Supporting the Establishment of Safe Transportation Networks

Part I
Safety-Conscious Planning Forums

Part II
Facilitator's Toolkit

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COMMITTEE ON TRANSPORTATION SAFETY MANAGEMENT (A3B01)

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Preface

> **We are committed to ensuring the safety and security of *all* our nation's transportation systems…to protect the outstanding working men and women who operate and service them…and the passengers who rely on them**.
>
> *Hon. Norman Mineta*
> *Secretary of Transportation*

This Circular is the outgrowth of a presentation to the Committee on Transportation Safety Management during the 1999 TRB Annual Meeting. As a result of the presentation, the Committee identified a group of individuals interested in safety and planning. They met and discussed ways to further implement the Transportation Equity Act for the 21st Century (TEA-21) requirement to include safety and security as criteria in the transportation planning process. The group organized an initial workshop (reported in TRB's *Transportation Research Circular E-C025: Safety-Conscious Planning*) to define the issues. Based on the workshop, the group saw an opportunity for further implementation by assisting states in holding similar workshops or forums. A pilot or demonstration of this idea was conducted by six states. This Circular reports on the process and outcomes from those forums in Part I. The forums suggested this type of activity produced useful outcomes and benefits for the states. Hence, Part II is a toolkit for use by states to organize and conduct safety-conscious planning forums statewide or within regions/districts of a state. Dr. Susan Herbel authored this Circular.

Introduction

Injury is the leading cause of death in the United States from about 6 months to 45 years of age, and because it so disproportionately strikes the young, it is also the leading cause of lost years of productive life. Motor vehicle injury is the largest single component of these losses. Over the past few years the number of motor vehicle related fatalities has remained essentially unchanged and injuries continue to increase each year. The human and economic consequences of motor vehicle crashes are unaffordable and unacceptable. In the absence of substantial progress, more than 400,000 people will die on the roadways over the next ten years at a cost of nearly two trillion dollars. The majority of motor vehicle crashes are predictable and preventable; the carnage is unnecessary.

> **The numbers speak for themselves:**
>
> • **Ninety-four percent of all transportation fatalities occur on highways.**
> • **More than 41,000 Americans are killed each year in motor vehicle crashes, and three million are injured.**
> • **40,000 is the population of Flagstaff, Arizona in my home state.**
>
> *Mary Peters*
> *Administrator, FHWA*

As Table 1 shows, the weakest link in the safety chain is the automobile. Safety improvement requires progress toward reducing the crash experience of motor vehicle drivers and other more vulnerable road users. The United States provides a model for what can be accomplished in this important field. The record over the past 30 years is nothing short of miraculous, yet we still experience over 40,000 deaths annually, and more than three million suffer injuries (*1*).

TABLE 1 Fatality Rates by Mode of Travel, 1996-1998 Average Deaths per 100 Million Passenger Miles (*2*)

Type of Vehicle	Death Rate
Automobile	0.91
Intercity and Commuter Railroads	0.06
Airlines	0.03
Intercity Buses	0.02
Transit Buses	0.01
Heavy, Light and Other Rail Vehicles	Not reported

> **Safety should be the number one priority of all transportation professionals. While American highways are safer than ever, too many of our citizens are killed or injured in traffic crashes every year, and, sadly, most are preventable. We need to work doubly hard to plan and implement programs and facilities that are shown to be effective in averting these tragic events.**
>
> *Jeffrey W. Runge, M.D.*

The major focus and commitment in the United States over at least the past two decades has been on vehicle crash worthiness and driver behavior. Yet, the effectiveness of those strategies appears to have plateaued in terms of reducing the *number* of crashes, injuries, and fatalities. Although there have been gradual decreases in terms of fatality and injury *rates*, and despite dramatic increases in safety belt use and decreases in the proportion of alcohol-related fatal crashes, the raw number of deaths and injuries has changed little for at least the past half decade (*3*). European research indicates that further reductions in crash levels will require a change in the focus from driver behavior initiatives to actions that make it more difficult for a driver to have a crash; more specifically, prevention-oriented strategies through safety-conscious planning (*4*).

Background

An effective and efficient transportation system has been a top priority in this country for much of the last century. Transportation planning has historically focused on capacity and congestion with some attention to the operation and management of the transportation system. Over the past decade, safety has become a higher priority and the standard by which the system is to be evaluated. The stated goal of the U.S. Department of Transportation is to: "Promote the public health and safety by working toward the elimination of transportation-related deaths, injuries and property damage (5)." Implementing the safety goal, however, is a challenging task.

> *In theory, state safety efforts should be coordinated with the state transportation plans. In practice, however, they rarely are. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) required states to develop and maintain a transportation planning process. The Transportation Equity Act for the 21st Century (TEA-21)[1] revised this slightly and allowed states to focus on the most relevant issues. The key focus of both of these acts was to encourage coordination between statewide planning and metropolitan planning, with financial support and oversight provided by FHWA and the Federal Transit Administration (6).*

> **Each statewide and metropolitan planning process shall provide for consideration of projects and strategies that will increase the safety and security of the transportation system for motorized and non-motorized users**.
>
> *TEA-21*

TEA-21

TEA-21, for the first time, requires state departments of transportation (DOTs)[2] and metropolitan planning organizations (MPOs)[3] to incorporate safety and security[4] as priority factors in their respective transportation planning processes and activities. Before TEA-21, safety was sometimes a prominent factor in project development and design, but this legislation calls for safety-consciousness in a more comprehensive, systemwide, multimodal context.

Safety-Conscious Planning

Safety-Conscious Planning (SCP) is a relatively new concept in the U.S. lexicon. U.S. safety planning initiatives have traditionally been reactive in nature. The tendency is to: 1) identify a problem primarily through analysis of crash data and 2) implement an appropriate enforcement, education, or engineering-oriented countermeasure. SCP, however, implies a proactive approach aimed at preventing crashes and unsafe conditions. Opinions of what the safety planning initiatives should address vary. The range of activities include:

1. Programming safety improvements to address roadway "hotspots"—or collision-prone locations.
2. Introducing multidisciplinary programs, that is, integrating engineering, enforcement and education activities.
3. Including road safety considerations as a key decision-making parameter in evaluating projects and programming expenditures.
4. Establishing inherently safe transportation networks.

SCP achieves road safety improvements through smaller quantum changes, but targeted at the whole network. Ultimately it can be defined as that stage where the following conditions are fully achieved:

1. All planning organizations routinely consider safety as an explicit planning priority in all plans and programs.
2. All planning organizations (public and private sector) have:
   - Some practitioners trained in state-of-the-art safety techniques.
   - Access to state-of-the-art safety planning tools.
3. Decision-makers are informed about the quantitative safety implications of all planning decisions, and they are reflected in decision-making (*4*).

Transportation planners and safety practitioners in the United States are struggling to define the concept taking all of the above into account. At this point, none of the activities are omitted from consideration. The short-term objective is to integrate safety considerations into the transportation planning processes at all levels, specifically the Statewide Transportation Improvement Plans (STIPS) and the Transportation Improvement Plans (TIPS) developed by state DOTs and MPOs respectively. The next step is to consider safety objectives in the longer range, 20-year plans that the DOTs are required to prepare and update periodically.

Safety-Conscious Planning in the United States

FIRST STEPS

To initiate discussion on the TEA-21 safety-planning factor, The Transportation Research Board (TRB) convened a group of experienced professionals in Washington, D.C., in May 2000 to explore the safety and transportation planning processes and to identify data, tools, partners, and other resources that are currently available or need to be developed for implementing the safety requirement. The meeting produced several observations associated with safety integration:

- There is a lack of dialogue, coordination, and communication between safety and transportation planners.
- Safety integration is a non-traditional role for planning agencies.
- It is unwise to merge the safety and planning processes because of the many different timeframes and funding criteria; however, it is highly advisable for all segments of the safety and planning communities to work collaboratively by establishing common safety goals, sharing information, and designing complementary programs.
- Safety integration should focus on multi-modal functions, including transit and non-motorized modes.

The TRB meeting served as an important starting point for a series of initiatives that followed. It resulted in the formation of an ad hoc group (informally referred to as the SCP Working Group) and the development of action items addressing several categories.

FOUNDATIONS FOR SAFETY IN PLANNING

The overriding strategy is to integrate safety into the existing transportation planning process. One suggestion for accomplishing that was to facilitate a series of state-level SCP meetings to bring safety and planning partners together who may not have been previously engaged in collegial working relationships and to identify good practices in safety integration where and if they exist.

DATA COLLECTION AND ANALYSIS

The importance of good data cannot be overemphasized. Accurate, complete and comprehensive data are critical for all of the following functions:

- Identifying and defining current and future problems.
- Developing effective intervention strategies.
- Providing information for evaluating countermeasure results.
- Identifying opportunities for creating transportation alternatives to the personal automobile.

COLLABORATION

Nontraditional partnerships are necessary for SCP to become a reality. The participants include at a minimum:

- Land Use Planners[5];
- Transportation Planners;
- Transportation Engineers (traffic design, construction, operations, etc.);
- Urban designers (engineers, landscape architects, site planners, etc.);
- Transit Operators; and
- Safety Practitioners.[6]

Activities developed to accomplish increased communication and understanding will need to be replicated many times in different geographical regions around the country and among different constituencies. One of the expected outcomes of these strategies was to identify techniques, such as incentives, persuasive dialogue, and useful tools that could be used to motivate planners to pursue Safety-conscious planning methods.

OUTREACH AND ADVOCACY

The Washington meeting identified "first steps" for promoting safety integration, and the SCP Working Group agreed to provide follow up. As noted previously, one initiative was to encourage a series of forums at the state level bringing representatives of the various interests together to discuss strategies for sharing resources and working collaboratively. The states that accepted the challenge and hosted forums include: Florida, Maryland, Michigan, Oregon, Tennessee, and Texas.

Safety-Conscious Planning Forums

The forums are designed to accomplish at least two goals. The first was to bring together key players in the transportation planning and safety communities, introduce them to one another and establish a dialogue. The second was to encourage the states to generate action plans to begin the implementation process.

NATIONAL PERSPECTIVE

The SCP Working Group created a set of activities to focus their efforts.

- Assist state and local entities with the implementation of the TEA-21 safety in planning requirement.
- Facilitate introductions and discussions among the key players.
- Determine the role of safety and its integration with the traditional planning targets, such as congestion, land management and environmental protection.
- Assist at all levels in meeting safety goals by promoting a continuing dialogue at the state and local levels, providing technical expertise and information and identifying resources.
- Identify the institutional, resource and other categories of challenges that must be overcome to achieve safety integration.
- Identify realistic strategies and facilitate the development of action plans.
- Build a process to assist state DOTs and MPOs with safety integration activities.

STATE PERSPECTIVES

The SCP Working Group believed it important to ensure that the states create a set of shared objectives prior to forum activity. This practice was designed to ensure ownership and promote not only collaboration but also leadership in facilitating purposeful action following the event. The participating states' objectives differed but, in all cases, they promoted information sharing, collaboration, leadership and improvements to data and information systems. Ultimately, the effectiveness of the forum approach depends on the extent to which each state accomplishes what they believe to be important. Table 2 presents the objectives for each of the participating states.

FORUM PROCESS

A specific process was developed for identifying sites, making arrangements, and facilitating the forums. Feedback over the course of the initiative served to fine tune the process to make it more adaptable and effective. (More specific details on the process can be found in Part II of this Circular: Safety-Conscious Planning Forums: Facilitator's Toolkit.) In general the steps to successful implementation track with the process described below.

TABLE 2 State Forum Objectives

State	Objectives

Florida
1. Raise awareness among the MPOs about the safety integration-planning factor.
2. Establish a baseline assessment: major issues, problems, and needs assessment.
3. Survey the MPOs to determine which of them are integrating safety in the planning processes and what they are doing.
4. Discuss specific issues:
   - The Florida traffic crash report was modified in 2002 to improve accuracy and consistency of reporting, which should benefit roadway analyses.
   - Law enforcement resource needs.
   - Integrating safety as a category in all project priorities.
   - The MPO role in safety integration.
   - Planning resources.
   - Data integration.
   - Mass transit security issues.
5. Review and discuss strategies for updating and improving state highway and traffic safety laws.
6. Discuss and create proactive measures for safety integration. Explore methods for connecting land use planning and safety at all levels. Look for areas not being addressed and explore new opportunities for increasing integration at the state level.

Maryland
1. Include safety as a priority in projects, such as neighborhood enhancements.[7]
2. Implement a more proactive planning process.[8]
3. Develop a process for establishing a statewide surface transportation goal.
4. Develop a method for incorporating transit, motor carrier, pedestrian, bicycle, and other issues into the Statewide Transportation Improvement Program.
5. Examine and address liability and other data sharing issues.

Michigan
1. Identify "first steps" in bringing together Michigan's safety partners to discuss and educate one another on safety integration challenges and benefits.
2. Facilitate a statewide safety systems structure[9] by building on the existing Safety Management System.[10]
3. Identify safety problems and conduct in-depth analyses.

Oregon
1. Document the OR process in a comprehensive manner to support presentations on the Oregon Safety-conscious planning approach before other state and local agencies, as well as national associations and meetings, and to help ensure continuity as people retire or go to other jobs.[11]
2. Initiate a dialogue and actions that integrate the MPOs and local jurisdictions with the ODOT planning process.[12]
3. Identify alternative or better methods for addressing safety issues in the planning process.
4. Rally the energy and interest to identify and implement new opportunities.

Tennessee
Note: The Tennessee planning group adopted the national objectives and committed to develop an action plan. However, the results through a series of unpredictable circumstances left a void in leadership and follow up after the event. This experience led to insistence that each state develops a set of shared objectives.

Texas
1. Raise awareness among the MPOs about the safety integration planning factor.
2. Identify MPO safety integration activities and prepare a manual for the forum.
3. Increase integration at the local level by inviting the key players to attend as teams.
4. Explore methods for connecting land use planning and safety at all levels, look for areas not being addressed and explore new opportunities for increasing integration at the state level.
5. Increase access to information.

Identify States and Secure Commitments

The initial contact was not consistent across states but generally came as a result of one of two conditions: either the FHWA Division Office expressed an interest and pursued the subject with the state DOT planning department, or the SCP Working Group identified the state as a candidate because of a perceived opportunity to explore good practices.

Commitments also came from a variety of sources, but three positions ultimately proved effective for a successful initiative: a high level official in the state DOT planning department, the Governor's Representative for Highway Safety or an alternate official from the safety practitioners' community, and the FHWA Division office's safety and/or planning representatives.

