

OREGON TRAFFIC CONTROL DEVICES COMMITTEE

Meeting Agenda

November 16, 2018

[ODOT TLC Bldg.](#), Alsea Conf. Room,
4040 Fairview Industrial Dr., Salem

9:00 – 9:10	Welcome / Building Orientation / Introductions / Approve Previous Minutes	Joe Marek
9:10 – 9:15	Business from the Audience <i>Public Comment on Non-Agenda Topics</i>	Joe Marek
9:15 – 9:20	OTCDC Bylaws - Refresher <i>Information</i>	Joe Marek
9:20 – 9:25	FHWA Announcement on Intent to Update MUTCD <i>Information</i>	Eric Leaming
9:25 – 9:40	Standards for Accessible Parking Places <i>Information</i>	Bethany Veil
9:40 – 10:10	Sign Policy Update <i>Information / Discussion</i>	Marie Kennedy Frank Belleque
10:10 – 10:20	BREAK	
10:20 – 10:40	Fixed Photo Radar Results & Proposed Legislation Around Automated Enforcement <i>Information / Discussion</i>	Doug Bish
10:40 – 11:10	Update on Proposed Developments on New Speed Setting Process <i>Information / Discussion</i>	Doug Bish Mike Kimlinger
11:10 – 11:15	Select Chair & Vice Chair for 2019 / Review Proposed Meeting Schedule for 2019 <i>Decision</i>	Joe Marek
11:15 – 11:30	Roundtable <i>Local Jurisdiction Issues - Discussion</i>	All Committee Members
11:30 – 11:35	Not-on-Agenda Items	Joe Marek
11:35 – 11:40	Agenda Items for Future Meetings	Joe Marek

Proposed 2019 OTCDC Meeting Schedule

<i>Date</i>	<i>Location</i>
January 18	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem
March 15	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem
May 17	Possibly w/ITE (TBD)
July 19	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem
September 20	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem
November 15	ODOT TLC Bldg., Alsea Conf. Rm., 4040 Fairview Ind. Dr., Salem

Oregon Traffic Control Devices Committee

[July 20, 2018](#)

Meeting Minutes

ODOT TLC Bldg., Alsea Conference Room
4040 Fairview Industrial Drive, Salem

Members Present: Brian Barnett, Chair, City of Springfield; Janet Hruby, City of Bend; Joseph Marek, Vice-Chair, Clackamas County; Mike Kimlinger, Secretary, ODOT State Traffic-Roadway Engineer; Lt. Steve Duvall for Patrick Huskey, OSP; Pam O'Brien, DKS Associates; Julia Uravich, Marion County; *Via Join Me:* Jeff Wise, ODOT Region 5

Members Absent: Patrick Huskey, OSP; Darrin Lane, Linn County; Karl MacNair, City of Medford

Others Present: Doug Bish, Frank Belleque, Scott Cramer, Marie Kennedy, Julie Kentosh, Eric Leaming, Gary Obery, Nick Schlotthauer, Bethany Veil, ODOT Traffic/Roadway Section; Angela Kargel, Dorothy Upton, ODOT Region 2; Nick Fortey, FHWA; David Hurwitz, OSU, Cecilia Hagle, Washington County; Terry Hockett, City of Salem; Chris Monsere, Sirisha Kothuri, PSU; Matthew Machado, Charles Radosta, City of Portland; Eric Niemeyer, City of Springfield; *Via Join Me:* Ed Chastain, Retired Traffic Engineer; Peter Mackprang, City of Medford for Karl MacNair; Sam Sharma, ODOT Region 1

Introduction/Building Orientation/Approval of Minutes

Chair Brian Barnett called the meeting to order at 9:00 a.m. He asked attendees to introduce themselves (see above).

Pam O'Brien then moved, Joe Marek seconded, and the committee approved the [January minutes](#).

Business from the Audience/Public Comment

None to report.

Pedestrian Hybrid Beacon (PHB) vs. Mid-Block Pedestrian Signals

Eric Niemeyer began by reviewing a [video of Gateway and Postal PHB Operation](#) taken on 10/6/15. He ran through the signal colors/modes, including dark modes. Many agencies and representatives at the national committee level are concerned dark mode signals are considered stop controlled in state laws so they can't be used across the nation. Other issues which weren't well considered before PHB's went into the MUTCD were mentioned. Springfield asked FHWA for an interpretation saying they could run a

signal with flashing red across from a flashing DON'T WALK and received it. See MUTCD [Section 4E.06](#).

Eric then showed a [video of Gateway and Postal Signal Operation](#) taken on 6/14/17 illustrating the operation. Springfield is trying to get the device into the next Manual including an optional STOP HERE ON RED sign but there is resistance to that. Also, Eric thought flashing yellow would be better than flashing red but it was vetoed at the national committee so they continue to use flashing red. Eric thinks it would be something like [European Puffins](#).

Nick Fortey suggested Phoenix, AZ's modified [HAWK signal with PUFFIN logic](#) is an option. The signal operates as a full signal so it should meet warrants. Eric ran through a [series of photos](#) of their PHB equipment. There is an option to coordinate with other signals but this includes a pedestrian delay which is not always cooperated with by pedestrians. This can be an issue. The committee discussed the issue including how it works on wider streets and whether signs are needed/make a significant difference.

Flashing Yellow Arrow (FYA) and Protected Permissive Left Turn (PPLT) with Dual Left Turn Lanes

Eric Niemeyer then showed a video of [FYA and PPLT](#) with dual left turn lane signalization in Springfield at Mohawk Boulevard. He [displayed](#) an aerial view of the intersection, turning diagram of the intersection and delay reduction data, and discussed his findings and concerns on operational issues.

Eric also discussed ODOT's [Signal Policy on Left-Turn Signal Modes](#) and whether they might be updated to consider reordering the criteria to be moving from less restrictive to more restrictive in various circumstances/locations. In addition, Eric mentioned the Protected Only Left-Turn Mode in ODOT's [Traffic Signal Policy & Guidelines](#).

Dr. David Hurwitz mentioned that he thought the ODOT Signal Policy was written how it was written in order to put Safety as the first consideration in selecting the appropriate left turn phasing options.

Brian Barnett said Springfield's intention with today's briefing was to inform people of what they are doing so other jurisdictions can take it under advisement and consider whether the Signal Policy needs to be updated. They didn't intend to drive any such possibility.

School Speed Committee Update

Eric Leaming updated the committee on progress on this subject. It has slowed due to other priorities but ODOT still wants to move forward on it. More generally, ODOT's executive management is going to have a roundtable between ODOT and certain cities on possibilities for local control of speed zoning and efforts to significantly reduce fatal and injury crashes.

The biggest issue is how to achieve more local control of setting speeds which work for safety and uniformity without political distortion of the traffic engineering process. A good direction would include looking at designing roads which encourage slower, safer speeds. Joe Marek and Janet Hruby indicated their desire to fully participate in the ongoing discussions.

All Terrain Vehicle (ATV) Signing / Miscellaneous Sign Design & Policy

Marie Kennedy discussed [SB 344](#) which now allows ATV's and OHV's on our state highway for short segments connecting ATV Trails – called “ATV Highway Access Routes”. She [previewed](#) proposed signing for these locations. Oregon Parks and Recreation Department will pay for the signs.

A formal application has not yet been received so this is preliminary planning. Marie thinks ATV symbols are better for understanding than “ATV” on this signing. Angela Kargel is ODOT's representative on the committee working to implement the bill and said this is seen as strictly for ATV recreational vehicles in incidental use at specific locations. It is not for other aspirational applications at this time. It was already legal for ATV's to cross within 100 feet of an intersection prior to SB 344 but not elsewhere. Updates will be provided.

