Standing Committee on Highways

AASHTO SCOH Meeting
Thursday, May 20th–Friday, May 21st, 2010 | Natchez, MS
DATE: May 5, 2010
TO: Members, Standing Committee on Highways (SCOH)
FROM: King W. Gee, Secretary for SCOH and Associate Administrator for Infrastructure, FHWA

The American Association of State Highway and Transportation Officials (AASHTO) will hold its 2010 Spring Meeting in Natchez, Mississippi. The Standing Committee on Highways (SCOH) will have its technical and business meetings on Thursday and Friday, May 20 and 21, 2010. SCOH has special plans for Thursday, May 20, 2010 to discuss implementation of the approved SCOH Strategic Plan 2010-2014.

Available meeting materials are posted on the SCOH Meetings webpage. Please be sure to print and bring your meeting materials with you to the meeting. There will be a very limited supply of extras. We will bring any updates with us to distribute to each member at the meeting. If you are unable to attend the meetings or will be sending a substitute/alternate, please advise Marty Vitale by email (mvitale@aashto.org) as soon as possible.

The SCOH agendas offer presentations, reports and a circle of discussion with the SCOH Strategic Plan liaisons for the strategic plan goals for the coming year and on things that are of essential importance in transportation today. In addition AASHTO will offer conference call capability on Thursday morning, May 20, from 8 AM to 12 Noon. If you call on the phone during these times you can participate in the conversation. Call-in number is 1-866-537-1617 and the passcode is 9373528.

All information for the meetings can be found on the SCOH website at http://highways.transportation.org/.
STANDING COMMITTEE ON HIGHWAYS (SCOH)
DRAFT AGENDA
TECHNICAL MEETING
NATCHEZ, MISSISSIPPI, NATCHEZ CONVENTION CENTER
Thursday, May 20, 2010 8:00 AM – 5:00 PM

8:00 AM – 10:00 AM
I. CALL TO ORDER ................................................................. Vice-Chair Neil Pedersen, MD
II. INTRODUCTIONS – OPENING REMARKS ................................................................. N. Pedersen
   A. SCOH Members, AASHTO Staff, and Mississippi Room Monitors .......................... N. Pedersen
III. Orientation for New SCOH Members (.25 HOURS) ............................................ Marty Vitale, AASHTO
IV. SCOH SUBCOMMITTEE REPORTS (1.5 HOURS)
   A. REPORT AND CIRCLE DISCUSSION
      1. Bridges and Structures ................................................................. Mal Kerley, VA
      2. Construction .................................................................................... Michael Lewis, RI
      3. Design ............................................................................................. Carolann Wicks, DE
      4. Highway Transport ............................................................................ James Lynch, MT
      5. Maintenance ..................................................................................... Carlos Braceras, UT
      6. Materials ........................................................................................... Grant Levi, ND
      7. Right-of-Way and Utilities ............................................................... John P. Campbell, TX
      8. Systems Operations and Management ............................................ R. Scott Rawlins, NV
      9. Traffic Engineering ........................................................................... Del McOmie, WY
     10. Asset Management ........................................................................... Kirk Steudle, MI

10:00 AM – BREAK

TRAC Demonstration

V. SCOH STRATEGIC PLAN LIAISONS (1.5 HOURS)
   A. ROUNDTABLE AND CIRCLE DISCUSSION (FACILITATOR: NEIL PEDERSEN)
      1. Freight .............................................................................................. Melinda McGrath, MS
      2. Cutting Fatalities by Half by 2030 ..................................................... Khani Sahebjam, MN
      3. Congestion ......................................................................................... Scott Rawlins, NV
      4. Climate Change ................................................................................... Kevin Chesnik, WI
      5. Performance Management .................................................................. Jerry Younger, KS
      6. Communicating the Value of Transportation ..................................... Roger Healy, AK
      7. Research and Emerging Technology ................................................ Ken Sweeney, ME
      8. Workforce Planning and Development ............................................. Pam Hutton, CO
      9. Project Delivery ................................................................................... Terry Gibson, NC
     10. System Preservation ........................................................................... John Barton, TX

12:00 Noon – LUNCH

1:00 PM – 1:15 PM Mississippi RIDES Demonstration
VI. PROPOSED RESOLUTIONS (.5 TO 1 HOUR)


B. PPR: Implementation and Future Development of the Highway Safety Manual........Don Vaughn, AL

C. PPR: Local Roads Safety Planning & Safety Messages Resolution.......................Kirk Steudle, MI

D. PPR: Endorsement of NPHQ Sponsorships Prospectus........................................John Barton, TX

E. PPR: NPHQ Resolution, Definition of Highway Quality .......................................Paul Degges, TN

F. PPR: Retroreflectivity for Pavement Markings......................................................John Barton, TX

VII. PRESENTATIONS

A. Implementation of the SCOH Strategic Plan *(1 HOUR)*........................................N. Pedersen, MD

3:15 PM – BREAK

3:30 PM – 5:00 PM

VIII. CIRCLE DISCUSSION.....................................................................................N. Pedersen, MD Moderator

A. Continuation of topics from morning discussion

IX. PRESENTATION 4:45 PM

A. Center for Environmental Excellence...............................................................Carlos Braceras, UT

5:00 PM – Adjourn

* Conference Call-In will be set up for the morning session
SCOH IMPLEMENTATION PLAN
2010
DRAFT: VERSION 3
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**SCOH Members on the SCOH Implementation Group**

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Table Showing the Keys to the Color Coding of Action Items

**Appendix A**

Summarized Comprehensive Implementation Plan

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Table of all action items where SCOH liaisons have lead responsibility

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SCOH IMPLEMENTATION PLAN
VERSION 3
1.0 EXECUTIVE SUMMARY

The new SCOH Strategic Plan (the “SCOH Plan”) adopted in January 2010 is an ambitious plan that is aligned to the important priorities identified by the AASHTO Board of Directors in the AASHTO Strategic Plan. The SCOH Plan with 11 Objectives and 40 Action Items covers important cross-cutting areas of the highest priority that need to be addressed for the efficient and effective operations and management of the nation’s highway transportation network in the 21st Century. SCOH intends to direct the extensive resources of its members, its subcommittees, technical committees, task groups and research efforts to implement the plan successfully and efficiently.

Vertical and Horizontal Alignment

In implementing the SCOH Plan, SCOH will focus on both vertical and horizontal alignment within the AASHTO community. SCOH will be active in supporting the Board of Directors as advisors providing input on policy to support new legislation as well as in re-authorization and in communicating the value of transportation to Congress and the public. SCOH will also support the Board of Directors in advocating for additional funding and in its effort to find new ways to obtain “net new revenue.” In addition, SCOH will work to align its subcommittees’ activities with the AASHTO priorities. SCOH will focus on effectively using all the existing resources within SCOH, its subcommittees, technical committees, other standing committees and AASHTO staff. In managing the implementation of all the action items, SCOH will work collaboratively to address cross-cutting issues with other groups, prioritize and direct its subcommittees’ work activities to support the strategic priorities without impacting the delivery of important technical products and services produced by its subcommittees and technical committees.

SCOH will assign members as liaisons to be the two-way communication and coordination link between SCOH and other AASHTO committees that have lead responsibility on cross-cutting issues of interest to SCOH members. The liaisons will be assigned specific responsibilities that will ensure the successful collaboration on important cross-cutting action items identified in the strategic plan.

FIGURE-1: Collaboration with vertical and horizontal alignment to support implementation of the SCOH Strategic Plan.
**Continuous Monitoring and Update**

Implementation of the tasks identified in the SCOH Plan is to be spread out over a period of five years across multiple groups. The SCOH leadership will put in place a process to continuously monitor the progress of the SCOH Plan. Through periodic reviews, the leadership will evaluate if work plan activities for various subcommittees need to be revised or if further changes need to be made to the SCOH governance structure. Continuous monitoring and refinement of the governance structure and planned activities will improve progress, ensure that action items are pertinent to the times and successful implementation of the plan occurs through the five-year plan period.

**FIGURE 2: Monitoring and Continuous Improvement**

**Streamlining SCOH Meetings**

To effectively implement its strategic plan, SCOH will make changes to the way it conducts its business. SCOH will use prioritization, project management, time management and technology to conduct meetings more efficiently. It will have discussions and brainstorm on topics important to its member chief engineers. Meeting times will also be set aside for educating members on topics and areas that they lead, direct or guide as chief engineers. This will also prepare members to contribute more effectively to SCOH, AASHTO and to their states.

To the extent possible time for administrative tasks will be minimized at both the spring and fall meetings. Administrative tasks will be addressed through additional conference calls, electronic balloting or other mechanisms.
Phased Implementation

This implementation plan for the SCOH Plan distributes the activities between SCOH, its subcommittees, technical committees, AASHTO staff and other AASHTO groups in a way that makes implementing the ambitious SCOH Plan manageable. The actions in the SCOH Plan are to be implemented over the next five years (2010-2014). Some of the action items will require more up-front effort and will get done in the early part of the plan period. Other actions will occur throughout the life of the plan but will be less effort-intensive. Other actions will occur only towards the later years of the plan.

Collaboration

SCOH intends to collaborate with other AASHTO standing committees and work strategically to optimize the level of effort required to deliver its Strategic Plan. The SCOH Plan covers many cross-cutting areas that are of importance to SCOH members as chief engineers in their respective states. Many of these cross-cutting areas are within the lead responsibility of other AASHTO groups. SCOH intends to use its members on these other AASHTO groups as liaisons, to be the two-way communication link and conduit to assist SCOH in working collaboratively to address important strategic objectives. These liaisons will be responsible for communicating SCOH’s position to these other AASHTO committees and bringing to SCOH perspective and activities of these other committees.

Level of Effort

As shown in Figure 3, the level of effort required to implement the SCOH Plan, which is spread across several different groups over the next five years, is very manageable.

Figure 3: The level of Effort by Different Groups

The largest portions of activities, 42.5 percent are led by SCOH liaisons to other groups. These action items cover ten cross-cutting areas and more than 20 SCOH members have volunteered to lead these cross-cutting areas. With the appropriate direction to these volunteers/ liaisons, SCOH will be effective in implementing the SCOH Plan. Subcommittees will lead about 7.5 percent of the plan implementation work. Twenty percent of the work will be done jointly by one or more of the leads identified in Figure 3. The activities assigned to subcommittees are technical in nature and should fit
well with the technical work traditionally being done by the subcommittees. The nature of technical work is such that it is expected to continue through the life of the plan.

The majority of the 17.5 percent of the work to be done by the SCOH Implementation Group (SCOH IG) involves actions that include making decisions on governance. The SCOH IG, consisting of eleven SCOH members that include subcommittee chairs and two AASHTO staff, have provided recommendations on various governance issues for discussion with members at the Spring meeting to be held in May 2010. These recommendations will be shared with the SCOH members at or prior to the spring meeting.

Note: [Feedback from the SCOH spring 2010 meeting discussions will be incorporated into this implementation plan. It is expected that the governance issues will be resolved and final direction for implementation of the Plan will be decided before the AASHTO fall meeting.]

Of the remaining action items from the SCOH Plan, 10 percent will be led by SCOH members and 2.5 percent will be led by the AASHTO staff.

All of these efforts can be implemented without overburdening members by assigning clear roles and responsibilities, through structured project management and two-way communications between SCOH and the lead person or group responsible for the strategic action.

“Top Down” and “Bottom Up” Approach

In working with its subcommittees and technical committees, SCOH will use both a “top down” and “bottom up” approach. In the “top down” approach, SCOH will identify activities for the SCOH subcommittees to focus on, in order to support the implementation of the SCOH Plan. In the “bottom up” approach, SCOH will rely on the long-standing practice of empowering the subcommittees and technical committees to identify both priority activities to continue support of the long standing technical work that SCOH does, as well as other new activities necessary to implement the SCOH Plan.

Change Governance Approach

SCOH will also make internal changes to operate in a “new” more streamlined and efficient way in conducting its meetings and activities. The new way will focus on achieving results in the areas identified in the SCOH Plan. To effectuate this, SCOH will make changes to its internal governance structure, including streamlining its work and adopting a new meeting format. SCOH will have updates from SCOH subcommittees as part of its meeting agenda.

Proposed New Processes

Section 8.0 of this plan includes 15 recommended new processes. These recommendations are proposed to fill gaps in the cross-cutting areas which are so important to the plan. Each is presented for review and comment.
Conclusion

The success of the SCOH Plan depends on its execution. The SCOH leadership has taken a strategic approach to implementing the plan. The approach acknowledges the ambitious nature of the plan and uses streamlining of its internal operations, effective meeting formats and time-management techniques along with collaboration and synergy with various AASHTO groups and the talent and expertise of its subcommittees, to implement the plan.

In the development of the implementation plan for its Strategic Plan, SCOH not only outlined a new approach to how it will operate more strategically, but it also identified a series of steps that need to be taken over the next five years to successfully deploy the SCOH Plan.

This new SCOH approach of streamlining operations internally using liaisons for productive two-way communication, to collaborate and work in synergy with all the other groups will strengthen and bring to bear all the resources available within the AASHTO community. It will enable SCOH to deliver a strategic plan aligned with the priorities of the Board of Directors and address the pressing transportation priorities of the 21st Century.
2.0 BACKGROUND

The big challenges facing transportation in the 21st century and the direction taken by the AASHTO Board of Directors in developing the AASHTO Strategic Plan laid the ground work for the development of the SCOH Strategic Plan. The emphasis on accountability, advocacy, safety, congestion relief, freight, emerging issues of climate change, and the re-commitment to traditional priorities of developing standards and policies, were identified as priorities that SCOH would address in the next five years.

An over-arching theme which influenced the plan was that few of these major issues could be addressed solely by SCOH or any other single committee. Therefore strategies for SCOH to collaborate with other committees and subcommittees permeated the plan development.

The Strategic Plan Preparation Process

The process of developing the plan began with stakeholder interviews and a survey of all AASHTO members. The results and findings were discussed and deliberated in May 2009 in a day and half long SCOH workshop that resulted in members advocating for SCOH to be more strategic, focused and engaged in supporting the priorities identified in the AASHTO plan by the Board of Directors. Eleven areas including one on SCOH governance were identified for inclusion in the SCOH Plan.

Members discussed the issue of governance at the SCOH workshop. In the spirit of collaboration, ten work groups of volunteers covering the ten cross-cutting areas were formed. These groups brainstormed over 40 conference calls and identified more than 50 action items for inclusion in the SCOH Plan.

The Plan

After multiple circulations, revisions and a full day of collaborative discussions with the leadership of other AASHTO committees, SCOH members and AASHTO staff, 11 objectives and 40 action items were selected for inclusion in the final SCOH Strategic Plan. The plan was balloted and approved in January 2010.

Requirements of the Plan

Due to time constraints, the topic of governance could not be adequately covered at the SCOH workshop. However members identified certain important aspects of governance to be addressed in the implementation of the SCOH Strategic Plan. These included a need (i) to change the SCOH meeting formats, (ii) to have a process to interact and provide guidance to the subcommittees, (iii) to have a process to interact with other AASHTO groups, and (iv) for the governance process necessary for SCOH to strategically focus and address vital issues important to AASHTO, its members and to the states.
**The Result**

The implementation plan for the SCOH Strategic Plan includes changes in approach to governance and steps that will be taken by SCOH to operate more effectively with its members, with its subcommittees and to collaborate more effectively with other AASHTO standing committees.
3.0 THE STRATEGIC OBJECTIVES IN THE SCOH PLAN (2010-2014)

Of the eleven objectives approved in the SCOH Plan, action items for ten of them were developed by ten work groups of volunteers covering cross-cutting areas. The action items for the objectives on SCOH governance and technical services were developed from the discussions held at the SCOH workshop in May 2009. The eleven objectives are shown in Table 1.

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<th>• Cut Fatalities in Half by 2030</th>
<th>• Freight</th>
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<td>• Congestion-free America</td>
<td>• Performance Management</td>
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<td>II. Governance Issues</td>
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TABLE-1: The eleven strategic objectives in the SCOH Strategic Plan (2010-2014)

The eleven objectives in the SCOH Plan cover key cross-cutting areas as well as those important to SCOH members. The cross-cutting areas included are climate change, freight, congestion, performance management, communicating the value of transportation, work force planning and development, and research and emerging technology. These are also areas identified in the AASHTO Strategic Plan.

In addition, the SCOH Plan includes objectives covering project delivery, system preservation, governance and delivering technical services and products. Delivery of technical products and services is an area that states, AASHTO and industry depends on SCOH to provide. SCOH members have recognized that successful delivery of these eleven objectives will require appropriate governance changes in the way SCOH operates and are addressing it as part of developing an implementation plan.

3.1 The Eleven Strategic Objectives

The eleven strategic objectives established in the SCOH Plan are reproduced below:

1.0 Overarching Objectives and Action Items

1.1 Technical Services:
Objective: Develop and effectively disseminate standards, specifications, technical policies, technological advancements and best practices that improve the quality and safety of the nation’s highway system while integrating it into a modern, multi-modal transportation network.

1.2 Governance Issues:

Objective: Develop an organizational structure and communication and coordination system to ensure cross-jurisdictional issues between SCOH and other AASHTO groups, as well as with its subcommittees and task forces, are addressed effectively.

2.0 Freight:

Objective: Support the improvement of the national freight network to keep America competitive in the global economy.

3.0 Cut Fatalities in Half by 2030:

Objective: Promote highway-related strategies to assist in cutting fatalities by half by 2030 with a vision towards zero fatalities.

4.0 Congestion Free America:

Objective: Strive to create a congestion-free America by integrating advanced technologies and enhanced operations to efficiently manage the multimodal transportation system, while strategically adding capacity with a focus on improving the performance of the overall system.

5.0 Climate Change:

Objective: Identify and disseminate information on new and emerging practices, materials, and technologies related to climate change mitigation and adaptation. Evaluate policy development and technical standards for highway infrastructure planning, design and development in light of climate change issues. Provide communication and educational resources that support state implementation of these approaches.

6.0 Performance Management:

Objective: Assist the Board of Directors, the Standing Committee on Performance Management and member states in the development of AASHTO’s position on Performance Management, in the dissemination of state best practices, and in the implementation of any national performance management framework, particularly as it pertains to highway system condition, performance and operation.

7.0 Communicate the Value of Transportation:

Objective: Contribute to the efforts of the AASHTO Board of Directors to secure national support for sufficient, sustainable ‘net new revenue’ through a diversified portfolio of funding sources, by
communicating the value of transportation to quality of life, to citizens, to communities and to the economy.

8.0 Research and Emerging Technology:

Objective: Identify, develop and communicate standards, specifications, technical policies and other guidelines and facilitate the use of emerging research, technologies, materials, processes and programs in order to have a world class transportation system that can meet the challenges of tomorrow.

9.0 Workforce Planning and Development:

Objective: SCOH will support the states by advancing the knowledge and implementation of tools to address workforce planning and development (recruitment, retention, succession planning, core competencies and professional development) in highway-related disciplines (e.g. highway design, bridge engineering, construction, maintenance, traffic engineering, systems operations, right of way, utilities, etc.).

10.0 Project Delivery:

Objective: Support accelerated project delivery by contributing to environmental streamlining efforts and promoting agency best practices for expediting the design, review, construction and inspection of high-quality transportation projects.

11.0 System Preservation:

Objective: Advance innovative technologies and state-of-the art techniques, and adopt measurements providing intelligence to improve the condition of the entire highway system.

3.2 Changes to SCOH Governance

Ten of the 11 objectives address topical transportation issues. The 11th objective addresses governance. Repeatedly, SCOH members acknowledged that to implement these broad objectives SCOH must work with other committees, and SCOH subcommittees must work with one another. The need for cross-cutting collaboration mechanisms which do not currently exist raised issues which were generally described as "governance" issues. The transportation-specific topics are assigned in the Implementation Plan generally to existing committees, subcommittees or liaisons. However, the governance issues were assigned to the SCOH Implementation Group to oversee development of the Implementation Plan.

The implementation group will, among tasks, address question of how to create and sustain the cross-cutting collaboration which is needed to accomplish the SCOH objective. The governance issues deal with long-term organizational structures and processes necessary to clarify roles and responsibilities within SCOH and between SCOH and its subcommittees or issues related to managing and monitoring internal SCOH operations Example: How to direct the activities of a subcommittee? What should the structure of a subcommittee be? To whom should the subcommittee report to? What should be the role
and responsibility of a subcommittee? How can SCOH engage in issues which cut across multiple committees?

For the remaining non-governance action items, SCOH will have members as leads and as liaisons. AASHTO staff will identify SCOH members to either have lead responsibility or be liaisons to other AASHTO committees. As noted, the SCOH Plan includes 40 action items. Each of the 40 action items will be led by a person or person(s) representing the subcommittees, AASHTO, various standing committees and SCOH. The AASHTO staff will lead the action items that involve coordinating and scheduling a meeting between SCOH and the Standing Committee on Performance Management.
4.0 STRATEGIES FOR DELIVERING THE STRATEGIC PLAN

The SCOH leadership has acknowledged the ambitious and cross-cutting nature of the strategic plan. The leadership is addressing the implementation of the plan strategically and pragmatically by collaborating with other AASHTO committees, prioritizing the action items, streamlining internal operations, reformatting the way it conducts meetings and interactions with members, and using technology to facilitate more frequent interactions.

The leadership is also providing clear direction and guidance and communicating expectations to each lead group and then delegating the responsibility and leadership for implementing the plan to its members and its subcommittees.

SCOH created an implementation team consisting of the SCOH IG working with the consultant team to develop an implementation plan. This SCOH implementation team participated in six conference calls to brainstorm on strategies to guide the development of the implementation plan.

4.1 Collaboration, Ownership and Assignment of Lead Responsibility

Collaboration and assignment of responsibilities will be key strategies to implementing the plan. The Implementation Group was tasked to identify the persons assigned to conduct the collaboration and to establish the mechanisms to ensure the on-going collaboration.

The approach involved categorizing the 40 action items into five major categories, which include four categories of non-governance items and one category related to governance of SCOH. The latter includes seven action items which have been assigned to the SCOH IG to address. These governance issues and the recommendations made by the SCOH IG to address them are included in Section 7.0 under the title “Governance Issues” and in Section 8.0 under the title “Addressing Governance Issues” respectively. These recommendations will be shared with SCOH members and the feedback received from SCOH members will be incorporated in to a revised set of recommendations after the spring 2010 meeting.

The non-governance action items fall into four categories where:

I. SCOH has lead responsibility and ownership of action items;
II. SCOH subcommittees have lead responsibility and ownership;
III. Other AASHTO groups have lead responsibility but SCOH wants to have active participation. SCOH will assign the responsibility of coordination and two-way communications in these areas to SCOH members participating in such AASHTO groups. These SCOH members will serve as liaisons responsible for two-way communication and coordination, conveying the SCOH position and ensuring that SCOH interests are addressed by the other lead AASHTO groups;
IV. Multiple groups have joint responsibility and ownership.
Figure 4 summarizes how the various action items from the SCOH Plan are divided among the categories described above.

**FIGURE 4**: The division of action items between different categories.

### 4.2 Streamline Management of Implementation and Delivery

In addition to the approach described above, SCOH will adopt formal Project Management techniques in implementing the plan. A more formal and systematic approach will be adopted in monitoring the SCOH Plan throughout its implementation (See Figure 5). The activities necessary to implement each of the action items will be identified, tracked and updated by the lead/owner of the strategic action. Based on the types of resources available to SCOH, the information will be published either to the SCOH website, to file servers or ftp sites from where it can be accessed by members. Structured mechanisms will be used to monitor progress and deliver the plan in a systematic way.
5.0 STRUCTURE AND MECHANISMS FOR EFFECTIVELY DELIVERING THE PLAN

To support the strategies detailed in section 4.0 and to facilitate the effective and efficient delivery of the Plan SCOH will use various mechanisms detailed in this section. SCOH will make changes to both its governance structure and to the SCOH meeting format. Although SCOH wants to continue to give latitude to subcommittees, it also wants to interject itself in selected, “Vital Few”, important areas pertaining to the SCOH Plan and in these areas, it will direct and guide its subcommittees. SCOH will also make internal organizational changes to support effective two-way communications with the subcommittees and with other AASHTO groups.

Some of the mechanisms being considered include:

- Using technology
- Prioritize, monitor, revise and update the implementation plan
- Collaborating and using liaisons and other existing members on committees to lead efforts
- Streamlining meetings

5.1 Use Technology to Engage and Facilitate More Interaction Remotely/without Travel

SCOH will use available technologies to enable more members to participate in SCOH discussions. SCOH understands that members are volunteers and have many responsibilities in their home states. Engaging its members and its subcommittees is critical to the success of implementing the strategic plan. So SCOH is looking at ways to make the most effective use of members' time without burdening them. Mechanisms being considered include the use of video conferencing, web casting where appropriate, use of technologies similar to “Go-To-Meeting” and conference calls to allow more members to participate in meetings without incurring costs and the additional time associated with traveling to participate in face-to-face meetings.

In developing the Strategic Plan, SCOH involved over 100 volunteers in over 40 conference calls. SCOH also engaged its members in developing the implementation plan by conducting six hour and half long meetings in four months. This successful use of technology by SCOH to engage busy members in developing both the strategic plan and the implementation plan serve as good prototypes for future SCOH meetings. SCOH plans to continue to use technology to get updates and to track progress of the implementation of its strategic plan.

5.2 Prioritize, Monitor, Revise and Update the Implementation Plan

SCOH realizes that a lot has to be done by the volunteer members and the AASHTO staff. With more demands on the time of the volunteers in their home DOTs and travel restrictions, the activities that the members are involved with will have to be more streamlined. The activities will also have to be prioritized so that high priority issues get addressed first.
The priorities of transportation are expected to change over the five years of the SCOH strategic plan. SCOH intends to continually monitor the strategic objectives and actions being implemented. SCOH will update action items to incorporate changes to important strategic priorities. These changes will be communicated to the leadership of the groups responsible for the implementation of the different strategic action items. Some of the changes are expected to result in updates to the annual subcommittee work plans. This process will ensure that the SCOH strategic actions reflect important priorities in the areas identified in the plan.

5.3 Provide Clear Direction and Assign Lead Responsibility to Different Groups

While developing the Strategic Plan, SCOH received feedback from the stakeholder interviews and survey to align its work and direct the work of its subcommittees and technical committees to deliver the strategic objectives identified in the AASHTO Plan. SCOH has taken the first step by developing the SCOH Strategic Plan that is aligned with the AASHTO Strategic Plan. The next step will be to ensure that SCOH directs and guides the efforts of its subcommittees, technical committees, task groups and its members to work together collaboratively to implement the Strategic Plan.

SCOH seeks to develop a practical approach to engage all its members, subcommittees and to work in collaboration with other AASHTO committees to implement the strategic plan. As mentioned, the governance items were separated from the non-governance items.

The seven governance items were discussed by the SCOH Implementation Group (Refer to Appendix G for listing of action items from the strategic plan and Section 7.0 and 8.0 for the discussion and recommendations on governance). The remaining 33 action items were categorized to be led by the following four groups:

1. SCOH Liaisons as leads
2. Subcommittee Chairs/Vice Chairs as leads
3. SCOH leads
4. AASHTO Staff leads

The roles and responsibilities for each of the four categories of leads have been clearly defined by the SCOH IG in this implementation plan and will be developed further as necessary to provide continued leadership while implementing the SCOH Plan.

5.3.1 SCOH Liaisons as Leads

5.3.1-A. Strategic Actions Led by Liaisons

SCOH intends to work collaboratively with other AASHTO committees in delivering its strategic plan. SCOH started the collaboration with other AASHTO groups during the development phase of the SCOH Plan by circulating the plan and obtaining feedback from John Horsley, Executive Director of AASHTO and Chairs of other AASHTO groups. In Oct 2009, prior to finalizing the Strategic Plan, SCOH held a day of collaborative and brainstorming discussions between SCOH members and AASHTO Committee Chairs and Staff. Being respectful to the
feedback provided at the collaborative session SCOH does not want to duplicate the efforts of other committees.

There are 17 cross-cutting action items in the SCOH plan where another AASHTO committee has the lead responsibility. These are areas that are important to the SCOH members in their roles as Chief Engineers in their home DOTs and hence these are areas in which SCOH wants to actively participate. SCOH wants to work collaboratively with other AASHTO groups to ensure the successful completion of these strategic objectives and action items.

In implementing the plan, SCOH members desire to continue the collaboration started in the development of the plan to the next level by appointing SCOH liaisons with these other AASHTO committees. Aspects being considered include:

- The fact that many SCOH members are active in many of the AASHTO groups that have lead responsibility in addressing the identified objectives;
- Many SCOH members have volunteered to act as liaisons between SCOH and these other AASHTO groups;
- AASHTO Staff will identify committees that do not have SCOH members so that members can be requested to volunteer to join these groups and serve as liaisons.

To ensure that the effective communication and coordination occurs and the action items in the strategic plan get implemented during the life of the plan, SCOH identified specific roles and responsibilities for the Liaisons to other AASHTO committees which have jurisdiction over the 17 action items in the SCOH plan.

**5.3.1-B. Roles and Responsibilities of Liaisons in Supporting the Implementation of the SCOH Plan**

The roles of the liaisons will include at the least:

- Providing regular updates at SCOH meetings and communicating back to SCOH the progress of these action items of interest to SCOH members. They will also communicate back to these other AASHTO groups any concerns that SCOH members have on the progress of the strategic action items along with suggestions made by SCOH members to address the concerns;
- Communicating SCOH's position on relevant issues to the other committees;
- Communicating the position of the other committees to SCOH;
- Identifying areas for collaboration and coordination between the committees;
- Reporting upon emerging issues which may be of interest to SCOH;
- Collaborating on research topics;
- Ensuring that time is set-aside on the SCOH meeting agenda to have productive discussions and presentations on relevant topics;
• Integrating the findings, policies, research and products of the other committees into SCOH, its subcommittees and technical committees.

**5.3.2 Subcommittee Chairs/Vice-Chairs as Leads**

**5.3.2-A Strategic Actions Led by Subcommittees**

SCOH has nine main subcommittees and over 50 technical and special committees. The efforts of these committees contribute to developing and producing the technical manuals, providing input and developing technical standards and design policies, recommending new research and testing and piloting new research findings and products. All of these products and services contribute to the national and international stature that SCOH and AASHTO have. The efforts of SCOH, its subcommittees and technical committees enable AASHTO to support many of the technical services that its members depend on.

SCOH received feedback from the stakeholder interviews and surveys to align its work and direct the work of its subcommittees and technical committees to deliver the strategic objectives identified in the AASHTO Plan. SCOH has taken the first step by developing the SCOH Strategic Plan that is aligned with the AASHTO Strategic Plan.

The changes in governance, the meeting format and the roles and responsibilities developed for the SCOH liaisons will ensure the alignment of the efforts of SCOH members in delivering the components of the plan that they will lead.

