

**Item No. 623S  
Dry Stack Rock Wall**

**623S.1 Description**

This item shall govern furnishing and placing dry stack gravity rock walls (Environmental Criteria Manual Section 1.8.2.B.6) in conformance with Standard Detail 623S.1 and as herein specified on a prepared subgrade, including the excavation and backfilling for the wall, to the height, lines, grades, details and locations indicated on the Drawings or as established by the Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

**623S.2 Submittals**

The submittal requirements for this specification item shall include:

- A. Aggregate types, gradations and physical characteristics for the Portland cement concrete mix,
- B. Proposed proportioning of materials for the mortar mix,
- C. Test results for the weathered field limestone,
- D. Aggregate type and gradation scheduled for granular blanket,
- E. Description of filter fabric including characteristics, test data and manufacturer's recommendations for installation

**623S.3 Materials**

A. Rock

Native Rock shall be durable weathered field limestone of suitable quality to ensure permanence in the structure. The stone shall have a wearing loss less than 35 percent when the stone is tested with the Los Angeles Abrasion Machine in accordance with ASTM Test Method C535 (TxDOT Test Method Tex-410A). The loss of material experienced during five cycles of magnesium sulfate exposure conducted in accordance with TxDOT Test Method Tex-411A for Rock RipRap shall not exceed 18 percent.

B. Concrete

Concrete for footings shall be Class A Concrete and conform to Standard Specification Item No. 403S, "Concrete for Structures".

C. Granular Blanket

Flexible Base aggregate conforming to Standard Specification Item No. 210S, "Flexible Base", shall be used for the granular blanket.

D. Mortar

Mortar shall consist of 1 part masonry cement to 3 parts sand by volume, based on dry materials. Mortar which has been mixed longer than 30 minutes or which has developed its initial set shall not be used.

E. Filter Fabric

Filter Fabric conforming to Standard Specification Item No. 620S, "Filter Fabric", shall be used for dry stack rock walls constructed in erodible soils.

**623S.4 Construction Methods**

Dry Stack Rock Wall shall be constructed in horizontal courses, on the prepared and compacted subgrade, granular blanket or concrete foundation as indicated on the Drawings and Standard Detail 623S.1. The horizontal and vertical joints of the two lower and upper stone layers shall be mortared. The remaining horizontal and vertical joints shall be dry or mortared as indicated on the Drawings.

**623S.5 Measurement**

Acceptable work performed as prescribed by this item will be measured by the square foot (square meter: 1 square meter is equal to 10.764 square feet) of finished sloping face. Separate measurement will not be made for backfill, footing or the removal of existing mortared rock walls, and these items shall be included in the unit price bid for the item bids.

**623S.6 Payment**

Work performed and materials furnished or prescribed by this item and measured as provided under "Measurement" will be paid for at the unit bid price per square foot for "Dry Stack Rock Wall". The unit bid price shall include full compensation for: furnishing all materials, completing all excavation including existing mortared rock walls, constructing the footings, backfilling behind the wall and providing all equipment, tools, labor and incidentals necessary to complete the work.

Payment will be made under:

**Pay Item No. 623S:** Dry Stack Rock Wall - Per Square Foot.

**End**

<b><i>SPECIFIC</i></b> CROSS REFERENCE MATERIALS
Specification 623S, "Dry Stack Rock Wall"

City of Austin Environmental Criteria Manual

<u>Designation</u>	<u>Description</u>
Section 1.8.2.B.6	Construction on Slopes

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 403S	Concrete for Structures
Item No. 210S	Flexible Base
Item No. 620S	Filter Fabric

Texas Department of Transportation: Manual of Testing Procedures

<u>Designation</u>	<u>Description</u>
410-A	Abrasion of Coarse Aggregate Using The Los Angeles Machine
411-A	Soundness of Aggregate By Use of Sodium Sulfate or Magnesium Sulfate

American Society for Testing and Materials (ASTM)

<u>Designation</u>	<u>Description</u>
C-535	Standard Test Method for Resistance of Large Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine

<b><i>RELATED</i></b> CROSS REFERENCE MATERIALS
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City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 101S	Preparing Right of Way
Item No. 102S	Clearing and Grubbing
Item No. 111S	Excavation
Item No. 120S	Channel Excavation
Item No. 132S	Embankment
Item No. 606S	Fertilizer
Item No. 608S	Planting
Item No. 610S	Preservation of Trees and Other Vegetation

Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

<u>Designation</u>	<u>Description</u>
Item No. 100	Preparing Right of Way
Item No. 110	Excavation
Item No. 132	Embankment
Item No. 158	Specialized Excavation Work
Item No. 166	Fertilizer
Item No. 168	Vegetative Watering
Item No. 169	Soil Retention Blanket
Item No. 204	Sprinkling