runs Through It: A Handbook for Oregon Communities
American Association of State Highway Transportation Officials (AASHTO)	Guide for the Planning, Design and Operation of Pedestrian Facilities
AASHTO	Guide for the Development of Bicycle Facilities
AASHTO	Guide for Geometric Design of Transit Facilities on Highways and Streets
National Association of City Transportation Officials (NACTO)	Urban Street Design Guide
NACTO	Urban Bikeway Design Guide
Institute of Transportation Engineers (ITE)	Designing Walkable Urban Thoroughfares: A Context Sensitive Approach

As ODOT continues to develop new practices, we encourage the use of multiple guides to help form sustainable solutions to today's ever-increasing intermodal transportation challenges. The *Urban Street Design Guide* is an additional tool that adds to the conversation, providing vision and guidance.

Sincerely,

Matthew L. Garrett

Oregon

Department of Transportation
Traffic-Roadway Section
Traffic Control Plans Unit

INTEROFFICE MEMO

DATE: November 5, 2015

TO: Oregon Traffic Control Devices Committee (OTCDC)

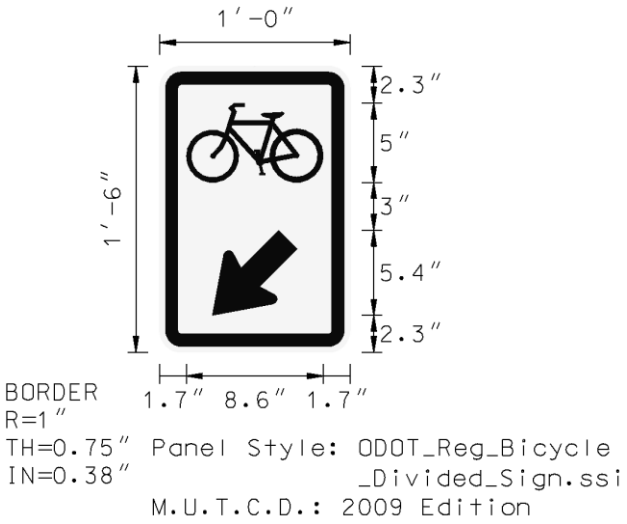
FROM: Scott M. McCanna, P.E.
State Work Zone Engineer

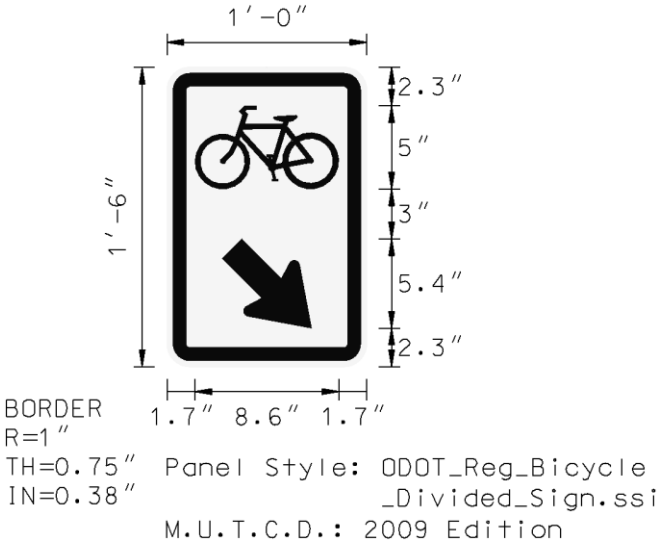
SUBJECT: New Regulatory Bike Lane Signing

As part of ODOT's efforts to improve bicycle accommodation in work zones, we are developing new design practices and traffic control plan details that will be used by Designers and our contractors to implement bicycle-specific pathways through or around an active work area.

The intent is to enhance the installation of the Bicycle Channelizing Device (BCD) system by adding the regulatory message. The signs may also be used along the route as supplemental "reminder" signs for longer routes.

Signs have been designed to meet applicable MUTCD requirements, including size, shape and color.





