

Temperature: N/A

Reflective cracking:

During the month of November 2010, Schaefer Electric completed electrical work for both the hydraulic systems and the cooling system. Franklin Mechanical completed the start-up of the cooling system. During the start-up, one leak spot was identified and repaired. Advanced Fluid Systems finished the installation of the hydraulic equipment to the frame assemblies. The hydraulic system is under adjustment and calibration. Both 7-day and 28-day strength tests of the recommended 3/8" PCC mix design were performed. A budget meeting was held (see below) to discuss the continuation of construction of reflective cracking site, the feasibility of conducting supplementary study, and instrumentation of acoustic emission sensors.

Pavement Material Property Testing:

On November 5, 2010 for the purpose of asphalt evaluation for the Reflective cracking test area, a total of 24 six-inch diameter cores (12 PG 64-22 and 12 PG 76-22) were taken from the HTP test area in the unheated test areas of the PG 64-22 and the PG 76-22. On November 10th, these cores were sent to UIUC for material characterization.

TECHNICAL ACCOMPLISHMENTS:

The hydraulic system for the Reflective Cracking rig was successfully tested.

Reflective cracking:

Construction details and plans will be submitted to the FAA for the supplementary study of a 12" PCC slab with 5" AC overlay. This supplementary study will be constructed adjacent (30' west) to the reflective cracking test area. It is expected that the foundation and concrete slab will be prepared and finished by the end of December. During the construction, CBR tests will be used to characterize granular materials. A total of 18 PCC samples (9 cylinders and 9 beams) will be taken as well. In addition, an Operational Manual for the hydraulic system will be prepared.

NAPTF data acquisition systems:

Data acquisition system is being prepared for the data collection on the Reflective Cracking project.

Procure, install, and test pavement instrumentation sensors:

Data acquisition system is being prepared for the data collection on the Reflective Cracking Project. Some modules of the data acquisition system for reflective cracking project were shipped out for necessary repairs and maintenance and are due back in mid-January.

Support for specialized airport pavement research projects:

Construction continued on the reflective cracking rig, detailed under Task Order 9.

Support for specialized airport pavement research projects:

A 2-D finite element model will be developed for reflective cracking test rig.
Construction continued on the reflective cracking rig, detailed under Task Order 9.