One of the next steps for SCOH will be to direct and guide the efforts of its subcommittees, technical committees and its members to work together collaboratively to implement the SCOH Plan. The SCOH Plan has 11 Strategic Objectives and 40 action items. Climate Change, Energy Conservation, Accountability, Project Streamlining and Work Force Development are amongst key emerging areas identified in the plan that may not automatically be addressed in the subcommittee work plan activities. By using both the “top down” and “bottom up” approach discussed below to identify activities that need to be part of the subcommittees’ work plan, SCOH will direct and guide the efforts of its subcommittees and technical committees to implement the components of the plan that the subcommittees and technical committees will lead.

**5.3.2-B Approach to Subcommittee Activities Supporting the Implementation of the SCOH Plan**

The current process of developing the subcommittee work plan will be strengthened with a renewed focus on ensuring that the strategic priorities highlighted in the AASHTO Plan and SCOH Plan are included where appropriate in the subcommittee work plan. To avoid duplication and ensure collaboration, mechanisms will be put in place to ensure that efforts of the subcommittees are well coordinated with efforts occurring in other subcommittees and other AASHTO groups. As SCOH identifies governance issues and steps to resolve them, changes applicable to the subcommittee will be incorporated into the appropriate work plans.
The strategy is to have both a “top down” and “bottom up” approach to identifying activities that need to be in the subcommittee work plans and following this with a gap analysis between the two approaches.

I. “Top Down” Approach

In the "top down" approach the SCOH Implementation Group will identify objectives and action items in the SCOH Strategic plan that the subcommittees should include in their work plans.

This will include the following:

The SCOH leadership team will send a memo to the subcommittee leadership that will provide directions and include a more generic summarized list of items from the SCOH Plan that the subcommittees need to address in their Work Plans. The directions will include the following:

- Subcommittees to identify activities in their work plans to address the items cited in the memo from SCOH Chair;
- The subcommittees to also identify missing actions/activities not identified in the memo from the SCOH leadership that are necessary to support the implementation of the SCOH Plan.

The work plan activities of all the subcommittees will be consolidated after the spring meeting, a gap analysis will be conducted and an approach developed to fill in the gaps.

II. “Bottom Up” Approach

In the “bottom up” approach the subcommittees will develop a work plan of activities. The subcommittees will also review the SCOH Plan and include in their work plans all activities they think are required by their subcommittee to support the SCOH Plan. This effort may result in activities included in the “top down” approach as well as well as activities not related to delivering the strategic plan.

III. Gap Analysis and Resolution

After the summer meeting in 2010, the subcommittees will present their work plans to SCOH. SCOH members will discuss the activities in the work plans and approve the work plans. The approved work plan activities of all the subcommittees that pertain to supporting the SCOH Plan will be consolidated. After the work plans are consolidated a gap analysis will be conducted to identify the missing subcommittee activities that are necessary to support the implementation of the SCOH Plan.

Missing activities will be included in the applicable work plans by the appropriate subcommittees. These additional activities will be added to the plan over the period of the strategic plan.
IV. Final Implementation Plan

The first version of the final implementation plan will include the approved work plan activities submitted by each of the subcommittees and technical committees by the fall meeting. This final plan will be monitored and updated continuously over the five years of the strategic plan.

5.3.3 SCOH Leads

5.3.3-A. Strategic Actions Led by SCOH

SCOH has lead responsibility over 4 action items. These include continuing to provide the technical services that its members count on SCOH to deliver. SCOH will elaborate and expand on the activities listed under Technical Services in Section 1.1 of the SCOH Plan. SCOH will emphasize the on-going activities and the core business of SCOH and its subcommittees. SCOH will review the list of technical activities that it needs to continue to support. SCOH will obtain the details of these technical and other activities with the support of AASHTO staff and detail these in the implementation plan. SCOH will also make sure that these activities receive the necessary resources, and if necessary work with the subcommittees to prioritize these activities.

5.3.3-B. Roles and Responsibilities of SCOH Leads in Supporting the Implementation of the SCOH Plan

In areas that SCOH has lead responsibility, SCOH will designate its members to lead the initiatives. SCOH will:

- make changes to its governance and meeting format to streamline its internal operations;
- take responsibility to schedule meetings and develop agendas that will focus on obtaining regularly scheduled updates on progress of strategic objectives and actions;
- SCOH will provide guidance to its subcommittees and its liaisons and ensure that strategic priorities receive the time for discussions on the SCOH meeting agenda;
- SCOH will conduct pre-meetings with SCOH and subcommittee leadership teams to identify priority items and issues that need to be discussed or addressed at the SCOH annual and spring meeting;
- SCOH will use technologies like webcasting, "Go-To-Meeting" and phone and video conferencing to make it easier for members of SCOH and its subcommittees to participate in meetings;
- SCOH will adopt formal project management techniques in monitoring the progress of strategic action items;
• SCOH will publish updates on the progress of the strategic actions accessible to other SCOH members.

As mentioned earlier in the document SCOH will also be responsible for updating the plan throughout the five years of its life to keep it relevant.

5.4 Streamline Meetings

Making some changes in meeting structure will facilitate meaningful discussions on topics of importance to SCOH while complementing the delivery of the SCOH Plan. It will also lead to outcome-based meetings. The changes will also ensure that there is clear linkage between the AASHTO priorities and the actions in the SCOH Plan being implemented. It will include better integration and more interaction with the subcommittees.

Some of the changes are easier to implement and will assist SCOH in engaging its members in many more areas pertinent to them as chief engineers. Changes that will be implemented include:

• Conducting more formal strategic plan update meetings;
• The meeting agenda will be developed to address the strategic and important items of the plan. Time will be scheduled on the meeting agenda for progress updates on each of the eleven strategic objectives;
• The meeting will be in a format to include the participation of the SCOH members leading objectives or action items in the SCOH Plan, subcommittee chairs as well as the SCOH liaisons to other AASHTO groups;
• The expectations from each group/person leading a strategic action item will be made clear by the SCOH leadership before assigning them the responsibility to lead;
• SCOH members, SCOH liaisons and subcommittee chairs leading strategic objectives or action items will be assigned the responsibility of reporting on its progress. They will highlight deviations and delays from planned scope and schedules, highlight obstacles and the next steps necessary to address obstacles and get the activities back on track. Any action and assistance required from the SCOH leadership will be also discussed and agreed at the meeting. At the end of the meeting, the owners of the strategic objectives and action items will have the approval and the authority to take actions necessary to ensure that the implementation of the Strategic Plan is back on track;
• The meeting will be scheduled ahead of time to help members set aside time to participate. There will be at least four update meetings annually. These update meetings may be combined with the Spring and Annual SCOH meeting or they may be done via scheduled conference calls or using other means of communication determined by the SCOH leadership;
• The progress updates will be provided in a pre-determined format, using predefined document templates. This consistency in format will expedite the discussion and help the team use the limited amount of available meeting time more effectively;
• A summary tracking report will be updated after every meeting to reflect the progress reported and the tasks to be completed by the next meeting;
To accommodate travel restrictions, the participation may be in-person or via conferencing into the update meeting. Use of webcasting and other web-conference tools will also be considered if appropriate;

SCOH will schedule at least two pre-meeting discussions prior to the spring and annual AASHTO meetings between SCOH, subcommittee and technical committee leadership teams. These pre-meeting conference calls will be used to identify and discuss important priorities and concerns related to the SCOH Plan and other areas that involve the subcommittees and/or technical committees. Important topics and issues raised will be considered for inclusion in the spring and fall meeting agenda.

5.4.1 Meeting Format

The format of SCOH progress meetings will be changed to obtain quick updates on progress and status of the strategic action items and objectives. Presentations will be short and focused on actions completed, actions that need to be taken and results of action. Detailed information will be provided as background material prior to the meeting and also be available at a website or by accessing a specified location on the server.

- Meetings will allow SCOH members to call and participate in the meeting via phone, video or other mechanisms available through AASHTO;
- The meetings will be outcome-based. Information shared at the meeting will be used to support decisions that need to be made at the meeting.

5.4.2 Meeting Agenda

SCOH wants to be more involved in important strategic activities of the subcommittees and guide the work activities of the subcommittees on an on-going basis. The agenda of SCOH meetings will be the framework to keep SCOH on task to discuss and deliver the SCOH Plan. The SCOH meeting agenda will be developed to involve the subcommittees and to obtain updates and progress of subcommittee activities pertaining to the SCOH Plan. The agenda should also provide time for SCOH subcommittees and technical committees to provide quick updates on other important work being done that is not in the SCOH Plan, but is in areas where SCOH might want to get involved. These may also be areas where SCOH would like to get updates to share with the Board of Directors.

SCOH wants to ensure that the liaisons continue to be the two-way communication link between SCOH and other AASHTO groups that have lead responsibility on activities important to SCOH members. As mentioned earlier, the agenda will also provide time for SCOH members to identify action items that the liaisons need to take back to the other AASHTO groups for follow-up and implementation.

It is expected that the issues and priorities will change over the plan period. For SCOH to continue to adapt to these changes and collaborate on the new priorities, it is important to accommodate information sharing on these new priorities. The agenda should allow for time to invite members of
other groups to provide quick updates on actions that SCOH members can take to support current priorities not identified in the SCOH Plan.

The agenda should provide time for members or AASHTO staff to share with SCOH members emerging or new areas of work being done by other AASHTO groups that would be of interest to SCOH members and to the work they do as Chief Engineers.

The importance of effective meeting agendas was also discussed by the SCOH IG. In Recommendation-8 the SCOH IG proposed the creation of an Executive Committee that would also be responsible for developing productive SCOH meeting agendas. The proposed SCOH Executive Committee would be charged with bringing forth policy issues to the board of directors. The executive committee would also guide the prioritization of research. More details of the proposed Executive Committee can be found in section 7.0 that covers governance issues.
6.0 LEVEL OF EFFORT BY DIFFERENT GROUPS

As mentioned earlier, the 40 Action Items are assigned to five different groups. In this section, the level of effort for each of those groups is explained.

In assigning tasks the SCOH leadership took into account that the members involved are all volunteers and that they have many responsibilities in their home DOTs. The implementation plan has been carefully crafted to not be overly burdensome. It ensures that:

- The subcommittee work plans are being developed to address important strategic priorities and subcommittee members are not burdened with activities that are not of high priority;

- Technical work related to the products and services that are the core deliverables of SCOH and its subcommittees remain a high priority;

- SCOH members are also members of other standing committees. These members are already involved in activities of such committees and could serve as the two-way communication link between SCOH and these other committees on cross-cutting issues. SCOH members have volunteered to act as liaisons therefore their appointment should not be an added burden;

- The SCOH Chair and Vice Chair are not overloaded with responsibilities;

- The AASHTO staff is not overloaded with assignments.

<table>
<thead>
<tr>
<th>Key Group Involved</th>
<th>Number of Actions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liaisons Lead</td>
<td>17</td>
<td>42.50%</td>
</tr>
<tr>
<td>Subcommittees Lead</td>
<td>3</td>
<td>7.50%</td>
</tr>
<tr>
<td>SCOH Lead</td>
<td>4</td>
<td>10.00%</td>
</tr>
<tr>
<td>SCOH IG Lead</td>
<td>7</td>
<td>17.50%</td>
</tr>
<tr>
<td>AASHTO Staff Lead</td>
<td>1</td>
<td>2.50%</td>
</tr>
<tr>
<td>Joint Responsibilities*</td>
<td>8</td>
<td>20.00%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

* Activities where more than one of the lead groups identified in the table are involved.

**TABLE-2:** Summary of Action Items in the Strategic Plan and Involvement of Different groups

Appendix A shows the comprehensive plan with all 40 action items.
6.1 Liaisons Lead and Joint activities

As shown earlier in Figures 3 and 4 and restated in Table-2 above, seventeen or 42.5% of the forty action items are assigned to the SCOH liaisons. These seventeen action items are spread across ten of the eleven objectives. SCOH volunteers have shown great enthusiasm in supporting the SCOH Plan and more than 20 members have volunteered to act as SCOH liaisons to different committees. By assigning the liaisons responsibility to the volunteers and sequencing some of the work across the five years of the plan, SCOH can deliver these action items without overly burdening members. The actual tasks to be achieved by the liaisons consist primarily of conveying information between SCOH and the other committees.

<table>
<thead>
<tr>
<th>Objectives</th>
<th># of Action Items for SCOH Liaisons</th>
<th># of SCOH Volunteers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Freight</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2 Safety</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>3 Congestion</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4 Climate</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>5 Performance</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>6 Communicating the Value of Transportation</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>7 Research and Emerging Technology</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>8 Workforce Planning</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>9 Project Delivery</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>10 System Preservation</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Tasks</strong></td>
<td><strong>17</strong></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE-3**: Summary of Action Items where Liaisons have Either Lead or Joint Responsibilities

Table-3 shows the numbers of SCOH members who volunteered at the AASHTO Annual meeting and indicated a desire to be actively engaged in the implementation of various strategic action items. Based on the numbers of volunteers SCOH can assign a lead and a backup liaison for each of the action items. Except in the case of congestion, the numbers of volunteers are more than double the number of action items.

Appendix B shows the action items for which the liaisons have lead responsibility

Appendix C shows the action items for which the liaisons have joint responsibility
6.2 Subcommittees Lead and Joint Activities

Table-4 shows that three out of the 40 action items will be led by the subcommittees. These include action items in the area of climate change, project delivery and system preservation. The three actions will include dealing:

- In the area of project delivery, examining and recommending changes to standards, policies, etc and promoting collaborative project delivery;
- In the area of improving system preservation, identifying and promoting technologies, strategies etc., to support rapid construction, rehabilitation, preservation and maintenance of the highway system;
- In the area of climate change, evaluating design standards, policy development, technical standards, infrastructure planning, design and development and identifying gaps in addressing GHG.

In addition to the three action items, the subcommittees will also be working jointly with the liaisons on five action items. Three of these action items will be on the climate change initiative, while one each will be on freight and workforce planning and development.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>SC to Lead</th>
<th>SC has Joint Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Project Delivery</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2 System Preservation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3 Climate Change</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>4 Freight</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5 Workforce Planning</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total Number of Tasks</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

**TABLE-4**: Summary of Action Items where Subcommittees have Either Lead or Joint Responsibilities

As part of the “bottom up” approach that the SCOH leadership will be conducting, the subcommittees will be identifying additional initiatives from the SCOH Plan that they intend to support. These additional tasks will be discussed prior to the AASHTO 2010 Fall meeting. A comparison of activities identified in the “top down” and “bottom up” will be conducted and a gap analysis will be done. All subcommittee work plan activities approved during the meeting and after the gap analysis is conducted, will be included in the implementation plan. Project Delivery and System Preservation are areas in which subcommittees have traditionally taken lead responsibility. Climate change may be an area for which the SCOH subcommittees may not traditionally be doing lead work. In the area of Workforce Planning the action requires the subcommittees to assist the Standing committee of Finance and Administration, Subcommittee on Human Resources to identify priorities for training needs.
Appendix D shows the action items for which the SCOH subcommittees have lead responsibility

Appendix E shows the action items for which the SCOH subcommittees have joint responsibility

6.3 SCOH Lead Activities

Table-5 shows that the SCOH team has lead responsibility in four of the 40 action items. These are in the areas of Safety, Performance Management, Communicating the Value of Transportation and Research and Emerging Technologies. These actions are specific to areas where SCOH members want to make changes, influence direction, be advisors to the Board of Directors and set a tone for the way SCOH would operate and be engaged for at least the next five years of the SCOH Plan.

One of the action items under the objective of Performance Management reads:

“Create a SCOH Performance Management Task Group to act quickly in providing technical guidance to AASHTO for the re-authorization legislation.”

The SCOH IG discussed and decided that the best way for SCOH to support this effort would be to have the AASHTO staff contact SCOH members to participate as necessary instead of creating a task group as indicated in the action item.

SCOH members and other members of the Standing Committee on Research expressed a need for SCOH to lead the effort of prioritizing and directing research that was important to SCOH members while also prioritizing the research requests from its subcommittees and guiding them.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>SCOH Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Safety</td>
<td>1</td>
</tr>
<tr>
<td>2 Performance</td>
<td>1</td>
</tr>
<tr>
<td>3 Communicating the Value of Transportation</td>
<td>1</td>
</tr>
<tr>
<td>4 Research + Emerging Technology</td>
<td>1</td>
</tr>
</tbody>
</table>

| Total Number of Tasks | 4 |

**TABLE-5:** Summary of Action Items where SCOH has Lead Responsibilities

Another topic that received a significant amount of time and discussion at the SCOH Spring 2009 workshop was about SCOH being involved in communicating the value of transportation internally and supporting the Board of Directors in their efforts to communicate with Congress and the public. The internal efforts were to be focused on SCOH members and SCOH subcommittees by developing a
Chief Engineers report that consolidated and shared information of importance to the Chief Engineers as they lead efforts in their home DOTs.

*Appendix F shows the action items for which the SCOH has lead responsibility*

### 6.4 SCOH Implementation Group Lead Activities

The SCOH Implementation Group (SCOH IG), consisting of eleven SCOH members that include subcommittees chairs and two AASHTO staff, have been assigned the responsibility to recommend/find solutions to the governance issues facing SCOH. The group also directed the development of the implementation plan. The SCOH IG held conference calls, had discussions and brainstormed on the governance issues that would impact the successful implementation of the SCOH Plan.

As shown in Table-6 there are seven action items that are to be led by the SCOH IG. These include addressing important governance issues facing SCOH, providing strategic direction on priorities, and identifying mechanisms to address cross-cutting issues. Two of these require more immediate action in order for SCOH to support the Board of Directors both in communicating the value of transportation as well as in advocating for adequate funding for system preservation. Other action items involve nominating and if required, soliciting SCOH members to work with the SHRP2 implementation team representing SCOH and ensuring that the interests of the Chief Engineers in accelerating implementation of SHRP2 projects and addressed.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>SCOH IG lead</th>
<th>SCOH IG-Joint Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SCOH Overarching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2 Freight</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3 Congestion</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4 Communicating the Value of Transportation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5 Research &amp; Emerging Technology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6 Project Delivery</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7 System Preservation</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total Tasks</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

**Table -6:** Summary of Action Items where SCOH has Lead Responsibilities

The action items include:

- Creating a SCOH task team to address governance;
• Providing guidance and strategic direction to the subcommittees;
• Reviewing the responsibilities of the Subcommittee on Highway Transport;
• Collaborate in the implementation of SHRP2 projects;
• Support the Board of Directors in communicating the value of transportation.

All of the action items assigned to the SCOH Implementation Group have an early delivery schedule. Addressing the governance issues and adopting strategies and mechanisms to resolve them will greatly influence how effectively the SCOH Plan can be implemented.

Besides lead responsibilities, the SCOH IG also has joint responsibilities in the strategic area of addressing congestion. This action requires the SCOH IG to nominate SCOH members to collaborate with SHRP2 in the implementation of projects that address congestion, reliability and mobility. SHRP2 is creating four Implementation Teams to implement many of the findings and recommendations of research work done through the SHRP2 programs. As requested by SHRP2, SCOH will support SHRP2 implementation by having two members on each of the four SHRP2 implementation teams.

SCOH IG also has joint responsibility with the SCOH liaison in the area of Research and Emerging Technology. The action item requires governance decisions on the role of and focus of the Technology Implementation Group (TIG) moving forward.

The SCOH IG held six conference calls from January through April 2010 to discuss the governance issues and the other items assigned to them. The action items assigned to the SCOH IG along with the recommendations are attached in the section 8.0 titled “Addressing Governance Issues.”

Appendix G shows the action items for which the SCOH Implementation Group has lead responsibility

Appendix H shows the action items for which the SCOH Implementation Group has lead responsibility
7.0 GOVERNANCE ISSUES

At the May 2009, Bedford Springs, workshop, SCOH members had identified governance issues as being an area that SCOH needed to address. Governance issues also rated high amongst the non-technical strategic areas that SCOH needed to address in stakeholder interviews and in the survey of AASHTO members. The SCOH Plan identified governance as an area of high priority that SCOH needed to address as part of implementing its strategic plan. The SCOH governance goal, objective and action items are as follows:

**SCOH Governance Goals**

Ensure ongoing coordination and collaboration between SCOH and its Subcommittees, the Board of Directors and other AASHTO Standing Committees.

**SCOH Strategic Objective on Governance**

Develop an organizational structure and communication and coordination system to ensure cross-jurisdictional issues between SCOH and other AASHTO groups, as well as with its subcommittees and task forces, are addressed effectively.

**SCOH Action Item**

SCOH will charge a Governance Task Force consisting of Subcommittee Chairs and SCOH members to

- recommend an organizational structure and communication and coordination mechanisms to improve coordination and communication vertically and horizontally across the Standing Committee on Highways,

- develop and deliver a reporting and monitoring system which keeps SCOH leadership focused upon execution of the Strategic Plan,

- recommend a new SCOH meeting format to
  - allow for greater peer exchange and discussion on critical issues,
  - set aside time on the SCOH meeting agenda at both spring and annual meetings to discuss the top three or four issues from the Chief Engineers’ perspective and recommendations on approaches, strategies, solutions and/or actions to address them. These top issues and recommended actions to address them will then be presented to the Board of Directors.
8.0 ADDRESSING GOVERNANCE ISSUES

The SCOH leadership created a short term SCOH implementation group of eleven members from SCOH and the subcommittees along with two AASHTO staff to address the governance issues. The group conducted six hour and half long meetings and worked with the consultant team from January through the spring 2010 meeting to discuss the governance issues and make recommendations. These recommendations are to be shared with all the SCOH members and the feedback received will be incorporated in to the final implementation plan.

The SCOH IG discussed the basic categories of actions: 1) Tasks SCOH will do; 2) Guidance for what the Subcommittees should do; 3) Instruction for what liaisons should do. The group agreed that the "what" of the plan is reasonably clear from the Strategic Plan. The "who" and the "how" of the plan remain to be worked out in the Implementation Plan. The SCOH IG decided that the best approach to addressing the cross-cutting action items where other AASHTO groups had lead responsibility would be to have SCOH members as liaisons to these other groups. The SCOH liaisons would be responsible for successfully implementing the two-way communication with these other Committees.

The team discussed at length and stated emphatically that the success of the plan's implementation will depend upon:

1. the governance process put in place;
2. the structure of the SCOH meetings;
3. the roles and responsibilities assigned to SCOH liaisons to other Committees where SCOH does not have lead responsibility but where it wants to actively participate.

The strategy discussed is that if the governance process brings strategic issues to SCOH and if the meeting format allows SCOH to address those strategic issues and if the SCOH liaisons can successfully implement the two-way communication with other Committees, then SCOH will be successful in implementing its Strategic Plan. The SCOH IG discussed the following areas:

- Subcommittee structure and SCOH providing direction and guidance to its subcommittees
- Roles and responsibilities of SCOH liaisons
- SCOH dealing with cross cutting issues identified in the SCOH strategic plan
- SCOH involvement in policy with the Board of Directors
- SCOH involvement and leadership in research
- SCOH internal governance
- Vertical and Horizontal Alignment
- Streamlining SCOH meeting format
THE SCOH IG proposed strategies and recommendations to address each of the governance issues discussed. These are to be discussed with the SCOH members at the spring meeting. Changes recommended by SCOH members will be incorporated and the final recommendations will be incorporated into the final implementation plan. The fifteen recommendations proposed to address the governance issues are listed below.

**Issue-1: Emphasize the Importance of Technical Services in the SCOH Plan**

**Background**

The SCOH IG discussed the important activities of the SCOH subcommittees. They discussed expanding significantly the activities under the Implementation Plan 1.1 Technical Services to re-emphasize the on-going, core-business efforts of SCOH and its subcommittees. The section 1.1 of the plan will re-state that much of the SCOH effort will continue to be focused upon the technical products, services, conferences and meetings for which SCOH has long been known. Changes to the section will include the kind of support services/activities that SCOH needs to continue to support. These include the technical work done by the SCOH subcommittees to support the important technical services it provides to the members.

**Recommendation**

The steps discussed to accomplish the above objective include the following:

1. AASHTO staff will provide a list of technical activities that SCOH needs to continue to support
2. The implementation plan will be revised to incorporate the above list of technical activities and the “Implementation Plan, 1.1 Technical Services” will re-emphasize the on-going core business efforts of SCOH and its subcommittees.

**Issue-2: Guidance to Subcommittees and Engagement in Strategic Activities**

**Background**

SCOH members want to make sure that SCOH provides guidance to the subcommittees and engages the subcommittees in addressing strategic action items. SCOH also wants to make sure that other important core activities of the subcommittees do not get neglected. The approach suggested below will ensure that both aspects are addressed while also ensuring that alignment between SCOH and its subcommittees occur.

The timing proposed for the first update is different from that of subsequent updates to accommodate the discussion of the recommendations at the spring 2010 meeting and the subsequent adoption of the implementation plan.

**Recommendation**

1. Make assignments to subcommittees to look at the Strategic Plan and to identify and communicate back to SCOH how they would address the action items in the Strategic Plan. This approach will include:
a. The “top down” approach;

b. “Bottom up” approach, and;

c. Gap analysis

**First Update:**

2. To implement the “top down” approach discussed above each SCOH subcommittee will be directed to review key elements of the SCOH Strategic Plan which are related to the jurisdiction of its subcommittee. The subcommittees will be directed to respond identifying what elements of the SCOH plan they intend to include in their Work Plans;

3. To address the “bottom up” approach the subcommittees will review the entire strategic plan and incorporate additional activities into their work plans. This will provide the subcommittees the opportunity to identify important activities missing in the “top down” approach;

4. The SCOH Executive Committee (Recommended in Issue-8) will review the subcommittee work plans and approve activities. The executive committee may also identify additional items for the subcommittees in order to support the implementation of the SCOH strategic plan;

5. Each subcommittee will update its work plan to include the activities approved and additional activities recommended by the Executive Committee;

6. Each subcommittee will provide an update on the progress of all work plan activities at the fall meeting.

**Subsequent Update Cycles:**

7. Updating the subcommittee work plans to align with the five year SCOH strategic plan and providing a report on all activities in the subcommittee work plan will be an on-going effort;

8. SCOH is expected to make updates to its strategic plan annually. The subcommittees will review the updated strategic plan annually and identify additional subcommittee activities necessary to support the revised strategic plan. Subcommittee chairs will present the revised subcommittee work plans to the SCOH Executive Committee prior to the spring meeting;

9. At the spring meeting the Executive Committee will review the draft subcommittee work plans, identify missing activities required by the subcommittees to support the updated strategic plan and approve the work plan;

10. The subcommittees will incorporate all approved activities and additional activities recommended by the SCOH Executive committee into the annual work plan during the subcommittee summer meetings;

11. Each subcommittee will report on the progress of activities in its work plan at the fall meeting. In addition, the subcommittees may be asked to submit written reports or participate in quarterly strategic plan update conference calls.

12. These updates by the leadership of the subcommittees will also include progress of all subcommittee activities related to developing performance measures to support subcommittee activities, SCOH activities or to support tasks for the Standing Committee on Performance Management.
Issue-3: Guiding and Involving Technical Committees and Task Groups in Strategic Activities

Background

The SCOH IG wants to make sure that SCOH is aligned both vertically and horizontally in implementing the strategic plan. This alignment needs to include aligning not only the subcommittees but also all the technical committees and task groups to work collaboratively on cross-cutting areas and not duplicating efforts.

Recommendation

To accomplish this vertical alignment with the technical committees and task groups the SCOH IG proposed the following:

1. Each subcommittees will identify activities for its technical committees and task groups to support the implementation of the SCOH strategic plan;
2. In addition the subcommittees will ask their technical committees and task groups to review the SCOH strategic plan and identify additional activities within the technical committees jurisdiction to include in the technical committees’ work plans;
3. The subcommittee will review the work plan of its technical committees and task groups and approve activities in the work plans. These approved work plans will be submitted along with the subcommittee work plans to the SCOH executive committee for review and approval;
4. The update to the work plans will occur annually to address updates to the strategic plan. The timing for updating the work plans over the five years of the plan will be finalized in consultation with the SCOH executive committee;
5. The leadership of the technical committees and the task groups will provide updates on the progress of the action items in the work plans to the SCOH Executive committee at the fall annual meeting and at additional strategic plan update meetings as requested;
6. These updates by the leadership of the technical committees and task groups will also include progress on its activities related to developing performance measures to support the activities of the technical committee, task groups or any other AASHTO group

Issue-4: Emphasize SCOH Products, Services and Outputs

Background

SCOH is not completely aware of all the activities that occur in the subcommittees. A review will provide a better understanding of the products, services and outputs of the subcommittees. It will also provide a better understanding of the involvement of the states and areas of duplication of effort. It will result in a framework for SCOH to make better decisions on cross-cutting areas as well provide a realistic picture of the support that can be expected from the subcommittees in implementing strategic actions.
Recommendation

SCOH will issue a Request for Proposal to conduct a review of products, services and outputs of each SCOH subcommittee. The following are the steps being considered as part of the review:

1. Have a review done of the outputs of each subcommittee, technical and special committee and the cost associated with delivering these outputs. Output includes both products and services such as those by groups that review and provide feedback on the MUTCD and also groups that collaborate with FHWA on various projects to test, evaluate, review or comment on products, guidelines and regulations;

2. Review the value received from each of the subcommittees, technical and special committees and also understand which of the states are active in these groups;

3. Identify if any of the special committees should be under a subcommittee or should any of them become a subcommittee;

4. To ensure continuity, the review should identify subcommittees that have CEOs as chairs and develop a process to have SCOH members lead these groups as CEOs leave these positions;

5. AASHTO Staff and SCOH leadership will collaborate to have SCOH members as Vice Chairs of SCOH subcommittees where CEOs are Chairs.

Follow-up Action: Issue an RFP under 20-07 to have the above review done. The report that will be the deliverable of the RFP will be submitted to the SCOH Executive Committee for review and approval.

Issue-5: Actions in the Plan where SCOH does not have Lead Responsibility

Background

The SCOH strategic plan covers many cross-cutting areas. Seventeen of these action items relate to issues being led by other AASHTO committees. SCOH plans to work collaboratively on these action items and have SCOH liaisons be the two-way communication link between the SCOH and these other committees. To successfully implement the plan, SCOH needs to have liaisons on the committees leading these 17 strategic actions.

Recommendation

To implement such cross-cutting actions, the SCOH IG proposes the following:

1. Separate out action items for which SCOH is not in the lead and for which it will rely upon the liaisons. Write a draft of such a plan which is greatly streamlined by its reliance on the liaisons to fulfill the detailed coordination steps;

2. AASHTO Staff will identify SCOH members on other committees where SCOH is not in the lead but wants to participate actively. Staff will also identify candidates from these SCOH members who can serve as the liaison and backup liaison;

3. AASHTO staff will call and solicit SCOH members including those who volunteered at the AASHTO fall 2009 meeting to lead strategic action items as lead liaisons and backup liaisons.
The staff will communicate the names of SCOH members who agreed to be lead and backup liaisons on various strategic action items;

4. Staff will also identify committees where SCOH has no members to serve as liaisons;

5. AASHTO Staff will collaborate with SCOH IG to solicit SCOH members to join such groups that have no current SCOH members to become members and serve as liaisons and backup liaisons.

