TRB Snap Search: Pavement Design

TRB’s involvement in research on Pavement Design from 2021-2022

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

All available Snap Searches can be accessed online here: http://www.trb.org/InformationServices/Snap.aspx

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 Pavement Design within the past year.

Subject Webpage

- Design Research at TRB
- Pavement Research at TRB

Specialty Reports

- Critical Issues in Transportation 2019
- COVID-19 Addendum to Critical Issues in Transportation
- Racial Equity Addendum to Critical Issues in Transportation

Recent Reports & Publications

- National Cooperative Highway Research Program (NCHRP)
  - Report 967 - Asphalt Binder Aging Methods to Accurately Reflect Mixture Aging
  - Report 964 - Protocols for Network-Level Macrotexture Measurement
  - Synthesis 553 - Performance-Based Pavement Warranty Practices
  - Synthesis 574 - Temporary Pavement Markings Placement and Removal Practices in Work Zones
  - Web-Only Document 305 - Validation of a Performance-Based Mix Design Method for Porous Friction Courses

- Transportation Research Circulars
  - E-Circular 251 - Relationship Between Laboratory Cracking Tests and Field Performance of Asphalt Mixtures
  - E-Circular 248 - 12th International Conference on Low-Volume Roads

Current & Upcoming Projects

- Current Projects
  - NCHRP 01-54 - Guidelines for Limiting Damage to Flexible and Composite Pavements Due to the Presence of Water
  - NCHRP 01-58 - Quantifying the Effects of Implements of Husbandry on Pavements
  - NCHRP 01-59 - Proposed Enhancements to Pavement ME Design: Improved Consideration of the Influence of Subgrade Soils Susceptible to Shrink/Swell and/or Frost Heave on Pavement Performance
  - NCHRP 01-60 - Measuring the Characteristics of Pavement Surface Images and Developing Standard Practices for Calibration, Certification, and Verification of Imaging Systems
  - NCHRP 01-61 - Evaluation of Bonded Concrete Overlays on Asphalt Pavements
  - NCHRP 20-44(27) - Facilitating Balanced Mix Design Implementation
  - NCHRP 20-50(20) - LTPP Data Analysis: Develop Tools to Improve Accuracy of Traffic Loading Data Collection

Updated 11/17/2021
- Enhancements of Climatic Inputs and Related Models for Pavement ME Using LTPP Climate Tool (MERRA-2)
- NCHRP IDEA 20-30/IDEA 229 - Lab Dielectric Measurement System for Asphalt Mixture Bulk Specific Gravity Determination
- NCHRP IDEA 20-30/IDEA 224 - Development of an Automated and Rapid Conditioning and Testing Device for Cracking and Rutting
- NCHRP IDEA 20-30/IDEA 232 - Measuring Concrete Permeability with CHIP
- NCHRP IDEA 20-30/IDEA 233 - Development of an Innovative Bio-Mediated Self-Healing Concrete Technology

**Upcoming Projects**
- NCHRP 09-69 - Recommended Procedures for Verifying Material Quantities at Asphalt Mix Plants
- NCHRP 09-68 - Recycled Asphalt Materials: Binder Availability and Its Impact on Mix Performance
- NCHRP 09-67 - New Materials & Technology Deployment in Asphalt Pavement Structural Design
- NCHRP 10-114 - Developing Performance and Safety Specifications for Rejuvenating Seals
- NCHRP 14-48 - Construction Guide Specifications for Pavement Treatments - Sand Seals and Ultra-thin Bonded Surface Treatments

Reports from the [National Academies Press](https://www.nap.edu) on Pavement Design
- Service Life Assessment and Predictive Modeling for an Aging Critical Infrastructure
- Advancing Urban Sustainability in China and the United States
- Frontiers of Engineering - Reports on Leading-Edge Engineering from the 2019 Symposium

**Committees & Panels**

**Sign-up to be a committee "Friend"**

**TRB Standing Committees** - Search by transportation mode and committee topic
- AKM20 - Binders for Flexible Pavement
- AKM30 - Asphalt Materials Selection and Mix Design
- AKP20 - Design and Rehabilitation of Concrete Pavements
- AKP30 - Design and Rehabilitation of Asphalt Pavements

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

**CRP Panels**
- D0153 - NCHRP Project Panel on Proposed Enhancements to Pavement ME Design: Improved Consideration of the Influence of Subgrade and Unbound Layers on Pavement Performance
- D0159 - Proposed Enhancements to Pavement ME Design: Improved Consideration of the Influence of Subgrade Soils Susceptible to Shrink/Swell and/or Frost Heave on Pavement Performance
- D0957 - NCHRP Project Panel on Experimental Design for Field Validation of Laboratory Tests to Assess Cracking Resistance of Asphalt Mixtures
- D0967 - NCHRP Project Panel on New Materials & Technology Deployment in Asphalt Pavement Structural Design

**Councils**
- A001C – Young Members Coordinating Council

**Recent and Upcoming Events**

**Upcoming Conferences** - Left hand menu “upcoming conferences by topic”

*Conferences cosponsored by TRB are denoted with an asterisk.*

**TRB Virtual Careers in Motion Networking Fair**
*December 8, 2021*
*Washington, DC*

**American Society of Civil Engineers (ASCE) Geo-Congress 2022**
*March 20, 2022*
*Charlotte, NC*
International Data Science for Pavements Symposium*
March 22, 2022
Mclean, VA

International Conference on Roundabouts
April 1, 2022
Monterey, CA

International Conference on Accelerated Pavement Testing*
April 3, 2022
Nantes, France

International Conference on Nanotechnology of Cement and Concrete
May 23, 2022
Irvine, CA

International Conference on Managing Pavement Assets (ICMPA)*
June 7, 2022
Chicago, IL

International Conference on the Bearing Capacity of Roads, Railways, and Airfields*
June 28, 2022
Trondheim, Norway

Bridge Engineering Institute Conference*
June 1, 2023
Singapore

Upcoming Events – In the Upcoming Events tab under Types, choose what event you are interested in, search titles by keyword

Past Events - In the Past Events tab under Types, choose what event you are interested in, search titles by keyword

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

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