



TRANSPORTATION RESEARCH BOARD

Rail Overview

TRB at a Glance

The mission of the Transportation Research Board (TRB) is to provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal.

A resource to the nation and to the transportation community worldwide, TRB provides an extensive portfolio of services:

- Opportunities for information exchange on current transportation research and practice,
- Management of cooperative research and other research programs,
- Analyses of national transportation policy issues and guidance on federal and other research programs
- Publications and access to research information from around the world.

More info at www.trb.org

TRB's Transportation Research Information Services (TRIS)

TRIS includes the TRB Library and the TRIS Databases (listed below) which are available for free on TRB's website.

The TRB Library provides information services to TRB staff, sponsors, TRB Committee members and panels and researchers. Access to the TRB Library is a benefit to TRB sponsors and TRB committee members.

In cooperation with your State DOT Library or Information Service, the TRB Library provides:

- Reference and research assistance
- Literature searches
- Articles for TRB Committee work

The TRB Library provides training on effective and efficient use of the following TRIS resources:

TRID – The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation
trid.trb.org

Practice Ready Papers (PRP) Database - Papers with information that is ready for immediate implementation or requires minimal additional research or implementation effort.

prp.trb.org

Publications Index (PubsIndex) Database – The papers, articles and reports published by the Transportation Research Board, Highway Research Board, Strategic Highway Research Programs or the Marine Board

pubsindex.trb.org

Research in Progress (RiP) Database – Current or recently completed transportation research projects

rip.trb.org

Research Needs Statements (RNS) – Research needs as identified by TRB Technical Activities standing committees

rns.trb.org

More information about TRIS is available online at: <http://www.trb.org/InformationServices/InformationServices.aspx>

Contact the Library at TRBLibrary@nas.edu or 1 (202) 334-2989

Upcoming Events

- Conferences:
 - June 15, 2016 Portland, Oregon **Use of Scenario Planning in Transportation Planning**
 - June 26, 2016 Houston, Texas **American Society of Civil Engineers (ASCE) 2016 International Conference on Transportation and Development**

Information continues behind



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- September 4, 2016 Guimarães, Portugal **3rd International Conference on Transportation Geotechnics**
- Webinars:
View TRB webinars here: <http://www.trb.org/ElectronicSessions/ConferenceRecordings.aspx>

Technical Committees

- Standing Committees:
 - Highway/Rail Grade Crossings (AHB60)
 - Commuter Rail Transportation (AP070)
 - Rail Group (AR000)
 - Intercity Passenger Rail (AR010)
 - Passenger Rail Equipment and Systems Integration (AR020)
 - Railroad Operating Technologies (AR030)
 - Freight Rail Transportation (AR040)
 - Railroad Track Structure System Design (AR050)
 - Rail Transit Infrastructure (AR055)
 - Railway Maintenance (AR060)
 - Railroad Operational Safety (AR070)
 - Freight Transportation Economics and Regulation (AT010)
 - International Trade and Transportation (AT020)
 - Agricultural Transportation (AT030)
 - Military Transportation (AT035)
 - Transportation of Hazardous Materials (AT040)
 - Intermodal Freight Transport (AT045)
 - Intermodal Freight Terminal Design and Operations (AT050)
- Council:
 - Young Member Council (A0040T)

To become Friend of any committee visit MyTRB.org

Policy Study Committees

- Evaluation of the Federal Railroad Administration Research and Development Program (B0137)
- Committee for Study of Freight Rail Transportation and Regulation (B0139)
- Transportation Safety IDEA Program Committee (E1008)

Cooperative Research Program (CRP)

- TCRP Reports
 - TCRP Report, Issue: 175 - Guidebook on Pedestrian Crossings of Public Transit Rail Services.
 - TCRP Report, Issue 155 - Track Design Handbook for Light Rail Transit, Second Edition.
- TCRP Web Documents
 - TCRP Web Document, Issue: 64 - Performance Based Track Geometry Phase 2.
 - TCRP Web Document, Issue: 65 - Wheel Profile Maintenance Guidelines.
- TRANSIT-IDEA Program Reports
 - TRANSIT-IDEA Program Project Final Report - Diesel-Electric Locomotive Energy Recovery and Conversion.
 - TRANSIT-IDEA Program Project Final Report - Intercity Transit Trip Planning Web Application.
 - TRANSIT-IDEA Program Project Final Report - Handheld Wheel Flaw Detection Device: Noncontact Electronic Wheel Gauge (NEWG).



