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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 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](image)

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.

<table>
<thead>
<tr>
<th>Cut Fatalities in Half by 2030</th>
<th>Freight</th>
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</thead>
<tbody>
<tr>
<td>Congestion-free America</td>
<td>Performance Management</td>
</tr>
<tr>
<td>System Preservation</td>
<td>Workforce Planning and Development</td>
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<tr>
<td>Project Delivery</td>
<td>Research and Emerging Technology</td>
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<tr>
<td>Communicating the Value of Transportation</td>
<td>Climate Change</td>
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<td>SCOH Overarching Objectives :</td>
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<tr>
<td>I. Technical Services and</td>
<td></td>
</tr>
<tr>
<td>II. Governance Issues</td>
<td></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 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>Total Tasks</td>
<td>17</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. 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></th>
<th>Objectives</th>
<th>SC to Lead</th>
<th>SC has Joint Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project Delivery</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>System Preservation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Climate Change</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Freight</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Workforce Planning</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total Number of Tasks</strong></td>
<td></td>
<td><strong>3</strong></td>
<td><strong>5</strong></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>
<tr>
<td>Total Number of Tasks</td>
<td>4</td>
</tr>
</tbody>
</table>

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</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
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<tr>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7</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. SCOH will provide the strategic direction on priorities to its</td>
<td>SCOH IG</td>
<td>Governance</td>
</tr>
<tr>
<td>committees and technical committees for their development of policies,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>procedures and technical standards.</td>
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<tr>
<td><strong>1.2: GOVERNANCE ISSUES:</strong> Objective - Ensure coordination and collaboration</td>
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<tr>
<td>with subcommittees and others.</td>
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<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</td>
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<td>network</td>
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<tr>
<td>3. Collaborate with the other freight bodies to identify and define the</td>
<td>Freight Liaisons</td>
<td>Throughout the</td>
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<tr>
<td>national freight system and related intermodal connectors.</td>
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<td>life of plan</td>
</tr>
<tr>
<td>**2.2 Address bottlenecks and operational problems with freight movement on</td>
<td>Freight Liaisons</td>
<td>Throughout the</td>
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<tr>
<td>the transportation system.</td>
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<tr>
<td>Subcommittees to identify modifications necessary to design standards and</td>
<td>SC</td>
<td></td>
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<tr>
<td>operational procedures to accommodate freight</td>
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<tr>
<td><strong>2.3 Review responsibilities of Subcommittee on Highway Transport</strong></td>
<td>SCOH IG</td>
<td>Governance</td>
</tr>
<tr>
<td><strong>3.0: Cut Fatalities in Half by 2030:</strong> Objective - Cut fatalities by half</td>
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<td>by 2030</td>
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<tr>
<td>6. Share safety best practices</td>
<td>Safety Liaison</td>
<td>Schedule time on</td>
</tr>
<tr>
<td>Safety Liaison on SCOH meeting agenda</td>
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<td>SCOH meeting</td>
</tr>
<tr>
<td><strong>3.2 Support SCOHTS in assisting local partners on reducing fatalities</strong></td>
<td>Safety Liaison</td>
<td>Throughout the</td>
</tr>
<tr>
<td>**3.3 Prioritize research projects that address reducing fatalities for</td>
<td>Safety Liaison</td>
<td>Throughout the</td>
</tr>
<tr>
<td>submission to SCOR**</td>
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<td>Actions/Tasks</td>
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<tr>
<td>9</td>
<td>3.4 Be involved in communicating messages on safety</td>
<td>Safety Liaison</td>
</tr>
<tr>
<td>10</td>
<td>3.5 Sponsor Joint meetings seminars and research to reduce fatalities</td>
<td>Safety Liaison</td>
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</table>

**4.0: Congestion Free America**

**Objective:** Promote operational and technological improvements to address congestion

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<thead>
<tr>
<th>Actions/Tasks</th>
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<tbody>
<tr>
<td>11</td>
<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>
</tr>
</tbody>
</table>
| 12           | 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. | Congestion Liaison | Either write a research proposal Create short-term task force. |
| 13           | 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 |

**5.0: Climate Change**

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

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
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<tbody>
<tr>
<td>14</td>
<td>5.1 Support AASHTO’s Climate Change Steering Committee in climate change mitigation and adaptation.</td>
<td>Climate Liaison</td>
</tr>
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</table>
| 15           | 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 | Climate Liaison  
SC | Throughout the life of plan |
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<tr>
<th>Actions/Tasks</th>
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<tbody>
<tr>
<td>16 5.3 Support research and operational strategies to reduce GHG.</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>SC</td>
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</tr>
<tr>
<td>Subcommittees to develop operations strategies that lower energy consumption, reduce congestion and reduce costs in their work plan</td>
<td>SC</td>
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<tr>
<td>17 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>SC</td>
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</tr>
<tr>
<td>18 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>
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</table>

