



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

April 10, 2001

MEMORANDUM TO: Division Engineers
FROM: E. C. Powell Jr., PE
State Bridge Construction Engineer
SUBJECT: Foundations for Overhead Signs

TRAFFIC ENGINEERING THOMPSON BUILDING RECEIVED	
APR 17 2001	
Refer To: <u>LYNCH</u>	
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<input type="checkbox"/> SEE <u>ME</u>	<input checked="" type="checkbox"/> LYNDY TIPPETT
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<input type="checkbox"/> INVEST & REPORT	<input type="checkbox"/> F.Y.I.
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During the past two years, we have had two overhead sign structure foundations fail. In both cases the cause of the failure was determined to be due to the construction of the foundation. The foundations for these sign structures were drilled shaft foundations. The foundations were not constructed properly in that they were not constructed against undisturbed material.

To avoid this type of failure, we must make sure the foundations are being constructed against undisturbed material. To determine if the foundation will be placed against undisturbed material, one must consider how the permanent casing for the foundation will be installed. Permanent casings that are screwed into place, prior to drilling are considered to be placed against undisturbed material. Permanent casings that are placed into the drilled excavation after the excavation has been drilled are not considered to be placed against undisturbed material.

For TIP projects let in Raleigh, we are currently revising the contract requirements to require the Contractor to submit the drilled shaft procedure for review and approval for these foundations for new projects. The procedure will outline the casing installation method. This submittal is not required on contracts that have already been let. Therefore, on the projects currently under construction we need to make sure the foundations are constructed properly with respect to the casing installation. By copy of this memorandum, I ask that all Resident Engineers review their current projects for this type of structure and review the proper method of casing installation with their assistants and inspection staff.

In some instances overhead sign structures may be done by purchase order contracts. If you have any overhead sign structures being done by purchase order contracts, please share this material with the appropriate personnel in your Division.

If you have any questions regarding this matter, please contact the Bridge Construction Engineer responsible for your Division or myself.

Division Engineers

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ECP:efh

cc-

Mr. J. D. Goins, PE

Mr. D. A. Allsbrook Jr., PE, (Attn. Roberto Canales, PE)

Mr. J. M. Lynch, PE

Mr. T. V. Rountree, PE

Mr. C. O. Wiggins, PE

Mr. P. D. Lambert, PE

Division Construction Engineers

Division Maintenance Engineers

Division Operations Engineers

Resident Engineers

Bridge Construction Engineers