(Refer to Appendix A for a more streamlined version of the plan)

**Issue-6: Roles and Responsibilities for SCOH Liaisons**

**Background**

The implementation plan discusses in detail the use of SCOH members as liaisons to other AASHTO groups which lead strategic actions. It is important to define the roles, responsibilities and expectations of the SCOH liaisons to ensure that the objective of two-way communication occurs and the action items in the plan are implemented successfully.

**Recommendation**

1. Consultants will develop the concept of the liaisons and the important role the liaisons will play in the two-way communication between SCOH and the other committees;

2. Consultants will summarize and draft the roles and responsibilities for SCOH liaisons;

3. AASHTO staff will draft a memo from the SCOH Chair to the liaisons that explains the roles and responsibilities/expectations of the SCOH liaisons;

4. SCOH liaisons will be the two-way communication link between SCOH and these other AASHTO committees. They will represent SCOH's interests with these other AASHTO groups;

5. The liaisons will be the conduits for keeping SCOH informed of the activities in the other committees and of communicating SCOH's priorities to those committees. They will provide updates on the progress of strategic items under their charge.

The roles and responsibilities of SCOH liaisons are identified in the section titled “Roles and Responsibilities of SCOH Liaisons.” For ease of reference these are listed below. Additional responsibilities may be identified after the plan is implemented. The roles and responsibility of the liaisons will be updated to reflect these additional responsibilities. SCOH liaisons will be responsible for at the least the following:

1. Providing regular updates at SCOH meetings and communicating back to SCOH the progress of these action items of interest to SCOH members. They will communicate back to these other AASHTO groups any concerns that SCOH members have on the progress of the strategic action items along with suggestions made by SCOH members to address the concerns;

2. Communicating to the other committees SCOH's position on other relevant issues;

3. Communicating to SCOH the position of the other committee;
4. Identifying areas for collaboration and coordination between the committees;
5. Reporting upon emerging issues which may be of interest to SCOH;
6. Collaborating on research topics;
7. Ensuring that time is set-aside on the SCOH meeting agenda to have discussions and presentations on relevant topics;
8. Integrating the findings, policies, research and products of the other committees into SCOH, its subcommittees and technical committees.

**Issue-7: SCOH Addressing Freight Issues**

**Background**

During the development of the SCOH strategic plan, discussions were held with members of some of the TRB freight committees to obtain their perspective on how SCOH could support the freight action identified both in the AASHTO and SCOH strategic plan. From these and other follow-up discussions it appears that there are many areas of freight movement where SCOH could assist. These areas include addressing interchange design, steep grades, signalized and non-signalized intersections and highway sections with major bottlenecks. SCOH efforts in these areas are not well coordinated and could benefit from some direction. The SCOG IG invited AASHTO staff working in the area of freight to share their perspective with the group. During the discussion it became apparent that the Subcommittee on Highway Transport (SCOHT) is not a full comprehensive Highway Freight committee. It is a subcommittee focused on important permitting issues related to truck size and weight. The question of whether the current SCOHT membership was adequate was mentioned. The team also discussed the objectives that could be served by having a broader freight group and the challenges for states to staff such a group.

**Recommendation**

The SCOH IG proposed the following to support the broader issues of freight:

1. Consider if there would be value to have SCOH representation at the Intermodal Committee;
2. Increase SCOH participation in SCOHT meetings and find a volunteer to be the SCOH Liaison to SCOHT. The liaison will also be the person who would facilitate the discussion between SCOH, SCOHT and other committees;
3. Have a SCOH member as Vice Chair of SCOHT;
4. Based on the narrowly focused current membership, SCOHT will not be able to identify all of the pertinent policy areas;
5. Members of SCOH, its subcommittees and SCOHT should collaborate to develop an agenda in the area of freight from broad policy to engineering issues, particularly ones related to other SCOH subcommittees. The areas considered should include design, pavement, bridge and maintenance. The collaboration can be facilitated by asking the subcommittees to identify freight related issues in their work plans.
General Comments

Areas for discussion and collaboration between SCOH, its subcommittees and SCOHT should include:

- a proposal addressing 97,000 pound trucks and the implication of such weight on bridges, pavements, operations and maintenance. Congress is discussing these issues and SCOH needs to have its subcommittees address them. Based on the recommendations from the subcommittees, SCOH could propose appropriate policy changes;
- addressing the issues pertaining to truck parking. The next update to the rest area guide should address the major issue of truck parking;
- addressing the impact of jackknifed trucks on the movement of freight traffic.

Issue-8: SCOH Contributing to Policy Decisions

Background

The vast majority of resolutions SCOH initiates come from the subcommittees. Very few have come from SCOH as a committee or from SCOH members. During the discussion, members noted that in the last two reauthorization committees, though there were SCOH members involved, there was no representation of SCOH per se. Members felt that SCOH needs to identify a way from a governance standpoint to have SCOH more engaged as a committee in generating and leading policy issues related to highways.

The SCOH IG team discussed at length and recommended the creation of an Executive Committee. One member said that having such a group and a process would have helped the subcommittee on Traffic Engineering as it addressed retro-reflectivity of pavement markings when there was concern about how to meet the demands of FHWA to meet retro-reflectivity requirements.

The SCOH IG thought that SCOH needed to have a way to discuss and bring forth policy issues to the Board of Directors. They also felt that a smaller group within SCOH will need to take on the responsibility of drafting the resolutions and positions on strategic issues. These resolutions could then be circulated to SCOH members for comments. The SCOH IG discussed at length and recommended the creation of an Executive Committee.

Recommendation

The SCOH IG proposed the following to facilitate and ensure SCOH involvement in policy issues:

1. Create an Executive Committee consisting of the Vice Chair of SCOH and Chairs of various subcommittees to drive and make policy proposals. This Chairs of the subcommittees on this committee will be responsible for ensuring the participation and input from the subcommittees;
2. SCOH needs some way to be discussing the policy issues and bringing forward to the Board of Director's SCOH's concerns and direction with those policies. This group will be involved in higher level policy issues such as funding, eligibility, reacting to proposed restrictions on the use of highway funds. This committee will also review recommendations.
3. In the past, highway policy issues have not been assigned to SCOH, instead they have been assigned to ad-hoc groups. This group will lead the effort to address highway policy issues and ensure that the chief engineers’ perspective is incorporated in policies conveyed to the Board of directors and in future re-authorizations;

4. The team discussed and noted that most of the strategic issues are "body of SCOH" issues and will probably not come from the subcommittees and will have to come from SCOH;

5. This group will be responsible for drafting the resolutions and positions on strategic issues. These drafts can then be circulated to SCOH members for comments;

6. The Executive Committee could also be used to address the question of SCOH leadership in research. SCOH members on SCOR are frustrated to see no projects come from SCOH. SCOH members expressed concern that all the project requests for research come from the subcommittees. The Executive Committee could address the lack of SCOH leadership and participation in research. The committee could lead the SCOH effort on developing research proposals for SCOH and also screen and prioritize the research proposals from the subcommittees and then submit them to SCOR;

7. The work of the NCHRP 20-07 project panel would continue while the Executive Committee takes on the responsibility of the larger research issues. There is a need for the SCOH liaisons and other standing committees to place priorities on strategic research including that required in the SCOH strategic plan. The executive committee could prioritize such research requests. This will not be a replacement for the 20-07 panel.

**Issue-9: Streamline Meetings and Discussion Forums**

**Background**

The SCOH IG discussed how to have time for productive meetings with 17 liaisons to the other standing committees and the nine subcommittees and the many technical subcommittees and special committees. They also discussed how SCOH would engage the subcommittees productively?

**Recommendation**

After much discussion the following steps were proposed:

1. Additional meetings to obtain updates on progress of strategic action items should be scheduled in advance to allow members to participate;

2. The agenda should be structured and well planned to cover important areas of priority to SCOH members;

3. Streamline meetings to have discussion on areas of importance to the chief engineers. Meetings should provide for use of technology options that enable members to participate remotely in the discussions;
4. Streamline strategic plan update meetings to ensure that SCOH members get quick updates on the progress of action items;

5. Meetings should focus on facilitating the identification and discussion of bottlenecks and delays to the implementation of the strategic action items. They should also be result-oriented where the discussion results in recommended corrective action to get the plan back on track;

6. Formal process for tracking progress of action items should be instituted.

Note: The recommendation addressing issue-9 has been detailed in section “5.4 Streamline Meetings.”

**Issue-10: Supporting Performance Management**

**Background**

Performance management is an area where SCOH has great interest but the lead responsibility rests with the standing Committee on Performance Management. The team discussed how SCOH can contribute by collaborating with other groups to support performance management efforts.

The SCOH IG discussed the action item “6.1. Create a SCOH Performance Management Task Group to act quickly in providing technical guidance to AASHTO for the re-authorization legislation” was not necessary.

**Recommendation**

The decision of the SCOH IG on the action item is presented in the recommendation detailed below:

1. SCOH will not create a separate task team to address performance management.

2. SCOH will have a liaison to the Standing Committee on Performance Management. The liaison coupled with the process where AASHTO staffs engage SCOH members as necessary to support AASHTO’s various efforts pertaining to performance management would address the action items in the strategic plan;

3. Several SCOH subcommittees, technical committees and task groups will also be working on action items that contribute to the AASHTO performance management initiative. These groups will also include the progress made on the performance-management action items when they provide the progress update to SCOH on the strategic plan action item.

**Issue-11: Engaging in Asset Management**

**Background**

It was noted that SCOH has struggled to get involvement from members in the Asset Management Subcommittee. The Asset Management subcommittee was set up so that many of the Asset Management members had to be SCOH members. Members noted that to contribute productively, SCOH may have to be flexible on who the members should be.
Though Organizationally the Asset Management Subcommittee reports to the Standing Committee on Planning, SCOH members expect the subcommittee to have responsibilities similar to that of other SCOH subcommittees. The members discussed and agreed that in terms of reporting the asset management subcommittee should be providing regular updates to SCOH similar to those provided by other subcommittees.

**Recommendation**

The team suggested the following as a more effective way to address asset management issues:

1. SCOH will continue to have a member as Vice Chair of the Asset Management subcommittee;
2. SCOH will revise its membership to the Asset Management subcommittee to ensure that SCOH is more productively engaged in asset management related activities. The revision will include:
   a. Having at least four SCOH members and;
   b. SCOH will appoint four additional members representing the four regions. These appointees would be subject matter experts.
3. One of these eight members can serve as the SCOH liaison and another can be the backup liaison responsible for leading the coordination and two-way communication on strategic action items pertaining to asset management;
4. The liaison or backup liaison would be responsible for providing regular progress updates to SCOH members.
5. Having an AASHTO staff with lead asset management responsibility would also be important to the success of the asset management initiative;
6. AASHTO staff would work on drafting and sending the resolution necessary to implement the amendments to the Board of Directors.

**Issue-12: Supporting Communicating the Value of Transportation**

**Background**

The SCOH IG discussed the action item on communicating the value of transportation that reads:

“Support the Board of Directors in communicating the value of transportation.”

One of the action items suggested assigning three members to work with the Board of Directors to develop policy, programmatic and technical messages and communicate the messages at the state and local level.

The team decided that implementing the new approach of using a SCOH Liaison to serve as the two-way coordination and communication link between SCOH and the other AASHTO groups would eliminate the need to assign additional members. The roles and responsibilities of the SCOH Liaison would ensure that the necessary coordination, update and communication between SCOH and the
Board of Directors occur. SCOH will engage on topics as needed rather than create a separate group to address communication with the board.

Recommendation

The SCOH IG proposed the following steps to address supporting the value of transportation:

1. SCOH will not create a separate task team to support the board of directors in communicating the value of transportation;
2. SCOH will use the following two options for coordinating with AASHTO and sharing messages about the value of transportation:
   I. SCOH will assign a liaison and a backup to be the two-way communication link to coordinate and communicate AASHTO messages at the state and local level;
   II. AASHTO staff assigned to SCOH will coordinate and communicate with AASHTO staff working on messages for AASHTO and the Board of Directors. They will also serve as the additional liaison working with the SCOH liaison to support and enhance the two-way communication and coordination link between SCOH and AASHTO in communicating the value of transportation.

**Issue-13: System Preservation**

**Background**

The team discussed the role of SCOH in assisting the AASHTO Board of Directors in advocating to Congress for adequate funding for system preservation. One of the action items in the strategic plan reads as follows:

“Assist the AASHTO Board of Directors in advocating to Congress for adequate funding for system preservation.”

The implementation of the above action involved SCOH designating its members to work with the Board of Directors.

The team touched on the discussion that occurred at the May 2009 SCOH workshop where SCOH members had expressed disappointment at not being asked to participate in the “Bottom Line” and other similar reports. The team noted that governance issues also involved asking the subcommittees to provide technical data to pass on to the board for such reports in the future.

**Recommendation**

After discussion on the topic the SCOH IG proposed the following:

1. SCOH will lead actions in system preservation. SCOH will do so by directing the subcommittees to identify action items in the subcommittee work plan to support system preservation. Progress on such action items will be included in the updates provided by the subcommittee leadership.
Subcommittees such as maintenance and bridge are already doing important work pertaining to system preservation;

2. The team decided that SCOH should be engaged in the development of such reports in the future. To support the development of AASHTO reports, the AASHTO staff would call on SCOH and subcommittee members;

3. The SCOH Executive Committee will consider all aspects of system preservation as it develops policy recommendations to forward to the Board of Directors. The committee will obtain information and recommendations from its members, subcommittees, technical committees and task groups in developing these policy recommendations.

**Issue-14: Project Delivery**

**Background**

The SCOH IG agreed that Project delivery is a core business where SCOH should provide leadership. The group discussed how states are dealing with project delivery and how SCOH can effectively address project delivery.

**Recommendation**

The group proposed the following to address project delivery:

1. Instead of a separate subcommittee, have a joint technical committee. Identify the committees that should be parents of this technical committee. Examples include design, construction and environmental (SCOE);

2. This group will be responsible for looking at the cross-cutting project delivery and project management issues.

3. The cross-cutting issues that the Joint technical committee would deal with are issues that do not fall neatly under the current SCOH subcommittee structure. These deal primarily with issues of coordination and management including:
   a. Project management issues in which coordination of project schedules includes coordinating between disciplines, such as between planning, right of way, environmental, context sensitive solutions, design and construction;
   b. The effects of innovative contracting methods which may blur the lines between planning, environmental and design, such as occurs in design-build projects versus design-bid-build projects;
   c. The effects of environmental commitments made during the environmental phase upon issues in design and construction;
   d. The development of improved project-management skills for transportation personnel;
   e. The engagement of the design and construction personnel in the discussion of environmental streamlining;
f. Innovations in project-delivery techniques such as expanded use of standardized drawings, accelerated construction techniques, and contract incentives.

g. Innovations in project delivery in the area of accelerated right of way acquisition and utility coordination.

4. The charge to the Joint Project Delivery Technical Committee would include at least the following:

   a. Develop guidance, procedures and processes to streamline the coordination and management of cross-cutting project delivery and project management issues;

   b. Develop guidance, policy and procedures to accommodate expansion of innovative contracting methods;

   c. Develop a process to produce research, best practices, policies and procedures to promote advances in project delivery time, cost and quality;

   d. Engage stakeholders from cross-cutting areas including roadway design, structures and construction to promote innovative construction processes to improve construction schedule, cost and quality;

   e. Engage and coordinate with FHWA to address issues related to project delivery. Collaborate and coordinate with FHWA to successfully implement SHRP2 capacity related implementation projects, research and address related issues;

   f. Devise a meeting format or communication process which creates cross-discipline communication between the fields of planning, environmental, roadway design, structures, right of way, utilities, railroad coordination, and construction;

   g. Recognize limitations in time, travel budgets and AASHTO staff support which face all AASHTO bodies

5. The members to this joint technical committee will be selected through collaboration between SCOH and subcommittee leadership. The selection would be through a combination of soliciting some volunteers and appointing others. The members would include:

   a. Four members from each of the SCOH subcommittees that are involved in project delivery;

   b. Members would also include representatives from other relevant standing committees;

   c. The committee would also include select individuals as members who are not on the subcommittees but are recognized as having expertise in select areas related to project delivery.

**Issue-15: SHRP2 Implementation and Role of the Technology Implementation Group**

**Background**

The SCOH IG discussed the following action item in the SCOH Strategic Plan under the objective of System Preservation:
SHRP2 has four Technical Coordination Committees that will be leading the implementation of the four SHRP2 focus areas pertaining to safety, reliability, renewal and capacity. The SHRP2 leadership expects to have at least two chief engineers in each of the four SHRP2 implementation groups. FHWA is also working on funding a full time staff position in AASHTO to support the SHRP2 implementation groups.

The SCOH IG also discussed the following strategic action items under Research and Emerging Technology:

“Focus TIG in areas of importance to Chief Engineers.”

The members discussed that the role of TIG has been to take proven technology and spread it to states. The original role of TIG was to start the “lead state” process and TIG developed that well. The “lead state” process worked well and now there are many alternatives available to states so few candidate projects come to TIG. With the challenges of lack of funds and the many alternatives available to states, SCOH IG thought that this might be an opportune time to consolidate the activities of TIG. The team discussed that SHRP2 Implementation groups were being assigned to do tasks previously assigned to TIG, and with substantially more funds.

Recommendation

Based on the SHRP2 plans to lead implementation of research in the four focus areas and to avoid duplication of efforts the SCOH IG proposed the following:

1. SCOH will not create any task teams to address SHRP2 implementation;
2. TIG would change its current charge and take on a new charge to support the efforts of the SHRP2 Implementation;
3. SCOH leadership/AASHTO staff will discuss with interested SCOH member subject matter experts and consider the new role of TIG as they appoint SCOH members to work on the four SHRP2 Implementation teams;
4. A resolution will be made at the 2010 spring meeting to change the role of TIG to support SHRP2.

SCOH Members on the SCOH Implementation Group

- Amadeo Saenz (Chair SCOH)
- Neil Pedersen (Vice Chair SCOH)
- Carlos Braceras
- Del McOmie
- Grant Levi
- Khani Sahebjam
- Kevin Chesnik
• Pam Hutton
• Rick Land,
• Kevin Keith
• Scott Rawlins

AASHTO Staff

• Jim McDonnell
• Ken Kobetsky

Consultant Team

• Shobna Varma
• Gordon Proctor
APPENDICES
**Table Showing the Keys to the Color Coding of Action Items**

The table below shows the color coding assigned to different groups as used in the Appendices to differentiate the action items amongst the groups for easy reference.

<table>
<thead>
<tr>
<th>Key Group Involved</th>
<th>Color</th>
<th>Total Number of Actions by the Key Group</th>
<th>Percentage split of actions between the different groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Liaison Activities</td>
<td></td>
<td>17</td>
<td>42.50%</td>
</tr>
<tr>
<td>2 Subcommittee Activities</td>
<td></td>
<td>3</td>
<td>7.50%</td>
</tr>
<tr>
<td>3 SCOH to Lead</td>
<td></td>
<td>4</td>
<td>10.00%</td>
</tr>
<tr>
<td>4 SCOH Implementation Group (SCOH IG)</td>
<td></td>
<td>7</td>
<td>17.50%</td>
</tr>
<tr>
<td>5 AASHTO Staff</td>
<td></td>
<td>1</td>
<td>2.50%</td>
</tr>
<tr>
<td>6 *Joint Responsibilities</td>
<td></td>
<td>8</td>
<td>20.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>40</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The 11 strategic objectives are colored

Reference table providing the key to the colors used and Summary of the involvement of the five groups in the implementation of the actions in the SCOH Strategic Plan

The “Joint Responsibilities” indicate where more than 1 group has involvement in the action.

**Abbreviations:**

- SC: SCOH Subcommittee;
- SCOH IG: SCOH Implementation Group

**NOTE:** The appendices reflect the action items as shown in the approved strategic plan. Several action items assigned to the SCOH IG have since been completed and a few action items have been dropped as a result of recommendations made by the SCOH IG. The recommendations leading to the dropping of the action items are covered in section 8.0. These changes will be incorporated into the implementation plan after the 2010 spring meeting.
## APPENDIX A

**Summarized Comprehensive Implementation Plan**

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0 Overarching Objectives and Action Items</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1.1 TECHNICAL SERVICES:</strong> Objective - Develop and disseminate standards etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>SCOH IG</td>
<td>Governance</td>
</tr>
<tr>
<td></td>
<td>1. SCOH will provide the strategic direction on priorities to its subcommittees and technical committees for their development of policies, procedures and technical standards.</td>
<td></td>
</tr>
<tr>
<td><strong>1.2: GOVERNANCE ISSUES:</strong> Objective - Ensure coordination and collaboration with subcommittees and others.</td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>SCOH IG</td>
<td>Governance</td>
</tr>
<tr>
<td></td>
<td>1.Create a governance task team to address governance</td>
<td></td>
</tr>
<tr>
<td><strong>2.0 Freight:</strong> Objective - Support improvement of the national freight network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Freight Liaisons</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td></td>
<td>2.1. Collaborate with the other freight bodies to identify and define the national freight system and related intermodal connectors.</td>
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</tr>
<tr>
<td>4</td>
<td>Freight Liaisons</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td></td>
<td>2.2 Address bottlenecks and operational problems with freight movement on the transportation system.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subcommittees to identify modifications necessary to design standards and operational procedures to accommodate freight</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>SCOH IG</td>
<td>Governance</td>
</tr>
<tr>
<td></td>
<td>2.3. Review responsibilities of Subcommittee on Highway Transport</td>
<td></td>
</tr>
<tr>
<td><strong>3.0: Cut Fatalities in Half by 2030:</strong> Objective - Cut fatalities by half by 2030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Safety Liaison</td>
<td>Schedule time on SCOH meeting agenda</td>
</tr>
<tr>
<td></td>
<td>3.1 Share safety best practices</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Safety Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td></td>
<td>3.2 Support SCOHTS in assisting local partners on reducing fatalities</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SCOH to Lead</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td></td>
<td>3.3 Prioritize research projects that address reducing fatalities for submission to SCOR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide input to TIG on use of technology to address safety</td>
<td></td>
</tr>
<tr>
<td>Actions/Tasks</td>
<td>Assigned To</td>
<td>Type of Effort</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>3.4 Be involved in communicating messages on safety</td>
<td>Safety Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>3.5 Sponsor Joint meetings seminars and research to reduce fatalities</td>
<td>Safety Liaison</td>
<td>Throughout the life of plan</td>
</tr>
</tbody>
</table>

### 4.0 **CONGESTION FREE AMERICA** Objective: Promote operational and technological improvements to address congestion

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Fund a synthesis study to create a compendium of national and international best practices to maximize operational efficiency.</td>
<td>Congestion Liaison</td>
<td>Write a Research proposal Participate on the panel</td>
</tr>
<tr>
<td>4.2 Identify best practices and organizational structures to advance system preservation Also explore the creation of a Resource Center to facilitate broad implementation of best practices.</td>
<td>Congestion Liaison</td>
<td>Either write a research proposal Create short-term task force.</td>
</tr>
<tr>
<td>4.3 Collaborate in SHRP2 implementation projects that address congestion, reliability and mobility.</td>
<td>SCOH IG Congestion Liaison</td>
<td>Designate SCOH members to work with SHRP2 Implementation team</td>
</tr>
</tbody>
</table>

### 5.0 **Climate Change** Objective: Support technical and policy changes on Climate Change and GHG.

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Support AASHTO’s Climate Change Steering Committee in climate change mitigation and adaptation.</td>
<td>Climate Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>5.2 Collaborate on evaluating short-term infrastructure rehabilitation projects in addressing highly vulnerable locations. Subcommittee on Bridges and Structure to develop templates for use by states to evaluate need feedback from states</td>
<td>Climate Liaison SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Actions/Tasks</td>
<td>Assigned To</td>
<td>Type of Effort</td>
</tr>
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</tr>
<tr>
<td>16</td>
<td>5.3 Support research and operational strategies to reduce GHG. Subcommittees to identify possible operational improvements to support current research on Climate change. Subcommittees to develop operations strategies that lower energy consumption, reduce congestion and reduce costs in their work plan</td>
<td>Climate Liaison SC</td>
</tr>
<tr>
<td>17</td>
<td>5.4 Promote climate change in SCOH’s research proposals. Subcommittees to identify gaps in current standards and guidelines pertaining to climate change.</td>
<td>Climate Liaison SC</td>
</tr>
<tr>
<td>18</td>
<td>5.5 Subcommittees to evaluate design standards, policy development, technical standards, infrastructure planning, design and development and identify gaps in addressing GHG.</td>
<td>SC</td>
</tr>
</tbody>
</table>

**6.0: PERFORMANCE MANAGEMENT**

**Objective:** Support Board of Directors and AASHTO in development and implementation of performance-based management.

| 19 | 6.1 Create a SCOH Performance Management Task Group to act quickly in providing technical guidance to AASHTO for the re-authorization legislation. | SCOH | As necessary |
| 20 | 6.2 Provide input in developing common definitions and data-collection processes in order to "operationalize" uniform, accurate, timely, and cost-effective highway performance measures. | Performance Management Liaison | Throughout the life of plan |
| 21 | 6.3 Facilitate a shift from a process-oriented program and project delivery system to an outcome-based project and program delivery process. | Performance Management Liaison | Throughout the life of plan |

**7.0: Communicate the Value of Transportation**

**Objective:** Support the Board of Directors to secure support for ‘net new revenue’

<p>| 22 | 7.1 Support the Board of Directors in communicating the value of transportation. Assign three members to work with BoD to develop policy, programmatic and technical messages and communicate the message at state and local level | SCOH IG | Assign three SCOH members |
| 23 | 7.2 Issue a periodic Chief Engineers Report | SCOH | Write a Research proposal, Participate on the panel. |</p>
<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 7.3 Coordinate with AASHTO in sharing messages about the value of transportation with other non-AASHTO groups</td>
<td>CVT Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>8.0: RESEARCH AND EMERGING TECHNOLOGY Objective</strong>: Identify, develop and communicate technical standards, policies and facilitate research and use of emerging technologies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 8.1 Prioritize and recommend high payoff, cross-cutting research areas of critical interest to the chief engineers. Prioritizing projects submitted to SCOR by its Subcommittees.</td>
<td>SCOH</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>26 8.2 Pilot implementable research projects and package results for appropriate marketing and integration into normal operations in DOTs.</td>
<td>R&amp;ET Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>27 8.3 Expedite adoption of promising innovations that have been pilot tested and documented. Focus TIG in areas of importance to Chief Engineers</td>
<td>R&amp;ET Liaison, SCOH IG</td>
<td>Through the life of plan, Governance</td>
</tr>
<tr>
<td>28 8.4 Review current process of implementing improvements to AASHTO technical standards and research and recommend ways improve process to accelerate updating of manuals Use technical memorandum to expedite adoption of changes to technical standards, guidelines etc.</td>
<td>R&amp;ET Liaison, AASHTO Staff</td>
<td>Write an RFP Propose to panel, Participate on panel, Throughout the life of plan</td>
</tr>
<tr>
<td><strong>9.0: Workforce Planning and Development Objective</strong>: Address workforce planning and development (recruitment, retention, succession planning, core competencies and professional development) in highway-related disciplines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 9.1 Facilitate progress on current and future workforce challenges</td>
<td>Workforce Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>30 9.2 Propose a comprehensive workforce assessment tool and training clearinghouse</td>
<td>Workforce Liaison</td>
<td>Propose to SCOFA-HR</td>
</tr>
<tr>
<td>31 9.3 Implement a corporate university concept for state DOTs</td>
<td>Workforce Liaison</td>
<td>Write a research proposal, Participate on panel</td>
</tr>
<tr>
<td>32 9.4 Identify priorities for current training needs, Conversion or development of technical or professional development courses to web-based training or self-study programs</td>
<td>SC, Workforce Liaison, Or Guide SCOFA-HR</td>
<td>Survey members, consolidate results, Collaboration and guidance to SCOFA-HR</td>
</tr>
<tr>
<td><strong>10.0: Project Delivery Objective</strong>: Support and promote changes to accelerate project delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actions/Tasks</td>
<td>Assigned To</td>
<td>Type of Effort</td>
</tr>
<tr>
<td>--------------</td>
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<td>----------------</td>
</tr>
<tr>
<td>33 10.1 Collaborate with Center for Environmental Excellence and others to promote environmental streamlining</td>
<td>Liaisons to SCOE</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>34 10.2 Create a group to work with SHRP2 Implementation task team and FHWA focusing on accelerating transportation programs and project delivery</td>
<td>SCOH IG</td>
<td>Governance Decision</td>
</tr>
<tr>
<td>35 10.3 Subcommittees to examine and recommend changes to standards, policies, etc to promote collaborative project delivery and accelerate the design, construction, inspection of projects</td>
<td>Appropriate SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>36 10.4 Work with SCOPM to address role and responsibility of Task Force on Project Delivery to address cross-cutting issues</td>
<td>AASHTO Staff</td>
<td>Schedule meetings between SCOH and SCPM</td>
</tr>
</tbody>
</table>

11.0: **System Preservation Objective**: Advance technology and techniques to improve system conditions and adopt measures that provide intelligence on system performance.

