



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

November 2, 2016

Khoa Nguyen
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section: **960**
Proposed Specification: **9600302 Post-Tensioning Components.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Paul Vinik of the State Materials Office to modify the language for consistency with revisions to Section 926.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to dan.hurtado@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at 414-4130.

Sincerely,

Signature on file

Dan Hurtado, P.E.
State Specifications Engineer

DH/dt

Attachment

cc: Florida Transportation Builders' Assoc.
State Construction Engineer

POST-TENSIONING COMPONENTS.(REV ~~6-30-16~~ **11-2-16**)

SUBARTICLE 960-3.2.1 is deleted and the following substituted:

960-3.2.1 Component and System Tests:

Corrugated duct, smooth duct and all associated components that are used for both internal and external PT systems, e.g. couplers, anchorages, inlets, outlets, valves, plugs, etc., shall meet the requirements of fib Technical Report Bulletin 75 titled, “Polymer-Duct Systems for Internal Bonded Post-Tensioning”, Performance Level 2 (PL2), with modifications as shown in Table 3.2.1-1.

Table 3.2.1-1 Required Component and System Tests					
Reference to fib Bulletin 75			Required Tests for each PT System Type ⁽¹⁾		
Procedures	Appendix	Test Description	Internal PT System with Grout	Internal PT System with Flexible Filler	External PT System with Flexible Filler
Component Assessment	A.1	Dimensional requirement	Yes	Yes	Yes
	A.2	Stiffness of duct	Yes ⁽²⁾	Yes ⁽²⁾	Yes ⁽²⁾
	A.3	Longitudinal load resistance	Yes	Yes	Yes
	A.4	Lateral load resistance	Yes	Yes	No
	A.5	Flexibility of duct system	Yes	Yes	No
	A.6	Leak tightness of duct system	Yes	Yes	No
	A.7	Concrete pressure on duct	Yes ⁽³⁾	Yes ⁽³⁾	No
	A.8	Wear resistance of duct	Yes	No	No
	A.9	Wear resistance of duct under sustained load	Yes	No	No
	A.10	Bond behavior of duct	Yes	No	No
	A.11	Precast segmental duct coupler system	Yes ⁽⁴⁾	Yes ⁽⁴⁾	No
	A.12	Fracture resistance of duct	No	No	No
System Assessment	B.1	Leak tightness of anchorage-duct assembly	Yes ⁽⁵⁾	Yes ⁽⁵⁾	Yes ⁽⁵⁾
	B.2	EIT performance of duct system	No	No	No
	B.3	EIT performance of anchorage-duct assembly	No	No	No
	B.4	Full scale duct system assembly	Yes ⁽⁵⁾⁽⁶⁾	Yes ⁽⁵⁾⁽⁶⁾	Yes ⁽⁵⁾⁽⁶⁾
	B.5	Leak tightness of assembled duct system	Yes ⁽⁵⁾⁽⁶⁾	Yes ⁽⁵⁾⁽⁶⁾	No

1. Yes = Test is required; No = Test is not required.

2. Do not preload strand into duct prior to testing.

3. Identify duct as meeting Performance Class I or II criteria.

4. Use an epoxy compound meeting the requirements of Section 926, Type AB.

5. Perform tests on the largest assembly and the smallest assembly for each family of PT systems. A family of PT systems is defined a group of PT strand/bar assemblies of various sizes using common anchorage devices and design.
6. For each test, use a PT system assembly consisting of at least one of each component and connection type required to install a tendon from anchorage cap to anchorage cap. For bar tendon systems, use between 15 and 50 feet of duct with a straight profile.

POST-TENSIONING COMPONENTS.

(REV 11-2-16)

SUBARTICLE 960-3.2.1 is deleted and the following substituted:

960-3.2.1 Component and System Tests:

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	A.5	Flexibility of duct system	Yes	Yes	No
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	A.7	Concrete pressure on duct	Yes ⁽³⁾	Yes ⁽³⁾	No
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System Assessment	B.1	Leak tightness of anchorage-duct assembly	Yes ⁽⁵⁾	Yes ⁽⁵⁾	Yes ⁽⁵⁾
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| <p>5. Perform tests on the largest assembly and the smallest assembly for each family of PT systems. A family of PT systems is defined a group of PT strand/bar assemblies of various sizes using common anchorage devices and design.</p> <p>6. For each test, use a PT system assembly consisting of at least one of each component and connection type required to install a tendon from anchorage cap to anchorage cap. For bar tendon systems, use between 15 and 50 feet of duct with a straight profile.</p> |
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