

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Technical Committee on Cost Estimating

Chair: Lesly Tribelhorn, Montana
Vice-Chair: Dave Kent, New York
Secretary: Edwin Okonkwo, FHWA
AASHTO Liaison: Jim McDonnell

Technical Committee Charge Statement

- To be a focal point for and develop guidance on cost estimating within the State DOTs for all stages of project development

Publications Responsibility

- This committee is not responsible for any existing AASHTO publications. However, the ultimate goal of this technical committee is to have guidance on cost estimating from cradle (conceptual estimate) to grave (final estimate). The working title of this guidance is "A Practical Guide to Estimating" and it's available online through the Subcommittee on Design Website: <http://www.transportation.org/sites/design/docs/TCCE%20Report%20-%20A%20Practical%20Guide%20to%20Estimating.pdf>

Committee Work Underway/Planned for 2008-2009

- The technical committee is continuing its work to develop "practical" guidance on preparing cost estimates, including recommended procedures and guidance on reviewing bids prior to concurrence in award. Guidance will also be included for improving pre-bid, bid review, and evaluation policies and procedures. Three chapters: *Estimating Using Historical Bid Pricing*, *Cost Based Estimating*, and *Evaluation of Contractor Bids*, have been completed and are available for comment. Current work is posted on the TCCE webpage: <http://www.transportation.org/sites/design/docs/TCCE%20Report%20-%20A%20Practical%20Guide%20to%20Estimating.pdf>
- Work is underway on the next three chapters: *Parametric Estimating*, *Risk Based Estimating*, and *Inflation Forecasting*. Completion is anticipated in 2008 for the Risk Chapter and early 2009 for the Parametric Chapter. The Inflation Chapter will be delayed while team members research the impact of emergent fuel technology on inflation forecasting.
- The committee has developed a common set of *Definitions* for cost estimating work to be incorporated into the practical guidance and will continue to investigate existing AASHTO definitions as well as other resources. The *Definitions* section of the guidance will be dynamic as additional cost estimating guidance chapters are developed.
- Work began on two more chapters during our October 1-2, 2008 meeting: *Bidding Strategies for Cost Control and Performance Measures and Tracking*. Potential future topics include: *Quality Control/Quality Assurance procedures*; *Estimation Training*; and *Real Estate/Utility Cost Estimates*.
- The committee continues to review NCHRP Report 574, "Guidance for Cost Estimation and Management for Highway Projects During Planning, Programming, and Preconstruction" and will incorporate appropriate information into the practical guidance chapters. The committee feels the report has substantially beneficial information and recommends it as a valuable reference on estimating tools and techniques. TCCE members are involved in and staying current on other research projects related to cost estimating issues.
- The Technical Committee completed work with the FHWA in developing a peer review program to utilize State DOT expertise in the review of project cost estimates and in the FHWA process reviews of State DOT cost estimating processes.
- The committee will continue to work with the Transportation Estimators Association (TEA), as well as meet in conjunction with their annual meeting, to help ensure that its work has benefits to all State DOTs.

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Meetings

- The Technical Committee on Cost Estimating (TCCE) will meet at the next annual Transportation Estimators Association (TEA) Conference in Omaha, Nebraska.
- Members of the committee will attend national workshops on cost estimating sponsored by AASHTO when possible.
- The committee will also participate in bi-monthly conference calls, to advance the committee's work.

Research

- The Technical Committee is tracking the progress of the following research projects:
 - The Right of Way component of NCHRP Project 8-49, "Procedures for Cost Estimation and Management for Highway Projects during Planning, Programming, and Preconstruction." The Technical Committee would like to continue an active role in reviewing the progress and deliverables of this NCHRP project.
 - NCHRP Project 8-36, Task 72; Implementing Project Cost Estimation and Management Process Improvements.
 - NCHRP Project 25-25, Task 39; Improving Project Environmental Cost Estimates.
 - NCHRP Project 8-60; Guidebook on Risk Analysis Tools and Management Practices to Control Transportation Project Costs.
- Members of the TCCE are panelists for NCHRP 20-7, Task 274; *Development of a Synthesis on the Practices of and Warrants for Price Indexing Commodities by State Agencies*.
- The TCCE co-sponsored two NCHRP 20-7 research proposals with the Technical Committee on Preconstruction Management:
 - Best Practices for the Analysis and Approval of Contractor Bids
 - Identification of Best Practices in the Estimation of Preliminary Engineering Costs
- Additional research proposals submitted for funding under NCHRP 20-7 in 2008-2009:
 - Maximizing Contractor Competition for Design/Bid/Build Contracts
 - Production of the new AASHTO *A Practical Guide to Estimating* (note: this proposal was approved at the May 2009 SCOH meeting and will include TCCE members as panelists)

5-Year Goals

- Publish and keep current guidance on cost estimating from cradle (conceptual estimate) to grave (final estimate)
- Maintain a list of resources for a peer review program to utilize State DOT expertise in the review of project cost estimates and in the FHWA process reviews of State DOT cost estimating processes
- Provide up-to-date web based resources for cost estimation practices

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Technical Committee on Environmental Design (TCED)

Chair: Tim Stark, Wyoming
Vice-Chair: Dan Stewart, Pennsylvania
Secretary: Keith Harrison, FHWA, San Francisco, CA
AASHTO Liaison: Jim McDonnell

Technical Committee Charge Statement

The objective of this technical committee is to review, develop, and recommend AASHTO positions on environmental design issues for the AASHTO Highway Subcommittee on Design as required or assigned.