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- HMCRRP Reports
 - HMCRRP Report, Issue: 13 - Test Procedures and Classification Criteria for Release of Toxic Gases from Water-Reactive Materials.
 - HMCRRP Report, Issue: 6 - Feasibility of a Consolidated Security Credential for Persons Who Transport Hazardous Materials.
 - HMCRRP Report, Issue: 5 - A Guide for Assessing Community Emergency Response Needs and Capabilities for Hazardous Materials Releases.
 - HMCRRP Report, Issue: 4 - Emerging Technologies Applicable to Hazardous Materials Transportation Safety and Security.
- Safety IDEA Program Reports
 - Safety IDEA Program Project Final Report, Issue: 22 - Laser Cladding of Welds to Improve Railroad Track Safety.
 - Safety IDEA Program Project Final Report - Materials with Improved Absorption of Collision Forces for Railroad Cars.
 - Safety IDEA Program Project Final Report - Reducing Wheel Climb at Switch Points to Reduce Derailments.
 - Safety IDEA Program Project Final Report - Rail Vehicle Bearing Defects Detection.
 - Safety IDEA Program Project Final Report - Determination of Longitudinal Stress in Rails.
- Transportation Research Board Special Reports
 - Transportation Research Board Special Report, Issue 318 - Modernizing Freight Rail Regulation.
 - Transportation Research Board Special Report, Issue 316 - Evaluation of the Federal Railroad Administration Research and Development Program.
 - Transportation Research Board Special Report, Issue: 313 - Framing Surface Transportation Research for the Nation's Future.
- NCFRP Reports
 - NCFRP Report, Issue: 27 - Web-Based Screening Tool for Shared-Use Rail Corridors.
 - NCFRP Report, Issue: 12 - Framework and Tools for Estimating Benefits of Specific Freight Network Investments.
 - NCFRP Report, Issue: 10 - Performance Measures for Freight Transportation.
- NCHRP Reports
 - NCHRP Report, Issue: 773 - Capacity Modeling Guidebook for Shared-Use Passenger and Freight Rail Operations.
 - NCHRP Report, Issue: 755 - Comprehensive Costs of Highway-Rail Grade Crossing Crashes.
- Transportation Research E-Circulars
 - Transportation Research E-Circular, Issue: E-C193 - Surface Transportation Financing: Innovation, Experimentation, and Exploration. Summary of the Fifth International Conference, July 9–11, 2014, Arnold and Mabel Beckman Conference Center, Irvine, California.
 - Transportation Research E-Circular, Issue: E-C159 - Teamwork in U.S. Railroad Operations: A Conference, April 23-24, 2009, Irvine, California.
- Other Recent Reports
 - NCFRP Report, Issue: 1 - Alternative Funding and Financing Mechanisms for Passenger and Freight Rail Projects.
 - NCFRP Legal Research Digest, Issue: 1 - Buy America Requirements for Federally Funded Rail Projects.
 - ACRP Report, Issue: 118 - Integrating Aviation and Passenger Rail Planning.
 - NCFRP Research Results Digest, Issue: 1 - A Potential Strategic Plan and Research Agenda for the National

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Cooperative Rail Research Program.