Planning Meeting

Several weeks before the forums took place, each state organized a planning meeting with assistance from the SCP Working Group. Participation in the planning meetings varied widely from state to state. It came as no surprise, however, that widespread partner representation at middle to high levels within the organizations provided a sounder basis for an effective experience (Table 3). The purposes of the planning meetings were to:

Discuss the SCP Concept and the National Implementation Objectives

In all cases, an official from the Federal Highway Administration kicked off the planning meeting by reviewing the TEA-21 requirement, providing an update on national implementation events, and expressing appreciation for the state's interest in rising to the challenges presented by the requirement.

Identify and Articulate the State's Objectives

Facilitating a discussion among the state partners to reach conclusions about specific, measurable objectives was clearly the most difficult task of the meeting. It appeared that the meeting participants, for the most part, were prepared to do whatever the federal partners wanted them to accomplish but preferred a more straightforward, clearly articulated set of tasks. The outcome of the process is critical. If state and local partners see the objectives as irrelevant to their state, agency, or individual performance objectives, there can be little hope of follow-up action.

Identify Forum Participants

Again, the number and representation of the forum participants varied widely from state to state. The number of participants ranged from about 20 to over 100. The goal was to recruit participation from at least the following entities:

- High-level DOT planning and safety representatives;
- MPO planning and leadership;
- Safety practitioners, including the highway safety, law enforcement, and motor carrier safety communities;

- Transit operators; and
- Federal representation—FHWA, FMCSA, FTA, NHTSA.

Some of the states had the foresight to invite private sector participants, especially consultants, engineers, and road construction representatives. In a few cases, non-profit highway safety groups were present. On reflection, it might have been worthwhile to devote more effort to identifying and recruiting a broader cross section of the safety community as well as members of top leadership within at least the DOT. Where those individuals were present, there seemed to be a more rigorous dialogue and promises of further action and follow up.

Outline an Agenda for the Meeting

The states chose either a 2-day or a 1-day format. Some thought the turnout would be better with the one-day approach while others believed it important to provide a more informal opportunity, such as an evening reception, for dialogue and discussion.[13]

The experience in the first forum led to a "template" for organizing the agendas. Although there was some variation, in general, the forums began with keynote speakers introducing and welcoming the participants. The first substantive report presented the TEA-21 requirement and provided context for its meaning and purpose. The introductory remarks were followed by a series of presentations outlining the various planning processes, criteria, requirements, and resources at the state and MPO levels.

Breakout sessions convened to build on the information presented by the speakers, discuss the findings and create action plans. Formats for the breakout sessions varied, but in most cases, they were structured according to a "theme" or issue for discussion purposes, and participants were assigned to a specific group through a pre-defined process. The themes included:

- Safety definition and goal(s);
- Safety data systems improvements, analysis, and liability issues;
- Safety integration planning: long- and short-range plans, the project priority process and incident and congestion management systems;
- Communication, collaboration, and public outreach; and
- Educating, informing, and influencing the leadership, other decision-makers, and the public.

The breakout groups were given the charge to:

1. Articulate action steps for implementing Safety-conscious planning: Who will do what, when, where, and how?
2. Identify the opportunities associated with SCP: Who stands to benefit?
3. Specify the resource requirements associated with SCP integration: What are the research, expertise, analytic tools, and funding needs?
4. Isolate the obstacles: What would prevent accomplishment of the objective?

The forums concluded with presentations of the action plans and, in some cases, closing remarks by the forum leadership.

Identify Speakers and Facilitators

In most cases, a senior official from the state's DOT served as the keynote speaker and was followed by a federal official to discuss the TEA-21 requirement and challenge the participants.[14] As a general rule, the forum planners recruited the highest-level official possible to present the planning perspectives. Facilitators with varying degrees of training led the dialogue. In some cases, the SCP Working Group's facilitator provided written materials and held a training session prior to the forum.[15]

Determine the Date and Location for the Forum

The states took responsibility for identifying a date(s) and facilities for the forums. Some disseminated a "Hold the Date" announcement and all sent invitations. In some cases, dates were chosen to coincide with other events to generate more participation and enthusiasm for the meetings.

Determine Action Items and Responsibilities

Leadership for the forums was provided by the DOT planning departments and the Governors' Representatives for Highway Safety. They were responsible for identifying the dates and locations, recruiting the speakers, generating and inviting a list of participants, preparing handout materials, and providing onsite assistance, such as registration. TRB and the SCP Working Group provided federal leadership, a keynote speaker, a facilitator, financial support, and a report documenting the forum results for distribution in each of the states. Dissemination of the forum report was shared by the states and TRB.

Identify Follow Up Activities

It was expected that the action-planning segment of the forums would produce a clear set of "next steps." Although this was not always the case, anecdotal evidence exists in most states of actions that were and continue to take place as a result of the forum. In reality, the forum resulted in the first steps toward developing an action plan rather than the action plan itself.

Forum Implementation, Follow Up, and Evaluation

An evaluation design is yet to be established and is a subject under discussion by the SCP Working Group. Several strategies are being examined for follow up to determine the extent to which the forums influenced the planning processes in each of the states.

TABLE 3 Planning Committee Representatives and Forum Logistics

State	Planning Committee	Planning Dates[16]	Forum Date(s)	Forum Location
Florida	FDOT (Planning, Safety, MPO Liaison) MPO Planning Organization Advisory Council FL Highway Patrol and Motor Carriers Division FHWA (Headquarters and FL Division) FTA TRB	March 29, 2001	July 24-25, 2001	Orlando
Maryland	MD SHA (Planning, Motor Carriers, Safety) Baltimore Metropolitan Council Washington COG FHWA (Headquarters and MD Division) FMCSA TRB	January 17, 2001	May 15, 2001	Hunt Valley
Michigan	Office of Highway Safety Planning MI DOT (Planning, Safety) FHWA (Headquarters and MI Division), TRB	December 15, 2000 June 2001	September 10, 2001	Lansing
Oregon	ODOT (Safety, Planning, Motor Carriers, MPO Liaison, Public Transit, Rail) Oregon State Police Alliance for Community Traffic Safety FHWA FMCSA FTA (by phone) TRB	April 12, 2001	July 17, 2001	Salem
Tennessee	Governor's Highway Safety Office TN DOT (Planning) FHWA TRB	July 2000	September 21-22, 2000	Nashville
Texas	TX DOT (Planning, Operations) FHWA (Headquarters and TX Division) TRB	March 3, 2001	July 11-12, 2001	Austin

Discussion

For the most part, the forums resulted in comprehensive lists of action steps and approaches. While it is not possible to provide a complete listing in this report, it is clear that several themes emerged.[17]

SAFETY GOALS

While it was generally agreed that integrating the planning processes from the various organizations would be unwise, indeed impossible because of different requirements, planning cycles, funding mechanisms, and so forth, many think it should be possible to establish a safety goal(s) that all organizations could work toward collaboratively. The Maryland Forum breakout group on this issue developed several approaches for ensuring the presence and articulation of safety goals.

- ✓ *Establish a list of high crash locations.*
- ✓ *Analyze the interaction of crash/incident data between and among modes.*
- ✓ *Develop and implement a user survey on safety.*
- ✓ *Access more effective land use forecasts.*
- ✓ *Inventory safety goals across modes and develop common safety performance measures/goals across modes.*
- ✓ *Consider crash potential and user expectancy for all new and rehabilitation transportation projects.*
- ✓ *Link the strategic highway safety plan with MPO and statewide planning processes.*
- ✓ *Generate local awareness, understanding, and support for goals (8).*

LONG-RANGE PLANNING

Although the focus of this Circular is the SCP Forum Initiative, several other activities have taken place simultaneously to support the TEA-21 requirement. For example, The Safety Analysis Guidebook for Transportation Planning project identified and documented "best practices" in state, regional, and local entities that appear to be successfully implementing SCP. The project began with a comprehensive literature review covering institutional issues associated with safety and transportation planning (6). The findings are relevant to this discussion:

> *For integrating safety into the transportation planning process, MPOs should, in theory be involved primarily in mid- and long-range plans, with minimal involvement in determining specific near term improvements. Yet, through all the literature we have reviewed, we have failed to find one example of an MPO or a state DOT conducting a long-range safety plan other than identifying long-term goals of such a plan, such as reducing fatalities or crashes occurring to bicyclists or pedestrians. There are several reasons for the deficiency…among the main reasons are, first, the lack of a comprehensive safety management information*

system that would allow a planning agency to identify crashes occurring over the state or a metropolitan area; second, the lack of an accepted, calibrated modeling procedure for making predictions about future crash levels related to specific elements of a transportation plan; third, the lack of anticipation of safety problems in developing project plans; and, fourth, a certain amount of momentum due to the historically separate activities of traffic engineers and transportation planners.

Likewise, at the state level, safety is often clearly addressed in the goals and objectives of a state transportation plan, whether short or long-term. However, the reality is that safety is taken into consideration, if at all, only after a specific problem is identified. Of course, there are safety considerations in the various design guidelines, but the extent to which safety is given serious consideration even at that stage is unclear.

Chatterjee et al. at the Center for Transportation Research, University of Tennessee, have also conducted a safety integration survey of MPOs at selected sites. Their findings are similar to the Levine study.

While safety and security were reflected in planning policies and goals, and short-range project selection and programming incorporated measures of safety and security, there were few instances where long-range planning incorporated these issues. In many cases the lack of data and limited analysis tools resulted in a reliance on subjective assessments of safety and security issues (*9*).

Florida DOT commissioned a study of the MPO planning processes to determine the extent of safety integration. A presentation based on this study reported that fewer than half of the MPOs specifically addressed safety in the long-range transportation plans; however, the lack of documentation does not necessarily mean that the MPOs ignore safety issues. The presenter provided numerous examples of safety programs and designs initiated by Florida's MPO planners (*10*).

For the most part, the forum reports fall short of the action plans envisioned by the SCP Working Group. However, several of the forums resulted in a plan and commitment to create an action plan using the forum as a starting point. In all cases, plans were laid to either strengthen the safety management system in place or to develop a process that closely resembles the concept.

The Florida Forum breakout session initiatives are representative of the planning initiatives developed during the breakout sessions:

✓ *Improve safety for all modes by re-evaluating the forecast models and revising them to place people, as opposed to vehicles, first.*
✓ *Bring about a change in current thinking by educating decision-makers, the media, the public, and others on the importance, the policy, and the process for achieving safety integration.*
✓ *Increase flexibility in the federal requirements. Avoid proscription and reward creativity.*[18]
✓ *Develop multimodal levels of service.*
✓ *Ensure transportation options for non-drivers by dedicating funds to alternative projects and a widespread public information program about the transportation alternatives.*

DATA ACQUISITION, MANAGEMENT, AND ANALYSIS

In all cases, lack of data was an important issue (*11*). Levine et al. point out that the "… key to any short-, mid- or long-range safety plan is an *information* system." However, as those authors note, information systems represent more than just a data stream. The data, including crash data, traffic volumes, road inventories and land use data, must be organized and linked for proper analysis (*6*).

Upon closer examination during the forums, it turned out often to be the case that the issue is not about data; it is about information. In other words, data are available at some level in all the states, but information about high crash locations and other issues is not available to the planners who need it. A plethora of action steps from the forums relate to the data and information issue as is illustrated by the following examples from the Michigan Forum:

✓ *Provide traffic crash data information to the MPOs and other planning jurisdictions.*[19]
✓ *Include crash data as a factor when considering capital improvement projects.*
✓ *Expand the collection of data on non-state roads.*
✓ *Allow broad access of data to safety partners.*
✓ *Use consistent data and information to formulate safety strategies, develop projects and programs, and evaluate results.*
✓ *Develop and implement training programs on safety data: collection, analyses, and dissemination* (*12*)

Suggestions from other forums are also important and relevant:

✓ *Review liability issues and develop a plan for data sharing with state and local agencies.*[20]
✓ *Review and revise the police accident report. Involve a number of interested partners to fine tune the variables and produce a richer source of information.*[21]
✓ *Establish and institutionalize a safety management system that includes planners from all safety and planning entities.*[22]

LEADERSHIP

Leadership was discussed at many levels in a variety of settings and organizations. At the least, the chief officers of DOTs, DOT planning departments, safety organizations, MPO executives and planners, and political decision-makers must be educated about the importance and benefits of addressing safety in the planning and project selection processes. Their support and advocacy is critical to the success of SCP initiatives.

For example, during the Tennessee Forum the MPO planners explained their roles as advisory rather than decision making in nature. Furthermore, it is their impression from AMPO and AASHTO meetings and publications that neither MPO nor DOT planners address safety in the planning processes. They tend to understand the safety issues, such as dangerous intersections and driver distraction, but don't see how the planning process can address those issues. Meanwhile, the decision-makers tend to be more focused on highly visible and/or politically motivated projects, and safety is rarely at the top of their list of priorities. Also the

focus on land use planning to support economic development or capacity enhancement often results in unforeseen trade-offs from a safety perspective (*13*). Action steps emanating from the Tennessee meeting included:

✓ *Encourage the involvement of the Governor in safety integration.*
✓ *Position the MPO planners as facilitators and advisors to the transportation planning process. Provide them with the data and information they need to inform and influence decisions.*[23]
✓ *Provide the MPO planners with tools for informing and generating support from the public for safety integration* (*13*).

COMMUNICATION AND OUTREACH

The forum participants were clear about the need for increased communication, collaboration, and outreach among the various agencies, as well as the private sector, at all levels. Each of the audiences developed action steps to accomplish the objective as demonstrated by the selected examples that appear below:[24]

Oregon

✓ *Educate political leaders, developers, roadway professionals and the public on safety issues and design factors.*
✓ *Identify a comprehensive list of safety collaboration partners and host another forum.*
✓ *Use websites to let others know about safety information, activities, and improvements.*
✓ *Use e-mail "blast" lists to keep partners informed (14).*

Texas

✓ *Incorporate information in the planning documents to explain the precursors (former projects) and reasons for current projects, for example, safety, mobility, and capacity.*
✓ *Survey the public to determine what safety issues are of most concern. Analyze the results to determine the relationship between the public's priorities and TxDOT's plans and programs.*
✓ *Adopt a public involvement process, including the institutionalization of a public information office, and provide incentives for participation.*
✓ *Create a public information program that provides information on making safe decisions.*
✓ *Increase communication and coordination with the enforcement community (15).*

Michigan

✓ *Educate the public on safety issues, such as driver safety problems, and information.*
✓ *Increase communication with the villages and townships to understand their needs.*
✓ *Educate all partners on the transportation and safety planning processes.*
✓ *Provide opportunities for education and cross training, such as the safety in planning*

forum.