We are keeping the sign simple and compact by design so as to serve a specific function and allow for the installation on the system itself. An example of the application of this sign can be seen in the photo, below.

Your evaluation and input on the sign would be appreciated.

WORK ZONE BICYCLE CHANNELING DEVICES with REGULATORY BIKE LANE SIGNING

Other potential sign designs have also been considered for this specific application:

(18”x12”)

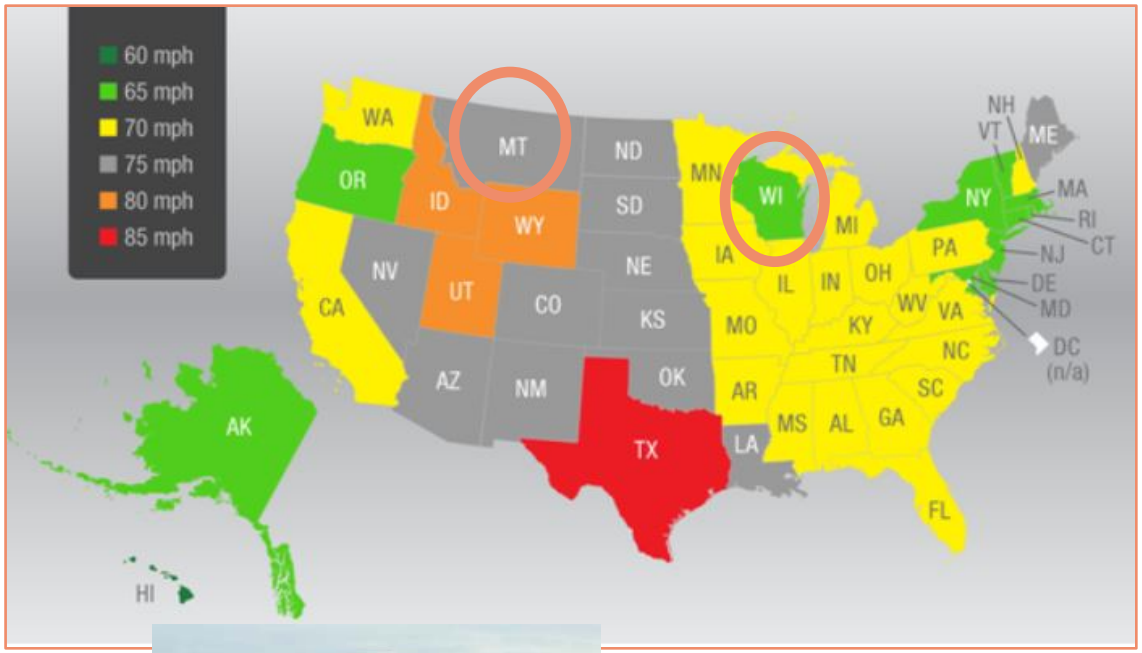
(18” x 24”)