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>37 11.1 Identify and promote primary technologies, strategies, etc to support rapid construction, rehabilitation, preservation and maintenance of the highway system and improve system conditions</td>
<td>SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>38 11.2 Assist the AASHTO Board of Directors in advocating to congress for adequate funding for system preservation</td>
<td>SCOH IG</td>
<td>Designate SCOH members</td>
</tr>
<tr>
<td>39 11.3 Support implementation of research being conducted in the SHRP2 Renewal track.</td>
<td>SCOH IG</td>
<td>Designate members to SHRP2 team</td>
</tr>
<tr>
<td>40 11.4 Actively advance the practice of asset management</td>
<td>Asset Management Liaison</td>
<td>Throughout the life of plan</td>
</tr>
</tbody>
</table>
# Appendix B

**Table of all action items where SCOH liaisons have lead responsibility**

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.0 Freight: Objective - Support improvement of the national freight network</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Collaborate with the other freight bodies to identify and define the national freight system and related intermodal connectors.</td>
<td>Freight Liaisons</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>3.0: Cut Fatalities in Half by 2030: Objective - Cut fatalities by half by 2030</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 Share safety best practices</td>
<td>Safety Liaison</td>
<td>Schedule time on SCOH meeting agenda</td>
</tr>
<tr>
<td>3.2 Support SCOHTS in assisting local partners on reducing fatalities</td>
<td>Safety Liaison</td>
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<td>3.4 Be involved in communicating messages on safety</td>
<td>Safety Liaison</td>
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</tr>
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<td>3.5 Sponsor Joint meetings seminars and research to reduce fatalities</td>
<td>Safety Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>4.0: Congestion Free America Objective: Promote operational and technological improvements to address congestion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 Fund a synthesis study to create a compendium of national and international best practices to maximize operational efficiency.</td>
<td>Congestion Liaison</td>
<td>Write a Research proposal Participate on the panel</td>
</tr>
<tr>
<td>4.2 Identify best practices and organizational structures to advance system preservation Also explore the creation of a Resource Center to facilitate broad implementation of best practices.</td>
<td>Congestion Liaison</td>
<td>Either write a research proposal Create short-term task force</td>
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<tr>
<td>Actions/Tasks</td>
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<td>Type of Effort</td>
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</tr>
<tr>
<td><strong>5.0: Climate Change Objective:</strong> Support technical and policy changes on Climate Change and GHG.</td>
<td></td>
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</tr>
<tr>
<td>L8 5.1 Support AASHTO's Climate Change Steering Committee in climate change mitigation and adaptation.</td>
<td>Climate Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>6.0: PERFORMANCE MANAGEMENT Objective:</strong> Support Board of Directors and AASHTO in development and implementation of performance-based management.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L9 6.2 Provide input in developing common definitions and data-collection processes in order to “operationalize” uniform, accurate, timely, and cost-effective highway performance measures.</td>
<td>Performance Management Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>L10 6.3 Facilitate a shift from a process-oriented program and project delivery system to an outcome-based project and program delivery process.</td>
<td>Performance Management Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>7.0: Communicate the Value of Transportation Objective:</strong> Support the Board of Directors to secure support for ‘net new revenue’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L11 7.3 Coordinate with AASHTO in sharing messages about the value of transportation with other non-AASHTO groups</td>
<td>CVT Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>8.0: RESEARCH AND EMERGING TECHNOLOGY Objective:</strong> Identify, develop and communicate technical standards, policies and facilitate research and use of emerging technologies.</td>
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<td></td>
</tr>
<tr>
<td>L12 8.2 Pilot implementable research projects and package results for appropriate marketing and integration into normal operations in DOTs.</td>
<td>R&amp;ET Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>9.0: Workforce Planning and Development Objective:</strong> Address workforce planning and development (recruitment, retention, succession planning, core competencies and professional development) in highway-related disciplines</td>
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<td>L13 9.1 Facilitate progress on current and future workforce challenges</td>
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<td>L15 9.2 Propose a comprehensive workforce assessment tool and training clearinghouse</td>
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<td>Propose to SCOFA-HR</td>
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<td>L15 9.3 Implement a corporate university concept for state DOTs</td>
<td>Workforce Liaison</td>
<td>Write a research proposal Participate on panel</td>
</tr>
<tr>
<td><strong>10.0: Project Delivery Objective:</strong> Support and promote changes to accelerate project delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L16 10.1 Collaborate with Center for Environmental Excellence and others to promote environmental streamlining</td>
<td>Liaisons to SCOE</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Actions/Tasks</td>
<td>Assigned To</td>
<td>Type of Effort</td>
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<tr>
<td>-----------------------------------------------------------------------------</td>
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<td>--------------------------------</td>
</tr>
<tr>
<td><strong>11.0: System Preservation Objective:</strong> Advance technology and techniques to improve system conditions and adopt measures that provide intelligence on system performance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L17 11.4 Actively advance the practice of asset management</td>
<td>Asset Management Liaison</td>
<td>Throughout the life of plan</td>
</tr>
</tbody>
</table>
## APPENDIX C

*Table of all action items where SCOH liaisons have joint responsibility*

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
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</thead>
<tbody>
<tr>
<td><strong>2.0 Freight: Objective</strong> - Support improvement of the national freight network</td>
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</tr>
<tr>
<td>J1 2. 2 Address bottlenecks and operational problems with freight movement on the transportation system. Subcommittees to identify modifications necessary to design standards and operational procedures to accommodate freight</td>
<td>Freight Liaisons SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>4.0 CONGESTION FREE AMERICA Objective</strong> - Promote operational and technological improvements to address congestion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2 4.3 Collaborate in SHRP2 implementation projects that address congestion, reliability and mobility.</td>
<td>SCOH IG Congestion Liaison</td>
<td>Designate SCOH members to work with SHRP2 Implementation team</td>
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<tr>
<td><strong>5.0: Climate Change Objective</strong> - Support technical and policy changes on Climate Change and GHG.</td>
<td></td>
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<tr>
<td>J3 5.2 Collaborate on evaluating short-term infrastructure rehabilitation projects in addressing highly vulnerable locations. Subcommittee on Bridges and Structure to develop templates for use by states to evaluate need feedback from states</td>
<td>Climate Liaison SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>J4 5.3 Support research and operational strategies to reduce GHG. Subcommittees to identify possible operational improvements to support current research on Climate change. Subcommittees to develop operations strategies that lower energy consumption, reduce congestion and reduce costs in their work plan</td>
<td>Climate Liaison SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Actions/Tasks</td>
<td>Assigned To</td>
<td>Type of Effort</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
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<td>-------------------------------------</td>
</tr>
<tr>
<td><strong>J5</strong> 5.4 Promote climate change in SCOH's research proposals.</td>
<td>Climate Liaison SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Subcommittees to identify gaps in current standards and guidelines pertaining to climate change.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.0: RESEARCH AND EMERGING TECHNOLOGY Objective: Identify, develop and communicate technical standards, policies and facilitate research and use of emerging technologies.

| J6 8.3 Expedite adoption of promising innovations that have been pilot tested and documented. | R&ET Liaison SCOH IG               | Throughout the life of plan Governance |
| Focus TIG in areas of importance to Chief Engineers                          |                                     |                                     |

| J7 8.4 Review current process of implementing improvements to AASHTO technical standards and research and recommend ways improve process to accelerate updating of manuals | R&ET Liaison AASHTO Staff           | Write an RFP Participate on panel Throughout the life of plan |
| Use technical memorandum to expedite adoption of changes to technical standards, guidelines etc. |                                     |                                     |

9.0: Workforce Planning and Development Objective: Address workforce planning and development (recruitment, retention, succession planning, core competencies and professional development) in highway-related disciplines

| J8 9.4 Identify priorities for current training needs, Conversion or development of technical or professional development courses to web-based training or self-study programs | SC Workforce Liaison Or Guide SCOFA-HR | Survey members, consolidate results Collaboration and guidance to SCOFA-HR |

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**APPENDIX D**

*Table of all action items where Subcommittees have lead responsibility*

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5.0: Climate Change Objective:</strong> Support technical and policy changes on Climate Change and GHG.</td>
<td>SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>1 5.5 Subcommittees to evaluate design standards, policy development, technical standards, infrastructure planning, design and development and identify gaps in addressing GHG.</td>
<td>SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>10.0: Project Delivery Objective:</strong> Support and promote changes to accelerate project delivery</td>
<td>Appropriate SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>2 10.3 Subcommittees to examine and recommend changes to standards, policies, etc to promote collaborative project delivery and accelerate the design, construction, inspection of projects</td>
<td>Appropriate SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td><strong>11.0: System Preservation Objective:</strong> Advance technology and techniques to improve system conditions and adopt measures that provide intelligence on system performance.</td>
<td>SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>3 11. 1 Identify and promote primary technologies, strategies, etc to support rapid construction, rehabilitation, preservation and maintenance of the highway system and improve system conditions</td>
<td>SC</td>
<td>Throughout the life of plan</td>
</tr>
</tbody>
</table>
## APPENDIX E

**Table of all action items where Subcommittees have joint responsibility**

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.0 Freight: Objective - Support improvement of the national freight network</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. 2. Address bottlenecks and operational problems with freight movement on the transportation system.</td>
<td>Freight Liaisons SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Subcommittees to identify modifications necessary to design standards and operational procedures to accommodate freight</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5.0: Climate Change Objective: Support technical and policy changes on Climate Change and GHG.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. 5.2 Collaborate on evaluating short-term infrastructure rehabilitation projects in addressing highly vulnerable locations.</td>
<td>Climate Liaison SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Subcommittee on Bridges and Structure to develop templates for use by states to evaluate need feedback from states</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. 5.3 Support research and operational strategies to reduce GHG.</strong></td>
<td>Climate Liaison SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Subcommittees to identify possible operational improvements to support current research on Climate change.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subcommittees to develop operations strategies that lower energy consumption, reduce congestion and reduce costs in their work plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. 5.4 Promote climate change in SCOH’s research proposals.</strong></td>
<td>Climate Liaison SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Subcommittees to identify gaps in current standards and guidelines pertaining to climate change.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>9.0 : Workforce Planning and Development Objective: Address workforce planning and development (recruitment, retention, succession planning, core competencies and professional development) in highway-related disciplines</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. 9.4 Identify priorities for current training needs,</td>
<td>SC Workforce Liaison SCOFA-HR</td>
<td>Survey members, consolidate results Collaboration and guidance to SCOFA-HR</td>
</tr>
<tr>
<td>Conversion or development of technical or professional development courses to web-based training or self-study programs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table of all action items where SCOH has lead responsibility

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0: Cut Fatalities in Half by 2030: Objective - Cut fatalities by half by 2030</td>
<td>SCOH to Lead</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>3.3 Prioritize research projects that address reducing fatalities for submission to SCOR</td>
<td>SCOH to Lead</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Provide input to TIG on use of technology to address safety</td>
<td>SCOH</td>
<td>As necessary</td>
</tr>
<tr>
<td>6.0: PERFORMANCE MANAGEMENT Objective: Support Board of Directors and AASHTO in development and implementation of performance -based management.</td>
<td>SCOH</td>
<td>As necessary</td>
</tr>
<tr>
<td>6.1 Create a SCOH Performance Management Task Group to act quickly in providing technical guidance to AASHTO for the re-authorization legislation.</td>
<td>SCOH</td>
<td>As necessary</td>
</tr>
<tr>
<td>7.0: Communicate the Value of Transportation Objective: Support the Board of Directors to secure support for 'net new revenue'</td>
<td>SCOH</td>
<td>Write a Research proposal, Participate on the panel.</td>
</tr>
<tr>
<td>7.2 Issue a periodic Chief Engineers Report</td>
<td>SCOH</td>
<td>Write a Research proposal, Participate on the panel.</td>
</tr>
<tr>
<td>8.0: RESEARCH AND EMERGING TECHNOLOGY Objective: Identify, develop and communicate technical standards, policies and facilitate research and use of emerging technologies.</td>
<td>SCOH</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>8.1 Prioritize and recommend high payoff, cross-cutting research areas of critical interest to the chief engineers.</td>
<td>SCOH</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>Prioritizing projects submitted to SCOR by its Subcommittees.</td>
<td>SCOH</td>
<td>Throughout the life of plan</td>
</tr>
</tbody>
</table>
### APPENDIX G

**Table of all action items where SCOH Implementation Group has lead responsibility**

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0 Overarching Objectives and Action Items</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1.1 TECHNICAL SERVICES:</strong> Objective - Develop and disseminate standards etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. SCOH will provide the strategic direction on priorities to its subcommittees and technical committees for their development of policies, procedures and technical standards.</td>
<td>SCOH IG</td>
<td>Governance</td>
</tr>
<tr>
<td><strong>1.2: GOVERNANCE ISSUES:</strong> Objective - Ensure coordination and collaboration with subcommittees and others.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Create a governance task team to address governance</td>
<td>SCOH IG</td>
<td>Governance</td>
</tr>
<tr>
<td><strong>2.0 Freight:</strong> Objective - Support improvement of the national freight network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Review responsibilities of Subcommittee on Highway Transport</td>
<td>SCOH IG</td>
<td>Governance</td>
</tr>
<tr>
<td><strong>7.0: Communicate the Value of Transportation Objective:</strong> Support the Board of Directors to secure support for ’net new revenue’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Support the Board of Directors in communicating the value of transportation. Assign three members to work with BoD to develop policy, programmatic and technical messages and communicate the message at state and local level</td>
<td>SCOH IG</td>
<td>Assign three SCOH members</td>
</tr>
<tr>
<td><strong>10.0: Project Delivery Objective:</strong> Support and promote changes to accelerate project delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Create a group to work with SHRP2 Implementation task team and FHWA focusing on accelerating transportation programs and project delivery</td>
<td>SCOH IG</td>
<td>Governance Decision</td>
</tr>
<tr>
<td><strong>11.0: System Preservation Objective:</strong> Advance technology and techniques to improve system conditions and adopt measures that provide intelligence on system performance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Assist the AASHTO Board of Directors in advocating to congress for adequate funding for system preservation</td>
<td>SCOH IG</td>
<td>Designate SCOH members</td>
</tr>
<tr>
<td>7. Support implementation of research being conducted in the SHRP2 Renewal track.</td>
<td>SCOH IG</td>
<td>Designate members to SHRP2 team</td>
</tr>
</tbody>
</table>
### APPENDIX H

*Table of all action items where SCOH Implementation Group has joint responsibility*

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
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</tr>
</thead>
</table>
| **4.0: CONGESTION FREE AMERICA**  
Objective: Promote operational and technological improvements to address congestion | | |
| J1  
4.3 Collaborate in SHRP2 implementation projects that address congestion, reliability and mobility. | SCOH IG  
Congestion Liaison | Designate SCOH members to work with SHRP2 Implementation team |
| **8.0: RESEARCH AND EMERGING TECHNOLOGY**  
Objective: Identify, develop and communicate technical standards, policies and facilitate research and use of emerging technologies. | | |
| J2  
8.3 Expedite adoption of promising innovations that have been pilot tested and documented.  
Focus TIG in areas of importance to Chief Engineers | R&ET Liaison  
SCOH IG | Throughout the life of plan  
Governance |
## APPENDIX I

**Table of all action items where AASHTO Staff have lead responsibility**

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
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<th>Type of Effort</th>
</tr>
</thead>
</table>
| **10.0: Project Delivery**  
Objective: Support and promote changes to accelerate project delivery | | |
| 1  
10.4 Work with SCOPM to address role and responsibility of Task Force on Project Delivery to address cross-cutting issues | AASHTO Staff | Schedule meetings between SCOH and SCPM |

## APPENDIX J

**Table of all action items where AASHTO staff have joint responsibility**

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
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</tr>
</thead>
</table>
| **8.0: Research and Emerging Technology**  
Objective: Identify, develop and communicate technical standards, policies and facilitate research and use of emerging technologies. | | |
| J1  
8.4 Review current process of implementing improvements to AASHTO technical standards and research and recommend ways improve process to accelerate updating of manuals  
Use technical memorandum to expedite adoption of changes to technical standards, guidelines etc. | R&ET Liaison  
AASHTO Staff | Write an RFP  
Participate on panel  
Throughout the life of plan |
STANDING COMMITTEE ON HIGHWAYS (SCOH)
DRAFT AGENDA
BUSINESS MEETING
NATCHZ, MISSISSIPPI, NATCHZ CONVENTION CENTER
Friday, May 21, 2010 8:30 AM – 12:00 Noon

I. Call to Order and Opening Remarks ................................................................. Chair Amadeo Saenz, TX

II. Roll Call and Minutes from Palm Desert, CA, October 24, 2009 ..................... Secretary King W. Gee, FHWA

III. Call for Agenda Amendments ........................................................................... Chair Saenz, TX

CONSENT AGENDA:
A single Motion to accept all the items on this Consent Agenda is in order. After such a Motion is made and seconded, any member may remove an item for separate action. The Consent Agenda Motion will then be voted upon for the balance of the reports. After the Consent Agenda Motion for item IV. and V.A. through D. has been acted upon, the items removed will be taken up in order.

IV. Summary of SCOH Ballots from October 2009 to May 2010 (information) .......Chair Saenz, TX

V. Work Plans (information) ...................................................................................... Chair Saenz, TX

A. Subcommittee
1. Bridges and Structures ...................................................................................... Mal Kerley, VA
2. Construction ........................................................................................................ Michael Lewis, RI
3. Design .................................................................................................................. Carolann Wicks, DE
4. Highway Transport .............................................................................................. James Lynch, MT
5. Maintenance ....................................................................................................... Carlos Braceras, UT
6. Materials ............................................................................................................. Grant Levi, ND
7. Right-of-Way and Utilities ................................................................................... John P. Campbell, TX
8. Systems Operation and Management ................................................................. R. Scott Rawlins, NV
9. Traffic Engineering .............................................................................................. Del McOmie, NV

B. Task Force
1. Highway Safety Manual ...................................................................................... Don Vaughn, AL

C. Joint Committee
1. Technology Implementation Group (TIG) ........................................................... Kevin Chesnik, WI
2. AASHTO/ACEC (work plan not necessary) ....................................................... Paul Mattox, WV
3. SCOP-Asset Management (SCOP/SCOH) ......................................................... Kirk Steudle, MI

D. Special Committee
1. NTPEP Oversight Committee ................................................................. Christine Reed, IL
2. Special Committee on U.S. Route Numbering ................................................... D.W. Vaughn, AL
3. Special Committee on Wireless Technology ..................................................... William A. Brown, VA

VI. Motions — PROPOSED POLICY RESOLUTIONS (PPR) AND PROPOSED ADMINISTRATIVE RESOLUTIONS (PAR)
B. PPR: Implementation and Future Development of the Highway Safety Manual .... Don Vaughn, AL
C. PPR: Local Roads Safety Planning & Safety Messages Resolution ................... Kirk Steudle, MI
D. PPR: Endorsement of NPHQ Sponsorships Prospectus ...................................... John Barton, TX
E. PPR: NPHQ Resolution, Definition of Highway Quality ..................................... John Barton, TX
A. PPR: Retroreflectivity for Pavement Markings .................................................. Del McOmie, WY
VII. Reports
A. NCHRP 20-7 (action) ................................................................. Neil Pedersen, MD
B. Special Committee on U.S. Route Numbering (action)........... Don Vaughn, AL
C. SHRP2 Update ................................................................. Neil Hawks, TRB
D. Professional Development Hours & Future Committee Meetings (information) .. Marty Vitale, AASHTO

VIII. Presentations
F. Overview of “Every Day Counts”.............................................. Victor Mendez, FHWA
G. Executive Director’s Report on AASHTO Activities ................. John Horsley, AASHTO
H. FHWA Activities .................................................................... King W. Gee, FHWA
I. SCOR Update........................................................................ John Halikowski, AZ
J. AASHTO Technical Service Programs (TSP).............................. Ken Kobetsky, AASHTO
K. Future Role of TIG ................................................................. Kevin Chesnik, WI
L. Standing Committee on Performance Management......................

IX. Old Business ........................................................................Chair Saenz, TX
X. New Business........................................................................Chair Saenz, TX
A. Announcement - AASHTO Engineering Fellows for 2010-2011 .......... Ken Kobetsky, AASHTO
B. Report on Discussion of Publications.................................................Chair Saenz, TX
C. Continuation of Technical Meeting Circle Discussions ..................N. Pedersen, MD

XI. Adjourn

Bold Italic – new
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Call to Order & Opening Remarks
The meeting was called to order by Chairman Saenz at 8:38 a.m. with a quorum of 36 members with Frank Tramatozzi (MA) and Grant Levi (ND) attending by phone. The Chairman acknowledged the work on the SCOH strategic plan.

Roll Call, Ratifications & Meeting Notes from May 16, 2009
Because of the lack of a quorum at the last meeting, the following ratification actions were taken:

A. Approval of the Minutes from October 18, 2008, Hartford, CT
B. Approval of the Special Committee on U.S. Route Numbering Recommendations
C. Approval of the NCHRP 20-7 Panel Recommendations

[Motion-MD / Second-MO – Approved]

The Meeting Notes of the May 16, 2009 meeting in Bedford Springs, Pennsylvania were approved.

[Motion-UT / Second-WV – Approved]

Presentations
AASHTO Report – John Horsley, Executive Director
Regarding activities with Congress there are a few pending issues. (1) AASHTO has a survey out of the states for a third round of “ready to go” projects – because of a 9.8% unemployment rate, there is interest in passing a job creation bill and members were encouraged to return the survey. (2) AASHTO has drafted a letter to encourage Chairman Oberstar to include eligibility for capacity expansion in rehabilitation projects in reauthorization.

Given the economic strain that prevented some members from traveling, he requested SCOH members to help make quorum at the Board meeting on Monday.

Call for Agenda Amendments
Motion was made and passed to accept agenda item IV. Summary of SCOH Ballots, and items V.A. through V.E. as a Consent Agenda.

[Motion-MD / Second-WY – Passed]

Reports
TIG Report – Kevin Chesnik, WI
The TIG committee is missing a member from the Mississippi Valley Conference. There are 13 active projects with two closed which will be presented on the TIG website: Road Safety Audits (RSA) and Cable Medium Barriers. Five new submittals were reviewed and one was selected: Tow Plow mechanism – covering multiple lanes with one single truck. TIG is looking for a lead state.

With a $6,000 voluntary subscription, TIG has a carryover of $250,000 before this year’s receipts; $125,000 is spoken for. TIG is looking for more subscribers. The recent trends show 31 states actively participating; multiple states are in lead states role (54 total); but only 10 states have contributed to TIG so far this year. There were 44 states in 2007 which went down to 30 last year.

There were 35 TIG proposals in 2006, but only 5 have been received this year. Upcoming expectations include SHRP2 results which may involve some TIG role; and taskings from the SCOH Strategic Plan. Therefore, TIG will analyze both trends and pending needs and will bring recommendations to the Spring Meeting.
FHWA (King W. Gee) provided an update on the American Recovery and Reinvestment Act (ARRA). Discussions involved current happenings in Congress; performance management directions; a national marketing campaign; and the Highway Safety Manual.

ACEC recognized the state budget downturns and their effect on programs and are willing to help deal with the resultant issues. It was acknowledged that a well-paid and highly qualified state engineering staff was critical to program success. Others current issues include (1) addressing errors & omissions building on NCHRP guidance; (2) 23 CFR 172 update - AASHTO and ACEC will develop best practices to inform this rulemaking; and (3) roll out of the AASHTO audit guide through a great joint effort of AASHTO, ACEC and FHWA.

**Resolutions/Motions**

Resolution: Formation of a Joint Task Force on Pipe Issues

Land (CA) proposed a friendly amendment to add a resolve regarding what happens to work tasks when a task force is closed out.

[Motion-CA / Second-UT – Approved with friendly amendment]

Resolution: Guide Document for the Use of Highway Bridge Program Funds for Preventive Maintenance

Braceras (UT) – added a Bridge Subcommittee member to the list of group members.

[Motion-UT / Second-WV – Approved]

Resolution: Continuing Support of the Recycled Materials Resource Center

Levi (ND) – Friendly amendment: remove penultimate resolve which is redundant to final resolve.

[Motion-ND / Second-WI – Approved with friendly amendment]

Resolution: Request for Interstate Control Cities Approval

[Motion-WY / Second-MD – Approved]

Resolution: Endorsement of TransXML

[Motion-CA / Second-AL – Approved]

Resolution: Recognize IntelliDrive’s (sm) (formerly called VII Program) Potential to Provide Substantial Benefits in Safety and Mobility Recognizing the Importance of AASHTO’s Role in Providing National Leadership

[Motion-UT / Second-MI – Approved]

Resolution: Voluntary SICOP Assessment to Develop a Computer Based Training Program

[Motion-UT / Second-AL – Approved]

Resolution: Establishing a Technical Service Program to Develop AASHTO Standards

Levi (ND): This would involve a $5,000 voluntary contribution.

[Motion-ND / Second-WY – Approved]

Resolution: Seek to Protect the Ability to Use Fly Ash in Highway Construction

MD friendly amendment: “Whereas … beneficial use”

[Motion-ND / Second-MD – Approved with friendly amendment]

**Reports**

NCHRP 20-7 - Neil Pedersen, MD

Chris Jencks (TRB): Thanked the member departments for allowing their staff to serve on NCHRP panels. He reviewed the nine tasks selected by the 20-7 panel for $715,000 (see
Special Committee on U.S. Route Numbering - Don Vaughn, AL
Keith (MO) reported that 13 submittals had been reviewed and were being recommended for approval except for: (1) conditional approval for AL request because it won’t be open for a few years; and (2) denied joint PA-NY request because it was missing NY’s request.

The Web-based submittal tool is up and running for the special committee.

SHRP2 Implementation Report - Ann Brach, TRB
Brach reviewed the $170 million seven-year program that is half through and reported on early results. There has been tiered involvement with 400 volunteers on the research program and its four tracks: Safety, Renewal, Reliability and Capacity. Vice Chair Pedersen added details of the Capacity track. The Implementation Report to Congress had five recommendations that involved funding for implementation to be managed by FHWA with stakeholder involvement – SHRP2 and FHWA have hired full time implementation managers.
The Vice Chair acknowledged Ann Brach and Neil Hawks for their leadership of SHRP2.

Presentations (continued)
FHWA Activities - King W. Gee, FHWA
All FHWA political leadership is now in-place. Administrator Victor Mendez has the following emphases: safety, ARRA – Recovery Act, reauthorization and innovation. There will be a work group convened under the AASHTO-ARTBA-AGC Joint Committee to focus on this last emphasis on innovation that will explore shortening the development & delivery of projects and accelerating innovation & technology.
ARRA – the State DoTs were thanked for progress on ARRA which highway accomplishment were highlighted by President Obama at a project last week. The current status is that 74% of the $26.6 billion has been obligated; all but four states have obligated more than 50% of the their funds; and four states have obligated 95% or more of their funds. The top two types of projects have been pavement Improvements (51.9%) and pavement widening (17.7%). Reporting has involved shifting requirements with the current emphases on maintenance of effort and impact on infrastructure condition. TIGER Grants – there were 1380 applications totaling $56.5 billion received for the $1.5 billion discretionary grant program. Multi-modal teams are reviewing the projects and Secretary LaHood intends to announce grants ahead of the February 2010 deadline.

Other key activities were described briefly: program performance management; a joint USDOT initiative with HUD & EPA on “livability;” exploration of green projects & green programs under the notion of sustainability; addressing post I-35W scrutiny of the bridge program including scour & unknown foundations; and advancing recommendations from OIG & GAO audits that include revisions to the AASHTO Audit Guide and related regulations.

Late Breaking Issue: OSHA citation of a state for safety violations related to shear studs on bridge beams. A few years ago we had worked out an arrangement with OSHA on shear studs. OSHA took this recent action with no prior public notice or discussion with FHWA. FHWA will be seeking a meeting with OSHA to follow up.

FHWA Office of Innovative Program Delivery - Regina McElroy, FHWA
McElroy reviewed the scope of her new office. Its emphases involve a research agenda; informing the key players of innovative options and their applicability; lessons learned; capacity building within FHWA/USDOT and with the States & locals; a learning website to be launched
within the year that can help package the options; guidebooks; technical assistance. There will be targeted technical assistance for specific projects and for states exploring program changes.

**Domestic Scan on Accelerated Construction Practices** – Brian Blanchard, FL
Blanchard reviewed the key findings of the scan which looked at emergency and non-emergency projects in five states: delegating authority to local offices; basic scope of work; work concurrently with design; partnerships & mutual trust; availability of materials; incentives/disincentives; public outreach; program approach to acceleration (shifting from “lowest construction cost” to “lowest project cost”).

**Charting the Course of the Highway Safety Manual** – Ken Kobetsky, AASHTO
Kobetsky introduced the manual by noting that it is a scientific method to evaluate safety effects with software under development by FHWA. It should not affect legal liability because the manual does not “tell” what to do, nor regulate, nor set warrants or standards. The next step is to facilitate more research to refine the manual. Three subcommittees have approved the manual and it is in balloting by SCOH due by 11/2/09.

**Maintenance Decision Support Systems** – David L Huft, SD
Huft reported that 16 states are participating in a pooled fund effort and welcome others to join in this ten year plus research effort. The aim is a more systematic approach to handling winter maintenance decisions: the right treatments at the right time, including “what-if” analyses. It is not just weather prediction, but what is happening to the roadway surface and being predictive; RWIS information; independent B/C analysis. Substantial savings have been realized in NH, MN, CO, SD, & IN. This is an ongoing research effort to refine the tool.

**NCHRP 20-07 Task 259 Study on Earth Retaining Structures** – Butch Wlaschin, FHWA
Wlaschin thanked the states for support and endorsement of the project. He reviewed the need of managing retaining walls and noted the lack of ownership within DOTs; the lack of an inventory of the number and type. The study looked at the state of the practice and any vulnerabilities. The final draft report under review. FHWA will reach out to the community to inform and increase awareness.

Pedersen (MD) acknowledged the peer exchange on asset management and management of highway performance.

**NCHRP 3-94 Project to Develop an AASHTO Operations Guidebook** – Steve Lockwood, Parsons Brinckerhoff, Inc. and John Conrad, CH2M-Hill
Conrad reviewed the history that started the project from SCOH: what would an operations guide look like which developed into a full blown NCHRP effort on the scale of the AASHTO Green Book. Lockwood reported that “system operations” is not a formal program, but system operations do take resource decisions which makes it a senior management issue. The effort has yielded web-based guidance to self-assess the state-of-play within a state as a first step. States will be asked to provide feedback and input on this initial product.

**New Business**
**Compressed Round-Table**
Two topics were raised and discussed in an abbreviated round-table session:
WI: with reduced state budgets what options are being used to reduce the cost of consultant contracts?
NV: how can a state best prepare for an audit of ARRA projects?
- WY: coordinating with other state agencies to work out different reporting requirements required by other ARRA Federal funds.
- TX: GAO review – focus on clear & sufficient documentation of project selection process; jobs reporting; compliance oversight; LPA; contractor selection & bidding
process; and Davis-Bacon.
- IL: assign staff to accompany auditors all the time and explain matters.
- DC: concur on documentation and accompanying staff, especially on the selection process for contractors.

Chief Engineers Letter to Chairman Oberstar
After an initial motion by CA seconded by MD to approve sending a letter from the member departments’ Chief Engineers regarding the need for sustained funding for operational improvements under the highway program, there was extensive discussion and multiple revisions. A shorter revised letter was proposed to be presented to the Board for endorsement. [Motion-AL / Second-MN – Approved]

New AASHTO Engineering Fellow for 2009-2010 – Ken Kobetsky, AASHTO
Member departments were encouraged to support staff members interested in applying for the engineering fellowship in AASHTO headquarters.

Adjournment
The Vice Chair adjourned the meeting at 12:03 p.m.