✓ *Establish a clearinghouse for access to safety expertise and communicate its
existence to the safety community.*

✓ *Provide opportunities in university curriculums for planners and engineers to work
together on problem identification and solution development.*

✓ *Build teams among planners, engineers and safety professionals.*

✓ *Make sure safety experts are included at the beginning of the long-range plan
development process.*

✓ *Include planners in the development of design manuals.*

✓ *Provide motivation to engineers for working with planners by enumerating the
benefits rather than just focusing on the regulations (12).*

Maryland

✓ *Identify target groups for outreach according to their safety issues and interests.
Include a group of public officials.*[25]

✓ *Provide youth education through the public schools. Solicit public feedback on
perceived safety problems.*[26]

✓ *Acquire access to safety data and information (16).*

RESOURCE REQUIREMENTS

As might be expected, resources were discussed in the context of nearly every other issue.
Resource needs can be categorized as follows: research, expertise, analytic tools, and funding.

Research

The Oregon Forum included comprehensive attention to research needs. The action steps included:

✓ *Study the safety outcomes of different mobility options: transit, bikes, pedestrians,
livability, access management, intersection design, lane width, etc.*[27]

✓ *Review the research project selection process and criteria for both NCHRP and
ODOT to ensure that safety projects are included in the list of priorities.*

✓ *Develop a safety index for countermeasures and tie it to mobility. Build the capacity
in MPOs and local jurisdictions to use the index.*[28]

Expertise

Analytic experience and expertise seemed to be the largest issue in this category. Planners,
especially at the local level, said they simply lack the expertise for safety integration.
Furthermore, many reported that they don't even have access to a safety engineer or data analyst
to assist them. Action steps from the TN Forum Report are illustrative (*13*).

✓ *Provide planning resources and safety expertise to the MPOs and local jurisdictions.*

✓ *Develop a training course for MPO planners and other interested parties from the
local jurisdictions.*[29]

✓ *Create a contact list identifying planners with established safety programs and facilitate peer to peer mentoring for MPO and State planners.*[30]

✓ *Develop and institutionalize a process for information sharing among the research, training, and planning communities.*

Analytic Tools

Planners are accustomed to using proactive analytic software tools in their work for identifying problems and countermeasures as well as examining potential costs and benefits. However, safety planning is, for the most part, a reactive process. Problems are identified when crashes occur in numbers larger than would be expected, all other things being equal. Predicting where safety is likely to become a problem requires the development of unique analytic tools. The National Cooperative Highway Research Program is in the process of implementing initiatives to rectify the inadequacy. In addition, the FHWA is in the process of developing a Comprehensive Highway Safety Improvement Model that will consist of a set of computerized analytical tools to identify safety improvement needs and to develop a systemwide program of the site-specific project to maximize highway safety. In the meantime, training on the collection, management, and analysis of crash data is mandatory.

Funding

According to the Tennessee participants, 10% of the Surface Transportation Program (STP) funding is set aside for safety improvements, but STP monies make up only a small part of the budget at the MPO level. The local governments generate most of the revenues and make programmatic decisions about how the resources are to be deployed. As the MPO planners pointed out, they have little authority to tell the locals how to program their resources. However, it appears that the MPOs do have the authority to establish funding criteria but are reluctant to do so because of the political realities (*13*).

There was little discussion during the forums devoted to increasing overall revenue for roadway building and preservation other than to note that there is never enough funding to initiate all the projects that need to be accomplished. However, funding issues did arise with respect to sufficient planning resources and resource allocation. Some participants expressed the need for special or augmented planning resources. Others suggested that federal requirements be relaxed to allow greater use of federal funds for safety improvements. Finally, several participants at all levels suggested that "challenge grants" might be provided in the next reauthorization or through some other venue to support the development of innovative research, demonstration, and implementation practices.

Summary

During the past 2 years, much has been accomplished to facilitate safety integration and much remains to be done.

ACCOMPLISHMENTS

The Safety Analysis Guidebook for Transportation Planning is nearing completion and should be published by early 2002. This document is designed to assist planners and other professionals by providing a comprehensive review of current information and more in-depth analyses of selected programs where good practices are being demonstrated. The Safety-conscious planning forums have produced varying results. However, it can generally be stated that the forums have facilitated:

- **Communication and Collaboration:** In many cases, key players were introduced for the first time. Even if they were acquainted prior to the event, it was the initial opportunity for them to work collaboratively. The opportunity to share data and information provided a starting point for what could be a long-term, continuous process.
- **Problem Identification:** The forums began the journey toward a widely accepted definition of the challenges to building safety into the planning processes.
- **Action Planning:** Each of the events resulted in the identification of short and long-range activities that can be accomplished.
- **Partnerships:** It became clear during the meetings that most of the challenges can only be met through active and continuous partnerships. In some cases, the forums resulted in agreement to structure formalized partnerships for action. In others, the commitment was evident, but the process required additional design and agreement on definition and structure.

> **This forum is the first of its kind in Maryland, but hopefully not the last. In fact, I'm going to insist that it's not the last. This forum is just the start of an ongoing process.**
>
> *Neil Pedersen*

CHALLENGES

Although obstacles exist, as Neil Pedersen clearly articulated during the Maryland Forum, this should not impede progress, and he challenged the partners in his state to:

- Adopt common definitions that facilitate communication.
- Integrate safety factors with planning goals and performance measures.
- Think "multimodal" when considering safety.
- Identify and share available data and analytic techniques rather than reinvent the planning tools.

- Develop a process that encompasses the 3Es (engineering, education, enforcement) to produce synergistic advantages and effects.
- Integrate marketing strategies to build support for the planning process.
- Identify methods for integrating specific issues into the planning process: bicycle/pedestrian safety, motor carrier safety, transit safety, impaired driving, and smart growth as it relates to transportation safety.
- Define a future process, develop an action plan, and commit to its implementation.

The action steps and approaches documented throughout this report serve to illuminate the challenges identified. To summarize, the subjects include:

- Leadership,
- Communication,
- Partnerships and collaboration,
- Data and information,
- Training,
- Analytic planning tools,
- Education and marketing tools,
- Public support,
- Research and expertise, and
- Dedicated funding and other resources.

Future Needs and Actions

A catalogue of only the needs and actions emanating from the SCP forums and the SCP Working Group would produce a sizable volume. The attempt here is to provide a set of specific "next steps" for consideration and implementation. These are gleaned from the forum reports, minutes of the SCP Working Group and other "immediate" sources and are presented because they seem to be actions that meet at least two criteria:

      1. The resources and expertise necessary to begin work can be made available within the next few months.[31]

      2. They will immediately precipitate progress toward SCP understanding and implementation.

LEADERSHIP

There is a profound and immediate need to educate leaders and decision-makers in the transportation planning process about the nature of the safety problem and the benefits to be derived by addressing the issues. Transportation planners at all levels need educational and marketing tools for approaching leadership and winning their support for safety planning and projects. The ultimate goal is to create "champions" for SCP—a need recognized by many of the forum participants.

      On the federal level, SCP Working Group members have agreed to work collaboratively in their preparations for the FY 2003 reauthorization to ensure that safety remains a key factor in the planning process and perhaps to secure targeted funding for such efforts.

COMMUNICATION

The forums themselves result in an increase in the information flow among agencies, communities, and key players. These events can and should be easily replicated across the nation. To assist in that process, a "toolkit" follows in Part II of this Circular. It contains specific step-by-step instructions for facilitating a forum or event to bring the safety and planning communities together.

      Perhaps more importantly, thought must be given to institutionalizing the communications structures so they are part of a continuous process rather than a one-time event. Several forum participants in different settings proffered three specific and consistent ideas:

      1. Some entity should establish a structure for providing continuous reminders and updates about Safety-conscious planning. The participants pointed out that while they believe safety should be the top priority, other daily pressures make it difficult to keep safety in focus.

      2. Develop a contact or email list of the forum participants and others to provide periodic reminders and new information.

      3. Some suggested the establishment of a national event or conference to bring safety and transportation planners together periodically to share information and strategies.[32]

PARTNERSHIPS AND COLLABORATION

Safety-conscious planning requires more than information sharing among different entities; it requires true partnerships that might include regularly scheduled, joint planning events, shared resources, and eventually perhaps even a statewide safety planning process that influences not only the key planning partners, but also the Governor and the legislature.

DATA AND INFORMATION

The forums and other recent events support the idiom that there are never enough data. However, it is also true that data are available even though it may require effort to obtain information. The Traffic Records Committee of the National Safety Council is in the process of developing a series of training courses for those who collect, manage, and analyze data. Partners at all levels should support that effort by providing expertise, resources, and political support. Those who collect, manage, and analyze data should be brought into the planning process from the beginning. They need to understand how data are used and how very important good data are to support safety planning.

　　　　The first step may be to learn what data and analytic tools are currently available and used by MPO planners. At least two of the forum planning committees expressed an interest in these questions and made attempts to discover the answers. These and others efforts are a necessary first step; however, they did not produce satisfactory answers for identifying MPO needs. A comprehensive survey, perhaps coupled with focus groups and/or key person interviews, should be conducted and documented to avoid replication of effort and ensure projects are designed to meet user needs.

> **We need to develop a crash analysis capability because it is critical to defining needs, establishing priorities, marketing programs and assessing improvements.**
>
> *Bob Kamm*
> *Brevard County MPO*

TRAINING

Beyond training for data managers, many have recommended a basic training course on SCP concepts, planning, and implementation factors. The audience is widespread, including DOT and MPO planners, U.S. DOT headquarters and field staff, law enforcement, safety practitioners, engineers, roadway consultants, and the transportation research community.[33]

ANALYTIC PLANNING TOOLS

Clearly, safety-planning techniques are available; however, they generally do not complement existing tools used by transportation planners, and are in need of development. Indeed, several current NCHRP projects hold promise for their development.[34] In the meantime, safety practitioners can, at the very least, provide guidance to planners about where safety problems already exist by corridor, community, or some other metric.

EDUCATION AND MARKETING TOOLS

It is a rare event that attracts not only federal/state/local decision-makers but also the public to safety planning initiatives. However, their involvement and support is critical to both immediate and long-term successful implementation of SCP. Just as with leadership, development of educational and marketing tools to attract public attention and support are badly needed.

RESEARCH AND EXPERTISE

Despite efforts on the part of FHWA and others, the comprehensive expertise for SCP implementation has not been discovered, at least within the nation's borders. Some entities, such as Michigan's Southeast Michigan Council of Governments (SEMCOG) and Oregon's Portland Metro Planning Organization (METRO), have developed and implemented tools and techniques that place them ahead of most, but the proactive, comprehensive, multi-modal approach is yet to be created. Universities, NCHRP, other national organizations, and research institutes should be offered incentives to continue investigating and developing the planning tools.

Collaborative efforts may be most important since no one discipline appears to cover the enormity of the subject matter involved. For example, one forum participant suggested that universities provide opportunities for planners and engineers to work together on problem identification and solution development.[35]

DEDICATED FUNDING AND OTHER RESOURCES

Many expressed the need for additional planning resources, as well as more funding to implement roadway safety improvements. An interesting idea suggested by Tennessee was to make funding available through a "challenge grant" or some other venue, to place a traffic engineer in one of the MPOs as a pilot project. The position would be responsible for performing as a "circuit rider/ombudsman/facilitator," meet with local planners and law enforcement officials, help them identify problems and design countermeasures, identify funding sources, and serve as a "bully pulpit" for safety. DOT planning department and the Governor's Highway Safety Office representatives believe it would take 3 years to fully implement the program, but the position would pay for itself many times over. Evaluation would demonstrate the effectiveness of the program, and it is likely that the legislature and Governor would support positions in other jurisdictions.

Some also expressed the opinion that a reduction in bureaucratic barriers and inflexibility would help divert resources to safety programs and projects. However, these "barriers" were never clearly articulated. If they exist, they should be identified, catalogued, and reviewed. This action could provide a starting point for useful dialogue and reform efforts.

In the end, safety considerations may depend on political priorities and realities. Safety planners and practitioners share a responsibility to ensure that the political decisions are "informed" decisions and that they reflect safety improvements and needs.

CONCLUSION

In some respects, Oregon leads the nation in safety integrated planning, at least in state-level planning functions. Inquiries as to how this condition has come about produced the following list:

1. The policy people are willing to entertain discussions regarding process change.
2. The program people are willing to cross boundaries and form partnerships.
3. There is a general willingness to be self-critical and implement course corrections.
4. There is an agency-wide commitment to identify opportunities and improve safety

(*14*).[36]

These conditions are worthy of consideration for anyone moving forward to implement the next generation of Safety-conscious planning initiatives.

POSTCRIPT

The SCP Working Group is in the process of preparing an action plan to which all the partners will commit intelligence, resources, and energy for implementing the most promising actions available at the present time. For more information and continuous updates, see the SCP website.

References and Notes

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NOTES

1. Author's note: A list of acronyms is provided in Appendix A.
2. State DOTs are the largest units of government that develop transportation plans and programs. They are responsible for setting the transportation goals for the state (*7*).
3. MPOs represent areas with a population of 50,000 people or more. The MPO's mission is to provide short- and long-term solutions to transportation and transportation-related concerns (*7*).
4. Security has been addressed primarily at the federal level and has been generally considered a transit issue with initiatives focused on the security of transit drivers and, to a lesser extent, passengers, e.g., personal safety at bus stops. However, since the terrorist attack on September 11, 2001, the issue has broadened considerably, and the security of bridges, tunnels, airports, and other facilities have captured the nation's attention.
5. These professional categories operate at all levels: federal, state, regional, and local.
6. Safety practitioners include highway and motor carrier safety professionals as well as the enforcement and emergency management communities.
7. Maryland is a leader in the development of context sensitive design, [i]. e. "Thinking Beyond the Pavement." The next step is to include safety as an integral part of those activities.

8. The State Highway Administration's Business Plan established seven goals, together with performance measures. One of the goals focuses on safety, but the present planning process is primarily reactive in nature.

9. The initial list included the Departments of Transportation, Education and Community Health, State Police, the Office of Highway Safety Planning and the Safety Commission, a statutory group in MI.

