

# Oregon Traffic Control Devices Committee

## Meeting Minutes

(Corrected)

January 17, 2003

*Marion County Public Works, Salem, Oregon*

Members Present: Joseph Marek, Chair, Clackamas County; Eric Niemeyer, Vice Chair, Jackson County; Ed Fischer, Secretary, ODOT State Traffic Engineer; Charles Radosta, ITE/Kittelsohn & Associates; Willie Rotich for Rob Burchfield, City of Portland; Jim Rentz, OSP; Robin Lewis, City of Bend; Cynthia Schmitt, Marion County; Randall Wooley, City of Beaverton

Members Absent: Rob Burchfield, City of Portland; Bill Ciz, ODOT Region 1

Others Present: Nick Fortey, FHWA; Orville Gaylor, Julia Wellner, Michael Ronkin, Rick Wood, Doug Bish, Paul Davis, ODOT Traffic Management Section; Robert Morast, Washington County; Lew Garrison, City of Salem, Ed Chastain, Lane County, Rick Braden, Oregon State Parks; John Replinger, Multnomah County; Brian Genovese, City of Eugene, Kevin Hottmann, Terry Hockett, City of Salem; Xavier Falconi, ITE; Ron Irish, City of Albany

### Introduction/Approval of October 23, 2002 Meeting Minutes

New Chairperson Joseph Marek called the meeting to order and attendees introduced themselves. Chair Marek asked for additional agenda items. Eric Niemeyer said he'd like to pass out some information for an agenda item next meeting regarding proposed changes to ODOT left turn phasing guidelines. Ed Fischer said this could be covered under non-agenda items at the end of the meeting. Randy Wooley then moved, Charles Radosta seconded, and the committee voted approval of the October 23, 2002 meeting minutes.

### Old Business

#### **Update to Sign Policy & Guidelines**

Orville Gaylor then introduced proposed revisions to the Sign Policy & Guidelines for the State Highway System. The first change is formalization of longstanding informal policy limiting the maximum amount of recreational symbol signs allowed under guide signs on the state highway system and setting minimal sign sizes. Then there are some new designs on WILDLIFE VIEWING signs. Following that is a formalization of the recreational symbol signs on the interstate highways in Oregon. Finally Orville proposed corrections to school signing including corrected text and a note stating that school crossing signs at signalized intersections shouldn't be added unless an engineering investigation indicates they are needed. Ed suggested the asterisk used on page 7-8 and 7-14 of the manual should be the same as used on page 7-9 for consistency.

Decision: Charles Radosta moved, Robin Lewis seconded, and committee voted approval of the revisions as amended.

#### **Driver Response to Traffic Signal Power Outages**

Ed Fischer then summarized previous OTCDC discussions on whether Oregon should change policy on what drivers are expected to do at signals when the power goes out. He recalled that Terry Hockett had requested that ODOT review the statutes of neighboring states and verify what the Uniform Vehicle Code calls for in these situations. The UVC was silent on the matter, as were Oregon statutes. He went over the policy in neighboring states. Idaho is similarly silent on the matter. California has legislation that requires the driver to stop at the intersection and proceed when safe to do so. California hopes to eventually have all signalized

intersections be full-LED or at least have full battery backup capability. Washington has similar law, requiring drivers to treat such lights as all-way stops except when directed differently by a flagger, police officer, or firefighter. Anecdotally, Idaho drivers are reported to treat dead signals as all-way stops. They reportedly get radio/television advisories to treat the signals this way when power fails, just as happens in Oregon. Ed confirmed that there is actually language in Oregon's Driver Manual suggesting drivers react to non-functioning signals as they would to a all-way stop. Ed asked how committee members felt about legislation to change or clarify Oregon policy. He clarified that procedural requirements preclude ODOT initiating any such legislation in time for the current session but indicated he would be willing to get started on legislation for the next session or support legislation sponsored by others this session if the committee approves.

