



**To:** Tommy Nantung, INDOT  
**From:** Jan Olek, Director, North Central Superpave Center  
**Date:** November 16, 2007  
**Subject:** Status Report October 1 – December 31, 2006

### **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 2006**

Training: Because of declining enrollments, no routine training is planned for the winter although the Center will continue to offer training for participating states as needed.

Communication: The latest issues of the newsletters can be found at <http://bridge.ecn.purdue.edu/~spave/Newsletters/Newletters.htm>.

Some articles have been received for the next National Newsletter, but we are still waiting for some promised submissions. Due to the resignation of the communications specialist last quarter, progress has been slowed. The position was filled near the end of December, so work should progress next quarter.

Migrating the NCSC website to the engineering web cluster, which is a large server housed within the Engineering Computer Network (ECN), was also delayed by the resignation of the communications specialist. This will be pursued when the position is filled and as the marketing plans progress.

Third Party Lab: Permeability testing on the Minnesota cores, initiated last quarter, was completed this quarter. The NCSC staff traveled to Louisiana to perform texture testing for a study on tack coat effectiveness.

### Research

The JTRP study *Continued Monitoring of Indiana's SPS9A Site* is continuing. Preliminary field survey data has been received and is being analyzed.

The study *Performance Certification of Indiana Superpave Hot Asphalt Mixes* is funded by JTRP and is being conducted in cooperation with the Indiana Department of Transportation, Division of Research. Purwheel testing, which could not be done due to continued trouble with the Purwheel test machine, was finally completed late this quarter. The final report preparation will begin next quarter.

*Identification of Laboratory Techniques to Optimize Superpave HMA Surface Friction Characteristics*, is funded by INDOT and the Iowa Department of Transportation through JTRP. Partial funding was also provided by the Institute for Safe, Quiet and Durable Highways (SQDH). Slab polishing and testing is underway. Additional justification was provided this quarter for the requested no-cost extension. There have been delays in releasing the funds that were previously earmarked for Iowa State University, but efforts to resolve this delay are underway.

Follow-up monitoring of *Long Term Performance of a Porous Friction Course* is on-going. Noise and friction testing were completed this quarter. No field testing is planned for next quarter because of the weather conditions.

Work continued on the study *Determining the Binder Content of Hot Mix Asphalt Containing Dolomitic Aggregates Using the Ignition Oven*. Testing was completed this quarter and the draft final report preparation is underway.

A comparison of candidate simple performance tests to shear tests, funded by FHWA, continues. Creep testing was completed this quarter.

The project *Investigating the Feasibility of Integrating Pavement Friction and Texture Depth Data in Modeling for INDOT PMS* is underway. Periodic friction and surface texture measurements are being conducted on the INDOT Research Test Road. Attempts were made to coordinate with the consultant providing network level texture data to INDOT, but there have been delays at INDOT in establishing a new contract for this service.

The NCSC completed testing for a study on plant-produced RAP mixtures underway with Heritage Research Group, funded by FHWA. Due to some questions about some of the test results, additional testing at the NCSC has been planned and will be completed soon.

A post- doctoral fellow, Eyal Levenberg, has joined the NCSC staff to oversee the project *Validation of NCAT Structural Test Track Experiment using INDOT APT Facility*. He started in late December, so is still familiarizing himself with the project. A no-cost extension will be requested next quarter.

Interaction with other Centers and Organizations: The Superpave Centers cooperate with each other routinely; two remain active on a national level. The NCSC is also very active with numerous other organizations within and beyond the region in the areas of hot mix asphalt, binders, aggregates, noise and more.

The NCSC serves as secretary of the North Central Asphalt User Producer Group (NCAUPG). This quarter there has been a great deal of work planning the next meeting of the NCAUPG, to be held January 10-11, 2007, in Minneapolis at the Hilton Minneapolis St. Paul Airport Mall of America.

The NCSC also collaborates with other organizations in the field. This quarter the Technical Director made presentations at the Wisconsin Asphalt Pavement Association Annual Conference, Indiana Mineral Aggregates Association Winter Meeting and the Materials and Energy Conservations Workshop (sponsored by the National Asphalt Pavement Association, FHWA, AASHTO and the Asphalt Pavement Association of Indiana). NCSC staff also participated in meetings of ASTM, the LTPP Materials ETG and the LTPP committee. The technical director also served on the Emmons Award committee for AAPT.

**SAC Meeting:** The next annual NCSC Steering Committee meeting will be held on January 9, 2007, prior to the North Central Hot Mix Asphalt Technical Conference in Minneapolis, Minnesota.

**Work Next Quarter:** Work will continue on following up on the marketing plan, developing the next issue of the newsletter and continuing research as planned. The NCAUPG meeting, and NCSC Steering Committee meeting, will be held.

**Financial Information**

<b>North Central Superpave Center Base Funding Expenditures TPF-5 (021)</b> <b>July 1, 2006 - June 30, 2007 (Base Five-Year Two)</b>					
<b>States</b>	<b>Quarter One July - Sept 06</b>	<b>Quarter Two Oct - Dec 06</b>	<b>Quarter Three Jan - Mar 07</b>	<b>Quarter Four Apr - June 07</b>	<b>Total per State</b>
<b>Illinois</b>	\$6,250	\$6,250			\$12,500
<b>Indiana</b>	\$6,250	\$6,250			\$12,500
<b>Iowa</b>	\$6,250	\$6,250			\$12,500
<b>Kansas</b>	\$6,250	\$6,250			\$12,500
<b>Michigan</b>	\$6,250	\$6,250			\$12,500
<b>Minnesota</b>	\$6,250	\$6,250			\$12,500
<b>Missouri</b>	\$6,250	\$6,250			\$12,500
<b>Wisconsin</b>	\$6,250	\$6,250			\$12,500
<b>Quarterly Total</b>	\$50,000	\$50,000			
				<b>Cumulative Grand Total</b>	<b>\$100,000</b>