

Incorporating Safety Into the Planning Process - Notes

Slide 2 Notes

Provide brief introduction of how your agency is involved in Transportation Safety Planning, who was invited to this presentation, and why they were invited. (Note: Session Learning Objectives are provided on slide 4)

Slide 4 Notes

There are three key learning objectives to this presentation:

1. Understanding Transportation Safety Planning (TSP), the safety issue, and regulations that affect planners. TSP is a comprehensive, system-wide, multimodal, proactive process that better integrates safety into surface transportation decision-making.
2. Identifying approaches and steps to integrate safety into the planning process.
3. Providing resources

Slide 6 Note

This information is from the FHWA TSP Strategic Plan.

Slide 7 Notes

A high level look at 2012 fatal crashes. The red dots show the distribution of crashes across the U.S.

Source:

HEPGIS –

<http://hepgis.fhwa.dot.gov/hepgismaps11/ViewMap.aspx?map=Annual%20Fatal%20Crashes|Annual%20Fatal%20Crashes%202012>
[FARS](#)

Slide 8 Notes

These statistics provide a snapshot of the cost of fatal in the United States during 2012.

STATISTICS SOURCE: NHTSA

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Slide 9 Notes

The downward trend in FATALITIES could potentially level off if continued progress is not monitored. According to FHWA, overall vehicle miles traveled (VMT) roadway fatalities increased slightly between 2011 and 2012 following a downward trend from 2006-2011. 2012 showed an increase of 0.3 percent over 2011. According to NHTSA, the fatality rate per 100 million VMT increased **3.6 percent** to 1.14 in 2012.

Slide 10 Notes

This data shows all reported INJURIES related to roadway crashes. Crash-related injuries have increased slightly since 2009.

According to NHTSA the overall injury rate increased by 6.7 percent from 2011 to 2012.

Slide 11 Notes

These numbers help the transportation community identify **areas needing attention so they can focus on** strategies for safety improvements. For example, the high percentage of pedestrian fatalities across the U.S. from motor related vehicle crashes is one of the reasons for many non-motorized safety initiatives around the nation.

Source: FARS and Focused Approach to Safety

Slide 12 Notes

Under MAP-21, performance management will transform Federal highway programs and provide a means to more efficient investment of Federal transportation funds by focusing on national transportation goals, increasing the accountability and transparency of the Federal highway programs, and improving transportation investment decisionmaking through performance-based planning and programming (PBPP).

MAP-21 has a significant impact on the planning process due to a safety focus and continued movement toward a performance-based system. State DOTs and Metropolitan Planning Organizations (MPOs) will be required to establish and use a performance-based approach to transportation decision making and development of transportation plans.

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- Strengthens America's highway & public transportation systems by considering infrastructure condition. MAP-21 has the potential to create jobs and support economic growth in our country.
- Establishes a performance-based program – a program focused on goals and targets.
- Supports USDOT's safety agenda by including safety as a National Goal Area.
- Simplifies & focuses the Federal program – Congress simplified the complex array of existing programs, substantially consolidating the program structure into a smaller number of broader core programs. Many smaller programs are eliminated, including most discretionary programs, with the eligibilities generally continuing under core programs.
- Accelerates project delivery & promotes innovation – this was accomplished in part by altering the National Environmental Policy Act (NEPA) compliance process and other environmental reviews.

Sources: http://www.fhwa.dot.gov/map21/docs/12nov28_freight_provisions.pdf

Slide 14 Notes

MAP-21 establishes the National Goal Areas for Federal highway programs, including a goal for SAFETY. As a MAP-21 National Goal Area, safety should be considered in planning at all levels. Other goal areas include:

Infrastructure condition - To maintain the highway infrastructure asset in a state of good repair.

Congestion reduction - To achieve a significant reduction in congestion on the National Highway System.

System reliability - To improve the efficiency of the surface transportation system.

Freight movement and economic vitality - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

Environmental sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment.

Reduced project delivery delays - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project design and delivery process through measures such as reducing regulatory burdens and improving agencies' work practices.

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A cornerstone of the MAP-21 highway program is a transition to a performance and outcome-based program.

States will invest resources in projects to achieve individual targets that collectively make progress toward national goals.

