SECTION 32 16 13 02
GRANITE CURB

PART 1 GENERAL

1.1 WORK INCLUDED

A. All labor, material, tools, equipment, transportation, and temporary construction of any nature necessary for a complete operational installation of all work shown on the Plans and/or specified hereinafter.

B. Granite curb shall be installed where shown on the Plans and shall include but not be limited to the following accessory items

   1. Stainless Steel Dowels shall be used to anchor the granite curb and the concrete backfill, and shall conform to the dimensions and details shown on the plans.

   2. Concrete backing for the granite curb, where shown on the plan, shall conform to the plans and these specifications.

   3. Damp Pack Grout shall be applied under the entire length of granite curb as shown on the plans.

   4. Non-Shrink Grout shall be used to anchor stainless steel dowels into granite curb.

   5. Joint filler shall be installed between the CMP slotted edge drain and the granite curb.

   6. Non-shrink grout mortar shall be placed between the ends of the granite curb sections and also between the granite curb sections and the concrete curb/curb & gutter sections.

1.2 RELATED WORK

Consult all other Specification sections, determine the extent and character of related work, and properly coordinate work specified herein with that specified elsewhere to produce a complete operational installation.

1.3 SUBMITTALS

Product submittals are required for Damp Pack Grout, Non-Shrink Grout, and Joint Fillers.
PART 2 MATERIAL

2.1 GRANITE CURB

Granite curb supplier: Cold Springs Granite Co.

2.2 STAINLESS STEEL DOWELS

Stainless Steel 302 or 304 dowels conforming to the provisions of ASTM Designation A 564.

2.3 CONCRETE FOOTING AND BACKING

Concrete backing for granite curbs shall be Class C concrete conforming to the provisions in Section 90, "Portland Cement Concrete" of the Standard Specifications.

2.4 DAMP PACK GROUT

Burke Damp Pack Grout, Order No. (324) 57-272, or approved equal.

2.5 NON-SHRINK GROUT

Burke Non-Ferrous, Non-Shrink Grout, Order No. (324) 57-120, or approved equal.

2.6 JOINTS AND FILTERS

A. Premolded Joint Filler: "Ethafoam" Ceramar flexible 1/2" poly-foam expansion joint as manufactured by W.R. Meadows, or approved equal.

B. Joint Backing (Backer Rod): Closed cell foam backer rod of the size recommended by the manufacturer for the joint sealant. Backer rod is not required in conjunction with "Ethafoam: joint filler.

C. Joint Sealant: Type 1 sealant, gun-grade, polyurethane with a Shore 'A' hardness of not less than 40 after 72 hours. Pacific Polymers, PRCPermapol-270 by PRC, or approved equal.

PART 3 EXECUTION

3.1 STAINLESS STEEL DOWELS

Stainless Steel Dowels shall be installed at the locations shown on the plans. The dowels shall be affixed in the pre-drilled holes in the granite curb and granite caps with the specified non-shrink grout.
3.2 CONCRETE BACKING

A. The concrete backing shall be placed in the trench against the granite curb on one side, undisturbed material on the other side, and the concrete pipe encasement along the bottom of the trench in a manner that will prevent floating or shifting of the curb, and voids in, or segregation of, the concrete. Foreign material which falls into the trench, prior to or during placing of the concrete, shall be immediately removed. Where necessary, earth plugs shall be constructed and compacted at the ends of the planned concrete backing to contain the concrete within the trench.

B. The surface of the concrete backing shall be finished to the specified grade. No material shall be placed on top of the concrete backfill until 8 hours after placing of concrete.

3.3 DAMP PACK GROUT

A. Surface Preparation: All grease, oil, dirt and loose material must be removed and grout contact surface cleaned. Remove any unsound concrete and roughen adjacent concrete surfaced where possible. The clean surfaces should be vacuumed, or blasted with high pressure air or water to remove all debris. Saturate area thoroughly with water 4-16 hours prior to grouting. Remove any excess water before placing grout.

B. Mixing: Place two-thirds (2/3) of the manufacturer's recommended amount of water in the mixing container. Add one 50 lb. bag of damp pack grout while agitating. Add the remaining water and then mix for at least three minutes or until a homogenous mixture is obtained with no lumps or dry grout. Mix as close to the area to be grouted as possible.

C. Placement: Place grout by packing or rodding from one side avoiding the entrapment of air. Be sure to provide sufficient vent holes. Force material against the opposite adjacent sides to assure good bond. Grout must be in complete contact with all surfaces to achieve total load bearing capacity.

D. When placing grout in cold weather (below 50 F.), heat the surrounding surfaces until they are warm to the touch and use warm (90 F) mixing water. Upon placement, apply a membrane curing compound, approved by the Project Manager, and cover with an insulation blanket.

E. When placing at elevated temperatures (above 85 F.), be sure to dampen the adjacent surfaces and use cold mixing water. Protect from drying out by moist curing for 48 hours or by applying a membrane curing compound.

3.4 NON-SHRINK GROUT

A. Surface Preparation: Clean all bonding surfaces to remove grease, oil, dirt or other contamination. Roughen bonding surfaces where possible. Remove all laitance and
other loose material. All excess water must be removed from area just prior to grout placement.

B. Mixing: Start with the minimum amount of water required to achieve the desired consistency per the manufacturer's recommendations. Increase water only as necessary to achieve the desired fluidity. Place the water in the mixing container first and add the grout while mixing continuously. After the grout is added, mix for approximately 5 minutes to assure uniformity. Mix as close to the area to be grouted as possible.

C. Placement: Place grout continuously to avoid the entrapment of air. After placement, keep exposed surfaces damp. Cure grout with moisture for at least 3 days or apply a membrane curing compound approved by the Project Manager. For placement during hot or cold weather conditions, follow ACI recommendations.

END OF SECTION