

**Meeting Minutes**  
**Highway Research Steering Committee Meeting**  
**Wisconsin Highway Research Program**  
**Tuesday, December 11, 2007**  
**Truax Building**  
**Antigo Silt and Loam Room, 9:00 – 12:00 pm**

**Attendees**

Nikki Hatch	WisDOT	Kevin McMullen	WCPA
Dan McGuire	WisDOT (TSS)	Jason Bittner	MRUTC/CFIRE (for Teresa Adams) (conf call)
Beth Cannestra	WisDOT (BOS) (conf call)	Wes Shemwell	FHWA
Al Rommel	WisDOT (NE Region) (conf call)	Peg Lafky	WisDOT
Jim Parry	WisDOT (Rigid)	Hussain Bahia	WHRP
Len Makowski	WisDOT (Flex) (conf call)	Andrew Hanz	WHRP
Bob Arndorfer	WisDOT (Geotech)	Pat Casey	CTC and Associates
Travis McDaniel	WisDOT (Structures)		

**I. Steering Committee Quorum Requirements**

Adverse weather conditions and scheduling conflicts prevented many of the voting members of the Steering Committee from attending the meeting. The following is a summary of voting HRSC member and their attendance.

<b>Member</b>	<b>Organization</b>	<b>Attendance</b>
Nikki Hatch (Chair)	WisDOT	X
Rory Rhinesmith	WisDOT	
Don Miller	WisDOT	
Dan McGuire	WisDOT	X
Beth Cannestra	WisDOT	X
Al Rommel	WisDOT	X
Wes Shemwell	FHWA	X
Scot Schwandt	WAPA	
Kevin McMullen	WCPT	X
Matt Grove	WTBA	
Mike Paddock	ACEC	
Teresa Adams (attended by Jason Bittner)	MRUTC/CFIRE	X
Jack Arseneau	WEMA	
Bob Schmitt	UW Platteville	
<b>Total</b>	<b>14</b>	<b>50%</b>

The WHRP Policy Manual dictates that 50% of the voting members are required to be present for a quorum at the TOC level, however, no policy could be found related to Steering Committee quorum. Due to the lack of attendance it was decided that all approvals required in this meeting would be done via email and coordinated by Andrew. For future reference, seven voting members in attendance in person or via conference call constitutes a quorum.

***Action Items***

- Andrew will coordinate approval of all pertinent items via email. Deadlines for approval will be specified in the action items for each agenda item reviewed in this edition of the minutes.
- WHRP to propose a policy be introduced to the procedures manual defining a quorum for the Steering Committee as a majority (>50%) of the voting members present at the meeting in person or via conference call.

**II. Review/Approval of Minutes from August Meeting**

Those in attendance reviewed the August minutes and had no suggested revisions. Formal approval of the August minutes will be solicited via email by Andrew.

***Action Items***

- Andrew will send out the August minutes with the draft version of the December 11<sup>th</sup> meeting minutes and request that any comments or suggested revisions for both sets of minutes be submitted by January 1<sup>st</sup>. If there is no response by that date, WHRP will assume the August minutes are approved.

**III. Review/Approval of FFY 2009 RFPs**

The TOC Chairs presented justification for their FFY 2009 Requests for Proposal, contract amendments, and pooled fund projects. All TOC Chairs attended the meeting in person or via conference call. Table 1 is a summary of the FFY 2009 TOC Commitments. There were a few minor errors in project titles and durations in the table in the original handout, those errors have been corrected in Table 1.