Marie also announced an update to the [Sign Policy and Guidelines](#) coming out in September. A bigger Sign Policy and Guidelines incorporating AASHTO guidelines and a CMS chapter (not including portable CMS's which are included in ODOT's [PCMS Handbook](#)) is planned for later in the year. We're also updating the [Traffic Manual](#). Feel free to email [Marie](#) if you have suggestions for updates.

Protected Permissive Right Turn (PPRT) Research Results

Chris Monsere (PSU) and David Hurwitz (OSU) reported on their [recent research project and results](#) regarding protected protected/permitted right turns on red in Oregon utilizing FYA's. Their research methods included driver surveys and driving simulator study. Chris discussed the survey completed and David Hurwitz reviewed the driving simulator results. Sirisha Kothuri (PSU) also participated.

The results of the project were recommendations to add language in applicable ODOT documents, policies and manuals to require the use of FYA for protected permissive right turn operations and allow use of FYA for permissive right turn operations. Due to better yielding and driver behavior, this could improve pedestrian safety at signalized intersections with high volumes of permissive right turns from exclusive right-turn lanes. There were four display options for PPRT with FYA Displays reported:

- Display the FYA only during the clearance interval and DO NOT WALK ped signal
- Display the FYA only during the DO NOT WALK through the walk and clearance interval
- Display the Steady Green Arrow only during the DO NOT WALK ped signal
- Display the FYA during the pedestrian walk, clearance interval and DO NOT WALK

Recommendations for practice included adding two new signal head types in applicable ODOT documents, policies and manuals: Replace the TYPE5 signal head with a TYPE3RCF signal head for PPRT operations and add a TYPE3RCF signal head for permissive right turn operations. Also, recommend the use of R10-17a signs at locations using the STEADY RED Arrow where RTOR is desired for efficiency.

The full final report can be downloaded [here](#).

New Interim Approval of Rectangular Rapid-Flashing Beacons (RRFB)

Eric Leaming [updated](#) the group on the return of approved RRFB use in Oregon. Following the buying out and disclaiming of patent rights by another manufacturer, the door was opened to end the prohibition of RRFB's. [IA-21](#) was then issued March 20, 2018 by FHWA and ODOT acted quickly to get recognized under the interim approval. On the date Oregon [was approved](#) statewide to use IA-21, Mike Kimlinger put out the word statewide. Differences in IA-21 include:

- Official Interpretations incorporated from IA-11
 - Allows use with W11-15 (Trail) sign [\[4\(09\)-5\(I\)\]](#)
 - Allows overhead installation [\[4-376\(I\)\]](#)
 - Allows lights mounted above the sign [\[4\(09\)-58\(I\)\]](#)
 - Specifies one flash pattern [from [4\(09\)-41\(I\)\]](#)
 - Specifies daytime light intensity [\[4\(09\)-17 & 24\(I\)\]](#)
 - Specifies what happens when ped is detected [\[4\(09\)-38\(I\)\]](#)
- Recommends
 - systematically upgrading existing RRFBs to new flash pattern
 - using nighttime dimming
- Adds accessibility conditions if a speech pushbutton is used
 - Locator tone required
 - Vibrotactile or percussive indications prohibited ([MUTCD FAQ](#))
 - Message should say “Yellow lights are flashing” twice

Also note:

- All Oregon public roads: RRFBs OK under IA-21
- For State Highways:
 - New Tech Bulletin ([TR18-01\(B\)](#))
 - Rescinded approvals following IA-11 termination now reinstated.

- Check [ODOT's MUTCD website](#) for IA info
- Interim Approvals are not a for-sure thing

Eric also showed the committee ODOT's webpage for [reporting where devices with interim approval are located](#) – a condition in all the current statewide interim approvals.

HB2409 Allowing Speed Citations Thru Red Light Running (RLR) Cameras

Doug Bish [presented information](#) updating research on dual speed and red light running cameras subsequent to September and November 2017 agenda items and subsequent to HB2409 approving this use. The possible increase in rear end crashes is still a trade-off for decreased angle crashes, which we still want to try to mitigate. Doug went over considerations in site selection for these cameras and possible benefits, unknowns regarding camera installation. Generally, they're expected to have a favorable impact on safety, especially on severe crashes, according to the research. Questions still remain on full impact of these cameras which will take time and experience to fully answer.

Moving to the draft [RLR Guidelines](#), Doug noted the dual-use cameras do appear at minimum to be a positive thing where there is a RLR crash problem, but not where there is not. Among Doug's recommended edits to the guidelines is the following:

The placement of the RLR devices is primarily for the purpose of reducing red light running crashes and may only be placed at signalized intersections. The placement of RLR cameras should be limited to locations that demonstrate a history of red light running crashes and not specifically to curtail speed related crashes. The primary consideration will be to reduce severe red light running crashes. Reducing speed related crashes will be a secondary consideration.

Concerns these cameras will lose value, respect if they're used more for revenue than for safety prompted ODOT to state they will only be installed where there is a demonstrated RLR crash issue. This currently doesn't apply to other jurisdictions. There is a professional traffic engineering concern regarding automated enforcement of various kinds for other than safety reasons in certain jurisdictions.

Sam Sharma would like to add a biennial report to the Guidelines which includes required signal timing review to be sure yellow length remains adequate for RLR cameras and requires approval from the STRE if speed enforcement is added to an RLR camera. Mike Kimlinger indicated agreement, noting once a signal is installed, it's not unheard of to have modifications added without notice to ODOT.

Committee consensus was for the draft document to be reviewed by ODOT's Traffic Operations Leadership Team (TOLT) to consider any operational issues prior to OTCDC approval.

Roundtable & NOA's

Brian Barnett congratulated Mike Kimlinger for his promotion as ODOT's permanent Traffic-Roadway Engineer.

Julia Uravich announced this was her last meeting as a member of the OTCDC since she is moving back to Las Vegas next month with a job lined up at the local MPO. Members thanked Julia for her service and stated their admiration for her work in Marion County and for the OTCDC.

Mike Kimlinger reported on the Denver NCUTCD meeting. He said without a new MUTCD progress at the NCUTCD is at a crawl. There is hope there may be some progress in September allowing a new MUTCD to go forward. Other discussions continue around speed zoning methodology. More information may be available at the [NCUTCD](#) website.

At the AASHTO Committee meeting, similar issues were discussed. They are sponsoring the [NCHRP speed zone project](#). Other discussions included work toward engineering automated vehicle technology. If anyone is particularly interested in an issue discussed, send Mike an [email](#).

Pam O'Brien announced the City of Portland will be the host city for the 2021 ITE Annual Meeting (This year they'll meet in [August in Minneapolis](#), MN.).

Agenda Items for Future Meetings

- Red Light Running

Adjournment

Brian Barnett adjourned the meeting at 12:07 p.m.

Next Meeting: September 21, 2018 at 9:00 a.m. at the [TLC Building in Salem](#).



Oregon

Kate Brown, Governor

Department of Transportation

Traffic-Roadway Section

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November 6, 2018

All Holders of "Sign Policy and Guidelines for the State Highway System"

RE: NOVEMBER 2018 REVISIONS TO SIGN POLICY & GUIDELINES FOR THE STATE HIGHWAY SYSTEM

Enclosed with this cover letter are the most recent revisions to the "Sign Policy and Guidelines for the State Highway System."