Committee consensus was that something should be done. Whether or not temporary stop signs are useful or affordable was discussed. Some signals include minor-flow streets that might not meet sufficient STOP sign warrants. The possibility of having the Local Officials Advisory Committee (LOAC) sponsor legislation was considered favorably. Ed suggested sending a subcommittee made up of Cindy Schmitt, Robin Lewis, Joe Marek and Eric Niemeyer copies of the California and Washington statutes and have them work on a draft to bring back to the committee via email for input prior to involving the LOAC. Jim Rentz pointed out that traffic Stop lines are considered a traffic control device and suggested the subcommittee consider the ramifications of that although Orville said the line without the sign is not considered a stop control device.

✓ Action Item: ODOT will transmit electronic copies of the signal power outage statutes to a subcommittee of Cindy Schmitt, Robin Lewis, Joe Marek and Eric Niemeyer. The subcommittee will work on a possible legislative draft to bring back to the committee (electronically if time constraints require).

### **School Zone Signs -- When Flashing or When Children Present Issue**

Orville Gaylor revisited the issue of school riders approved at the last meeting, saying that some questions had come up regarding the wording and therefore it was not included in the last Sign Policy update. Ed said that Jim Rentz questioned whether confusion might be created for enforcement purposes with the varieties of wording which due to time constraints didn't get sufficient discussion at the previous meeting. Doug Bish said part of the reason for the variety was due to the attorney general's opinion that both conditions (when flashing and when children are present) are valid under the current law and concern that sign riders should reflect the law under any local variation. Various jurisdictions have different desires on how to handle these areas and therefore the latest three possible sign rider variations. The committee discussed the variety of ways local jurisdictions want to handle school zones. Orville Gaylor was concerned that the Oregon Supplement doesn't allow for the use of the word, "Or". Others weren't so sure and the committee considered getting an opinion from the Attorney General. After further discussion, the panel decided to do nothing pending further legislation from the Legislature.

### **Oregon Railroad Signal Warrants**

Rick Wood said work continues on determining what to do about having a rail crossing warrant for putting in a traffic signal where no other warrant is met and there is a concern about trucks stopping on railroad tracks. He illustrated the problem on hand-outs. Also were drawings showing trucks at risk due to the law and the layout of the crossings. The law itself hasn't changed for a long time. What's changed is the federal government-required legislation that says a commercial vehicle driver who is cited for this offense must lose their license (30 days first offense, 90 days second offense, etc). Current warrants don't allow for signaling in order to prevent this problem and they haven't been able to come up with another warrant that would address discrete problem areas without making it so broad that it covers an economically nonviable number of rural rail crossings.

✓ Action Item: Consensus was to continue working to change the signal approval process in the OAR to allow the State Traffic Engineer to approve traffic signals at intersections near and at rail and light rail crossings provided an engineering study clearly demonstrates the need. A draft will be brought back to the committee for approval at a future meeting.

## New Business

### **Crosswalks on Channelized Right Turn Lanes**

Michael Ronkin introduced the subject with a PowerPoint presentation of examples of Swiss intersections. He prefaced his remarks by saying he hadn't addressed the need to signalize a crosswalk at a right turn slip lane, that few do but some people at ODOT think it's needed. Michael said he couldn't find any examples to photograph of this configuration.

Michael said that the general idea is that if you have a raised intersectional island, the improvement for the pedestrian and the driver is tremendous. He showed an example in Hawaii where there was no raised island and pointed out the vulnerable pedestrians who with a raised island could have dealt with right turning vehicle hazards and arrive to the relative safety of the raised island before going on with their trip across the street.

Michael went on to discuss the issue of whether the pedestrian path between the curb and the island should be marked and where it should be placed. He said that research presented at a TRB conference showed that left turning vehicles were the major danger to pedestrians but that right turning vehicles are also an issue, apparently because drivers are checking for conflict on the left and not seeing the pedestrian on their right.