**Table 1: Summary of FFY 2009 TOC Commitments**  
**Flexible Pavements TOC**

Title	Duration (Months)	Estimated Funding
Mixture Evaluation Using Flow Number (Fn) as a Discriminating Property and a Study of Those Materials Parameters Influencing Resultant Fn Values	27	\$125,000.00
Performance Evaluation of Tack Coat Materials	18	\$72,000.00
<b>Total</b>		\$197,000.00
<b>Geotechnical TOC</b>		
Title	Duration (Months)	Estimated Funding
Evaluation of Constructed, Cast-in-Place (CIP) Piling Properties	18	\$90,000.00
Evaluation of the Foundation Movements of Transportation Structures	36	\$110,000.00
<b>Total</b>		\$200,000.00
<b>Rigid Pavements TOC</b>		
Title	Duration (Months)	Estimated Funding
Amendment to 0092-07-02: Detecting Deleterious Fine Particles in Concrete Aggregates and Defining Their Impact	18	\$95,000.00
Performance Evaluation of Open Graded Base Course with Doweled and Nondoweled Transverse Joints on USH 18/151	18	\$50,000.00
Percentage of Fly Ash Replacement Including by Weight and by Volume, Contributing to Performance-based Specifications	12	\$22,000.00
FHWA Pooled Fund Study TPF-5(159), "Technology Transfer Concrete Consortium"	Year 2 of 5	\$5,000.00
Modulus of Elasticity as an AASHTO 200X Input Parameter	12 - addition to scope of 0092-08-08	\$580.00
Pooled Fund Study for Execution of Pavement Mixture Design and Analysis Track of CP Roadmap	Year 1 of 3	\$10,000.00
FHWA Pooled Fund Study TPF-5(1164): Evaluation of Test Methods for Permeability (Transport) and Development of Performance Guidelines for Durability	Year 1 of 2	\$15,000.00
<b>Total</b>		\$197,580.00
<b>Structures</b>		
Title	Duration (Months)	Estimated Funding
Amendment to 0092-04-15: Bridge Integrated Analysis and Decision Support	30	\$60,000.00
New RFP for: 0092-08-14: Fatigue Risks Sign Supports – Phase II	24	\$100,000.00
Concrete Cracking in New Bridge Decks and Overlays	12	\$37,000.00
<b>Total</b>		\$197,000.00
<b>Grand Total</b>		\$791,580.00

Originally, the Structures TOC hoped to process project 0092-08-14 as an amendment, however the TOC was informed by Peg Lafky of RCSS that since the proposed budget exceeded that of the original contract, the project would need to be solicited as an RFP and rebid.

The Steering Committee requested that in the future the RFPs be distributed earlier to allow all members ample opportunity to prepare comments for the meeting.

It was decided that all RFPs should include explicit language regarding the 3 month TOC review period.

The following timeline was established for completion of project selection

- Finalize RFPs and Distribute to HRSC for electronic approval: 12/14/07 – Andrew
- Deadline for HRSC approval of RFPs: 12/21/07
- WHRP Advertise RFPs by January 11<sup>th</sup>.
- Proposals due February 26
- TOC Proposal Review and Selection: February 25<sup>th</sup> – April 4<sup>th</sup>
- TOC Chair Presentation of Project Selection: April 11<sup>th</sup> Steering Committee Meeting

***Action Items:***

- Travis McDaniel will write the RFP for project 0092-08-14 and submit to Andrew by noon on Friday, December 12, 2007.
- Andrew will modify all RFPs submitted to include language regarding consideration of the 3 month TOC review period in project schedules. Language specifying final reporting requirements (40 hard copies, and an electronic copy) were also incorporated into all RFPs. *This task is complete.*
- Andrew is responsible for coordination with the Steering Committee and TOCs to ensure all the deadlines specified above are met.
- WHRP will improve in scheduling to ensure the Steering Committee has one week to review any future RFPs.

**IV. Data Integration TOC Update**

Jim McDonnell was not present so Andrew gave the Data Integration TOC update in his absence. Table 2 provides a summary of Data Integration TOC activities.