Sign No.	Page No.	Legend/Section	Revision
All	All	All	Document is now completely searchable. Internal links added for easier document use. Page numbers now have no gaps. Changed font and formats for consistency.
	i	Cover Page	Added Cover Page
	ii - iv	Table of Contents	Created Table of Contents and added to the beginning of the document.
	2-1	Overhead Sign Installations& Mounting Height	Updated information about mounting height for overhead signs.
R1-10P	3-1	EXCEPT RIGHT TURN	Added section noting requirement for use of signs on State Highways.
	3-3	No Turn on Red Signs	Added section noting requirement for use of signs on State Highways.
OR3-5TD	3-7	Left and Right Arrow	Removed option for border to be interior illuminated on State Highways.
OR3-5TT	3-8	Through, Left, and Right Arrow	Removed option for border to be interior illuminated on State Highways.
OR7-9	3-24	No Parking in Access Aisle	New Sign added from the latest update to the OTC Standards for Accessible Parking Places.
OR7-9a	3-25	No Parking in Access Aisle supplemental Arrow	New Sign added from the latest update to the OTC Standards for Accessible Parking Places.
OR10-3L & OR10-3R	3-28	PUSH BUTTON FOR Ped(Symbol)	Update Sign use information to reflect current standards for Signals on State Highways.
OR10-4bL & OR10-4bR	3-29	PUSH BUTTON FOR Ped(Symbol)	Update Sign use information to reflect current standards for Signals on State Highways.
OR10-25L & OR10-25R	3-33	PUSH BUTTON TO TURN ON WARNING LIGHTS	Update Sign use information to reflect current standards for Signals on State Highways.
OR17-1	3-47	LEFT TURN YIELD TO ONCOMING TRAFFIC	Removed option for border to be interior illuminated on State Highways. Added note on use of sign.
OR22-6	3-62	YIELD TO ONCOMING TRAFFIC	Removed option for border to be interior illuminated on State Highways.
OR22-7	3-63	CROSSWALK CLOSED	Added note about sign use requirements on State Highways.

OR22-8	3-64	CROSSWALK CLOSED w/Arrow	Added note about sign use requirements on State Highways. Added note about use of arrow.
		Ch. 5 Guide Signs	Rearranged some sections to be in order according to order in the MUTCD.
		Ch. 7 School Area Signs	Added additional text to clarify sign use. Adjusted School Signing Layouts to be less cluttered.
OBW1-8	8-5	BIKES IN TUNNEL WHEN LIGHTS FLASH SPEED 30	Added additional information about sign use on State Highways.
	Indices-1 – Indices-9	Index	Removed from beginning of document. Enhanced and added to end of document.

If you have any revisions, changes, or comments, please send them to:

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Marie Kennedy, P.E.
 Interim Sign Engineer

Oregon Department of Transportation

Oregon Department of Transportation
and
Oregon Traffic Control Devices Committee

Red Light Running (RLR) Camera Guidelines For State Highways

2018



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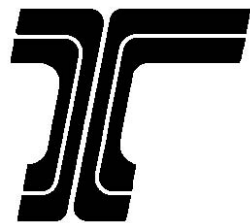
OREGON DEPARTMENT of TRANSPORTATION
TRANSPORTATION OPERATIONS DIVISION
TECHNICAL SERVICES
TRAFFIC MANAGEMENT SECTION
<http://www.odot.state.or.us/traffic>

-RLR Camera Guidelines 2018

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Oregon Department of Transportation

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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 Red Light Running (RLR) Cameras.

[Mike Kimlinger](#)

State Traffic-Roadway Engineer

[November, 2018](#)

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Oregon Department of Transportation

Major Revisions included in this version:

- [1. Added Section on using Red Light cameras for Automated Speed Enforcement.](#)
- [2. Added Paragraph requiring agencies to provide ODOT a copy of Legislative Report.](#)

[Major Revisions included in previous versions:](#)

- [1. Revised Legislative Report requirement from “Regular Session” to “Odd-numbered year” to reflect legislative change in 2013.](#)
2. New bullets in the Crash History requirements for the Safety and Operations Report
3. New Section- Future Changes to the Intersection
4. Various Changes in the section Procedure for State Highways to clarify the procedure
5. New section - Removal Procedure for Red Light Running Cameras
6. New Section – Conditions of Approval
7. New Appendix with web link to the Red Light Running Toolbox
8. [Removed the requirement that the Oregon Department of Transportation provide an executive summary of evaluations of the systems to the Oregon Legislature.](#)
9. Added a requirement that each city that operates cameras present an evaluation of the use and administration of the cameras to the Oregon Legislature.

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Red Light Running (RLR) Camera Guidelines

TOPIC	PAGE	
Introduction.....	1	
Supporting Legislation	1	
RLR Camera System Justification	1	
RLR Camera System Implementation	2	
Automated Speed Enforcement	3	
Public Information Campaign and Sign Requirements	3	Deleted: 2
Operational Considerations	4	Deleted: 3
Site Considerations	4	Deleted: 3
Safety and Operations Report	5	Deleted: 4
<ul style="list-style-type: none">• Crash History• Safety Concerns• Design, Operations, and Maintenance Issues• Public Information Campaign• Budget• PE Certification		
Future Changes to the Intersection.....	6	Deleted: 5
Approval Procedure for State Highways.....	7	Deleted: 6
Removal Procedure for State Highways.....	8	
RLR Camera Enforcement Installation Checklists.....	10	
<ul style="list-style-type: none">• Non-State Highway• State Highway		
Conditions of Approval.....	12	
Appendix A Red Light Running Toolbox.....	13	
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Red Light Running (RLR) 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 local jurisdictions in the deployment of Red Light Running (RLR) Cameras on State Highways. Local jurisdictions should follow this guidance for installation of RLR cameras off state highways or develop their own guidance for application.

Supporting Legislation

In response to what appeared to be a growing disrespect for traffic laws in general and disobeying red traffic signal indications in particular, the Oregon Legislature enacted a law in 1999 to help Oregon communities effectively enforce and reduce red light running. The law was revised and expanded several times since. These guidelines are based on Oregon Revised Statutes (ORS) 810.434 through 810.436. The Oregon legislature last revised ORS 810.434 and 810.436 in 2017 to allow RLR cameras to also be used to cite for violating the posted speed.

RLR Camera System Justification

In 2016¹ 811 people were killed and in 2015 an estimated 137,000 were injured in crashes that involved red light running in the US. About half of the deaths in red light running crashes are pedestrians and occupants in other vehicles who are hit by the red light runners. Studies have reported that red light cameras reduce angle and turning crashes, but can increase rear-end crashes. Because the types of crashes prevented by red light cameras tend to be more severe than rear-end crashes, research has shown there is also a reduction in the severity of crashes.

The Highway Safety Manual (published by AASHTO) quantifies the expected crash reductions of different measures. These measures are only included if there is known statistical stability and reliability. The Highway Safety Manual¹ lists the expected crash effects for installation of red-light cameras as a 26 percent crash reduction in right-angle and left-turn crashes and an 18 percent increase in rear-end crashes.

¹Council, F.; Persaud, B.; Eccles, K.; Lyon, C.; and Griffith, M. 2005. Safety evaluation of red-light cameras: executive summary. Report no. FHWA HRT-05-049. Washington, DC: Federal Highway Administration.

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<#>Removing the requirement that Oregon Department of Transportation provide an executive summary of evaluations of the systems.¶
<#>Adding a requirement that each city that operates cameras present an evaluation of the use and administration of the cameras.¶
<#>Removing limitations on the numbers of cameras that may be installed in cities.¶

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RLR/Speed Cameras are not a panacea for intersection safety problems and should be installed only after other means have failed to solve the problems (see appendix A - RLR Toolbox). RLR/Speed Cameras have the potential to reduce the number and severity of crashes, but because of the concern for increasing rear-end crashes, RLR/Speed Cameras should be installed only where a RLR crash problem within the last 5 years can be documented. 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 RLR/Speed Camera enforcement programs.