10. The SMS is a DOT/OHSP partnership and consists of 13 action teams established by subject matter, e.g. impaired driving, occupant protection, engineering, traffic records, etc. The Chairs of each of the 13 teams form the SCP Working Group whose purpose is to plan and conduct the annual MI Safety Summit.

11. The Oregon contingent views the accomplishment of this goal as a beginning strategy for supporting continued emphasis on safety planning in the next reauthorization.

12. The Forum was viewed as an opportunity to begin the process of developing and sustaining linkage between the state and local level planners and others.

13. On reflection, the time and expense devoted to the receptions probably did not produce a measurable return. The amount of time and energy devoted to forum preparation by the planning committee was a far more important variable.

14. Having a high-level state official on the agenda not only helped recruit the appropriate participants but also generated enthusiasm.

15. Florida hired professional facilitators. Their skills provided a welcome addition to the discussions, although it is not clear that the expense is necessary. The facilitators that came from within the sponsoring organizations performed very well; however, they often expressed disappointment at not being able to fully participate as discussants.

16. Three to four months lead time turned out to be adequate to affect the participants' schedules, identify a location for the meeting and make the proper arrangements.

17. For a complete review of the individual state action items and recommendations, see the individual forum reports on the FHWA website (www.fhwa.dot.gov/planning/scp).

18. Many comments were made during the breakout sessions about the influence of the federal requirements on safety and planning. The Florida participants feel strongly that the current federal requirements, especially for the 20-year plan, create a bias for adding more lanes, which may prove detrimental to safety.

19. Some discussions suggested that the MPOs and other local jurisdictions should first be surveyed to determine what data they use and what their needs are. See, for example, the Florida Forum Report (*11*).

20. Several jurisdictions expressed issues related to liability saying that the DOT is reluctant to publish lists of high crash locations for fear that lawsuits will emanate from crashes at those locations before the hot spots can be fixed.

21. Several jurisdictions complained about police accident reports and suggested revising the police accident report form, mandating a statewide form, providing crash investigation training and high tech reporting tools for police officers, and developing programs to inform the police and the public about the importance of thorough and accurate reports.

22. This recommendation didn't make the Michigan list because the state already has a well developed SMS; however, in states where one does not exist, the recommendation was universal.

23. The Planners in the Tennessee forum were familiar with SEMCOG and its transportation planning in the safety arena. They think that SEMCOG's access to good data is the key component to their success. They can show the decision-makers where the problems are and report on impact. It was also noted that SEMCOG has access to funding for safety projects that other MPOs don't have.

24. In many cases, the action steps were redundant from state to state. The redundancies have been eliminated, but interested readers are encouraged to review the Forum Reports for a complete listing of each state's action planning steps.

25. The breakout group identified children, schools, families, commuters, drivers, pedestrians, bicyclists, older citizens, business/commercial interests, the government, recent immigrants, handicapped

persons, community groups, property owners, and elected officials as groups within "the public" for potential targeting.

26. The breakout group brainstormed answers to the question, "What does the public want?" The answers included active representation, a safe place to wait for public transit, education, access to people and information for answers to their questions and issues, input to the planning process, improved drive times, and an enhanced safety system.

27. It was suggested that producing an updated electronic version of the *Synthesis of Safety Research Related to Traffic Control and Roadway Elements, Vol. 1 & 2*, FHWA, December 1982 would provide a valuable tool for safety planning improvements.

28. One participant cautioned that there are often trade-offs between safety and mobility; hence, this may not be a fruitful effort. However, he also agreed that a safety index would be helpful for making decisions regarding the application of ITS technologies and other initiatives.

29. Steve Richards at the University of Tennessee teaches a course on safety integration. A "short course" version of his curriculum may be adaptable for the training program. Also, it was suggested that the FHWA Safety Analysis Guidebook for Transportation Planning that is currently under development could be provided to DOT and MPO planners in stages as it becomes available. User-friendly formats and design were strongly encouraged.

30. FTA also offered this suggestion for transit operators and other transit personnel.

31. In some cases, the groundwork has already been laid to move forward on these activities.

32. This event might be accommodated as a "track" within an existing annual conference, such as those sponsored and attended by members of NAGHSR, AASHTO, AMPO, ITE, TRB, etc.

33. It may be unnecessary to start with a "clean slate" on this multi-phase, multi-purpose project. Some university curriculums are reputed to include safety planning curriculums or modules in courses. These could be identified and reviewed prior to training development to avoid duplication of effort.

34. NCHRP Project 8-36 (18), NCHRP Project 17-18 (5), NCHRP Project 8-44.

35. Dick Reynolds, Senior Transportation Planner, Oregon DOT, was a presenter at both the Oregon and Michigan Forums.

36. Troy Costales, Director, Transportation Safety Division, Oregon DOT, July 2001.

Part II
Facilitator's Toolkit

Background

> **Each statewide and metropolitan planning process shall provide for consideration of projects and strategies that will increase the safety and security of the transportation system for motorized and non-motorized users.**
>
> *TEA-21*

In 1998, Congress passed the Transportation Equity Act for the 21st Century (TEA-21). One provision included a requirement that state departments of transportation (DOTs)[37] and metropolitan planning organizations (MPOs)[38] incorporate safety and security[39] as priority factors in their respective transportation planning processes and activities. Prior to TEA-21, safety was sometimes a prominent factor in project development and design, but this legislation calls for safety consciousness in a more comprehensive, system wide, multi-modal context.

To implement Safety-Conscious Planning[40] (SCP) the Transportation Research Board (TRB) convened a group of experienced safety and planning professionals in Washington, D.C., in May 2000. The purpose of the meeting was to accomplish at least the following tasks:

1. Explore the current planning processes followed by the transportation and safety planning communities.

2. Identify data, tools, partners, and other resources that are currently available or need to be developed for implementing the safety-planning requirement.

3. Identify the challenges associated with safety-conscious planning implementation.

One of the challenges immediately apparent to the meeting participants is the lack of dialogue, coordination, and communication among safety and transportation planners.

The Washington meeting resulted in a number of independent but related initiatives. A Safety-Conscious Planning (SCP) Working Group was formed to provide guidance and follow up activities in support of SCP. One of its first tasks was to guide the process of convening a series of forums to bring representatives of the various interests together to discuss strategies for sharing resources and working collaboratively.

The SCP Working Group designed the forums to accomplish at least two goals. The first is to bring together key players in the transportation planning and safety communities, introduce them to one another, and establish a dialogue. The second is to create action plans that begin the implementation process. SCP meetings bring safety partners together that may not have been previously engaged in collegial working relationships and help them identify good practices in safety integration where, and if they exist.

By the end of FY 2001, six forums had taken place. While the results were varied, there is general agreement that they provide a welcome and useful experience for state and local planning communities, and the process should be repeated across the nation at all

levels to increase dialogue and develop an implementation process. An effective process for planning and facilitating forums has evolved and is documented in the guidelines that follow. They are adaptable for meeting different objectives and circumstances and can be used at least as a starting point to save time and effort. More importantly, they are designed to ensure forum facilitators achieve the objectives and outcomes they seek and expect. The SCP Working Group hopes you find the toolkit useful and wishes you the best of luck on your journey.

Introduction

The toolkit is presented in three parts: Purpose, Process, and Product. Simply stated, purpose refers to the reason you are doing this; process is about how you do it; and the product section helps ensure the expected outcomes become reality.

PURPOSE

The SCP Working Group has articulated objectives for the forums from the federal perspective:

1. Assist state and local entities with the implementation of the TEA-21 safety-planning requirement.
2. Facilitate introductions and discussions among the key players.
3. Determine the role of safety and its integration with the traditional planning targets, such as congestion, land management, and environmental protection.
4. Assist at all levels in meeting safety goals by promoting a continuing dialogue at the state and local levels, providing technical assistance, and identifying resources.
5. Identify the institutional, resource, and other challenges that must be overcome to implement SCP.
6. Develop realistic strategies and action plans.
7. Build a process to assist DOTs, MPOs, the safety community, transit operators, and others with SCP activities.

The most important objectives are those established by the planning group for the forum. It is vital to ensure that you create a set of shared objectives prior to forum activity. This process ensures ownership and promotes not only collaboration but also leadership in facilitating purposeful action following the event. Ultimately, the effectiveness of your forum depends on the extent to which you accomplish what is important as defined by you and your colleagues.

PROCESS

The process consists of two stages—planning and implementation. Equal attention to both is important to ensure a successful event. Remember, "success" in this case is defined as an event that results in *action*!

Recruit Partners

The first step for forum facilitators is to identify partners and gain their commitment. To begin, it is essential that the following organizations be represented and committed:

1. The State DOT Planning Office: Even in the case where the forum represents a district, a region, or a single MPO or planning agency, the DOT's involvement is essential for ensuring that the objectives and action plans are incorporated into the state's planning

documents. Other sections within the DOT may also be interested and important to your success but the planning division is a must.

2. The Governor's Representative for Highway Safety
3. The state and local enforcement communities, including motor carrier enforcement.
4. The state and/or local transit agencies.
5. Federal agencies, for example, the FHWA Division Office safety and planning staff have been particularly helpful in some of the previous forum locations.

Hold a Planning Meeting

Preparation

At least 10 to 12 weeks before the forum, a planning meeting is necessary to address issues, assign responsibilities, and gain commitments for follow through. Appendix A contains the following information, which is designed to assist with planning meetings.

1. Your partners may want to see something in writing regarding the concept and process. Appendix A provides a one-page overview on the safety-conscious planning concept and the forum process along with a copy of the initial TRB E-Circular, which contains more details about the concept and implementation strategies.
2. Also included are a suggested list of participants, a sample letter of invitation, and a draft agenda to assist you in preparing for the planning meeting.

Agenda

During the planning meeting you will accomplish a number of important tasks, and it will take the better part of a half-day (4 hours) to accomplish the work. A list of tasks is outlined below.

Discuss the SCP Concept and the National Implementation Objectives

The federal partners are prepared to assist you with the planning meetings. To identify an appropriate person for articulating the purpose and the concept, consult the SCP website (www.fhwa.dot.gov/planning/scp) or call your state's FHWA Division Office. If you contact the Division Office, ask for the staff person responsible for safety or planning.

Articulate the Objectives

Facilitating a discussion among the partners to reach conclusions about specific, measurable objectives may be the most difficult task of the meeting. Since the concept is relatively new, your colleagues may expect you to tell them what the objectives are. However, to ensure commitment, participation, and follow up, it is imperative that, as a group, you create and articulate the objectives. Establish evaluation measures for each objective. These will track with your objectives and allow you to measure the success of the event.

Identify Forum Participants

Once the objectives are known, it will be easier to create a participants list, but you will still have to give serious thought to whom you wish to invite, how to ensure their participation, and what you will do when the audience is convened. Look in Appendix B for a sample list of representative agencies and organizations to consider as you build the list of participants.

Outline a Forum Agenda

The forum begins with a keynote speaker to introduce the subject and welcome the participants. The first substantive report, in most cases, will present the TEA-21 safety-planning requirement and provide context for its meaning and purpose. These introductory remarks are followed by a series of presentations that outline the various planning processes, criteria, requirements, and resources at the state and MPO levels. Data and information should be addressed somewhere on the agenda. The participants will be interested in what data are available, how they are collected and managed, and what tools are used for analysis and planning purposes. Give consideration to including breakout sessions for information sharing, brainstorming, and producing an action plan. Appendix B contains planning notes and a sample agenda with detailed planning tips.

Structure the Breakout Group Sessions

The purposes for the breakout groups are to promote dialogue, share information, brainstorm solutions, and develop an action plan for implementing safety-conscious planning into all stages of the planning process. The small group structure and instructions are critical to a successful outcome. There is no conventional wisdom on these issues. It will depend on your objectives and your knowledge of the participants you invite. Use the following questions for guidance to ensure the breakout sessions are productive:

      1. ***Will the breakout groups have themes or be formed around issues?*** As in all cases, there is a potential downside to structuring the groups by theme areas, e.g., some of the participants may not have an opportunity to discuss the issue most important to them. However, the theme structure ensures that all the topics your planning committee wants to address are discussed. Otherwise, you run the risk of having everyone discuss the same subject(s), which will result in action plans that are at best redundant and at worst conflicting. It is probably best to break them down by subject area and the specific subject areas will depend on your forum objectives. Appendix C provides some suggested topics or themes.
      2. ***Will the participants be assigned to a group or will they be allowed to choose their own?*** Again, you might have some unhappy guests if you assign them to groups. On the other hand, you can ensure that the available expertise is placed where it will be most fruitful and you can also mix up the groups so that the dialogue is as broad-based as possible.
      3. ***Who will facilitate the breakout groups?*** The facilitators are key for keeping the discussion on target and ensuring that the action plans are developed. Facilitation skills are not genetic! It requires some knowledge, experience, and practice. Try to identify persons who are experienced facilitators. If you have resources to hire professional facilitators, they are useful. However, you can identify persons with the requisite personality traits and experience from within all organizations.[41] The training is not difficult and can be accomplished in a brief period of time. The key is to make sure that they know what is expected of them. It is helpful to provide

them with templates for guiding the discussion and producing the desirable results. Guidelines for training and assisting facilitators can be found in Appendix C.

Identify Speakers, Moderators, and Facilitators

In most cases, a senior official from the state's DOT or an MPO will serve as the keynote speaker.[42] You might consider asking a federal official to follow the keynoter to discuss the TEA-21 requirement and challenge the participants. As a general rule, you should recruit the highest-level official possible to present the planning perspectives. Identifying and training breakout group facilitators is also important, as discussed above.

If a series of panels are structured, you might expect the moderators to keep things on track, but you will have to "coach" them to make sure they understand it is part of the job. It may be more effective to assign someone to be in charge of the stopwatch and develop a method for alerting speakers and moderators when they run behind schedule.

An excellent strategy for ensuring speakers and moderators address their assigned subjects and adhere to the suggested timeframes is to request that they send you overheads or PowerPoint presentations a few days ahead of the forum. Preplanning in this fashion helps accomplish several objectives:

1. It helps the speakers by giving them a deadline so preparation is not left to the last minute.
2. The conference manager(s) can check the content and length of the presentations to make certain the speakers are on message and within the suggested timeframes.[43]
3. The presentations can be assembled on a CD or laptop and the audiovisual equipment can be tested to make certain it will function properly and smoothly during the event.
4. You will have all the presentations on a CD, which will reduce the time necessary for writing a forum report and disseminating follow up materials.