Performance-based planning

State DOTs and MPOs will be required to establish and use a performance-based approach to transportation decision making and development of transportation plans. Agencies will establish performance targets that address the MAP-21 surface transportation performance measures.

The performance targets selected by an MPO will be coordinated with State-level to ensure consistency to the maximum extent practicable. Performance targets selected will be coordinated with public transportation providers, to the maximum extent practicable, to ensure consistency with sections 5326(c) and 5329(d) of title 49.

MPOs are required to integrate into the metropolitan transportation planning process other performance-based transportation plans or processes.

The MPOs will establish performance targets not later than 180 days after the date that the relevant State or public transportation provider establishes performance targets.

Within 2 years of enactment of MAP-21, the structure of all MPOs will be required to include officials of public agencies that administer or operate public transportation systems.

Both Long Range Transportation plans (LRTP) and transportation improvement programs (TIP) will include descriptions of performance measures and performance targets used to assess projects and programs.

Highway Safety Improvement Program (HSIP)

The HSIP is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands. The HSIP emphasizes a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance.

MAP-21 dramatically increases size of existing HSIP, calls on States to set targets for number of serious injuries & fatalities; and the DOT to establish measures, and strengthens linkages between HSIP and NHTSA programs.

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Slide 16 Note

MAP 21 also calls for the advancement of States capabilities to conduct safety data collection, analysis, and integration.

Slide 17 Notes

To obligate HSIP funds, a State must develop, implement and update a SHSP, produce a program of projects or strategies to reduce identified safety problems, evaluate the SHSP on a regular basis, and update the SHSP every 5 years.

The legislation impacts SHSP through expansion of the list of participants involved during safety planning. Participants include county transportation officials, State reps of non-motorized users, & other major Federal, State, tribal & local safety stakeholders.

Slide 19 Notes

Strategies for improving safety fall under four general areas, known as the Four Es: Engineering, Enforcement, Education, and Emergency Medical Services (EMS). These four areas reflect the multidisciplinary nature of transportation safety. **Transportation Planners have the most opportunity to effect change in engineering, but also to some extent in education, enforcement, and EMS. Some examples include:**

- Planners may influence infrastructure improvements by incorporating safety principles and data throughout the planning and project selection process. This helps facilitate development of safer roadways through engineering.
- During public outreach components of the planning process, planners may educate the public and transportation professionals on the need to address safety during the planning process.
- Planners may also involve law enforcement and EMS during the development of the long range transportation plans.

Incorporating elements of the 4Es into the planning process can continue to contribute to reduced crashes, injuries, and fatalities.

Source: http://tsp.trb.org/assets/FR_Safety%20Planner_1_17_07FINAL.pdf

Slide 20 Notes

Safety integration should include a **multidisciplinary** focus, e.g. planning, education, engineering, enforcement and emergency management.

Safety planning should also include **multimodal** components, such as rail, transit, commercial vehicles and non-motorized modes of travel.

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Slide 20 Notes *(continued)*

State and local planners, engineers, and law enforcement may use cursory or in-depth analysis tools to determine **system-wide** safety concerns. Statewide data, software analysis tools, and data use training are available from the DOT.

Collaboration between MPOs, States, and local decision makers offers an important advantage for local safety teams. This effort is based on collaborative partnerships; people getting to know and work with other people at the community level.

Be **proactive** in promoting and including safety measures.

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Source: Iowa TSP Forum & Peer Exchange (2003)

## Slide 21 Notes

This graphic illustrates the transportation planning process and feedback loop. The graphic shows a process of vision and goal identification, comprehensive consideration of strategies, evaluation of processes, and collaboration between agencies and stakeholders in developing the LRTP. The process also includes project development, implementation and performance monitoring. Performance monitoring then informs the next round of visioning and goal setting.

Source: [http://www.planning.dot.gov/documents/briefingbook/bbook\\_07.pdf](http://www.planning.dot.gov/documents/briefingbook/bbook_07.pdf)

## Slide 22 Notes

This graphic shows a recently updated planning process that integrates performance-based planning and programming (PBPP).

Source: [https://www.fhwa.dot.gov/planning/performance\\_based\\_planning/pbpp\\_guidebook/page02.cfm](https://www.fhwa.dot.gov/planning/performance_based_planning/pbpp_guidebook/page02.cfm)

## Slide 23 Notes

Successful integration of safety impacts all steps in the transportation planning process as noted in these slides illustrating the performance-based planning process (PBPP) an opportunities to include safety in the process. Safety should be a consideration early in the planning process when stakeholders are first engaged and visioning begins.