The following are means of improving intersection safety prior to RLR Cameras the jurisdiction should consider:

- (1) Proper sight distance;
- (2) Speed zones are consistent with engineering practice;
- (3) The number, size and location of vehicle heads are consistent with the MUTCD and ODOT's "Traffic Signal Policy and Guidelines";
- (4) Proper yellow change and red clearance intervals are consistent with ODOT's "Traffic Signal Policy and Guidelines" or other jurisdiction's adopted policy;
- (5) Corridor progression timing does not contribute to red light running;
- (6) Enforcement "tattle-tale" lights; and
- (7) The traffic signal timing is consistent with traffic volume, speed and specific intersection design elements.

RLR/Speed Camera System Implementation

RLR/Speed Cameras monitor both the flow of traffic at the stop location and the condition (or color) of the traffic signal indication on the approach. Special detectors, commonly loops cut into the pavement, check for the passage of vehicles into the intersection and if the traffic signal phase condition is red, cause pole mounted cameras to record pictures of the vehicle position, license plate and driver. Upon verification by a police officer, the vehicle owner is issued a citation through the mail. Camera systems should differentiate between vehicles running a red light and those vehicles stopping slightly beyond the stop bar or those vehicles, after stopping, making a legal turn against a red indication.

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Typically RLR/Speed Camera Systems are installed under contract, by a commercial firm that specializes in such systems. These contracts cover the furnishing, installation and operation of the RLR/Speed 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 RLR/Speed Camera System. Local jurisdictions also can purchase, install and operate RLR/Speed Camera Systems or can enter into agreements with other jurisdictions to provide all or a portion of this service.

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

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Automated Speed Enforcement

Oregon law allows Red Light Running Cameras to also detect and issue speeding violations for motorists violating speeds by 11 mph or greater. Cities may not issue a speeding violation concurrently with a red light running violation, unless the motorist was exceeding the posted speed by more than 20 mph.

The placement of the RLR/Speed devices is primarily for the purpose of reducing red light running crashes and may only be placed at signalized intersections. The placement of RLR/Speed cameras should be limited to locations that demonstrate a history of red light running crashes and not specifically to curtail speed related crashes. The primary consideration will be to reduce severe red light running crashes. Reducing speed related crashes will be a secondary consideration.

When there is also a history of speed related crashes, the Safety and Operations report should take into account any pertinent considerations found in the Fixed Photo Radar (FPR) Camera Guidelines.

Placement of RLR/Speed camera systems are proven to have a favorable effect on traffic safety, in particular reducing severe crashes². However since less severe rear-end crashes are still likely to increase, due to the presence of the RLR camera, it is still necessary to demonstrate that there has been a history of severe red light running crashes that are being mitigated by the RLR camera.

Public Information Campaign and Sign Requirements

Oregon Law requires that cities provide a public information campaign to inform local drivers about the use of RLR/Speed Cameras before citations are actually issued. Educating the public is a critical step in reducing red light running. In order to effectively change poor driving habits, drivers must be made aware that RLR/Speed Cameras are in use. It is recommended that cities hold well-publicized kickoff events and issue periodic press releases about the effectiveness of RLR/Speed Camera enforcement within their jurisdictions.

Oregon law also requires that signs be posted, so far as practicable, on all major routes entering the jurisdiction indicating that compliance with traffic control devices is enforced through cameras. The law further requires that signs indicating that a camera may be in operation be posted near each intersection where a camera is installed.

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.

²De Pauw September 2014."To brake or to accelerate? Safety Effects of combined speed and red light cameras". Journal of Safety Research Volume 50. Transportation Research Institute, Hasselt University, Belgium.

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If the RLR camera will be used for citing speed violations, consideration should be given to placing speed signs prior to the intersection approach or as near as possible to remind motorists of the posted speed.

Operational Considerations

- RLR/Speed Cameras shall not affect the display or the operation of the traffic signal.
- Power for RLR/Speed Camera equipment may be provided from the traffic signal cabinet and should be on its own clearly identified circuit breaker.
- Contact closures, as may be required for red and yellow indications on RLR Camera approaches, should be electrically isolated from traffic signal equipment.
- Detection loops for RLR/Speed camera equipment should not be wired through the traffic signal cabinet, associated electrical conduit, or junction boxes and shall not interfere with the operation of detector loops used for traffic signal operation. At state highway intersections, segregated wiring is required.
- Traffic signal timing changes shall not be made to increase the possibility of vehicles running red lights. If a review of traffic signal timing prior to RLR Camera installation identifies inappropriate yellow change and red clearance interval values that require adjustment, these adjustments shall be made prior to operation of the RLR Camera system.
- Traffic signal timing changes may be made in response to substantial changes in approach speed, significant changes to traffic patterns, routine timing reviews, design changes, etc.
- Plans showing the location of all proposed and existing equipment shall be prepared.
- Signs at each City Limit, informing the public that compliance with traffic control devices is enforced through the use of cameras, shall be provided if not already in place. An automated enforcement sign on each covered approach shall be installed and should be shown on or as an attachment to the signal plans. Refer to the *Manual on Uniform Traffic Control Devices* and the Oregon Adopted Supplements for guidance on signs that should be posted.

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Site Considerations

RLR Cameras may not be appropriate at locations where:

- Recent geometric or traffic signal design changes have been made. Supporting crash records may not be applicable in the new configuration.
- Traffic signals have been installed within the previous year. Crash history may be too short to support RLR Camera use.
- Geometric or traffic signal design changes are scheduled and an engineering evaluation indicates such changes may substantially alter the need for RLR/Speed Camera enforcement.
- Road or utility work is anticipated during the first year of RLR/Speed operation.
- Traffic pattern changes resulting from development, construction detours or similar events are anticipated during the first year of RLR/Speed operation.
- An electrical interconnect with “railroad active warning devices” is provided on the approach.
- Design, operation or maintenance is inconsistent with state or local standards and practices.

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Safety and Operations Report

A Safety and Operations Report is required for all RLR Camera Systems to be installed at intersections on state highways and is strongly recommended for all other locations since it can provide the basis for the process and outcome evaluation required in ORS 810.434(3)(b). It may be desirable to secure the services of a Professional Engineer to conduct the necessary study.

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 at the intersection should be conducted.

- Target crashes for reduction at a RLR installation are angle crashes where the driver of one of the vehicles disregarded the traffic control device. Oregon crash records include codes for driver error and crash cause that describe these crashes (code for Participant Error code 020: "DISREGARDED TRAFFIC SIGNAL" and Crash Cause code 04: "DISREGARDED R-A-G TRAFFIC SIGNAL").
- Target crashes coded to driver inattention may also be included in the study.
- The study should identify the relative crash problem of the intersection and each approach or movement of the intersection based on nearby intersections of similar volume, geometry, and traffic control.
- The study shall identify the approaches and movements to the intersections the applicant is requesting to be monitored by a RLR camera.
- Approaches should be those that have target crashes identified.
- Right turn approaches may have a high rate of violation but typically result in low severity or low crash occurrence and should not be included unless there is associated evidence of a significant crash history of high severity.

Safety Concerns - Documentation detailing other safety concerns may be included in the report.

Concerns may be supported by any of the following (or other relevant data):

- Traffic citation data
- Complaints
- Enforcement observations
- Speeds, traffic volumes and grades
- Traffic signal spacing
- Proximity to freeway or expressway ramp terminals

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

Public Information Campaign - The public information requirements as outlined in ORS 810.434 (3)(a) should be addressed.

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

PE Certification - The jurisdiction proposing to install a RLR Camera System should secure the services of a Professional Engineer (PE) to attest that the traffic signal is operated and maintained

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in accordance with the MUTCD and appropriate state and local guidelines. This certification should be made available to the enforcing jurisdiction.

