March 27, 2002

M E M O R A N D U M

TO: District Structures Design Engineers
(G Moliere, R Nelson, J Golden, J Danielsen, N Kenis, K Saing, J Rodriguez, A Spillman)

FROM: William N. Nickas, State Structures Design Engineer

COPIES: Directors of Operations, Directors of Production, Duane F Brautigam, William Domico, Robert Nichols, Jack Evans, Area Structures Engineers

SUBJECT: Post-Tensioning and Grouting of High Amplitude Tendons
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The use of multiple stage grouting for tendons with high amplitude profiles is required. High amplitude tendons are defined as tendons where the lowest to highest point along the tendon is greater than 20 feet vertically. Proper placement procedures are necessary to remove the bleed water and replace any volume loss due to the gravitational affects caused by settlement. It is envisioned future efforts will include the development of new specifications for grouting high amplitude tendons. Our office is sponsoring research to investigate the methods for specifying these new materials. A copy of the research proposal is available on the Structures Design Office Internet Site (www11.myflorida.com\structures) for your review.

Cable stay structures like the FDOT's Skyway have utilized staged grouting for the cable stays. Until new material is on the market, the FDOT will allow staged grouting on a project by project basis. If you have any questions please contact Larry Sessions at telephone number (850) 414-4273.

A report was written documenting the Skyway cable stay grouting operations. The report is also available on the Structures Design Office Internet as reference for staged grouting operations.

WNN:s