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

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<tr>
<th>Actions/Tasks</th>
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<tbody>
<tr>
<td>19 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>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.</td>
<td>Performance Management Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>21 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>
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</table>

7.0: Communicate the Value of Transportation Objective: Support the Board of Directors to secure support for ‘net new revenue’

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<th>Actions/Tasks</th>
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</thead>
<tbody>
<tr>
<td>22 7.1 Support the Board of Directors in communicating the value of transportation.</td>
<td>SCOH IG</td>
<td>Assign three SCOH members</td>
</tr>
<tr>
<td>Assign three members to work with BoD to develop policy, programmatic and technical messages and communicate the message at state and local level</td>
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</tr>
<tr>
<td>23 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>Actions/Tasks</td>
<td>Assigned To</td>
<td>Type of Effort</td>
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</tr>
<tr>
<td>24</td>
<td>7.3 Coordinate with AASHTO in sharing messages about the value of transportation with other non-AASHTO groups</td>
<td>CVT Liaison</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></td>
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</tr>
<tr>
<td>25</td>
<td>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>
</tr>
<tr>
<td>26</td>
<td>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>
</tr>
<tr>
<td>27</td>
<td>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>
</tr>
<tr>
<td>28</td>
<td>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>
</tr>
<tr>
<td>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</td>
<td></td>
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<tr>
<td>29</td>
<td>9.1 Facilitate progress on current and future workforce challenges</td>
<td>Workforce Liaison</td>
</tr>
<tr>
<td>30</td>
<td>9.2 Propose a comprehensive workforce assessment tool and training clearinghouse</td>
<td>Workforce Liaison</td>
</tr>
<tr>
<td>31</td>
<td>9.3 Implement a corporate university concept for state DOTs</td>
<td>Workforce Liaison</td>
</tr>
<tr>
<td>32</td>
<td>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>
</tr>
<tr>
<td>10.0: Project Delivery Objective: Support and promote changes to accelerate project delivery</td>
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<td>Actions/Tasks</td>
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</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>
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</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>
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<tbody>
<tr>
<td><strong>2.0 Freight: Objective - Support improvement of the national freight network</strong></td>
<td></td>
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</tr>
<tr>
<td>L1 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>
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</tr>
<tr>
<td>L2 3.1 Share safety best practices</td>
<td>Safety Liaison</td>
<td>Schedule time on SCOH meeting agenda</td>
</tr>
<tr>
<td>L3 3.2 Support SCOHTS in assisting local partners on reducing fatalities</td>
<td>Safety Liaison</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>L4 3.4 Be involved in communicating messages on safety</td>
<td>Safety Liaison</td>
<td>Throughout the life of plan</td>
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<tr>
<td>L5 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>
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</tr>
<tr>
<td>L6 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>L7 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><strong>5.0: Climate Change Objective:</strong> Support technical and policy changes on Climate Change and GHG.</td>
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<tr>
<td>L8 5.1 Support AASHTO’s Climate Change Steering Committee in climate change mitigation and adaptation.</td>
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<td><strong>6.0: PERFORMANCE MANAGEMENT Objective:</strong> Support Board of Directors and AASHTO in development and implementation of performance -based management.</td>
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<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>
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<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>
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<td>L11 7.3 Coordinate with AASHTO in sharing messages about the value of transportation with other non-AASHTO groups</td>
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<td>L12 8.2 Pilot implementable research projects and package results for appropriate marketing and integration into normal operations in DOTs.</td>
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<td>L16 10.1 Collaborate with Center for Environmental Excellence and others to promote environmental streamlining</td>
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<tr>
<td>J1 2. 2 Address bottlenecks and operational problems with freight movement on the transportation system.</td>
<td>Freight Liaisons SC</td>
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</tr>
<tr>
<td>Subcommittees to identify modifications necessary to design standards and operational procedures to accommodate freight</td>
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<td><strong>4.0 :CONGESTION FREE AMERICA Objective: Promote operational and technological improvements to address congestion</strong></td>
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<td>J2 4.3 Collaborate in SHRP2 implementation projects that address congestion, reliability and mobility.</td>
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<td>Designate SCOH members to work with SHRP2 Implementation team</td>
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<td>J3 5.2 Collaborate on evaluating short-term infrastructure rehabilitation projects in addressing highly vulnerable locations.</td>
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<td>J4 5.3 Support research and operational strategies to reduce GHG.</td>
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<tr>
<td>J5 5.4 Promote climate change in SCOH's research proposals. Subcommittees to identify gaps in current standards and guidelines pertaining to climate change.</td>
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<td><strong>J6 8.3 Expedite adoption of promising innovations that have been pilot tested and documented.</strong> Focus TIG in areas of importance to Chief Engineers</td>
<td>R&amp;ET Liaison SCOH IG</td>
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<tr>
<td><strong>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</strong> 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 Participate on panel</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><strong>J8 9.4 Identify priorities for current training needs,</strong> 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>
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## APPENDIX D