Future Changes to the Intersection

While every effort should be made to determine appropriate modifications and changes to the signal system prior to the installation of RLR cameras, land use and traffic patterns may change over time. Such changes may require a road authority to make changes to the signal system that may impact the operations of the RLR Cameras equipment. At no time shall the presence of RLR cameras obstruct an agency from making necessary changes to improve the safety of the driving public or the operation of the traffic signal.

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

Biennial Report Requirement

Oregon Law requires that once each biennium all cities using RLR Camera Systems must conduct a process and outcome evaluation that includes:

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

Regardless of the jurisdiction in the position of road authority, the jurisdiction overseeing the operation of a RLR Camera System shall prepare the Biennial Report and submit the report by March 1st of the year of each regular session to the Legislative Assembly. The Biennial Report should include the following information:

- Name, address, and phone number of person who will be the main RLR contact for this jurisdiction.
- Date of implementation.
- Number of intersections at which RLR Cameras are installed.
- RLR contractor name.
- Crash data specific to RLR locations for the 3-year period prior to RLR Camera installation and post RLR camera installation data to identify average crash rate and annual change.
- Public information surveys (if available) regarding jurisdiction's use of RLR Cameras.
- Copies of media releases sent as a part of the public RLR awareness program.
- Description of areas of concern or difficulty in administering the RLR Camera enforcement program.
- Available information on the local courts ability to handle the increase in citations.

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Oregon Department of Transportation

- “Success stories” to share with the legislature about local RLR program such as major reductions in serious injuries and fatalities in the local jurisdiction due to RLR Camera systems.

Each city that operates a camera system is responsible for presenting a report to the Legislative Assembly by March 1st of the odd-numbered year.

Each city that operates a camera system on state highways shall provide ODOT with a copy of the biennium report to the legislature. In addition to the statute requirements, given that conditions do change over time, ODOT requires a once a biennium Engineering Report detailing the signal timing parameters for signals on state highways. The report should include the Engineer’s recommendations and indicate whether or not the signal timing is appropriate for surrounding land uses, speeds and roadway character and whether or not the timing complies with ODOT policies and guidance including the red/yellow clearance times. The Report should include whether or not any changes to signal timing have been made during the biennium.

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Approval Procedure for State Highways

State Traffic-Roadway Engineer approval is required for RLR Camera installation and operation at all State-owned intersections 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 RLR Camera at a specific State-owned intersection and specific movements monitored.
 - 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 Considerations.
 3. A statement of agreement with the Conditions of Approval
- Region Traffic:
 - Reviews RLR design and supporting documents and works with applicant to ensure the RLR Camera Enforcement Installation Checklist (see page 11) is complete.
 - If supportive of the proposal, prepares all documents for the State Traffic-Roadway Engineer with a recommendation to approve.
 - Receives State Traffic-Roadway Engineer response of approval or denial of the RLR camera and any conditions.
 - Leads development of an Intergovernmental Agreement (IGA), laying out terms of agreement as to the responsibilities and obligations of each jurisdiction for the RLR camera.
- The 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 cost are more than the deposit the applicant will charged for the additional cost, if less then reimbursed.

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Oregon Department of Transportation

- Issues Miscellaneous Permit to applicant stating conditions of approval. Conditions include the need for State Traffic-Roadway Engineer approval.
- 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 the Traffic-Roadway Section estimated between \$200 ~~and~~ \$1000 per RLR Camera installation.
 2. Traffic signal cabinet and intersection modifications required to protect ODOT equipment and provide proper communication to RLR equipment estimated at \$1000 per intersection.
 3. Sign installation estimated at \$200 per sign, \$600 for sign and post.
 4. Relocation or repair of existing traffic control devices resulting from the installation of RLR equipment (costs are based on time and materials plus any damages).
 5. Inspection of installation estimated between \$200 and \$1000.
- The District Office:
 - Upon receipt of signed permit and deposit, forwards plans and supporting documents to the Region Traffic Manager.
 - Notify the Electrical Crew responsible for the traffic signal and arranges for inspections of permit work.

State Traffic-Roadway Engineer approval will be based on review of supporting documents and completion of final, ODOT approved plans and may stipulate further conditions of approval. The State Traffic-Roadway Engineer will specify which movements are approved to receive RLR Cameras.

Removal Procedure for State Highways

When considering removal of a RLR/[Speed](#) camera, a study should be performed to determine if the RLR/[Speed](#) Camera should be removed or remain. A RLR/[Speed](#) camera may be ordered removed by the State Traffic-Roadway Engineer for an intersection or a particular approach to an intersection or a particular movement at an intersection.

If for instance the study shows there is little or no reduction in the number, severity or targeted crashes (i.e., angle crashes) or if similar results can be obtained from engineering countermeasures such as improving sight distance, conspicuity of the signal heads, signal timing or installation of “tattle tale” lights the Region Traffic Engineer may recommend removal to the State Traffic-Roadway Engineer.

Intersections where engineering or geometric improvements are proposed may require study of the new intersection geometry and may result in a request to remove RLR/[Speed](#) camera equipment. The study may include a determination of changes in conflicts, phasing changes to traffic signals, addition of turn lanes or diversions of traffic patterns that change the operations of the traffic signal.

The following procedure should be followed when considering removal of RLR/[Speed](#) cameras:

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- ODOT Region Traffic shall conduct a study.
 - The study shall determine the safety effectiveness of the RLR/[Speed](#) camera at reducing crashes, severity of crashes and/or types of crashes (especially as they relate to angle crashes vs. rear-end crashes).
 - The study shall recommend continued operation of the camera, removal of the camera and/or modifications to the operation of the camera or intersection.
 - 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 RLR/[Speed](#) cameras or proposed changes to the intersection.
 - Other considerations may include traffic volumes and delay, unusual or unique geometry, signal timing, operation and cycle lengths, driver behavior, and other engineering countermeasures to improve safety.
 - The study shall include any proposed changes to the intersection such as engineering or geometric improvements that reduce or eliminate conflicts or change the operations of the traffic signal.
- If the recommendation is to remove the RLR/[Speed](#) Camera, ODOT should work together with the Jurisdiction responsible for the RLR/[Speed](#) cameras 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 Jurisdiction responsible for the RLR/[Speed](#) camera 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 RLR/[Speed](#) Camera, may approve the RLR/[Speed](#) camera remaining, and/or require engineering countermeasures or other changes to the intersection or roadway or cameras. The State Traffic-Roadway Engineer's decision is final and will be based primarily on safety.

Upon request of the jurisdiction responsible for the RLR/[Speed](#) Camera the State Traffic-Roadway Engineer may approve removal of the RLR/[Speed](#) Camera without study of the intersection. 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 RLR/[Speed](#) Camera or other circumstances as determined by the State Traffic-Roadway Engineer.

RLR/Speed Camera Enforcement Installation Checklist Non-State Highway

Location Information

File Code: _____

Acct. No.: _____

Street Name: _____

Intersecting Street: _____

RLR Camera Approaches: _____

☐ 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: _____

☐ Location approaches and movements have been clearly identified.

☐ Traffic signal indications on the approach are clearly visible from an adequate distance based on field observation. Current MUTCD signal visibility standards are met.

☐ Yellow change and red clearance intervals are displayed for at least the recommended time.

☐ No significant improvement (project) is scheduled or planned that would substantially alter the need for a RLR 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 indicating that a camera may be in operation will be posted on all approaches where a camera is to be installed.

☐ Signs indicating the correct speeds are nearby (within 300-400 feet of intersection)

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

Checklist completed by: _____ Date: _____

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RLR/Speed Camera Enforcement Installation Checklist State Highway

Location Information

File Code: _____

TSSU Location ID: _____ Region: _____ District: _____ Acct. No.: _____

Street Name: _____

Intersecting Street: _____

RLR Camera Approaches: _____

Applicant (City/County): _____

☐ Local jurisdiction has documented traffic safety need based on crash history, and safety concerns.

