## 1 SECTION 634 – PORTLAND CEMENT CONCRETE SIDEWALKS

2 **634.01 Description.** This section describes constructing portland cement 3 concrete sidewalks.

- 4 634.02 Materials.
  5 Structural Concrete
  6 Aggregate for Untreated Base
  7 Joint Filler
  8 Welded Wire Fabric Reinforcement
  709.01(C)
- 9 634.03 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.
- 26 **(F)** Finish concrete in accordance with Subsection Finishing. 27 503.03(M)(3)(b) – Sidewalks and Median Strips. Do not plaster surface. Use 28 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 29 30 plus or minus 0.4 percent maximum) cross slope towards roadway. Test 31 surface of concrete sidewalk with 10-foot straightedge. Correct any deviation 32 in excess of 1/4 inch.
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- 33 (G) **Joints.** Match joints with curb or pavement joints. 34 (1) **Expansion Joints.** Use 1/2-inch-thick preformed expansion joint filler at fixed structures, such as buildings, bridges, or walls, and 35 at curb returns. Extend preformed expansion joint filler from bottom of 36 37 sidewalk to approximately 1/4 inch below top of sidewalk. 38 Weakened-Plane Joints. Divide sidewalk between expansion (2) 39 or construction joints into sections approximately 5 feet in length by 40 providing transverse, weakened-plane joints. Provide transverse, 41 weakened-plane joints when time period between consecutive 42 concrete placements is more than 45 minutes. 43 Where sidewalks are more than 7 feet in width, provide longitudinal, weakened-plane joints to obtain secure uniform blocks 44 45 that are approximately square. 46 Provide weakened-plane joints where corners of drop inlets 47 project into sidewalk. Form weakened-plane joints to 1-inch minimum 48 depth and approximately 1/8-inch width using scoring tool, saw, or 49 other means acceptable to the Engineer. 50 (3) **Construction Joints.** Form construction joints around appurtenances such as manholes and utility poles extending through 51 52 entire sidewalk. Provide 1/4-inch-thick preformed expansion joint filler 53 for full depth of joints. 54 **(H)** Curing. Cure concrete for at least 72 hours in accordance with 55 Subsection 503.03(L) – Curing Methods. Protect concrete from pedestrian traffic for 72 hours and from vehicular traffic for seven days. 56 57 (I) **Backfilling.** After sidewalk has set, fill remaining excavated areas 58 with material acceptable to the Engineer. Place and tamp fill in lifts up to 6 59 inches in depth. 60 634.04 **Measurement.** Portland cement concrete sidewalks will be paid on a lump sum basis. Measurement for payment will not apply. 61 62 634.05 **Payment.** The Engineer will pay for accepted portland cement concrete 63 sidewalk on a contract lump sum basis. Payment will be full compensation for work prescribed in this section and contract documents. 64 65 The Engineer will pay for following pay item when included in proposal 66 schedule:
- 67 Pay Item
- 68 Portland Cement Concrete Sidewalk

Pay Unit

Lump Sum

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.

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## **END OF SECTION 634**