Establish a Date and Location

You will need at least two months between the planning meeting and the forum. Experience shows that it takes this much lead-time to affect the participants' calendars and to prepare adequately for the event. Be sure to check the calendars of the key players carefully before setting a date for the forum. This practice not only helps assure you don't conflict with other important events but also, you may identify other meetings that you can "piggyback" onto, which may help expand your audience.

An SCP Forum is difficult to accomplish in less than a full day. However, we live in a 24/7 society and asking people to give up more than a day is difficult. There are a couple of models for structuring "the day." One is to begin early with a continental breakfast, provide lunch onsite and adjourn the forum at the end of the day. The other is to start the forum after lunch on day 1 and end it on Day 2 at noon or mid-afternoon. This strategy allows travel time before and after the event and more time for informal networking and information sharing, but it also raises the issue of hotel room and per diem expenses.

Determine Action Items and Responsibilities

The first decision with respect to responsibility is Who's in charge? Identify the person who will have overall responsibility and decision-making authority for getting things done. Decide *during the planning meeting* who will be responsible for the various tasks. A checklist for documenting deadlines, tasks, responsibilities, and status is provided in Appendix D.

PRODUCT

Identify Follow-Up Activities

Know where you want to be at the end of the day. At the very least, you will want a forum report, which includes an action plan, for distribution to the participants. Hopefully you will also have established a process for continuing the dialogue and the collegial relationships developed through the forum. Once again, you will need to assign someone or an agency the responsibility for generating and disseminating the report.

CONCLUSION

By now you are aware that there is substantial commitment and effort involved with sponsoring and shepherding a safety-conscious planning forum. However, carefully planned forums will result in identifying and educating new safety partners, establishing an ongoing dialogue, developing an action plan and committing to its implementation. This is not about saving a single life. It's about preventing hundreds of thousands of accidents, injuries, and deaths.

Notes

37. State DOTs are the largest units of government that develop transportation plans and projects. They are responsible for setting the transportation goals for the State.
38. MPOs represent areas with a population of 50,000 people or more. The MPO's mission is to provide short and long-term solutions to transportation and transportation-related concerns.
39. Security has been addressed primarily at the federal level and has been generally considered a transit issue with initiatives focused on the security of transit drivers and, to a lesser extent, passengers, e.g. personal safety at bus stops. However, since the terrorist attack on September 11, 2001, the issue has broadened considerably, and the security of bridges, tunnels, airports and other facilities have captured the nation's attention.
40. Although a variety of terms have become associated with this effort, *Safety-Conscious Planning* seems to describe the most comprehensive approach and is increasingly being used in planning and safety circles.
41. The only downside to using your own people is that they will not be able to fully participate in the discussion. You might consider conducting a focus group session with the facilitators after the forum to make sure you get their full input.
42. Having a high-level state official on the agenda not only will help recruit the appropriate participants but also generate enthusiasm.
43. For a general rule of thumb, count each slide as 2 min of presentation time.

Appendix A

APPENDIX A

Acronyms

AASHTO   American Association of State Highway Transportation Officials

AMPO   Association of Metropolitan Planning Organizations

COG   Council of Governments (one of a variety of titles given to MPOs)

DOT   Department of Transportation

FHWA   Federal Highway Administration

FMCSA   Federal Motor Carrier Safety Administration

FTA   Federal Transit Administration

ISTEA   Intermodal Surface Transportation Equity Act

ITE   Institute of Transportation Engineers

METRO   Portland Metro Planning Organization

MPO   Metropolitan Planning Organization

MD SHA   Maryland State Highway Administration (equivalent to the DOT in most states)

NAGHSR   National Association of Governors' Highway Safety Representatives

NCHRP   National Cooperative Highway Research Program (a shared state DOT research initiative administered by AASHTO and TRB)

NHTSA   National Highway Traffic Safety Administration

SCP   Safety-Conscious Planning

SEMCOG   Southeast Michigan Council of Governments

TCRP   Transit Cooperative Research Program

TEA-21   Transportation Equity Act for the 21st Century

TRB   Transportation Research Board (The National Academies)

Safety-Conscious Planning and the Forum Process
An Overview

WHAT IS SAFETY-CONSCIOUS PLANNING?

Safety-Conscious Planning (SCP) is a relatively new concept in the U.S. lexicon. U.S. safety planning initiatives have traditionally been reactive in nature. The tendency is to: 1) identify a problem through analysis of accident data and 2) implement an appropriate enforcement, education, or engineering-oriented countermeasure. SCP, however, implies a proactive approach aimed at preventing accidents and unsafe conditions. The range of SCP activities may include:

1. Programming safety improvements to address roadway "hotspots"—or collision-prone locations and unsafe transportation conditions.
2. Introducing multidisciplinary programs, i.e., integrating engineering, enforcement, emergency management, and education activities.
3. Thinking "multimodal" in planning initiatives, i.e., including consideration of transit needs, pedestrians, bicyclists, and other issues.
4. Including transportation safety considerations as a key decision-making parameter in evaluating projects and programming expenditures for all transportation modes.
5. Establishing inherently safe transportation networks.

The short-term objective is to integrate safety considerations into the transportation planning processes at all levels, specifically the Transportation Improvement Programs (TIPS) and the Statewide Transportation Improvement Programs (STIPS) developed by MPOs and DOTs respectively. The longer-term objective is to coordinate all safety planning activities so they are complementary rather than conflicting or redundant.

WHAT IS A SAFETY-CONSCIOUS PLANNING FORUM?

An SCP forum is a meeting that brings transportation and safety planning partners together and identifies good practices in safety integration where and if they exist. They are designed to accomplish at least two goals. The first is to bring together key players in the transportation planning and safety communities, introduce them to one another, and establish an ongoing dialogue. The second is to create an action plan that begins the implementation process.
Specific objectives and outcomes for SCP Forums include:

1. Articulate action steps for implementing safety-conscious planning: Who will do what, when, where, and how?
2. Identify the opportunities associated with SCP: Who stands to benefit?
3. Specify the resource requirements associated with SCP integration: What are the research, expertise, data, analytic tools, and funding needs?
4. Isolate the obstacles: What would prevent accomplishment of the objectives?

Transportation Research Circular E-C025:
Safety-Conscious Planning

PURPOSE

An effective and efficient transportation system has been a top priority in this country for much of the last century. The goals are clearly defined in the U.S. Department of Transportation's strategic plan. They include:

- Safety: Promote the public health and safety by working toward the elimination of transportation-related deaths, injuries, and property damage.
- Mobility: Shape America's future by ensuring a transportation system that is accessible, integrated and efficient, and offers flexibility of choice.
- Economic Growth and Trade: Advance America's economic growth and competitiveness domestically and internationally through efficient and flexible transportation.
- Human and Natural Environment: Protect and enhance communities and the natural environment affected by transportation.
- National Security: Advance the nation's vital security interests in support of national strategies such as the National Security Strategy and National Drug Control Strategy by ensuring that the transportation system is secure and available for defense mobility and that our borders are safe from illegal intrusion.

This vision requires the successful accomplishment of several objectives not the least of which is to ensure the planning process focuses on several independent, but not necessarily mutually exclusive variables. The variable under consideration in this project is safety. The short-term objective is to integrate safety considerations into the transportation planning processes at all levels, specifically the Statewide Transportation Improvement Programs (STIPS) and the Transportation Improvement Programs (TIPS) developed by the state departments of transportation (DOTs) and Metropolitan Planning Organizations (MPOs) respectively. This step should be followed by consideration of safety objectives in the longer range, 20-year plans that the state DOTs are required to prepare and update periodically.

Achieving a longer-term mission requires cooperation, collaboration, and integration of the planning processes of several agencies including federal, state and metropolitan transportation and transit planning agencies, highway safety offices, and commercial vehicle safety operations. The end product of this initiative is a metropolitan and statewide planning process that incorporates safety as a priority factor.

PROBLEM

Injury is the major cause of death in the nation from about 6 months to 45 years of age. Because it so disproportionately strikes the young, it is also the leading cause of lost years of productive life. Motor vehicle injury is the largest single component of these losses. The U.S. provides a

model for what can be accomplished in this important field. The record over the past 30 years is nothing short of miraculous, yet we still experience over 40,000 deaths and more than three million injuries annually. Clearly much remains to be done.

The human and economic consequences of motor vehicle crashes are unaffordable and unacceptable. While we continue to make modest progress in reducing highway fatality rates, over the past few years the number of motor vehicle related fatalities has remained essentially unchanged and injuries continue to increase each year. If these numbers continue unchanged, 400,000 people will die on our roadways over the next ten years at a cost of nearly two trillion dollars. The majority of motor vehicle crashes are predictable and preventable. The carnage is unnecessary.

BACKGROUND

The Intermodal Surface Transportation Efficiency Act of 1991 or ISTEA announced a change in focus regarding highway programs from construction to preservation and emphasized mobility and environmental protection. The goal was to produce a transportation system that provides safe and efficient mobility and accessibility as well as protection of the human and natural environments.

ISTEA required 23 planning factors for statewide transportation plans and 16 for metropolitan plans under the general headings of 1) mobility and access for people and goods, 2) system performance and preservation, and 3) environment and quality of life. However, nowhere in the legislation was *safety* specifically mentioned or mandated in the planning process. Transportation planning has historically focused on capacity and congestion with some attention to the operation and management of the transportation system.

ISTEA was reauthorized in 1998 by a bill titled the Transportation Equity Act for the 21st Century or TEA-21. It required that the states and metropolitan planning organizations incorporate *safety* and security as criteria in their respective planning processes and activities. This marked the first time safety was included as a planning factor. No further explanation or discussion was given in the legislation. TEA-21 consolidated the ISTEA planning factors into seven broad areas, one of which reads, "Increase the safety and security of the transportation system for motorized and nonmotorized users."

PROCESS

To begin the safety integration process, it is imperative to understand the planning factors and timelines that guide each of them. Transportation planning is accomplished primarily by the state DOTs and local MPOs, with technical assistance and oversight by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The DOTs and MPOs are responsible for establishing both long and short-term plans. The longer-term plan, known as the Transportation Plan, establishes goals and objectives over a 20-year period. The short-term plans are, in a sense, implementing documents and include specific projects to be accomplished over a three-year period. TIPs and STIPs are designed to implement the longer-range Transportation Plans and are updated every two years at a minimum.

The planning process includes several key steps.

1. Problem Identification and Definition
    a. Identifying and defining problem areas

       i.   Collecting and managing the supporting data and data systems
      ii.   Data analysis
     iii.   Monitoring and performance feedback
   b.   Establishing goals and objectives
2.   Planning
   a.   Establishing long-range plans (20 year horizon)
   b.   Developing short-term (3 year) programs at the state and local levels
   c.   Identifying, analyzing and evaluating policies, projects and strategies
3.   Programming: Developing and implementing projects
4.   Monitoring and Feedback
5.   Evaluation
   a.   Conducting process and impact studies
   b.   Reporting results

Integrating safety into the transportation plans requires coordination with the established safety planning processes of the state highway safety and commercial vehicle safety agencies. Neither of these processes requires a long-term 20-year plan. Otherwise, the planning steps followed by the safety communities are remarkably similar to those listed previously.

If the planning factors are essentially the same for all constituencies, integrating the planning processes should be simply a matter of educating management and acquiring their support and introducing the groups to one another. However, it is somewhat more complex than that. There are inconsistencies in the various planning processes regardless of the planning factors. For example, the state highway safety agencies follow an annual planning process while the transportation, transit, and MPO planners develop plans for a 20-year horizon with three-year program implementation documents. Converging the two processes requires some method that is not at present understood.

Safety-Conscious Planning Process

To initiate discussion on how to address the new planning factor, approximately 40 interested professionals convened in May 2000 to explore the independent planning processes and to identify the data, tools, partners, and other resources that are currently available, as well as those that need to be developed, for implementation of the safety requirement. The invitational workshop was planned and organized by a steering committee of representatives from FHWA, FTA, the Transportation Research Board (TRB), the Roadway Safety Foundation (RSF), the National Association of Governor's Highway Safety Representatives (NAGHSR), the Federal Motor Carrier Safety Administration (FMCSA), the National Highway Traffic Safety Administration (NHTSA), and the National Safety Council. FHWA and NHTSA provided sponsorship. The meeting was designed to accomplish several objectives.

- Introduce leaders in the safety and transportation planning communities to one another and give an overview of how each of them operates.
  - Learn about current initiatives that have incorporated safety into the planning process.
  - Generate a safety integration action plan.

The participants represented three arenas that presently execute independent planning processes—1) general surface transportation, which includes federal, state, and local transportation and transit planners, 2) highway safety, and 3) commercial vehicle safety. Those who are responsible for developing, collecting, and analyzing data were also invited. In many instances, it was the first experience in communicating across planning cultures for the participants.

EXAMPLES OF GOOD PRACTICES

An example of safety-conscious planning was provided by one of the Metropolitan Planning Organizations (MPOs) represented at the meeting – The Southeastern Michigan Council of Governments (SEMCOG). On another level, a representative of the Insurance Corporation of British Columbia discussed the subject from a larger geographic perspective. The lesson to be learned from the presenters is that it is not only possible to integrate safety into the planning process, but also there are substantial benefits to be gained. In both cases, a relatively simple format was used to achieve integration:

1. Convince upper management and other stakeholders of the value to be gained by safety integration.
2. Identify, collect, and analyze crash data to determine high-risk locations.
3. Convene a group of stakeholders to identify and discuss potential solutions and to determine the most cost-effective methods for proceeding.
4. Design and implement specific projects and programs.
5. Evaluate the outcomes and publicize the project results.

PLANNING FOCUS

It is soundly established that to improve safety, one must impact the accident experience of motor vehicle drivers and other more vulnerable road users by, among other things, creating a safe roadway environment that is as forgiving as possible in the event of an accident. The weakest link in the safety chain is the driver. The idea of safety integration is to reduce crashes, injuries and deaths by focusing attention on not only improving driver behavior but also on mitigating the consequences of driver error by enhancing infrastructure safety investments.

ACTION PLANNING

The meeting participants shared information and brainstormed ideas for accomplishing the safety integration task. They developed a set of potential strategies for integrating safety into the planning process, created a series of initiatives necessary for implementing the strategies, and developed lists of information, tools, partners, and resources required to support the action steps.

STRATEGIES

A wide variety of strategies were discussed. Many of them have similar and overlapping characteristics. The following subheadings consolidate the suggested strategies into a set of common themes.