☐ A local jurisdiction point-of-contact has been identified.

Contact Name: _____ Email: _____

Address: _____ Telephone: _____

☐ Location and approaches have been clearly identified.

☐ Traffic signal indications on the approach are clearly visible from an adequate distance based on field observation. Current MUTCD signal visibility standards are met.

☐ Yellow change and red clearance intervals are displayed for at least the recommended time.

☐ Existing traffic signal coordination with adjacent traffic signals is in place and properly timed.

☐ No significant improvement (project) is scheduled or planned that would substantially alter the need for a RLR/Speed 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 indicating that a camera may be in operation will be posted on all approaches where a camera is to be installed.

☐ Signs indicating the correct speeds are nearby (within 300-400 feet of intersection)

☐ No known reason why a RLR/Speed Camera should not be installed.

Checklist completed by: _____ Date: _____

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Conditions of Approval

The applicant agrees:

1. The cost of any required changes to the RLR/Speed camera equipment as a result of changes or modifications to the intersection, regardless of who implements the changes, shall be the responsibility of the applicant and/or any commercial firm under contract for operation of the cameras.
2. When problems affecting the safety of the public arise whether part of the signal system or the RLR/Speed cameras, ODOT has the discretion to modify geometry, remove or add traffic lanes or change the operating characteristics of the intersections to protect the safety of the public, up to and including the ordering of the removal of the camera systems or the removal of cameras for particular movements.
3. When ODOT desires to modify an intersection with a RLR/Speed camera to improve operations or safety it may do so without consideration to the cost of changes to the camera system or impact to revenue generation on 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 camera system.
4. Applicant shall make available to ODOT all reasonable requests for records concerning the operations of the RLR/Speed cameras and the intersection, including but not limited to, number of violations by particular cameras or movements, total violations, distribution of violations, percentages of violations within specific time periods, crash records and/or operating parameters of the RLR/Speed 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 automated enforcement sign on each covered approach shall be provided and shown on or as an attachment to the signal plans.
6. Applicant shall ensure a method for ODOT staff to turn off the camera system to perform routine maintenance of the signal system, including cabinet or controller replacement or timing changes.
7. 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 RLR/Speed camera system.

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Appendix A – Red Light Running Toolbox

See the following websites:

Red Light Running Tool Box-

https://safety.fhwa.dot.gov/intersection/conventional/signalized/rlr/rlr_toolbox/

Speed Enforcement Camera Systems (automated speed enforcement)-

https://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa09028/resources/Speed%20Camera%20Guidelines.pdf

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Speed Zones

ODOT

October 2018

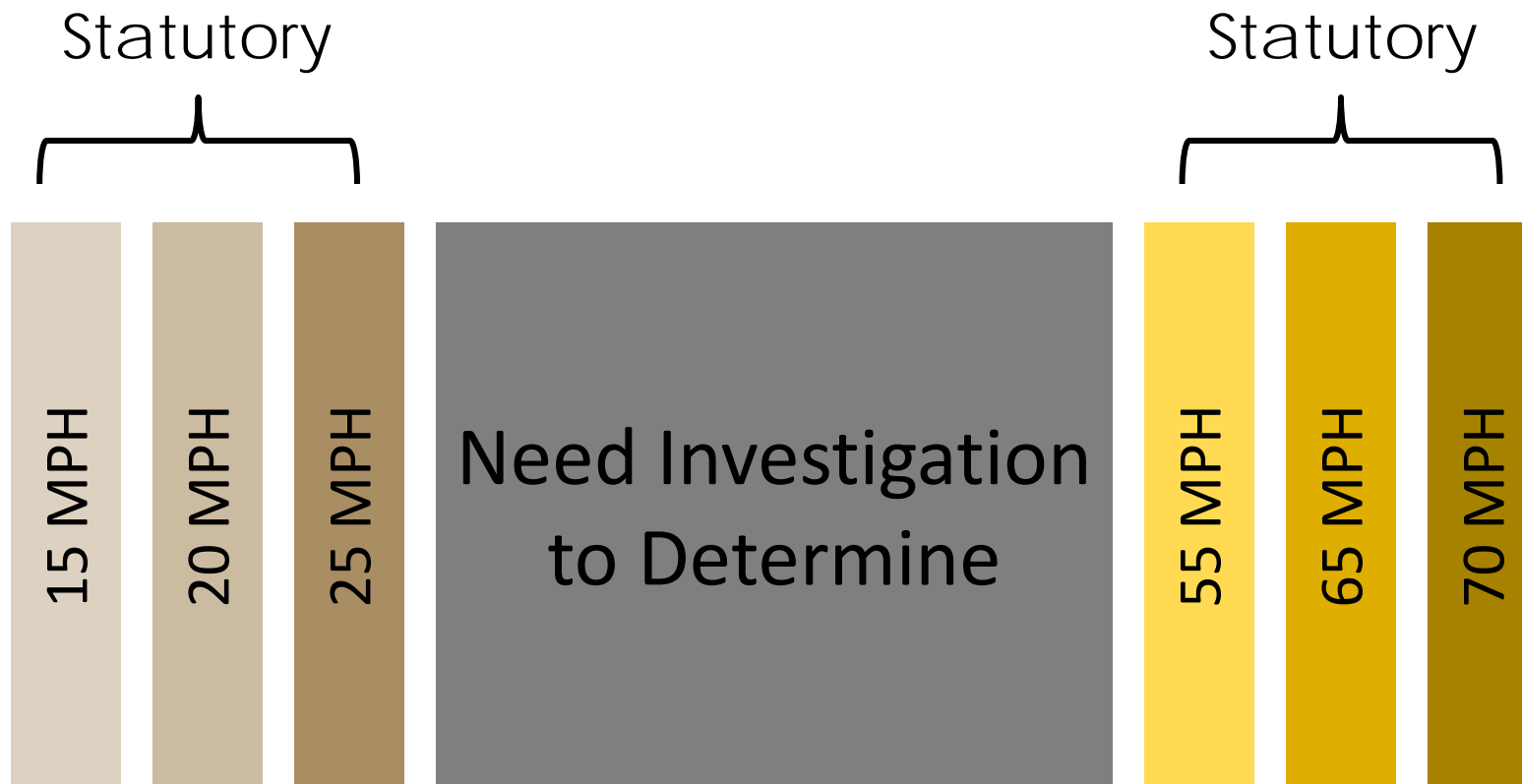


- Short Review
- Recent Efforts
- Possible Options



How are Speeds set in Oregon?

Some by Designating (the alternative to Statutory)



*Designated may be any speed or if roadway does not meet statutory requirements



Designated Speeds

Requirements of the Statutes



Requires Engineering Investigation – gather objective and unbiased data to evaluate conditions as they exist today

Investigation indicates that the current posted speed is greater than is reasonable or safe for the given conditions





Speed Zone Investigation



Collected, compiled, analyzed:

Roadside character
Traffic Mix & Volume
Crash Data
Roadway Widths
Travel Speeds

15 Typical Roadway Cross Section

#1: W Curb; 11 Foot Travel Lane; 11 Foot Travel Lane; 11 Foot Travel Lane; 11 Foot Travel Lane; 11 Foot Travel Lane; E Curb

24 Total, Fatal & Injury Crashes (dates from/to)
1/1/2011-12/31/2015
156/1/69

26 Fatal & Injury crashes per mile (dates from/to)

1/1/2011-12/31/2015
43.1

18 Volume, ADT

9,311-12,755

16 Street Width, ft.

#1: 55 Feet
#2: 56 Feet
#3: 38 Feet

22 % Exceeding Posted Speed

15.2-31.1%

13 Land Use

Residential

14 Roadway Character

Urban



Current speed setting practices

- Current practice in Oregon relies on 85th percentile with adjustments to account for crashes, geometry and context
- MUTCD recommends setting speeds near 85th percentile
- ODOT often recommends below 85th percentile, as much as 10 mph lower in urban areas
- Operating speeds exceed posted speeds by 5 to 7 mph





Safety

Compliance

All Users

Objective Means

Local Options

How do we balance all components?



