

## 4400 - SIDEWALKS

**1) DESCRIPTION**

This work consists of constructing concrete sidewalks on a prepared subgrade.

**2) MATERIALS**

Materials shall conform to the following sections found in the South Dakota Department of Transportation 'Standard Specifications for Roads and Bridges' 2004 Edition:

- Concrete: Section 460 (only Class A40 with course aggregate consisting of crushed quartzite)
- Expansion Joint Filler: Section 860
- Curing Compound: Section 821
- Cushion Material: Cushion material shall consist of quarry rock, gravel, or sand, crushed or screened to eliminate material retained on a ¾-inch sieve. The material shall be free from roots, sod, and lumps of dirt. Not more than 25% by weight shall pass a No. 200 sieve.

**3) CONSTRUCTION REQUIREMENTS**

The foundation shall be excavated, shaped, and compacted to a firm, uniform bearing surface. Unsuitable foundation material shall be removed and replaced as directed. The foundation shall be thoroughly moistened immediately prior to placing concrete.

Cushion material shall be placed to the depth specified and satisfactorily compacted.

Forms shall be made of wood not less than 2-inches nominal thickness or of steel of equal rigidity. Flexible strips may be used on curves. The forms shall be securely held to line and grade and shall not deviate more than 1/8-inch from an accurate template 10-feet in length. The forms shall remain in place for not less than 12-hours after concrete placement.

Joint and edging tools shall have an approved ¼-inch radius.

Immediately after the water sheen has disappeared the concrete shall be brushed or broomed to slightly roughen the surface and remove tool marks.

Contraction joints shall be placed at intervals that will provide square sections. The contraction joints shall be formed by a grooving tool or sawing to a depth of at least 1/3 the thickness of the sidewalk. When the sidewalk is 8-feet or greater in width, a longitudinal joint shall be provided at the center.

Expansion joints shall be constructed of ½-inch Preformed Expansion Joint Filler at a maximum spacing of 50-feet or at the locations and of the dimensions specified on the plans. When adjacent to buildings, provide a double thickness of Preformed Expansion Joint Filler at the back of the sidewalk. Place ½-inch Preformed Expansion Joint Filler longitudinally along the backface of the curb and gutter. All other obstructions will require ½-inch Preformed Expansion Joint Filler, as directed by the Engineer. The expansion joint filler shall be placed the full depth of the sidewalk.

Sidewalks shall be protected and cured in accordance with the South Dakota Department of Transportation 'Standard Specifications for Roads and Bridges' 2004 Edition section 460.3, except the minimum curing time shall be 72-hours.

After the curing period, the area adjacent to new sidewalk shall be filled to the required elevation with suitable material. The material shall be compacted to the same degree as the adjacent embankment or ground surface.

**4) METHOD OF MEASUREMENT**

- **Sidewalk** will be measured to the nearest tenth of a square yard.

**5) BASIS OF PAYMENT**

- **Sidewalk** will be paid for at the contract unit price per square yard.

Payment will be full compensation for excavation other than removal of existing sidewalk.

Payment will be full compensation for labor, equipment, tools, backfilling, furnishing and placing materials, including granular material, preformed expansion joint material and incidentals necessary, including disposal of excavation and discarded materials.

END OF SIDEWALKS