Foundations for Safety in Planning

The overriding strategy is to integrate safety into the existing transportation planning process. The participants provided several ideas for accomplishing the objective in both the near and the long term.

- Provide a forum for safety partner involvement in the planning process.
- Develop a safety goal in the planning process at the state and MPO level.
- Make safety a planning element and decision criteria for identifying, evaluating, and selecting projects for funding. Support the activity through the federal funding certification review process.
- Ensure adequate resources are provided or reallocated for the planning function.[1]
- Reorient the facility design process to incorporate safety.[2] Focus on the design guidelines, such as the AASHTO Green Book, and revise them to include safety as a key factor in project development.
- Issue TCRP and NCHRP research proposals to develop model impact estimates for different types of safety improvements.
- Examine results from the safety audit process, including project modifications and safety benefits, to generate support for safety integration among planning professionals, public officials, and others.
- Develop multi-modal performance measures and prioritization strategies incorporating safety into the decision criteria. Investigate how the transportation and transit joint planning process works and seek guidance from the integrated activities.

- Encourage colleges and universities, especially the university transportation centers, to incorporate safety into transportation planning curriculum modules for urban planners, traffic engineers, and other related disciplines.

Data Collection and Analysis

The importance of good data cannot be overestimated. It is crucial for accurate problem identification and definition. It points the way to effective intervention strategies, helps identify future problems, and provides information for evaluating countermeasure results.

Much of the data needed to identify and define safety problems resides at the state level and does not translate well to the local level for use by the MPOs. The meeting participants outlined several steps for improving access to safety data and encouraging its use.

- Collect, integrate, and maintain regional and state safety information systems.
- Develop and provide training for state and local transportation and transit planners on how to access and analyze safety data.
- Compile a set of "best practices" guidelines for collecting, accessing, analyzing, and utilizing safety data in the planning process.
- Develop community-based data identification, collection, and analysis systems.
- Make those who collect, analyze, and use data a part of the process. In many cases, these functions are performed independently, and the persons involved may not communicate with one another. The point was often made during the meeting that those who collect data should receive feedback on the value of its use. Institutionalizing this form of collaboration will improve both the quantity and the quality of the data collected.
- Identify existing case studies on successful Safety Management System (SMS) initiatives and document other innovative practices to provide guidance for MPOs and states.

Expanding the Data Issue

Analysis of data and identifying high-risk locations, e.g. specific sites, corridors, and roadway sections, are not the only considerations in identifying and defining problem situations. It is necessary in many cases to go beyond the crash statistics and think about safety in ways not normally considered. For example, safety can be affected by providing transportation alternatives with a range of choices for trip making. It might be assumed that with more and better sidewalks and bicycle paths, people will consider alternatives to the private automobile. Addressing personal safety and security in public transportation will enhance alternative mode choice.

The social consequences of providing effective, efficient, safe, and secure transportation are enormous. Viable and widespread transportation alternatives will dramatically improve the nation's potential for solving some of its most difficult problems such as public health, poverty, mobility for older and disabled persons and congestion.

Collaboration

The participants discussed the need to enhance communication and understanding among safety and transportation/transit planning practitioners about the respective planning processes that currently exist. It is also clear to the stakeholders involved in the planning process that the activity developed to accomplish increased communication and understanding should be

replicated many times in different geographical regions around the country and among different constituencies. These forums will serve to ensure that representatives of the planning groups are identified at all levels and encouraged to work collaboratively.

How to accomplish this obvious strategy is less well understood. Who is responsible for the necessary outreach that will initiate the process? Who will conduct these forums? What are the appropriate formats, agendas, and timelines? What incentives can be offered? Finally, and of utmost importance, who are the stakeholders and how can they be encouraged to participate? Several ideas were shared for accomplishing the collaboration initiative.

- Disseminate the steps and timelines from each of the planning processes—transportation, transit, highway, and motor carrier safety.
- Identify strategies for ensuring management support at the highest levels of transportation planning organizations.
- Collaboration across disciplines is ultimately required, but the first step may be for those who understand and support the initiative to market the concept within their own communities. The idea is to create a receptive environment for change strategies.
- Hold geographically dispersed forums to introduce key stakeholders in the planning process, discuss strategies for integrating safety into the state and local transportation and transit planning processes, and publicize the importance and potential benefits of the activities.[3]
- Identify existing materials to use as a starting point for developing a user-friendly "Highway and Transit Safety Planning Manual" for state and local transportation and transit planners.
- Develop training modules for key stakeholders, tailoring the content to their specific responsibilities, and emphasizing the importance of safety and providing them with tips on how to integrate the concepts into the state and local planning processes.
- Create a rapid response team of key stakeholders—federal, state, and local transportation, transit, highway safety, and commercial vehicle planning professionals—that are available to provide technical and planning assistance on-site. The team visits will provide an incentive for states and MPOs that have demonstrated an interest and are motivated to begin the safety integration process.
- Develop incentives for participation in safety planning exercises especially in the MPO and law enforcement communities.[4]
- Investigate the outcomes of the requirement for Motor Carrier Safety Assistance Program (MCSAP) planners to communicate with the Governors' Representatives for Highway Safety (GRs) and transportation planners as a part of their planning processes. Include a review in states that have integrated the highway safety and MCSAP planning processes, e.g., Missouri and Indiana.
- Investigate the process, tools, partners and other resources used by the multi-modal users group in the environmental justice arena to determine the potential for technology transfer.
- Recruit a group of stakeholders to work with DOT and MPO planning professionals including
  — Safety-related and planning organizations and associations in both the public and private sector.
  — The public, specifically neighborhood and community groups.
  — Agencies and organizations responsible for land use policy and development.
  — Elected officials and the media.

> — The education community.
> — System users such as transportation-related companies and transit operators.

The current transportation planning process contains an explicit requirement for public involvement; however, inclusion of the user groups might be more aggressively pursued in some cases. Who better to identify their transportation and safety concerns than those who regularly use the roads? The planning process should incorporate the concerns of all system users and include a proactive element for identifying and recruiting the participation of at least the following groups—employees, motor vehicle operators, transit passengers and other members of the traveling public, shippers and recipients of goods and services, and property owners.

Policy

Some participants believe that safety integration must be made mandatory before it will be fully implemented. They believe that the concept must be explicitly addressed in federal and state regulatory environments, such as has been done in the environmental protection arena.

States also have the option to improve or revitalize the Safety Management System (SMS) concept and require SMS review and approval for new construction and maintenance plans.

Outreach

Advocacy is an imperative part of the safety integration process. It is not enough to simply inform groups and individuals. It might be assumed that planners, like other professionals, conduct business according to established routines. Changing the routines will require that planners be motivated through incentives, persuasive dialogue, and the provision of user-friendly tools and models for easy implementation. Beginning with the need for safety data collection at the local level, all phases of the integration process will need to be marketed to the user groups.

One suggested strategy is to identify "champions" who have integrated safety into their planning processes and promote their programs through publications, speeches, conference panels, and awards programs.

NEXT STEPS

This product is one step in a long-term process. The key stakeholders have established a framework for discussion, investigation, research, and further collaboration. They must now add energy to an inert document by defining and prioritizing specific action items, assigning responsibilities, and identifying resources for integrating safety into the transportation planning process. Several initiatives are already underway.

- The Steering Committee has continued to meet and discuss implementation of the strategies discussed during the larger meeting. Members of the group are committed to continue the dialogue at regularly scheduled intervals.
- TRB will post this document on their website and develop a flyer announcing its availability that will be distributed at conferences, meetings, and through other delivery mechanisms.

- The Steering Committee will provide facilitation and documentation support for a pilot state program. Tennessee has volunteered to convene representatives from the various planning entities to begin the process of building a model safety integration planning process. The initiative will help identify areas of consensus, problems, information and technical assistance requirements and barriers to further progress. Members of the Steering Committee will assist in solving the issues that arise from the experience.
- A by-product of the pilot initiative is the development of a glossary of terms used by the various planning groups to facilitate communication and understanding.
- Subsequent to the pilot program, tentative plans include testing and further development of the model planning process in two additional states that have indicated an interest.
- TRB has created a Safety in Planning Subcommittee of the Transportation Safety Management Committee to specifically address and track progress on this issue.
- The subcommittee sponsored a conference session on Safety in Planning at TRB's annual meeting January 7-11, 2001.
- FHWA sponsored a half-day pre-conference session January 7, 2001 on Safety in Planning for State DOT Transportation Planners.
- NAGHSR hosted a workshop on safety in planning during its regularly scheduled annual meeting, September 24-27, 2000.
- The Roadway Safety Foundation is exploring the potential of developing an awards program to recognize outstanding accomplishments related to safety integration.
- The Steering Committee will develop a presentation to be used for explaining the TEA-21 safety integration requirement and activities that are taking place to implement it.

NOTES

1. Funding for the planning process is provided under current regulations and practices. However, some of the meeting participants suggested that a full integration of safety, including more comprehensive data analysis, into the planning process would require additional resources.
2. Many suggested that safety becomes an issue in the planning process at the project design stage after the planning process is completed. However, even at that stage, there is evidence that safety is given minimal and/or uneven consideration in many instances.
3. One method suggested for efficiently accomplishing this initiative as well as recruiting management support and participation is to develop a video and/or CD ROM-based program package with a Leader's Guide and other tools. Members of the planning group and their staffs, colleagues, and customers could disseminate the program quickly and broadly.
4. The meeting participants offered specific suggestions on incentives including "challenge grants" and a waiver of the required 20% local match for planning activities.

Planning Meeting Participants List

The planning meeting presents the first opportunity to gain the necessary support and commitment from partners whose participation will be necessary for a successful outcome. Commitments will more easily be gained during the planning meeting if the attendees are at a high enough level within their organizations to make decisions about policy and resource issues. Consider inviting representatives from the following groups:

- DOT and MPO transportation planners[1]
- Highway and motor carrier safety planners and practitioners
- Transit operators
- Data managers and analysts
- Federal representation at both the national and local (state, division, region) levels
  — Federal Highway Administration
  — Federal Motor Carrier Safety Administration
  — Federal Rail Administration
  — Federal Transit Administration
  — National Highway Traffic Safety Administration
- Private Sector Partners
  — Consultants
  — Engineering firms
  — Road Builders
  — Others

NOTE

1. In some cases, you might consider including rural planning organizations as well.

Invitation Letter

NOTE: Success in recruiting key players to the planning meeting will more likely be achieved if facilitators take time to make contact by phone or a brief email announcing that the invitation is being sent and asking participants to block the dates on their calendars. It is best to try to keep this letter to a single page. You can use the file/page set up function to adjust the margins as needed.

List the invitees so the recipients understand that many of their respected colleagues will also attend the planning meeting.

Date

Dear _____:

SUBJECT: SAFETY-CONSCIOUS PLANNING: TEA-21 IMPLEMENTATION

In 1998, Congress passed the Transportation Equity Act for the 21st Century (TEA-21). For the first time, the state Departments of Transportation and Metropolitan Planning Organizations (MPOs) are required to incorporate safety as a major factor in the transportation planning process.

In May 2000, the Transportation Research Board (TRB) hosted a meeting in Washington, D.C., to discuss how the TEA-21 safety requirement can be addressed in the planning process and the availability of data, tools, partners, and other resources for implementing the requirement. A TRB E-Circular was published to document the meeting results. For background and understanding, I/we have enclosed a copy of the Circular.

One result of the TRB meeting was recognition that communication and collaboration among safety experts and transportation planners is generally incomplete at best. A recommended solution is to implement a series of Safety-Conscious Planning (SCP) forums across the nation to bring together representatives from planning and safety organizations at all levels of government, including appropriate private sector representatives. To date, six statewide forums have been held. The federal partners continuously examine the results of these and future forums to identify the actions and resources necessary for successfully implementing SCP at all levels.

Name of lead organization(s) is interested in conducting a safety forum. Before it can be finalized, several issues and the logistics must be addressed. We have scheduled a planning meeting for *date* at *location (room, building, street address)*.

Because of your area of expertise and your involvement with safety and/or planning, you are invited to participate in this planning meeting. If you are not able to attend, please send a delegate with authority to represent your interests. An agenda for the planning meeting is attached.

Since you will be the primary representative from your agency, please be prepared to provide a brief, 5-7 minute overview in answer to the following questions:

What does your agency/organization do?

What are the sources of your funding and other resources?

What are the requirements and/or rules that govern your planning process?
What is the source of your planning requirements?
What data do you use to plan, develop, implement and evaluate your programs?
If you have any questions, please contact name/title/organization/phone number/email address of person to contact for more information.