- We see future coordination with the following committees:
 - Hydrology and Hydraulics, regarding retaining and using (rather than passing) stormwater runoff
 - AASHTO's Context Sensitive Solutions/Design Task Force (or subsequent committee)
 - TRB Task Forces on CSS, Landscape, and Visualization in Transportation

Publications Responsibility

This technical committee is responsible for developing and updating the following documents:

- *Guide for Transportation Landscape and Environmental Design*, 1991 (update/rewrite expected 2010, in coordination with NCHRP project and TRB Landscape Committee). TCED desire is for this rewrite to become a web-based document.
- *Guide on Evaluation and Abatement of Traffic Noise*, 1993. Our 2004 review determined this to still be current and relevant; we recommend placing the 40-page half-size printed document on the AASHTO web site. Our 2009 membership does not have expertise in Noise Abatement, but we rely on noise experts in our member DOTs.
- *Guide to Wetland Mitigation Issues for Transportation Designers*, 1996. Our 2004 review determined this to still be current, but enhanced usefulness would come from an on-line "Wetland Mitigation Best Practices" web page that all DOTs could reference, contribute to, and maintain. However, since 2004, significant changes in wetland mitigation such as the USACE's shift to use banking found in the Compensatory Mitigation Rule for Losses of Aquatic Resources. Also, the Arid West supplement to the 1997 Wetland Delineation Manual issued in 2006 brings new requirements into determining where the delineation line should be which directly affects the amount of wetlands needed to mitigate. This will be considered for another possible review.
- *Policy on Land Use and Source Control Aspects of Traffic Noise Attenuation*, 1980. Our 2004 review determined this 4-page booklet to be out of date and not worthy of rewrite, and we again recommend it be REMOVED from the AASHTO listing of TCED publications. It looks as though it has been removed from the Bookstore listing of publications; please remove from TCED web site.
- *Visualization in Transportation*, 2003, is web-based, still current, and has been updated once since our original 2002 web posting.

We again recommend that the AASHTO Publications web site be modified to show the "date last reviewed for continued relevancy" for each publication listed. We recommend you place a Notice to Buyers when any listed publication has been approved for Rewrite, so no one unknowingly purchases an old version. We also believe that AASHTO will have to determine a new research/publication funding method to meet web desires of new readers/users age 20-30+ who prefer to access and download current and future publications on-line rather than use in print format.

Publications (current or proposed) that the TCED committee is interested in participating in updating/developing, now or in the future, include:

- On-Site Drainage Retention, not Conveyance (currently proposed as a possible new topic)
- Developing and Retaining an Effective CSS Program (currently proposed as a possible new topic)

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Committee Work Underway/Planned for 2009

The committee is coordinating with the NCHRP project panel 15-33, updating/rewriting the 1991 *Guide for Transportation Landscape and Environmental Design*. We expect it to be ready for SCOD balloting in late 2009.

Additional major activities this committee is interested in participating in (they are currently just proposals):

- Web-based guidance on new methods for retaining and using stormwater runoff in ROW (jointly with the TC on Hydrology/Hydraulics, not begun)
- AASHTO's CSS work and publications (not begun)
- TRB Task Forces on CSS and Visualization (not begun)

Meetings

- Due to the economic down turn in the country, the ability to have meetings have been severely impacted. The spring meeting of 2009 planned for Indianapolis was postponed to the fall of 2009. This has forced the technical committee to explore virtual methods through the latest technology. The meeting schedule is as follows:
 - Indianapolis, Indiana, Fall 2009
 - California, Spring 2010
 - Utah, Fall 2010
 - Pennsylvania, Spring 2011
- We use E-Mails almost monthly among members; augmented by conference phone calls if needed between meetings or to allow participation by members not able to travel to TCED meetings.
- Outside meetings or conferences that are being covered by members of the committee that contribute directly to the work of the committee:
 - AASHTO Standing Committee on the Environment
 - TRB Task Forces on CSS, Landscape, Visualization in Transportation

Research

- 2-year NCHRP 15-33, Update of the 1991 *Guide for Transportation Landscape and Environmental Design* underway with completion anticipated in late 2009 or early 2010. One TCED member is on the Review Group, a proposed TCED member is leading the Review Group. The entire TCED membership is participating in the review, since TCED must recommend the product for SCOD balloting.

