September 3, 2003

MEMORANDUM TO TEAM LEADERS AND CONSULTANTS

SUBJECT: New SCDOT Seismic Hazard Maps

The new SCDOT Seismic Hazard Maps for Bridges and Highways information will be provided by the Department for all new projects. These new SCDOT Seismic Hazard Maps take into account the sediment thickness and/or the near surface weathering, updating the State seismic hazard information, and therefore shall be used in the seismic design of all SCDOT bridge structures.

Section 3.3.1 of the SCDOT Seismic Design Specifications 2001, and October 2002 Interim Revisions (Seismic Loading) will be modified to reflect the SCDOT seismic hazard values.

The maps presented in Figures 3.4.2 and 3.4.3 of the SCDOT Seismic Design Specifications 2001, and October 2002 Interim Revisions shall not be used, nor shall the mapped design spectral acceleration values on Section 3.3.3 be obtained from the U.S Geological Survey. Generic site response model, such as that adopted by the USGS National Seismic Hazard Maps, including the 2002 update, does not reflect the actual geological conditions in South Carolina; therefore it should not be used.

If a site-specific hazard study is required, the Bridge Design Engineer shall determine the appropriate hazard map to be used.

Please ensure that this new information is implemented on all future projects. The Bridge Design Engineer reserves the right to modify this policy as needed on a case-by-case basis.

Douglas E. McClure, P.E.
Bridge Design Engineer

cc: Assistant Bridge Design Engineers
    Bridge Construction Engineer
    FHWA
    CRM East
    CRM West

File: PC/LEM