



**CALEDONIA
GRANITE CURBING**

SPECIFICATION
GUIDE



POLYCOR

SPECIFICATION GUIDE

SECTION 02770 - CALEDONIA GRANITE CURBSTONES

PART 1 – GENERAL

1.1 RELATED SECTIONS

- 1.1.1 Foundation: Section []
- 1.1.2 Bituminous concrete: Section []
- 1.1.3 Concrete sidewalks: Section []
- 1.1.4 Granite pavers: Section []

1.2 SAMPLES

1.2.1 Submit a sample of Caledonia granite showing the color and surface texture according to the requirements of section [].

1.3 PRODUCT DATA

1.3.1 Submit the manufacturer's product data relating to Caledonia granite curbstones.

PART 2 – PRODUCTS

2.1 MATERIALS

2.1.1 Granite: Caledonia granite from the Polycor quarry in Rivière-à-Pierre, Quebec, Canada (1-800-463-2229). The granite must be sound, homogeneous, free of visible defects and cracks, and compliant with the following requirements:

- 2.1.1.1 Compressive strength: 168.4 MPa, dry and perpendicular to the grain.
- 2.1.1.2 Modulus of rupture: 11.7 MPa, dry and perpendicular to the grain.
- 2.1.1.3 Water absorption: 0.18%.
- 2.1.1.4 Bulk mass: 2,705 kg/cubic meter.

2.1.2 Crushed stone: 0–3/4" (0–20 mm), approved by the [Architect] [Engineer].

2.1.3 Spacers: Concrete or granite bricks, 2-1/4" (57 mm) x 3-5/8" (92 mm) x 7-5/8" (195 mm). Bricks with minor surface defects can be used.

2.1.4 Anchor rods: Steel armature rods, deformed, diameter of [1/2" (12 mm)] [5/8" (15 mm)], meeting the requirements of CAN/CSA-G30.18, bent to form a V.

2.1.5 Epoxy grout for anchor rods: Two parts 100% solid epoxy resin (without solvent), impervious to humidity, in accordance with ASTM C881.

2.1.6 Concrete: Compliant with the following requirements:

- 2.1.6.1 Compressive strength: Minimum 15 MPa after 28 days.
- 2.1.6.2 Modulus of rupture: Minimum 4 MPa after 28 days.
- 2.1.6.3 Cement content: Minimum 370 lb./cubic yard (220 kg/cubic meter).
- 2.1.6.4 Water/cement ratio: Maximum 0.75.

2.1.6.5 Large aggregate caliber: 0–3/4" (0–20 mm).

2.1.6.6 Air content: 5 to 8%.

2.1.6.7 Sinking: 3" (80 mm).

2.2 CALEDONIA CURBSTONE FABRICATION

2.2.1 Shape Caledonia curbstones to form sections with straight and chip-free angles, compliant with the following requirements:

2.2.1.1 Thickness: [5" – 127 mm] [6" – 152 mm].

2.2.1.2 Height: As indicated.

2.2.1.3 Length: Minimum 39" (1 meter).

2.2.2 Fabrication tolerances:

2.2.2.1 Height: ± 0.60 in. (15 mm).

2.2.2.2 Width: ± 0.40 in. (10 mm).

2.2.2.3 Projection of visible rock faces: +12%, -6% of the height.

2.2.2.4 Joint squareness: 90°, $\pm 1.5^\circ$.

2.2.3 Finishes:

2.2.3.1 Top and bottom: Sawn.

2.2.3.2 Front and rear: Splitface.

2.2.3.3 Extremities: Sawn with clearance at the bottom.

2.2.4 Curves: Furnish and shape curved curbstones according to radius and arcs on the drawings.

2.2.5 Other curb elements: Furnish all special sections required to complete the project (transitions, low profile curbs, nosings), with quality and finishes similar to standard curbs.

2.2.6 Anchor system: Where indicated, furnish curbstones with factory-drilled holes to receive [1/2" – 12 mm] [5/8" – 15 mm] anchor rods. Drill holes at 45°, at a maximum of 39" (1 meter), never with fewer than 2 holes per curbstone.

PART 3 – EXECUTION

3.1 FOUNDATION

3.1.1 The foundation must comply with the layouts, profiles and levels indicated and be approved by the [Architect] [Engineer].

3.1.2 The foundation must be well drained and compacted at 95% before beginning installation.

3.2 CRUSHED STONE BED

3.2.1 Lay on foundation a 6" (150 mm) thick bed of 0–3/4" (0–20 mm) crushed stone and compact it to a density of 95%.

3.2.2 Adjust the level of the crushed stone bed to allow for installation of the curbstones including their support spacers. Level the crushed stone bed to comply with the indicated finished levels.

3.3 GRANITE CURB INSTALLATION

3.3.1 Lay each curbstone on two concrete or granite spacers. Do not deviate more than 1/4" (6 mm) from the indicated finished layouts, profiles and levels.

3.3.2 Install curb sections with extremities as close together as possible.

3.4 ANCHOR ROD INSTALLATION

3.4.1 Where indicated, embed steel anchor rods into curbstones.

3.4.2 Fix the anchor rods in place with an epoxy grout. Follow the manufacturer's instructions. Let the grout harden before completing fill.

3.5 CONCRETE BED

3.5.1 Pour a light concrete bed (15 MPa) behind and under the curbstones at a minimum rate of 3 cubic yards/100 linear feet (7 cubic meters/100 linear meters). Take care to fill up the space between the support spacers.

3.5.2 Where the curbstones are installed without any lateral retaining support (such as a sidewalk or pavement) pour additional concrete behind the curbstone. The concrete must rise against the back side of the curb in order to form a support with an angle equal to the slope of the concrete in place.

3.6 PROTECTION

3.6.1 Let the concrete harden at least 48 hours before proceeding with any adjacent landscaping work.