**Table 2: Summary of Data Integration TOC Activities**

ID	Title	PI	Agency	Duration (Months)	Date Contract executed	Budget
0092-07-15	Data Integration Peer Exchange	Jim McDonnell	WisDOT	12	May-07	\$9,775.00
0092-07-23	Data Integration for Statewide Transportation Planning	Jessica Y. Guo	UW Madison	17	Sep-07	\$79,989.00
0092-08-16	Evaluation and recommendations for Further Development of the WisDOT Pavement Information Files (PIF) Database	Jagannath Mallela	ARA	18	Dec-07	\$89,999.95
0092-08-17	Development of a Database Framework and Impemementation on Plan for Integrating WisDOT Materials and Construction Databases	Kelly L. Smith	ARA	15	Dec-07	\$79,994.05
<b>Total</b>						\$259,758.00

Table 2 indicates that as of December 1, 2007, all of the research contracts for the Data Integration TOC have been executed. Andrew described how WHRP gave opportunities to the Technical Services and Business Information Sections of WisDOT to review and comment the original workplans by ARA, all comments were addressed before the contracts were processed. Project Oversight committees were developed with representation from BITS, TSS, academia and industry.

Bob Arndorfer mentioned a Geo Tech TOC research idea that was submitted that seemed more appropriate for the Data Integration TOC. This research idea will be brought to the DI TOC in the research needs identification process this summer.

Andrew also spoke for Jim in regards to activities related to the Data Integration Peer Exchange. The new target date for the Peer Exchange is late February to March of 2008, the fall start date was delayed to ensure that the Peer Exchange was scoped correctly and had the correct WisDOT representatives and invitees present. To aide in scoping Jim has been meeting with different sections of WisDOT and academic representatives (Hussain Bahia, Teresa Adams, and Jim Crovetti). Once this scoping effort is complete a meeting with the Peer Exchange Subcommittee will be held to finalize the agenda and invitees. Kim Linsenmayer of CTC is taking the lead on coordinating the event.

***Action Items***

- Project Oversight Committees including membership from many different WisDOT Bureaus, industry, and academia have been formed and will be contacted in the next quarter to hold project kick off meetings.
- WHRP and CTC will work to hold the Peer Exchange.

## V. Report on Implementation Tracking Activities

Andrew presented WHRP's approach to tracking the implementation of completed research projects through analysis conducted for the Rigid TOC. The analysis was in draft form pending TOC approval. A summary of the analysis is provided below.

### **Rigid TOC – Summary of Implementation Efforts**

#### **1. Implementation and Closure Forms**

##### **a. 13 Total Projects Completed**

**b.** 8 Projects have completed forms.

**c.** 5 Draft forms have been prepared by WHRP and are pending TOC approval.

**2. Impact Forms** – Drafts of Impact Forms are being prepared for all projects that are in need. All drafts will be reviewed and approved by the TOC.

#### **3. Results of Implementation**

##### **a. Not Implementable – 2 Projects**

i. (0092-05-06): Research results not implemented due to impending transition to Mechanistic Pavement Design Guide.

ii. (0092-06-03): Research results not implemented due to impending transition to MEPDG. Also validity of research testing results were questioned during close out presentation.

##### **b. Validation of Current Practice – 1 Projects:**

i. (0092-45-16): Research found that none of the methods investigated were feasible for acceptance of field W/C ratio as a pay item.

##### **c. Change in Practice – 2 Projects:**

i. (0092-00-08): Allow longitudinal tining as an option on some roads. WisDOT Standard Specifications 415.3.11.6.3.1. However, further research regarding safety of longitudinal tining was recommended by PI, not pursued by TOC.

ii. (0092-05-05): Modifications were made to specifications related to joint spacing and orientation (415.3.9) and reinforcement (415.3.8).

##### **d. Further Research Activities – 4 Projects:**

i. (0092-00-07): Research to expand the dataset from which to quantify the impacts of aggregate coatings on pavement performance.

ii. (0092-04-12): Further investigation of aggregate coatings to develop a new test method and develop a database of WI aggregates and their cleanliness. The database will be linked to performance.

iii. (0092-02-14a): Further investigate the impacts of the use of Blast Furnace Slag on pavement performance.

iv. (0092-04-11): HIPERPAV training, support, and expansion of models to accurately consider the effects of fly ash. Implementation project turned into a 2 year, \$40,000 effort.

