TRB Snap Search: Pavement Design

TRB's involvement in research on Pavement Design from 2021-2023

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](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 two years.

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

- Airport Cooperative Research Program (ACRP)
  - Report 234 - Rapid Slab Repair and Replacement of Airfield Concrete Pavement

- National Cooperative Highway Research Program (NCHRP)
  - Report 1007 - Evaluation of Bonded Concrete Overlays on Asphalt Pavements
  - Report 973 - Long-Term Aging of Asphalt Mixtures for Performance Testing and Prediction: Phase III Results
  - Report 967 - Asphalt Binder Aging Methods to Accurately Reflect Mixture Aging
  - Report 964 - Protocols for Network-Level Macrotexture Measurement
  - Synthesis 595 - Practices for Assessing and Mitigating the Moisture Susceptibility of Asphalt Pavements
  - Synthesis 574 - Temporary Pavement Markings Placement and Removal Practices in Work Zones
  - Web-Only Document 329 - Bonded Concrete Overlays on Asphalt Pavements: Resources for Evaluation
  - Web-Only Document 305 - Validation of a Performance-Based Mix Design Method for Porous Friction Courses

- Transportation Research Circulars
  - E-Circular 280 - Glossary of Terms for Balanced Design of Asphalt Mixtures

Current & Upcoming Projects

- Current Projects
  - 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 09-69 - Verifying Quantities of Materials Used in Asphalt Mixtures at Production Facilities
  - NCHRP 09-68 - Recycled Asphalt Materials: Binder Availability and Its Impact on Mix Performance
  - NCHRP 14-48 - Guidance for the Construction of Sand Seals and Ultra-thin Bonded Wearing Courses
  - NCHRP 20-50(20) - LTPP Data Analysis: Develop Tools to Improve Accuracy of Traffic Loading Data Collection

Updated 11/16/2022


- **NCHRP 20-50(21)** - 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
- **NCHRP IDEA 20-30/IDEA 235** - High Bond Steel Fibers for Ultra High Performance Concrete (UHPC)
- **NCHRP IDEA 20-30/IDEA 237** - Machine Learning-Based Tool to Predict the Retroreflectivity of Pavement Markings in the U.S.
- **NCHRP IDEA 20-30/IDEA 238** - Low-Cost Sensing System for the Detection and Classification of Super Single Wheel Types and Distribution at the Network Level

- **Upcoming Projects**
  - **NCHRP 01-62** - Impact of Flooding and Inundation on the Resiliency of Pavements
  - **NCHRP 09-67** - New Materials & Technology Deployment in Asphalt Pavement Structural Design
  - **NCHRP 10-114** - Developing Performance and Safety Specifications for Rejuvenating Seals
  - **NCHRP 10-116** - Variability in Pavement Materials and Construction
  - **NCHRP 10-124** - Development of Field Test to Determine Actual Percent Embedment of Chip Seal Aggregate
  - **NCHRP 17-106** - Motorist Behavior and Safety Impacts on Bicyclists from Centerline and Shoulder Rumble Strips on High-Speed Two-Lane Highways

**Reports from the National Academies Press** on Pavement Design
- [Transportation and Infrastructure » Pavements](#)
- [Equitable and Resilient Infrastructure Investments](#)
- [Investing in Resilient Infrastructure in the Gulf of Mexico](#)
- [Service Life Assessment and Predictive Modeling for an Aging Critical Infrastructure](#)

**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
- **B0161** - Review of Federal Highway Administration Infrastructure R&D – Expert Task Group on Pavement

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

**CRP Panels**
- **D0153** - 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** - Experimental Design for Field Validation of Laboratory Tests to Assess Cracking Resistance of Asphalt Mixtures
- **D0967** - New Materials & Technology Deployment in Asphalt Pavement Structural Design
- **SNS5210** - Subsurface Drainage Practices in Pavement Design, Construction, and Maintenance

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

**Recent and Upcoming Events**

**Upcoming TRB Conferences** – Use left hand menu to filter events

- **International Conference on Road Weather and Winter Maintenance**
  - May 9-10, 2023
  - Washington, D.C.

- **TRB International Conference on Low Volume Roads**
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:

- Transportation Research International Documentation (TRID) – trid.trb.org - The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- Transportation Research Thesaurus (TRT) – trt.trb.org - A tool to improve the indexing and retrieval of transportation information.
- Research in Progress (RiP) Database – rip.trb.org - Current or recently completed transportation research projects
- Publications Index (PubsIndex) Database – pubsindex.trb.org - The papers, articles and reports published by the Transportation Research Board, Strategic Highway Research Programs or the Marine Board

Contact or Questions: TRBLibrary@nas.edu