

# 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.

<b>WisDOT research program category:</b> <input type="checkbox"/> Policy research <input type="checkbox"/> Wisconsin Highway Research Program <input checked="" type="checkbox"/> Other <input type="checkbox"/> Pooled fund TPF#		Report period year: 2011 <input type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input checked="" type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)
Project title: <a href="#">AASHTO Mechanistic-Empirical Pavement Design Guide Parametric Study</a>		
Project investigator: <a href="#">Steven Cramer</a>	Phone: <a href="#">608-265-2001</a>	E-mail: <a href="mailto:cramer@engr.wisc.edu">cramer@engr.wisc.edu</a>
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WisDOT contact: <a href="#">n/a</a>	Phone:	E-mail:
WisDOT project ID: <a href="#">n/a</a>	Other project ID: <a href="#">CFIRE 03-24</a>	Project start date: <a href="#">1/1/2010</a>
Original end date: <a href="#">3/31/2012</a>	Current end date: <a href="#">3/31/2012</a>	Number of extensions: <a href="#">0</a>

**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
\$18,000.00	\$1,036.00	\$15,683	87%	87%

**Project description:**

Higher quality in the construction of roads and highways has motivated the Wisconsin Department of Transportation (WisDOT) to move toward implementation of the new AASHTO Mechanistic-Empirical Pavement Design Guide (MEPDG). This guide is a powerful tool for the design of new and rehabilitation of pavement structures that provides engineers with a set of different models to predict future performance of the pavements. In particular, major contributors to the behavior and durability of the pavement such as climate, traffic, and materials characteristics, are integrated in a set of empirical models to obtain a precise outline of performance and durability of pavements. The potential benefits of using the MEPDG are to provide engineers and contractors with advanced tools, improvements in conservation, management, and conditions for users, and significant economic savings. Recently, the WisDOT contracted with the University of Wisconsin-Madison to begin collecting property information to support the use of this guide for rigid pavements.

This grant will provide a compliment to this study by 1) installing the MEPDG software (available from FHWA) for use within the University, 2) to exercise this software to identify all the required property and data inputs, 3) to make an initial assessment of the most sensitive inputs, 4) provide a written report that documents these findings.

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

The draft report was reviewed and is undergoing revision. Conclusions in the draft report are being reconsidered and refined.

**Anticipated work next quarter:**

Although we expected to complete the final report last quarter, the report needed more revision than expected. The reports i currently being reviewed and will undergo at least one more round of revisions before it is complete.

**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:

ID	Task Name	Duration	Start	Finish	2011												2012											
					a	Jun	Jul	Aug	Se	Oct	No	Dec	Jan	e	Mar	Apr	a	Jun	Jul	Aug	Se	Oct	No	Dec	Jan	Fe		
1	<b>Overall Project</b>	<b>393 days?</b>	<b>Thu 7/1/10</b>	<b>Mon 1/2/12</b>	87%																							
2	Obtain and load MEPDG Program	21 days	Thu 7/1/10	Thu 7/29/10	100%																							
3	Identify Program input and output	80 days	Fri 7/30/10	Thu 11/18/10	100%																							
4	Identify program structure	90 days	Fri 11/19/10	Thu 3/24/11	100%																							
5	Identify input and property sensitivity	120 days	Fri 3/25/11	Thu 9/8/11	100%																							
6	Quarterly progress report #1	1 day?	Fri 10/8/10	Fri 10/8/10	100%																							
7	Quarterly progress report #2	1 day?	Mon 1/3/11	Mon 1/3/11	100%																							
8	Quarterly progress report #3	1 day?	Fri 4/1/11	Fri 4/1/11	100%																							
9	Quarterly progress report #4	1 day?	Fri 7/1/11	Fri 7/1/11	100%																							
10	Quarterly progress report #5	1 day?	Mon 10/3/11	Mon 10/3/11	100%																							
11	Quarterly progress report #6	1 day?	Mon 1/2/12	Mon 1/2/12	100%																							
12	Draft final report	50 days	Fri 9/9/11	Thu 11/17/11	60%																							
13	Review and revise final report	20 days	Fri 11/18/11	Thu 12/15/11																								
14	Submit final report	10 days	Fri 12/16/11	Thu 12/29/11																								

Project: MEPDG CFIRE 071111 Date: Thu 10/6/11	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	