Illinois Department of Transportation

Memorandum

To:	ALL GEOTECHNICAL MANUAL USERS	09.1
From:	Ralph E. Anderson	Ralph E. Anderson
Subject:	LRFD Seismic Soil Site Class Definition	
Date:	January 7, 2009	

Recent changes in the AASHTO LRFD Bridge Design Specifications have introduced new methods for determining soil Site Class Definitions (formerly referred to as Soil Profile Type) for seismic design. A review of previously prepared Structure Geotechnical Reports (SGR's) has indicated that the methods in the code for determining the Site Class Definition have been interpreted in varying manners among SGR authors, sometimes resulting in an overly conservative Site Class Definition. To avoid such conservatism, and to promote uniformity in determination, this memo is intended to provide guidelines for SGR authors in determining the Site Class Definition.

AGMU Memo 09.1 Design Guide (which can be found at http://www.dot.il.gov/bridges/Design%20Guides/Design_Guides_Web.pdf) establishes guidelines for determining the Site Class Definition when using the 2008 Interim Revisions to the LRFD Design Specifications. The Design Guide offers clarification on how data provided in soil boring logs should be applied to the various methods provided in the LRFD code for estimating the effects of the soil on the seismic hazard for a structure. Additional guidance is also provided for averaging the soil conditions for shorter structures to determine a global Site Class Definition for the entire structure as well as for determining Site Class Definitions for longer structures. Examples are also included with the design guide to illustrate the use of the guidelines.

These guidelines are applicable immediately and shall be incorporated into all SGR's that are currently being prepared. If you have any questions, please contact William Kramer of the Foundations & Geotechnical Unit at (217) 782-7773 or William.Kramer@illinois.gov for further assistance.