



TRANSPORTATION RESEARCH BOARD

TRB Snap Search: Bridges & Other Structures

TRB's involvement in research on Bridges & Other Structures from 2017-2018

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 Bridges & Other Structures within the past year.

Subject Webpage

- [Bridges & Other Structures Research at TRB](#)

Recent Reports & Publications

- [National Cooperative Highway Research Program \(NCHRP\)](#)
 - [Report 859](#) - Consequences of Delayed Maintenance of Highway Assets
 - [Report 851](#) - Proposed AASHTO LRFD Bridge Design Specifications for Light Rail Transit Loads
 - [Report 849](#) - Strand Debonding for Pretensioned Girders
 - [Report 848](#) - Inspection Guidelines for Bridge Post-Tensioning and Stay Cable Systems Using NDE Methods
 - [Report 836](#) - Guidelines for Emergency Ventilation Smoke Control in Roadway Tunnels
 - [Synthesis 512](#) - Use of Fiber-Reinforced Polymers in Highway Infrastructure
 - [Synthesis 505](#) - Current Practices and Guidelines for the Reuse of Bridge Foundations
 - [Synthesis 500](#) - Control of Concrete Cracking in Bridges
- [Transportation Research Circulars](#)
 - [E-Circular 224](#) - Eleventh International Bridge and Structures Management Conference
- [Transportation Research Record: Journal of the Transportation Research Board](#)
 - [Volume 2656](#) - Geological, Geoenvironmental, and Geotechnical Engineering, Vol. 2
 - [Volume 2642](#) - Structures
 - [Volume 2630](#) - Construction
 - [Volume 2629](#) - Concrete Materials
 - [Volume 2612](#) - Maintenance and Preservation

Current & Upcoming Projects

- [Current Projects](#)
 - [NCHRP 10-94](#) - Mitigation of Weldment Cracking of Highway Steel Structures due to the Galvanizing Process
 - [NCHRP 10-95A](#) - Toughness Requirements for Heat-Affected Zones of Welded Structural Steels for Highway Bridges
 - [NCHRP 10-97](#) - Detection and Remediation of Soluble Salt Contamination Prior to Coating Steel Highway Structures
 - [NCHRP 12-102](#) - Recommended AASHTO Guide Specification for ABC Design and Construction
 - [NCHRP 12-103](#) - Bridge Superstructure Tolerance to Total and Differential Foundation Movements
 - [NCHRP 12-104](#) - Guidelines to Improve the Quality of Element-Level Bridge Inspection Data
 - [NCHRP 12-105](#) - Proposed AASHTO Seismic Specifications for ABC Column Connections
 - [NCHRP 12-106](#) - Proposed Guidelines for Performance-Based Seismic Bridge Design
 - [NCHRP 12-108](#) - Guide Specification for Service Life Design of Highway Bridges
 - [NCHRP 12-109](#) - Use of 0.7-in. Diameter Strands in Precast Pretensioned Girders
 - [NCHRP 12-110](#) - Proposed New AASHTO Load Rating Provisions for Implements of Husbandry