Additional topic areas of interest include:

- Advocating new techniques and methods of drainage retention and use within the ROW, possibly as a Green Highways credit technique, rather than quick passage downstream (not begun)
- Green Highways discussion and DOT examples for other DOTs, led by FHWA (not begun)
- Allowing private artists to add aesthetics to road and bridge features during design, construction, or operations (not begun)
- Minimize DOTs' lighting contribution impact to national Dark Sky initiative (DOT lighting of roadway, interchange, rest area, and maintenance buildings; billboards' lighting under permit from DOTs) (not begun)
- Sharing Member DOTs' experiences beginning and maintaining CSS/CSD programs (on-going)

5-Year Goals

Committee's goals for the next 5 years:

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

- Retain the current multi-disciplined membership: TCED is comprised of approximately 1/3 Design Engineers, 1/3 Landscape Architects, and 1/3 NEPA staff. This working related diversity serves TCED and AASHTO very well.
- Gain exception from new SCOH/SCOD rules limiting eligible Chairs of Technical Committees, especially Chairs of the 3 TC's like TCED that have multi-disciplined membership which improve the TC discussions and AASHTO products. All TC members should be eligible for TC Chair; members themselves should be able to designate/elect any co-member as Chair.
- Full Membership: We currently have 1 vacancy from Region 2. The current member states are Florida, South Carolina and West Virginia. We currently have two vacancies from Region 3. One of the vacancies was created from the retirement of Win Stebbins from Michigan. The current member states are Indiana and Iowa.
- Allow 1 additional TCED membership from Region 4, which is Hawaii. Hawaii can only afford to attend one meeting per year due to obvious logistics. The other member states are California, Idaho, Utah and Wyoming.
- Share CSS successes and problems with AASHTO/FHWA as TCED members' DOTs implement and maintain CSS/CSD. About 6-8 TCED members are either their DOT CSS Coordinator or on their DOT CSS Team, and share their experiences at each TCED meeting.
- Additional publication updates:
 - 2nd request to place pocket-sized 40-page *1993 Guide on Evaluation and Abatement of Traffic Noise* on the AASHTO Web site. We have determined the guidance to still be current, but few ask for it in printed version.
 - Please remove the 4-page *Policy on Land Use and Source Control Aspects of Traffic Noise Attenuation*, 1980 from TCED listing as a TCED publication; it is out of date and no current TCED members were members then!

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Technical Committee on Geometric Design

Chair: Mark A. Marek, Texas DOT
Vice-Chair: N/A
Secretary: Brooke Struve, FHWA
AASHTO Liaison: Jim McDonnell

Technical Committee Charge Statement

The objective of this technical committee is to provide a focal point and working group for developing and recommending AASHTO geometric design criteria. This assignment includes formulating new and revised criteria to keep current all geometric design standards, policies, and guidelines.

Publications Responsibility

The technical committee is responsible for developing and updating the following documents:

- *A Policy on the Accommodation of Utilities Within Freeway Right-of-Way*, 2005
- *A Policy on Design Standards – Interstate System*, 2005
- *A Policy on Geometric Design for Highways and Streets (Green Book)*, 2004
- *Guide for Accommodating Utilities Within Highway Right-of-Way*, 2005
- *Guide for Development of Rest Areas on Major Arterials and Freeways*, 2001
- *Guide for the Development of Bicycle Facilities*, 1999
- *Guide for the Planning, Design, and Operation of Pedestrian Facilities*, 2004
- *Guidelines for Geometric Design of Very Low Volume Local Roads (ADT < 400)*, 2001
 - Will maintain as a separate document as requested by cities and counties.
- *Informational Guide on Fencing Controlled Access Highways*, 1990
 - The Technical Committee recommended that this document be discontinued. The main points of this document are included in the various chapters of the Green Book.

Committee Work Underway/Planned for 2009/2010

- Planning is underway for the Technical Committee's fall 2009 meeting
- Revising Green Book for next update and ballot
- Working with Technical Committee on Roadside Safety to address inconsistencies in the Green Book, Bike Guide and Roadside Design Guide regarding clear zone.

Meetings

(Meeting held in Nashville in March 2009)

Fall 2009 – Location unknown at this time (second meeting to finalize Green Book revisions).

Research

The Technical Committee has monitored or is monitoring the following NCHRP projects for possible inclusion of findings in future updates of various geometric design publications:

- NCHRP 15-25 Alternatives to Design Speed
- NCHRP 15-26 NCHRP 15-31 Design Guidelines for Accel/Decel Lanes on Freeways

In addition, the Technical Committee is following the progress of other NCHRP projects to evaluate their findings relating to geometric design issues:

- NCHRP 3-75 Analysis of Freeway Weaving Sections
- NCHRP 15-27 Safety Consequences of Flexibility in Design
- NCHRP 17-32 Shoulder and Centerline Rumble Strips
- NCHRP Project on Urban/Rural Transition Areas (to start in FY 2010)
- NCHRP Project on Horizontal Curvature on Steep Down Grades (to start in FY 2010)

