1. EXPANSION JOINT (Revised 12-14-12)

Description

General. The joint shown on the plans is a strip seal with factory-machined, steel edge members. Use the joint shown or an approved equivalent. Use an expansion joint system capable of accommodating the movements shown. Furnish and install the joint system in accordance with these specifications, the plans and the manufacturer's recommendations subject to the approval of the Project Manager. Use a joint system designed to withstand an HL - 93 truck loading and impact in accordance with AASHTO Specifications.

Use an elastomeric seal with the following minimum requirements:

Be supplied as one continuous piece from edge of slab to edge of slab.

Have claw-locked edges for a watertight fit.

Be installed according to manufacturer's recommendations.

Have a shape that promotes self-removal of foreign material and maintains an even surface during normal joint movement.

Be recessed below the riding surface throughout the normal limits of joint movement.

Materials. Use materials conforming to the following:

Use steel edge members and all other steel plates, studs and shapes meeting the requirements of AASHTO M 270 Grade 36 or grade 50W (AASHTO M 270M Grade 250 or grade 345W). Use edge members anchored by studs or other means that provide at least the minimum area of anchorage steel shown. Provide at least the minimum clearance between the anchor bars and the deck surface shown on the plans. On any alternate method of anchorage, provide for the above requirements and the attachment to two separate planes of the edge members surfaces. Attach half the total number of anchors to each plane with adjacent anchors attached to alternating planes. Alternate edge members submitted for approval and any additional anchorage for alternate edge members determined necessary by the Department to meet the above requirements are made at no cost to the Department.

Elastomer - Use a compound consisting of 100% virgin polychloroprene (neoprene) and conforming to the properties specified by the joint manufacturer, subject to approval by the Project Manager.

Submittals. Furnish five sets of shop drawings to the Project Manager indicating all material specifications and dimensions of the fabricated joint assembly. Shop drawings may be submitted on 11” x 17” sheets and may be furnished in Adobe Acrobat Reader (.pdf) format in lieu of hard copies. Show all joint setting data on the drawings. Meet all other requirements of sub-section 556.03.2 of the Standard Specifications. Do not begin fabrication of the joint until the Department has approved all of the information contained on the shop drawings.

Construction Requirements. Install the joint to conform to the roadway cross-section.

Paint all AASHTO M 270 (AASHTO M 270M) steel in accordance with the Standard Specifications except that designated with a “W,” indicating weathering steel.

Use only certified welders (See Welding-Bridge Special Provision). All splice welds must develop full strength. Grind smooth all welds in contact with the elastomeric strip seals. Clean any foreign material from the elastomeric strip seals and edge members prior to installation.

Use an assembly with provision for final field adjustment at the time of installation. Perform final adjustment of the assembly as directed. Adjust assembly as required to account for thermal movements immediately prior to casting concrete around the assembly.

Measurement. This work will be measured in linear \_\_\_\_\_\_\_ along the centerline of the joint, parallel to the plane of the finished joint surface.

Method of Payment. This will be paid for at the contract unit price bid per linear \_\_\_\_\_\_ for Expansion Joint. Include material, labor, tools, equipment, and incidentals necessary.