- e. **Pending TOC Action – 4 Projects:** These projects all recommend changes in practice, however, from WHRP perspective changes could not be noticed in guidance documents.
- i. 0092-01-04: (Standard Specs 415.3.17): Recommends allowing contractor to request early opening.
  - ii. 00092-02-05: (FDM 14.10.25): Research recommends offering contractors choice of materials for shoulders.
  - iii. 0092-03-16: (CMM 4-25-70) Implementation plan has yet to be developed.
  - iv. 0092-05-01: (Standard Specs 501.2.7 and 501.3.2.2) Implementation plan has yet to be developed. It is not clear if the research recommendations have been implemented.

The main concern for this meeting was to solicit feedback from the Steering Committee in regards to the approach. In general, the approach was well received with the following comments:

- Include the educational impact of completed research (i.e. scholarly journal articles, graduate student involvement, theses) as a performance measure. Education was established as a focus area at the start of the WHRP Program.
- Include Technology Transfer activities, such as presentations at conferences and for project closeout. All of these should be made available on the WHRP website.

The end result of these efforts will be a detailed implementation report approved by each TOC that includes:

- A summary and detailed recap of how completed projects were implemented.
- Analysis of the results and impacts of pilot projects selected for implementation funding.

#### **Action Items**

- Steering Committee members that were not able to attend the meeting are asked to provide comments and approval on the approach used to monitor implementation. They are also asked to notify WHRP of any additional information that should be collected as part of the research closeout project. All comments should be received by January 1.
- WHRP will work with the Rigid TOC to refine and approve the draft analysis presented. The more detailed analysis of completed research and funded implementation activities will also be submitted for approval.
- WHRP will begin analysis on the Flex TOC using a similar approach unless modified through Steering Committee suggestions.
- WHRP will solicit researchers for closeout presentations and post them on the project pages of the website. Irene Battaglia and Ed Fitzgerald will be asked for the presentations they are giving at upcoming conferences.

## VI. Tracking WisDOT Time for Research Activities

Peg Lafky and Nikki Hatch provided an update on follow up activities related to the creation of a code to track research activities. The code has been established for the entire research section, it is not unique to WHP. It was made clear that this code was created as a mechanism to track the time spent by WisDOT staff on research, there is no funding attached to it. Peg also created a list to provide examples of activities that should be charged to this code to provide more definition to ensure the code is working properly.

### *Action Items*

- Peg will distribute the activities list and information related to the activity tracking code once it is finalized. At that time WisDOT staff can begin tracking their time.
- WHP will assume the responsibility of analyzing the data after a given period of time (6 months – 1 year) and present to the Steering Committee.

## VII. WHP Annual Meeting – Proposed Alternative to a One Day Research Workshop

It was decided that WHP would not move forward with a research workshop for this year. An alternative proposal was developed by WHP through contact with Dan McGuire from TSS and Don Miller from PDS. Hussain presented the proposal and comments were provided by attendees of the meeting. The proposal, including the comments received is provided below.

### **WHP Alternative Proposal to Regional Outreach**

The proposal for scheduling an annual workshop to share information and collect feedback from regional staff was not approved. Based on recommendations from the Joint PDS/TSS Chiefs, the following activities are proposed to continue the interaction with WisDOT regions:

<b>WisDOT Meetings to Attend</b>		
<b>Meeting</b>	<b>Date</b>	<b>Purpose</b>
TSS/PDS Improvement Conference	March 11-12	Program update in a breakout session. Would include both presentation and group discussion.
Joint PDS/TSS Chiefs Meeting	Summer	Solicit Research Ideas for funding in the next fiscal year (RFPs due in Dec). Request approval to request participation in web-based research needs survey.
Joint PDS/TSS Chiefs Meeting	Spring	Program update, including discussion of recently completed projects and implementation activities.
Individual Regional Visits	Upon request.	Propose a less formal meeting with a general program update, followed by discussion with specific individuals interested in TSS or PDS.