Respectfully Submitted,
King W. Gee
SCOH Secretary
FHWA, USDOT
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<td>BD-09-33</td>
<td>09/24/2009</td>
<td>Notification to the BOD on SCOH ballot HW-09-15 Bridge Design Guide Specifications for GFRP Reinforcement, 1st Edition</td>
<td>Passed</td>
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<td>10/02/2009</td>
<td>HSM Ballot</td>
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<td>10/02/2009</td>
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<td>HW-09-18</td>
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<td>Ballot on SCOH-Maintenance Strategic Plan 2009 (not for BOD notification)</td>
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<td>HW-09-19</td>
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<td>Ballot LRFDUS-5 Title: AASHTO LRFD Bridge Design Specifications, Fifth Edition</td>
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<td>HW-09-20</td>
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<td>Technical Manual for Design and Construction of Road Tunnels - Civil Elements</td>
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<td>HW-09-21</td>
<td>11/23/2009</td>
<td>AASHTO Guidelines for Value Engineering</td>
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<td>BD-09-44</td>
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<td>Notification of SCOH Ballot HW-09-22 Ballot: AASHTO Publication LRFD Bridge Construction Specifications, Third Edition</td>
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<td>HW-10-01</td>
<td>01/05/2010</td>
<td>eBallot to SCOH on three NTCIP Standards that were approved by the Subcommittee on Systems Operation and Management: NTCIP 2301 v02; NTCIP 8004 v02; NTCIP 8005 v01</td>
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<td>eBallot Stakeholder Input: Stormwater Management Including Discharges from New Development and Redevelopment</td>
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<td>1/13/10</td>
<td>SCOH Strategic Plan 2010-2014 (43 responded)</td>
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<td>HW-10-03</td>
<td>2/16/10</td>
<td>Survey re SCOH Membership Expertise Database (open) (46 responded)</td>
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<td>3/17/10</td>
<td>Survey SCOH re: attendance at the Spring 2010 Meeting in Mississippi (54 responded)</td>
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<td>HW-10-07</td>
<td>3/24/2010</td>
<td>&quot;Prioritization of Strategic Plan Goals for the Coming Year&quot;- URGENT ATTENTION REQUESTED (32 responded)</td>
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<td>HW-10-08</td>
<td>3/29/10</td>
<td>SCOH Subcommittee Chair Reports at the SCOH Spring Meeting (3 responded)</td>
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<td>SPECIAL COMMITTEE ON WIRELESS COMMUNICATIONS TECHNOLOGIES (SCOWCT)</td>
</tr>
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</table>
HIGHWAYS SUBCOMMITTEE ON BRIDGES AND STRUCTURES (SCOBS)

Officers
- Chair: Malcolm T. Kerley (Virginia)
- Vice Chair: Kevin Thompson (California)
- Secretary: M. Myint Lwin (FHWA)
- Assistant Secretary: Raj Ailaney (FHWA)
- AASHTO Liaisons: Ken Kobetsky and Kelley Rehm

Annual Meeting
The 2010 Annual SCOBS Meeting will be held from May 23 through May 27, 2010 in Sacramento, CA. During this period, each of the 20 SCOBS’ Technical Committees will meet to conduct technical committee business, followed by a two-day general session meeting of the full Subcommittee to review and ballot required changes and additions to the specifications and guide documents maintained by the Subcommittee. Also during this period, SCOBS’ Executive Committee will meet to participate with SCOBS Officers in making business decisions, planning, and setting priorities, as well as improve communications between the technical committee leadership and chairs to resolve issues of importance to SCOBS.

Throughout the year, various technical committees and task forces held interim meetings to facilitate the business of the full subcommittee in support of actions taken during the past Annual Meetings. The most notable activities are the development of the first edition of “AASHTO Bridge Element Inspection Manual” by Technical Committee for Bridge Management, Evaluation and Rehabilitation (T-18) and “Bridge Aesthetics Sourcebook—Practical Ideas for Short and Medium Span Bridges” by the Technical Committee on Bridge Preservation (T-9). The goal of the AASHTO Bridge Element Inspection Manual is to capture the condition of bridges in a simple way that can be standardized across the nation while providing the flexibility to be adapted to both large and small agency settings.

Goals for the Next Five Years
SCOBS main focus continues to be the successful implementation of the LRFD and LRFR design and rating specifications. The Subcommittee intends to continue its activities for implementation facilitation of LRFD for other structures and culverts, improving and maintaining all LRFD specifications and guide documents, and ensuring proper training is provided to States during the next five years. Accomplishments of this focus will be overseen by the SCOBS Executive Committee, the membership of which includes SCOBS and FHWA Officers, AASHTO Liaisons, and technical committee chairs.

SCOBS next milestone will be the successful implementation of the Load and Resistance Factor Rating (LRFR) methodology for rating bridges designed with the LRFD specifications, and for improving the ratings of existing bridges. SCOBS has made significant steps towards the implementation of LRFR for rating bridges designed with the LRFD specifications, and for improving the ratings of existing bridges. The Subcommittee has successfully included the LRFR methodology in the AASHTO’s Manual for Bridge Evaluation.

SCOBS is focusing on the development and deployment of new technologies and materials to better utilize investments in the nation’s bridges and other highway structures. High performance materials (including high performance steel, concrete, and fiber reinforced polymer composites), accelerated construction methods (using prefabricated components and systems), and rapid foundation excavation and construction technologies are among the innovative features which should be considered in bridge design and construction practices and specifications. SCOBS will also work to ensure the use of improved bridge inspection, evaluation, and management technologies for the existing inventory of bridges and other highway structures. Among these are improved technologies related to non-destructive evaluation and assessment of bridge components, and in data acquisition and management.

SCOBS’ technical committee for tunnels (T-20) conducted a domestic scan in fall 2009 to gather best practices for “Roadway Tunnel Design, Construction, Operation and Maintenance”. Last year, the “Technical Manual for Design and Construction of Road Tunnels” was adopted by AASHTO. AASHTO will continue to support FHWA in their efforts in developing the National Tunnel Inspection Standards (NTIS).

SCOBS and its T-11 committee on research will continue to support research items that support its seven Grand Challenges adopted in SCOBS’ strategic plan. These are: Extending Service Life, Optimizing Structural Systems,
Transportation security continues to be an important focus of SCOBS efforts. The Technical Committee on Bridge Security (T-1) continues to support an effort to facilitate the vulnerability assessment of the Nation’s bridges and tunnels in conjunction with the FHWA, TSA, and other vested agencies. It is also working with FHWA and State DOTs to identify and support research studies necessary to improve the performance of potentially vulnerable structures. This effort will eventually result in updated specifications to improve the security of appropriate bridges.

In response to the I-35 Bridge investigation findings and recommendations from National Transportation Safety Board (NTSB), the Subcommittee prepared a synthesis report on “Quality Control and Assurance Practices in State DOT Bridge Design Offices”. This report included responses from 47 states and Ontario, as well as several large national design consulting firms. Subcommittee is currently working with FHWA in developing a national policy on quality assurance and quality control in bridge designs.

Following is the schedule of various publications that are either complete or on the balloting for approval and acceptance:

### Schedule of Publications (work done and in progress for FY 2010)

<table>
<thead>
<tr>
<th>2009 Queue Order</th>
<th>Pub Code</th>
<th>Pub Title</th>
<th>New Title/ New Edition/ Interim</th>
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<tr>
<td>2009-3</td>
<td>MBE-1-I1</td>
<td>2009 Interim Revisions to Manual for Bridge Evaluation</td>
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<td>2009-4</td>
<td>CORE-1-I2</td>
<td>2009 Interim Revisions to AASHTO Guide for Commonly Recognized (CoRe) Structural Elements</td>
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## 2009 Queue Order

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<td>2009-8 LRFDSEIS-1-I1</td>
<td>2009 Interim Revisions to AASHTO LRFD Seismic Bridge Design Specs.</td>
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## 2010 Queue Order

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<td>2010- LRFDUS-5-I1</td>
<td>2010 Interim Revisions to AASHTO LRFD Bridge Design Specs.</td>
<td>Interim</td>
<td>At ballot: T-2, T-4, T-5, T-7, T-10, T-13, T-14</td>
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<td>2010- LRFDCONS-3-I1</td>
<td>2010 Interim Revisions to AASHTO LRFD Bridge Construction Specs.</td>
<td>Interim</td>
<td>At ballot: T-2, T-4, T-10, T-13, T-14</td>
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<td>2010- LRFDMOV-3</td>
<td>AASHTO LRFD Movable Bridge Design Specs., 3rd ed.</td>
<td>New Edition or Interim</td>
<td>At ballot: T-8</td>
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<tr>
<td>2010- BEM-1</td>
<td>AASHTO Bridge Element Inspection Manual</td>
<td>First Edition</td>
<td>At ballot: T-18</td>
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<tr>
<td>2010- EBFRPS-1</td>
<td>Guide Spec. for Design of Externally Bonded FRP Systems for Strengthening Concrete</td>
<td>First Edition</td>
<td>At ballot: T-6</td>
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<tr>
<td>2010- BAS-1</td>
<td>Bridge Aesthetics Sourcebook—Practical Ideas for Short and Medium Span Bridges</td>
<td>First Edition</td>
<td>At ballot: T-9</td>
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**Future Meetings** - Future meetings of the Subcommittee have been scheduled in the following states: 2011 in Virginia, 2012 in Texas, and 2013 in New Jersey.
HIGHWAYS SUBCOMMITTEE ON CONSTRUCTION (SOC)

AASHTO SOC Officers

Chair: Mike Lewis, RIDOT
Vice Chair: Claude Oie, NDOR
Secretary: Butch Wlaschin, FHWA
AASHTO Liaison: Jim McDonnell

Proposed Schedule

New or Updated Publications
- Publish the latest update to the AASHTO Guide Specifications for Highway Construction.

Other Activities

General
- Develop the program for the SOC 2010 summer meeting in Burlington, Vermont, August 15 through August 20.
- Serve on the NPHQ Steering Committee, NWHS update, Highways for Life Task Force, NICET, AASHTO TIG, Electronic Engineering Data TC, and the Design Build Joint Committee, Serve on the Center for Environmental Excellence Advisory Board.
- Participate in International Scan on Public-Private Partnerships.
- Participate in TCCC activities to provide up-to-date training for areas such as inspection, stakeless construction, Environmental Factors in Construction, etc.
- Develop statements for and participate in the NCHRP research and synthesis programs and International and Domestic Scans.

Upcoming Meetings
- August 15-20, 2010, Burlington, Vermont
- 2011, Norfolk, Virginia
- 2012, San Francisco, California

Computers and Technology Section (Emanuel Banks, Arkansas DOT)
- Continue to provide information to AASHTO website:
  - Continue to provide updates and input as needed to enhance AASHTO Subcommittee on Construction National website and the National Highway Specification Website.
  - Continue to provide leadership, extension, and guidance for the enhancements of the AASHTO TrnsPort software and Civil Rights and Labor Management System (CRLMS).
- Provide representation to the following committees:
  - AASHTO TIG
  - TRB Technical Committee - GPS in Construction (Design, survey, construction, etc.)
  - NCHRP 10-77 Use of Automated Machine Guidance (AMG) within the Transportation Industry
- Survey states regarding programmatic approaches to address cost containment (e.g. MO – Practical Design, PA – bridge alternates, NC - pipe alternates.)
- Provide representation to NCHRP 20-7 task to update equipment fuel usage factors for fuel price adjustment clauses.
- Survey states regarding efforts to reduce the production of greenhouse gasses in highway construction addressing:
  - Equipment retrofit alternative fuel/automated equipment idling
  - Investigate evolving “green” requirements/regulations to control construction equipment emissions
- Develop a quick reference guide to assist States with AMG preconstruction requirements, construction specifications, data exchange protocol, etc. Will include examples in use by states of their written processes, specifications, GPS web-based training, etc.
• Survey states regarding experiences with proprietary document management software systems developed/used by consultant CM firms (e.g. SharePoint electronic IDR).

**Contract Administration Section** *(Brad Lewis, Mississippi DOT)*
- Update the AASHTO / FHWA spreadsheet for the current use of price adjustment clauses.
- Develop guidance on railroad coordination issues for construction contracts.
- Survey the states on their experiences with ‘no excuse incentives clauses’.
- Survey the states regarding their experiences with warranty clauses.
- Survey the states regarding their experiences with value engineering change proposal clauses.

**Environmental and Human Resource Section** *(Mark Leja, CalTrans)*
- Conduct various surveys on BMP testing facilities, NPDES/SWPPP training, handling noxious and non-native weed species, invasive species requirements, and AASHTO-SOC “Top Ten” environmental concerns.
- **Work Zone Safety**
  - Assist with implementation of the new FHWA Work Zone products including reviewing guidelines and disseminating best practices.
- **Human Resources**
  - Update on development of Resident Engineers Academy
  - Enhancing training opportunities through NHI and TCCC with additional web-based courses

**Roadway and Structures Section** *(David Ahlvers, MoDOT)*
- Develop and disseminate survey to identify determine highest value for inspector time.
- Develop current best practices for inspection and measurement of workmanship, and prepare recommendations for the QA program guide.
- Develop and disseminate survey on use of constructability, VE, contractor solicited input, design errors, and post construction feedback for improving construction quality.
- Provide support in the development of the Construction Academy.
- Survey states on workforce retention and succession planning.
- Assist the Transportation System Preservation (TSP2) effort related to roadway and bridge preservation.

**Goals**
The SOC’s 1 to 5 year goals are as follows:
- Provide guidance to the states to reduce the construction impacts to traffic flow and to increase safety.
- Develop best practices for environmental stewardship that states can easily implement.
- Develop best practices and innovations for procurement methods and contract administration that increase construction quality and regulatory compliance, and reduce reliance on state forces.
- Provide constructive input on FHWA, industry, and other business partner initiatives and program revisions to assist in providing for programs that are to the benefit of the public.

**Survey Results**
The Technical Sections of the Subcommittee on Construction have sponsored various national surveys to summarize contracting agency practices and to share lessons learned regarding construction management. The following survey summaries the areas of interest to the Subcommittee members.

**2009**
- **Electronic Records** *(95 kb)—This survey queried states on the status of electronic document management systems for construction records. Click on the tabs at the bottom of the spreadsheet to see the responses to each question.*
- **Pavement and Bridge Smoothness** *(116 kb)—This document summarizes information related to pavement and bridge smoothness. Click on the tabs at the bottom of the spreadsheet to see the responses to each question.*
• **Materials Testing Practices** (60 kb)—This survey summarizes the state of testing practices for various materials. Click on the tabs at the bottom of the spreadsheet to see the responses to each question.

• **Claim Certification Questionnaire** (1.2 MB)—This survey summarizes the State DOTs' use of claims certification statements and provides sample certifications.

• **State Practices Concerning Construction Delays** (0.3 MB)—This survey summarizes the State DOTs' practices and policies concerning construction delays resulting from various circumstances and the State DOTs' contract administration policies.

• **Analysis of Cost Trends Associated with Contract Overruns** (0.3 MB)—This survey provides information regarding the State DOTs' practices for analyzing cost trends associated with contract overruns and how the states are managing cost implications and providing feedback in the project delivery process.

• **Price/Supply Issues, Alternate Bidding Issues, Practices for Increasing Competition** (309k)—This survey was conducted to address some of the recommendations made at the 2007 Highway Construction Cost Workshop.

• **Use of Price Adjustment Clauses (updated):** Subcommittee on Construction, Contract Administration Section, Survey on the Use of Price Adjustment Clauses; Overview of responses: Price Adjustment Clause Use, Fall 2008; and Summary, Price Adjustment Clauses, Fall 2008
HIGHWAYS SUBCOMMITTEE ON DESIGN

Officers

- Chair: Carolann Wicks, Delaware
- Vice Chair: Richard Land, California
- Secretary: Dwight Horne, FHWA
- AASHTO Liaison: Jim McDonnell, AASHTO

Proposed Schedule

- **New or Updated Publications**
  - Design guides published in 2009/2010 (and responsible committees):
    - Update of the *AASHTO Transportation Glossary* – Technical Committee on Geometric Design
    - Update of the *Guidelines for Value Engineering* -- Technical Committee on Value Engineering
  - Coming up in 2010 for committee ballot:
    - Update of the *AASHTO Green Book* -- Technical Committee on Geometric Design
    - Update of the *Roadside Design Guide* -- Technical Committee on Roadside Safety
    - Update of the *AASHTO Bicycle Guide* -- Technical Committees on Nonmotorized Transportation and Geometric Design

- **Other Activities For The Coming Year**
  - **Technical Committee on Cost Estimates**
    - Continuing development of “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. TCCE members are working with a research team to complete the initial five chapters on estimating methods and procedures, as well as definitions through NCHRP 20-7, Task 278. Work continues on the remaining chapters.
    - Continuing to develop and maintain a web-based clearinghouse for estimating guidance, research, publications, and contact information. State contact information and links to their guidance gathered from a 2009 survey will be included on the webpage.
    - Continuing evaluation of cost estimating related research, including participation on selected NCHRP technical panels.

  - **Technical Committee on Electronic Engineering Data**
    - Develop 20-7 proposal to review and assess the existing XML schemas within the business areas of the State DOTs for future incorporation into TransXML.
    - Develop full-blown NCHRP proposal as a follow-on to the 20-7 project to continue development of XML schemas started under NCHRP Project 20-64
    - Develop operating procedures for review, acceptance, maintenance, and update of new and revised schemas
    - Work to identify a longer-term funding scenario and structure for maintaining the standards that are developed

  - **Technical Committee on Environmental Design**
    - Complete the New Guide on Landscape and Environmental Design. Final review has been submitted to TRB for completion. TRB is currently working with the consultant for completion. May be on the ballot this year.
    - Conduct joint meeting with TRB in Southern California this August.
- **Technical Committee on Geometric Design**
  - Revising the Green Book with ballot expected in 2010.

- **Technical Committee on Highway Lighting** Inactive

- **Technical Committee on Hydrology and Hydraulics**
  - 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 2010 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.

- **Technical Committee on Nonmotorized Transportation** Work plan unavailable

- **Joint Technical Committee on Pavements**
  - The Committee will 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 at the annual meeting of the Transportation Research Board 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 workshop in January 2011 will focus on DARWin-ME, the software version of the MEPDG, which is scheduled for release in December 2010. Vice chairman, Judith Corley-Lay, will be putting this workshop together and moderating.
  - The four technical groups have been meeting via telephone conference calls to augment the annual meeting. These include Design and Modeling, Pavement Management Systems, Sustainability and Preservation, and Low Volume and Local Road Systems. These technical groups have lead responsibilities in review of documents assigned to them, and in development of research needs statements. The Design group did an excellent job this year in cataloging and responding to all comments during the balloting of the Local Calibration Guide. The four technical groups will have face to face meetings at our May meeting.
AASHTOware is developing software for the MEPDG. 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 DARWin-ME versions. A technical presentation on a recently completed NCHRP project on Reflection cracking will be made at the May meeting for consideration by the group for inclusion in a future version of DARWin-ME. A technical presentation on DARWin-ME will also be made by the contractor developing the software at the May meeting.

The JTCOP will be discussing our Research Needs Statements submitted during the last cycle and methods to improve success in the NCHRP funding process.

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. A report from the project lead investigator will be made at the May 2010 JTCOP meeting.

The JTCOP has worked actively in 2010 to fill vacancies. In this era of travel restrictions, this has been a difficult “sell”, but we have had significant interest from Washington and Pennsylvania, among others. We anticipate that some vacancies will be filled but that this effort will continue in 2011.

- Technical Committee on Preconstruction Engineering Management
  - Review the 1991 AASHTO Guidelines for Preconstruction Engineering Management to determine the need or merit in rewriting this manual or providing pertinent information via technical committee reports.
  - Continue efforts to identify how state DOTs deal with errors and omissions, including similar policies and practices that could be made available to benefit transportation agencies.
  - Work to identify project management “best management practices” among DOTs with the idea of identifying effective policies and practices and making this information available to transportation agencies.

- Technical Committee on Public Transportation Facilities Design Inactive

- Technical Committee on Roadside Safety
  - Revising the Roadside Design Guide, including a new chapter on Low Volume Roadways and an expanded chapter for Urban Roadside. The guide is being targeted for balloting in June 2010.
  - Pursuing a cost/benefit software update of the Roadside Safety Analysis Program. The software update is expected to be available for distribution in 2010/2011.
  - Continuing coordination with FHWA on highway safety barriers tested under the Manual for Assessing Safety Hardware in compliance with the AASHTO/FHWA Implementation Agreement.
  - Pursuing interim crash testing guidance for longitudinal barrier placement on median slope configuration with special consideration of cable systems under NCHRP 22-14(3) research project.

- Technical Committee on Value Engineering
  - Conduct annual meeting using technology versus face to face.
  - Conduct conference call periodically throughout 2010.
  - Participation by members in meetings
    - Transportation Research Board Annual Meeting, January 2010
    - SAVE International Annual Conference, June 2010

- Upcoming Meetings
  - 2010 – Region 2, South Carolina, July 2010
  - 2011 – Region 3, Missouri, Joint Meeting with Subcommittee on Rights-of-Way and Utilities
  - 2012 – Region 1, Maine
  - 2013 – Region 4, to be determined
HIGHWAYS SUBCOMMITTEE ON HIGHWAY TRANSPORT

Officers
- Chair: James Lynch, Montana
- Vice-Chair: Jeff Honefanger, Ohio
- Secretary: Mike Onder, FHWA
- AASHTO Liaison: Leo Penne

Task Force Chairs:
- Jan Skouby, MO, Operations
- Ric Athey, Arizona, Size and Weight
- Denny Silvio, Louisiana, Oversize/Overweight Permitting
- Vacant, Highway Freight Movement

Review of Subcommittee Charge Statement:
No changes to charge statement.

Proposed
No proposed changes.

Schedule of New/Updated Publications
- Guide for Vehicle Weights and Dimensions, update, fall 2010
- Highway Freight Movement Bottom Line Report, fall 2010

Activities for 2010-2011

Specific
- Continue to carry out implementation plan for size and weight enforcement European scan.
- Manage process for reporting to Board of Directors on truck size and weight policy.
- Conclude agreement with boat carriers.
- Continue discussion with utilities industry concerning truck and equipment issues.
- Get Freight Movement Task Force well-established.
- Monitor and respond to commercial vehicle reauthorization proposals.
- Disseminate Highway Freight Movement Bottom Line Report
- Develop best practices guide for high, wide, and heavy corridors
- Incorporate implement improvements in protocol for routing OS/OW loads during emergencies.
- Produce compendium of smart roadside technologies in use.

General
- Update membership list at least quarterly.
- Encourage more representation on SCOHT from the freight transportation, planning, and infrastructure divisions of State DOTs.
- Strengthen working relationships with other SCOH Subcommittees
- Provide stronger freight element for SCOH.
- Continue promoting communication with industry.
- Promote regional permits among and between the various AASHTO Regions.

Goals for Next 5 Years:
- Strive to continually improve and maximize the participation of partners in the commercial vehicle industry with the intent of finding joint solutions.
- Link SCOHT activities to other AASHTO activities in the areas of safety, security, operations and freight transportation.
- Identify potential research projects surrounding the subcommittee’s charge that would have a high degree of probability for implementable results.
- Work with AASHTO Freight Transportation Leadership Group (chairs of freight mode committees) to develop an integrated freight transportation effort.
- Continue to support development interregional permit systems.

Upcoming Meetings:

Subcommittee on Highway Transport Annual Meeting  Dates: June 7-9 Location: Portland, Maine
HIGHWAYS SUBCOMMITTEE ON MAINTENANCE

Officers:
- Chair: Carlos Braceras, UT
- Vice Chair: Lacy Love, NC
- Vice Chair: Chris Christopher, WA
- Secretary: Celso Gatchalian, FHWA (acting)
- Liaison: Ken Kobetsky, AASHTO
- Past Vice Chair: Russell Yurek, MdSHA

Review of Subcommittee charge statement
- The Subcommittee’s Strategic Plan was updated to better align with SCOH and to reflect the challenges and needs faced by the maintenance community today.
- The Subcommittee’s eleven areas of emphasis was restructured, replacing the Task Forces and Focus Groups with new Technical Working Groups.
- The Subcommittee’s Vision, Mission, and Goals were revised.

Proposed Schedule
- New or Updated Publications
  - The Maintenance Manager (a quarterly newsletter for Subcommittee members)
  - 2010 AASHTO Equipment Reference Book (posted on Subcommittee website)
  - Subcommittee on Maintenance Roster (updated annually)
  - The Subcommittee website was revised to reflect the recent changes as a result of the restructuring of the Subcommittee.

- Other Activities For The Coming Year
  - Finalize “Statement of Direction” for each Technical Working Group.
  - The Subcommittee Summer Meeting is scheduled July 11–15, 2010 in Savannah, Georgia. Details and future additional information are to be posted on this website, http://www.dot.ga.gov/informationcenter/publicinformation/Pages/SCOM2010.aspx
  - Marketing and rollout of the new NHI training course “Maintenance Leadership Academy”. Contacts: Jim Feda – SC DOT, Chris Newman – FHWA
  - Development of the 2010 AASHTO Equipment Reference Book in electronic format to be posted on the AASHTO Subcommittee on Maintenance website.
  - Marketing and rollout of the NHI Training Course, “Performance-based Contracting for Maintenance” Contact: Jennifer Brandenburg – NCDOT, Celso Gatchalian – FHWA.
  - Coordinate with the Subcommittee on Asset Management in the deployment of Volume 2 of the Asset Management Guide

GOALS

Bridge Technical Working Group
The Bridge Technical Working Group will be focusing on the areas listed below in the upcoming year. Each focus area listed below is linked to the strategic focus areas outlined in the SCOH and SCOM Strategic Plans.

- Promote the sharing of expertise and state-of-the-practice for preserving and improving the health/condition of bridges and structures by establishing regional bridge working groups and conducting bridge preservation workshops.

- Support research to advance the practice of preserving and improving bridges and structures by working closely with SCOB and TRB subcommittees.

- Promote the reliability and safety of bridges by focusing on innovative maintenance practices, timely inspections and repair and worker safety.
• Develop national clearinghouse for bridge preservation information in coordination with the AASHTO TSP-2 Program.

• Promote accountability and transparency through performance management of bridges and structures in conjunction with the other technical working groups with a focus on an accurate and efficient bridge inventory system, appropriate performance measures, clear measurable goals which can be attained, and innovative reporting techniques using common terminology.

• Identify, develop, and promote workforce development activities for bridges and structures which could strengthen the maintenance workforce including inspection, preservation and activity specific training. This includes coordinating with appropriate TCCC and TSP2 efforts.

• Promote sustainability of the highway bridge environment with a special focus on climate change mitigation strategies and pollution prevention.

**Pavement Technical Working Group**

The purpose of the Pavement Technical Working Group is to promote the preservation of pavements. The PTWG will attempt to accomplish this purpose by the following activities:

• Promote the Transportation Systems Preservation Technical Services Program. (TSP²)

• Sustain a high level of maintenance interest and involvement in the area of System Preservation.

• Work with the Joint Technical Committee on Pavements on the possibility of developing a Pavement Preservation chapter that can be included in the new AASHTO Mechanistic-Empirical Pavement Design Guide.

• Support the development and expansion of Regional Pavement Preservation Partnerships.

• Assist in the implementation of the Pavement Preservation Roadmap.

• Promote the utilization of the National Center for Pavement Preservation for research management.

• Coordinate and support the development of guidelines, specifications, terminology and best management practices relative to pavement preservation and maintenance;

• Support and participate in development of pavement preservation projects and the use of innovative pavement materials;

• Develop partnerships and coordinate task force activities with other pavement groups (such as FPP, FHWA, TRB AHD18 and AHD20 Committees, etc.);

• Identify research needs, support development of problem statements and identify potential funding sources;

• Support the development of new technology that leads to the extension of pavement life in a cost-effective manner, and identify and promote the implementation and usage of products and processes which achieve this goal.

**Roadway/Roadside Technical Working Group**

The Highway Roadway/Roadside Technical Working Group will be focusing on the areas listed below in the upcoming year. Each focus area listed below is linked to the strategic focus areas outlined in the SCOH and SCOM Strategic Plans.

• Promote the sharing of expertise and state-of-the-practice for improving the health/condition of roadway/roadside features as it relates to the highway system.
- Support research in safety devices, signing, pavement marking, lighting, etc. to improve highway safety and reduce risk to travelers and workers.

- Elevate the reliability and safety of traffic flow by focusing on innovative work zone practices which minimize the impact on traffic, increase efficiency for the workforce, and remain focused on safety.

- Promote accountability and transparency through performance management of roadway/roadside features in conjunction with the other technical working groups with a focus on an accurate and efficient feature inventory system, appropriate levels of service for various regions, clear measurable goals which can be attained, and innovative reporting techniques using common terminology.

- Identify, develop, and promote workforce development activities for roadway/roadsides which could strengthen the maintenance workforce including sign and pavement marking retro-reflectivity, vegetation management, storm water management plans, and activity specific training.

- Promote sustainability of the roadside environment with a special focus on climate change mitigation strategies and pollution prevention.

**Equipment Technical Working Group**

The purpose of the Equipment Technical Working Group is to interface with each of the Subcommittee on Maintenance TWGs, identify equipment issues and champion equipment management. To accomplish this purpose the TWG shall:

- Coordinate the activities of the Equipment Management Technical Services Program (EMTSP) and report progress and accomplishments of the program

- Promote the use of the Subcommittee website for information and technology sharing and as a clearinghouse for the technical working groups

- Continue participation in NCHRP Project 13-03A, Decision Making for Outsourcing and Privatization of Vehicle and Equipment Fleet Maintenance

- Continue collaboration with TRB Committee, AHD60, Maintenance Equipment, in planning the 16th Equipment Management Workshop.

- Update the AASHTO Equipment Reference Book for 2010

- Provide for the effective exchange of equipment information and issues among members

- Identify current critical equipment needs

- Promote equipment acquisition procedures that include functionality and life cycle costs

- Promote demonstration forums to display innovative equipment and ideas

- Develop research study and synthesis report problem statements

- Support the national Transportation Research Board biennial Equipment Management Workshop and promote regional equipment manager meetings

- Promote the incorporation of effective equipment management principles, and the development of dedicated equipment funds
• Support Environmentally Sensitive Considerations in equipment acquisition and operation issues

• Support equipment personnel training, development, and retention practices

• Identify and develop strategies to address emerging issues (such as climate change and homeland security)

• Institutionalize Performance Management by incorporating Performance Measures where they may be appropriately applied during the implementation of Equipment Fleet Management Systems and Equipment Maintenance Contracts

• Establish, monitor, and adjust strategic plans, organization structures and resource options to meet a dynamic environment

Highway Safety & Reliability Technical Working Group
The Highway Safety & Reliability Technical Working will be focusing on the areas listed below in the upcoming year. Each focus area listed below is linked to the strategic focus areas outlined in the SCOH and SCOM Strategic Plans.

• Promote safe and efficient work areas for maintenance stationary and mobile activities by: 1) utilizing effective liaison and collaboration with the AASHTO Standing Committee on Highway Traffic Safety (SCOHTS); 2) evaluating highway safety needs in maintenance work zones and snow and ice control operations and communicating those needs to SCOHTS as they work on developing the comprehensive long-term AASHTO Highway Safety Strategy and Plan; 3) implementing the research results in NCHRP Report 500, Volume 17 "A Guide for Reducing Work Zone Collisions"; 4) collaborating with and assisting Federal Highway Administration in promoting their “Work Zone Safety and Mobility Peer-to-Peer Program”; and, 5) posting successes and best method practices on the AASHTO Center for Excellence website.

