



# SHRP2 PRODUCT CATALOG

**SAVE LIVES. SAVE MONEY. SAVE TIME.**



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## SHRP2 Solutions at a Glance

Learn more about these products on the GoSHRP2 website at <http://www.fhwa.gov/GoSHRP2>.

PRODUCT#	PRODUCT NAME	FOCUS AREA	CATEGORY
C01	<i>PlanWorks: Better Planning. Better Projects.</i>	Capacity	Planning & Project Delivery
C02/C08/C09/C12	<i>Planning Process Bundle</i>	Capacity	Planning & Project Delivery
C03/C11	<i>EconWorks</i>	Capacity	Planning & Project Delivery
C06	<i>Implementing Eco-Logical</i>	Capacity	Safety & the Environment
C10/C04/C05/C16/C46	<i>TravelWorks</i>	Capacity	Planning & Project Delivery
C19	<i>Expediting Project Delivery</i>	Capacity	Planning & Project Delivery
C20	<i>Freight Demand Modeling and Data Improvement</i>	Capacity	Planning & Project Delivery
L01/L06/L31/L34	<i>Organizing for Reliability</i>	Reliability	System Management & Operations
L02/L05/L07/L08	<i>Reliability Data and Analysis Tools</i>	Reliability	System Management & Operations
L04	<i>Reliability in Simulation and Planning Models</i>	Reliability	System Management & Operations
L12	<i>National Traffic Incident Management Responder Training Program</i>	Reliability	System Management & Operations
L13A	<i>Reliability Data Archive</i>	Reliability	System Management & Operations
L14	<i>Communicating Traveler Info and Estimating Its Value to Travelers</i>	Reliability	System Management & Operations
L17/L13A	<i>Enhanced Knowledge Transfer System</i>	Reliability	System Management & Operations
L36	<i>Regional Operations Forum</i>	Reliability	System Management & Operations
R11	<i>WISE: Work Zone Impacts and Strategies Estimator Software</i>	Reliability	System Management & Operations
R01A	<i>3D Utility Location Data Repository</i>	Renewal	Utilities & Railroads
R01B	<i>Utility Locating Technologies</i>	Renewal	Utilities & Railroads
R15B	<i>Identifying and Managing Utility Conflicts</i>	Renewal	Utilities & Railroads

PRODUCT#	PRODUCT NAME	FOCUS AREA	CATEGORY
R02	<i>GeoTechTools</i>	Renewal	Construction & Pavement
R03	<i>Worker Fatigue Risk Management</i>	Renewal	Construction & Pavement
R04	<i>Innovative Bridge Designs for Rapid Renewal</i>	Renewal	Structures
R05	<i>Precast Concrete Pavement</i>	Renewal	Construction & Pavement
R06A	<i>Nondestructive Testing for Concrete Bridge Decks</i>	Renewal	Structures
R06B	<i>Techniques to Fingerprint Construction Materials</i>	Renewal	Construction & Pavement
R06C	<i>Technologies to Enhance Quality Control on Asphalt Pavements</i>	Renewal	Construction & Pavement
R06D	<i>Advanced Methods to Identify Pavement Delamination</i>	Renewal	Construction & Pavement
R06E	<i>Tools to Improve PCC Pavement Smoothness during Construction</i>	Renewal	Construction & Pavement
R06G	<i>Nondestructive Testing for Tunnel Linings</i>	Renewal	Structures
R07	<i>Performance Specifications for Rapid Renewal</i>	Renewal	Planning & Project Delivery
R09	<i>Managing Risk in Rapid Renewal Projects</i>	Renewal	Planning & Project Delivery
R10	<i>Project Management Strategies for Complex Projects</i>	Renewal	Planning & Project Delivery
R16	<i>Railroad-DOT Mitigation Strategies</i>	Renewal	Utilities & Railroads
R19A	<i>Service Life Design for Bridges</i>	Renewal	Structures
R19B	<i>Service Limit State Design for Bridges</i>	Renewal	Structures
R21	<i>New Composite Pavement Systems</i>	Renewal	Construction & Pavement
R23	<i>Pavement Renewal Solutions</i>	Renewal	Construction & Pavement
R26	<i>Preservation on High-Traffic-Volume Roadways</i>	Renewal	Construction & Pavement
Safety	<i>Concept to Countermeasure – Research to Deployment Using the SHRP2 Safety Data</i>	Safety	Safety & the Environment



