

Period Covered: 7/1/03 through 12/31/03 (Quarterly Report +)

KSDOT Progress Report

for the

State Planning and Research Program

PROJECT TITLE: Evaluating Load-Distribution, Fatigue Performance, and Horizontal Shear Transfer Mechanisms in Fiber-Reinforced Composite Honeycomb Bridge Decks		
PROJECT MANAGER: Dave Meggers	Project No: RE-0330-01/RE-0332-01	Project is:
Annual Budget \$100,000	Multi Year Project Budget \$223,900	<input type="checkbox"/> PLANNING
	Note: TPF funds are \$124,000	<input checked="" type="checkbox"/> RESEARCH & DEVELOPMENT
<p>PROGRESS: All of the double-shear specimens have now been tested. The recently-completed double-shear tests indicate that the KSCI's new method of fabrication (where the face skins are now applied to the top of the core so that gravity effects will improve the interlocking mechanism) along with the side wraps has the potential to greatly improve the horizontal shear capacity of the panels. This improved horizontal shear capacity may, in turn, reduce the amount of scatter in the data. Based on the exceptional performance of the double-shear specimen with the wraps, the research team agreed that additional double-shear test specimens would be tested.</p> <p>The PI has continued to assist the research team of Dr. Youqi Wang by providing use of testing facilities and personnel. In addition, a Project Planning Meeting was held to finalize the specimen details for all remaining tests, and the final specimen list was sent to Dave Meggers for ordering in early February. A new graduate student (Amin Akhnoukh) has been assigned to the project and has been involved in the double-shear test specimens.</p> <p>PROJECT PERSONNEL FROM KSU CIVIL ENG: Dr. Robert J. Peterman, Mike Stein, Amin Akhnoukh</p> <p>SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:</p> <p>The P.I. will continue to work with Dr. Cai (Assistant Professor at LSU) to share test results and to verify that the analytical models being developed by Dr. Cai match the overall geometry of the specimens that are being tested. The experimental setup for the large panel distribution width tests will also be fabricated and testing of the large panels will begin.</p>		
<p>STATUS AND COMPLETION DATE:</p> <p>Percentage of work completed to date for total project: Project is <u>30 %</u> Complete</p> <p><input checked="" type="checkbox"/> * on schedule <input type="checkbox"/> behind schedule, explain:</p> <p>* In order to meet the 12/31/04 deadline, all KSU must receive all remaining test specimens by April 1, 2004. At this time, it is not anticipated that the additional double-shear tests will cause a delay to the schedule.</p> <p>Expected Completion Date: <u>12/31/04</u></p>		