Speed Implementation
HB 3402

Bozeman Pass MT – Interstate 90

New law will increase some highway speed limits to 80 mph

Print Email



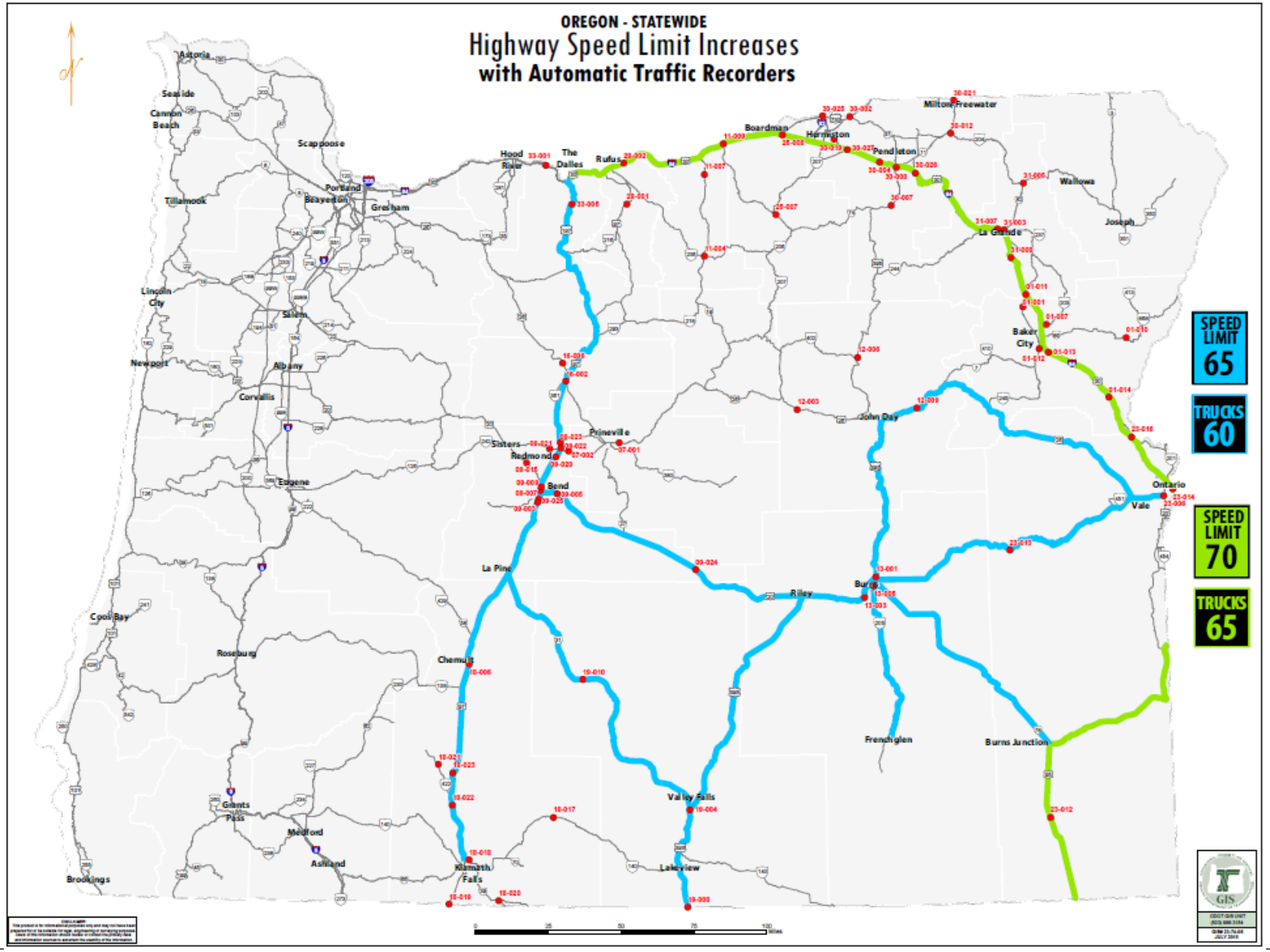
Gov. Inslee puts brakes on 75 mph speed limit in Washington State

JOHN M. GLIONNA

Utah officials say highway crashes have actually dropped on stretches of rural Interstate 15 where they bumped the speed limit up to 80.

Gov. Walker signs 70 mph speed limit bill in Wisconsin, but drivers need to wait for the signs!

Basics of the Bill



Identify Issues with Implementation

- Evaluate impact on no-pass zones
- Evaluate curve warning signs
- Truck speed signing – add second sign, evaluate post size
- Update Speed signs and standardize sizes
- Identify expected reduced speed sections
- Identify needed changes to speed transitions
- Identify construction projects that might need design changes
- Any additional Construction Project speed reductions
- Construction project lane closures – adjustment of tapers
- Others – adjust turn lane tapers and lengths, taper rates for design, rural traffic signals, update policies (OTTCH), Variable Speed Limits, Railroad crossing striping and signing, Maintenance impacts

Priorities for Implementation

- The solid no-pass stripe begins at the point (point a) that the sight distance first becomes less than the Minimum Passing sight distances from the MUTCD.
- The solid no-pass ends when sight distance is again sufficient (point b)