• Develop performance measures that will increase focus and awareness of the importance of safe work zones, reliable all weather mobility, etc., through effective liaison and collaboration with: 1) the AASHTO Standing Committee on Performance Management in their focus to maximize the performance of transportation systems using performance based, results-driven management; and 2) the Subcommittee on Public Affairs as they work on informing the public about the importance of transportation to our social and economic well-being and the need for adequate funding.

• Promote the findings of NCHRP studies such as, “Performance Measures for Snow and Ice Control Operations”, Synthesis 389 “Performance-Based Contracting for Maintenance”, NCHRP 20-68A “US Domestic Scan Best Practices in Winter Maintenance”, etc. with conference presentations, technical field reviews, and whatever techniques result in efficient and effective technology transfer.

• Increase collaboration between maintenance, traffic and other organizations (law enforcement, fire & rescue, etc.) for effective incident management and emergency management response utilizing effective liaison and collaboration with AASHTO Special Committee on Transportation Security and Emergency Management, Standing Committee on Highway Traffic Safety, Special Committee on Wireless Technology and Subcommittee on Systems Operation and Management;

• Develop and conduct forums, exchanges, and symposiums building on the successes of the past, i.e., the 2007 and the 2009 Winter Maintenance Peer Exchanges and the 2008 TRB/AASHTO Transportation Weather & Snow/Ice Symposium for the interchange of information and identifying environmental concerns and operational research needs among all groups with shared safety, reliability, sustainability and winter maintenance interests; and

• Strengthen workforce development by: 1) providing to the maintenance workforce effective training, exposure to the latest innovations in equipment, materials and operational/managerial techniques and best
method practices; 2) establishing an effective liaison and collaboration with the AASHTO Subcommittee on Human Resources as they implement the findings of the recently completed NCHRP Report 636, "Tools to Aid State DOTs in Responding to Workforce Challenges" (specifically assist them as they populate the Toolkit, "Current Workforce Scenarios and Associated Resource Needs" to insure it reflects the needs of the maintenance community); 3) developing web-based applications for existing computer-based training programs; 4) finishing the development of a Computer-base training program "Performance Measures for Snow and Ice Control Operations"; and 5) investigating other Safety & Reliability technology transfer needs using interactive CBT self paced applications
HIGHWAYS SUBCOMMITTEE ON MATERIALS

- Chair: Grant Levi, North Dakota
- Vice-Chair: Mark Felag, Rhode Island
- Secretary: Jack Springer, FHWA
- AASHTO Liaison: Ken Kobetsky, Keith Platte

Schedule of New/Updated Publications and Other Activities for 2010:

Publications & Meetings
- Work with TRB to establish formal liaisons between SOM and TRB committees. (Springer/Platte)
- Finalize review of all standards. (Joint AASHTO/ASTM committee)
- Implement SOM Technical Service Program -Develop AASHTO Materials Standards (DAMS) (Platte)
- Developing a training presentation for the SOM on how to write new specifications and test methods (SOM)
- Development of on-line training, to include streaming media, for the SOM website and e-ballot. (Springer/Platte)
- Conduct trial tech section meetings by webinar prior to the summer meeting for tech sections with minimal membership. (Springer/Platte)
- Continue the AASHTO/ASTM Joint Harmonization Cement Task group (Felag)
- SOM representation on Joint Technical Committee on Pavements (SOM Reps/Platte/Springer)

Recycling
- Cecil Jones (NC) has retired and Jim Pappas (DE) has replaced him as SOM lead on recycling.

AMRL
- Report on AMRL effort to clarify requirements in AASHTO standards for equipment calibrations, standardizations, and checks.
- Report on AMRL research program to continue the development of precision statements for a number of HMA test methods.
- Advise SOM on how to specify replacement equipment that does not contain mercury, as needed.
- Provide comments on AASHTO standards by May 1.

APEL
- Status of NCHRP 20-7 study to migrate AASHTO Product Evaluation List (APEL) database to a more robust platform that integrates more easily with State-level Qualified Product List databases. This will eliminate the need for duplicate entering of data into a State’s database and APEL (Platte)

International
- Provide recommendations for 2011 and future scanning tours to Special Committee on International Activities Coordination (Baker/Felag)
- Update on activities on warm-mix asphalt and performance evaluation of the trial sections (Baker)
- Selection of the subjects and participants for international scan tours by FHWA, AASHTO and the AASHTO subcommittees (Kobetsky)

Research
- Submission of the proposed studies for NCHRP 20-7 (Springer/Platte)
- Submission of the proposed studies for NCHRP (Springer/Platte)
Goals for Next 5 Years:

- Annually publish the Standard Specifications for Transportation Materials and Methods. (Platte/Grady)
- SOM will work on aligning its work activities with SCOH's new strategic plan and work towards accomplishing SCOH's goals (Levi/Felag/Springer/Platte)
- Continue working with FHWA Recycling Task Force and the University of New Hampshire’s Recycled Materials Resource Center to support evaluation, research, and design/use standards for recycled materials in highway applications through 2009 (Pappas).
- Have at least 20 State Qualified Product Lists linked to the APEL database by 2011 (Platte).
- Increase use of Internet and AASHTO Website in standards development, SOM organization and operations, and sharing of technical information through 2011 (Platte/Springer).
- Bring all standards into conformance with standard practice for establishing requirements for and performing equipment calibrations, standardizations, and checks by 2011 (Lenker/Lutz)
- Maintain comprehensive and up-to-date information on existing State materials management systems on SOM Website through 2011 (Geary).
- Work with AASHTO's publication office to determine the best way for AASHTO to distribute the Standard Specifications for Transportation Materials and Methods through the internet. (Geary/Springer/Platte/Grady).
- Improve and increase the interaction between the SOM and other subcommittees. (Executive Committee/SCOH)

Upcoming Meetings:

- Subcommittee on Materials meeting

  August 8 - 13, 2010, Madison, WI  
  2011: Burlington, Vermont  
  2012: AASHTO Region 2

- Duration: 5 days (Sunday evening to Friday noon) held the first full week of August
- Note: Meetings of the subcommittee's 21 technical sections are included as part of this meeting (3 days)
- Frequency: Subcommittee meeting occurs once per year, but a brief second meeting is held during the Transportation Research Board meeting in January to update subcommittee members on important issues.


**HIGHWAY SUBCOMMITTEE ON RIGHT-OF-WAY AND UTILITIES**

**Officers:**
- Chair: John P. Campbell, P.E., SR/WA, Texas
- Vice-Chair, Right of Way: Matt DeLong, Michigan
- Vice-Chair, Utility: Chuck Schmidt, P.E., New Hampshire
- Secretary: Janis Gramatins, FHWA
- AASHTO Liaison: Jim McDonnell, P.E., AASHTO
- FHWA Utility Liaison: Jeffrey Zaharewicz, FHWA

**Summary of Planned Activities and Proposed Publications for 2010:**

1. **FHWA/NCHRP Project Panel 20-36 International Scan**
   Implementation of Scan ideas associated with International Scan entitled, “Integrating and Streamlining R/W and Utility Processes with Planning, Environment and Design” (funding under the NCHRP Project Panel 20-36 program) remains on-going. The field work for the scan was completed during 2008. Gerry Solomon, then Director of FHWA Office of Real Estate services served with Subcommittee Chairman, John P. Campbell as Co-Chairman of the International Scan team. The scan team has finalized the scan report and scan implementation plan. As part of the scan implementation plan, a number of activities including pilot programs and further research efforts will be undertaken to implement, analyze, and evaluate ideas intended to achieve the scan objectives.

2. **FHWA/NCHRP Project Panel 20-36 International Scan**
   Field work for the International Scan on Outdoor Advertising Control Best Practices, Policy and Implementation was completed in March, 2010. The Scan team will continue the process of developing the scan report and scan implementation plan. Matthew DeLong, Subcommittee Vice-Chair for Right of Way, and Mary Jane DeLauge, FHWA Central Office Realty Specialist, were co-chairs of the Scan Team. The twelve member scan team, made up of federal, state, local, academic, and private sector members, traveled to Australia and Europe to review Outdoor Advertising Control Issues in three states - and seven countries - Australia (States: New South Wales, Victoria, Queensland), Sweden (with the Finland and Denmark’s road authorities also participating), the Netherlands, Scotland, and Great Britain. The Team is currently developing the Scan report and the Scan Team Implementation Plan. The final report should be available in the fall of 2010.

3. **Turbo Relocation Product Development**
   "Turbo Relocation" is a proposed AASHTOWare, expert system application being developed to provide an interactive application for use by professional relocation assistance service providers. Successful implementation of the Turbo Relocation product will result in a practical tool for use by the relocation assistance practitioner to assure consistency in the calculations and professional advisory services offered by state DOT’s in compliance with the “Uniform Act”. The “Turbo Relocation” concept envisions the development of a software product similar in function to “Turbo Tax” with built in component “calculators” to assist in the calculation of relocation assistance benefits and payments.

   13 States have committed to participate in the development of the “Turbo Relocation”, AASHTOWARE product. The following members of the “Turbo Relocation” task force have been selected in recognition of their right of way expertise and experience providing relocation advisory services in compliance with the “Uniform Act”:

   - Sabra Mousavi, Arizona DOT (Chair)
   - Arnold Feldman, FHWA Project Liaison
   - Gina Anthony, Maryland SHA
   - Walter Mabry, Mississippi DOT
   - Carmen Reese, Idaho DOT
   - James Braden, Arkansas DOT
   - Annette McCrorey, South Carolina DOT
   - Kelly Ramirez, Michigan DOT
   - John Bennett, Alaska DOT
The RFP was published in November, 2008 and closed in January 2009. The task force selected BEM to develop the software and Special Committee on Joint Development (SCOJD) approved the selection in March 2009. The Task Force is actively working with BEM on the software development. A presentation and demonstration of the Residential Module will be presented at the 2010 AASHTO R/W Conference in San Diego. Alpha testing will commence in April 2010. Arizona and Mississippi will be the Beta testing states with product completion and delivery scheduled for the fall 2010. The product licensing fees and options have been established to provide licensing opportunities to the greatest number of users. Licensing information will be available in the AASHTOWare Catalog. The product is designed to be used by novice and experienced agents. Its tutorial aspect will assist new agents collect and document files properly, while ensuring calculation accuracy and shortening the review time required by management.

4. Research Studies and Pilot Project Initiatives
The Subcommittee, in cooperation with FHWA will continue to participate and assist in the distribution, marketing and implementation of work product from research and pilot project initiatives. Current research initiatives include two projects selected for NCHRP 20-7 funding.

NCHRP 20-7, Task 247 – “Outdoor Advertising Sign Regulation Study”
The objective of this research is to identify, compile and report on the standards, measures, practices and enforcement of control of outdoor advertising signs in the various states. The following team members have been selected for Task 247:

- John Garner, Florida
- Matt DeLong, Michigan
- Lyle McMillian, Utah

NCHRP 20-7, Task 248 – “Utility Encasement Policy for Highway Crossings”
The objective of this research is to determine if current DOT encasement policies are appropriate. If it is determined that uncased utility highway crossings are a safe alternative to encased crossings, criteria for uncased crossings will be developed. The following team members have been selected for Task 248:

- Chuck Schmidt, New Hampshire
- Ray Lorello, Ohio
- Robert Memory, North Carolina
- Robert Lee, Alabama
- Paul Scott, TRB Representative

NCHRP 20-07/Task 269 – “Feasibility of Using Incentives to Facilitate Utility Relocations”
The objectives of this research project are to (a) document experiences State DOTs have had using incentives for utility relocations; (b) investigate how incentives have been used to accelerate other critical construction-related activities; and (c) recommend incentives State DOTs may want to consider.

Additionally, various other research projects are underway through the FHWA’s Surface Transportation Environment and Planning (STEP) Cooperative Research Program and include:

Integrating Visualization Technologies into R/W Processes - The research is to determine the extent of the use of visualization technology, the type of software and hardware being utilized by the State Departments of Transportation (DOT) and to develop and share best management practices, tools, and techniques to further promote usage of visualization within the State

R/W, Design-Build, and Acquisition Project Delivery Models – The research is to identify methods used for R/W acquisition and relocation assistance in design-build contracting and to evaluate the need for regulatory changes and development of best practices. The research was completed in fall 2009. Results will be posted by the Office of Real Estate Services in May 2010. Implementation planning will continue throughout the year.
Development of a Right of Way Competency Navigator and Capacity Building and Training Curriculum
Clearinghouse provided on the FHWA Website - The research has produce the framework for a clearinghouse of right of way training available as a resource to right of way professionals. Please visit the Right of Way Competency Navigator on the FHWA website at: http://www.fhwa.dot.gov/realestate/lpaguide/index.htm

Relocation Assistance Retrospective Study - This research is to perform a retrospective survey of costs businesses incur as a result of being relocated and determine percentage of businesses that remain in operation following relocation. Quantitative and qualitative data analysis will be employed to assess consistency and the adequacy of Uniform Act benefit levels. This research is expected to begin in the fall of 2010.

Identification and Development of Local Public Agency Stewardship Tools and Techniques – The research, included the development of a National Highway Institute (NHI) instructor led, training course. This research initiative also delivered the substance for an update of the FHWA LPA Guide available on the Office of Real Estate Services Website at: http://www.fhwa.dot.gov/realestate/lpaguide/index.htm

Commercial Electronic Variable Message Sign (CEVMS) and Driver Attention - This research is a study of the affect of commercial electronic variable message signs on driver attention and potential risk to safety. The primary focus is the effect of CEVMS on driver behavior. The first phase identifying prior work and preparing a research approach to study effects was completed in January 2009. Testing and data analysis under Phase 2 is scheduled for completion in the summer of 2010.

FHWA Peer Exchange on Use of Right of Way Incentive Payments - The results of the 2008 peer exchange are now available at: http://www.fhwa.dot.gov/realestate/incpeerexch.htm. Several State DOTs have made use of incentive payments and share their insights and lessons learned. Each DOT set up a process and received approval by the FHWA Division office, using unique procedures that reflect its needs.

Emerging Practices, Alternative Fuel Technologies, and Energy Facilities in the Right of Way. The research seeks to develop and provide State DOT’s with information that presents materials on the state of the practice when considering the implications of accommodating alternative energy technologies and alternative fuel facilities in the right of way. This research is scheduled to begin in May 2010 and is expected to be completed within 12 months.

5. Technical Councils
The primary objective of the Technical Councils is to expand the communications network among the membership and thereby establish the means for greater participation by those actively engaged in right of way and utility operations.

At the January 2010 meeting of the Subcommittee Executive Board, the organizational structure of the technical councils was reviewed and the subject areas modified to focus on current priorities and emerging issues. There are 9 standing technical councils organized by subject area. Each of the standing Technical Councils is chaired by a state R/W or Utility Director. A new Technical Council on Professional Development and Education was proposed with interim assignments of Wayne Rizzo, DE, Lyle McMillian, UT, Phil Copeland, GA and Robert Memory, NC agreeing to organize the council’s initial scope of activity, strategic objective and to nominate the Technical Council Chairman.

- “R/W Appraisal and Appraisal Review”, John Sherman, MAI, Wyoming DOT
- “R/W Acquisition and Program Management”, Rebecca Krugman, Wisconsin DOT
- “R/W Property Management”, Richard Allen, Connecticut DOT
- “Relocation”, Sabra Mousavi, Arizona DOT
- “Outdoor Advertising”, John Garner, Florida DOT
- “R/W and Utilities, Scoping and Mapping”, Robert Memory, North Carolina DOT
- “Utility Coordination, Relocation and SUE”, Jesse Cooper, RPLS, Texas DOT
- “Utility Accommodation”, Mike Mariotti, New York DOT
- “Utility Safety”, Jeff Baker, Georgia DOT
Each Technical Council meets at least annually in a teleconference format. In 2009, the AASHTO toll free number was utilized by the councils, reducing costs for participants. At the 2010 Subcommittee annual meeting, the councils will meet in a group format with a meeting for the Utilities area and the Real Estate Area (including outdoor advertising). These meetings will be teleconferenced with the objective to extend outreach and encourage greater participation by those most directly engaged in program operations and project delivery. Individual Technical Councils will follow-up on the group meetings with efforts to gain participation from lower level staff members from each state. Inclusion of first line supervisors and front line workers (where appropriate) will expose more people to the AASHTO network and provide a greater resource base for collaboration by member states.

6. Strategic Communications and Information Exchange
The Subcommittee will continue to maintain and expand resources to facilitate information exchange among the membership and contribute to an overall Strategic Communications network.

The key components of the subcommittee Information Exchange resources include:

- The Subcommittee website located at [http://rightofway.transportation.org/](http://rightofway.transportation.org/), developed and maintained by the voluntary efforts of the subcommittee membership.
- Establishing and maintaining a very active “on-line Clearinghouse” resource for query, compilation and distribution of the results from topic-specific, surveys submitted by R/W and Utility members. The “Clearinghouse” function is currently managed by the voluntary efforts of the Michigan DOT who also compiles, publishes, and distributes the responses for use by the membership. A comprehensive index, with links to the full text of each web survey is available at the above link to the subcommittee website. The following is a representative listing of survey topics and the states that submitted them during FY 2009 through present.
  - State Policy for Regulating Cell Towers on Public Right of Way, GA DOT
  - Estimating Utilities for Residential Rentals, GA DOT
  - Estimated Duration to Obtain Rights Along Federally Funded Reconstruction Project, ME DOT
  - Practice for Commissioning Appraisals, CT DOT
  - Improve Right of Way Acquisition Process and Build Relationships with Property Owners, TX DOT
  - Best Practices for Communication Techniques to Improve Collaboration through Peer Exchange*, WI DOT
  - Customer Service Surveys for Right of Way Acquisitions, WI DOT
  - Minimum Compensation for Small Takings, MN DOT
  - Right of Way Compensation Structures, MD DOT
  - Turbo Relocation Software, AZ DOT

The Subcommittee’s current effort to compile and maintain a repository of recent and current study on topics of interest in the right of way and utility areas. This effort is being led by the FHWA Office of Real Estate Services and is referred to above as the Right of Way Competency Navigator and Capacity Building and Training Curriculum Clearinghouse. The intent is to provide a single resource, in the form of a research reference guide, for shared use by subcommittee membership and partners. FHWA expects the competency navigator to be available on its website by June 2010.
7. FHWA Excellence Awards

One of the ways that the subcommittee recognizes and promotes best practices is through the annual presentation of FHWA’s “Excellence Awards” to state recipients in a variety of right of way and utility categories. In 2007 the FHWA established a new schedule for alternating the annual presentation of the “Excellence Awards” to feature utility award recipients one year followed the next year with recognition of right-of-way recipients. This year, FHWA will present the “Excellence in Right of Way Accommodation and Relocation Awards” during the 2010 Annual meeting in Biloxi, Mississippi for the following categories: Urban Highways (Freeways and Expressways, or Surface Streets), Rural Highways (Freeways or Highways), Structures, Intermodal Transportation Facilities, Traveler Service Facilities, Project Management, Program and Project Development.

Goals for Next 5 Years:

1. Initiatives for Investment in the Professional Practice of R/W Acquisition

The broad range of professional-level qualifications and experience required for the successful practice of right of way acquisition, demands a priority focus on the growing concern for the recruitment, retention, training, and succession planning of qualified, right of way practitioners. The Subcommittee on Right of Way and Utilities will continue to support opportunities to promote and expand the professional standing of right of way programs and personnel.

2. Succession Planning – Recruit, Retain, and Train the Work Force

The unique circumstances under which most of the current generation’s professional right of way careers have evolved has resulted in a nation-wide concern for the means and mechanisms by which to educate and equip the next generation at an accelerated pace. The norm has been for a series of circuitous paths by which the traditional right of way professional has accumulated the years of experience and exposure to the variety of disciplines necessary to a professional standard of success in the public acquisition of private real property. Today the baby boom demographic trend of accelerating retirements foreshadows a critical void of professional experience, the very means by which the foundation of the national interstate system was successfully acquired and assembled. The profession has also since expanded in scope and complexity due to the passage and implementation of the Federal "Uniform Act" which established the new discipline and corresponding need for professional education in relocation advisory assistance and benefits programs. To further complicate the challenge for the R/W professional is the absence of an established educational curriculum or accredited course of study by which to recruit new entrants to the profession and develop the essential foundations of required expertise.

A point of interest revealed during the 2008 International Scan was the same urgent level of concern for succession planning expressed by our Australian and Canadian counterparts resulting from similar demographic conditions. The good news is the discovery of an even wider, international resource of peer professionals from which to develop strategic solutions to a common global challenge.

The Right of Way and Utilities Subcommittee is committed to training and preparing the next generation of right of way professionals to take over the leadership and improve the standard of practice in the right of way profession. Communication and information exchange will ensure a successful transition in developing in-house expertise, transferring the knowledge base and mentoring the new workforce.

Faced with the challenge of attracting a workforce to the right of way profession coupled with educating and training a new generation of employees is a large task. Designing a framework for succession planning will provide a model that will map a professional career development path for the right of way work force.

3. Professional Education and Training

The Subcommittee in coordination with FHWA and other partners in professional education will expand efforts to develop and update professional education initiatives and partnerships. FHWA has now made available an updated, web-based, course on the “Uniform Act” for use at no cost to all state DOTs, their partners and consultants. The Office of Real Estate Services and FHWA’s National Highway Institute (NHI) currently offer the following courses related to real estate program activities:
• Basic Relocation - NHI# 141029
• Advanced Relocation - NHI# 141030
• Business Relocation - NHI# 141031
• Appraisal for Federal-Aid Highway Programs - NHI# 14043
• Appraisal Review for Federal-Aid Highway Programs - NHI# 14044
• Real Estate Acquisition: An Overview - WEB-BASED – NHI# 141045
• Local Public Agency Real Estate Acquisition - WEB-BASED – NHI# 141047
• Outdoor Advertising Control: Bonus States - WEB-BASED – NHI# 141048
• Outdoor Advertising Control: Non-Bonus States – WEB-BASED – NHI#141049

The latest course offering is a web-based course on “Outdoor Advertising Control”. Additionally, as noted above, FHWA is pursuing development of a new NHI course on LPA Oversight and Stewardship, and is also exploring opportunities for additional courses in the future.

The Subcommittee has followed the Federal lead and expanded participation with our private partners in professional right-of-way education in order to promote enhanced and consistent quality in training opportunities for both state and industry personnel. This is an ongoing item that will involve a variety of educational programs and providers including the National Highway Institute (NHI), the International Right of Way Association (IRWA), NCHRP initiatives, and AASHTO publications. The Subcommittee supports the initiative by the IRWA to overhaul and modernize course materials and instructional methods.

The Subcommittee will continue to coordinate and work in partnership with FHWA to explore the feasibility for development of a right of way training curriculum, sponsored at the university or college level with particular emphasis on long distanced or web-based learning. In 2010, the FHWA will introduce the Realty Competency Navigator as an interactive web based tool on the FHWA website to identify training available to achieve varying levels of proficiency in the various right-of-way disciplines. FHWA undertook this initiative in conjunction with a steering committee that included the Subcommittee and other stakeholders in the right-of-way field.

4. Integrated Project Delivery
The Subcommittee on Right of Way and Utilities will continue to pursue opportunities to participate in combined forums with other AASHTO Committees and SCOH Subcommittees in order to meet the goal of improving multi-disciplinary coordination in development and delivery of transportation projects. Tentative plans are underway for the first combined annual meeting of the Subcommittee on Right of Way and Utilities with the Subcommittee on Design Missouri in the spring of 2011. The current priority to integrate right of way and utility operations with project planning creates a mutual benefit for interaction with groups such as the Subcommittee on Design, the Standing Committee on Planning, and the Standing Committee on Environment.

The Subcommittee on Right of Way and Utilities continues to support and participate in the Program Delivery Improvement Tool (PDIT) developed in response, and as a component of the U.S. DOT priority for focus on Accessibility and Accountability. The remaining Subcommittee representative on the PDIT team is Jim Viau, Ohio. One of the Right of Way and Utility Subcommittee’s goals for PDIT is to correlate the effectiveness of improved, early communication and coordination with right of way and utility functions as a factor in more effective, timely and cost efficient project delivery.

5. Integrating Geospatial Technology into the Right of Way and Utility Process
The Subcommittee, in coordination with an NCHRP funded study conducted by Virginia Tech, has participated on the “Advisory Council on Integrating Geospatial Technology into the Right of Way and Utility Process.” The first phase of the study was completed in June of 2006 and is currently scheduled for completion and implementation. Current asset management initiatives fuel a growing interest in the graphical representation of spatial right of way and utility features associated with asset inventory data. A benefit of geospatially enabling right of way data and information systems is the ability to respond quickly to management. The applications are getting to the point where managers can obtain answers directly, eliminating staff time required in responding to extra requests. To continue promoting the advancement of transportation agencies' geospatial technology use for right of way purposes, FHWA sponsored two peer exchanges. The peer exchange report contains a section on the lessons learned and recommendations. It can be accessed at http://www.gis.fhwa.dot.gov/documents/rightOfWay.asp
The R/W and Utilities Subcommittee will continue to actively promote and support implementation of best practices as new technologies and state of the art methodologies emerge or state or Federal laws and regulations change which affect Right of Way and Utilities. Future activity to formally incorporate such enhancements will be accomplished by proposal for amendment to the Right of Way and Utilities Best Practices Guide in the SCOH Strategic Plan, Strategy 4-4.

The successful implementation of ARRA funded projects will continue to be a subcommittee priority. This will include evaluation of streamlining methods and tools to reduce project right-of-way related periods of performance and respond to right of way and utility issues as they arise. For resources related to ARRA, including questions and answers, go to the FHWA website at: http://www.fhwa.dot.gov/economicrecovery/

8. Climate Change
The Subcommittee recognizes an opportunity exists to more effectively include and address climate change in project development and delivery. The Subcommittee will continue to develop or support initiatives that are responsive to potential climatic impacts of projects and programs. Several initiatives are being considered that include potential uses of right of way in ways that are consistent with safe and efficient highway operations. They will look at opportunities for utilization of highway right of way to effect positive climate change. For additional information on climate change go to the FHWA website at: http://www.fhwa.dot.gov/environment/global.htm

9. Transportation Authorization
The current authorization - Safe, Accountable, Flexible, and Efficient Surface Transportation Equity Act: A Legacy for Users (SAFETEA-LU) expired at the end of Fiscal Year (FY) 2009. As a new transportation authorization is developed, a subcommittee priority will be to evaluate implications to the right of way and utility programs, and respond to opportunities to improve and streamline the programs and processes.

10. Livability Initiative
The Subcommittee will work collaboratively with FHWA to advance Livability initiatives and goals. A priority will be to evaluate right of way and utility program opportunities to support the DOT and HUD Livability Initiative to help families gain better access to affordable housing, more transportation options, and lower transportation costs, focusing efforts on creating affordable, sustainable communities. Implementation of the Initiative includes development of an interagency task force to better coordinate Federal transportation and housing investments, and identify strategies that expand choices for affordable housing near employment opportunities and more transportation options to lower costs, shorten travel times, and improve the environment.

11. Every Day Counts
The Subcommittee on Right of Way and Utilities and FHWA will continue to support the Every Day Counts initiative. The focus of the initiative is to identify opportunities and flexibilities that will enable faster project delivery and deployment of technology and innovation.

Upcoming Meetings:
The Annual Meeting of the Highway Subcommittee on Right of Way and Utilities will convene in San Diego, California this spring immediately prior to the spring meeting of AASHTO SCOH. The full membership of the subcommittee is composed of the Right of Way (R/W) and Utility directors for each of the 50 states, Puerto Rico and the District of Columbia, as well as FHWA Liaisons for both Realty and Utility program areas. An estimated 200 attendees and guests are expected to attend the general, break out and Technical Council sessions.

- Dates: April 19 – 22, 2010
- Location: San Diego, California
- Duration: 3½ days
- Frequency: The Highway Subcommittee on Right of Way and Utilities meeting of the full membership occurs annually
The Executive Board of the Highway Subcommittee on Right of Way and Utilities meets annually to conduct mid-year subcommittee business, identify emerging issues and coordinate with FHWA leadership on anticipated Federal program changes and enhancements. The agenda planning session for the annual, spring meeting of the full subcommittee is also conducted at the mid-year meeting of the executive board. This year the Subcommittee will entertain the first joint session of the R/W and Utilities Subcommittee in partnership with the Design Subcommittee.

- Dates: TBD, January 2011
- Location: TBD, Missouri
- Duration: 2½ days
- Frequency: The Subcommittee Executive Board meeting occurs once per year

Please visit our website for additional information about the AASHTO Subcommittee on Right of Way and Utilities
SUBCOMMITTEE ON SYSTEMS OPERATIONS AND MANAGEMENT (SSOM)

Officers
- Chair: R. Scott Rawlins PE CPM, NV DOT
- Vice Chair: Connie Sorrell, VA DOT
- Secretary: Jeffrey Lindley PE, FHWA
- Liaison: Mark S. Bush PE PTOE, AASHTO

Proposed Schedule

- **New or Updated Publications**
  All existing publications are available on the web.

  As a cross-cutting committee, SSOM continually links with other Special, Standing and subcommittees as appropriate.

  SSOM is approximately mid way through the development and schedule of the new AASHTO Guide on Operations for a prototype deliverable scheduled around December 2010 or early next year 2011 for proposed ratification later in 2011. This Guide is also blazing new groundwork as it will result being an interactive web based AASHTO Guide different than traditional hardcopy AASHTO publications, but just as significant as the Green Book, MUTCD or the like. The goal is also to enhance availability and accessibility of this new key AASHTO publication for communities and agencies involved and dealing with highway operations and systems management that are also DOT partners but are outside of the normal state DOTs. With a vision ‘down the road’ and new authorization perhaps this web based interactive Guide in addition with the SHRP2 Reliability research projects in development and future deliverables will be the cornerstone of possibly the future development of an AASHTO Center of Excellence for Operations.