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

5-Year Goals

- Update of Green Book to incorporate appropriate findings from research currently in progress.
- Update of the Bicycle Guide with the assistance of NCHRP 20-7 (coordinated with Technical Committee on Nonmotorized Transportation)

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Technical Committee on Hydrology and Hydraulics

Chair: Michael Fazio, Utah DOT
Vice-Chair: Rick Renna, Florida DOT
Secretary: Jorge E. Pagán-Ortiz, FHWA
AASHTO Liaison: Kelley Rehm

TECHNICAL COMMITTEE CHARGE STATEMENT

The AASHTO Technical Committee on Hydrology and Hydraulics (TCHH) acts under the direction of the Subcommittee on Design. The TCHH, comprised of professionals with knowledge and expertise in the fields of hydrology and hydraulics, develops and maintains AASHTO national policies and guidelines on surface water runoff and drainage as it relates to highways and bridges. The TCHH maintains and updates the AASHTO Drainage Manual and the Highway Drainage Guidelines regularly.

Publications Responsibility:

The TCHH is responsible for developing and updating the following documents:

- *Highway Drainage Guidelines*, went to press on February 2007.
- *Model Drainage Manual*, 2005.

2009 COMMITTEE WORK

Model Drainage Manual Revision and Publication

The TCHH is revising the 2005 AASHTO Model Drainage Manual with the intent of expanding the usefulness to a broader audience, making the manual more user friendly, reducing the clutter and making it more accessible. The current manual will be re-titled: AASHTO Drainage Manual. The new manual consists of two volumes: Volume 1, Policy and Volume 2, Procedures. Other enhancements include:

- Allow chapters to be sold separately
- Remove duplications
- Unify the language
- Remove outdated information, practices and methods
- Remove double parenthesis

The TCHH organized a pooled-fund study to secure funding to hire a consultant to complete the revision of the AASHTO Model Drainage Manual into the AASHTO Drainage Manual. The consultant's primary tasks are to unify the manual's language, remove duplications and prepare the manual for publication. The plan is to complete the manual revisions by the end of Calendar Year 2009 and complete its publication in 2011. While the new manual will no longer be a model manual, it will serve as a standalone, two parts (volumes) manual. The manual's new official name, as indicated above, will be the AASHTO Drainage Manual, Policy and Procedures.

Research

TCHH develops and ranks research problem statements on highway and bridge hydraulics related disciplines. The statements are submitted to the Subcommittee on Design for review, to TRB Research Advisory Committee and the AASHTO Standing Committee on Research for funding consideration. The committee will review new and current problem statements during the Spring 2009 meeting. The TCHH chair will communicate these problem statements with the TRB AFB60 Committee. The TCHH will establish priorities of its problem statements during the Fall 2009 meeting.

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Proposed Research Titles:

- Problem Statement Priority No. 1, "Design Discharges for Stream Restoration and Channel Stability"
- Problem Statement Priority No. 2, "Impact of Rip Rap Protected Channel Banks on Fish Habitat."
- Problem Statement Priority No. 3, "Evaluation and Assessment of Environmentally Sensitive Streambank Protection Measures."
- Problem Statement Priority No. 4, "Evaluating Long Term Performance of BMPs"

Research Underway (the outcome of the following research projects will be evaluated for potential implementation in new AASHTO manual and FHWA publications):

- NCHRP 20-07, Evaluation of Pipe Material Selection Practices and Research and Recommendations for Pipe Material Selection Criteria.
- NCHRP 15-38, Design Requirements for Culvert Joints.
- NCHRP 15-36, Estimating Joint Probabilities of Design Coincident Flows at Stream Confluences (estimated completion is Spring 2009) .
- NCHRP 24-15(2), Bridge Scour in Cohesive Materials– (estimated completion is 06/2008).
- NCHRP 24-27, Recommendations for the Adoption of Bridge Scour Research by State Highway Agencies – Panel decided to break this project in three parts: abutments, piers, and geomorphic processes and predictions.
- NCHRP 24-29, Scour at Bridge Foundations on Rock.
- NCHRP 24-32, Scour at Wide Piers and Long Skewed Piers.
- NCHRP 24-33, Development of Design Methods for In-Stream Control Structures (estimated completion Spring 2011).
- NCHRP 14-19, Culvert Rehabilitation to Maximize Service Life While Minimizing Direct Costs and Traffic Destruction (estimated completion Fall 2010)

Planned Meetings:

- Spring 2009, Lakewood, Colorado, video and webcast
- Fall 2009, Indianapolis, Indiana, in conjunction with the AASHTO Technical Committee on Environmental Design.
- Spring 2010, San Francisco, California
- Fall 2010, Park City, Utah, in conjunction with the National Hydraulics Conference

5-Year Goals:

The AASHTO TCHH decided at the Fall 2003 meeting that the Hydraulics Drainage Guidelines (HDG) and the Model Drainage Manual (MDM) are valued resources in the engineering community. The THCC elected to perform periodic maintenance on the HDG to keep it reasonably current and reformat the MDM to enhance user acceptance.

