

320 SEWER/WATER PCC CONSTRUCTION

320.01 DESCRIPTION

[Refer to DC WASA Section 3300]

Work includes furnishing all labor, materials, tools, equipment and incidentals required to place Portland Cement Concrete (PCC), forms, joints including waterstops, and miscellaneous related items including inserts, manhole steps and embedded items, and PCC finishing.

Related Work specified elsewhere may include but is not limited to:

[317](#): Sewer/Water PCC Formwork Construction

[318](#): reinforcing Steel – Sewer/Water Work

[319](#): Sewer/Water PCC Accessories

Portland cement, fine aggregate, coarse aggregate, water and admixtures as specified shall be ready-mixed (transit-mixed) concrete produced per AASHTO M 157 and as specified herein. All constituents, including admixtures, shall be batched at a central plant, except as further specified herein.

Reinforced concrete shall be per ACI 301 and as specified herein.

Samples of constituents and of concrete as placed shall be subject to laboratory tests. All materials incorporated in the work shall conform to approved samples.

320.02 SUBMITTALS

- (A) The Contractor shall submit, for approval by the Engineer, a report for each PCC mix design per [817.01](#).
- (B) The Contractor and PCC supplier shall each submit certification that materials for the Contract are from the same source as trial mix tested materials.
- (C) The Contractor shall submit, for approval by the Engineer, proposed methods for controlling PCC temperature.
- (D) Ready mixed PCC production facilities shall meet requirements of AASHTO M 157 and shall be certified by the National Ready Mixed Concrete Association. A copy of the “Certificate of Conformance for Concrete Production Facilities” shall be submitted to the Engineer prior to batching any PCC materials. Equipment shall conform to the Standards of the Concrete Plant Manufacturer’s Bureau and shall have a rating plate attached.
- (E) Truck mixers shall meet requirements of [905.02\(A\)](#).

320.03 MATERIALS

Portland Cement – [801.01\(C\)](#)

Pozzolan – [801.05](#)

Fine Aggregate – [803.01](#)

Coarse Aggregate – [803.02](#)

Water – [822.01](#)

Admixtures – [814.04 and .05](#)

Epoxy Bonding Compound – [822.08\(B\) \(1\)](#)

320.04 MEASURING/MIXING

Materials for PCC shall be measured in accordance with [703.04](#). Mixing PCC shall be accomplished in accordance with [703.05](#).

320.05 TESTING AND ACCEPTANCE

Testing of PCC shall be in accordance with requirements of [703.06](#).

320.06 CONSTRUCTION REQUIREMENTS

(A) INSPECTION AND CONTROL

(1) The preparation of forms, placing of reinforcing steel, conduits, pipes and sleeves, batching, mixing, transportation, placing and curing of concrete shall be at all times subject to the inspection of the Engineer.

(2) Control of the mix shall be as specified in [817.01](#).

(B) FORMS

Formwork shall be as specified in [703.14](#).

(C) PLACING AND CONSOLIDATING

PCC shall be placed in accordance with requirements of [703.08](#) and consolidated in accordance with requirements of [703.09](#). Requirements of [703.07](#) apply for adverse weather conditions.

(D) REMOVAL OF FORMS

Forms shall be removed in accordance with requirements of [703.17](#).

(E) CURING AND PROTECTION

PCC shall be cured and protected in accordance with requirements of [703.18](#).

(F) PATCHING REPAIRS

Patching, if required, shall be done in accordance with requirements of [703.19](#).

(G) EPOXY BONDING OF PCC

Where indicated in the contract documents, epoxy bonding of new PCC to existing PCC shall be done in accordance with requirements of [703.24](#).

(H) CONCRETE FINISHES

Finishing of exposed surfaces of PCC structures shall be finished in accordance with requirements of [703.19](#).

320.07 MEASURE AND PAYMENT

PCC work will not be measured separately for payment. The cost thereof, including incidental work and materials, will be included in the payment for the applicable PCC work.