- **Other Activities For The Coming Year**

  - Develop and refine the program for the SSOM 2010 annual meeting to be scheduled in Houston TX in conjunction with the ITS America Annual Meeting, May 2-5, 2010.
  - Continue to execute business plans for mainstreaming operations in State DOT’s in accordance with established projects and initiatives developed through NCHRP and SHRP2 programs.
  - The SSOM Strategic Plan completed and fully endorsed by the SSOM membership is continually being refined through each of the task forces of Technology and Reliability; Performance Measures; and Mainstreaming Operations Workforce Development to meet the needs of the states and to compliment the initiatives under SCOH and the SCOH newly ratified strategic plan focus areas.
  - Participate and continue to support the Vehicle Infrastructure Integration Consortium and Executive Leadership Coalition, and IntelliDrive Initiative through USDOT and our automotive partners with the core mission of continual improvements in safety and mobility.
  - The VII Consortium and IntelliDrive working group also consisting of various members of the SSOM, has completed an IntelliDrive Strategic Plan to define expectations and actionable items to achieve goals for a cooperative vehicle roadway effort. Many of the states involved with the current VII program have completed some form of strategic activity for their own programs. These states all have partnership efforts, research activities and deployment experience. All of these experiences are in use to develop a coordinated strategic plan to be fluid and updated each year.
  - The SSOM is one of the lead liaison AASHTO committees for the VII and IntelliDrive program. The VIIC AASHTO Strategic Plan has been finalized with the goal also being integrated with the USDOT programs and as much as possible with and in to the automobile industry activities. A current initiative now in initial stages involves the development of an AASHTO IntelliDrive Strategic Deployment program. The purpose of this task is for AASHTO on behalf of state and local agencies to prepare an IntelliDrive deployment plan that provides insights and directions that would clarify: 1) what approaches would be practical for IntelliDrive infrastructure deployment, 2) what would the vehicle, communications infrastructure and application environment look like in the future and 3) the advantages and challenges of a phased deployment and a large scale national deployment. All of the relevant AASHTO committees will be briefed
on the plan once completed including the Board of Directors, the Standing Committee on Highways (SCOH), the SCOH Operations Council and all four Subcommittees under the Council including SSOM, Traffic Engineering, Maintenance and Highway Transport. Other associated relevant committees will also be briefed including the Standing Committee on Highway Traffic Safety, Standing Committee on Planning and Special Committees on Wireless Communications and Technology and Transportation Security Emergency Management as warranted. The Strategic Deployment Plan is scheduled for completion in April 2011.

- Support and participate in the continued implementation of the National Unified Goal in conjunction with the National Traffic Incident Management Coalition. The SSOM is the lead liaison committee along with the Special Committee on Transportation Security and Emergency Management. SSOM is a strong advocate of the National Unified Goal and is committed to working together to promote, develop, and sustain multidisciplinary, multijurisdictional system operations programs including Traffic Incident Management to enhance responder safety, safe quick traffic incident clearance and more prompt reliable interoperable communications. SSOM also works to endorse and engage stakeholders in the 18 strategies of the NUG.

- Participate and continue to provide support to the National Transportation Operations Coalition through efforts and collaboration of the USDOT FHWA and ITS JPO, and ITE in the support of the on-going evaluation releases of the National Traffic Signal System Report card and other related operations initiatives.

- As a cross-cutting committee, continue to liaison with the various external national and international organizations and internal committees to ensure consistency and the best thinking of the Association working cooperatively, as appropriate with other technical subcommittees.

- The NCHRP 3-94 project, development of an AASHTO Guideline for System Operations and Management is midway in its development with the selected panel members and is a keystone project for the endorsement of SSOM and eventually SCOH. The research results are scoped to be completed by December 2010 or early 2011. A future AASHTO Guidebook planned to be completed is a key project through SSOM and will be cross-cutting and breaking new ground as an AASHTO web based guide to better serve AASHTO customers and transportation entities in fostering a fully integrated operations program in to DOTs. The objective of this research project is to create a strategic guide to developing, evolving, and sustaining transportation system management and operations as a core business practice of State DOTs.

- Synopsis of related System Operations and Management NCHRP research projects and future reports in coordination with SSOM activities, recent NCHRP sponsored projects approved in 2010 for funding by SCOR:

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Project Title</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>03-94</td>
<td>Transportation Systems Operations and Management Guide</td>
<td>$50,000</td>
</tr>
<tr>
<td>G-09</td>
<td>Support for the AASHTO IntellDriveSM Strategic Plan</td>
<td>$500,000</td>
</tr>
</tbody>
</table>

Also recently approved and now in initial stages of development is an NCHRP 20-7 (282) project, Research Needs Assessment for Roadside Worker and Vehicle Visibility. The goal of this initiative is to review existing research, identify knowledge gaps and recommend a comprehensive, multidisciplinary research program roadmap to concurrently address incident scenes and work zones, first responders and construction/work zone personnel, and emergency response vehicles and those utilized for roadway construction and maintenance.

Additional active significant projects with planned membership oversight:

- NCHRP 03-94 [Active]
  Transportation Systems Operations and Management Guide
- NCHRP 20-86 [Active]
  Attracting, Recruiting, Developing, and Retaining Skilled Staff for Transportation Systems Operations and Management
- NCHRP 20-7 Task 203 [Active]
  Update of AASHTO Maintenance Manual to Include Systems Operations and Management
- NCHRP 20-7 Task 221 [Active]
  Traffic Incident Management Program for Worker Safety
NCHRP 20-7 Task 226 [Active]
Review and Update of Human Factors and Operations Issues in the AASHTO Green Book
NCHRP 20-59(23) [Active]
A Guide to Emergency Response Planning at State Transportation Agencies
NCHRP 20-59 (31) [Active]
Co-Location of Emergency Operations Centers and Intelligent Transportation Centers
NCHRP 20-77 [Active]
Transportation Operations Training Framework

- Additional research also active in the SHRP2 Reliability focus areas related to System Operations and Management:

  - Theme 1. Data, Metrics, Analysis, and Decision Support
  The research conducted within this theme will determine data types, methods of measurement and analytical tools that will enable the monitoring of travel times and associated reliability permit the development of performance measures and models that enable the evaluation of effectiveness of actions to control and mitigate non-recurring congestion. The projects included in this theme are:
  Project L02: Establishing Monitoring Programs for Travel Time Reliability and Mobility
  Project L03: Analytic Procedures for Determining the Impacts of Reliability Mitigation Strategies
  Project L04: Incorporating Reliability Performance Measures in Planning and Operations Modeling Tools
  Projects L13 and L13a: Design and Implement a System for Archiving and Disseminating Data from SHRP 2 Reliability and Related Studies
  Project L16: Assistance to Contractors to Archive Their Data for Reliability and Related Projects

  - Theme 2. Institutional Change, Human Behavior, and Resource Needs
  Significant reduction of congestion related to non-recurring events will require significant changes to the internal organization and business practices of transportation and public safety agencies. Historical relationships among these public agencies and with other organization involved in incident response and management must also be modified to increase effectiveness. Impact mitigation will require effective communications with highway users and the modification of counterproductive driver behavior in proximity to incidents. Research under Theme 2 will address this human side of non-recurring congestion. The projects include:
  Project L01: Integrating Business Processes to Improve Reliability
  Project L06: Institutional Architectures to Advance Operational Strategies
  Projects L10 and L10a: Use of In-vehicle Video Data to Explore How to Modify Driver Behavior that Causes Non-recurring Congestion
  Project L12: Training and Certification of Traffic Incident Responders
  Project L14: Effectiveness of Different Approaches to Disseminating Traveler Information on Travel Time Reliability

  - Theme 3. Incorporating Reliability in Planning, Programming, and Design
  There is an intimate relationship between the frequency of non-recurring congestion related to incidents and general effective capacity of a highway network or segment. Effective reduction in the frequency and/or impacts of non-recurring incidents can reduce or delay the need for additions to highway capacity. At present, however, transportation agencies need improved tools to identify and evaluate the effectiveness of infrastructure or operational countermeasures or to quantify the impacts of non-recurring congestion on overall highway capacity. Theme 3 addresses these issues. The projects are:
  Project L05: Incorporating Reliability Performance Measures into the Transportation Planning and Programming Processes
  Project L07: Evaluation of Costs and Effectiveness of Highway Design Features to Improve Travel Time Reliability
  Project L08: Incorporation of Non-recurrent Congestion Factors into the Highway Capacity Manual Methods
  Project L09: Incorporation of Non-recurrent Congestion Factors into the AASHTO Policy on Geometric Design
- Theme 4. Fostering Innovation to Improve Travel Time Reliability
The gains in travel time reliability derived from institutional and behavioral change will be major, but will largely be one-time, short-term gains. Gains derived from analysis, decision support tools and design responses will also be large initially and continued research in these areas will produce steady, but less dramatic improvements. The theme 4 research is designed to foster innovative thinking that will form the foundation for long term reductions in non-recurring incidents and improvements to travel time reliability.

Project L11: Evaluating Alternative Operations Strategies
Project L15: Reliability Innovations Deserving Exploratory Analysis (IDEA)

- With the adoption and continual refinement of the SSOM Strategic Plan, Task Forces are formally organized with their work plans:
  
  **Task Force – Mainstreaming and Work Force Development**
  *(Task Force Lead: John Corbin, WI DOT)*
  *Membership activities also with NTIMC*

  **Task Force – Performance Measures**
  *(Task Force Lead: Daniela Bremmer, WA DOT)*
  *Membership activities with SCOPM and performance metrics*

  **Task Force – Technology and Reliability Initiatives**
  *(Task Force Co-Leads: Ted Trepanier, WA DOT; Gummada Murthy, VA DOT)*
  *Membership activities with ITS and IntelliDrive*

  **General Activities for the coming year:**
  A. Coordinate with the other task forces and within the SSOM structure for the development and delivery of research products and reports to meet the Mission and Vision of SSOM and compliment the SCOH Strategic Plan and focus areas just recently ratified by the membership.
  B. Teleconferences lead by each of the three SSOM task forces, i.e. Technology and Reliability, Mainstreaming Operations and Performance Management chairs to incorporate membership input and proactively respond to issues related in system operations and management. The task forces have discussed also the possibility of having a joint web meeting and various support avenues are being investigated.
  C. Develop research needs statements and participate in active research projects and programs to promote and advance strategies in operations and define where gaps exist.
  D. Monitor and assist in the reporting of progress of State DOTs with respect to formal operations and system management programs in their strategic business plans.
  E. Promote and advance strategies for travel time reliability within state DOTs by developing outreach and marketing material on DOT success stories.
  F. Coordinate activities and membership involvement with other system operations and management initiatives either supported by USDOT or other national coalition groups supporting effective operations activities, programs and policies.
  G. Actively participate as the lead task force in coordination with the VII Consortium group in the development and deployment of the VII or new IntelliDrive program in partnership with USDOT, AASHTO and OEMs.

  **Upcoming Meetings**

  - May 2-5, 2010, Houston TX, joint national/international meeting with ITS America Annual Meeting.
  - 2011, solicitations for joint committee meeting and location underway. There is a possible joint meeting proposed with ITSAmerica for 2011 depending on the success of the joint 2010 meeting that will combine the World Congress and Annual Meeting scheduled in Orlando, FL in order to maximize exposure and participation of membership in three joint national meetings.
GOALS

Transportation systems operations and management (SOM) draws on the knowledge of several disciplines—including for example traffic engineering, intelligent transportation systems, maintenance, emergency response and incident management, performance measurement, and system planning—applied in a comprehensive approach to increase the efficiency and safety of the transportation system. SOM encompasses interactions among transportation modes and between the transportation system and other functions such as emergency management, public safety, and the concerns of the general public. SOM contributes to creation and maintenance of livable communities, improving public health by reducing air pollution, saving energy, and supporting economic development, as well as promoting efficient traffic flow.

The AASHTO Highway Subcommittee on Systems Operations and Management defines SOM specifically as "an integrated program designed to make the best use of existing highway infrastructure through provision of systems and services that preserve and improve performance."

- Successfully continue the major initiative and on-going development of the future AASHTO Guide for Operations for future ratification and implementation.
- The System Operations and Management subcommittee task forces remain active in many major focus areas, including coordination with ITS and IntelliDrive activities, workforce development issues, SHRP2 research program especially in the Reliability focus area and performance management and metrics involving congestion and operations.
- SSOM has also been the lead AASHTO subcommittee and continue coordination of efforts with related national coalition groups involved in system operations and management activities involving TSAG (Transportation Safety Advancement Group), NTIMC (National Traffic Incident Management Coalition), NTOC (National Transportation Operations Coalition), I-95 Corridor Coalition, the Operations Academy through the UofMD in coordination with the I-95 Corridor Coalition, the 511 Coalition and IntelliDrive working groups of ITE, ITSA and AASHTO supported through USDOT FHWA and RITA JPO.
- SSOM is continually involved and providing input to the development of AASHTO’s recommendations on a new federal authorization proposal and efforts on recommendations related to performance management. This includes endorsing a new $3 billion per year Operations program also dedicated to provide low-cost quick turn-around relief for congestion. The Operations and Management program is fully endorsed under SSOM to enhance travel reliability, reduce delay and improve overall system performance. Funding improvements in system performance include: real time system management, traveler information, emergency response and incident management. Eligible activities would include incident management; emergency response; signal synchronization, intersection and street improvements; lane markings and traveler information systems. Approximately 4.5% of core program funding would be apportioned to the states for this program. In addition, including an increase of the current program for funding ITS and operations research at $150 million per year, an increase of 35%.
- In summary, six strategic goals have been identified to support the SSOM Vision and Mission:
  A. Develop and promote resources for State DOTs in providing greater operational reliability, mobility, safety and efficiency on the transportation network
  B. Promote performance measurements of operations for State DOTs to support the necessary business decisions and make informed investment decisions. Quantify benefits and provide the necessary educational and outreach materials and assistance for State DOT policy and decision-makers
  C. Participate in the decisions and direction of technology advancements within State DOTs.
  D. Integrate and mainstream operations in every aspect of the performance of DOTs.
  E. Develop and promote resources for States and AASHTO members to optimize the collection, processes and applications of operational data.
  F. Provide the system operations and management framework to assist DOTs in making business decisions (i.e. getting to the ribbon cutting ceremony.)
Officers

- Chair: Del McOmie, Chief Engineer, Wyoming Department of Transportation
- Vice Chair: Tom Hicks, Director, Traffic and Safety, Maryland State Highway Administration
- Secretary: Mark Kehrli, Director of Transportation Operations, FHWA
- AASHTO Liaison: Ken Kobetsky, Program Director, Engineering

Proposed Schedule

Plans for 2010-2011 include continuing work with the NCUTCD, including the mid-year meeting in January, summer meeting in June, and proposed changes to the MUTCD.

The five Technical Committees have the following work plans:

Work Zone

The following items are those now being considered by the SCOTE Work Zone Technical Team for advancing safety and mobility in the work zone. It is expected that these items will be pursued by the Team working closely with other AASHTO Committees and Subcommittees, partner associations, and US DOT, particularly FHWA.

- Recognition of the role of planning, design, construction, operations, maintenance in work zone strategy development and execution.
- Determination of knowledge gaps through self-assessment, performance measurements, and consultation with others.
- Support of field testing of strategies and traffic control methods.
- Continue to develop listings of successful practices (Guidebook).
- Review and apply results from the 2010 Work Zone Domestic Scan.
- Continue to develop needed training initiatives with ATSSA and others.
- Develop follow-up comments to the recently published 2009 MUTCD.
- Explore opportunities for changing driver performance/behavior in the work zone.
- Review and consider the experience of states that have applied work zone automated enforcement strategies.
- Continue discussions on the application of the FHWA Final Rules on Work Zone development and deployment activities.
- Enhance the application of ITS technologies in the work zone.
- Discuss the role of law enforcement in the work zone.
- Discuss the role of public relations and community communications in the work zone.
- Review project contract documents for applicability in today’s highway transportation environment.
- Revisit short-term and mobile work zone operations – traffic control strategies and devices.
- Review compliance with SCOH Strategic Plan for meeting safety and mobility goals.
- Enhance communications and working relationships with other AASHTO Committees and Subcommittees.
- Enhance communications and working relationships with partner agencies and associations for work zone safety and mobility matters.

The following five areas of particular importance to the Work Zone Technical Team and to SCOTE:

- Identify and facilitate use of emerging research technologies, materials, processes, and program.
- Promote accountability through performance-based management.
- Significantly reduce crashes in work zones.
- Explore feasibility of demonstration projects using ITS technologies for work zone traffic management; adaptive/responsive systems.
- Work hand-in-hand with AASHTO committees/subcommittees, outside partners, and SCOTE Technical Teams.

Signing and Marking

The SCOTE Signing and Marking Technical Team met in Manchester, New Hampshire on June 16, 2009.

Accomplishments in 2009 and items discussed included:

- Completion of an informational pamphlet “Are Your Signs Working for You?”
- Airport Way finding.
- NPA items in the soon-to-be-issued MUTCD.
- Digital billboards as a driver distraction.
- Methods for meeting sign retro-reflectivity requirements.
- Use of colored pavements.
• Methods to address WRONG WAY crashes.
• Letter height on Changeable Message Signs (“blooming” – pixel LED’s versus physical measure).
• Update of “Guidelines for Installation of Supplemental Guide Signs Adjacent to the Interstate”.
• Combining real-time data with guide signs
• Ways to combine the efforts to address issues of SCOTE and SSOM

Work Plan for 2010-2011

• Distribute the “Are Your Signs Working For You?” to practitioners by working with AASHTO Headquarters.
  o Note: This activity also fits the AASHTO Strategic Plan (AASHTO-SP) goal to communicate standards.
• Explore Project 20-7(11) “Use of Colored Pavements for Special Use and/or Users.” This will require the team to work closely with the Markings Committee of the NCUTCD, and will begin in June 2010.
  o Note: This item applied to AASHTO-SP goal to reduce congestion through improvements to multi-modal transportation systems.
• Work with FHWA and NCUTCD Technical Committees on Airport Way finding uniformity efforts.
  o Note: This activity also addresses communication of standards.
• Continue to investigate the various aspects of driver distraction including digital billboards and other graphic displays.
  o Note: These efforts are related to the overriding goal to reduce fatalities and injuries on our highways.
• Collect the information and report on how states are complying with the retro-reflectivity requirements for signing.
• Explore the use of travel time data on dynamic guide signs.
  o Note: This applies to AASHTO-SP goals of utilizing technology and addressing congestion through its use.
• Continue to work closely with the NCUTCD on issues related to both signs and markings in the 2009 edition of the MUTCD.

Traffic Design, Regulation and Management

• Automated Enforcement. The technical team will continue discussions concerning the issues of automated enforcement. The team identified the need for a guideline or a best practices report to specify standards that should be used in red light running applications. An NCHRP synthesis is presently underway that may provide the information necessary to accomplish this need. The team will monitor the progress of this synthesis and will evaluate it when completed.
• Bicycle Guideline. The technical team will monitor the development of the Bicycle guideline and will report any issues to SCOTE - and a recommendation for subcommittee approval.
• Speed Operational Issues. A technical team member will review the latest research on the issue of design versus operational speed and will report to the team at the next annual meeting. Distribution of information to the SCOTE committee on this subject will be made when appropriate.
• Driver’s Handbook. The team will review the material developed for State Driver’s Manuals on the subjects of Older Drivers, Trucks, Work Zones, Bicycles, and ITS as part of NCHRP 20-07 Task 212. The final write-ups will be presented to the SCOTE committee.
• Roundabout Design Issues. A review of existing state programs regarding the criteria used for selecting a roundabout over a traffic signal will be conducted along with a review of the revised guideline to be issued by FHWA. A report of the findings will be presented to the SCOTE committee.
• Congestion Mitigation Strategies. A review of the use of adaptive signal systems to improve congestion on traffic arteries will be conducted. The use of these systems appears to have great potential to improve congestion and to reduce gas consumption. There is an NCHRP synthesis beginning on this subject and could provide the information desired. Ed Fisher (Oregon) will represent the technical team on the panel for this synthesis. Information from this synthesis will be discussed by the task force and information will be distributed to the SCOTE committee.

Traffic Signals and Roadway Lighting

Status and Work Plan

• The SCOTE Traffic Signal Technical Team has two active NCHRP 20-7 projects that we are providing oversight and guidance on:
  o NCHRP 20-7/Task 271 – Graphic Traffic Signal Design Aid based on the MUTCD. The contractor (University of Idaho) has developed templates and is currently incorporating materials from the 2009 MUTCD. We hope to have a prototype prior to the June meeting.
  o NHRP 20-7/Task 283 – Evaluation of Flashing Yellow (FYA) Permissive Left Turn in Shared Left Turn in Shared Yellow Signal Sections. The Contractor (University of Wisconsin) has sent in responses to questions from the technical team. The contract is being finalized and work is anticipated to begin around June 2010.
• The Traffic Signal Team will continue for the next one-two years to provide input, guidance, and oversight on these two projects to bring them to completion.
  • Our work plan for the June 2010 meeting will be to evaluate the status, discuss, and provide input as needed. We will also update the SCOTE members as to the status and progress.

Safety and Security

• Perform literature search, survey of states on emerging safety treatments including rumble stripes and strips, median barrier, special curve warning treatments, recovery area methods and advance warning for end of green (flashing indication).
• Continue to liaison with leadership of the Highway Safety Subcommittee to determine roles and possible joint meeting.

Upcoming Meetings

June 2010, Chicago, IL
June 2011, Boise, ID
AASHTO TASK FORCE TO DEVELOP THE HIGHWAY SAFETY MANUAL (HSM)

Officers

- Chair: D. W. Vaughn
- Vice Chair: Priscilla Tobias
- AASHTO Liaison: Ken Kobetsky

Work on the Highway Safety Manual, First Edition is complete, and the document has been transmitted to AASHTO for editing and printing. Since the Joint Task Force work is complete and are now awaiting approvals from SCOH and others, the committee recommends that the JTF sunset after all approvals have been made.
TECHNOLOGY IMPLEMENTATION GROUP

Officers:

Chair           Kevin Chesnik  
Vice Chair       Vacant        
Secretary        Byron Lord    
AASHTO Liaison   Keith Platte 

New Implementation Activities:

• Selection of Two/Three New Focus Technologies  
• Selection of Two or Three Additionally Selected Technologies  
  
  Note: The above selections will be made at the TIG Spring Meeting  

Other Activities:

• Close out Focus Technologies that have accomplished their team objectives.

Goals for Next Five Years:

• Expand TIG’s technology forecasting ability by strengthening ties with State, Federal, and AASHTO research entities.
• Promote coordination with Transportation partners (FHWA, Industry, etc) to implement TIG Technologies within in the transportation community.
• Be the leading voice of technology transfer activities in the transportation community.

Future Meetings:

• October 28, 2011, Biloxi, Mississippi
NTPEP OVERSIGHT COMMITTEE

Officers
Chair: Christine Reed (Illinois Chief Engineer)
Vice Chair: Tom Baker (Washington State, Materials Engineer)
AASHTO Liaison: Keith Platte, Program Director of Materials and Product Evaluation
Greta Smith, NTPEP Senior Project Engineer
Katheryn Koretz, NTPEP Project Engineer
Evan Rothblatt, NTPEP Manufacturing Auditor
Henry Lacinak, NTPEP Staff Liaison

NTPEP Executive Committee:
David Kuniega (Pennsylvania)
Derrick Castle (Kentucky) Robert Sarclinella (Texas)
Jim McGraw (Minnesota)

Proposed Schedule

Organizational and Administrative Framework

NTPEP is a pooled fund engineering technical service program which operates from AASHTO headquarters in Washington, DC. It is staffed by three full-time engineers who are responsible for day-to-day operations, administration and coordination of the NTPEP program. The program coordinates testing on a wide array of highway safety devices, construction materials and maintenance products. Whenever possible, cooperative agreements are entered into with Industry Associations who are expert in their respective industries. For each class of product category under NTPEP, a Technical Committee of state DOT and Industry membership convenes annually face-to-face and on conference calls to discuss the status of the ongoing and pending evaluations.

The NTPEP Committee is composed of up to three members from each AASHTO member departments. They provide technical guidance to the program. Chairman and Vice Chairman of the NTPEP Committee are appointed by the AASHTO Executive Director. For administrative matters and industry appeals a NTPEP Executive Committee (EC), representing each of the AASHTO regions, is selected by the NTPEP Chairman.

The NTPEP Committee regularly communicates with the Federal Highway Administration (FHWA). FHWA technical subject experts participate in NTPEP project panels.

Schedule of NEW Activities for FY11 Program Year:

During the 2010-2011 calendar year, NTPEP intends to conduct major field demonstration projects and nationally-coordinated laboratory testing in the following product categories.

<p>| NTPEP TEST DECKS (MAJOR PROJECTS TO INITIATE, 2010-2011 CYCLE) |
|---|---|---|</p>
<table>
<thead>
<tr>
<th>#</th>
<th>Due</th>
<th>Lead States</th>
<th>Description of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>March 2010</td>
<td>Minnesota, Missouri</td>
<td>Coordinate laboratory evaluations of concrete admixtures. Publish and distribute final report.</td>
</tr>
<tr>
<td>2</td>
<td>March 2010</td>
<td>Minnesota, Kansas</td>
<td>Coordinate laboratory evaluations of concrete curing compounds. Publish and distribute final report.</td>
</tr>
<tr>
<td>3</td>
<td>April 2010</td>
<td>Virginia, Louisiana, Minnesota, Arizona and Missouri</td>
<td>Coordinate, fabrication and install test panels for 2010-2012 cycle of testing for sign sheeting materials. Field evaluation racks are at four locations nationally. Publish previous year's data on DataMine.</td>
</tr>
<tr>
<td>4</td>
<td>April 2010</td>
<td>Louisiana, Minnesota, Arizona and Missouri</td>
<td>Coordinate, fabricate, and install 2010 &quot;Roll Up Signing Materials&quot; test deck at three field locations. Evaluate products and publish reports.</td>
</tr>
<tr>
<td>5</td>
<td>August 2010</td>
<td>Tennessee</td>
<td>Coordinate, install, and evaluate summer 2010 – winter</td>
</tr>
</tbody>
</table>
## NTPEP Test Decks (Major Projects to Initiate, 2010-2011 Cycle)

<table>
<thead>
<tr>
<th>#</th>
<th>Due</th>
<th>Lead States</th>
<th>Description of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>May-July 2010</td>
<td>Minnesota, New York, Louisiana, Pennsylvania, and Wisconsin</td>
<td>Coordinate, install, and evaluate pavement marking deck in Minnesota. Conduct routine readings on test decks installed in previous years. Perform laboratory testing. Data for this TC is posted data online via DataMine.</td>
</tr>
<tr>
<td>7</td>
<td>Fall 2010</td>
<td>Georgia, Florida</td>
<td>Coordinate, install, and evaluate raised pavement marker “sun country” field test deck in Georgia. Conduct laboratory testing on products. Publish and distribute reports.</td>
</tr>
<tr>
<td>8</td>
<td>Fall 2010</td>
<td>Ohio, Georgia, Florida</td>
<td>Coordinate, install, and evaluate snowplowable raised pavement marker field test deck in Ohio. Conduct laboratory testing on products. Publish and distribute reports.</td>
</tr>
<tr>
<td>9</td>
<td>Fall 2010</td>
<td>Ohio, Kansas, New York</td>
<td>Coordinate, install, and evaluate rapid set concrete patch field test deck. Conduct laboratory testing on products. Publish and distribute reports.</td>
</tr>
<tr>
<td>10</td>
<td>January 2011</td>
<td>Tennessee</td>
<td>Coordinate, install, and evaluate winter 2009 – summer 2009 flexible delineators and work zone drums field and laboratory testing. Publish and distribute final report.</td>
</tr>
<tr>
<td>11</td>
<td>February 2011</td>
<td>North Carolina</td>
<td>Coordinate field evaluation of portable changeable message signs and flashing arrow panels. Publish and distribute a final report.</td>
</tr>
<tr>
<td>12</td>
<td>QUARTERLY</td>
<td>New York, Washington</td>
<td>Quarterly solicitation and laboratory evaluation of geotextiles. Publish and distribute hard copy test reports and post results via the Internet and NTPEP DataMine.</td>
</tr>
<tr>
<td>13</td>
<td>QUARTERLY</td>
<td>Wisconsin, TRI/Environmental</td>
<td>Quarterly solicitation and laboratory evaluation of Erosion Control Products. Publish and distribute electronic copy test reports and post results via the Internet and NTPEP DataMine.</td>
</tr>
<tr>
<td>15</td>
<td>ONGOING</td>
<td>NTPEP, TRI/Environmental Kansas and Washington</td>
<td>NTPEP Audit Program (NAP) for Plastic Pipe is schedule to conduct 35 audits in calendar year 2010. NAP produces electronic reports from each audit.</td>
</tr>
<tr>
<td>16</td>
<td>ONGOING</td>
<td>NTPEP and Texas</td>
<td>Begin NAP for Rebar on reinforcing steel plants. Currently there are 23 plants scheduled in calendar year 2010. NAP produces electronic reports for each audit.</td>
</tr>
</tbody>
</table>

### Ongoing Activities supporting NTPEP expansion and promotion:

NTPEP staff maintains the committee website, [http://www.ntpep.org](http://www.ntpep.org). The program’s success is largely due to public-private partnerships. Therefore presentations are made at various regional and national conferences and liaison reports are provided to other AASHTO committees.
Goals for Next 3 Years:

- Increase use of NTPEP results through speaking engagements, training opportunities, and peer exchanges.
- Introduce additional collaborative online communication for committee correspondence.
- Establish a greater presence in the AASHTO community.
- Structure organization to handle program growth.
- Work with the National Electrical Manufacturers Association (NEMA), the Institute of Transportation Engineers (ITE), and other AASHTO subcommittees to create a national testing and evaluation program for Light Emitting Diodes (LEDs) and signal controller boxes.

Upcoming Meetings:

- NTPEP 2011 annual meeting of the NTPEP Committee
  - Dates: May 2-6, 2010
  - Location: San Antonio Texas

- NTPEP 2012 annual meeting of the NTPEP Committee
  - Dates: May 3-7, 2012
  - Location:
SPECIAL COMMITTEE ON US ROUTE NUMBERING

Chair: D. W. Vaughn, AL - Region 2

Members:
- Ken Sweeney, ME - Region 1
- Kevin Keith, MO - Region 3
- Cathy Nelson, OR - Region 4
- Marty Vitale, AASHTO, Secretary

- Policy and Procedures for U.S. Bicycle Routes is complete.
- Application for U.S. Bicycle Routes is complete.
- Update 1989 Edition of U.S. Route Numbering publication using NCHRP funds is still a work in progress. An online database is currently functioning.

Expected Goals for Next 5 Years:
- Publish and promote a new edition of the *U.S. Numbered Highways* for availability on the internet as an AASHTO historical record.
- Update the *U.S. Numbered Highways* continuously as applications are approved and processed.
- Continue to update and expand the *Special Committee on U.S. Route Numbering* Website

Upcoming Meetings:
- Special Committee USRN
  - Annual 2010 Biloxi, MS
SPECIAL COMMITTEE ON WIRELESS COMMUNICATIONS TECHNOLOGIES (SCOWCT)

Officers
- Chair: William A. Brown, VA
- Vice Chair: David S. Chase, NH
- Secretary: William Brownlow, AASHTO
- AASHTO Liaison: William Brownlow
- U.S. DOT Liaison: James Arnold

Proposed Schedule

- **Other Activities For The Coming Year**
  - Committee members will receive training on radio propagation coverage, frequency interference studies, line-of-sight microwave system engineering, the radio frequency coordination process and FCC license applications, and much more at the 2010 annual meeting, conducted by Peter Moncure of Radiosoft.

- **Upcoming Meetings**
  - August 22 - 26, 2010, Committee meeting, Irvine, California

GOALS

The Special Committee on Wireless Communications Technologies will continue developing a training program leading to accreditation as an AASHTO Certified Frequency Coordinator.

