

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): IOWA DOT

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # TPF-5(437)	Transportation Pooled Fund Program - Report Period: X Quarter 1 (January 1 – March 31, 2022) Quarter 2 (April 1 – June 30, 2022) Quarter 3 (July 1 – September 30, 2022) Quarter 4 (October 1 – December 31, 2022)	
Project Title: Technology Transfer Concrete Consortium (TTCC) TPF-5(437)		
Project Manager: Khyle Clute	Phone: 239-1471	E-mail: khyle.Clute@dot.iowa.gov
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Lead Agency Project ID:	Other Project ID (i.e., contract #): Addendum 732	Project Start Date: 2/5/20
Original Project End Date:	Contract End Date: 12/31/23	Number of Extensions: Incremental funding, PFS

Project schedule status:

On schedule On revised schedule Ahead of schedule Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Total Percentage of Work Completed
\$797,000	\$325,657	NA

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$44,374	N/A	N/A

Project Description:

Increasingly, state departments of transportation (DOTs) are challenged to design and build longer life concrete pavements that result in a higher level of user satisfaction for the public. One of the strategies for achieving longer life pavements is to use innovative materials and construction optimization technologies and practices. In order to foster new technologies and practices, experts from state DOTs, Federal Highway Administration (FHWA), academia and industry must collaborate to identify and examine new concrete pavement research initiatives. The purpose of this pooled fund project is to identify, support, facilitate and fund concrete research and technology transfer initiatives.

The goal of the TTCC is to:

- Identify needed research projects
- Develop pooled fund initiatives
- Provide a forum for technology exchange between participants
- Develop and fund technology transfer materials
- Provide on-going communication of research needs faced by state agencies to the FHWA, industry, and CP Tech Center

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

- Planning for Spring 2022 at the Embassy Suites in Nashville, April 4-6.
- 2 states have been invited as guests for possible involvement: Delaware and Arkansas
- State reports on the following questions will be discussed at the TTCC Tac meeting on April 6th.
 1. Do your concrete specifications currently allow Blended Cements (ASTM C595/AASHTO M205)?
 2. Does your state consider Type IL cement as an equivalent replacement for ASTM C150 Type I or Type I/II Cement?
 3. Do your concrete specifications allow for the use of ASTM C1157 Cements?
 4. What SCMs does your state currently allow for use?
 5. Do you allow/use any alternative fly ashes?
 6. Does your state allow any alternative cementitious materials (ACMs) that are not based on portland cement clinker for paving or structures?
 7. Besides the materials previously mentioned, does your state allow any other recycled materials in concrete?
 8. Does your Agency have any research either in progress or complete on any of the following materials? Portland Limestone, Non-ASTM C618 fly ash; ground glass; geopolymers; natural pozzolans
 9. Are you experiencing any cement or supplementary cementitious material shortages?
 10. What is your state requiring of mix designs that are switching to Type IL(10) cement?
 11. Do you have a minimum total cement and/or cementitious material content for pavements?
 12. Do you have a minimum total cement and/or cementitious material content for structures?
 13. What are the allowable replacement limits (minimum and/or maximum) for SCMs in your state?
 14. Do you require an optimized aggregate grading for either paving or structural concrete?
 15. Does your state currently have climate change legislation in place that impacts the DOT?
 16. Does your state utilize any of the sustainability rating systems for paving projects?
 17. Does your state utilize any of the pavement lifecycle assessment tools?
 18. Does your state currently have legislation that requires EPDs submittals for state funded projects?
 19. Have concrete suppliers submitted EPDs as part of a mix design submittal?
 20. Does your state currently allow/require the use of carbon sequestration products?
- Winter e-news is available: <https://mailchi.mp/d5400af87b6d/winter-2021-2022-nc2-news>
- MAP brief topic: *Optimizing Concrete Pavement Opening to Traffic*
<https://intrans.iastate.edu/app/uploads/2022/01/MAPbriefWinter2021.pdf>

Anticipated work next quarter (April - June):

- Spring 2022 at the Embassy Suites in Nashville, April 4-6.
- E-news and MAP Brief will be published during the next quarter.

Significant Results:

See <http://www.cptechcenter.org/ncc/TTCC-NCCMeetings.cfm>

Circumstance affecting project or budget (Describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope, and fiscal constraints set forth in the agreement, along with recommended solutions to those problems). N/A

There are 34 TTCC TPF 5(437) TAC member states. Representative attendance varies by meeting.

State & # of Reps		State & # of Reps		State & # of Reps		State & # of Reps		State & # of Reps	
Alabama	2	California	3	Colorado	1	Florida	2	Georgia	4
Idaho	2	Illinois	2	Indiana	4	Iowa	2	Kansas	4
Kentucky	2	Massachusetts	2	Michigan	2	Minnesota	2	Missouri	1
Montana	2	Nebraska	2	Nevada	2	New York	2	North Carolina	2
North Dakota	1	Ohio	2	Oklahoma	2	Oregon	1	Pennsylvania	1
South Carolina	2	South Dakota	2	Tennessee	2	Texas	1	Utah	1
Washington	1	West Virginia	1	Wisconsin	1	Wyoming	1		