Sincerely,

Signature of highest level official possible, e.g., Secretary or Deputy of the Department of Transportation, Chief of the DOT Planning Department, Governor's Highway Safety Representative, FHWA Division Administrator, MPO Director
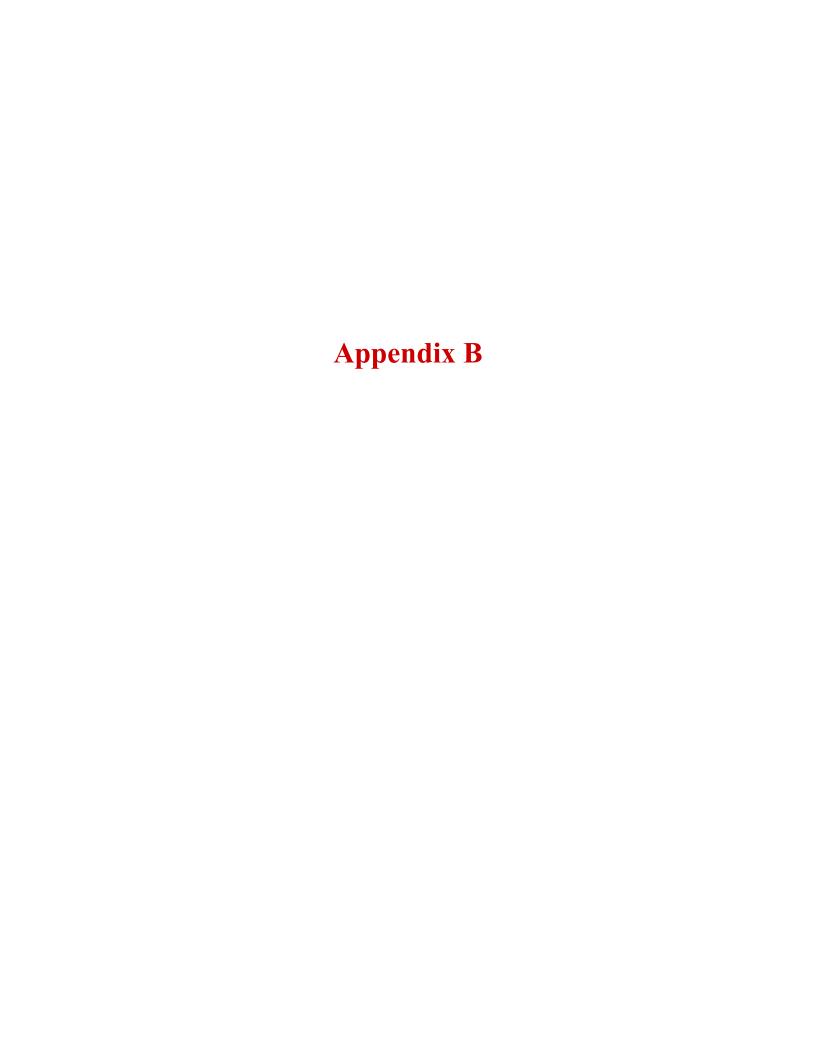
Planning Meeting Agenda

TEA-21 Implementation: Safety-Conscious Planning

Forum Planning Meeting

Location
Date

Agenda

I. What is safety-conscious planning?
   a. Concept
   b. Process
II.   What's in it for me?
   a. Federal/state/regional/local perspectives
   b. SCP benefits
   c. Objectives and evaluation measures
III.   Forums
   a. Purpose
   b. Participants
   c. Agenda
   d. Logistics
      i.   Date(s)
      ii.   Location
   e. Responsibilities
      i.   Lead persons/contacts
      ii.   Logistics: space, equipment, meals
      iii. Participant list
      iv.   Invitations: design, development, and dissemination
      v.   Speakers, moderators, panelists, and breakout group facilitators
      vi.   Conference support: registration materials, staffing, hotel liaison, etc.
      vii. Final report
      viii. Follow-up process
IV.   Adjourn

Appendix B

APPENDIX B

Suggested Forum Participants List

The first step in developing a list of potential participants is to create a database. This can be accomplished in table or spreadsheet format. Think through the fields that you need before you design the database. It will depend on what your intentions are for its use. Prepare the database for printing mailing labels for distributing invitations and follow-up materials. Design fields for noting whether individuals notify you that they will attend and if, in fact, they do attend. This will help alert you to those individuals you want to follow up with to make sure they received the invitation and understand the importance of your event. It will also give you an accurate final audience count.

There is no set "list" to invite because your audience will depend on the geographic spread of your event, the key decision-makers, transportation safety activists in your area, and other available opportunities.

- High-level DOT planning and safety representatives. You may want to include others from within the DOT as well. It depends on the area covered by your forum, the structure of the DOT in your state, and opportunities available. For example, you may decide to invite someone from operations.
- MPO planning and leadership. If the lead planning person is not also in a leadership role in the MPO, be sure to invite the boss, too.
- Local planning and safety officials.
- Safety practitioners.
   — Make certain that the Governor's Representative for Highway Safety is involved. The GR may choose to invite others from the staff, for example, data analysts, program managers, and outreach/marketing experts.
   — The chief official from the motor carrier enforcement division should also participate. This individual may be part of the state patrol, public works, DOT or some other agency.
   — You might consider including leaders from transportation safety-oriented, non-profit organizations, such as safe communities programs.
   — The state and local enforcement agencies are important players in SCP implementation.
- Identify and invite transit planners and operators from both the private and public sectors.
- The Department of Motor Vehicles is an important source of information and potential for safety improvements on the driver side.
- The private sector bears a large responsibility for safety in all areas. Include engineers, road builders, consultants, trucking companies, AAA, State Farm, and others.
- Federal representatives will appreciate an invitation as well. These may include FHWA, FMCSA, FRA, FTA, and NHTSA.

It is well worth your time and effort to identify and recruit a broad cross section of the safety community, as well as members of top leadership within at least the DOT. The individuals and organizations you identify as important for inclusion during the planning meeting should be actively pursued and recruited if they do not respond to your invitation.

APPENDIX B

Notes on Planning a Forum Agenda

CONFERENCE MANAGEMENT

At least five positions are important for conference management on the day of the event.

1. Conference Facilitator—someone "in charge" on the day of the forum, the authority for making decisions on the spot.
2. Speaker/Moderator Facilitator—a person who assists the speakers and presenters and keeps the conference running smoothly and on time. As you are identifying this person, keep in mind that he or she may have to ask high-level administrators to please complete their remarks and move on. That can be somewhat uncomfortable for some people and certainly for some positions.
3. Technical Director—even though the facility where you hold the forum may have an AV expert on site, you remain better prepared if you have someone who understands not only the technical issues but also the purpose and process of the forum.
4. Hotel Liaison—a person with responsibility for notifying hotel staff of needs and changes as the event progresses. This individual will want to become acquainted with the hotel staff people (sales, catering, front desk, etc.) before the event and know how to reach them throughout the meeting.
5. Participants Support—one or two people should be available to answer participant questions and support their needs.

BREAKS

There is no consensus on whether to list breaks as an official part of the agenda. The only really important thing is that you take them. There is a limit to anyone's attention span, and all of us need occasional breaks to reenergize ourselves mentally and physically. Also, remember that one of the reasons for holding the forum in the first place is to introduce planning and safety professionals to one another and initiate a dialogue among them. To accomplish that, they need time to talk to each other informally. One caveat is in order: if you list breaks on the agenda, try to stick with the timeframes. Audiences typically get restless if it says on the agenda that they are on a break and they are not!

DETAILS, DETAILS, DETAILS

Final planning will include preparing nametags, table tents for speakers, and posters for guidance in finding the rooms where the various events take place. If you have time and resources, consider making a table tent for everyone and hand them out along with the nametags. Having them available for the breakout sessions will improve communication. Be sure to put the name on both sides of the tent so everyone, not just the people in the front of the room, can identify the person.

Sample Forum Agenda

Date:
Location:
Phone:

AGENDA

WELCOME / FORUM PURPOSE AND OVERVIEW

The first rule of thumb is to recruit the highest-level, most visible person you can to kick off the conference. Think "large" and go for the Governor or Secretary of the Department of Transportation. The number of welcoming speakers depends on what you want to accomplish and also the politics of your situation. Be careful not to offend anyone by leaving him or her off the podium for the kick-off event. At this stage of the event, you want to accomplish two major objectives:

1. Articulate and explain the concept and the TEA-21 requirement.
2. Stimulate the audience's energy, intelligence, and commitment.

In most cases, an official representative of your planning area and perhaps, a federal official should be sufficient to emphasize the importance of your event, articulate their meeting expectations, and generate enthusiasm by challenging the participants to think creatively, produce an action plan, and continue their involvement.

OVERVIEW OF THE CURRENT PLANNING PROCESSES

The purpose of this section is to establish some common ground by familiarizing the individual participants with the basic ground rules of the various planning processes. Try to recruit presenters from the following perspectives:

- DOT,
- MPO,
- Highway Safety Office,
- Motor Carrier Agency, and
- Transit Operations.

Ask the speakers to briefly answer the following questions:

1. What do you do? What is your job definition?
2. Where does your funding come from and what are the requirements and regulations for accessing the funds?

3. What are your timeframes for the planning process?
4. What products (plans) do you publish; when and how can they be accessed?
5. Who has oversight of your planning process?
6. At what point in the process do you or could you integrate safety aspects?

In many cases, presentations on the planning processes will sound foreign to the participants who are not already a part of that structure. Ask the speakers to give examples wherever possible. You might set this section up as a "panel of experts" and encourage them to ask questions of each other, draw comparisons and begin the mutual planning process right then. We can assume that the questions one would ask of the other will be questions on the minds of the audience as well.

DATA AND PLANNING TOOLS

This segment could be a panel discussion, a workshop, or a single speaker. It will depend on how much information you have and the expertise that you are able to recruit to help you lead the discussion. However, the subject is critical to the future success of your effort. Experience shows that access to data and information is the principle reason given for not addressing safety. Therefore, it is vital that you have the information present:

1. What data are available to help in the planning process?
2. How can you access the data, that is, where are they located?
3. Who collects, manages, and analyzes the data for your area? (Note: These may not only be three separate people, they may also be three separate organizations; and, furthermore, you may find that they do not regularly communicate with one another!)
4. Where can you get help in analyzing the data for identifying high-risk locations and other purposes?
5. What planning tools are available that can help predict safety problems and analyze cost/benefit ratios?
6. What data are available to assist in evaluating countermeasure efforts?

PANEL DISCUSSIONS

You may want to consider other speakers or a panel discussion at this point in the agenda. For example, there may be a new piece of research that you can introduce to broaden the thinking. You might also consider recruiting a panel of experienced professionals to address a topic, such as what each of them is doing to integrate safety into their planning processes. The topics and speakers will be dependent on your situation and objectives.

It is usually the case that panels are more stimulating and interesting than single speakers or "talking heads." There is also a greater likelihood that more of the audience will be drawn in because of the diverse perspectives. However, simply placing three speakers and a moderator at a head table does not necessarily constitute a panel discussion. Think about answers to the following questions if you intend to structure panel discussions on the planning process or safety integration activities:

1. Are the subjects truly related in any fashion; that is, why did you decide to group these speakers together?
2. What are the linkages?
3. Do the speakers understand the linkages so they can relate their experiences to those of the others?
4. Has the moderator been informed of the panel's purpose and the speaker linkages?
5. Is the moderator prepared to transition from one speaker to the next and ask questions to which all can respond?

BREAKOUT GROUPS

The forums are intended to produce an action plan. At the very least, they should produce a set of action steps that will eventually result in an action plan with the commitment and support to move safety planning forward. The most important work of the forum is accomplished in the small group sessions.

Topics

The following topics have served well as discussion themes.

- Safety definition and goal(s).
- Safety data systems improvements, analysis, and liability issues.
- Safety integration planning: long- and short-range plans, the project priority process, incident, and congestion management systems.
- Communication, collaboration, and public outreach.
- Educating, informing, and influencing the leadership, other decision-makers, and the public.

Instructions
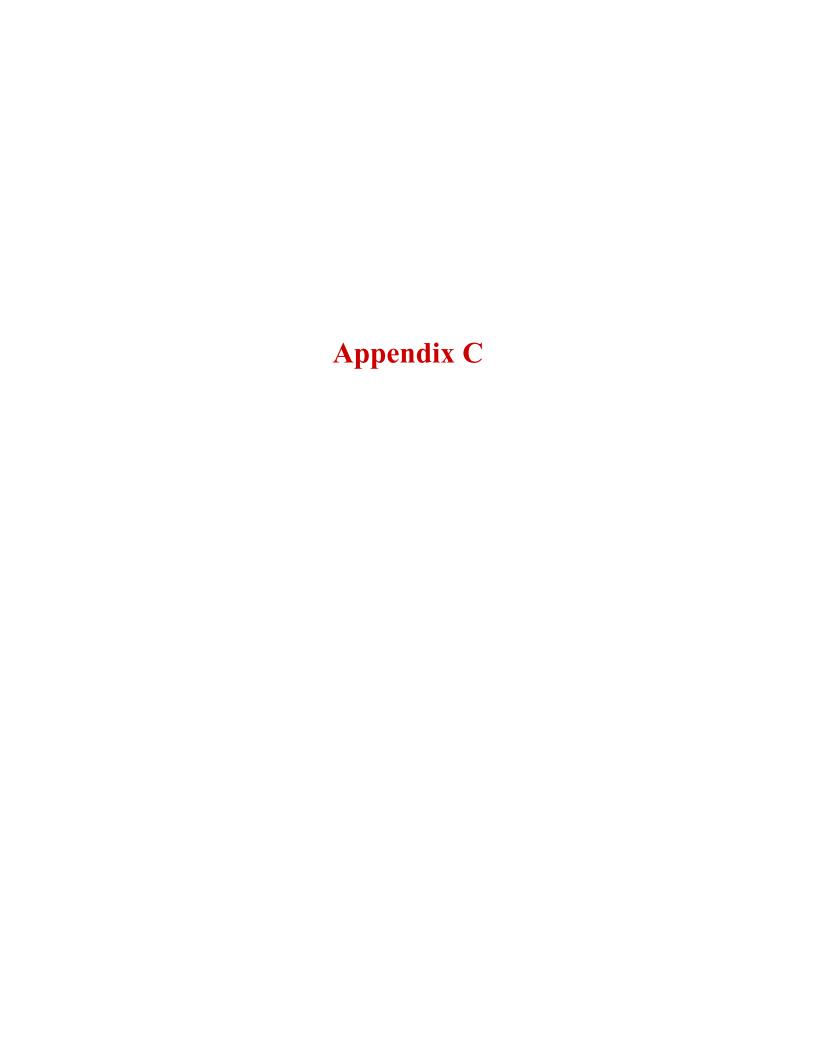
Provide specific instructions for the breakout groups:

1. Articulate action steps for implementing safety conscious planning: Who will do what, when, where, and how?
2. Identify the opportunities associated with SCP: Who stands to benefit?
3. Specify the resource requirements associated with SCP integration: What are the research, expertise, data, analytic tools, and funding needs?
4. Isolate the obstacles: What would prevent accomplishment of the objectives?

BREAKOUT GROUP PRESENTATIONS

Undoubtedly, one of the concluding sessions will be devoted to presentations from the breakout groups. This process stimulates thinking, legitimizes the small group activity, and puts everyone on notice that a decision has been made, and "someone is watching or at least listening!"

CONCLUSIONS, RECOMMENDATIONS, AND NEXT STEPS

The forum will end on a higher note if someone or a panel of leaders wraps up with concluding remarks. This could be as simple as having someone reflect on what he or she has learned to as detailed as having a panel representing state and local planners, highway safety, motor carrier safety, transit operators, and so on announcing and committing to future initiatives.

Appendix C

Group Themes and Questions

SAFETY DEFINITION AND GOAL(S)

1. What is an appropriate process for establishing safety goals to which all can contribute and support?
2. Who or what organization should lead this effort?
3. What data and analytic tools can be used to support the goal(s)?