Michael focused on the question of geometry. He said he thought the mistake made in this country was copying from a success on the interstate freeway that really doesn't work in an urban area. Whereas on the freeway it's good to help the driver accelerate, get quickly up to speed on the on-ramp, and then merge with traffic. The flat angle that facilitates this on the freeway doesn't work so well when there is the need to see and yield to pedestrians. More of a right angle in the right turn lane, he said better facilitates this process being completed safely. He said that arguably this is also better for capacity because smaller but sufficient gaps are more apparent from the tighter angle.

Michael said that in such cases where there is the wide angle, he doesn't think the crosswalk should be at the stop bar, but further back behind the stopped car. The driver then has the opportunity to see and yield to the crossing pedestrian before having to merge with traffic as they turn right. He said this configuration is routinely used in the design of roundabouts. He said that the right turn slip lane is very similar to the roundabout in its operation and it's good in both cases for the driver to deal with the pedestrian conflict before checking for conflict on the left and then merging into essentially one-way traffic. He illustrated with a photo of a snowy location where tire tracks illustrate that the tighter geometry he favors is in line with what a good driver does anyway, not hugging the right curb when making a right turn. He showed further good and bad examples of right turn lane treatments.

Michael suggested that folks can read into the MUTCD what they want. He said the MUTCD says crosswalks SHOULD be marked at all intersections where there is a substantial conflict between vehicular and pedestrian movements. Marked Crosswalks also SHOULD be provided at other appropriate points of pedestrian concentration such as "loading islands". Michael said this was the only other term used as an example of other appropriate points but he thought crosswalks behind the stopped vehicle would be acceptable.

Michael illustrated with pictures at an urban stop that although it was slightly out of direction for pedestrians to follow the set back crosswalk, most people did utilize it properly. He thought the cut-through of the curb at the crosswalk helped with the issue of squaring set back crosswalks with ADA requirements to keep crosswalks fairly lined up. He showed some young people not using the set back crosswalk but noted there was no vehicular traffic approaching and said his observations suggested when there was traffic, folks did better at staying in the crosswalk. He thought that was sufficient for safety's sake.

Michael concluded that moving the crosswalk back one car length, it enables the drivers to interact intelligently with pedestrians, the pedestrians to figure out what to do, separates the conflicts with the drivers. He said while it may be slightly counter intuitive and there are issues with the ADA that will need to be worked out by including channelization for blind people, he thinks this is what the state should be trying to do.

Julia Wellner followed up with a handout discussing ODOT's progress in modifying existing criteria for marking crosswalks on channelized turn lanes of the state highway system and including the crosswalks approximately 25 feet in advance of the stop/yield point. She noted the current MUTCD includes recommendations that appear to preclude placing crosswalks in advance of the stop or yield lines except at roundabouts. Julia said ODOT would like to get committee input on whether Oregon should go ahead with the European model by deciding whether the Millennium MUTCD precludes the set back crosswalk practice and if it does, whether an Oregon Supplement should be added to allow for set back crosswalks. Julia said ODOT's proposal was virtually identical to those in the MUTCD for roundabouts. Michael said the 1988 MUTCD did have a graphic similar to the draft proposal and nobody knows whether this was an accidental or deliberate omission. It was clarified that the proposal was for signalized and unsignalized intersections where the right turn lane is unsignalized (whether uncontrolled, Yield controlled or Stop controlled). At signalized right turn lanes, the crosswalk would be in the same location as the stop line.

Further discussion on operational, sign and design issues followed. Bob Morast said that in Washington County they do not mark such crosswalks, in part because studies have shown that accident rates are higher at marked crosswalks and new studies have indicated this is still true. Also, when pedestrians see the WALK signal on the other side of the road (which is directed to those crossing the signalized portion of the road), they may assume it applies to the slip lane. They may not walk when it's safe to do so but step right off and walk without checking for oncoming vehicles when the signal seems to allow it. Michael said that the geometry of the set-back crosswalk, combined with louvered signals, should pretty well preclude the misunderstanding of WALK signals. Other concerns about where STOP or YIELD signs are placed, public understanding of the word, "PED", whether or not it was safer to mark the crosswalks and which style marking to use, etc. were discussed. Possible other uses of the treatment were considered but not addressed by this proposed supplement. A majority of the committee seemed to believe that wording of the proposed supplement should remain guidance and not direction. Julia said the supplement was meant to allow the practice if the MUTCD prohibits it. Joe Marek summarized the issues and then Ed suggested a motion to continue fine-tuning the proposed supplement. After further discussion he made a amended motion as follows:

Decision: Ed moved that the committee support proceeding with allowance for advanced crosswalks at intersections and examine other detailed issues pertaining to the actual intersection design and the placement of crosswalks and crosswalk markings. Robin seconded the motion and the committee approved.

In further discussion, use of the word "Should" versus "Shall" was discussed to maintain the supplement as guidance. Ensuring that wording only encompassed raised islands was also discussed. Ed Fischer said that if anybody has suggested wording changes, they should bring it to ODOT, otherwise the proposed wording, with minor adjustment, likely would be brought back. Further suggestions may be sent to Julia at [Julia.L.Wellner@odot.state.or.us](mailto:Julia.L.Wellner@odot.state.or.us). Julia and team will work on it and bring it back to the committee.

✓ Action Item: Julia Wellner will return with revised draft language to a future meeting.

### **MUTCD Items of Interest**

Orville Gaylor handed out information on some little-noted changes to the MUTCD that he'd picked up at the safety conference and thought ought to be disseminated further. He thought some small jurisdictions might need to be advised that they may need to get some engineering guidance on the size of traffic control devices installed. Included is a requirement to use standard sign dimensions prescribed in the Manual and in the Standard Highway Signs book unless engineering judgment determines that other sizes are appropriate. The use of engineering judgement requires a Professional Engineer license. Engineering judgement is becoming a necessity and not all towns necessarily have that capability in their public works staffs. Ed suggested sending the newly discovered requirements to city staff. The committee consensus was to have Ed prepare information for the LOAC to distribute to cities and counties statewide.

✓ Action Item: Orville will draft a memo for Ed to send out to the AOC/LOC for further dissemination on new MUTCD sign standards and "Engineering Judgement".

Orville provided another handout illustrating different wording in the MUTCD about signs and the requirement for them to be retroreflective. The majority of light should actually be returned back to its point of origin. ODOT's reading of this is that anything less than Type 3 Sheeting is not retroreflective, just reflective. A discussion ensued on whether other sheeting such as Engineering Grade Sheeting is retroreflective. If you're looking at more than 50% reflectivity, this could be insufficient. Ed said he thought the wording is sufficiently vague enough to allow less retroreflective signing. Orville said he'd get federal specifications for the next meeting.

✓ Action Item: Orville will get further information on federal specifications on retroreflectivity and Paul will be sure this gets on the next meeting agenda.

The committee went on to discuss further the costs and benefits of various grades of legends and sign materials. Orville said that it is becoming more cost effective to gradually replace all signs with new retroreflective signing on an attrition basis.

### **Recognition for Valuable and Most Excellent Public Service**

Ed Fischer said that Orville's professional goal and ethic was to help keep traffic control professionals and the governments they represent out of legal and financial trouble by staying close to standards. He said he wanted to express appreciation as State Traffic Engineer for all of the extra work done and guidance provided ODOT, Traffic Management staff, and the OTCDC over the years. He acknowledged Orville's intention to retire at the end of February and that he would be very tough to replace. Orville has likely attended his last meeting as Sign Engineer but he will be around for about six months thereafter working on a sign design manual for internal ODOT use and to give to consultants. He expects to start a new career working for a consultant when that project is completed.

### **Pedestrian Countdown Signals**

Randall Wooley asked for an update from Portland and Clackamas County on their installations. Willie Rotich said that Portland has just installed one at 3<sup>rd</sup> and Burnside and haven't received any comment on it. It was placed there at the same time that WALK time was increased by three seconds at the request of local businesses. The city is looking to put up more but they haven't yet.