# Incorporating Safety Into the Planning Process - Notes

## Slide 24 Notes

Successful integration of safety impacts all steps in the transportation planning process as noted in these slides illustrating the performance-based planning process (PBPP) an opportunities to include safety in the process.

Safety should be a consideration early in the planning process when stakeholders are first engaged and visioning begins. It is important to utilize data to drive decisions, including both reactive decisions (location-specific with crash history), and pro-active decisions (systemic approach). Therefore, also consider data availability during planning to craft Performance Measures for which data is available.

## Slide 25 Notes

To successfully integrate safety, all steps of the planning process will be impacted. Make safety a priority when developing investment policies in long range plans. Integrate safety elements into the TIP. In the programming stage, design standalone safety projects.

## Slide 26 Notes

Safety should continue to be a consideration during monitoring, evaluation, and reporting to track progress toward goals and make adjustments during the next round of planning and goal-setting.

## Slide 27 Notes

It is valuable to integrate safety into the State and regional planning vision and strategic. During the early stages of the planning process it may be helpful to develop presentation materials illustrating local transportation safety problems or concerns. Share with stakeholders the potential benefits of a comprehensive safety strategy (i.e., reduced injuries and fatalities, reduced cost to the public in terms of productivity, emergency services, travel delays and property damage).

When writing vision statements, include language on safety.

Sources: [https://www.fhwa.dot.gov/planning/transportation\\_safety\\_planning/](https://www.fhwa.dot.gov/planning/transportation_safety_planning/),  
<http://safety.fhwa.dot.gov/tsp/fhwahep09043/fhwahep09043.pdf>

# Incorporating Safety Into the Planning Process - Notes

## Slide 28 Notes

While developing goals and objectives during the planning process, keep safety improvements in mind. Use existing resources on performance-based planning to help generate strategic, measurable, agreed-upon, realistic, and time-bound objectives related to safety as well as other program areas. Ensure the objectives are measurable by considering how they will be measured as well as current data collection capabilities.

## Slide 29 Notes

Performance measures aid in monitoring system condition and change including informing decisionmakers and stakeholders on the impact of already implemented safety measures. Safety related performance measures generally consider **crash rates, emergency response times, and public perception of safety for various modes**. When developing performance measures be sure to consider data availability and collection feasibility so measurement will be possible during the monitoring and evaluation planning phase.

See a list of possible performance measures and related data source on p. 3 of the source below.

<http://safety.fhwa.dot.gov/tsp/fhwahep09043/fhwahep09043.pdf>

## Slide 30 Notes

The ongoing process of analysis should continually inform the planning process by identifying new issues and opportunities for improvement. Analysis should take place over various time-spans including short, medium, and long, and at different project scales including corridor, sub-area, and region.

## Slide 31 Notes

Programming includes the investment plan, resource allocation, and program of projects as outlined in the LRTP and S/TIP. Design standalone safety projects and integrate these safety elements in the S/TIP. Use project selection criteria to emphasize selection of projects that integrate safety elements.

Sources:

[https://www.fhwa.dot.gov/planning/performance\\_based\\_planning/pbpp\\_guidebook/pbppguidebook.pdf](https://www.fhwa.dot.gov/planning/performance_based_planning/pbpp_guidebook/pbppguidebook.pdf) , <http://safety.fhwa.dot.gov/tsp/fhwahep09043/fhwahep09043.pdf>

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## Slide 32 Notes

Once safety projects have been implemented, it is important to monitor the effectiveness and communicate effectiveness to stakeholders. Information collected and feedback received from stakeholders can inform the next round of visioning and goal-setting.

## Slide 34 Notes

Find resources on Transportation Safety Planning in these locations.

Additional resources are listed in individual modules

## Slide 35 Notes

- Work collaboratively to identify safety **integration** opportunities throughout the planning process, across agencies and modes.
- Leverage the planning process to impact safety and reduce crashes.
- Engage transportation planners & committees that prepare and influence transportation plans.
  - Be creative in fostering engagement opportunities: for instance convene peer group meetings to review the SHSP and discuss ways to improve safety integration.
- Build consistency between Long Range Plan, Metropolitan Transportation Plan and safety plans (SHSP, and Regional safety plans).
- Use data and analysis to benchmark and measure safety concerns.