Recent and Current Efforts



Research and Surveys

NCHRP 17-76

NTSB Report

TTI and AAA Survey

MUTCD Proposed
Changes



Key findings for national speed setting practices

- 85th percentile is used by many jurisdictions, but speeds are often posted much lower around 50th
- Practitioners look at many other factors than 85th percentile in their studies
- Several different approaches are used nationwide to set speeds
- Setting appropriate speed zones uses many factors but may not be well defined
- The use of 85th percentile is different for rural roads than for urban roads (more flexibility on urban roads)

































































Options for Setting Speeds

- Context NCHRP Report 855

Land use



NCHRP 855—Road user priority based on expanded FCS (Figure 2)

Context → Roadway ↓	Rural	Rural Town	Suburban	Urban	Urban Core
Principal Arterial	  	  	  	  	  
Minor Arterial	  	  	  	  	  
Collector	  	  	  	  	  
Local	  	  	  	  	  

User Priority:

High



Medium

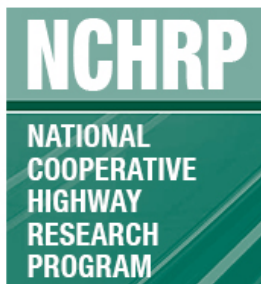


Low































































Using NCHRP 855 to help develop national guidance for the setting of speed limits

- NCHRP 17-76 will build upon the work of NCHRP 855 to:
 - Identify factors that influence operating speed
 - Provide guidance to make informed decisions related to establishing speed limits on all roadways
- Final report due in 2019



How NCHRP 855 will be used to shape how we set national speed limit guidance

- A new way of looking at functional class across 5 distinct contexts
- Linked to desired operating speeds, mobility/access demand and user groups

Context → Roadway ↓	Rural	Rural Town	Suburban	Urban	Urban Core
Principal Arterial	  	  	  	  	  
Minor Arterial	  	  	  	  	  
Collector	  	  	  	  	  
Local	  	  	  	  	  

User Priority:

High	  
Medium	  
Low	  



Establishing target speeds based on NCHRP Report 855

Context → Roadway ↓	Rural	Rural Town	Suburban	Urban	Urban Core
Principal Arterial	High	Medium to Low	High to Medium	Medium to Low	Low
Minor Arterial	High	Medium to Low	Medium	Medium to Low	Low
Collector	Medium	Low	Medium	Low	Low
Local	Medium	Low	Low	Low	Low

Target Speed:

Low < 30 mph

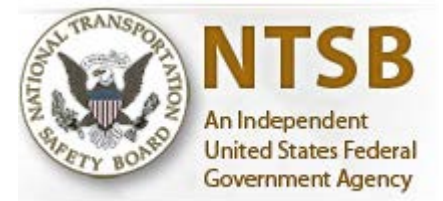
Medium 30—45 mph

High > 45 mph



NCHRP 17-76 recognizes recent trends & research activity

- NACTO advocated in 2017 for a policy statement that reads “State rules or laws that set speed limits at the 85th percentile speed should be repealed”
- NTSB report released in 2017 called for removing guidance in the MUTCD that speed limits should be within 5 mph of the 85th percentile speed



How NCHRP 17-76 is developing guidance

- Build speed limits guidance based upon the relationships between speed, crashes, and roadway characteristics including vulnerable users
 - Use findings from existing research for Rural, Rural Town, Urban Core
 - Build new databases for Arterials in the Urban and Suburban contexts

Context → Roadway ↓	Rural	Rural Town	Suburban	Urban	Urban Core
Principal Arterial	High	Medium to Low	High to Medium	Medium to Low	Low
Minor Arterial	High	Medium to Low	Medium	Medium to Low	Low
Collector	Medium	Low	Medium	Low	Low
Local	Medium	Low	Low	Low	Low

Target Speed:
Low < 30 mph
Medium 30—45 mph
High > 45 mph



Austin ,TX



Ann Arbor, MI





What will NCHRP 17-76 accomplish?

Final Report to be published in 2019

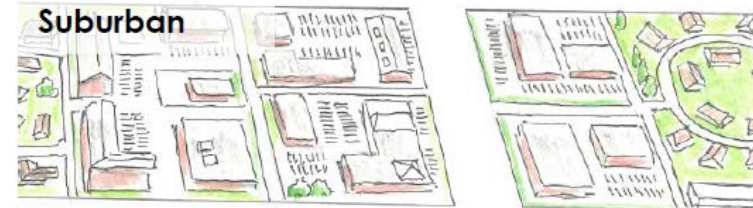
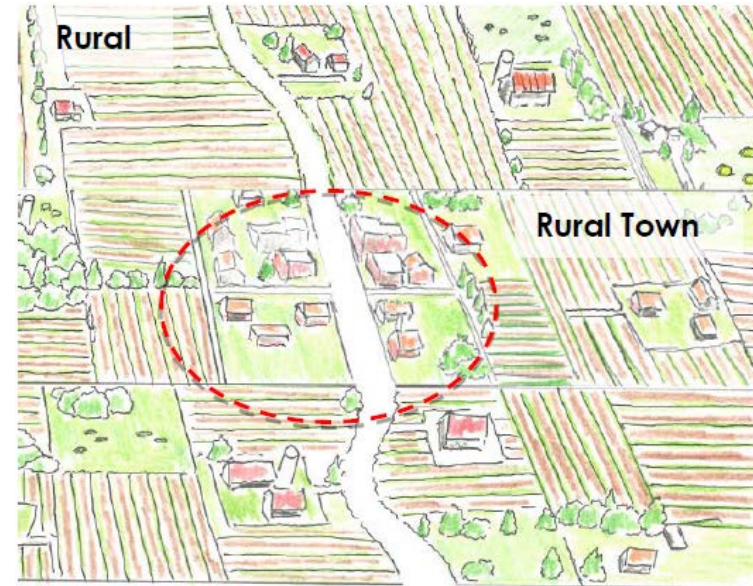
- Provide updated guidelines to make informed decisions related to establishing speed limits:
 - Relationship between operating speeds, posted speeds and safety
 - Relationship of speed measures (85th percentile, average speed, pace) context, and factors for setting speeds
 - Implications of setting speeds lower or higher than recommended
 - Decision making process for setting speeds (spreadsheet and software)



Options for Setting Speeds

Transition to a more context based approach for setting speeds-

- NCHRP 855 – Context and Project 17-76 – Speed Setting Guidance
- Expand Portland Pilot to other jurisdictions
- Add flexibility to current system, allowing more flexibility in urban areas





Other considerations that would help

- Publish guidance on setting design speeds to meet objectives for desired target speeds
- Clarify best practices for geometric designs to achieve desired operating speeds
- Clarify what elements influence operating speeds
- Clarify road jurisdictions responsibility to design roadways that achieve desired operating speeds
- Provide assistance to small agencies to investigate and propose appropriate solutions thru safety assessments
- Continue to refine the statutory speeds, possibly lower some and/or make new ones.