Joe Marek said that Clackamas County has put in two sets at two different crosswalks with high pedestrian traffic, using Sacramento County's guidelines, one in a retail shopping mall area and one near a hospital campus. They did before and after surveys and generally the feedback of a small sample was that 75% understood them and felt they were beneficial to deciding whether or not to start crossing. As a result, the county will continue to put them in and are considering doing so at new installations, but the \$600 per crossing added cost plus \$300 for the clamshells if they are specified as a unit is a consideration. They are using the countdown during the flashing "DON'T WALK" cycle on the advice of Ed Fischer.

There was discussion as to the legality of starting to cross a street after the "DON'T WALK" starts flashing and the utility of a system that might facilitate at least technically breaking the law. Ed Fischer said that Oregon still doesn't officially recognize the countdown signals except on an experimental basis with the concurrence of the FHWA. He said it was a fairly simple process with reasonable documentation required. Ed said that if any jurisdiction wants to do it at intersections with the state highway, he needs this process complied with. He reminded folks that the proposed Revision 2 to the MUTCD says the signals will only be used during the "DON'T WALK" cycle and asked that this be complied with for consistency across the state.

Rick Wood handed out a copy of Section 4E.07 on Countdown Pedestrian Signals in the proposed Revision 2 to the MUTCD and his presentation to ODOT's region traffic engineers. He said they wanted more restrictive language than he'd originally presented them. The last sheet was a list of things that could affect whether we want to put the countdown timers in at railroad crossings or elsewhere. He said he was hoping that committee members would take the time to look through the draft and see if it's important to them whether or

not we have some guidance on the issue. One of them is the railroad interconnect, where in practice it would likely not be a good idea since terminating the flashing DON'T WALK phase abruptly is permitted when there's a conflict with a train and in practice, it wouldn't be a good idea to have a countdown signal that goes 14-13 and then switches abruptly to zero. This could dangerously mislead pedestrians. Then the equipment has to sense the timing and readjust the next cycle to change it's number again since it's not directly read off the controller. Rick said this is problematic for railroad interconnects so ODOT doesn't want to use them in those locations. Even with the two-signal type (including pedestrian signal) at the interconnect, it's just possible the countdown could occasionally be inaccurate because of an early termination. Emergency vehicle preemption policy doesn't allow for cutting the pedestrian phase off, so that's different.

Fearing proliferation of the count down signals in times of limited budget, the issue is whether there should be some criteria to be able to say yes or no to requests for them. Robin Lewis said she's come up with some basic guidelines such as wherever there are older populations, and where the crossing was wider than usual. Liability as an impetus for needing a policy wasn't considered a concern since the countdown signals are considered information, not safety devices. Lew Garrison suggested it was just a funding issue and saw no concern whether or where a local jurisdiction decides to install the countdown signal.

Consensus was to at some point get some criteria/guidance together for the countdown signals but there's no need to rush it until the demand starts to increase. Ed said he will talk to his region traffic engineers and ODOT may well do something similar to what Bend has done for the state highway system in the near future.

Misuse by motorists was discussed but there's been no evidence yet that this is a problem. Joe Marek said he'd take a look at his installations and see if he thinks this is an issue. Ed said there's no apparent need to bring this back to the committee at least until FHWA adopts Revision 2.

**Joint ITE/OTCDC May Meeting**

Charles Radosta introduced Xavier Falconi of the ITE who briefed the committee on what the ITE was planning in the way of events in May and invited the committee to again hold a joint meeting in conjunction with the ITE conference on May 16<sup>th</sup> in Bend, Oregon. The precise location hasn't yet been identified. The committee accepted the invitation. Xavier said he hoped to get a luncheon speaker such as Governor Kulongoski or Senator Bruce Starr. Ed suggested they get this set up soon, particularly if it's Senator Starr or another legislator because the press of legislative business may soon preclude their ability to schedule an appearance in Bend. (ITE Oregon Website <http://www.oregonite.org>)