## Slide 36 Note

(Note to presenter: select the module or modules appropriate to your audience and delete the unneeded modules and THIS SLIDE).

## Slide 37 Note

Transportation Safety Planning and Federal-level planning

## Slide 38 Note

These are some of the ways Transportation Safety Planning may impact work at the Federal level.

# Incorporating Safety Into the Planning Process - Notes

## Slide 39 Note

It is important to look at ways to integrate safety into the planning process.

## Slide 40 Note

These are some of the resources available to Federal level practitioners.

## Slide 41 Note

Transportation Safety Planning and State-level planning

## Slide 42 Notes

These are some of the ways Transportation Safety Planning may impact work at the State level.

Source:

[https://www.fhwa.dot.gov/planning/performance\\_based\\_planning/pbpp\\_guidebook/pbppguidebook.pdf](https://www.fhwa.dot.gov/planning/performance_based_planning/pbpp_guidebook/pbppguidebook.pdf)

## Slide 43 Notes

It is important to look at ways to integrate safety into the planning process.

Source: [http://tsp.trb.org/assets/FR\\_Safety%20Planner\\_1\\_17\\_07FINAL.pdf%20](http://tsp.trb.org/assets/FR_Safety%20Planner_1_17_07FINAL.pdf%20)

## Slide 44 Note

These are some of the resources available for State level practitioners on transportation planning and performance-based planning.

## Slide 45 Note

Applying Transportation Safety Planning to the MPO planning process

## Slide 46 Notes

These are some of the ways Transportation Safety Planning may impact work of MPOs.

- Under MAP-21 there will likely be more projects competing for limited flexible funding.
- It is essential that MPO planners understand MAP-21 funding categories and requirements to identify monies and work with the State and the regional MPO(s).

# Incorporating Safety Into the Planning Process - Notes

## Slide 47 Notes

It is important to look at ways to integrate safety into the planning process as safety is a top concern in transportation planning.

- Help educate local elected officials and public on the importance of safety.
- Demonstrate the economic impact of improving transportation safety.
- Start small by allocating funding for safety needs.
- Work with private/public entities to increase funding.
- Consider development impact fees for safety measures around new projects.

## Slide 48 Note

These are some of the resources available that look MPOs, transportation planning, and performance-based planning.

## Slide 49 Notes

Applying Transportation Safety Planning to regional planning.

### **What is Regional Planning?**

Regional planning is planning for a geographic area that transcends the boundaries of individual governmental units but that shares common social, economic, political, cultural, and natural resources, and transportation characteristics. A regional planning agency prepares plans that serve as a framework for planning by local governments and special districts.

Generally speaking, RPOs conduct planning for rural areas. There may or may not be dedicated funding set aside for RPO planning. Often, an RPO and MPO share some common board members.

## Slide 50 Notes

These are some of the ways Transportation Safety Planning may impact the work of RPOs.

- MAP-21 recognizes and authorizes regional transportation planning organizations apart from other planning entities.
- It is in the interest of the RPOs to participate in MPO activities, since funding is often dictated by the MPOs process.
- Align with State plans to capture State funding for safety. For RPOs existing outside the boundaries of the MPO, the DOT would be the liaison for funding.

# Incorporating Safety Into the Planning Process - Notes

## Slide 51 Notes

It is important to look at ways to integrate safety into the planning process.

- Educate local elected officials and the public on the importance of safety improvements.
- Demonstrate the economic impact of improving transportation safety.
- Leverage local funds; RPOs may not have dedicated resources.
- Identify low-cost safety improvements.
- Consider impact fees for safety measures around new developments.
- Work with local agencies over time to improve availability and accuracy of safety data.

## Slide 52 Note

These are some of the resources available that look at the role of local practitioners in transportation planning and performance-based planning.

## Slide 53 Note

Transportation Safety elected and appointed officials

## Slide 54 Note

These are some of the ways Transportation Safety Planning may impact the work of elected and appointed officials.

## Slide 55 Note

It is important to look at ways to integrate safety into the planning process.

## Slide 56 Note

These are some of the resources available that look at the role of elected and appointed officials in the transportation planning process.