



# Progress Report 2003-4

Jim Grove, Center for PCC Pavement Technology

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## TPF-5(066) Material and Construction Optimization for Prevention of Premature Pavement Distress in PCC Pavements

Purpose of Project: To develop optimal mix design and test methods for monitoring Key performance parameters and conduct demonstration tests in participating states.  
<http://www.ctre.iastate.edu/pccpoolfund/>

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### Progress Report:

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| • Project is on schedule                     | Yes |
| • Project is within budget                   | Yes |
| • Significant changes in project description | No  |

### Problems (*current or anticipated*):

- No significant problems encountered.

### Products and tangible results this quarter (*reports/articles written, oral reports/interviews given*):

- The Administrative Procedures Guide was approved at the TAC meeting in October.

### Interaction with Technical Monitor and/or Project Advisory Committee (*brief recount of meetings*):

- Fall conference with the technical advisory committee was held in Ames on October 14th. 18 TAC members, plus 6 individuals from the PCC Center and ISU were present.
- The regular monthly teleconferences with the executive committee were held on November 12th and December 17th.
- Minutes from the monthly meetings and the October TAC meeting are available on the web page.

### Brief summary of this quarter's research:

- The fall TAC meeting was very successful.
- State visits were conducted in six states in October.
- The state visit to Michigan took place on December 10th with 24 attendees including several contractors. Transtec reports the project is on track from their perspective as well.
- Scott Schlorholtz is continuing to work on the suite of tests. The three demo projects in Iowa have provided him with needed data. Plans are being made for next spring's first demo project. Missouri is planning on a paving project on the Avenue of the Saints for June; details on the project and timing will need to be worked out during the winter. Possible projects for Minnesota and Wisconsin are also being discussed.
- The MCO manual research is continuing. The RFP for the technical editor(s) has been sent out; the proposals are due in January. Members for a TASC (technical advisory subcommittee) will be contacted regarding a kick-off meeting during TRB.
- Bob Steffes, formerly of the DOT, began work for the PCC Center as a research engineer on December 1st and will be a good resource for the MCO project. He will be operating as the lab manager and will be instrumental in designing the floor plan for the mobile lab as well as involved next summer on the scheduled testing. In addition, the PCC Center has hired one lab tech and hopes to hire an additional lab tech shortly. These techs will be heavily involved with the MCO project testing, including driving the mobile lab.
- Jim met with Kim Murphy of Carlson's on December 3 to discuss details of the upcoming demo project in Missouri.
- Jim and Bob Steffes visited Featherlite on December 4 to discuss details of the mobile concrete research lab. They visited Kiefer Built, another trailer manufacturer on December 19.

**Expected activities for next quarter:**

- Continue visits to states to gather problem project information as identified on the survey, local test procedures, research information, and input for project development
- Continue the survey of problem projects information from the remaining participating states.
- Complete the field demonstration project evaluation on Iowa projects.
- Continue evaluation of tests and procedures for the suite of tests to be used.
- Select the technical editor(s) for the best practices manual
- Participate in a kick-off meeting for the best practices manual with the editorial team
- Organize and participate in a TASC meeting to discuss the scope of the manual
- Begin planning for the April 13th TAC meeting being held in Madison, Wisconsin.
- Complete evaluation of the lab trailer specifications and order the trailer.
- Identify and begin ordering test equipment needed for the lab trailer.

**Work Progress by Task:**

	Task Description	Expected Completion	% of Task Completed
1	<b>Data Collection</b> Survey of past projects which experienced problems Compile local state testing practice Gather research information	June 2004	50%
2	<b>Test Development</b> Develop suite of tests to measure concrete properties Define test procedures	2006	60%
3	<b>Demonstration projects</b> Demonstrate test procedures on participating state projects Development of protocol for sampling and testing Field verification of laboratory testing and solutions	2006	15%
4	<b>Technology transfer</b> Develop initial standards/guidelines (“Best Practices”) for testing Demonstrate tests and procedures Conduct technology transfer	2007	10%