

TECHNICAL LEADERSHIP TEAMS  
QUARTERLY REPORT  
July 2009 through September 2009

*The Technical Leadership Team provides technical and engineering leadership for the business. This team is led by Cathy Nelson, Technical Services Manager/Chief Engineer for the Oregon Department of Transportation. In addition, leadership teams are coordinated by Technical Services for the following major technical disciplines: Access Management - Bridge - Construction – Geo-Environmental – Project Delivery - Right of Way - Traffic-Roadway and include key representatives from Regions and from Technical Services.*

*The Quarterly Report is a communication tool to provide an update on key information for ODOT and Consultant staff involved in delivering projects for ODOT.*

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**KEY ACCOMPLISHMENTS**

**PROJECT Bid Update:** Between July and September 2009, 38 projects have gone to bid (30 containing ARRA funds), compared with 14 total projects in the same time period in 2008 and 13 in 2007. Between January and September 2009, 146 projects have gone to bid (79 contain ARRA funding), compared with 72 total projects in 2008 for the same period and 89 in 2007. An additional 57 projects is anticipated before the end of 2009, compared with 19 in 2008 and 11 in 2007.

**The 8<sup>th</sup> National Conference on Asset Management** will be held in Portland on October 19 – 21. The conference will have three tracks – Safety, Data Management, and Pavements. Cathy Nelson, Technical Services Manager, reported that ODOT is co-chairing this event along with FHWA. She urged TLT members and/or their staff to attend, as asset management is important to help manage Oregon's transportation infrastructure.

**The Jobs and Transportation Act (JTA)** is continuing to be implemented at ODOT since this measure was not referred to the voters. A large number of specific projects have been called out in the JTA legislation. The regions are hard at work planning for this work and focusing on how to resource. More information will be available the beginning of 2010.

**Practical Design.** ODOT is developing an implementation plan for Practical Design, which will be rolled out to Highway staff starting with the October Business Line Forum. ODOT has current work that ties together with this strategy, as well as new tools. One of the goals of practical design is to best

utilize the funds available to improve the overall performance of the transportation system. In October 2010, ODOT will be reporting to the legislature regarding practical design at ODOT.

**A Practical Design Workshop**, jointly sponsored by FHWA and ODOT, was held in Portland on July 28, 2009. The goal was to better understand practical design and served as a starting point for ODOT to develop and communicate Oregon's approach to practical design. States participating included Missouri, Kentucky, Minnesota, and Pennsylvania. The audience primarily included ODOT and FHWA staff, as well as some local agency and consultant representatives. More information regarding practical design will be shared over this next year, as this strategy is rolled out.

**Vehicle Carrying Capacity:** Cathy Nelson, Technical Services Manager, reported that ODOT will not be pursuing an official policy, but will be addressing on the project by project basis. The process will be that Regions will have on-going conversations with the freight community, while keeping Motor Carriers in the loop. The OTC will consider appeals if issues can't be resolved at the lowest levels.

**ODOT's Graduate Engineer and ODOT Intern Program:** Jeff Gower, Construction, and Blake Dye, Human Resources, reported to TLT that ODOT will be starting fall recruitment efforts. For the recruitment trips, HR partners with ODOT "subject matter experts" who can connect with college students and have a "passion" for speaking with young people about potential careers in civil engineering and other related disciplines (i.e., geology, planning, earth sciences). Once hired, the annual June Orientation Day and July Engineering Day also help the GEP's and Interns to connect with each other, as well as to learn more about the variety of work in ODOT. Because of recent recruitment efforts, both regionally and nationally, ODOT has been able to select outstanding candidates from a diverse pool of applicants.

**The Geo-Hydro-Hazmat Design Conference** was held in September, with 100 attendees. This provided an opportunity to learn and share information on these critical topics. OTC Chair Gail Achterman was one of the keynote speakers.

**Bridge Leadership Team Update:** Bridge Section will soon start monitoring all ODOT Tech Center designed bridges, excluding OTIA and Local Programs projects. This arrangement provides opportunities to find and resolve deviations quickly, as well using this review to continually improve, according to Bruce Johnson, Bridge Engineer. Bruce believes this work to be beneficial not only for the discipline but also critical in

establishing a dialogue between the Bridge Section and the Engineer of Record.

Bruce reported that the Bridge Leadership Team will be updating the review checklist and adding it into the Bridge Design manual. He will also be incorporating it into ongoing regional practice. Bruce will send the proposed guidance to the Tech Center managers for review prior to finalizing.

Bridge is revising the current practice concerning updated specifications for barriers in construction zones on bridges. He will be working with Traffic-Roadway to make sure practices are aligned.