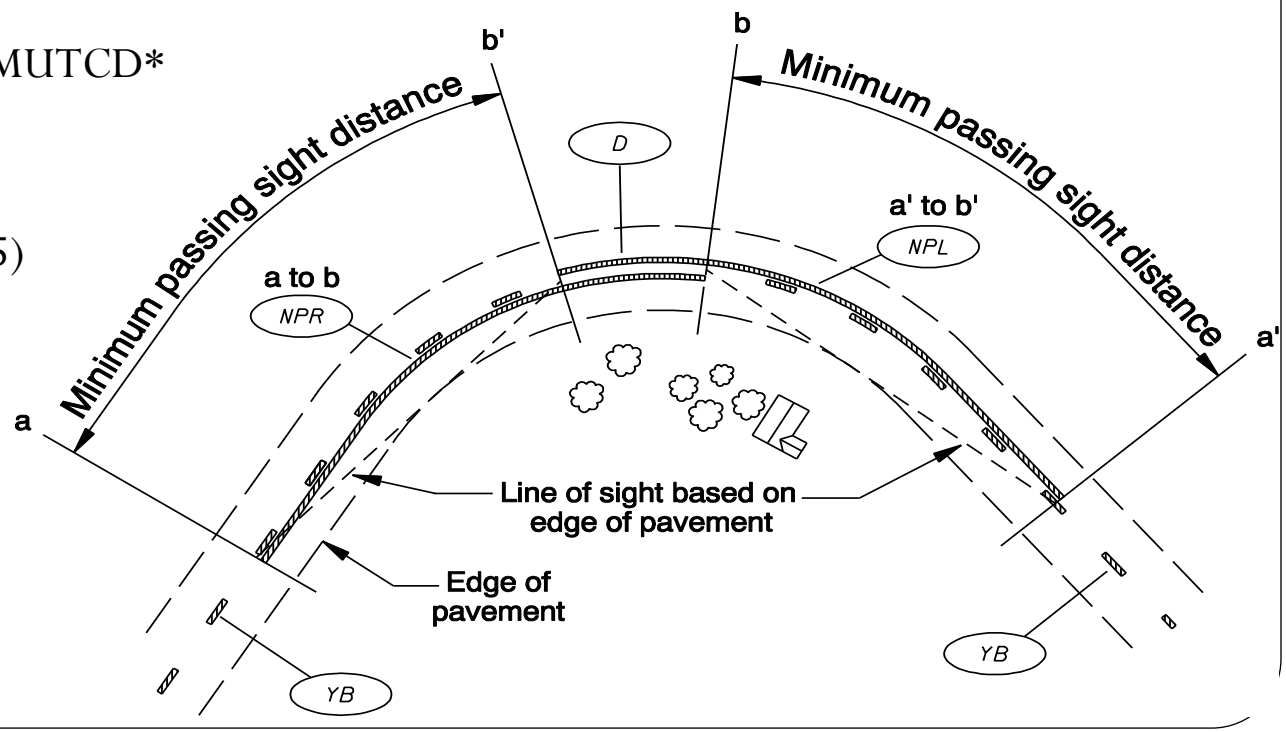
Passing Sight distance from MUTCD*

900 feet for 55 mph

1100 feet for 65 mph

1200 feet for 70 mph (US 95)

*MUTCD distances are different than AASHTO



Priorities for Implementation

- Passing sight distance is primarily based on the speed of the vehicles and the time for reaction and acceleration:
  - Passing sight distance includes:
    - distance to react and begin the pass,
    - distance to pass the vehicle,
    - a buffer distance before getting over, and
    - the distance an opposing vehicle travels in that time (to minimize the chance that the passing vehicle will meet an oncoming vehicle).
  - The faster the speed the more distance it takes to pass (vehicles traveling at greater speeds cover more ground).
  - Some believe it will take less time to pass because of the faster speeds, the times involved are relatively the same, but the vehicles travel over more distance during that time. (ASSHTO - observations of drivers found that passing vehicles occupy the left lane about 9.3 to 10.4 seconds).

