

Pavement

MAY 2026**Project Title:** Technology Transfer Concrete Consortium [TPF-5(437)]**Task Number:** 2746**Start Date:** January 1, 2015**Completion Date:** September 30, 2026**Task Manager:**

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Technology Transfer Concrete Consortium, Phase II [TPF-5(437)]

Identifying and examining new concrete pavement research initiatives to foster new technologies and practices.

WHAT IS THE NEED?

State departments of transportation (DOTs) are challenged to design and build longer-lasting concrete pavements that provide the greatest economic value over the long term for taxpayers and end users. One of the strategies for achieving longer-lasting pavements is to use innovative materials and construction optimization technologies and practices. Led by Iowa DOT, experts from state DOTs, Federal Highway Administration (FHWA), academia and industry collaborate to identify and examine new concrete pavement research initiatives to foster new technologies and practices.

WHAT ARE WE DOING?

The objectives of this pooled-fund study include:

- Identifying and guiding the development and funding of technology transfer materials such as technical brief summaries, web-based courses, and training materials from research activities
- Identifying and instigating needed research projects, and providing research ideas to funding agencies
- Maintaining the Technology Transfer Concrete Consortium (TTCC) pooled fund listserv – a forum for state representatives to post questions to the other state representatives and hear how similar problems or situations have been mitigated – tracking and categorizing the posted problems and discussions
- Developing research problems statements for possible pooled fund projects to address research needs identified by member state representatives
- Acting as a technology exchange forum for the participating entities



DRISI provides solutions and knowledge that improves California's transportation system.

- Contributing to a technology transfer newsletter on concrete pavement research activities

WHAT IS OUR GOAL?

The main goal of this pooled fund project are as follows:

- Identifying needed research projects
- Developing pooled fund initiatives
- Providing a forum for technology exchange between participants
- Developing and funding technology transfer materials
- Providing on-going communication of research needs faced by state agencies to the FHWA, industry, and National Concrete Pavement Technology Center

WHAT IS THE BENEFIT?

The California Department of Transportation (Caltrans) significantly benefits from this project by integrating innovative materials and construction optimization technologies aimed at achieving longer-lasting concrete pavements. The collaboration with other state DOTs, FHWA, academia, and industry will allow Caltrans to stay at the forefront of technological advancements, enhancing the quality and durability of infrastructure. Additionally, through the technology transfer initiatives, Caltrans gains access to cutting-edge research and practical applications, which will improve construction practices and user satisfaction, ultimately leading to more sustainable and cost-effective pavement solutions.

WHAT IS THE PROGRESS TO DATE?

Significant progress continues through sustained research coordination, stakeholder engagement, and technology transfer. The project maintains a steady output of technical deliverables, including guidance documents, technical briefs, and case studies supporting advancements in concrete

pavement materials and practices. Engagement through the National Concrete Consortium (NCC) remains central, with biannual meetings facilitating collaboration among state DOT, FHWA, academia, and industry, and emphasizing blended cements, supplementary materials, and quality assurance/quality control (QA/QC) practices. A laboratory services contract with Braun Intertec is underway to evaluate cementitious materials and mix consistency, with testing initiated. A blended cements initiative is also advancing through a dedicated steering committee. Workshops and publications continue to support knowledge transfer and implementation.