# Solutions by Category

## Construction and Pavement

<b>SHRP2 SOLUTION</b>	<b>FOCUS AREA</b>	<b>DESCRIPTION</b>
<b>GeoTechTools (R02)</b>	Renewal	Geotechnology selection guidance and engineering tools for embankment, ground improvement, and pavement support applications.
<b>Worker Fatigue Risk Management (R03)</b>	Renewal	A best practices toolbox that can be used in reducing workforce fatigue on rapid renewal projects.
<b>Precast Concrete Pavement (R05)</b>	Renewal	Tools for using precast concrete pavement (PCP) systems to reduce the duration of construction closures on critical roadways and to provide long-life performance.
<b>Techniques to Fingerprint Construction Materials (R06B)</b>	Renewal	Materials verification without sampling delays.
<b>Technologies to Enhance Quality Control on Asphalt Pavements (R06C)</b>	Renewal	Using infrared (IR) imaging and ground-penetrating radar (GPR) for uniformity measurements on new hot-mix asphalt (HMA) layers.
<b>Advanced Methods to Identify Pavement Delamination (R06D)</b>	Renewal	Nondestructive testing technologies that can detect delamination in hot-mix asphalt (HMA), operate at reasonable travel speed, and cover full lane width.
<b>Tools to Improve PCC Pavement Smoothness During Construction (R06E)</b>	Renewal	Proven technologies to identify surface irregularities that can impact concrete pavement smoothness, and provide opportunity for corrections in real time.
<b>New Composite Pavement Systems (R21)</b>	Renewal	Guidance to designing and constructing long-life composite pavement systems that provide durable, sustainable aggregate surfaces at a potentially lower cost than conventional pavement.
<b>Pavement Renewal Solutions (R23)</b>	Renewal	Guidelines to using existing pavements in-place and achieving long life.
<b>Guidelines for the Preservation of High-Traffic-Volume Roadways (R26)</b>	Renewal	Your guide to the most affordable options for extending pavement life.

## Solutions by Category

### Planning and Project Delivery

SHRP2 SOLUTION	FOCUS AREA	DESCRIPTION
<b>PlanWorks: Better Planning. Better Projects. (C01)</b>	Capacity	Systematic web-based resource that supports collaborative decision making to deliver projects that meet environmental, community, and mobility needs.
<b>TravelWorks (C10/C04/C05/C16/C46)</b>	Capacity	Enhanced models that better account for traveler behavior lead to more informed decisions about highway capacity needs.
<b>EconWorks (C03/C11)</b>	Capacity	Easier-to-use tools for improved economic analysis.
<b>Planning Process Bundle (C02/C08/C09/C12/C15)</b>	Capacity	Techniques and resources for increased collaboration in transportation planning, programming, project development, and decisionmaking.
<b>Expediting Project Delivery (C19)</b>	Capacity	Strategies for addressing or avoiding common constraints to speed delivery of transportation planning and environmental review projects.
<b>Freight Demand Modeling and Data Improvement (C20)</b>	Capacity	A strategic roadmap for making better freight investments.
<b>Performance Specifications for Rapid Renewal (R07)</b>	Renewal	Performance specifications to speed construction, reduce oversight, and encourage innovative approaches.
<b>Managing Risk in Rapid Renewal Projects (R09)</b>	Renewal	Managing and reducing risk in accelerated highway construction projects.
<b>Project Management Strategies for Complex Projects (R10)</b>	Renewal	A more comprehensive, innovative approach to managing complex projects.