The Committee strives to establish a better method for establishing and maintaining a shared knowledge database of the equipment, technologies and methods used in wireless systems to support the members’ voice, data, ITS and other communications requirements. Part of this initiative is the development of the Radio 101 informational briefing.

The Committee will conduct an internal study of participation trends by the wireless and communications professionals within the member states with the SCOWCT and discuss methods and programs to increase participation with the national group.

The Committee emphasizes the need for all departments to maintain a trained staff of wireless and communications professionals, with the necessary visibility within the organizational structure to be incorporated in their department’s current and long range programs that can benefit from modern wireless communications technologies. This includes the need to support their attendance at AASHTO events and relevant trade shows that will help maintain currency of technical expertise in this most rapidly changing field.
AASHTO has awarded the following number of professional development hours for the following committee meetings conducted by the various subunits parented by SCOH since the Standing Committee on Highways (SCOH) spring meeting in May 2009. Certificates were awarded by request of a meeting participant or to whole registration lists depending on the desire and approval of the committee chairs.

It would be very helpful to have a decision on professional development hours determined before a meeting based on the agenda approved by a committee leadership team hosting a meeting. If at all possible, certificates should be distributed at the end of each meeting and only to those in attendance. The committee liaison should report to the AASHTO Engineering Program the number of certificates distributed with a list of meeting participants.

What follows are the numbers of certificates distributed between May 2009 and April 2010. The number shows how many actual requests were fulfilled.

<table>
<thead>
<tr>
<th>Committee</th>
<th>Meeting Dates</th>
<th>Location</th>
<th>Chair</th>
<th>Approved PDH/CEU</th>
<th>Next Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standing Committee on Highways</td>
<td>October 2009</td>
<td>Palm Desert, CA</td>
<td>Amadeo Saenz, TX</td>
<td>6.25 PDH (tech) 2 PDH (bus)</td>
<td>May 20-21, 2010</td>
</tr>
<tr>
<td>Subcommittees on Bridges &amp; Structures</td>
<td>July 5-9, 2009</td>
<td>New Orleans, LA</td>
<td>Mal Kerley, VA</td>
<td>18 PDH / 1.8 CEU</td>
<td>Sacramento, CA May 23-27, 2010</td>
</tr>
<tr>
<td>Subcommittee on Construction</td>
<td>August 2-7, 2009</td>
<td>Chicago, IL</td>
<td>Gary Ridley, OK</td>
<td>18.5 PDH / 1.8 CEU</td>
<td>Burlington, VT August 15-20, 2010</td>
</tr>
<tr>
<td>Subcommittee on Design</td>
<td>July 19-23, 2009</td>
<td>Indianapolis, IN</td>
<td>Carolann Wicks, DE</td>
<td>17.5 PDH / 1.7 CEU</td>
<td>Columbia, SC July 25-29, 2010</td>
</tr>
<tr>
<td>Subcommittee on Highway Transport</td>
<td></td>
<td></td>
<td>Jim Lynch, MT</td>
<td></td>
<td>Portland, ME June 7-9, 2010</td>
</tr>
<tr>
<td>Subcommittee on Maintenance</td>
<td>July 19-23, 2009</td>
<td>Annapolis, MD</td>
<td>Carlos Braceras, UT</td>
<td>15.25 PDH / 1.5 CEU</td>
<td>Savannah, GA July 11-15, 2010</td>
</tr>
<tr>
<td>Subcommittee on Materials</td>
<td>August 2-7, 2009</td>
<td>Anchorage, AK</td>
<td>Grant Levi, ND</td>
<td>30 PDH / 305 CEU</td>
<td>Madison, WI August 8-13, 2010</td>
</tr>
<tr>
<td>Subcommittee on Right-of-Way and Utilities</td>
<td></td>
<td></td>
<td>John Campbell, TX</td>
<td></td>
<td>(TBA) Missouri January 2011</td>
</tr>
<tr>
<td>Subcommittee on Systems Operation &amp; Management</td>
<td>June 14-17, 2009*</td>
<td>Manchester, NH*</td>
<td>R. Scott Rawlins, NV</td>
<td>16 PDH / 1.6 CEU</td>
<td>Houston, TX May 2-5, 2010</td>
</tr>
<tr>
<td>Subcommittee on Traffic Engineering</td>
<td>June 14-17, 2009*</td>
<td>Manchester, NH*</td>
<td>Del McOmie, WY</td>
<td>16 PDH / 1.6 CEU</td>
<td>Chicago, IL June 27-30, 2010</td>
</tr>
<tr>
<td>NTPEP Oversight Committee</td>
<td>May 5-7, 2009</td>
<td>Portland, ME</td>
<td>Bill Temple, LA</td>
<td>19 PDH / 1.9 CEU</td>
<td>Orlando, FL May 10-14, 2010</td>
</tr>
</tbody>
</table>

*SCOTE and SSOM combined meeting.
WHEREAS, The Manual on Uniform Traffic Control Devices (MUTCD) had its beginnings within AASHO in 1927, and the first MUTCD, as we know of it today was issued in 1935 jointly by AASHO and its local government partners, and

WHEREAS, Over the earlier and ensuing years, the MUTCD contents have been developed by a national committee representing the users; AASHO/AASHTO, and local governments, other safety organizations; providing input to BPR/FHWA on the MUTCD between 1961 and 1979, as an “advisory” group until Federal Guidelines in 1979 ended the advisory relationship the National Committee had with FHWA, causing the National Committee to reconstitute so as to continue to provide comments on the MUTCD provisions to the FHWA, and

WHEREAS, The AASHTO and the National Committee represent the traffic control device interests of 100% of the nation’s jurisdictions, fulfilling the MUTCD goals of traffic control uniformity for all streets and highways, and

WHEREAS, The AASHTO and National Committee are heavily represented by highway operating agencies who have the ultimate responsibility for using and applying traffic control strategies and devices, and who have the potential for the liability associated with such use, and

WHEREAS, the enormity of the nation’s highway and street infrastructure means that there will be exceptions, though they may be rare, to every rule, traffic situational circumstances vary considerably, necessitating flexibility in the application of the traffic control strategies and devices, and

WHEREAS, It is essential that the MUTCD standards, guidance and options be well-supported to the maximum extent possible by research results and the measured observations of road user performance by the highway operating agencies; the MUTCD highly regards the exercise of engineering study and engineering judgment to meet the provisions of the MUTCD for the use and application of traffic control strategies and devices, and

WHEREAS, The last edition of the MUTCD, in 2003, made it clear in Section 1A.09 that “….while this Manual provides Standards, Guidance, and Options for design and application of traffic control devices, this Manual should not be considered a substitute for engineering judgment.”

WHEREAS, The 2009 edition of the MUTCD removes from Section 1A.09 the reference to engineering judgment being a possible deciding factor for applying the MUTCD standards, guidance and options and, instead, has inserted a sentence in Section 1A.13(A) within the definition of “standard;” “… Standard statements shall not be modified or compromised based upon engineering judgment or engineering study;” and

WHEREAS, These changes in wording to the 2009 MUTCD, Sections 1A.09 and 1A.13(A), were not published in the NPA for public review and comment, and were subsequently changed with no opportunity for review and comment by AASHTO and other members of the National Committee, and

WHEREAS, AASHTO recognizes and strongly supports the need for uniformity in the application of traffic control strategies and devices, the revised wording reduces the ability of
experienced traffic engineers to apply traffic control strategy and device principles in a manner that best meets the operational and safety needs of road users, and

WHEREAS, After the January 2010 meeting of the National Committee, letters were sent by both the National Committee and AASHTO to USDOT, FHWA Office of Transportation Operations (OTO) requesting that the additional sentence to the definition of “standard” be deleted; the request was denied, the reasoning being that the change was merely a clarification of existing understandings, and

WHEREAS, AASHTO recognizes the responsibility of MUTCD users, under law, to apply its provisions correctly, in a consistent and uniform manner; strongly believing that public safety comes first, but the overall impacts of the MUTCD, including those from potential liability claims, must also be considered; now therefore be it

RESOLVED, That reference should be made to Section 1A.09 of the 2003 MUTCD regarding engineering judgment and engineering study, in that the revised wording of Section 1A.13(A) of the 2009 MUTCD is, in fact, new wording and a new requirement, not merely a clarification of existing wording; and be it further

RESOLVED, That the last sentence of Section 1A.13 (A) in the definition of “Standard” should be deleted; and finally be it

RESOLVED, That this proposed resolution by the AASHTO Standing Committee on Highways, be forwarded to the AASHTO Board of Directors for consideration and approval for submission to FHWA.
WHEREAS, The Highway Safety Manual has been developed to provide additional safety tools to member states and to facilitate achievement of AASHTO’s safety goal; and

WHEREAS, The Joint Task Force on the Highway Safety Manual was established to guide the development of the manual and is comprised of members of the Standing Committee on Highways Subcommittees on Design and Traffic Engineering and the Standing Committee on Highway Traffic Safety Subcommittee on Safety Management; and

WHEREAS, The Highway Safety Manual will be published in the spring of 2010 and the Joint Task Force will sunset at this time, though implementation of the Highway Safety Manual will require ongoing support and guidance from representatives of AASHTO member departments; and

WHEREAS, The Standing Committee on Highway Traffic Safety supports the Subcommittee on Safety Management establishment of a Task Group on Technical Safety Publication Oversight and Coordination with the purpose of coordinating input to and review of technical publications and working with the National Cooperative Highway Research Program and the Transportation Research Board to address safety practitioners’ needs; now therefore, be it

RESOLVED, That the responsibility for guiding the implementation and future development of the Highway Safety Manual will be assigned to the Standing Committee on Highway Traffic Safety Subcommittee on Safety Management Task Group on Technical Safety Publication Oversight and Coordination; and be it further

RESOLVED, That the Standing Committee on Highways Subcommittees on Design and Traffic Engineering will appoint three members each to serve as active voting members of the Safety Management Task Group on Technical Safety Publication Oversight and Coordination in order to maintain the level of coordination and interaction that has resulted in a practical and applicable manual; and be it further

RESOLVED, That the Chair of the Transportation Research Board’s Joint Task Force on the Development of the Highway Safety Manual will be invited to serve and appoint two members of the TRB Joint Task Force to serve as non-voting members of the Safety Management Task Group on Technical Safety Publication Oversight and Coordination.
WHEREAS, Approximately one half of all U.S. traffic fatalities occur on local roads (i.e., non-state and non-federally owned roads); and

WHEREAS, It is recognized that there is a need to accelerate and enhance safety improvement on local roads to meet the American Association of State Highway and Transportation Officials (AASHTO) fatality reduction goal;

WHEREAS, The Standing Committee on Highway Traffic Safety (SCOHTS) has adopted this resolution on May 14, 2010; be it

RESOLVED, That States are encouraged to designate a contact person(s) in the DOT to work with local safety stakeholders; be it further

RESOLVED, That States are encouraged to support efforts to facilitate application of safety funds on their local roads; be it further

RESOLVED, That States are encouraged to include local road safety stakeholders and local road issues and priorities during the Strategic Highway Safety Plan (SHSP) update and implementation planning process; be it further

RESOLVED, That States are encouraged to enhance and coordinate collection of and access to local road or community level crash data for local safety planning and decision making; finally be it further

RESOLVED, That States are encouraged to utilize existing mechanisms such as Local Technical Assistance Program centers and the appropriate associations or chapters of local government organizations (such as those representing counties, cities, municipalities) to communicate the AASHTO and SCOHTS safety messages.
WHEREAS, The National Partnership for Highway Quality defines quality in the U.S. highway program to be highway projects that:

- have sound planning and designs prepared by skilled, trained engineering professionals and technicians;
- have good constructability and are appropriately considerate of the environment, cultural features, and private owners adjacent to them;
- implement and maintain an appropriate traffic control plan for the efficient and safe passage for roadway users and adequate safety for highway crews;
- are built timely by a skilled, trained project team committed to project partnering principles and using appropriate materials, equipment, methods, technology, and administration;
- use suitable communication tools to inform the public of project progress, traveling conditions, and anticipated delays; and
- when completed, provide optimum value and appropriate mobility for highway users, perform as planned, and maximize the return on investment; therefore be it

RESOLVED, That the Standing Committee on Highways endorse the NPHQ definition of highway quality.
NATIONAL PARTNERSHIP FOR HIGHWAY QUALITY (NPHQ)

PPR TITLE: NATIONAL PARTNERSHIP FOR HIGHWAY QUALITY PROGRAM (NPHQ)
SPONSORSHIPS PROSPECTUS

WHEREAS, the American Association of State Highway and Transportation Officials (AASHTO) participated in the creation and implementation of the National Quality Initiative (NQI) in November, 1992; and

WHEREAS, the AASHTO Board of Directors (BOD) designated one of its members to serve as Co-Chairman of the NQI Steering Committee and delegated responsibility for the remaining four positions on the NQI Steering Committee apportioned to AASHTO to the Standing Committee on Highways (SCOH); and

WHEREAS, the AASHTO Board of Directors also delegated responsibility for interaction and collaboration with and reporting from NQI to SCOH; and

WHEREAS, SCOH appointed one SCOH member from each of the four AASHTO Regions to serve on the NQI Steering Committee and has continued to do so after NQI evolved into the National Partnership for Highway Quality (NPHQ) on October 1, 2000 and began to be funded by individual annual contributions from Steering Committee member agencies, organizations, and firms; and

WHEREAS, oversight of the NPHQ program was transferred to the AASHTO Standing Committee on Quality at the AASHTO 2002 Annual Meeting with the provision that the BOD and SCOH would continue to provide their respective historical membership on the NQI and NPHQ Steering Committees; and

WHEREAS, SCOH resumed oversight of the NPHQ program following the Standing Committee on Quality being superseded by the new Standing Committee on Performance Management at the AASHTO 2008 Annual Meeting; and

WHEREAS, NPHQ funding has been significantly reduced due to the downturn in highway program funding and Steering Committee member entities reducing or not making their annual contribution to the program; and

WHEREAS, NPHQ has developed and submitted to SCOH a plan for obtaining additional NPHQ funding through solicitation of sponsors for various suitable NPHQ program activities and expenditures as described in the attached Prospectus for NPHQ Sponsorships; and

WHEREAS, SCOH continues to emphasize obtaining optimum quality and service in delivered highway projects and continues to support the NPHQ program and its efforts to champion and herald the importance of continuous improvement of highway quality and customer service in completed highway projects for highway users; now therefore, be it

Resolved That SCOH continues to support the NPHQ program and its mission and supports the attached initiative proposed by NPHQ for the purpose of soliciting additional program funding.
The National Partnership for Highway Quality (NPHQ) combines the expertise and energy of public agencies, industry organizations, academia and private firms to advance quality, safety and service to America’s highway users. The leaders of NPHQ recognize that the evolution from provider to partner with America's highway users ushered in a new era of commitment to build better highways for the drivers of today and tomorrow.
"My real admiration for the Interstate System is not what it did for me as a soldier or what it did for our national security, but what it did for our country and our society...It gave birth to new communities. It gave birth to new industries. And it reshaped our country for the better..."

General Colin L. Powell, USA (Ret)
Celebrating the 50th Anniversary of the U.S. Interstate Highway System

Vision, integrity, vigor and determination: these are the qualities that made America great. In practice, they were complemented by unfettered individual mobility, through a national system that delivered raw materials to production sites, brought workers together to produce goods and transported finished products to market on time, while ensuring that both troops and motorists could traverse a vast nation with safety and ease. This critical component of individual freedom inspires human endeavor, and led to the development of a strong, dynamic America, the most mobile Nation in the world.

Transportation infrastructure, which may not capture the imagination of a skillfully entertained society, is, nonetheless, the cornerstone of access to the American dream. It has long served as the engine of American prosperity. And it has delivered the goods, creating a positive impact on our culture, on our economy, on every aspect of our way of life.

What can be more important to our future than to expand, enhance and maintain the highway system that captured the imagination – and the business – of a global society? The National Partnership for Highway Quality (NPHQ) contends that we must:

- Modernize and expand our transportation infrastructure to ensure that America remains competitive at home and abroad;
- Cultivate an environment in which legislators have the political will and clout to make transportation infrastructure funding a top priority; and,
- Grow and protect the transportation infrastructure investment to meet both public and business demands for safe, efficient, and reliable travel.

In today’s era of globalization, NPHQ recognizes that three complementary programs are required to steward the United States highway program:
To do so, NPHQ will build on more than 17 years of faithful performance as the sole National program bringing together leaders from Federal, State and Local public highway agencies, academia, highway industry organizations and individual companies, for the purpose of combining their expertise and energy to lead the U.S. highway program to ever higher levels of quality and service for the benefit of the taxpaying highway users.

Looking forward, NPHQ promises:

- **Safety First!** Quality highways are an entitlement to those who fund the U.S. highway program through the taxes they pay into the federal budget and the Highway Trust Fund. After all, what is more important to mobility than personal safety and that of our families, friends and neighbors?
- **Innovation.** Quality processes and tools create a work environment that promotes more efficient time management and better workmanship, resulting in a better finished product, safer work zones and reduced near-term and life cycle costs.
- **Teamwork.** Quality project management concepts like partnering promote personal commitment, more effective communications and greater cooperation among all project staff, creating an environment that results in a higher quality of completed work. Quality project management also includes the customer on the team, keeping the highway user invested and informed.
- **Recovery.** Highways that are delivered with an emphasis on quality operate at peak efficiency, demonstrate responsible stewardship of the taxpayers’ hard-earned investment, and help drive our Nation’s economic recovery.
- **Environmental Management.** Quality highways minimize congestion, reducing our consumption of oil and the level of harmful emissions in the atmosphere. They also incorporate environmentally sound construction and design practices. Did you know that the single largest investor in environmental mitigation is the U.S. highway program? Today’s highway project delivery practices are in sync with the general public on the necessity of environmental management and the need to integrate environmental performance into daily decisions at the Federal, State and Local level.

**SPONSORS:**

America’s highway network is an essential element of our transportation infrastructure and its quality is critical to our economic growth and ability to compete in the world marketplace. That’s why partnering with NPHQ is more valuable than ever. Sponsors reach their target audience and achieve their goals across multiple platforms with greater ease and more flexibility than ever before.

NPHQ has designed valuable opportunities for budgets large and small to expose its sponsors to transportation industry leaders. Sponsoring organizations will receive special recognition to promote their leadership and involvement with NPHQ. To build maximum exposure
within the transportation industry for sponsors, NPHQ sponsorships:

- Include customized opportunities to increase your organization’s visibility with appropriate key audiences
- Support relationships with potential customers and strengthen relationships with current ones
- Help access niche markets in which your presence is magnified
- Differentiate your organization and its products from those of your competition
- Promote your robust, long-term commitment to advancing highway quality, safety and service to America’s highway users

Who should sponsor NPHQ programs? Organizations who wish to:

- Impact the efficient movement of people and goods on America’s highways
- Uncover critical safety challenges and identify effective solutions
- Make transportation infrastructure funding a national priority
- Modernize and expand transportation infrastructure to ensure America remains competitive

OPPORTUNITIES TO INVEST:

America’s highway system is critical to security, individual mobility, economic vitality, participation in global markets, and the opportunity for individuals to pursue the American dream. Rather than declining in appeal or influence, today’s roadways operate in an era of heightened importance, providing an extraordinary and vital link for the myriad individuals, families, businesses, and organizations that comprise and support our Nation’s communities.

The chief mission of NPHQ is to advocate for the roadway customer’s demands – for practices, technologies, innovations and programs that ensure our highways operate at peak performance for these communities now and into the future. To participate in and support its mission and the work of its allies in the highway program, NPHQ offers the following investment opportunities:

U.S. Highway Users Survey

NPHQ will conduct a comprehensive marketing research study, a national survey that has not been undertaken in a decade. The goals of the study are to:

1) **Provide a statistically valid assessment of America’s highway system from its users’ perspectives:** Survey findings and insights will be packaged in a comprehensive report that can be shared with key stakeholders, including government agencies and legislators, to guide them in developing policies that can save lives on our roads and highways.
2) **Generate and package research data that can inform and support America’s highway users:**
NPHQ will explore the creation of a customer or highway users’ regional highway quality rating, one that can be released on an annual basis by asking one or two questions in a very low cost, short annual survey.

3) **Generate information that can inform key stakeholders:**
Generate information on several key issues that can be used to inform and support the advocacy role of key stakeholders.

4) **Provide strategic guidance for the organization:** Provide research-based insights and recommendations that can guide NPHQ’s strategic focus and related work plan to ensure that the highway quality cause is advanced in the most efficient and effective manner possible.

For this specific project, NPHQ seeks funding of $100,000:

<table>
<thead>
<tr>
<th>Service</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Research Firm Professional Fee</td>
<td>$25,000</td>
</tr>
<tr>
<td>CATI Programming</td>
<td>$2,000</td>
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<tr>
<td>Telephone Interviewing Fieldwork</td>
<td>$26,520</td>
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<tr>
<td>Telephone Sample</td>
<td>$2,400</td>
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<tr>
<td>Report Printing and Distribution</td>
<td>$24,000</td>
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<tr>
<td>Marketing</td>
<td>$20,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$99,920</strong></td>
</tr>
</tbody>
</table>

In return for your sponsorship, you will receive:

**$1,000 Sponsorship**
- Logo displayed on NPHQ website and logo link
- Logo displayed on all advance materials
- Logo displayed in U.S. Highway Users Survey Report

**$5,000 Sponsorship**
- Logo prominently displayed on NPHQ website and logo link
- Logo prominently displayed on all advance materials
- Logo prominently displayed in U.S. Highway Users Survey Report
- One-time use of NPHQ mass e-mail list to promote your organization

**$10,000 (and up) Sponsorship**
- Logo prominently displayed on NPHQ website and logo link
- Logo prominently displayed on all advance materials
- Logo prominently displayed in U.S. Highway Users Survey Report
- Two-time use of NPHQ mass e-mail list to promote your organization
- Opportunity to co-host an Annual Conference session*
- Opportunity to introduce a speaker or VIP guest at an Annual Conference session*

*The NPHQ Annual Conference will announce U.S. Highway Users Survey results.
NPHQ Steering Committee Membership

Members of the Steering Committee share a common interest in the advancement of quality, safety and service to America’s highway users. They know that roadways supply mobility, and mobility is key to the American dream.

The goal of the Steering Committee is to illustrate that a focus on quality - in roadway project management, design and delivery - produces innovation in practices, technologies and training that fuel rapid advancement of America’s transportation systems. And, in doing so, renews the commitment to America's most vital resources, its people, with a promise to provide safe, modern and efficient highways to keep our Nation prosperous.

To become a member of the Steering Committee, NPHQ requires contributions in the following amounts:

**Principal, Voting Membership**
- Attend meetings and monthly web conferences, lead and participate in discussions and participate in program decisions
- Ascending contribution amounts based on size of membership for industry organizations
- $5,000 per year for firms and other entities, such as academia
- One-year listing on NPHQ web site for organizations ranging from State Departments of Transportation, Contractors, Engineering Consultants, Suppliers, Fabricators, Producers, etc.

**Associate Membership**
- Attend meetings and monthly web conferences and participate in discussions
- $500 per year
- One-year listing on NPHQ web site for organizations ranging from State Departments of Transportation, Contractors, Engineering Consultants, Suppliers, Fabricators, Producers, etc.

**“Hall of Quality Leaders”**
- $200 per year
- One year listing for organizations ranging from State Departments of Transportation, Contractors, Engineering Consultants, Suppliers, Fabricators, Producers, etc.

**“Hall of Quality Champions”**
- One year, no-cost listing for political and private entities that were part of a team that delivered an NPHQ award-winning project, activity or achievement

**NPHQ Annual Conference**

- **Welcoming Reception** - $3,000
  An event that our attendees look forward to year after year.

- **Opening Keynote** - $10,000
  Help us kick off our annual conference with an engaging opening session and speaker to set the tone for the rest of the program.
• **Panel Discussions** - $1,000 per panel member
  Quality educational sessions are the cornerstone of the NPHQ Annual Conference. Help NPHQ give attendees the information they need to succeed by sponsoring one of these sessions.

• **Closing Session** - $2,500
  Wrap up our conference on a high note with an inspiring, thought-provoking closing speaker.

• **Networking Breakfast** - $5,000 per breakfast (two breakfasts); $10,000 to sponsor both
  Attendees not only enjoy breakfast on us, they have the chance to network with their transportation peers at this always popular event.

• **Breaks** - $750 each (four breaks); $3,000 to sponsor all four
  Well-deserved refreshment breaks help attendees stay focused throughout the day.

• **Networking Luncheon** - $10,000
  An opportunity to network with their peers and speakers. During this luncheon, attendees choose from more than ten moderated discussions led by transportation experts to strengthen what NPHQ can do for you.

• **Brief Cases** - $5,000 (may be co-sponsored)
  Every attendee will receive a tote bag at registration. Your logo will appear on the bags that attendees will carry throughout the conference and beyond.

• **Note Pads & Holders** - $5,000
  Your logo on these notepads and holders gets exposure at the conference and long afterward.

• **Lanyards** - $2,000
  Your name/logo will appear on the lanyards and become a walking advertisement for your company during and after the NPHQ Annual Conference.

• **Conference Proceedings CD** - $7,500
  Many attendees prefer to have copies of speakers' presentations. In an effort to reduce paper consumption, NPHQ is offering a conference proceedings CD to attendees who request a copy. Your sponsorship includes your logo, a 15-second spot on the CD and a link to your website.

**General Sponsorships** - $1,000 minimum
Demonstrate your support of highway quality as a general sponsor. Your contribution will help NPHQ provide top-notch programming, give attendees the educational, networking and social events they've come to expect.
Complimentary Conference Passes will be available based on level of sponsorship:

<table>
<thead>
<tr>
<th>Sponsorship Level</th>
<th>Conference Passes</th>
</tr>
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<tbody>
<tr>
<td>Up to $1,000</td>
<td>One (1) Pass</td>
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<tr>
<td>$1,001 - $5,000</td>
<td>Two (2) Passes</td>
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<td>Three (3) Passes</td>
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<td>Four (4) Passes</td>
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<tr>
<td>$15,001 and Up</td>
<td>Five (5) Passes</td>
</tr>
</tbody>
</table>

**NPHQ Annual Steering Committee Meeting**

This NPHQ leadership meeting convenes each Spring in Washington, DC to evaluate the state of America's highway quality and plan activities and strategies for the coming year.

- **Welcoming Reception** - $1,000  
  Principal and Associate Steering Committee members enjoy this special networking event.

- **Networking Breakfast** - $1,000  
  Steering Committee Members enjoy this breakfast and they have the chance to network with their transportation peers at this always popular event.

- **Refreshment Breaks** - $250 each (two breaks)  
  Well-deserved breaks help Steering Committee members stay focused throughout the day.

- **Luncheon** - $2,000  
  A working luncheon

- **General Sponsorship** - $500 minimum  
  Demonstrate your support of highway quality as a general sponsor. Your contribution will help NPHQ provide Steering Committee members with a high-tech, comfortable working environment within which to plan its future direction.

**NPHQ Awards Programs**

The NPHQ Making A Difference Awards are presented biennially in even-numbered years to recognize project and organizational teams that have excelled in the principles of quality improvement and promote their quality achievements for others to use to “make a difference” in the quality of our Nation’s highways.

Presented biennially in odd-numbered years, the NPHQ National Achievement Awards recognize overall project quality, the partnership between State departments of transportation and private contractors; technical and materials innovations; the effectiveness and creativity of public involvement; the teams' effectiveness in meeting or exceeding expected deadlines, costs and deliverables; responsiveness to environmental needs and opportunities; and adherence to other principles of quality management.

Sponsorship opportunities are available in the following areas:
Awards & Technology Subcommittee Annual Nomination Rating Meeting
Industry leaders meet each year to select those projects and partnerships that represent the best in highway quality.

- **Breakfast** - $250
  Help Subcommittee members get off on the right foot with a healthy start to their day.

- **Refreshment Breaks** - $150 each (two breaks)
  Well-deserved breaks help Committee members stay focused throughout the day.

- **Luncheon** - $250
  A working luncheon

- **General Sponsorship** - $250 minimum
  Demonstrate your support of highway quality as a general sponsor.

Annual Awards Presentation
This presentation occurs during the NPHQ Annual Conference.

- **Trophies and Plaques for Annual Award Recipients** - $15,000
  Help us honor the best in highway quality.

- **Annual Awards Video** - $5,000
  NPHQ offers an Annual Awards CD to publicize the annual award winners and their accomplishments. This video is distributed to State DOTs, Federal Highway Administration Division offices, and Steering Committee member organizations and firms. Your sponsorship includes your logo, a 15-second spot on the CD and a link to your website.

Complimentary NPHQ Annual Conference Passes will be available based on level of sponsorship:

<table>
<thead>
<tr>
<th>Amount</th>
<th>Number of Passes</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5,000</td>
<td>Two (2) Passes</td>
</tr>
<tr>
<td>$15,000</td>
<td>Four (4) Passes</td>
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</tbody>
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**NPHQ Webinars**
Due to the low cost per lead and ease of production, Webinars are quickly becoming the most efficient and cost effective way to promote your expertise to a nationwide audience. NPHQ offers five (5) types of webinars:

- **Technical Webinar**: Pair your company’s expert with the appropriate NPHQ technical expert for an educational, informative presentation positioning your company as a thought leader in conjunction with NPHQ standards and initiatives.

- **Solutions Webinar**: Partner with one of your service provider customers to present a real-world case study demonstrating the success of your product or service as it relates to a breakthrough on a challenge facing the transportation industry.
Innovations Webinar. Showcase your achievements as you make the case for innovation, provide strategic advice, outline benefits, identify new products and more.

Training Webinar. Teach cutting-edge programs designed for the transportation industry - from technical expertise to management sessions and everything in between.

Regional Webinars: Reach your regional target market with one of the above webinars specifically addressing their business needs, held at a time of day convenient to any of the four AASHTO regions.

$1,000 for a One-Time, One Webinar Sponsorship that includes:
- Your logo, linked to your website, displayed prominently on the NPHQ website for the selected webinar.
- Copies of the attendee list for your selected webinar, emailed to you in Excel format.
- Mention of your organization at webinar start, thanking you as a sponsor.

NPHQ Website
Sponsorships are available to organizations that wish to be seen on the NPHQ website. Sponsorship funds are dedicated to improving the website, adding more interactive features, and showcasing all that NPHQ has to offer.

$250 for a One-Year Sponsorship that includes:
- Your name/logo, linked to your website, displayed on the NPHQ website
- Listing of your organization as a sponsor of the NPHQ site

General NPHQ Sponsorships
NPHQ welcomes all organizations and firms interested in advancing quality, safety and service to America’s highway users. General sponsors receive banner ad placement on specific web pages and other opportunities to co-promote your organization with year ’round exposure to transportation leaders across America.

Your contribution to NPHQ will help to support practices and programs that ensure highways across the Nation operate at peak performance now and into the future for America’s roadway customers. The following general sponsorships are available: