



SOUTH CAROLINA

DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION

P.O. BOX 191
COLUMBIA, S.C. 29202

September 14, 1989

MEMORANDUM TO DESIGN GROUP LEADERS & CONSULTANTS

Subject: Pile Foundations

Beginning with the January 1990 letting, wave equation analyses will be required for all driven pile foundations. A wave equation analysis will be required in the design phase to verify the results of the static analysis and insure driveability without damage to the pile or the driving equipment. Another wave equation analysis will be made in the construction phase for the purpose of approving the specific driving equipment and methods proposed by the contractor. The contractor will be required to submit the necessary information on his proposed driving equipment and methods for this analysis.

The design engineer will provide the results of the wave equation analysis for the proposed driving equipment and methods along with his approval of the same. These results should include a graph of hammer blows per inch versus ultimate bearing capacity. Also, the number of hammer blow per inch corresponding to the required ultimate bearing capacity as stated in the plans shall be clearly stated.

In order to standardize the method of indicating the bearing capacity in the plans, the design bearing, safety factor and required ultimate bearing shall be shown on the individual bent sheets in the following form.

PILE BEARING	
Design Bearing	XX Tons
Safety Factor	X.XX
Required Ultimate Bearing	XX Tons

Sincerely,

 B. A. Meetze, Jr.
 Bridge Design Engineer

cc:
 Structural Engineer, FHWA
 Mr. Rush
 Mr. Martin
 Mr. LaBoone
 Mr. Kneece
 Design Group Leaders
 Consultants
 RLK/ddg