



## ABOUT THIS PROJECT

**PROJECT NAME:** [Performance Centered Concrete Construction](#)

**PROJECT NUMBER:** TPF-5(517)

**PROJECT FUNDING PROGRAM:** Performance Centered Concrete Construction, a 13-state research program

**PROJECTED END DATE:** December 2029

**PROJECT CHAMPION:**  
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# RESEARCH IN PROGRESS

## Ensuring long-term performance of concrete pavements

For the past four years, Iowa DOT and 18 other states, the Federal Highway Administration and the concrete paving industry have collaborated with subject matter experts to develop AASHTO guidance (R101) to specify concrete mixtures. The Performance Centered Concrete Construction (P3C) pooled fund [TPF-5\(517\)](#) will serve as the second phase of this effort.

The goal of the P3C initiative is to develop new processes and technologies to help test and monitor paving concrete after the mixture is created, from transport to curing, to help ensure long-term performance of the pavement.

The project team has met with stakeholders to consider actions that affect sustainable performance. These discussions identified the

following priorities: water content, curing, workability, smoothness, consolidation, air void system, and finish.

Investigators will learn what test methods are available or in development, and, if necessary, develop new tests and technologies to guide practitioners toward better outcomes. Limits and tolerances can be tested in both lab and field demonstrations to help guide the development of additional specifications.

The expected outcome is better technologies and improved process guidance that result in a lower life cycle cost and greater sustainability.

“Specifying this knowledge and identifying tools to support proper testing will help agencies make

decisions that reduce the need to replace concrete, saving money and minimizing road closures,” said Todd Hanson, PCC materials engineer at Iowa DOT’s Construction and Materials Bureau. “Longer pavement life requires fewer work zone interruptions, increasing safety for the traveling public and road workers.”

The research is expected to conclude in December 2029.

*To learn more about this project and subscribe to updates, visit [Idea #3466](#).*

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