



To: Tommy Nantung, INDOT
From: Jan Olek, Director, North Central Superpave Center
Date: February 5, 2010
Subject: Status Report –October - December 2009

Background

The North Central Superpave Center began on July 1, 1995, as one of five regional centers established to assist the states/provinces and industry with the implementation of the Superpave Mix Design system for hot mix asphalt. The role of the NCSC has evolved to include all general hot mix asphalt issues, as states in the region have adopted Superpave. The Center is administered through the Joint Transportation Research Program at Purdue University.

Work Performed –October - December 2009

Training:

There are currently no firm plans for offering formal training. We polled our states last quarter and no training needs were identified. We are exploring the possibility of offering webinars on particular subjects to allow states and industry to get training without travelling.

Communication:

Work is underway on the next issue of the newsletter which will be published next quarter. The Superpave Center at Auburn is still setting up a new pooled fund account and therefore has not yet committed to continuing to work with us on publishing the newsletter.

Routine updates were made to the NCSC website. Information is added and updated when received. Presentations, HMA “hot topics” and news articles, as well as HMA-related calendar events are frequently added to the website. Pertinent abstracts from the 2010 TRB Annual Meeting will be added as soon as the meeting concludes in January. (This was, in fact, accomplished by the end of January.)

NCSC staff respond to approximately 25 calls and emails each quarter that include questions and requests for information from HMA professionals across the country.

The 2010 NCAUPG HMA Technical Conference is scheduled for February 2-4, 2010. Work continued this quarter on finalizing arrangements with the hotel and processing registrations for attendees and exhibitors. The final agenda was posted on the web once all speakers were confirmed. Over 100 people are expected to attend the event. As usual, the NCSC Steering Committee will also meet in conjunction with the NCAUPG, so preparations are being made to update our state, industry, FHWA and liaison partners on our financial situation, staffing and activities and to solicit their suggestions for additional activities we should undertake that would benefit the region.

Third Party Lab and Testing Services:

AMRL site inspection of the NCSC lab was conducted in July in the areas of binder, HMA and aggregate tests. All the deficiencies were addressed and the NCSC received its accreditation in aggregates, binder and mixtures in December 2009..

NCSC staff continued polishing/friction testing of a thermoplastic pavement marking for the product's manufacturer. The manufacturer sent additional samples of various formulations for testing.

Research:

The NCSC staff worked with the INDOT Office of Materials Management to obtain aggregates to test for the study on *Maximizing the Use of Local Materials in HMA*. All of the needed aggregates have now been obtained and work will begin next quarter on developing mix designs for slab fabrication and testing/polishing.

The draft report on the study *Identification of Laboratory Techniques to Optimize Superpave HMA Surface Friction Characteristics* was submitted to Iowa and Indiana for review. Once comments are received, they will be addressed as soon as possible so that the report and the project can be completed.

NCSC staff identified field test sites for the study *Investigating the Feasibility of Integrating Pavement Friction and Texture Depth Data in Modeling for INDOT Pavement Management System* and field friction and texture testing was completed this quarter. Data analysis and model verification will be conducted beginning next quarter.

On the *History of Superpave* study, interviews, reviewing of documents and report writing are in progress. We are still working on the research chapter. The PI met with a key research author to accelerate progress; the key researcher is making plans to come to Indiana to work with the PI next quarter to finally finish this project.

The study entitled *Risk Management of Low Void Content Asphalt Mixtures* was approved late last quarter. Near the end of December, mixtures were produced and placed in the Accelerated Pavement Testing (APT) Facility. Trafficking on the sections will begin next quarter. We have not yet received word from the Natioanl Center for Asphalt Technology on the status of our retained samples from the NCAT Track. We are also still awaiting a response from INDOT on our expansion request to cover and complete the US231 work.

Comments on the draft final report on the *Long Term Performance of a Porous Friction Course* project were received late in the quarter and will be addresses as soon as possible. A SAC meeting will be held to discuss the implementation plan.

Work continues on data analysis and report preparation for the *Evaluation of Recycled Asphalt Pavement for Surface Mixtures* study. The current plan is to have the data analysis and report completed next quarter.

Regarding the *Continued Monitoring Indiana's SPS9-A Site* study, the binder extraction process continued and was nearly completed this quarter. IDT testing of the surface layers was planned but could not be conducted because of continuing equipment issues.

Work continued on obtaining materials for the Quiet Pavements study this quarter. The literature review was updated and revised. Mix design work continued this quarter and Cantabro testing began. A meeting was held with the acoustics team to coordinate work. A request for extension will be prepared and submitted to the sponsor early next quarter.

On the *Determining the Binder Content of Hot Mix Asphalt Containing Dolomitic Aggregates Using the Ignition Oven* study, the report revision will be completed and the paper rewritten next quarter.

The draft final report for the study on the *Investigation of Low and High Temperature Properties of Plant-Produced RAP Mixtures, Phase II*, was largely completed this quarter. At the RAP ETG meeting in December, however, the PI saw a new way to present the data, so some regraphing and analysis is underway. The report will be finished next quarter.

Technology Transfer, Presentations and Interactions with other Centers and Organizations:

The NCSC has always worked closely with the North Central Asphalt User Producer Group (NCAUPG), serving as secretary and coordinator of the annual meeting since 2002. As noted above, work continued this quarter on preparations for their meeting.

The NCSC website, <https://engineering.purdue.edu/NCSC>, has a frequently updated library that includes technical presentations delivered by NCSC staff members at conferences and meetings throughout the country.

The Technical Director gave presentations at the Missouri Asphalt Conference, the Kansas Asphalt Conference the National Slag Association and the RAP ETG meeting. Two presentations are being prepared for the Tennessee Road Builders Quality Asphalt Initiative meeting in January.

SAC Meeting: The last Steering Committee meeting was held in February 2009 in Madison. The next meeting will be held in February 2010 in Overland Park, KS, in conjunction with the North Central Hot Mix Asphalt Technical Conference.

Work Next Quarter: Work will continue on research, communication, training and testing as planned.

Financial Information

North Central Superpave Center Base Funding Expenditures TPF-5 (021)					
July 1, 2009 - June 30, 2010 (Base Six-Year One)					
States	Quarter One July - Sept 09	Quarter Two Oct - Dec 09	Quarter Three Jan - Mar 10	Quarter Four Apr - June 10	Total per State
Illinois	\$5,000	\$5,000			\$10,000
Indiana	\$6,250	\$6,250			\$12,500
Iowa	\$6,250	\$6,250			\$12,500
Kansas	\$6,250	\$6,250			\$12,500
Michigan	\$6,250	\$6,250			\$12,500
Minnesota	0	0			0
Missouri	\$6,250	\$6,250			\$12,500
Wisconsin	0	0			0
Quarterly Total					
Cumulative Grand Total					\$72,500