

SECTION 00585 - EXPANSION JOINTS

(Follow all instructions and make all edits with "Track Changes" turned on. If there are no instructions [orange text] above a subsection, paragraph, sentence, or bullet, then include it in the Project. Delete all orange text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Comply with Section 00585 of the Standard Specifications modified as follows:

00585.01 Definitions -

Replace the sentence that begins "**Asphaltic Plug Joint Seal** - A sealed joint composed of Aggregate..." with the following sentence:

Asphaltic Plug Joint Seal - A Closed Joint composed of Aggregate and flexible binder Material placed over a steel bridging plate.

Replace the sentence that begins "**Closed Joint** - A sealed or filled joint designed..." with the following sentence:

Closed Joint - A sealed joint designed to prevent water and debris from passing through the joint.

Add the following definition:

Control Joint - A joint created by sawing a groove in a surface to create a weakened vertical plane and filled with a poured Material.

Replace the sentence that begins "**Filled Joint** - A joint using a preformed ..." with the following sentence:

Filled Joint - A joint using a preformed joint filler placed prior to concrete pour.

Delete the definition for **Sealed Joint**

Replace the sentence that begins "**Strip Seal** - A sealed joint with an extruded..." with the following sentence:

Strip Seal - A Closed Joint with an extruded elastomeric seal retained by edgebeams that are anchored to the structural elements.

Add the following subsection:

00585.02 Submittals:

(a) Materials - At least 21 Calendar Days before starting Work, submit QPL listed products to the Engineer for approval.

(b) Personnel Qualifications - At the pre-construction conference, submit joint installer personnel certifications(s) from the manufacturer affirming that the installers have been trained in application methods of Materials and health and safety to install Closed Joints as detailed.

(c) Working Drawings - At least 21 Calendar Days before starting Work, submit unstamped Working Drawings from the manufacturer for each Closed Joint according to 00150.35. Include the following:

- Plan, elevation and section of the joint system with dimensions and tolerances.
- Complete details of all joint Materials with all ASTM, AASHTO or other Material designations.
- Method of installation including sequence and installation details at traffic barriers, Roadway surfaces, curbs and sidewalks.
- Joint details to include the following:
 - Prevent the entrance of water and debris into the joint.
 - Accommodate the required Structure movements shown.

00585.11 Approval of Materials - Delete this subsection.

00585.12 Concrete for Blockout Opening - Replace the sentence that begins "Fill blockout openings with the ..." with the following sentence:

Fill blockout openings with the same class and type of concrete used in the deck, unless otherwise shown.

00585.30 Closed Joint Installers - Replace this subsection with the following subsection:

00585.30 Joint Installers - Provide trained personnel to install the Closed Joints.

00585.31 Sealed Joint Manufacturer's Representative - Replace this subsection with the following subsection:

00585.31 Expansion Joint Seal Manufacturer's Representative - Provide a manufacturer's representative on-site during the installation of expansion joint device. Discuss with the representative regarding the Work to be done, the methods of installation, installation procedures, and the required Equipment to assure correct installation of expansion joints

00585.42(a) Submittals - Replace this subsection with the following subsection:

00585.42(a) Notification - Notify the Engineer in writing at least 7 Calendar Days before installing the Closed Joint. Include the Contract number, Bridge number, joint seal Material, product name, and the approximate date of installation.

00585.42(c) Joint Preparation - Replace the sentence that begins "Prepare the joint surfaces as directed..." with the following sentence:

Prepare the joint surfaces as shown or directed in this Section and according to the joint Material manufacturer's recommendations.

00585.42(d) Weather Conditions at Time of Installation - Replace this subsection, except for the subsection number and title, with the following:

Install joint seals when the weather conditions are suitable for joint installation according to the manufacturer's recommendations.

00585.42(e) Leakage Check - Replace this subsection, except for the subsection number and title, with the following:

After joint installation is complete, check joints for leakage by flooding the joint with water. Maintain ponding of water in the Roadway Shoulders or 3 feet from the gutter line, whichever is greater, for 2 hours. Use an unnozzled water hose delivering one gallon of water per minute to the inside face of railing. Verify no leaking of joints. If leakage is observed, repair the joints using a method recommended by the manufacturer and approved by the Engineer prior to starting Work at no additional cost to the Agency. Perform additional leakage check at no additional cost to the Agency. Additional leakage checks have the same requirements.

00585.43 Armored Corners – Replace the title of this subsection with "**Armored Corners and Edgebeam**"

Replace the paragraph that begins "Provide joint corner armoring ..." with the following paragraph:

Provide joint corner armoring or edgebeam with anchors as shown or specified, and according to the following:

00585.43(a) Tolerance - Replace the paragraph that begins "Install armored corners that are straight..." with the following paragraph:

Install armored corners or edgebeams that are straight and do not deviate from a true line by more than 1/4 inch horizontal and 1/8 inch vertical over the length of the joint, nor more than 1/16 inch in either direction from a 12-foot straightedge.

00585.43(b) Installation - Replace the paragraph that begins "Furnish armored corners in the longest ..." with the following paragraph:

Furnish armored corners or edgebeams in the longest practical length as controlled by transportation and installation.

Replace the paragraph that begins "For new construction, install armored ..." with the following paragraph:

For new construction, install armored corners or edgebeams with anchors in preformed blockouts at least 14 days after the deck is cast with the joint opening as shown. Support the

armored corners or edgebeams securely in position before placing concrete in the joint blockout. Install the preformed seal at least 7 days after the concrete blockouts have been cast and after the deck concrete reaches 3,000 psi.

00585.47 Strip Seal - Replace the bullet that begins "Use steel retainers acting ..." with the following bullet:

- Use steel retainers acting as the edgebeams according to 00585.43.

Add the following subsection:

00585.50 Control Joint - Construct Control Joints as shown. If details of the control joint are not shown, sawcut the surface 1 1/2 inches deep and 1/2 inch wide and fill it with hot applied joint sealant.

00585.80 Measurement - Add the following to the end of the subsection:

The estimated quantities of joints are:

(List all applicable joint types, e.g. expansion joints, control joints, or hot applied joint sealant, as the Pay Item name. Obtain information from the Bridge Designer.)

Structure	Joint Type	Quantity (Foot)
Bridge No. _____		
Bridge No. _____		

00585.90 Payment - Add the following to the Pay Item list:

(Add the following Pay Item to the Pay Item list when a control joint is specified and not paid with paving Work.)

(g) Control Joint Lump Sum

(Add the following Pay Item to the Pay Item list when removing and replacing hot applied joint sealant in an existing joint are specified and not paid with paving Work.)

(h) Hot Applied Joint Sealant Lump Sum

Replace the bullet that begins "preformed expansion joint filler..." with the following bullet:

- preformed joint filler, hot applied joint sealant, or sawcutting to construct Filled Joint

Replace the bullet that begins "providing the manufacturer's..." with the following bullet:

- providing the expansion joint seal manufacturer's representative

Add the following to the end of this subsection:

When the Contract Schedule of Items does not indicate payment for control joints performed under this Section, no separate or additional payment will be made for the control joint. Payment will be included in payment made for the appropriate items under which the control joint is required.