SAFETY DATA SYSTEMS IMPROVEMENTS, ANALYSIS, AND LIABILITY ISSUES

1. What types of data are available? (Examples: Traffic crash/incident, safety/security, safety belt, facilities, characteristics, exposure, risk, demographics, and emergency response) Are there gaps in the data?
2. Which analyses/methods are appropriate for examining safety issues (global/community wide, location/hot spots, deficient facilities, lack of risk control/exposure)?
3. Is the data that you receive in a useful format? Can it be easily incorporated into the long-range and project priority planning processes?
4. Do you know whom to contact to get safety data?
5. Is there a desire to do more safety analyses, particularly on local maintenance roadways? If so, do the Metropolitan Planning Organization's and other planning groups have trained staff to do so?
6. How can transit safety/security data be coordinated with data from other modes for multi-modal analysis of crashes/incidents/security issues? Is transit incident data geo-coded for comparison to other safety/security data?
7. Are there organizational structure issues that impede safety analysis (modal vs. functional organizations at the federal, state, and local levels)?

SAFETY INTEGRATION PLANNING: LONG- AND SHORT-RANGE PLANS, PROJECT PRIORITY PROCESS, AND INCIDENT AND CONGESTION MANAGEMENT SYSTEMS

1. To what extent is safety factored in the long-range planning process?
2. How can long-range safety issues be addressed?
3. What are the long-range safety issues (sidewalks, bikeways, lane/capacity, wider roads vs. parallel facilities)?
4. How can conflict points (actual and potential) be minimized and still maintain access (frontage/access roads, shared driveways, etc.)?
5. Can hazard analyses from previous incidents indicate patterns or problems that should be addressed in the long-range plans?
6. To what extent has safety been factored in the project priority process?
7. How can safety data be linked to proposed project locations for prioritization?

8. What techniques have you found to be successful for integrating safety in the project priority process?
9. What is the key threshold that shifts safety projects to a higher priority?
10. When does safety become a lesser priority?
11. How can security issues be addressed?
12. Is there a desire to set-aside MPO funds for safety improvements?
13. Can the transit agencies' system safety program plans be used to identify potential capital projects?
14. When safety and security issues involve more than one mode, how are responsibilities assigned?
15. Are there joint actions that can be taken to enhance the security of transit patrons at bus stops?
16. In what instances does incident management supersede incident prevention or capacity improvements? (Congestion management)
17. Do you use an advance message system to notify travelers of alternate routes?

COMMUNICATION, COLLABORATION, AND PUBLIC OUTREACH

1. How can we continue the dialogue established at this forum?
2. What structure(s) do we need to create to ensure that we communicate regularly on safety issues?
3. What are the best delivery mechanisms for our messages?
4. Who among us has a well-established public information process that can be used to structure and send messages as well as for training the organizations that lack such skills?

EDUCATING, INFORMING, AND INFLUENCING THE LEADERSHIP, OTHER DECISION MAKERS, AND THE PUBLIC

1. Who are the decision makers that we need to influence?
2. Who has and who needs the skills to educate and inform the leadership about safety issues?
3. How can we craft a convincing message about the benefits of SCP?
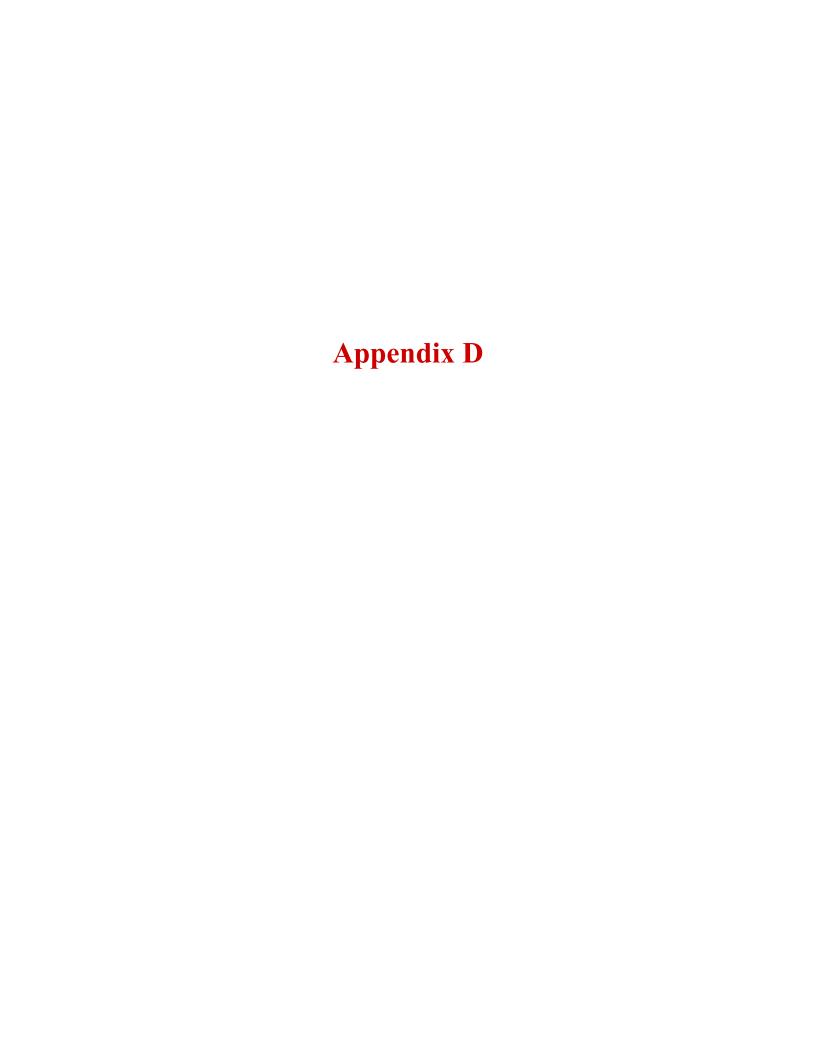4. How can we get the public involved and supportive of our safety planning efforts?

APPENDIX C

Breakout Group Guidelines

1. Call the session to order as soon as practical.
2. Begin by discussing the timeframe for the breakout group session(s). How much total time do you have? Set up a schedule for making introductions, brainstorming, action planning, and preparing for the reporting out session.
3. Have everyone introduce themselves and the organizations they represent. You will not have much time for introductions. Have the participants give a brief statement about their interest and experience on this issue. You should speak first to demonstrate the introductory remarks that you're asking for and put the others at ease. Remember -- keep it short and simple!
4. Assign someone the responsibility to keep notes. There are several ways to accomplish this.
    a. Recorders may be assigned prior to the event.
    b. You may ask for a volunteer from the group; however, this means one less person to participate.
    c. You may choose to document the basic points on a flip chart as you lead and listen to the discussion.
5. Ensure that everyone understands the purpose of the forum. Ask someone from the group to articulate the purpose from his or her perspective and add to the explanation as needed. (TEA-21 implementation, safety-conscious planning, action plan, etc.)
6. Explain the purpose and function of the breakout groups.
    a. The planning committee has identified specific subject areas for further investigation and brainstorming. The topics are:
        i. Safety definition and goal(s).
        ii. Safety data systems improvements, analysis, and liability issues.
        iii. Safety integration planning: long- and short-range plans, the project priority process, and incident and congestion management systems.
        iv. Communication, collaboration, and public outreach.
        v. Educating, informing, and influencing the leadership, other decision-makers, and the public.
    b. Each group is charged with a number of tasks:
        i. Develop action steps for forum follow-up. (What steps should be taken to implement safety-conscious planning. Who needs to do what? Ask for specific recommendations no matter how limited they may seem, i.e., read something, call someone, meet with someone, etc.)
        ii. Identify barriers and challenges. (What could prevent you from doing the things you listed as action steps?)
        iii. Identify information, tools, partners, and other resource requirements. (What help do you need? Who or what organizations might be able to assist?)
7. Introduce the subject(s) for your breakout group.
8. Keep the conversation moving by probing for more information, asking questions, and reiterating decisions made by the group.
9. Manage the discussion.

      a.   Make sure everyone participates. (*Name,* you haven't commented on this subject. Do you have thoughts that you'd like to share?)

      b.   Be careful that a few participants don't dominate the discussion. (*Name*, that's a good point; now let's hear what others have to say about this issue.)

10. Watch the time and make sure you accomplish what you need to do in the time allowed.

11. You might want to stop the brainstorming and discussion 15-20 minutes before your time is up and ask the participants to list what they would like you to present or to help you construct the basic points of your presentation. You are responsible for collecting your thoughts and being prepared to present the results of your breakout group to the entire audience.[1]

12. Please turn in your notes, flip chart sheets, and other materials to conference facilitator. Include your name or group number on all the materials.

NOTE

1.   In some cases, a member of the group is selected to present the report.

Appendix D

APPENDIX D

Planning Checklist

DATE (Referenced to the forum)	TASK/EVENT	RESPONSIBILITY	STATUS Not started, in progress, red flag, complete
Forum –3 months	**PREPARE FOR A PLANNING MEETING**	**Forum facilitator(s)**	
Note: These time frames are *minimums*, if you have more time, your planning will undoubtedly be more effective and less pressured.	✓ Identify participants ✓ Find a location ✓ Issue invitations ✓ Send information to participants ✓ Create an agenda ✓ Follow up to ensure participant attendance		
Forum –2 months	**HOLD PLANNING MEETING**		
	✓ Discuss SCP concept and establish a common understanding ✓ Establish forum objectives and evaluation measures ✓ Set a date(s) ✓ Determine a list of locations for inspection ✓ Identify participants ✓ Create an agenda ✓ Identify potential speakers, moderators, and facilitators ✓ Determine contents of participant materials ✓ Identify the "person in charge" if it is not already obvious ✓ Assign duties and responsibilities		

DATE (Referenced to the forum)	TASK/EVENT	RESPONSIBILITY	STATUS Not started, in progress, red flag, complete
Forum –1 month, 3 weeks	**FOLLOW UP THE PLANNING MEETING**		
	✓ Confirm dates ✓ Confirm location; if a hotel, begin negotiations to confirm space and other agreements ✓ Create and disseminate a "Save the Date" email or postcard ✓ Finalize list of invitees and collect the contact information in a database ✓ Begin calling and confirming the speaker, moderator, facilitator list		
Forum –1 month, 2 weeks	**REVIEW AND FINALIZE LOCATION**		
	✓ Conduct a walk-through of the facility; make sure you have general meeting space, registration area, number of breakout rooms you need ✓ If a hotel, sign hotel contract identifying rooms that you will use, meals, hotel assistance ✓ If necessary, block hotel sleeping rooms ✓ Identify audio visual equipment requirement needs and make preparations		

DATE (Referenced to the forum)	TASK/EVENT	RESPONSIBILITY	STATUS Not started, in progress, red flag, complete
Forum –1 month	**FINALIZE AND CONFIRM COMMITMENTS**		
	✓ Confirm speakers, provide information and guidance, set a deadline for speaker slides ✓ Confirm panelists and moderators, provide information and guidance ✓ Confirm facilitators and set date for training ✓ Confirm keynote speakers		
	SEND INVITATIONS		
	ASSIGN TASKS		
	✓ Participant materials ✓ Name tags and speaker/participant tents ✓ Room identification, directional posters, and easels ✓ Follow up with participants who do not respond to the invitation ✓ Conference Facilitator ✓ Hotel or onsite Liaison ✓ Technical Director ✓ Facilitator Trainer ✓ Breakout Session Recorders ✓ Speaker, Moderator Facilitator ✓ Author for the evaluation form ✓ Author for the forum report		

DATE (Referenced to the forum)	TASK/EVENT	RESPONSIBILITY	STATUS Not started, in progress, red flag, complete
Forum –1 month (cont.)	**Hold a planning committee meeting to review progress and address red flags**		
Forum –2 weeks	**Hold a planning committee meeting to review progress and address red flags**		
Forum –1 weeks	**FINAL PREPARATIONS**		
	✓ Assemble all information ✓ For participant kits ✓ Collect and assemble speaker's slides on a CD ✓ Meet with the forum staff and brief them on the agenda, facility, speakers, participants, etc.		
Forum Date	**HOLD THE FORUM**		
	✓ Check audio visual equipment early and often ✓ Check with hotel/meeting place staff to ensure all arrangements are in place ✓ Greet participants and ensure their comfort ✓ Collect all CDs, flip charts, evaluations, and other material for follow up		
Forum +3 to 4 weeks	**CONDUCT FORUM FOLLOW UP**		
	✓ Revise and update the database ✓ Write, print, and disseminate forum report ✓ Send thank you notes to conference speakers, panelists, moderators, facilitators, and other helpers ✓ Review action plan and determine next steps		

The **National Academy of Sciences** is a private, nonprofit, self-perpetuating society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare. On the authority of the charter granted to it by the Congress in 1863, the Academy has a mandate that requires it to advise the federal government on scientific and technical matters. Dr. Bruce M. Alberts is president of the National Academy of Sciences.

The **National Academy of Engineering** was established in 1964, under the charter of the National Academy of Sciences, as a parallel organization of outstanding engineers. It is autonomous in its administration and in the selection of its members, sharing with the National Academy of Sciences the responsibility for advising the federal government. The National Academy of Engineering also sponsors engineering programs aimed at meeting national needs, encourages education and research, and recognizes the superior achievements of engineers. Dr. William A. Wulf is president of the National Academy of Engineering.

The **Institute of Medicine** was established in 1970 by the National Academy of Sciences to secure the services of eminent members of appropriate professions in the examination of policy matters pertaining to the health of the public. The Institute acts under the responsibility given to the National Academy of Sciences by its congressional charter to be an adviser to the federal government and, on its own initiative, to identify issues of medical care, research, and education. Dr. Harvey V. Fineberg is president of the Institute of Medicine.

The **National Research Council** was organized by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and advising the federal government. Functioning in accordance with general policies determined by the Academy, the Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in providing services to the government, the public, and the scientific and engineering communities. The Council is administered jointly by both the Academies and the Institute of Medicine. Dr. Bruce M. Alberts and Dr. William A. Wulf are chairman and vice chairman, respectively, of the National Research Council.

The **Transportation Research Board** is a division of the National Research Council, which serves the National Academy of Sciences and the National Academy of Engineering. The Board's mission is to promote innovation and progress in transportation by stimulating and conducting research, facilitating the dissemination of information, and encouraging the implementation of research results. The Board's varied activities annually engage more than 4,000 engineers, scientists, and other transportation researchers and practitioners from the public and private sectors and academia, all of whom contribute their expertise in the public interest. The program is supported by state transportation departments, federal agencies including the component administrations of the U.S. Department of Transportation, and other organizations and individuals interested in the development of transportation.