CITY OF ABILENE

ITEM 430

EXTENDING CONCRETE STRUCTURES

430.1 DESCRIPTION.

This Item shall govern for construction of structure extensions and widening, including preparation of the existing structure, in accordance with the details on the Plans and this Item.

430.2 MATERIALS.

All materials shall conform to the pertinent requirements of the following items:

- Item 420, “Concrete Structures”
- Item 421, “Portland Cement Concrete”
- Item 433, “Joint Sealants and Fillers”
- Item 440, “Reinforcing Steel”

430.3 CONSTRUCTION METHODS.

The work shall be performed in accordance with the provisions of Item 420, “Concrete Structures”, and in conformance with the requirements herein.

The Contractor shall verify all pertinent dimensions of the existing structure, prior to ordering materials required for the extensions.

Portions of the existing structure shall be removed to the lines and dimensions shown on the Plans, and these materials shall be disposed of as shown on the Plans or as directed by the Engineer. Unless otherwise noted on the Plans, metal railing shall be removed in such a manner that it will not be damaged, and then stacked neatly on the right-of-way at convenient loading points which will not interfere with traffic or construction and will remain the property of the City. The Contractor shall restore any portion of the existing structure, outside of the limits designated for removal that has been damaged through his operations. The structure shall be restored at the Contractor's expense to the condition prior to damage. Explosives shall not be used in the removal of portions of the existing structure unless approved by the Engineer, in writing.

Before breaking back bridge slabs, the top surface shall first be sawed along the “break” line one-half (1/2) inch deep, avoiding any damage to the reinforcement. The concrete shall be severed at the “break” line using pneumatic tools. During removal of the designated portion of the existing structure, care shall be taken to avoid damage to the remaining reinforcement within one (one) lap length of the “break” line.

Break back of box culverts will be as shown on the Plans or as approved by the Engineer.

Unless otherwise shown on the Plans or approved by the Engineer, a demolition ball, other swinging weight or impact equipment will not be permitted. The final removal of concrete at the “break” line shall be with pneumatic tools of a size approved by the Engineer.

Unless otherwise shown on the Plans, new reinforcing bars shall be spliced to exposed bars in the existing structure using lap splices in accordance with Table 1 of Item 440, “Reinforcing Steel”. When welded splices are permitted by the Plans, they shall conform with TxDOT Item 448, “Structural Field Welding”. New reinforcing steel need not be tied to existing steel where spacing and/or elevation does not match that of existing steel provided the proper lap length is attained.
Dowels, if required by the Plans, shall be installed in accordance with Item 420, “Concrete Structures”.

Concrete surfaces, which will be in contact with new construction, shall be roughened and cleaned prior to placing of forms. These construction joint surfaces shall be further prepared in accordance with Item 420, “Concrete Structures”.

Roadway slabs shall be finished in accordance with Item 420, “Concrete Structures”.

The widened portions of bridges and direct traffic culverts shall not be opened to construction traffic or to the traveling public until authorized by the Engineer in accordance with “General Requirements” of Item 420, “Concrete Structures”.

430.4 MEASUREMENT.

This Item will be measured by the quantity of concrete as provided under “Measurement” in Item 420, “Concrete Structures”.

430.5 PAYMENT.

The work performed and materials furnished in accordance with this Item and measured as provided under “Measurement” will be paid for at the unit price bid for “Concrete for Extending Structures” of the class specified. Payment for this Item will be made under this Item, but will be as defined under “Payment” in Item 420, “Concrete Structures”, except as shown below:

In addition to that work described in Item 420, “Concrete Structures”, the unit prices bid for the various classifications of concrete shown shall be full compensation for removing the designated portion of the existing structure; for removing, stockpiling, if necessary, and replacing headwall units for reuse; for cleaning, bending and cutting of exposed reinforcing steel; for splicing of new reinforcing steel to existing reinforcing steel; for installation of dowels; and for cleaning and preparing existing concrete surfaces.