**Biological Assessment programmatic development.** Bruce Johnson, Bridge Manager, acknowledged Chris McGuire and the Environmental staff for their work in this area. Chris brought some regulators out to view some of the projects. By having first-hand knowledge of the project and greater understanding of the requirements, they were more receptive to Bridge's concerns. The resultant programmatic is very supportive of what Bridge is already doing. The new programmatic will also help with any future rounds of ARRA funding.

**Contractor Evaluations Pilot:** Cathy Nelson reminded TLT members who are managing contracts to consider using the template that has been developed to evaluate contractors. It is still in the pilot phase so use and feedback is important.

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### New Guidance Documents from Technical Services

Title	Final Number	Effective Date	Issued by
<b>Determining jurisdictional boundaries on non-tidally influenced, freshwater streams and features</b>	NEW GE09-07(B)	08/10/2009	Geo- Environmental
<p><b>Summary:</b> This document is intended to promote a consistent and sound approach for determining the jurisdictional boundary and active channel width on freshwater, non-tidally influenced streams.</p> <p><b>Contact for more information:</b> Natural Resource Unit Manager, Technical Services, Geo-Environmental Section @ <a href="mailto:frances.brindle@odot.state.or.us">frances.brindle@odot.state.or.us</a></p>			
<b>Superelevation Development Standards</b>	NEW RD09-01(B)	Effective 11/01/2009	Traffic- Roadway

<p><b>Summary:</b> To provide guidance as to how superelevation is developed.  <b>Contact for more information:</b> Senior Roadway Engineer @ <a href="mailto:christopher.s.henson@odot.state.or.us">christopher.s.henson@odot.state.or.us</a></p>			
<b>Freeway Median Closure Warrant</b>	NEW RD09-02 (B)	Effective 11/01/2009	Traffic- Roadway
<p><b>Summary:</b> Median cross-over head-on crashes have become too common on Oregon's freeway systems. A new standard was established in 2008 regarding interstate open median closures increasing the width of medians requiring closures from 30 to 60 feet. Now it is desirable to introduce a similar standard regarding non-intestate freeway systems. Adopting a standard for barriers in medians will reduce the number of Oregon's most severe crashes.  <b>Contacts for more information:</b>  Senior Roadside Design Engineer @ <a href="mailto:daniel.j.macdonald@odot.state.or.us">daniel.j.macdonald@odot.state.or.us</a> or  Senior Standards Engineer @ <a href="mailto:david.j.polly@odot.state.or.us">david.j.polly@odot.state.or.us</a></p>			
<b>Contract Plans Sheet Development Guidelines</b>	NEW TS09-01(A)	Effective 07/22/2009	Technical Services
<p><b>Summary:</b> This advisory has been compiled to provide Region Tech Center staff and consultant staff with this previously undocumented institutional knowledge needed to assist them in continuing to develop a quality contact plan sheet. This information is not intended to be comprehensive or all encompassing of all disciplines or all standards of practice within each discipline. Only areas needing clarification have been addressed in this advisory.  <b>Contacts for more information:</b> CAD Standards Coordinator, Geo-Environmental Sections @ <a href="mailto:kim.e.taylor@odot.state.or.us">kim.e.taylor@odot.state.or.us</a></p>			

## UPDATED GUIDANCE from Technical Services

<p><b>UPDATED Guidance:</b> The following guidance documents have been recently reviewed and may include minor updates which do not change the meaning or intent of the original document. After review, the guidance is signed, so users can use and refer to the most current guidance. Technical Services reviews guidance periodically to ensure guidance remains current and updated. Please refer to the most current version.</p>			
<b>Deposit Made in Lieu of a Bond for a Permit to Construct a Road Approach</b>	AM07-01 (B)	Effective 06/14/2007 <b>Updated</b> 07/15/2009	Access Management

<b>Deposits for a Permit to Construct a Temporary Road Approach</b>	AM07-02(B)	Effective 06/14/2007 <b>Updated</b> 07/15/2009	Access Management
<b>Underground Injection Control (UIC) Systems</b>	TSB06-03A	Effective 02/10/2006 <b>Updated</b> 08/28/2009	Geo- Environmental

<b>RESCINDED &amp; INCORPORATED GUIDANCE from Technical Services</b>			
<b>Rescinded Guidance:</b> The following guidance documents have been rescinded since each of these is now incorporated into a manual or other document. The guidance website listed below provides links to where the information can now be found.			
<b>Rescinded Guidance # and Title</b>	<b>Date Rescinded</b>	<b>Where rescinded guidance information can now be found</b>	<b>Issued by</b>
<b>No Guidance has been rescinded and incorporated into a manual or guidance during this quarter.</b>			

**Complete information regarding current and rescinded technical guidance is available @**  
<http://www.oregon.gov/ODOT/HWY/TECHSERV/>

### **Manuals from Technical Services: Updated this Quarter**

The following manuals have been updated during this quarter.  
 The complete list of Technical Services' manuals can be found @ <http://www.oregon.gov/ODOT/HWY/TECHSERV/alphamnuals.shtml> with links to each of the manuals.

