

September 19, 2002

MEMORANDUM

TO: District Structures Design Engineers
(Gerard Moliere, Rod Nelson, Keith Shores, John Danielsen,
Neil Kenis, Kim Saing, Jose Rodriguez, and Agnes Spielmann)
District and Central Office Construction Engineers
(Dan Foss, Henry Haggerty, Steve Benak, Jennifer Olson, Steve
Wigle, Mark Croft, Jim Moulton, Jr., Walt Lange)

FROM: William N. Nickas, State Structures Design Engineer

COPIES: Bob Greer, Freddie Simmons, Bill Albaugh, Bill Domico, Jack Evans,
Bob Nichols, Larry Sessions, Marcus Ansley, Doug Edwards (FHWA),
Anath Prasad, Sharon Holmes, Henry Bollmann, Steve Plotkin, Tom
Andres, Robert Robertson, Tony Mireles, Duane Brautigam

SUBJECT: Temporary Design Bulletin C02-13
Strategy 3 – Multi-Layered Anchor Protection
(Reference: New Direction for Florida Post-Tensioned Bridges – Corven
Engineering, Inc)
Effective 8/1/02

To emphasize the importance of the Department's new directions for post-tensioned structures which increase the durability and level of performance of these structures, the Department of Transportation is issuing Temporary Design Bulletins C02-11 thru 15.

The Department of Transportation is requiring multi-layered anchor protection for post-tensioning tendons. This policy has been implemented due to the instances of water re-charge around anchorages and the resulting corrosion of the tendon. The document containing each these requirements is listed in [] after each requirement.

1. Contract Plans and Details shall be consistent with new FDOT Standards and Specifications. [SDG 1.6]
2. All anchorages shall have a minimum of four (4) levels of protection and include: [SDG 2.9.2]
 - A. Anchorages located on interior surfaces (Interior pier diaphragms, etc.)
 - 1) Grout
 - 2) Permanent grout cap

- 3) Elastomeric seal coat
- 4) Surrounding box structure

B. Anchorages located on exterior surfaces (Pier caps, expansion joints diaphragms, etc.)

- 1) Grout
- 2) Permanent grout cap
- 3) Encapsulating pour-back (Epoxy Grout)
- 4) Seal coat (Elastomeric coatings on non-riding surfaces / Methyl Methacrylate on riding surface)

(Deck overlays shall not be considered as a level of protection for strands or anchorages.)

3. All grout inlets and outlets shall have the following protection: [Standards]

A. Grout inlets/outlets located on interior surfaces (Inside box, interior pier diaphragms, top of bottom slabs, sides and bottom of concrete I-girders, etc.)

- 1) Permanent threaded plug

B. Anchorages located on exterior surfaces (Top Slab, pier caps, etc.)

- 1) Permanent threaded plug
- 2) Epoxy grout

WNN/ph