TCHH plans to work together with FHWA in planning and coordinating future National Hydraulic Conferences. FHWA Hydraulic Engineering conferences are becoming an important national forum, where a bigger audience is able to provide feedback on national needs.

TCHH plans on preparing, collecting and short listing research problem statements and submit them to SCOD and SCOR for funding considerations.

Committee Activity Schedule:

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

- 2009 Spring Complete AASHTO Drainage Manual, Volume 1 (Policy), and Volume 2, Procedures". Hire consultant to assist the TCHH in finalizing and publishing the AASHTO Drainage Manual.
- 2009 Fall Review consultant's work on AASHTO Drainage Manual
- 2009 Fall-2010 Spring Begin reviewing AASHTO Highway Drainage Guidelines (HDG) – Continue preparing the AASHTO Drainage Manual for publication
- 2011 Fall Ballot AASHTO Drainage Manual, Volume 1 (Policy), and Volume 2 (Procedures)
- 2011 Spring Publish reformatted AASHTO Drainage Manual Scope work for reviewing and updating the AASHTO HDG
- 2011 Fall Continue reviewing AASHTO HDG and preparing the Drainage Manuals for publication
- 2012 Spring Continue review of AASHTO HDG
- 2012 Fall Continue review of AASHTO HDG
- 2013 Spring Complete review of AASHTO HDG Hire consultant to assist the TCHH in finalizing and publishing AASHTO HDG
- 2013 Fall Review consultant's work on AASHTO HDG
- 2014 Spring Continue preparing the HDG for publication
- 2014 Fall Ballot AASHTO HDG
- 2015 Spring Publish revised AASHTO HDG
- Every Spring Review NCHRP research needs/Assign problem statements/Submit by deadlines
- Every Fall Prioritize and submit NCHRP research needs problem Statements

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Technical Committee on Non-Motorized Transportation

Chair: Eric Glick, Nevada
Vice-Chair: Dwight Kingsbury, Florida
Secretary: Gabe Rousseau, FHWA
AASHTO Liaison: Jim McDonnell

Technical Committee Charge Statement

The objective of this technical committee is to advance the state of the practice in bicycle and pedestrian planning, design, traffic engineering, construction, operation, maintenance, and safety within the AASHTO member departments and nationally.

Publications Responsibility

This technical committee is responsible for developing and updating the following documents:

- *Guide for the Development of Bicycle Facilities*, 1999 (update/rewrite currently underway by NCHRP project, expect completion end of 2009)
- *Guide for the Planning, Design, and Operation of Pedestrian Facilities*, 2004 (content research is currently underway)

Committee Work Underway/Planned for 2009

The committee is coordinating with the NCHRP project updating/rewriting the 1999 *Guide for Development of Bicycle Facilities*. We expect it to be ready for SCOD balloting in late-2009.

Additional major activities this committee is interested in participating in:

- Geometric Design of Driveways
- Crossing Solutions at Roundabouts and Channelized Turn Lanes for Pedestrians with Vision Disabilities
- Guidelines for Accessible Pedestrian Signals
- Use of Bicycle Lanes for Various Roadway Characteristics
- Develop Bicycle/Pedestrian Demand Model to Measure Bicycle/Pedestrian Activity and Relationship to Land Use

Meetings

- Scheduled upcoming meetings:
 - Tele-Conference, Aug 2009
 - Tennessee, Fall 2010
- We use E-Mails among members; augmented by conference calls if needed between meetings.
- Outside meetings or conferences that are being covered by members of the committee that contribute directly to the work of the committee:
 - State Bicycle & Pedestrian Coordinators Meeting
 - National Bike Summit
 - Safe Routes to School Conference
 - TRB Bicycle Committee
 - TRB Pedestrian Committee

Research

- NCHRP 15-37, Update of the 1999 Guide for the Development of Bicycle Facilities underway with completion anticipated in late 2009. Once the NCHRP panel is finished, the TCNMT will review and make recommendation to the SCOD prior to balloting.

Additional topic areas of interest include:

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

- Preparing a research needs statement to provide guidelines for accommodating pedestrians through construction zones.

5-Year Goals

Committee's goals for the next 5 years:

- Evaluate multi-disciplined membership: To look at the current balance of membership and to develop guidelines to maintain balance across different disciplines to ensure quality products with a balanced approach.
- Full Membership: We currently have 3 vacancies one each from Regions 1,2 and 3.

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Joint Technical Committee on Pavements

Chair: David Nichols, Missouri
Vice-Chair: Judith Corley-Lay, North Carolina
Secretary: Peter Stephanos, FHWA
AASHTO Liaison: Keith Platte

Technical Committee Charge Statement

The objective of this technical committee is to provide a focal point and working group with various types of pavement expertise to develop and recommend AASHTO guides, policies, and standards for the design, rehabilitation, accelerated testing, and management of pavements and shoulders. The technical committee is composed of 16 members from the Subcommittee on Design, four members from the Subcommittee on Materials. Liaison positions are available for one each from the Standing Committee on Planning, Subcommittee on Construction, Subcommittee on Maintenance, and the Standing Committee on Aviation.

