SECTION 634 – PORTLAND CEMENT CONCRETE SIDEWALKS

634.01 Description. This section describes constructing portland cement concrete sidewalks.

634.02 Materials.

- Structural Concrete 601
- Aggregate for Untreated Base 703.06
- Joint Filler 705.01
- Welded Wire Fabric Reinforcement 709.01(C)

634.03 Construction.

(A) Excavating. Excavate to required depth, remove unsuitable material, and compact subgrade to firm, even surface in accordance with Subsection 203.03(A)(4) - Subexcavation.

(B) Forms. Use full-depth wood or metal forms that are straight, free of warp and of sufficient strength to resist pressure of concrete without springing. Brace and stake forms to remain in both horizontal and vertical alignment until removal.

(C) Bed Course. Use aggregate for untreated base conforming to Subsection 703.06 - Aggregate for Untreated Base, as bed course material. Place bed course material a minimum of 4 inches in depth. Compact with three passes of lightweight mechanical tamper, roller, or vibratory system.

(D) Reinforcement. Provide welded wire reinforcement, in accordance with Section 602 - Reinforcing Steel, if specified.

(E) Placing Concrete. Moisten aggregate and forms to saturated, surface-dry condition immediately before placing concrete. Place concrete sidewalk 4-inches thick according to Section 503 – Concrete Structures.

(F) Finishing. Finish concrete in accordance with Subsection 503.03(M)(3)(b) – Sidewalks and Median Strips. Do not plaster surface. Use edging tool with 1/4-inch radius to finish outside edges of sidewalk. Finish sidewalk as plane surface with 2-percent (allowable construction tolerance of plus or minus 0.4 percent maximum) cross slope towards roadway. Test surface of concrete sidewalk with 10-foot straightedge. Correct any deviation in excess of 1/4 inch.
(G) **Joints.** Match joints with curb or pavement joints.

1. **Expansion Joints.** Use 1/2-inch-thick preformed expansion joint filler at fixed structures, such as buildings, bridges, or walls, and at curb returns. Extend preformed expansion joint filler from bottom of sidewalk to approximately 1/4 inch below top of sidewalk.

2. **Weakened-Plane Joints.** Divide sidewalk between expansion or construction joints into sections approximately 5 feet in length by providing transverse, weakened-plane joints. Provide transverse, weakened-plane joints when time period between consecutive concrete placements is more than 45 minutes.

Where sidewalks are more than 7 feet in width, provide longitudinal, weakened-plane joints to obtain secure uniform blocks that are approximately square.

Provide weakened-plane joints where corners of drop inlets project into sidewalk. Form weakened-plane joints to 1-inch minimum depth and approximately 1/8-inch width using scoring tool, saw, or other means acceptable to the Engineer.

3. **Construction Joints.** Form construction joints around appurtenances such as manholes and utility poles extending through entire sidewalk. Provide 1/4-inch-thick preformed expansion joint filler for full depth of joints.

(H) **Curing.** Cure concrete for at least 72 hours in accordance with Subsection 503.03(L) – Curing Methods. Protect concrete from pedestrian traffic for 72 hours and from vehicular traffic for seven days.

(I) **Backfilling.** After sidewalk has set, fill remaining excavated areas with material acceptable to the Engineer. Place and tamp fill in lifts up to 6 inches in depth.

634.04 **Measurement.** Portland cement concrete sidewalks will be paid on a lump sum basis. Measurement for payment will not apply.

634.05 **Payment.** The Engineer will pay for accepted portland cement concrete sidewalk on a contract lump sum basis. Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for following pay item when included in proposal schedule:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
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<tbody>
<tr>
<td>Portland Cement Concrete Sidewalk</td>
<td>Lump Sum</td>
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The Engineer will pay for excavation of unsuitable material and backfill with material acceptable to the Engineer under Section 203 – Excavation and Embankment. If no pay item exists, refer to Subsection 104.02 – Changes.

END OF SECTION 634