

RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation
DT1241 4/2010

INSTRUCTIONS:

Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

WisDOT research program category: <input type="checkbox"/> Policy research <input checked="" type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Other <input type="checkbox"/> Pooled fund TPF#		Report period year: 2010 <input type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input checked="" type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)
Project title: HMA Fatigue and Low Temperature Properties to Support MEPDG		
Project investigator: Ramon Bonaquist	Phone: 703-444-4200	E-mail:
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WisDOT contact: Judie Ryan	Phone: 608-246-5456	E-mail:
WisDOT project ID: 0092-10-07	Other project ID:	Project start date: 12/21/2009
Original end date: 6/21/2011	Current end date: 6/21/2011	Number of extensions: 0

Project schedule status:

On schedule
 On revised schedule
 Ahead of schedule
 Behind schedule

Project budget status:

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
\$69,993.00	\$1,147.85	\$2,546.55	3.6%	4

Project description:

The objectives of the proposed research are to (1) establish a range of tensile strength and creep compliance properties for representative Wisconsin HMA mixtures, (2) provide recommendations for using the measured mechanical properties in the MEPDG, and (3) to evaluate the thermal fracture resistance of Wisconsin HMA mixture and recommend appropriate specification changes if warranted. These objectives will be accomplished by characterizing the tensile strength and creep compliance properties of a number of HMA mixtures, summarizing the measured properties, and performing engineering and statistical analysis of the resulting data.

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

Task 1: Experimental Design was completed this Quarter. A letter presenting the proposed experimental design was submitted for review and approval by the Technical Oversight Committee. The experimental design includes obtaining low temperature properties on 16 mixtures from the four aggregate sources used in WRHP Project 0092-06-08. In half of the mixtures, 25 percent of the binder will be replaced with RAP binder from one of the recycled sources identified in WHRP Project 0092-10-06. Half of the mixture will be made with PG 58-28 binder and half with PG 58-28 binder.

A letter was submitted to the WHRP Program Manager to add the University of Wisconsin – Madison as a subconsultant to assist with the collection of materials for the project.

Anticipated work next quarter:

Upon acceptance of the experimental design by the Technical Oversight Committee, materials will be sampled and the laboratory testing will be initiated.

Circumstances affecting project or budget:

None

Attach / insert Gantt chart and other project documentation

FOR WISDOT USE ONLY

Staff receiving QPR:	Date received:
Staff approving QPR:	Date approved:

Table 1. Proposed Experimental Design.

Aggregate Source and Traffic Level	Binder Grade	RAP
Cisler E10	PG 58-28	0
	PG 58-28	25
Cisler E3	PG 58-34	0
	PG 58-34	25
Christian/Gade E3	PG 58-28	0
	PG 58-28	25
Christian/Gade E10	PG 58-34	0
	PG 58-34	25
Glenmore E10	PG 58-28	0
	PG 58-28	25
Glenmore E3	PG 58-34	0
	PG 58-34	25
Wimmie E3	PG 58-28	0
	PG 58-28	25
Wimmie E10	PG 58-34	0
	PG 58-34	25

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Gantt Chart:

Task/Activity	2010												2011											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Task 1: Develop Laboratory Testing Plan	C	C	C																					
Task 2: Laboratory Testing			P	P	P	P	P	P	P	P	P													
Task 3: Data Analysis				P	P	P	P	P	P	P	P													
Task 4: Prepare Tutorial													P											
Task 5: Compile Final Report													P	P	P	P	P	P						
<i>Presentations</i>			P														P							
<i>Quarterly Reports</i>				C			C		P				P			P			P					
<i>Experimental Plan</i>			P																					
<i>Draft Final Report</i>																P								
<i>Revised Final Report</i>																			P					