Publications Responsibility

The technical committee is responsible for developing and updating the following documents:

- *AASHTO Guide for Design of Pavement Structures*, 1993
- *Pavement Management Guide*, 2000 (will be updated in 2010 following review in 2008)
- *Supplement to the Guide for Design of Pavement Structures*, 1998
- *Pavement Deflection Data Exchange: Technical Data Guide*, 1998
- *Guide for Pavement Friction*, 2008
- *Mechanistic-Empirical Pavement Design Guide A Manual of Practice*, 2008
- *Local Calibration Guide for MEPDG (preparing for balloting in 2009)*

Committee Work Underway/Planned for 2009

- The highest priority this year for the Technical Committee is balloting the Local Calibration Guide for MEPDG through the technical committee, the Subcommittees on Design and Materials, and the Standing Committee on Highways.
- The Committee will also continue to work with FHWA to promote the MEPDG with the FHWA Design Guide Implementation Team (DGIT) and through venues like the Transportation Research Board Annual Meeting.
 - The purpose of the FHWA DGIT team is to raise awareness, assist, and support State Highway Agencies and their industry partners in the development and implementation of the MEPDG. The DGIT website provides information concerning the availability of various workshops, NHI courses related to the MEPDG and information about DGIT (<http://www.fhwa.dot.gov/pavement/dgit/index.cfm>)
 - A workshop on MEPDG implementation has been held for several years and is supported by the JTCOP and by agencies which are implementing or have implemented the new procedure. Since attendance at the workshops has been excellent and states voice the benefits of the discussions, it is likely that additional workshops will be held on various aspects of MEPDG implementation.
- The JTCOP underwent some organizational efforts in 2009 that included the development of Operating Guidelines and the formation of four technical groups. These include Design and Modeling, Pavement Management Systems, Sustainability and Preservation, and Low Volume and Local Road Systems. These technical groups will have lead responsibilities in review of documents assigned to them, and in development of research needs statements.
- The Manual of Practice for MEPDG was successfully balloted in 2008. The rights to the software developed under NCHRP 1-37A have been transferred from NCHRP to AASHTO for development of AASHTOware software by the DARWinME Task Group. The JTCOP will maintain the final authoritative copy of the software and is intimately involved in the software effort. The technical committee will recommend model refinements and improvements for future DARWinME versions.

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

- NCHRP Project 1-43 updated the *Guide for Pavement Friction*. This guide was successfully balloted and has been published and released to highway agencies.
- A problem statement “Development of Guidelines for Conducting Forensic Evaluations of Pavements” was selected for funding under NCHRP. This problem statement was developed by the JTCOP and will be followed closely as the panel is formed.
- Modifications and updating of the Pavement Management Guide were submitted under NCHRP 20-7 and were approved for funding. These modifications include inclusion of Superpave, updating of state examples and minor revisions and were recommended by the JTCOP following a document review by three JTCOP members.

Meetings

The annual meeting was held May 27-28, 2009 in Jackson Hole, Wyoming to discuss Operating Guidelines and form Technical Groups in major topic areas. We plan to hold a mid-year “meeting” in late November or early December via teleconference, webinar or face-to-face meeting to share work done by the technical groups. It is anticipated that the Technical Groups will have more frequent communication via email and teleconferencing.

Research

A large number of research needs were identified during the development of the MEPDG. In addition, broader pavement research and pavement business needs were developed during a research retreat in 2007. Those two lists will be merged and consolidated this year and divided by technical area for consideration by our Technical Groups.

The JTCOP anticipates submitting three research needs statements to the Subcommittee on Design: Development of a Users Guide to Pavement Management Systems, Improved Basis for Design of Pavement Rehabilitation in the MEPDG, and Design with Geogrids and Geofabrics.

5-Year Goals

1. To see the MEPDG methods and software implemented in the states. This goal requires significant effort in materials characterization, climatic data, traffic stream data collection and interpretation and local calibration.
2. As the MEPDG was created using “off the shelf” technology, the JTCOP must continue looking forward for the next generation’s developments and models. This will also include operational improvements and enhancements to improve the functional performance.
3. As budgets within state agencies continue to be very constrained, it is more important that pavement management systems are used to a higher extent in the decision making process. Significant personnel turnover is expected in many state agencies over the next five years, and our goal is to assist the new generation of pavement managers in realizing the capabilities of their state’s systems.
4. Increased activity in pavement preservation and sustainability, including research needs statements and best practices in recycling and reusing construction materials on site, reducing the environmental impact of pavement construction through use of alternate technologies and materials.
5. Development of guidelines, catalogs or simplified procedures that are mechanistically based but suitable for use on low volume or local road systems.

