



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

December 23, 2015

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

Re: State Specifications Office
Section **458**
Proposed Specification: **4580206 Bridge Deck Joints.**

Dear Mr. Nguyen:

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

The changes are proposed by Amy Tootle of the State Construction Office to require all construction-related documentation to be submitted by electronic means for consistency with the State Construction Office e-Construction initiative.

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

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

Sincerely,

Signature on file

Daniel Scheer, P.E.
State Specifications Engineer

DS/dt

Attachment

cc: Florida Transportation Builders' Assoc.
State Construction Engineer

BRIDGE DECK JOINTS.**(REV 10-14-15)**

SUBARTICLE 458-2.6 is deleted and the following substituted:

458-2.6 Modular Joint: Furnish modular joints meeting the requirements of this Section. ~~Provide~~ **Submit** manufacturer certification that modular joint components meet the following material requirements.

Table 2-6.1 Component Material Requirements	
Solid Separation Beams, Steel Extrusions, Support Bars, and Milled Steel Shapes	ASTM A588 or ASTM A572
Box Seals	ASTM D2628*
Adhesive	ASTM D4070
Stud Shear Connectors and Threaded Studs	ASTM A108
Connection Plates – 3/8 inch minimum thickness	ASTM A588 or ASTM A572
Sliding Plates - 3/8 inch minimum thickness	ASTM A240, Type 316
Sliding Plates - 3/8 inch minimum thickness	ASTM D4895-10
Railing and Sidewalk Cover Plates – 1/2 inch minimum thickness	ASTM A36**
*Provide seals with hardness Type A durometer equal to 55 (plus or minus 5) by ASTM D2240.	
**Hot-dip galvanize railing and sidewalk cover plates in accordance with Section 962.	

Supply test results from the manufacturer verifying the maximum coefficient of friction between mating surfaces. Testing must be performed by an independent testing laboratory according to the manufacturer's stated precompression values for the system to a minimum of two million cycles. Maximum allowed coefficient of friction is 0.10.

Provide PTFE bonded steel sliding plates using a heat cured, high temperature epoxy capable of withstanding temperatures of minus 40°F to plus 250°F.

Use preformed elastomeric joint seals of multiple-web design that comply with ASTM D3542. Use preformed elastomeric joint seals of the strip type that comply with ASTM D5973.

For springs, bearing, and equidistance devices (i.e. control springs), use the same material composition and formulation, manufacturer, fabrication procedure and configuration as those used in the prequalification test.

SUBARTICLE 458-4.5.2.1 is deleted and the following substituted:

458.4.5.2.1 Manufacturer's Installation Manual: Submit ~~two copies of~~ the manufacturer's installation manual at least two weeks prior to installation activities, containing complete and detailed installation instructions for the modular expansion joint supplied by the Contractor. The manual must include step-by-step installation instructions and all related manufacturer's recommendations, including bridge deck pouring sequence, restraints, finishing, etc., for successful installation and long term operation and serviceability of the joint.

SUBARTICLE 458-4.5.2.2 is deleted and the following substituted:

458-4.5.2.2 Manufacturer's Installation Technician: Provide for a manufacturer's installation technician, under the direct employ of the manufacturer, to be on the jobsite prior to the first joint installation and in sufficient time to train the Contractor's joint installation crews using the shop drawings and the manufacturer's installation manual. The manufacturer's installation technician must remain on the jobsite and be present for all modular joint installation activities for a minimum of the first two joints for each of the Contractor's installation crews. The manufacturer's installation technician will ~~provide~~ submit written certification to the Engineer that the Contractor's installation process follows the requirements outlined in the manufacturer's installation manual.

SUBARTICLE 458-4.5.3 is deleted and the following substituted:

458-4.5.3 Acceptance: Acceptance of fabricated joint systems will be based on the Engineer's visual inspection at the jobsite and in accordance with requirements of this Section.

~~Provide~~ Submit a-certified ~~copy of all~~ mill test reports to the Engineer for all steel used to fabricate the joint system.

BRIDGE DECK JOINTS.
(REV 10-14-15)

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Sliding Plates - 3/8 inch minimum thickness	ASTM D4895-10
Railing and Sidewalk Cover Plates – 1/2 inch minimum thickness	ASTM A36**
*Provide seals with hardness Type A durometer equal to 55 (plus or minus 5) by ASTM D2240.	
**Hot-dip galvanize railing and sidewalk cover plates in accordance with Section 962.	

Supply test results from the manufacturer verifying the maximum coefficient of friction between mating surfaces. Testing must be performed by an independent testing laboratory according to the manufacturer's stated precompression values for the system to a minimum of two million cycles. Maximum allowed coefficient of friction is 0.10.

Provide PTFE bonded steel sliding plates using a heat cured, high temperature epoxy capable of withstanding temperatures of minus 40°F to plus 250°F.

Use preformed elastomeric joint seals of multiple-web design that comply with ASTM D3542. Use preformed elastomeric joint seals of the strip type that comply with ASTM D5973.

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458.4.5.2.1 Manufacturer's Installation Manual: Submit the manufacturer's installation manual at least two weeks prior to installation activities, containing complete and detailed installation instructions for the modular expansion joint supplied by the Contractor. The manual must include step-by-step installation instructions and all related manufacturer's recommendations, including bridge deck pouring sequence, restraints, finishing, etc., for successful installation and long term operation and serviceability of the joint.

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458-4.5.3 Acceptance: Acceptance of fabricated joint systems will be based on the Engineer's visual inspection at the jobsite and in accordance with requirements of this Section.

Submit certified mill test reports to the Engineer for all steel used to fabricate the joint system.