Period Covered: July 1, 2002 through March 31,2003

KSDOT Progress Report
for the

State Planning and Research Program

PROJECT TITLE: Midwest Accelerated Testing Pooled Fund		
PROJECT MANAGER: Andrew Gisi, P.E., TAC Chair Richard L. McReynolds, P.E., Admin. Contact Dr. Stefan Romanoschi, KSU, PI	Project No: TPF-5(048) RE-0328-01	Project is: ____ PLANNING __X__ RESEARCH & DEVELOPMENT
Annual Budget (active projects) FY 2003: $267,302	**Multi Year Project Budget**	

Progress: The objective of this research is to compare the performance of an A7-6 clay subgrade soil stabilized with lime, fly ash, cement and EMC2 (a commercial chemical compound commercialized by Soil Stabilization Products Co.) using a full-scale accelerated pavement test at the KSU Civil Infrastructure Systems Laboratory. Four pavement sections were constructed during November and December 2002. All were constructed with a four-inch thick asphalt concrete surface layer. The subgrade soil was stabilized to a depth of six inches with the four different stabilizing agents. The research efforts in the first quarter of 2003 were concentrated on improving the testing capabilities of the ATL machine. A mechanical system able to move the ATL machine in the lateral direction during testing has been added. The system will allow the simulation of the lateral wander of wheel loads observed for in-service pavements. A system of sensors has been installed to better control and monitor the ATL machine and to allow unsupervised operation. This will results in an increasing the testing productivity of up to three times. Electronic load cells have been installed on each wheel to monitor the dynamic load that each wheel applies to the pavements.

A TAC meeting was held at Manhattan, KS on October 31 and November 1, 2002 to observe the FY 2002 test pavements at the end of the experiment, tour the new KSU Fielder Hall (CE) facility and labs, provide updated information on the FY 2003 experiment ready for installation and discuss interests and options for developing the FY 2004 experiment.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

Full-scale accelerated testing of the four pavements will start during April 2003; almost four moths after the pavements were constructed. The four months delay allows the proper curing of the stabilized soil, similar to that developed for in-service pavements. Performance and response data collected during the experiment will be analyzed and the analysis results will be made available to the four state agencies involved in this project for further analysis and interpretation. The findings of this experiment will be summarized in scientific journal publications and presentations delivered at scientific conferences and meetings with specialists and practitioners in the field of highway engineering.

STATUS AND COMPLETION DATE

Percentage of work completed to date for total project is: 70

__x__ on schedule ____ behind schedule, explain

Expected Completion Date: June 30, 2003