

## SECTION 103 – CONCRETE SIDEWALKS

### 1. GENERAL

This work shall consist of the construction of concrete sidewalks and sidewalk ramps of the various types in reasonably close conformity with the lines and grades shown on the Drawings in accordance with the latest version of Section 824 of the Kansas Department of Transportation (KDOT) Standard Specifications or as amended herein.

### 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, "Excavation and Embankment."

### 3. THICKNESS AND SLOPE

The sidewalk section longitudinal slope shall be constructed true to line and grade as shown on the Drawings or to match the existing land slopes as further described by the Engineer. The sidewalk section cross slope shall not exceed 1/4 inch per foot (1:48) toward the top of the curb, unless modified in the Drawing sections. Sidewalks shall be constructed at the following thicknesses:

WIDTH/LOCATION	THICKNESS
≤ 8 FT	4 IN
8-10 FT	5 IN
DRIVEWAYS	6 IN

### 4. SUBGRADE TREATMENT

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

### 5. REINFORCEMENT IN SIDEWALKS

All sidewalk sections that are 6 inches in thickness shall be reinforced with welded wire fabric. The wire fabric shall be 6x6–W1.4xW1.4 welded wire reinforcement weighing 21 pounds per 100 square feet. It shall be placed in the vertical location shown on the Standard Details.

### 6. CONCRETE COMPOSITION

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

### 7. PLACING CONCRETE

Before placing concrete, the subgrade shall be thoroughly moistened. Concrete shall then be deposited between the forms in its full course in one continuous operation. It shall then be thoroughly consolidated by means of vibrating screeds or internal vibrators, after which it shall be struck off and given a broom finish. All edges and expansion joints shall be edged with 1/4 inch radius tool. Placement shall conform to KDOT Standard Specifications Division 400.

### 8. CONTRACTION JOINTS

Contraction joints shall be formed at intervals not to exceed 1.5 times the slab thickness in unit of 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

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a 1/4 inch radius edging tool except when joints are sawed.

### 9. EXPANSION JOINTS

Expansion joints 1/2 inch thick shall be placed at each side of each driveway, where new work adjoins old sidewalk, or at other rigid structures, and at approximately equal distances, not to exceed 100 feet, elsewhere.

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 project above the surface of the finished 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 M213.

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

### 10. CURING

Curing shall conform to Section 202, "Concrete."

### 11. WHEELCHAIR ACCESSIBLE RAMPS

Wheelchair accessible curb ramps shall match the width of the adjoining sidewalk but must be a minimum width of 4 feet. Maximum desirable slope of ramps shall be 1 inch per foot. The minimum allowable thickness for wheelchair accessible curb ramps shall be 6 inches. Curbs at ramp locations must provide a gradual transition from gutter line to back of curb, not exceeding 1 inch in height or slopes of greater than 1 inch per foot. Side slopes of ramps shall not exceed 1 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: 4 inches of Portland Cement Concrete shall be used as a base plus 1 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, slobbers or other rubble resulting from the

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Contractor's operation shall be removed from the work site.

### 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.

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