Priorities for Implementation

- Evaluate curve warning signs
  - Investigate all highways and upgrade to have advisory speeds that are realistic and set correctly
  - Add new signs for 55 and 60 mph curves (65 mph on US 95 and Interstate)

Priorities for Implementation

- Truck speed signing off interstate – add second sign? evaluate post size?
- Considered separate posts or upgrade existing

Washington WA 26

California US 97

Priorities for Implementation

- Increase Speed sign sizes off interstate? Have to add "LIMIT"…

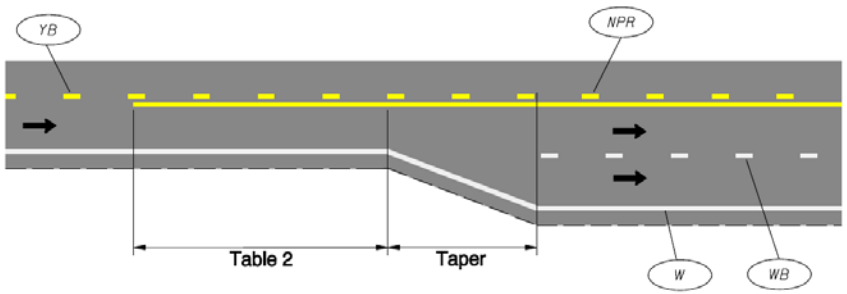
Priorities for Implementation

- Identify expected reduced speed sections
- Identify needed changes to speed transitions

OR 31 Summer Lake -55 mph currently

US 26 Prairie City – 40 mph transition from 55 mph

Other Design Issues



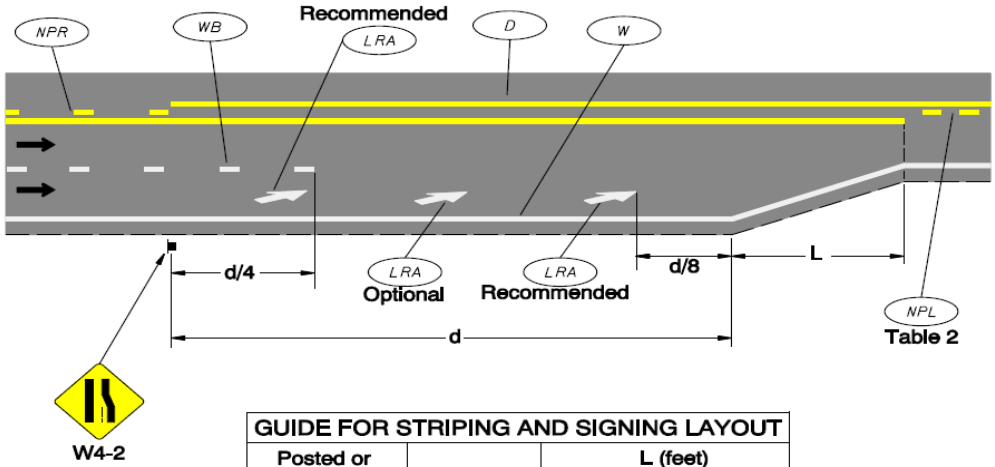
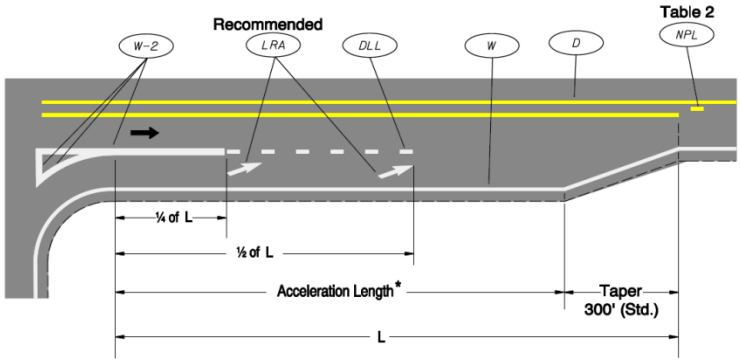
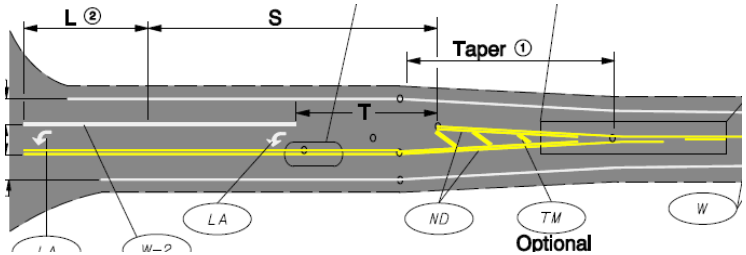