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Technical Committee on Preconstruction Engineering Management

Chair: Rob Cary, Virginia
Vice-Chair: Barry Horst, Missouri
Secretary: Jon Obenberger, FHWA
AASHTO Liaison: Jim McDonnell

Technical Committee Charge Statement

The objective of this technical committee is to provide a focal point and working group charged with developing guidelines for effective management of preconstruction engineering processes. Guidelines are intended to provide a systematic approach to managing resources such as time, funds, and personnel.

Publications Responsibility

The technical committee is responsible for developing and updating the following documents:

AASHTO Guidelines for Preconstruction Engineering Management, 1991

- This guide was reviewed and the results of a state survey were made available in November, 2003. Periodic review and consideration of update by the committee should remain an ongoing committee responsibility.

Guide to Quality in Preconstruction Engineering Management, 2002

- This guide provided ideas regarding how agencies might assess their progress toward quality improvement. Recent interest in the issues of dealing with errors and omissions could be a focus area for continued work on the quality guide.

Guide for Consultant Contracting, 2008.

- This guide provides direction to those transportation professionals charged with soliciting, selecting, contracting and managing consultants.

Committee Work Underway/Planned for 2009

The Technical Committee is currently working on an NCHRP 20-7 project regarding best practices in dealing with errors and omissions. Additionally, the Technical Committee is working on these issues:

- Best practices in estimating preliminary engineering costs.
- Best practices in receiving and accepting bid proposals.
- Project management best management practices among states.
- Best practices for the use of performance measures.

At the October 2008 meeting held in Oakland, CA., the Technical Committee deliberated on how it might best help the Subcommittee on Design(SCOD) develop and refine its strategic plan. The Technical Committee worked to identify in detail its role and the services it provides to SCOD. This feedback was developed and forwarded to SCOD for its consideration.

Consideration for update of the *AASHTO Guidelines for Preconstruction Engineering Management* publication was part of the Technical Committees work during 2008. Information provided by this document could be delivered via technical committee reports. Given this possibility, the Technical Committee will continue to study the efficacy of this publication and other methods of delivering timely information regarding its content.

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Meetings

- Telephone conference calls are used as a means of coordinating work by technical committee members and are usually held midway between our twice annual meetings.
- The technical committee's next meeting is scheduled for October, 2009 in Virginia.
- The chairman or a designee presents a committee report at each annual meeting of the Subcommittee on Design.

Research

- The committee will take any final steps toward developing a study approach for the subject areas and will identify need for any assistance using NCHRP funded studies.

5-Year Goals

- There has been interest among Subcommittee on Design participants in identifying how to deal effectively with errors and omissions. Informal discussions reveal that agencies have varying degrees of success in holding consultants accountable for extra costs when errors or oversights are identified. Identifying best practices will continue to be an area interest for this committee to focus future efforts.
- Our technical committee developed the "*Guide to Quality in Preconstruction Engineering, February 2002*". Portions of this guide suggest possible means of measurement of performance. Developing an array of best practices for the use of performance measures as a reference for transportation agencies is a goal for the technical committee.

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Technical Committee on Roadside Safety

Chair: Keith A. Cota, New Hampshire
Vice-Chair: Steve Walker, Alabama
Secretary: Nick Artimovich, FHWA
AASHTO Liaison: Jim McDonnell
NCHRP Staff Liaison: Charles Niessner

Technical Committee Charge Statement

The objective of the technical committee is to provide a focal point and working group that addresses issues related to roadside safety and develops AASHTO policies and guides reflecting current procedures and the latest technology related to errant vehicle safety within the roadside. Responsibilities of the technical committee also include the monitoring and review of statements and publications of other subcommittees to ensure compatibility of information, but not to infringe on their specific areas of responsibility.

Publications Responsibility

The technical committee is responsible for developing and updating the following documents:

- *Roadside Design Guide, 2006*
 - The technical committee's goal is to complete a full update of the *Roadside Design Guide, 2006*, by fall meeting of 2009 with balloting by AASHTO in 2010
- "Manual for Assessing Safety Hardware" (MASH), 2009
 - Update of *NCHRP 350 (Recommended Procedures for Safety Performance Evaluation of Highway Features)*. Developed through NCHRP Project 22-14(02) with TCRS members on the project panel;
 - MASH was successfully balloted through AASHTO SCOD and SCOH in 2008. The new AASHTO document is currently in AASHTO publishing. Included with the MASH document is an approved AASHTO/FHWA Implementation Plan that meets Section 1408 of SAFETEA-LU.
- Other publications of interest:
 - Assist AASHTO/AGC/ARTBA Task Force 13 in the update of the "A Guide to Standard Highway Barrier Rail Hardware" and "A Guide to Small Sign Support Hardware 1988." Task Force 13 is advancing work efforts for both Guides with TCRS members on both Guides.