Note: PDS and TSS Chiefs meet on the second Wednesday of every month in Wisconsin Rapids.

#### Other Activities:

- Research Needs Feedback
  - WHRP will work with the HMA and Concrete Tech Teams to address all the comments and proposed specification changes requested by survey participants and those that submitted problem statement forms.
- Implementation Report
  - Implementation report will be posted on website and discussed in presentations to provide an example on how WHRP can change everyday practice.
- Industry Involvement: WHRP should present/hold breakout sessions at annual conferences for the following industries:
  - WAPA
  - WCPA
  - WTBA
- Joint University/WisDOT Functions
  - MidContinent Transportation Forum:
    - WHRP will continue to have a strong presence at the conference in terms of reporting research results.
    - WHRP will provide a program update.

#### *Action Items:*

- WHRP will send the proposal as a separate document asking for Steering Committee comments and approval. Deadline for submittal of any comments will be January 1, 2008.
- WHRP will contact the appropriate WisDOT, industry, and university representatives to inquire about some level of participation in meetings and annual conferences.
- WHRP will send a note to regional directors informing them we are willing to pay a less formal return visit upon request.

### **VIII. Research and Library Advisory Committee Update**

Nikki gave an update on the activities of the RLAC. Current focus is on high level strategic planning for general goals of the research section and coordination between various research programs. Nikki will serve as the conduit to relay any information from RLAC relevant to WHRP.

### **IX. CFIRE Update**

Jason Bittner gave an update on CFIRE activities. CFIRE held their first research workshop on November 16<sup>th</sup>. The focus of the workshop was to gather stakeholder input on research ideas. The CFIRE area pertinent to WHRP is the infrastructure area, which is chaired by Dr. Mike Oliva, UW Madison. WHRP submitted approximately 11 research ideas to CFIRE (4 Structures, 7 Flex). The full list of infrastructure research ideas from the CFIRE workshop is at <http://www.wistrans.org/cfire/Research/Nov16/infrastructure.zip>.

The recommended project list from the Workshop includes (in no order):

D-1-18	Effect of Typical Superload Vehicles on Bridge Structures
D-1-17	Bridge Analysis Guide for Superload Vehicles
D-1-3	Marquette interchange health monitoring network.
D-1-5,10,30	Steel Girder Bridges as Simple Spans, Rapid Construction/Reconstruction Methods for Bridges, Rapid Construction of Railway Bridges
D-1-9	Implementation of GPS controlled Hwy Construction Equipment.

The next step is for the infrastructure group to discuss these and other research ideas and then forward a prioritized list to the CFIRE advisory committee. The tentative schedule is to have RFPs finalized in spring and projects starting by July 2008.

The Grant Year 3 funding level for CFIRE was announced as \$2.8 million of Federal Dollars.

**Action Items**

- WHRP will continue meeting with Dr. Oliva to identify and discuss common areas of interest. WHRP will also work to resolve administrative issues related to CFIRE and WHRP collaboration.

**X. Policy Changes for Final Approval**

Hussain presented the following policy changes for final votes of approval:

- No Cost Time Extensions
  - Policy
  - Form
- Vendor Selection
  - TOC Vendor Selection Policy
  - Proposal Evaluation Form
  - Principle Investigator Proposal Guidelines

Since it was decided that all approvals will be done electronically due to lack of attendance, policies will be distributed for Steering Committee review and comment. Due date for approvals will be set for January 1, 2008.

**Action Items**

- WHRP will distribute policies via email by 12/14/07. Steering Committee was given a deadline of January 1 to submit comments and approve policies. No response from a Steering Committee member will be assumed as an approval.

**XI. Next Meeting**

Friday, April 11, 9:00 AM – 12:00 PM. Room TBD

- Presentation of FFY 2009 RFPs.
- Implementation Update