# State Planning and Research Program Quarterly Report

## **PROJECT TITLE:**

TPF-5 (132) Investigation of Low Temperature Cracking in Asphalt Pavements - Phase II (MnROAD Study)

**OBJECTIVES**: The main objective of this study is to validate the laboratory test procedures, models, and pavement design procedures that come out of Phase I of this study. This will be accomplished by monitoring two new test sections at the Minnesota Road Research Facility (MnROAD). Phase I was aimed at developing a fracture mechanics-based specification for a better selection of asphalt binders and mixtures with respect to their resistance to crack formation and propagation. This fracture mechanics approach will also be used to investigate the detrimental effects of aging and moisture on the fracture resistance of asphalt materials.

PERIOD COVERED:					
January 1, 2008 – March 31, 2008					
PARTICIPATING AGENCIES:					
CT, IA, MN, ND, NY, WI, LRRB					
PROJECT MANAGER:	<b>SP&amp;R PROJECT NO:</b>	PROJECT IS:			
Benjamin Worel					
	TPF-5 (132)	Planning			
LEAD AGENCY:		X Research &			
Mn/DOT		Development			
PRINCIPAL INVESTIGATOR:					
TBD by TAP					
ANNUAL BUDGET:	PROJECT EXPENDITURI	ES TO DATE:			
See page #2 for commitments and obligations	First State Meeting held March 11, 2008				
according to $FMIS = $525,000$ total which	Travel expenses from CT, ND, NY, WI were processed				
included the whole WI commitment.					
WODK COMDI ETED.					

### WORK COMPLETED:

Project was just approved in the forth quarter of 2007

TRB meeting was held to discuss the work plan this January 2008 which helped develop a pooled fund state meeting held in Minnesota March 11, 2008. At this meeting the four universities presented the draft work plan to the states and discussion followed on improvements the states wanted to see before a contract would be developed.

### SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

1. Contract will be started (June 2008?) – Plan on getting the updated work plan in April 20 so 6-8 weeks later a contract can be established.

### **STATUS AND COMPLETION DATES:**

1. Expecting a contract to be developed so contractors can start work during June 2008 depending if the TAP decides to go with the proposed work plan.

#### TPF-5(132) Investigation of Low Temperature Cracking in Asphalt Pavements - Phase II (MnROAD Study) Minnesota Lead State

#### **Commitments & Contacts**

Currently Funding = \$525,000 (only \$445,000 committed\*)

\$450,000 contract + \$20,000 State Travel/Meetings + \$50,000 MnROAD Monitoring Idaho is the only remaining possibility for additional support

	MN	СТ	IA	ND	WI	NY	LRRB	
2007	20,000	10,000	0	20,000	20,000	20,000	50,000	
2008	20,000	10,000	5,000	20,000	0*	20,000	0	
2009	20,000	10,000	5,000	20,000	0*	20,000	0	
2010	20,000	10,000	5,000	20,000	0*	20,000	0	
2011	20,000	10,000	5,000	20,000	0*	20,000	0	
2012	0	0	5,000	0	0	0	0	Totals
Total	100,000	50,000	25,000	100,000	100,000	100,000	50,000	\$525,000
Obligated FMIS as of	0***							
(1/25/08)	503,947**	10,000	0***	20,000	0***	0***	0***	\$50,000
Technical Contacts	Ben Worel <u>Ben.worel @dot.state.mn.us</u>	David Kilpatrick <u>david kilpatrick @po.state.ct.us</u>	John Hinrichsen John.Hinrichsen@dot.iowa.gov	Ron Horner <u>rhorner@state.nd.us</u>	Leonard Makowski <u>leonard.makowski @dot.state.wi.state</u>	Christopher Euler ceuler@dot.state.ny.us	Debra Fick ( <b>need technical lead</b> ) <u>deb.fick@dot.state.mn.us</u>	

\* Wisconsin only commits one year at a time but is in the study fully funded (need to discuss with WI)

\*\* Minnesota is also using its own extra SPR funding for its construction – only 100,000 is available for research study \*\*\* Need to work on State Obligations (get money in the fund)