

ITEM 560.3111 - - 11 M – PRECAST CONCRETE LANDSCAPE WALL WITH INTEGRALLY CAST STONE
VENEER

Reason for DisApproval:

The manufacturer is not on the “precast product” approved list as per section 704-03.

Spec is DisApproved

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DESCRIPTION

This work shall consist of fabricating and installing a stone masonry clad reinforced portland cement concrete units where and as indicated on the plans. The walls shall be constructed of precast concrete with masonry stone integrally cast at the fabrication site.

MATERIALS

Materials shall meet the following requirements of the Standard Specifications:

Portland Cement Concrete - General	501
Stone Masonry	560-2
Cement Based Grout Materials for Shear Keys	701-06
Precast Concrete - General	704-03
Precast Concrete Barrier	704-05
Epoxy Coated Bar Reinforcement, Grade 420	709-04
Coating Type Protective Sealer	717-04

Stone Masonry shall be from a Department approved source or approved stockpile, and of the type and color indicated on the plans. The stone dimensions shall be as follows:

- Design depth - 150 mm, minimum allowable depth of 100 mm
- Height shall be greater than or equal to 1.5 multiplied by the depth, minimum height - 150 mm
- Minimum length - 200 mm, not to exceed three times the depth

Stone faces shall have no spalls or excessive pitting. The finish shall be split face as defined by Table 560-1 of the Standard Specifications. The degree of roughness of exposed faces shall be measured with a straight edge supported between adjacent projections on the stone face. The maximum joint face and depth between stones shall be 25 mm.

The minimum 28 day concrete compressive strength for the barrier core shall be 28 MPa. Epoxy coated reinforcement shall be as shown on the plans. The grout for Keyways to connect wall sections at the ends, when required, shall be grouted using an approved list material for §701-06 Cement Based Grout Materials for Shear Keys.

The Basis of Acceptance and precast unit tolerance requirements of 704-03 shall apply to the precast components. The landscape wall shall be manufactured by:

Stonecast, Inc.®
P.O. Box 4621
Queensbury, New York 12804
Tel. (518) 745-8035

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CONSTRUCTION DETAILS

Provide a 6 meter sample section of wall at a location designated by the Engineer. Do not construct additional wall before the sample is approved. If acceptable to the Engineer, the Contractor may show for approval, a representative wall system previously installed in lieu of the sample section of wall. Upon approval of the sample wall, the Contractor shall furnish and install wall to conform with the approved sample wall or the approved alternate wall.

The Contractor shall submit shop drawings of the proposed wall for approval. The shop drawings shall include but not be limited to wall layout plans, typical details, and details of special end sections.

Inspection, Storage and Handling of Wall Sections. The precast sections will be inspected at the installation site for the following:

- Damage during shipment
- Conformance to the material requirements
- Quality of the placement of the stone masonry
- Dimensional tolerances under subsection 704-03

An additional inspection will be made prior to placement of the wall sections to determine any damage during storage.

Installation of Wall Sections

A. Excavation and Backfill. The requirements specified in §206-3 Construction Details under Section 206 Trench, Culvert and Structure Excavation, shall apply. The bottom of the wall shall have a full and even bearing on the surface under it. After the wall is in place, the excavation shall be backfilled in accordance with §203-3.15 Fill and Backfill at Structures, Culverts, Pipes, Conduits and Direct Burial Cables.

B. Placement of Wall. Sections shall be installed to form a longitudinal wall, true to line and grade on prepared, compacted subbase, as specified in the contract plans.

Repair of Damaged Sections. Wall sections that are damaged or disturbed prior to acceptance of the contract shall be repaired, realigned or replaced as directed by the Engineer. Sections which cannot be satisfactorily repaired or do not meet dimensional tolerance as determined by the Engineer will be rejected and shall be replaced with acceptable sections. The party responsible for bearing the cost of repair or replacement work will be determined by the Department according to Section 107-09 Damage.

Curing. Precast units shall be wet cured for 7 days. The units may be removed from the forms once a minimum compressive strength of 16.8 Mpa (2400 psi) is achieved.

Inspection, Storage and Handling of Wall Sections. The precast units may be inspected at the fabrication site by the Engineer for conformance with these specifications. The precast sections will be inspected at the installation site for the following:

- Damage during shipment

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- Conformance to the material requirements
- Quality of the placement of the stone masonry
- Dimensional tolerances

An additional inspection will be made prior to placement of the wall sections to determine any damage during storage.

Installation of Wall Sections

A. Excavation and Backfill. The requirements specified in §206-3 Construction Details under Section 206 Trench, Culvert and Structure Excavation, shall apply. The bottom of the wall shall have a full and even bearing on the surface under it. After the wall is in place, the excavation shall be backfilled in accordance with §203-3.15 Fill and Backfill at Structures, Culverts, Pipes, Conduits and Direct Burial Cables.

B. Placement of Wall. Sections shall be installed, true to line and grade on concrete cradle & mortar setting bed as shown on the Contract Plans, to form a longitudinal wall.

C. Joints. Wall sections shall be installed with a maximum open joint width of 13 mm and separated by premoulded resilient joint filler §705-07 and sealed with silicone caulk of a color approved by the Route 9A Landscape Architect, both from the approved list. (Caulk is included only on the approved list under Joint Materials, Pavement – Silicone Joint Sealants (705-05)

Repair of Damaged Sections. Wall sections that are damaged or disturbed through any cause prior to acceptance of the contract shall be repaired, realigned or replaced as directed by the Engineer and at the Contractor's expense. Sections which cannot be satisfactorily repaired or do not meet dimensional tolerance as determined by the Engineer will be rejected and shall be replaced with acceptable sections at the Contractor's expense.

METHOD OF MEASUREMENT

This work will be measured as the number of meters, to one tenth of the meter, of the precast concrete landscape wall with integrally cast stone veneer actually furnished and installed, as specified in the contract documents. The measurements will be taken along the front face of the wall measured at finished ground line. Measurement will not include any sample wall sections not incorporated into the work.

BASIS OF PAYMENT

The unit price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work, including, but not limited to, the cost of the cradle, mortar setting bed, and any repairs required.