<b>Manual Title</b>	<b>Last Updated</b>	<b>Issued by</b>
<p><a href="#"><u>Estimating Manual</u></a>            The purpose of the manual is to provide guidance to project estimators for preparing the estimate for an ODOT construction project.</p>	September 2009	Office of Project Letting in Traffic-Roadway Section
<p>Specifications and Writing Style Manual             This is a new "Specification and Writing Style Manual" and replaces the "Specification Manual." This manual has been extensively rewritten and includes a new chapter on writing styles. It is clearer, more logical and is easier to follow for non-ODOT as well as ODOT specification writers.             Summary of key changes: Old Chapter 4 was removed and is now included in the new "Estimating Manual". Old Chapter 5 was removed and is covered in the design guide. Old Chapter 8 was removed and is now included in the new "PS&amp;E Delivery Manual. " Old Chapter 9 was removed and is now a separate "Project Special Provision Checklist" @ <a href="http://www.oregon.gov/ODOT/HWY/SPECS/manuals_forms_etc.shtml#Forms">http://www.oregon.gov/ODOT/HWY/SPECS/manuals_forms_etc.shtml#Forms</a> )</p>	October 2009	Office of Project Letting in Traffic-Roadway Section
<p><a href="#"><u>Speed Zone Manual</u></a>            This manual discusses research and field investigations as part of the speed zone investigations process. It also discusses the</p>	August 2009	Traffic-Roadway

Speed Zone Report process in detail.		
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## New & Updated Operational Notices from the Project Delivery Leadership Team (PDLT)

Title	Final Number	Last Updated	Issued by
<b>No new or updated operational notices during this quarter.</b>			

**Complete information regarding Project delivery operational notices, can be found at:**

[http://www.oregon.gov/ODOT/HWY/PDU/operational\\_notices.shtml](http://www.oregon.gov/ODOT/HWY/PDU/operational_notices.shtml)

**Contact for more information on PDLT Notices:** Operational Notices maintained by Project Delivery Unit @ [Kelly.A.BRUCE@odot.state.or.us](mailto:Kelly.A.BRUCE@odot.state.or.us)

### WHAT'S ON THE HORIZON?

**OPO UPDATE:** Michelle Remmy and Dan Oven, ODOT Procurement Office, reported that they are starting work on the Discipline Specific Agreements. They are first working with Geo/Environmental since these services have the highest use. The goal is to develop a wider menu of services that is within each discipline-specific agreement. Next they will work on the Bridge and Roadway disciplines. These two disciplines have more options for service through other available contracts so there is less urgency. Dan also presented information regarding the plan for these agreements at the September ACEC liaison meeting. ACEC will assemble a group to provide comments, as needed, later this year.

Dan reported that ODOT has available full service contracts to help cover needed services, if needed, as well as continuing to utilize the WSBLT program for small contracts.

**Machine Control Committee Update:** Ron Singh, Traffic-Roadway, reported on the committee's vision for moving forward with ODOT's construction-related engineering automation needs. The goal is to position ODOT to be ready, as the industry continues to move forward with this technology. Contractors are using this technology and new operators are being trained to use machine control systems. ODOT is seeing contractors use this for "sub-grades." The committee will further refine and develop the overall plan. This is anticipated to unfold though the next three bienniums. As part of the initial steps, they will be seeking feedback from leadership teams in ODOT, as well as industry and from AASHTO working groups and

other States. They anticipate that ODOT will develop 3-D capability in the 2<sup>nd</sup> biennium, which will be employed in the 3<sup>rd</sup>. The Technical Leadership Team is supportive of the concepts and advised that it is important to continue to clarify the level of effort and the resources needed, as well as pursuing the right concepts at the right time.

**A new Stormwater Leadership Team** is being developed by Geo/Environmental together with Luci Moore, Statewide Office of Maintenance Manager. Geo-Environmental will be reaching out to the Regions, etc. to determine the best team structure and membership. The team will be internal to ODOT at this time. More information to come.

**DRAFT Design Speed Technical Bulletin:** Chris Henson and Steve Lindland, Traffic-Roadway, presented this draft technical bulletin for consideration which highlights existing and new areas for flexibility in design options. This document increases the use of engineering judgment, including looking at current and future usage and understanding the purpose and need for the project. The overall goal is to have no design exceptions for design speed in the future. After additional review, this bulletin is anticipated to be finalized this fall.