Committee Work Underway/Planned for 2009

- Update of *Roadside Design Guide, 2006* to include:
 - Resolution of conflicts as outlined in the Report entitled "Identification of Conflicts related to Clear Zones within AASHTO Publications" NCHRP 20-7(Task 171);
 - Provisions for a new Chapter entitled "Low Volume Roadways." The new section is intended to be a companion chapter to AASHTO *Guidelines for Geometric Design of Very Low-Volume Local Roads, 2001*;
 - Incorporation of enhanced guidance for urban roadway developed through NCHRP 16-04 (Design Guidelines for Safe and Aesthetic Roadside Treatments in Urban Areas);
- Continued cross-coordination with other committees and outside groups such as:
 - FHWA – Secure mail box testing
 - AASHTO/AGC/ARTBA Task Force 13 – items of common interests (barrier hardware, bridge rails, roadway drainage, signs, luminary supports, work zone hardware, crash test lab certification, and rail highway crossing hardware)
 - Midwest Poole Fund States – various areas of roadway safety including development of new version of nonproprietary, strong post guard rail system (MGS)
 - New England Transportation Consortium – Testing and Evaluation of NETC Bridge Rails Transitions
 - Multiple NCHRP research projects of direct interest to TCRS (see below).

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Meetings

- The 2009 TCRS annual meeting has been scheduled for September 23-25, 2009 in Rehoboth Beach, Delaware.
- A joint AASHTO/AGC/ARTBA Task Force 13 fall meeting is scheduled for September 22-23, 2009, in Rehoboth Beach, Delaware.

Research

- The following is a list of active major research projects that are underway which TCRS is monitoring as panel members. It is expected that most of the research studies will result in the publication of a NCHRP Report and be used for update of future RDG:
 - NCHRP 17-43 Long Term Roadside Crash Data Collection Program
 - NCHRP 20-7 (240) Update AASHTO Roadside Design Guide
 - NCHRP 22-14(03) Evaluation of Existing Roadside Safety Hardware Using Updated Criteria [Evaluation under MASH, 2009]
 - NCHRP 22-20 Design of Roadside Barrier Systems Placed on MSE Retaining Walls
 - NCHRP 22-21 Median Cross-Section Design for Rural Divided Highways
 - NCHRP 22-22 Placement of Traffic Barriers on Roadside and Median Slopes
 - NCHRP 22-23 Criteria for Restoration of Longitudinal Barriers
 - NCHRP 22-24 Guidelines for Verification and Validation for Crash Simulation Used in Roadside Safety Applications
 - NCHRP 22-25 Development of Guidance for Selection, Use and Maintenance of Cable Barrier Systems
 - NCHRP 22-26 Factors Related to Serious Injury and Fatal Motorcycle Crashes with Traffic Barriers
 - NCHRP 22-27 Roadside Safety Analysis Program (RSAP) Update

5-Year Goals

- Year 2009-10 Update of *Roadside Design Guide*, 2006
- Year 2010/11 Update of RSAP Computer Program

Respectfully Submitted,

/s/ Keith A. Cota, PE
Chairman, AASHTO – TCRS
New Hampshire Department of Transportation
Bureau of Highway Design (Consultant Design Section)
Hazen Drive, PO Box 483
Concord, NH 03302-0483
Tel: (603) 271-1615
Email: kcota@dot.state.nh.us

**AASHTO HIGHWAYS SUBCOMMITTEE ON DESIGN
TECHNICAL COMMITTEE WORK PLANS
INDIANA MEETING 2009**

Technical Committee on Value Engineering

Chair: Richard Jaffe, New Jersey
Vice-Chair: Carlos Ruiz, New Mexico
Secretary: Ray Petrucci, Delaware
AASHTO Liaison: Keith Platte

Technical Committee Charge Statement

To establish and maintain policy to assist states in the development of individual Value Engineering Programs, ensure integrity and uniformity of value engineering practices, and promote value engineering within all areas of state and federal transportation programs. Plan and deliver a biennial transportation value engineering conference.

Publications Responsibility

- *Guidelines for Value Engineering, 2001*

Committee Work Underway/Planned for 2007

- Deliver 2009 AASHTO Value Engineering Conference, August 30-September 2, 2009, California
- Evaluate and present 2009 National AASHTO Value Engineering Awards at the 2009 AASHTO Value Engineering Conference.
- Update the AASHTO Guidelines for Value Engineering, 2001
 - Develop section in guidelines for Value Engineering Performance Measures
 - Develop section in guidelines for Value Engineering in Design/Build projects.
- Maintain an active web site providing information about transportation value engineering.

Meetings

- Conference Call, January 2009
- Annual Meeting, August 2009, San Diego, California

Additional meetings that some of our members attend:

- Transportation Research Board, January 2009, Washington D.C.
- SAVE International Annual Conference, June 2009, Detroit, Michigan
- AASHTO Subcommittee on Design (unable to attend in 2009)

5-Year Goals

- Update the *Guidelines for Value Engineering, 2001*.
- Develop guidelines section for Value Engineering Performance Measures.
- Develop Best Practices for Value Engineering on Design-Build projects.
- Deliver biennial transportation value engineering conferences