ITEM #0520035A – SILICONE EXPANSION JOINT SYSTEM

Description:

Work under this item shall consist of removal and disposal of an existing longitudinal silicone expansion joint on Bridge No. 03912 and furnishing and installing a new silicone expansion joint system as shown on the plans, as directed by the Engineer, and in accordance with these specifications.

Materials:

Provide expansion joint fillers sized to handle the existing gaps.

Expansion joint fillers shall conform to the requirements of AASHTO M 153, Type I and II.

A Materials Certificate will be required in accordance with Article 1.06.07 certifying the conformance of the silicone expansion joint system components to the requirements set forth in this specification.

Each container of product furnished shall be delivered to the job site in the manufacturer's original sealed container. Each container shall be labeled to include the name of material, manufacturer's name, and the manufacturer's lot/batch number. All materials must be stored in accordance with the manufacturer's written recommendations and as approved by the Engineer. Materials whose shelf life has expired shall not be used in the project.

Construction Methods:

Submit shop drawings for review by the Engineer of the proposed joint seal in accordance with Article 1.05.02, including any materials and preparation required to secure the joint filler in place.

Tools, equipment, and techniques used to prepare the joints shall be approved by the Engineer and shall be in conformance with the manufacturer's technical requirements.

The Contractor shall delineate the location of the silicone expansion joint system and joints shall be cleaned of all old joint seals and other expansion devices, bituminous materials, dirt, grease, and all other deleterious materials. Following removal of all loose materials, all concrete and bituminous concrete bonding surfaces shall be blast cleaned. All steel surfaces within the joint limits, that will be bonding surfaces to the elastomeric concrete shall be blast cleaned in accordance with the requirements of SSPC SP10 and in accordance with the joint manufacturer’s requirements.

Before installation of the silicone sealant, the vertical surfaces in the expansion joint opening to which the silicone sealant will bond shall be cleaned of a dust, dirt, debris and other loose

materials as recommended by the manufacturer. Additionally, the bonding surfaces shall be blast cleaned if recommended by the manufacturer. Following blast cleaning when required, a backer rod of a diameter 25% larger than the joint opening shall be installed in the joint opening. The backer rod shall be comprised of closed-cell expanded polyethylene foam, compatible with cold applied seals unless otherwise approved by the manufacturer. The backer rod shall be installed to a clear and consistent depth of 1 inch +/- ¼ inch below the top surface of the concrete median.

Primer, if required by the manufacturer, shall be applied to the vertical surfaces to which the silicone sealant will bond. The primer shall be allowed to cure undisturbed for a minimum of one hour prior to installation of the silicone adhesive, as required by the manufacturer and as directed by the Engineer.

The mixing and installation of the two-part silicone sealant should be in strict conformance with the manufacturer's written recommendations.

Any portion of the silicone expansion joint system that is punctured, ruptured, debonded, delaminated, or damaged in any other way shall be removed and replaced by the Contractor at no additional cost to the State.

All work shall be done in accordance with the special provisions for "Maintenance and Protection of Traffic" and "Prosecution and Progress" contained elsewhere within.

Method of Measurement:

This work will be measured for payment by the number of linear feet of silicone expansion joint system, installed and accepted, measured along the centerline of the joint.

Basis of Payment:

This work will be paid for at the contract unit price per linear foot of "Silicone Expansion Joint System", complete in place, including all materials, equipment, tools, and labor incidental thereto.

PAY ITEM	PAY UNIT
Silicone Expansion Joint System	L.F.