**Joint ACTS/OTCDC Meeting / Schedule of 2003 Meetings.**

Joe Marek then asked for committee approval of again holding a joint OTCDC/ACTS meeting in Eugene. Ed said it would likely be the morning of October 15<sup>th</sup>. The committee agreed to go with the tentative schedule of meetings as listed below. The September and/or November meetings may again be cancelled this year if they appear unneeded. (ACTS Oregon Website <http://www.oregonite.org>)

|                    |        |                                  |
|--------------------|--------|----------------------------------|
| March 21, 2003     | Salem  | Marion County Shops              |
| May 16, 2003       | Bend   | ITE Conference/To be Determined  |
| July 18, 2003      | Salem  | Marion County Shops              |
| September 19, 2003 | Salem  | Marion County Shops              |
| October 15, 2003   | Eugene | ACTS Conference/To be Determined |
| November 21, 2003  | Salem  | Marion County Shops              |

**Non-Agenda Items**

Eric Niemeyer passed out copies of material on left turn signal phasing guidelines. He asked if speed should be primary factor in determining whether protection is needed or not and whether other factors should be

considered. The material includes studies done in Los Angeles and Kentucky. He wanted the committee to consider it in a future meeting. Ed said ODOT is in the process of updating guidelines so this would be a good topic to discuss at the next meeting.

✓ Action Item: Paul will schedule Left Turn Signal Phasing Guidelines on the March 21 agenda.

Michael Ronkin announced a January 31<sup>st</sup> brownbag presentation on innovative bicycle/pedestrian treatments in Holland and Sweden.

Nick Fortey announced that FHWA is starting a new service designed to assist public agencies in effectively applying traffic control devices and the MUTCD. The "Peer-to-Peer for Traffic Control Devices" (P2P TCD) is patterned after the successful ITS Peer-to-Peer program. The P2P TCD program is designed as a no-cost program to:

- Provide short-term assistance in matters related to traffic control devices
- Address specific technical issues in the MUTCD
- Spark dialogue and foster an "esprit de corps" among professionals in the transportation community, and
- Contribute to a better transportation system - optimized traffic performance and improved safety.

Additional information can be found at the MUTCD web page at <http://mutcd.fhwa.dot.gov>. There is also a P2P TCD Discussion Area located on this web site that provides an online P2P TCD activity.

With more than 1,000 pages of standards, guidelines, and options, the Manual of Uniform Traffic Control Devices can be overwhelming. FHWA frequently receives requests for assistance from State and local agencies. The P2P TCD program is designed to provide an easy-to-use way for practitioners to receive assistance from other practitioners.

Local, county, regional, or state transportation agencies may request assistance by email or calling a toll-free number and describing their needs to the P2P TCD coordinator. Based on recommendations made by FHWA headquarters, the coordinator matches transportation professionals who are experienced and knowledgeable in the relevant technical area. The peer, in turn, will contact the agency to work out the details of the assistance to be provided within the program framework. The peer's assistance is short-term and will address specific, technical issues. The peers understand that the scope of their assistance is limited to the peers providing assistance with the application of the MUTCD, and not to interpretations of the MUTCD, or FHWA policy.

FHWA intends to ensure that the division office and resource center staffs are fully aware of requests for assistance in their State. When a P2P TCD request is submitted, the respective division office and resource center will be copied on the P2P TCD request received from an agency located in their area. This should eliminate redundant requests, and ensure a key communication link within the FHWA community. To further enhance the MUTCD team's communication link to customers, quarterly activity reports will be posted on the MUTCD web site to document all P2P TCD requests, and their resolution.

Additional information can be had by calling (Dee) Chappell at (202) 366-0087 or emailing her at [debra.chappell@fhwa.dot.gov](mailto:debra.chappell@fhwa.dot.gov).

The meeting Adjourned at: 12:40 p.m.

Our next meeting is scheduled for March 21<sup>st</sup>, 2003 at 9:00 a.m. at the Marion County Shops.