

## **SECTION 103 – CONCRETE SIDEWALKS**

### **1. GENERAL**

This work shall consist of the construction of concrete sidewalks and sidewalk ramps of the various types in accordance with these Specifications and in reasonably close conformity with the lines and grades shown on the Drawings or established by the City Engineer.

### **2. EXCAVATION AND EMBANKMENT**

Excavation shall be made to the required alignment, grade and cross section as shown on the detail drawings. All excavation and embankment shall conform to Section 102, entitled "Excavation and Embankment."

### **3. FORMS**

Sidewalk forms shall conform to Section 205, entitled "Concrete Pavement".

### **4. THICKNESS AND SLOPE**

All sidewalks shall be four (4) inches in thickness except through driveways where the thickness shall be increased to six (6) inches. The sidewalk sections shall be constructed true to line and grade as described by the Engineer. The sidewalk sections shall slope toward the top of the curb at the rate of one-quarter (1/4) inch per foot.

### **5. SUBGRADE TREATMENT**

Subgrade treatment shall conform to Section 102, entitled "Excavation and Embankment." Tree roots within four (4) inches of the sides or bottom of the sidewalk also shall be cut and removed.

### **6. REINFORCEMENT IN SIDEWALKS**

All sidewalk sections that are six (6) inches in thickness shall be reinforced with wire welded fabric. The wire fabric shall be No. 10 wire in a size six (6) by six (6) inch pattern weighing 21 pounds per hundred (100) square foot.

### **7. CONCRETE COMPOSITION**

Concrete used for sidewalks shall conform to Section 202, entitled "Concrete".

### **8. PLACING CONCRETE**

Before depositing concrete, the subgrade shall be thoroughly moistened. Concrete shall then be deposited between the forms in its full course and in one continuous operation. It shall then be thoroughly consolidated between the forms by means of vibrating screeds or internal vibrators, after which it shall be struck off and given an approved finish. All edges and expansion joints shall be edged with a tool. Placement limitations should refer to KDOT Standard Specifications Division 400.

### **9. CONTRACTION JOINTS**

Contraction joints shall be formed at intervals not to exceed five (5) feet. The contraction joints shall be formed by cutting entirely through the fresh concrete with a trowel. All

contraction, construction, and expansion joints shall be rounded with an edging tool except when joints are sawed.

#### 10. EXPANSION JOINTS

Expansion joints one-half (1/2) inch in thickness shall be placed at each side of each driveway; and at approximately equal distances, not to exceed 150 feet, between; also where new work adjoins old sidewalk, or other rigid structures of any kind.

Expansion joints in curb walks shall be placed to line with expansion joints in existing curb and gutter. There shall be an expansion joint between sidewalk and the back of existing curb and gutter.

Expansion material shall not be left projecting above the finished surface of the sidewalk.

All expansion joint material shall be Type "B" (non-extruding and resilient). This type of filler shall have relatively little extrusion and a moderate to high amount of recovery after release from compression. The joint filler shall conform to all requirements for Type III material of the Standard Specifications for "Preformed Expansion Joint Fillers for Concrete," AASHTO Designation M153.

Expansion material shall be considered incidental to the contract and no separate payment will be made.

#### 10. CURING

Curing shall conform to Section 202, entitled "Concrete".

#### 11. WHEELCHAIR ACCESSIBLE RAMPS

Wheelchair accessible curb ramps shall have a minimum width of four feet and when practical match the width of the adjoining sidewalk. Maximum desirable slope of ramps shall be one inch per foot. The minimum allowable thickness for wheelchair accessible curb ramps shall be six inches. Curbs at ramp locations must provide a gradual transition from gutter line to back of curb, not exceeding one inch in height or slopes of greater than one inch per foot. Side slopes of ramps shall not exceed one inch per foot where such side slopes are in the normal path of pedestrians on adjacent portions of sidewalk. If the street curb has not been constructed to receive the sidewalk ramp, the sidewalk constructor shall remove a section of the curb and reconstruct as required.

#### 12. CONCRETE PAVERS

Sidewalks constructed with concrete paver brick shall meet the following specifications: Four inches (4") of Portland Cement Concrete shall be used as a base plus one inch of bedding sand for the pavers. Edge restraint must be provided in any case to confine the paved section to the design dimensions.

#### 13. CLEANING AND GRADING

When the forms are removed from the sidewalk, the area between the sidewalk and curb and gutter shall be excavated or filled to provide a finished straight line grade between the

sidewalk and the curb and gutter.

All forms, old lumber, broken concrete or other rubble resulting from the Contractor's operation shall then be removed from the site of the work.

14. MEASUREMENT AND PAYMENT

Payment shall be made on the amount of completed and accepted work measured in-place at the contract unit price bid for "Sidewalk Construction" of the specified thickness and "TYPE X RAMP," with "X" representing the designated ramp type.