- [NCHRP 12-111](#) - Evaluating the Effectiveness of Vibration-Mitigation Devices for Structural Supports of Signs, Luminaires, and Traffic Signals
- [NCHRP 12-112](#) - Update of the AASHTO LRFD Movable Highway Bridge Design Specifications
- [NCHRP 12-113](#) - Proposed Modification to AASHTO Cross-Frame Analysis and Design
- [NCHRP 12-87A](#) - Fracture-Critical System Analysis for Steel Bridges
- [NCHRP 12-90](#) - Guidelines for Shielding Bridge Piers
- [NCHRP 12-94](#) - LRFD Minimum Flexural Reinforcement Requirements
- [NCHRP 12-96](#) - Simplified Full-Depth Precast Concrete Deck Panel Systems
- [NCHRP 12-97](#) - Guide Specification for the Design of Concrete Bridge Beams Prestressed with CFRP Systems
- [NCHRP 12-98](#) - Recommended Guidelines for Prefabricated Bridge Elements and Systems Tolerances and Dynamic Effects of Bridge Moves
- [NCHRP 14-35](#) - Acceptance Criteria of Complete Joint Penetration Steel Bridge Welds Evaluated Using Enhanced Ultrasonic Methods
- [NCHRP 14-36](#) - Proposed AASHTO Guide for Bridge Preservation Actions
- [NCHRP 15-53](#) - Roadside Barrier Designs Near Bridge Ends with Restricted Rights of Way
- [NCHRP 18-18](#) - Design and Construction of Deck Bulb Tee Girder Bridges with UHPC
- [NCHRP 20-07/Task 380](#) - Proposed AASHTO Manual for the Maintenance of Roadways and Bridges
- [NCHRP 20-07/Task 388](#) - Guidelines for Design and Construction of Temporary Bridges
- [NCHRP 20-07/Task 395](#) - MASH Equivalency of NCHRP 350-Approved Bridge Railings
- [NCHRP 20-07/Task 397](#) - Characteristics of Decommissioned Bridges
- [NCHRP 20-07/Task 399](#) - Identifying Bridge Maintenance and Preservation Activities which Minimize Environmental Impact
- [NCHRP IDEA 20-30/IDEA 183](#) - A Radiofrequency Identification (RFID) Detection System for Assessing Scour Countermeasures and the Stability of Hydraulic Structures
- [NCHRP IDEA 20-30/IDEA 188](#) - A Class of V-Connectors for Bridge Deck-Pier and Pier-Footing Joints with Combined Advantage of Integrated Design and Seismic Isolation while Enabling ABC
- [NCHRP IDEA 20-30/IDEA 189](#) - A Novel Vision Sensor for Remote Measurement of Bridge Displacement
- [NCHRP IDEA 20-30/IDEA 191](#) - Testing of In-Service Bridges Using Automated Ultrasonic Testing Methods
- [NCHRP IDEA 20-30/IDEA 196](#) - Smart Installation and Monitoring System for Large Anchor Bolts of Support Structure for Highway Signs, Luminaires, and Traffic Signals
- [NCHRP Synthesis 20-05/Topic 48-03](#) - Corrosion Protection for Extending Steel Bridge Service Life
- [NCHRP Synthesis 20-05/Topic 49-12](#) - Seismic Design of Non-conventional Bridges
- [Safety IDEA Project 32](#) - Railroad Bridge Inspections for Maintenance and Replacement Prioritization Using Unmanned Aerial (UAVs) with Laser Scanning Capabilities
- [Safety IDEA Project 35](#) - Non-contact Deflection Monitoring System for Timber Railroad Bridges
- [Upcoming Projects](#)
 - [NCHRP 12-107](#) - Development of Guidelines for Full and Hybrid Use of Stainless Steel for Bridge Girders
 - [NCHRP 12-115](#) - Improving the Guidelines for Inspection and Strength Evaluation of Suspension Bridge Cables
 - [NCHRP 15-67](#) - Improved Methodology to Accurately Determine Wind Drag Coefficients for Highway Signs and Their Support Structures
 - [NCHRP 20-07/Task 330](#) - Waterproofing of Bridge Decks Using Pavement Preservation Products
 - [NCHRP 22-34](#) - Determination of Zone of Intrusion Envelopes under MASH Impact Conditions for Barrier Attachments
 - [NCHRP 22-35](#) - Bridge Rail Testing Program to Confirm MASH Compliance
 - [NCHRP 22-36](#) - Development of the Next Generation, MASH, Portable Concrete Barrier
 - [NCHRP 24-48](#) - Develop a Formula for Determining Scour Depth around Structures in Gravel-bed Rivers

Reports from the [National Academies Press](#) on Bridges & Other Structures

- [Applying Materials State Awareness to Condition-Based Maintenance and System Life Cycle Management: Summary of a Workshop](#)

Committees & Panels

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

[Technical Activities Division Standing Committees](#) – Search by transportation mode and committee topic

- [AF000](#) - Design and Construction Group
- [AFD30](#) - General and Emerging Pavement Design
- [AFF00](#) - Structures
- [AFF10](#) - General Structures
- [AFF20](#) - Steel Bridges

- [AFF30](#) - Concrete Bridges
- [AFF40](#) - Testing and Evaluation of Transportation Structures
- [AFF50](#) - Seismic Design and Performance of Bridges
- [AFF60](#) - Tunnels and Underground Structures
- [AFF70](#) - Culverts and Hydraulic Structures
- [AFF80](#) - Structural Fiber Reinforced Polymers
- [AFH40](#) - Construction of Bridges and Structures
- [AFH70](#) - Fabrication and Inspection of Metal Structures
- [AFN00](#) - Concrete Materials
- [AFN10](#) - Basic Research and Emerging Technologies Related to Concrete
- [AFN20](#) - Properties of Concrete
- [AFN30](#) - Durability of Concrete
- [AFH40](#) - Concrete Materials and Placement Techniques
- [AFS30](#) - Foundations of Bridges and Other Structures
- [AFS40](#) - Subsurface Soil-Structure Interaction
- [AFD30](#) - Structures Maintenance
- [AHD35](#) - Bridge Management
- [AHD37](#) - Bridge Preservation
- [AHD45](#) - Corrosion
- [AR050](#) - Railroad Track Structure System Design
- [B0024](#) – Research and Technology Coordinating Committee
- [B0147](#) – Bridge Data Analysis Working Group

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

- [AB020T](#) – Value of Transportation Infrastructure

CRP Panels

- [Project Panels Related to Bridges and Other Structures](#)

Councils

- [A0040T](#) – Young Member Council

Recent and Upcoming Events

[Conferences \(co-sponsored by TRB\)](#) - Left hand menu “upcoming conferences by topic”

[Transport Research Arena 2018*](#)

April 16-19, 2018

Vienna, Austria

[3rd International Conference on Transportation Infrastructure and Materials*](#)

June 1-4, 2018

Tianjin, China

[9th International Conference on Bridge Maintenance, Safety and Management](#)

July 9-13, 2018

Melbourne, Australia

[GeoMEast International Conference 2018: "Sustainable Civil Infrastructures: Structural Integrity"*](#)

November 24-28, 2018

Cairo, Egypt

[Webinars](#) – View upcoming webinars, suggest a webinar or add registration information

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

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