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

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</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>
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</tr>
<tr>
<td><strong>10.0: Project Delivery Objective:</strong> Support and promote changes to accelerate project delivery</td>
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<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>
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<td></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>
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</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>3. 5.3 Support research and operational strategies to reduce GHG.</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>Climate Liaison SC</td>
<td>Throughout the life of plan</td>
</tr>
<tr>
<td>4. 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>
<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</td>
<td></td>
</tr>
<tr>
<td>Conversion or development of technical or professional development courses to web-based training or self-study programs</td>
<td>Workforce Liaison Or Guide SCOFA-HR</td>
<td>Survey members, consolidate results Collaboration and guidance to SCOFA-HR</td>
</tr>
</tbody>
</table>
# APPENDIX F

**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></td>
<td></td>
</tr>
<tr>
<td>1.0 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></td>
<td></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></td>
<td></td>
</tr>
<tr>
<td>2.0 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></td>
<td></td>
</tr>
<tr>
<td>3.0 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></td>
<td></td>
</tr>
<tr>
<td>4.0 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></td>
<td></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: Objective - Develop and disseminate standards etc</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</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>SCOH IG</td>
</tr>
<tr>
<td><strong>1.2: GOVERNANCE ISSUES: Objective - Ensure coordination and collaboration with subcommittees and others.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1. Create a governance task team to address governance</td>
<td>SCOH IG</td>
</tr>
<tr>
<td><strong>2.0 Freight: Objective - Support improvement of the national freight network</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2.3. Review responsibilities of Subcommittee on Highway Transport</td>
<td>SCOH IG</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</td>
<td>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</td>
<td>SCOH IG</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</td>
<td>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>
</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</td>
<td>11.2 Assist the AASHTO Board of Directors in advocating to congress for adequate funding for system preservation</td>
<td>SCOH IG</td>
</tr>
<tr>
<td>7</td>
<td>11.3 Support implementation of research being conducted in the SHRP2 Renewal track.</td>
<td>SCOH IG</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>
<tbody>
<tr>
<td><strong>4.0: CONGESTION FREE AMERICA</strong> <strong>Objective:</strong> Promote operational and technological improvements to address congestion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J1 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>
<tr>
<td><strong>8.0: RESEARCH AND EMERGING TECHNOLOGY</strong> <strong>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>J2 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>Throughout the life of plan Governance</td>
</tr>
</tbody>
</table>
APPENDIX I

Table of all action items where AASHTO Staff have lead responsibility

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
<th>Assigned To</th>
<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0: Project Delivery Objective: Support and promote changes to accelerate project delivery.</td>
<td>AASHTO Staff</td>
<td>Schedule meetings between SCOH and SCPM.</td>
</tr>
<tr>
<td>1.0.4 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></td>
</tr>
</tbody>
</table>

APPENDIX J

Table of all action items where AASHTO staff have joint responsibility

<table>
<thead>
<tr>
<th>Actions/Tasks</th>
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<th>Type of Effort</th>
</tr>
</thead>
<tbody>
<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>R&amp;ET Liaison</td>
<td>Write an RFP Participate on panel Throughout the life of plan.</td>
</tr>
<tr>
<td>J1.4 Review current process of implementing improvements to AASHTO technical standards and research and recommend ways improve process to accelerate updating of manuals.</td>
<td>R&amp;ET Liaison</td>
<td>Write an RFP Participate on panel Throughout the life of plan.</td>
</tr>
<tr>
<td>Use technical memorandum to expedite adoption of changes to technical standards, guidelines etc.</td>
<td>AASHTO Staff</td>
<td></td>
</tr>
</tbody>
</table>