



TRANSPORTATION RESEARCH BOARD

TRB Snap Search: Maintenance & Preservation

TRB's involvement in research on Maintenance & Preservation from 2018-2019

The [Transportation Research Board \(TRB\)](#) provides innovative, research-based solutions to improve how we move. TRB is part of the National Academies of Sciences, Engineering, and Medicine, an independent, non-profit institution that provides objective advice on scientific, engineering, and medical issues.

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

TRB Research

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

- Click here to view [search results](#) on TRB published research on Maintenance & Preservation within the past year.

Subject Webpage

- [Maintenance & Preservation Research at TRB](#)

Recent Reports & Publications

- [Airport Cooperative Research Program \(ACRP\)](#)
 - [Report 155](#) - Guidebook for Advanced Computerized Maintenance Management System Integration at Airports
 - [Synthesis 86](#) - Airport Operator Options for Delivery of FBO Services
- [IDEA Safety Projects](#)
 - [Report 32](#) - Railroad Bridge Inspections for Maintenance and Replacement Prioritization Using Unmanned Aerial Vehicles (UAVs) with Laser Scanning Capabilities
- [Letter Reports](#)
 - [Long-Term Infrastructure Program](#) - Letter Report: January 23, 2018
- [National Cooperative Highway Research Program \(NCHRP\)](#)
 - [Report 879](#) - Optimal Replacement Cycles of Highway Operations Equipment
 - [Report 858](#) - Quantifying the Effects of Preservation Treatments on Pavement Performance
 - [Synthesis 530](#) - Construction and Rehabilitation of Concrete Pavements Under Traffic
 - [Synthesis 525](#) - Practices in One-Lane Traffic Control on a Two-Lane Rural Highway
 - [Synthesis 521](#) - Investment Prioritization Methods for Low-Volume Roads
 - [Synthesis 517](#) - Corrosion Prevention for Extending the Service Life of Steel Bridges
 - [Web-Only Document 257](#) - A Mechanistic-Empirical Model for Top-Down Cracking of Asphalt Pavements Layers
 - [Web-Only Document 251](#) - Spot Painting to Extend Highway Bridge Coating Life: Volume 1: Guidance
 - [Web-Only Document 251](#) - Spot Painting to Extend Highway Bridge Coating Life: Volume 2: Research Overview
- [TRB Special Reports](#)
 - [Report 323](#) - In-Service Performance Evaluation of Guardrail End Treatments
- [Transportation Research Circulars](#)
 - [E-Circular 228](#) - Rebuilding and Retrofitting the Transportation Infrastructure

Current & Upcoming Projects

- [Current Projects](#)
 - [ACRP 02-87](#) - Determining Airfield Pavement Deicer and Anti-Icer Contributions to Airport Stormwater
 - [ACRP 09-15](#) - Building Information Modeling (BIM) Beyond Design
 - [ACRP 09-16](#) - Best Practices for Airport Obstruction Management
 - [ACRP 09-17](#) - Collecting, Applying, and Maintaining Pavement Condition Data at Airports

