SHRP2 SOLUTIONS
TOOLS FOR THE ROAD AHEAD

Planning Process Bundle (C02/C08/C09/C12/C15)

Techniques and resources for increased collaboration in transportation planning, programming, project development, and decisionmaking

Challenge

The planning process encompasses a diverse range of topics that must be addressed early-on to inform transportation planning, programming and project decision-making. Topics such as performance measurement, visioning, greenhouse gas emissions, public-private partnerships, and freight planning continue to evolve and require new data and analysis processes. Decision-makers, partners, stakeholders, and the public alike need better information on how these topics impact transportation planning, programming, and project development in order to make informed decisions that lead to successful outcomes.

Solution

The Bundle: Capacity Process Tools Bundle (C02/C08/C09/C12/C15)

This bundle is a related group of SHRP2 products that addresses elements of transportation planning, programming, and project development, thereby requiring collaboration with entities outside the primary transportation planning agency in order to achieve success. These products, which are tied to the Decision Guide in PlanWorks (C01), are designed to facilitate a collaborative process by providing case studies and step-by-step guidance on when and how to consider performance measures, visioning, greenhouse gas emissions, public-private partnerships, and freight during the transportation planning, programming, and decision-making processes.

Products

Performance Measures for Highway Capacity Decision Making (C02)

Measures of transportation system performance are integral to demonstrating the need for transportation system investments, evaluating alternative solutions, and monitoring performance. Decision-makers and the public alike continue to be concerned about the impacts of future transportation investments and demand even broader analysis. C02 provides a framework and web-based tool for selecting performance measures to evaluate major transportation projects. It details how performance measures can be used in long-range planning, programming, environmental review, and permitting. Beyond their analytical value, these performance measures form the basis for transparent and objective decisions that help stakeholders to understand transportation problems, which builds project support and avoids or reduces project development and delivery delays.

Transportation Visioning for Communities (C08)

Community visioning processes are significant sources of input for transportation planning processes, which now range beyond topics of connectivity or design to consider community livability and a host of interrelated issues. Visions may help guide appropriate infrastructure decisions that enhance economic competitiveness, environmental stewardship, and community resources, while improving transportation project outcomes. However, visioning processes tend to produce high-level, policy-oriented outcomes that prove challenging to integrate within focused, project-specific planning efforts. As a result, visioning in support of transportation planning has not been uniformly embraced by practitioners and remains an undefined, though increasingly popular, practice across the nation. C08 has developed a new suite of visioning tools to include a model approach, a step-by-step process, and case studies along with a guide and website intended to generate consensus and shared outcomes for transportation projects.

What is the Planning Process Bundle bundle?

This bundle is a related group of SHRP2 products that addresses elements of transportation planning, programming, and project development, thereby requiring collaboration with entities outside the primary transportation planning agency in order to achieve success. These products, which are tied to the Decision Guide in PlanWorks (C01), are designed to facilitate a collaborative process by providing case studies and step-by-step guidance on when and how to consider performance measures, visioning, greenhouse gas emissions, public-private partnerships, and freight during the transportation planning, programming, and decision-making processes.

Performance Measures for Highway Capacity Decision Making (C02)

Transportation Visioning for Communities (C08)

Incorporating Greenhouse Gas Emissions into the Collaborative Decision-Making Framework (C09)

Guide to Public-Private Partnerships and Non-Standard Procurements (C12)

Integrating Freight Considerations into the Highway Capacity Planning Process (C15)

Continued on next page.

CAPACITY

One of four SHRP2 focus areas, Capacity products help transportation organizations to systematically integrate environmental, economic, and community requirements into the analysis, planning, and design of new highway capacity.

Visit: www.fhwa.dot.gov/GoSHRP2
Learn more about products, case studies, and implementation assistance.

Incorporating Greenhouse Gas Emissions into the Collaborative Decision-Making Framework (C09)

Most climate scientists agree that humans are accelerating a change in Earth's climate through the emission of greenhouse gases (GHG). In response, state, regional, and local governments and organizations in the United States have been enacting policies aimed at reducing energy consumption and GHG emissions. These policies typically include an overall emissions reduction target for a State, region, city, or agency. To meet reduction targets, some agencies and organizations are developing plans and strategies that itemize emissions sources. This framework includes a guidebook, website, and step-by-step procedures for considering, estimating, and reducing greenhouse gas emissions. With these systematic procedures, an agency can anticipate strategies to answer public and regulatory issues related to GHG emissions, improve environmental outcomes, and benefit from time-saving protocols.

Guide to Public-Private Partnerships and Non-Standard Procurements (C12)

As State governments face budget gaps and revenue shortfalls, interest in tolling and the use of public-private partnerships (P3) procurement strategies to deliver highway improvements continues to grow. Private funds are attractive in situations where public funding limitations would not allow a desired transportation project to be built for many years and the revenue-generating potential of a facility is deemed feasible. There are many combinations of partnerships and delivery options and a variety of State laws governing the use of these techniques, resulting in considerable confusion in how they should be considered in the fiscally constrained public transportation planning, programming, environmental review, and decision processes. C12 provides a business process to help determine when and how to consider private-sector participation in the project planning process. The report addresses tolling, design-build, design-build-operate, leasing, and other forms of private-sector involvement and helps assess how and when to consider P3s as a means to procure transportation improvements.

Integrating Freight Considerations into the Highway Capacity Planning Process (C15)

Freight transport capacity demands are continuing to grow. When transportation agencies act to improve capacity, often the economics of freight supply chains and how the movement of freight is likely to react to capacity improvements are not part of planning and engineering. Planning and engineering communities need to better understand freight economics and supply chain systems so they can make capacity decisions that benefit goods movement and create economic efficiencies. Planning for and providing highway capacity that serves economic development helps deliver highway projects with local and national benefits. This product is a transportation practitioner's guide that provides a blueprint for appropriate consideration of freight transportation, from international to local, in the highway capacity planning and project development processes, including the key decision points at which freight stakeholder participation is critical for reaching good decisions. The result is a tool to help State DOTs, MPOs, decision-makers, and stakeholders determine the appropriate consideration of freight in planning to provide highway capacity that serves economic development.

Benefits

SHRP2 has developed this bundle of process-focused collaboration tools, so that transportation planners can better address a diverse range of issues early within and throughout the transportation planning, programming, and project decision-making processes (i.e., performance measures, visioning, greenhouse gas emissions analysis, public-private partnerships, and freight considerations). This bundle provides State DOTs, metropolitan planning organizations, and regional planning agencies with process-focused tools and approaches for collaboratively considering these diverse issues at the outset of the transportation planning, programming, and project decision-making processes.

How can you learn more?

Visit: www.fhwa.dot.gov/GoSHRP2

- Additional product information
- Information about how this product is being used in the field
- Contact information for peers who are familiar with this product
- Links to research reports

Contacts

Spencer Stevens (FHWA)
spencer.stevens@dot.gov

Larry Anderson (FHWA)
larry.anderson@dot.gov

Diane Turchetta (FHWA)
diane.turchetta@dot.gov

Matt Hardy (AASHTO)
mhardy@aashto.org

SHRP2 SOLUTIONS

About SHRP2 Implementation

The second Strategic Highway Research Program (SHRP2) is a partnership of the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), and the Transportation Research Board (TRB). TRB completed the research, and now FHWA and AASHTO are jointly implementing the resulting SHRP2 Solutions that will help the transportation community enhance productivity, boost efficiency, increase safety, and improve the reliability of the Nation's highway system.