### Safety and the Environment

SHRP2 SOLUTION	FOCUS AREA	SOLUTION DESCRIPTION
<b>Implementing Eco-Logical (C06)</b>	Capacity	Better environmental and highway outcomes through integrated planning.
<b>Concept to Countermeasure – Research to Deployment Using the SHRP2 Safety Data</b>	Safety	Analyzing driver behavior to understand the factors contributing to highway crashes.



# Solutions by Category

## Structures

SHRP2 SOLUTION	FOCUS AREA	DESCRIPTION
<b>Innovative Bridge Designs for Rapid Renewal (R04)</b>	Renewal	Standardized plans, designs, and concept to use prefabricated elements to build and replace bridges faster.
<b>Nondestructive Testing for Concrete Bridge Decks (R06A)</b>	Renewal	Better, faster methods for determining concrete bridge deck conditions.
<b>Nondestructive Testing for Tunnel Linings (R06G)</b>	Renewal	Using nondestructive testing technologies to rapidly and comprehensively pinpoint defects in or behind tunnel linings.
<b>Service Life Design for Bridges (R19A)</b>	Renewal	Comprehensive guidance to select and design durable bridge systems and components that are both easier to inspect and better suited to their environments.
<b>Service Limit State Design for Bridges (R19B)</b>	Renewal	A toolkit to assess service limit states more accurately.

## System Management and Operations

SHRP2 SOLUTION	FOCUS AREA	SOLUTION DESCRIPTION
<b>Organizing for Reliability (L01/L06/L31/L34)</b>	Reliability	Improving transportation systems management and operations and fostering more reliable travel times through business and organizational solutions.
<b>Reliability Data and Analysis Tools (L02/L05/L07/L08/C11)</b>	Reliability	A suite of tools to help transportation planners and engineers improve monitoring and analysis of data to achieve more consistent, predictable highway travel.
<b>Reliability in Simulation and Planning Models (L04)</b>	Reliability	Guidance for incorporating reliability performance measures into travel models.
<b>National Traffic Incident Management Responder Training Program (L12/L32A/L32B)</b>	Reliability	Training for safer, faster, stronger, more integrated incident response.
<b>Reliability Data Archive (L13/L13A)</b>	Reliability	A repository that stores the rich data and information from SHRP2 Reliability and Reliability-related projects.
<b>Communicating Traveler Information and Estimating its Value to Travelers (L14)</b>	Reliability	Improving the way agencies communicate with the public.
<b>Framework for Improving Travel-Time Reliability (L17)</b>	Reliability	A framework to implement innovations in systems operations that improve travel-time reliability in the face of growing demand.
<b>Regional Operations Forum (L36)</b>	Reliability	Regional forums expand opportunities to gain expertise and exchange ideas on strategies and technologies for enhancing transportation systems operations.
<b>WISE: Work Zone Impacts and Strategies Estimator Software (R11)</b>	Renewal	An innovative approach and traffic analysis tool for planning work zones earlier to better manage highway reliability and safety across corridors and networks.

# Solutions by Category

## Utilities and Railroads

SHRP2 SOLUTION	FOCUS AREA	SOLUTION DESCRIPTION
<b>3D Utility Location Data Repository (R01A)</b>	Renewal	3D modeling helps agencies design optimum transportation solutions.
<b>Identifying and Managing Utility Conflicts (R15B)</b>	Renewal	Improving cooperation among highway agencies and utilities for faster project delivery.
<b>Utility Locating Technologies (R01B)</b>	Renewal	Advancing technologies to help agencies detect subsurface utilities.
<b>Railroad-DOT Mitigation Strategies (R16)</b>	Renewal	Innovative techniques that streamline processes, coordination, and partnering between transportation agencies and railroads.





TOOLS FOR THE ROAD AHEAD

### For More Information

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