- [ACRP 11-02/Task 29](#) - Research Roadmap in the Area of Airport Operations and Maintenance
- [NCHRP 01-61](#) - Evaluation of Bonded Concrete Overlays on Asphalt Pavements
- [NCHRP 12-115](#) - Guidelines for Risk-Based Inspection and Strength Evaluation of Suspension Bridge Main Cable Systems
- [NCHRP 13-07](#) - Guide to Calculating Ownership and Operating Costs of Department of Transportation Vehicle and Equipment Fleet
- [NCHRP 14-36](#) - Proposed AASHTO Guide for Bridge Preservation Actions
- [NCHRP 14-41](#) - Permanent Vegetation Control Treatments for Roadsides
- [NCHRP 20-07/Task 380](#) - Proposed AASHTO Manual for the Maintenance of Roadways and Bridges
- [NCHRP 20-24\(124\)](#) - Performance Management Reporting Peer Exchange
- [NCHRP 20-50\(18\)](#) - LTPP Data Analysis: Significance of As-Constructed Asphalt Pavement Air Voids to Pavement Performance
- [NCHRP 20-50\(19\)](#) - LTPP Data Analysis: Feasibility of Using LTPP Data to Develop Relationships Between Laboratory- and Field-Derived Properties of Unbound Materials
- [NCHRP 20-83\(03\)A](#) - Long-Range Strategic Issues Affecting Preservation, Maintenance, and Renewal of Highway Infrastructure
- [NCHRP 15-50\(01\)](#) - Implementation Assessment of 3R Design Guidelines
- [NCHRP IDEA 20-30/IDEA 200](#) - Rapid Rehabilitation of Highway Slopes using Seeded Microbial Bio-Cement
- [NCHRP IDEA 20-30/IDEA 202](#) - Vertical Impedance Scanner for Concrete Bridge Deck Assessment without Direct Rebar Attachment
- [NCHRP IDEA 20-30/IDEA 204](#) - Biomimetic Antifreeze Polymers: A Novel Biodegradable Deicing Salt Alternative
- [NCHRP IDEA 20-30/IDEA 205](#) - MRI Bridge Analysis and Multi-Modal Imaging Using Optimal Multi-Coil Resonant Coupling
- [NCHRP IDEA 20-30/IDEA 208](#) - Determining Bridge Deck Chloride Quantities with Ground Penetrating Radar
- [NCHRP Synthesis 20-05/Topic 49-04](#) - Very Short Duration Work Zone Safety for Maintenance and other Activities
- [NCHRP Synthesis 20-05/Topic 49-06](#) - Design and Maintenance Practices for Urban Freeway Roadside Vegetation
- [NCHRP Synthesis 20-05/Topic 50-09](#) - Performance Based Pavement Warranty Practices
- [NCHRP Synthesis 20-05/Topic 50-13](#) - Estimating and Contracting Rock Slope Scaling Adjacent to Highways
- [NCHRP Synthesis 20-05/Topic 50-15](#) - Asset Management Approaches to Identifying and Evaluating Assets Damaged Due to Emergency Events
- [TCRP E-12](#) - Guidance for Calculating the Return on Investment in Transit State of Good Repair
- [Upcoming Projects](#)
 - [ACRP 09-18](#) - Rapid Airfield Concrete Pavement Slab Replacement and Patching
 - [ACRP 09-19](#) - Airfield Pavement Markings - Effective Techniques for Removal and Temporary Applications
 - [NCHRP 02-26](#) - Implementation of Life-Cycle Planning Analysis in a Transportation Asset Management Framework
 - [NCHRP 06-18](#) - Guide for Snow and Ice Control Operations
 - [NCHRP 10-102](#) - A Guidebook for Risk-Based Construction Inspection
 - [NCHRP 13-08](#) - Guideline for Decision Making for Repair vs. Replacement of Highway Maintenance Equipment
 - [NCHRP 14-42](#) - Determining the Impact of Connected and Automated Vehicle Technology on State DOT Maintenance Programs
 - [NCHRP 20-44\(05\)](#) - Dissemination of "NCHRP Domestic Scan 14-01: Leading Management Practices in Determining Funding Levels for Maintenance and Preservation"
 - [NCHRP 20-50\(17\)](#) - LTPP Data Analysis: Consequences of Deferred Treatment of Pavement Preservation Treatment Placement on Asphalt Concrete, Portland Cement Concrete and Composite Pavement Structures
 - [TCRP C-24](#) - Transit Traction Power Cables: Replacement Guidelines
 - [TCRP J-05/Topic 18-05](#) - Fix It, Sign It, or Close It: State of Good Repair in an Era of Budget Constraints

Reports from the [National Academies Press](#) on Maintenance & Preservation

- [In-Time Aviation Safety Management - Challenges and Research for an Evolving Aviation System](#)
- [High-Performance Bolting Technology for Offshore Oil and Natural Gas Operations](#)
- [Bolting Reliability for Offshore Oil and Natural Gas Operations](#)

Committees & Panels

[Sign-up to be a committee "Friend"](#)

[TRB Standing Committees](#) – Search by transportation mode and committee topic

- [AFD10](#) - Pavement Management Systems
- [AFD20](#) - Pavement Condition Evaluation
- [AFF40](#) - Testing and Evaluation of Transportation Structures

- [AFH60](#) - Asphalt Pavement Construction and Rehabilitation
- [AFP50](#) - Seasonal Climatic Effects on Transportation Infrastructure
- [AH000](#) - Operations and Preservation Group
- [AH010](#) - Surface Transportation Weather
- [AHB55](#) - Work Zone Traffic Control
- [AHD00](#) - Maintenance and Preservation
- [AHD10](#) - Maintenance and Operations Management
- [AHD15](#) - Maintenance and Operations Personnel
- [AHD18](#) - Pavement Preservation
- [AHD20](#) - Pavement Maintenance
- [AHD25](#) - Sealants and Fillers for Joints and Cracks
- [AHD30](#) - Structures Maintenance
- [AHD35](#) - Bridge Management
- [AHD37](#) - Bridge Preservation
- [AHD40](#) - Polymer Concretes, Adhesives, and Sealers
- [AHD45](#) - Corrosion
- [AHD50](#) - Roadside Maintenance Operations
- [AHD55](#) - Signing and Marking Materials
- [AHD60](#) - Maintenance Equipment
- [AHD65](#) - Winter Maintenance
- [AR060](#) - Railway Maintenance

Task Forces - Search for *task force* under committee here

CRP Panels

- [Project Panels Related to Maintenance & Preservation](#)

Councils

- [A0040T](#) – Young Member Council

Recent and Upcoming Events

Upcoming Conferences- Left hand menu “upcoming conferences by topic”
(*Conferences cosponsored by TRB are denoted with an asterisk.*)

[Ninth International Conference on Structural Health Monitoring of Intelligent Infrastructure \(SHMII-9\)*](#)

August 4-7, 2019

St. Louis, Missouri

[12th TRB International Conference on Low-Volume Roads](#)

September 15-18, 2019

Kalispell, Montana

Webinars – View upcoming webinars, suggest a webinar or add registration information

Past Webinars

- [Maintenance and Preservation](#)

TRB’s Transportation Research Information Services (TRIS)

TRIS includes the [TRB Library](#) and the [TRIS Databases](#) (listed below) which are available 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

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