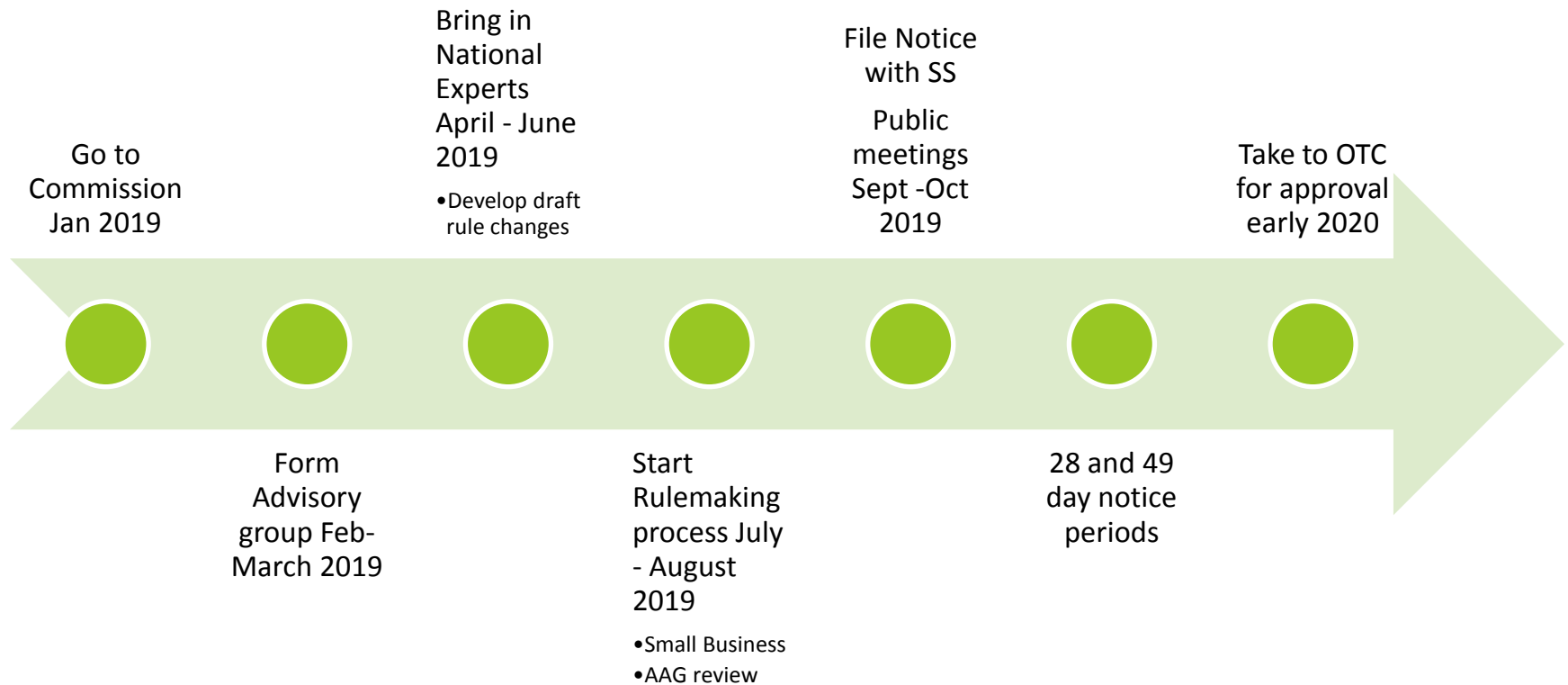
How do we approach changing setting speeds

- Go to Oregon Transportation Commission to get permission to begin the process of change
- Charge an Advisory group to come up with potential changes
 - Look at Portland Pilot
 - Look at NCHRP 17-76
- Bring in national experts to give advice (Dr. Karen Dixon from TTI)
- Start Rulemaking process



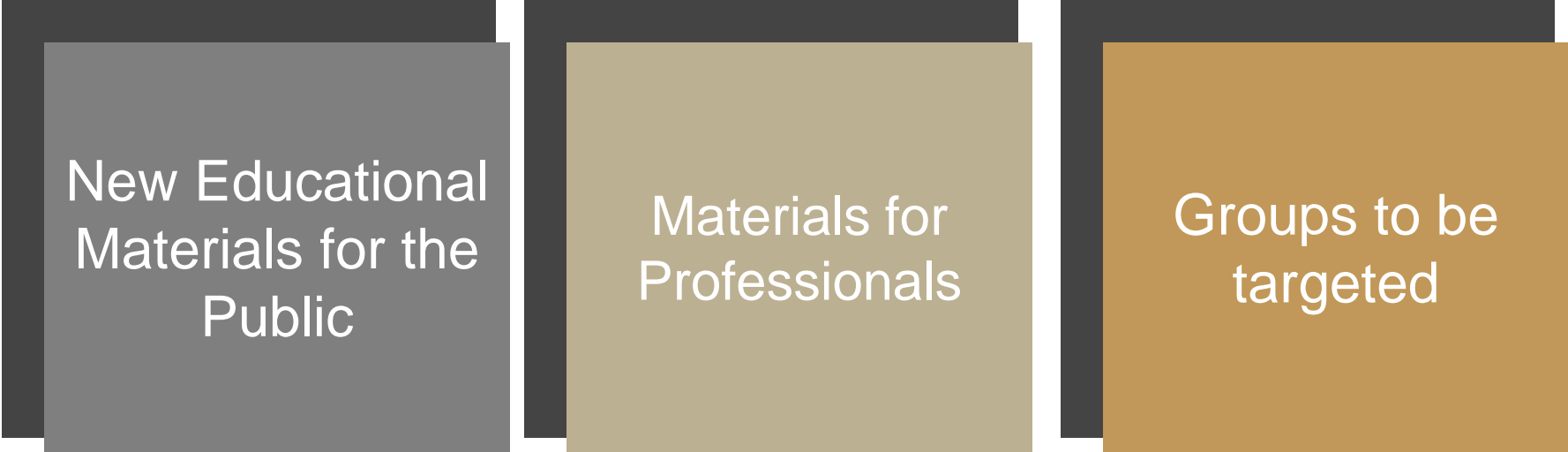


Timelines





Outreach



New Educational
Materials for the
Public

Materials for
Professionals

Groups to be
targeted





Questions?

2019 OTCDC Meeting Agenda-Build Schedule and Rules

Proposed Nov. 16, 2018

<i>Meeting Date</i>	<i>Location</i>	<i>Agenda Item Due to Kathi</i>	<i>Handouts / Supporting Material Due to Kathi or Craig</i>	<i>Final Agenda Sent to Committee</i>
January 18	ODOT TLC Bldg., Salem	January 2	January 9	January 11
March 15	ODOT TLC Bldg., Salem	February 27	March 6	March 8
May 17	ODOT TLC Bldg., Salem	May 1	May 8	May 10
July 19	ODOT TLC Bldg., Salem	July 3	July 10	July 12
September 20	ODOT TLC Bldg., Salem	September 4	September 11	September 13
November 15	ODOT TLC Bldg., Salem	October 30	November 6	November 8

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 presentations, to all OTCDC members at least one week in advance of scheduled meetings. For this to happen, supporting material and presentations, 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 presentations 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 and electronically provided as soon as possible after the meeting.

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

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

OREGON TRAFFIC CONTROL DEVICES COMMITTEE Members

← as of November 8, 2018 →

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<p>Karl MacNair, P.E., Transportation Manager City of Medford 411 W 8th Street Medford, OR 97501-3105</p> <p>(541) 774-2115 karl.macnair@cityofmedford.org</p>	<p>Pam O'Brien, P.E., PTOE, Senior Transportation Engineer DKS Associates, Inc. 720 SW Washington Street, Suite 500 Portland, OR 97205-3503</p> <p>(503) 243-3500 pjo@dksassociates.com</p>
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