Figure 14a Typical Lane Addition Transition



GUIDE FOR STRIPING AND SIGNING LAYOUT		
Posted or 85 percentile speed (mph)	d (feet)	L (feet) 100 ft min. Urban 200 ft min. Rural
25	325	$L = \frac{WS^2}{60}$
30	460	
35	565	
40	670	
45	775	L = WS
50	885	
55	990	
60	1100	
65	1200	
70	1250	



DATA TABLE

Design Speed (mph)	① Taper Rate	T (ft)	S (ft)
25	15:1	100	120
30	15:1	100	120
35	25:1	110	130
40	30:1	120	170
45	45:1	135	215
50	50:1	145	265
55	55:1	160	320
60	55:1	170	385
65	55:1	180	450
70	55:1	180	520

Other Design Issues

- Update curves for needed chevrons
  - High priority sites in Safety Projects 2017-2021
  - No Chevrons paid for under this implementation

Other Design Issues

- Update policies with added speeds
  - Oregon Temporary Traffic Control Handbook
  - Standards for Design, etc

Progress so far…No-Pass Zones

- Developed a way to evaluate no-pass zones from LIDAR data
  - Use LIDAR point cloud to develop a 3D model of the highway
  - Microstation InRoads takes the highway model and evaluates passing sight distance along the highway in both directions.
  - The output is cleaned and no passing zones for turn lanes, passing lanes, medians, Railroad crossings, etc. are added.
  - Translate results from "Lat/Long" to something readable by striping crews like "line type by Milepoint".
  - Striping Crews implement changes before winter sets in.

LIDAR is a technology that measures distance by illuminating a target with a laser and analyzing the reflected light. The acronym is made up from combining two words "light" and "radar" although some thought it was an acronym for "Light Detection and Ranging".

Progress so far…Curve Warning

- Using Curve Advisory Reporting System (CARS)
  - System captures data (curve radius, super elevation, GPS coordinates, date and time)
  - Perform 3 passes in each direction (speed doesn't matter)
  - In office analysis and reporting
  - Reports given to signing crews to install new advisory speeds and additional curve signs for 55 mph and 60 mph curves
  - Less judgement involved in analyzing data

Progress so far…Decisions on Signs

- Use sizes called for in policy for all speed signs and curve warning
  - Curve Warning 48X48 interstates and 36X36 off interstate
  - Speed Sign 48X60 and 48X48 interstates and 36X48 and 24X24 off interstates
  - Use bigger interstate sign sizes on OR95 (70 mph)
- All Speed signs use "SPEED LIMIT"
- Use post sizes as called based on wind speeds of area
- No added Chevrons for this implementation (but identifying locations now)
- Post speed signs together on post (like the interstate)

Progress so far… Projects

- Regions checking projects out to bid and in design for updating signing and striping
- Regions checking with projects under construction to see if they may need a speed reduction after speeds increase
- Regions checking construction projects to see that work zone tapers are adequate
- Looking at changes to temporary traffic control standards for highway work

JOHN M. GLIONNA

Utah officials say highway crashes have actually dropped on stretches of rural Interstate 15 where they bumped the speed limit up to 80.

Progress so far…Other Decisions

- Incorporate changes to Striping and Sign placement for passing lanes as restriping and resigning occurs
- Incorporate Chevrons in Safety projects and signing activities as determined by Regions
- Address other design issues such as lengthening tapers for acceleration and deceleration when projects occur

What's next?