**DRAFT Project Specific Special Provisions:** Jeff Gower, Construction Manager, indicated that the goal is to increase standardization and consistency across ODOT regarding when a special provision is appropriate and is also intended to address contracting concerns. The Tech Center Managers will be the approval point. They will consult with the technical expert for the specification prior to approving significant changes. Once approved, summaries will be sent to the technical experts and to Design QA/QC for continuous improvement tracking. Jeff will develop a technical bulletin for this process, which will be reviewed by TLT before finalizing.

**ODOT's Quality Program for Design:** Beth Vargas Duncan, Design Quality Assurance Program Manager, updated TLT on this program. Cathy Nelson said that ODOT pays attention to quality for several reasons – to achieve consistent quality targets and to improve our business model where possible. Cathy indicated that the plan to update this program as presented by Beth contains a great deal of flexibility as there are opportunities to tailor to fit the needs of the discipline/situation.

Beth is working with the Quality Assurance Steering Team. They have defined Quality Assurance as: "All those planned and systematic actions necessary to provide adequate confidence that a structure, system, or component will perform satisfactorily in service." Quality Assurance is the overarching concept and Quality Control is under the umbrella of Quality

Assurance. Quality Control is defined as: "Routine operational activities designed to consistently produce a predictable result." This approach to quality assurance also has four key features – planning, doing, checking, and acting. Then the cycle repeats.

The Quality Assurance Steering Team has identified discipline areas within ODOT such as Access Management, Bridge, Civil Rights, Geo-Environmental, Local Programs, Pavements, Right of Way, Roadway and Traffic that are included within the Quality Program for Design. Each discipline will use a "12-step program" as a guide to review and describe their quality plan. A key feature is that all of this will tie together with ODOT's overall vision, mission and goals. Beth said that ODOT is already doing many activities reflected in this Quality Assurance model. It is also important to catalogue what is already being done and help ODOT be more systematic about what we monitor. The quality plans will become part of a Quality Program Manual for Design, which is expected to be ready by August 2010.

Beth will continue meeting with each of the various discipline leadership teams, as well as connecting with the Highway Leadership Team as appropriate. She also met with the American Council of Engineering Companies of Oregon (ACEC) Liaison Committee in September. ACEC offered to find representatives to review and provide comments and suggestions.

**Right of Way Statewide Content Management System.** Dee Jones, Right of Way Manager, reported that a contractor has been hired to move forward on the final phase of the content management system. This phase will include QA/QC and risk management "gates" for each step that must be completed before proceeding, along with instant reporting capabilities, such as current Right of Way status on projects or property management activities. Dee is very appreciative of the commitment from Region staff to help make this a successful project. This work is expected to be completed and operational no later than June 2011.

**Digital Signatures Committee Update:** Ron Singh reported that this committee has been meeting for about one year. Their goal is to be able to use digital signatures on contractor plans and related documents. All issues with laws that come in to play have been resolved, including drafting of an Administrative Rule for OSBEEL's. The team is currently finalizing an agreement with the Board of Geology, and beginning to work with the Board of Landscape Architects. DAS is also supportive if ODOT moves ahead with engineering-related digital signatures.

Ron said that the benefit for ODOT to incorporate digital signatures is to allow ODOT to completely move into the engineering digital world. Digitally signed documents allow for more consistent and accurate production of data and reduce errors.

Cathy Nelson indicated that it is important to keep moving forward as quickly as possible, realizing that digital signatures at ODOT may be at least two or more years out. The next steps also include framing up a prototype, identifying bite size pieces to keep moving forward, clarifying resource and funding requirements, and identifying a path to facilitate the business need, using the best and quickest route. Ron plans to start with two pilot projects to test out some concepts. He is looking at one in a Region and the other with bridge shop drawings. He will continue to provide updates, as this effort moves forward.

### ***KEY CHANGES (People or Organization) OF INTEREST***

**Sonny Chickering** is the new Interim Region 2 Tech Center Manager. His previous assignment was as Area Manager for the Eugene/Lane County area. Sonny is serving in the role held by Steve Cooley, who is serving as the Interim Region 2 Project Delivery Manager. Both assignments are for the next 6 months.

**John Craig is the new OBDP Director as of July 1, 2009:** He will be overseeing the OTIA program. His phone number is 503-587-2900. Welcome!

***For Up-to-Date Information, see the Technical Services Website at <http://www.oregon.gov/ODOT/HWY/TECHSERV/> to find...***

- ***Training:*** Information on current technical training open and available for consultants. ODOT employees can also research available classes on the ODOT Human Resources training intranet site.
- ***Guidance Documents (Directives, Bulletins, and Advisories):*** Please refer to this information for technical guidance currently in effect.
- ***Manuals:*** Technical manuals are included on this website.
- ***Leadership Team Charters and Membership information.***
- ***And more...***

***Questions or Comments? Email Technical Services @ [technical.services@odot.state.or.us](mailto:technical.services@odot.state.or.us)***