- TCRP Synthesis of Transit Practice, Issue: 107 - Rail Transit Track Inspection Practices.
- ACRP Synthesis of Airport Practice, Issue: 43 - Environmental Assessment of Air and High-Speed Rail Corridors.
- NCHRP Synthesis of Highway Practice, Issue: 428 - Practices and Procedures for Site-Specific Evaluations of Earthquake Ground Motions.
- Transportation Research Board - Committee for Review of the Federal Railroad Administration (FRA) Research, Development, and Demonstration Programs Letter Report: May 31, 2012.
- Current research
 - Proposed LRFD Bridge Design Specifications for Light Rail Transit Loads (NCHRP 12-92)
 - Traffic Signal Preemption at Intesections near Highway-Rail Grade Crossings (NCHRP Synthesis 20-05/Topic 47-15)
 - Comparison of Passenger Rail Energy Consumption with Competing Modes (NCRRP 02-01)
 - Intercity Passenger Rail Service and Development Guide (NCRRP 03-01)
 - Intercity Passenger Rail in the Context of Dynamic Travel Markets (NCRRP 03-02)
 - Building and Retaining Workforce Capacity for the Railroad Industry (NCRRP 06-01)
 - Developing Multi-State Institutions to Implement Intercity Passenger Rail Programs (NCRRP 07-02)
 - Inventory of State Passenger and Freight Rail Programs (NCRRP 07-03)
 - Legal Aspects of Rail Programs (NCRRP 12-01)
 - Safety IDEA Project 25 Dynamic Impact Factors on Existing Long-Span Steel Truss Railroad Bridges
 - Tools for Communicating Railroad-DOT Mitigation Strategies (SHRP 2 R16(B))
 - Manual to Improve Rail Transit Safety at Platform/Train and Platform/Guideway Interfaces (TCRP A-40)
 - Joint Rail Transit Research with the Association of American Railroads/Transportation Technology Center, Inc. (TCRP D-07)
 - Improving the Safety and Sustainability of Stray Current Control of DC-Powered Rail Transit Systems (TCRP D-16)
 - Contracting Commuter Rail Services (TCRP G-14)
 - Development of a Prototype Retrofit Bumper for Improved Light Rail Vehicle (LRV) Safety (Transit IDEA J-04/IDEA 77)
 - Rail Neutral Temperature Monitoring for Rail Transit (Transit IDEA J-04/IDEA 78)
- Upcoming projects
 - Prioritization Procedure for Proposed Road-Rail Grade Separation Projects along Specific Rail Corridors (NCHRP 25-50)

Panel Member nominations accepted (<http://www.trb.org/TCRP/CRPInfoPanelMembers.aspx>)



Second Strategic Highway Research Program (SHRP 2)

- **Safety Research**

The SHRP 2 Safety study collected an unprecedented amount of objective data on driver behavior. Its analysis will provide a clearer understanding of the causes of crashes and what can be done to avoid them. Analysis of the SHRP 2 Safety data will prevent injuries and save thousands of lives. More information about the data and about data access is available through the [InSight website](https://insight.shrp2nds.us/) (<https://insight.shrp2nds.us/>).

- **Renewal Research**

SHRP 2 Renewal research filled gaps in research and development to produce user-friendly tools so that innovative design and construction methods can be applied more broadly. It tested and objectively evaluated alternative methods to provide transportation agencies with information they need to deliver projects faster. Renewal research products simplified access to information on successful practices in performance specs, utilities, and interaction with railroads, which can speed project delivery and address causes of delay.

- **Reliability Research**

SHRP 2 Reliability research advanced the state of the practice of transportation system management and operations (TSM&O) and helped build a TSM&O profession. It provided the foundational tools for transportation agencies to address system reliability, both organizationally and analytically.

- **Capacity Research**

SHRP 2 Capacity research identified keys to success in planning and obtaining approvals for complex transportation projects. It demonstrated how to systematically apply that knowledge to increase the probability of success and the timely delivery of projects through the planning, NEPA, and permitting processes. Most products of the research are available in [PlanWorks](http://www.fhwa.dot.gov/goshrp2/Solutions/Capacity/C01/PlanWorks_Better_planning_Better_projects) (http://www.fhwa.dot.gov/goshrp2/Solutions/Capacity/C01/PlanWorks_Better_planning_Better_projects).

- SHRP 2 Report - Project Management Strategies for Complex Projects: Case Study Report.