- Anticipate calls for other interstate speeds to be raised, next legislature might address
- Look at what it would take to raise I-82 from I-84 to Washington Border
- Legislature left a gap between Klamath Falls and California border, also legislature might address adding more roads (i.e., US 97 – Sherman Highway to Washington border)
- Anticipate Research into the speeds and crashes

Questions?

Doug Bish

Traffic Services Engineer

Oregon Department of Transportation

OREGON TRAFFIC CONTROL DEVICES COMMITTEE

Chair / Vice Chair History

January 2015

Year	Chair	Vice-Chair
1999	Gary Ludeke	Tom Lancaster
2000	Gary Judd	Gary Ludeke
2001	Steve Wilson	Robert Burchfield
2002	Charles Radosta	Joe Marek
2003	Joe Marek	Eric Niemeyer
2004	Robin Lewis	Eric Niemeyer
2005	Eric Niemeyer	Joel McCarroll
2006	Joel McCarroll	Randall Wooley
2007	Randall Wooley / Alan Hageman *	Alan Hageman / Cynthia Schmitt *
2008	Cynthia Schmitt	Ed Chastain
2009	Brian Barnett	Ed Chastain
2010	Ed Chastain	Massoud Saberian
2011	Massoud Saberian / Joe Marek **	Joe Marek
2012	Joe Marek	Alex Georgevitch
2013	Pamela O'Brien	Cynthia Schmitt
2014	Mike Caccavano	Ed Chastain
2015	Jeff Wise	Pamela O'Brien

* Randall Wooley retired 3/07; Alan Hageman took over chair for the remainder of 2007.
**Massoud Saberian resigned from City of Lake Oswego 9/11; Joe Marek took over chair for remainder of 2011.

2016 OTCDC Meeting Agenda-Build Schedule and Rules

Proposed Nov. 20, 2015

Meeting Date	*Location*	*Agenda Item Due to Kathi*	*Handouts / Supporting Material Due to Kathi or Craig*	*Final Agenda Sent to Committee*
January 15	**ODOT TLC Bldg., Salem**	**December 30**	**January 6**	**January 8**
March 18	**ODOT TLC Bldg., Salem**	**March 2**	**March 9**	**March 11**
May 20	**ODOT TLC Bldg., Salem**	**May 4**	**May 11**	**May 13**
July 15	**ODOT TLC Bldg., Salem**	**June 29**	**July 6**	**July 8**
September 16	**ODOT TLC Bldg., Salem**	**August 31**	**September 7**	**September 9**
November 18	**ODOT TLC Bldg., Salem**	**November 2**	**November 9**	**November**

Agenda Items

Agenda items are due to Kathi McConnell 2½ weeks before the meeting. Items must include the following information:

- Subject and presenter.
- Amount of time needed.
- Purpose or Response Required. Agenda items should be labeled with one of the following categories:
  - Decision – An issue that requires a vote of the committee.
  - Discussion / Direction – An item for which the committee would provide, without an official vote, suggestions and direction to the topic presenter about what would be needed before the committee might be willing to take an official position.
  - Information – An item presented to the committee for information sharing. There would be no expectation that the committee would take any action or make any recommendations.

Agenda items that are received after the due date will be put on a list to be included in future meeting agendas.

Supporting Materials and Handouts

It is our intent to send only one transmittal, which will include the agenda and all handouts, to all OTCDC members at least one week in advance of scheduled meetings. For this to happen, supporting material and handouts, in electronic format, are due to Kathi or Craig Chadwick 1½ weeks before the meeting. (This is especially critical for Decision items.) Supporting materials and handouts not received by Kathi or Craig one week in advance of the meeting will be the responsibility of the presenter to bring to the meeting in sufficient quantity for members and guests. (25 copies for members and other attendees). You are also asked to provide Craig with an electronic copy of any such handouts for the record.

All materials are to be concise and have page numbers and attachment numbers to facilitate discussion at the meeting

Contacts: Kathleen.E.McConnell@odot.state.or.us (503) 986-3609

Craig.W.Chadwick@odot.state.or.us (503) 986-3571