

ITEM 15502.4598 M - PRESSURE RELIEF JOINTS IN EXISTING CEMENT CONCRETE PAVEMENT

Description. Under this item the Contractor shall cut existing pavement, curbs, gutters, remove and dispose of such materials and place asphalt concrete pressure relief joints in accordance with the plans or specifications and in a manner approved by the Engineer.

Materials. Asphalt concrete used in this item shall meet the requirements of Subsection 403-2, Asphalt Concrete - Type 6, 6F or 7, 7F Top Course as shown on the plans and Asphalt Concrete- Type 1 Base or Type 3 Binder Course. Asphalt emulsion shall meet the requirements of material designation 702-3001, 702-3401, 702-3601 or 702-4501.

Construction Details. Unless otherwise directed, pressure relief joints shall be located in the vicinity of existing transverse joints. The pressure relief joint shall be so located that the existing transverse joint is completely cut out unless the existing transverse joint may serve as one of the cut faces if in the opinion of the Engineer the joint is in good condition and will provide a square interface. If the existing transverse joint is used as one of the cut faces the contractor shall remove the protruding elements of the load transfer device in a manner approved by the Engineer at no additional cost to the State.

The pavement shall be cut in a single, full depth pass normal to the pavement centerline, perpendicular to the surface and in a straight line across the full width of the pavement, curb, and gutter. The cut shall be made with an approved powered rotary rock and concrete cutter or power saw to produce a neat cut without excessive shatter beyond the cut lines as determined by the Engineer. At relief joint locations with adjacent curbs or gutters, the curb and gutter shall be saw cut unless the Contractor can demonstrate that the rotary rock cutter will produce satisfactory results. All cutting shall be accomplished by the downward pass of the cutting teeth in a manner that will not damage the roadway elements which are to remain. Any damage by the Contractor's operations shall be repaired by the Contractor in a manner approved by the Engineer at no additional cost to the State.

The pavement shall then be removed in a workmanlike manner with a minimum of disturbance to the remaining pavement, subbase and shoulders. The subbase shall be leveled and compacted to a firm base in a manner approved by the Engineer prior to the placement of the asphalt concrete. The removed material shall become the property of the Contractor and be disposed of by the Contractor at locations and in a manner as approved by the Engineer.

All contact surfaces between asphalt concrete and portland cement concrete around the perimeter of the joint shall be painted with a uniform coating of asphalt emulsion. The application of the asphalt emulsion shall be made to a clean and dry surface and at a rate as ordered by the Engineer.

The construction details for the asphalt concrete shall comply with the requirements specified in Subsections 401-3.01 through 401-3.15, except as modified by the following:

Unless indicated otherwise in the contract documents, the pressure relief joints shall be a minimum of 1.5 meters wide and not less than 150 mm wider than the roller drum width selected for use by the Contractor. The asphalt concrete joint material shall be compacted transversely across the pavement by a self-propelled, dual drum vibratory roller approved by the Deputy Chief Engineer, Technical Services.

The roller shall be capable of achieving 95% of Marshall density. Walk behind dual drum vibratory rollers having a minimum drum width of 610 mm wide are considered to be acceptable for this work provided that they have demonstrated that they are capable of achieving the required 95% Marshall density in accordance with Department written instructions. A minimum of six (6) passes shall be required over each lift of bituminous material. Additional passes may be required by the Engineer.

ITEM 15502.4598 M - PRESSURE RELIEF JOINTS IN EXISTING CEMENT CONCRETE PAVEMENT

In areas not accessible to the roller the joint material shall be thoroughly compacted with mechanical tampers as directed by the Engineer. However, this method of compaction shall be kept to an absolute minimum.

Type 1 Dense Base or Type 3 Dense Binder shall be placed, leveled, and compacted in a single workday in a manner approved by the Engineer. No joint shall be left unfilled overnight once the pavement is removed. These mixes shall be placed to achieve a maximum compacted lift thickness of 100 mm. Thinner lifts shall be placed if heat retention affects maintenance of traffic scheduling. When the lifts of Dense Base or Dense Binder have been placed and compacted, a final 25 mm nominal lift of Type 6, 6F, or 7, 7F Top Course shall be placed and compacted so that it is level with the top of the existing pavement.

Cut-out curbs and gutters shall be replaced with asphalt concrete formed to the approximate original shape of those elements.

Method of Measurement. This work will be measured as the number of linear meters of pressure relief joint constructed. Measurement will be taken transversely across the pavement along the centerline of the joint.

Basis of Payment. The price bid per linear meter shall include the cost of furnishing all labor, equipment and material necessary to satisfactorily complete the work.