1. joint seal – polyurethane [711] (added 10-08-20)

Description. This work is furnishing and installing a polyurethane joint system at the specified locations.

Materials.

Polyurethane Sealant. Use a one-component, self-leveling, polyurethane-base material in conjunction with a closed cell expanded polyethylene backer rod. Do not use asphalt-based or silicone sealants. Use a joint sealant that accommodates movements of +/-25% of joint opening size.

Furnish a joint system that functions properly between -40 oF and 113 oF.

Construction Requirements.

Sandblast the joint opening and blow the joint free of dust using a compressed air line equipped with an oil trap. Keep all joint surfaces clean and dry at all times. Prime the prepared surfaces with materials that are recommended for usage with the polyurethane joint sealant, if required by the manufacturer.

Size and install the backer rod and install the joint sealant in accordance with the manufacturer’s recommendations.

Install the joint system when the air temperature is between 40° F and 75° F. Install at a higher temperature only with approval from the Project Manager.

Submittals. Do not install the joint system until written authorization is received from the Project Manager.

Submit the product documentation for the joint system being used to the Project Manager at least 14 calendar days prior to starting the work. Include the following information in the submittal:

Product specifications

Material safety data sheet

Manufacturer’s recommended application procedure

Contractor’s work plan for installing the joint system

Construction Procedures. When the contract requires casting of new concrete at the joint location, submit a work plan describing the procedures that will be used to form the joint opening. Include the following:

Joint Width. Provide methods that will ensure the joint is constructed to the plan joint opening width. Consider that the joint opening width will change with temperature before, during and after concrete placement. Use methods and/or sequencing that prevent shoving of the concrete during thermal expansion of the span(s). Request approval for additional construction joints not shown in the plans if needed.

Straightness. Provide methods that will ensure the joint does not deviate from a straight line by more than 1/2 inch.

Method of Measurement and Basis of Payment. Polyurethane joint systems will be measured and paid for by the linear foot of joint installed.

Payment at the contract unit price is full compensation for all resources necessary to complete the item of work under the contract.