

Special Specification 5119

Stone Masonry Repair



1. DESCRIPTION

This Item will govern for the construction and repair work of stone masonry wall and column composed of approved stone and lime-cement mortar on a concrete footing.

2. MATERIALS

Furnish materials in accordance with the following:

- Item 400, "Excavation and Backfill for Structures"
- Item 421, "Hydraulic Cement Concrete"
- Item 440, "Reinforcement for Concrete"

- 2.1. **Rubble Stone and Roughly Squared Stone.** The stone will be sound, durable limestone, free from structural defects, uniform in color and texture, and will be clean of earth, clay, oil or other foreign substances. Stones will be of the type and thickness shown on the plans or match the type and thickness for repair work.

3. CONSTRUCTION METHODS

General. Submit samples of the stone which show the complete color range to the Engineer for approval.

Verify all dimensions incidental to this work and promptly report any discrepancies to the Engineer.

Construct stone masonry in accordance with these specifications, in conformity with the form, dimensions, and design shown on plans, and to the lines and grades established by the Engineer.

- 3.1. **Mortar.** Mix mortar in the proportions by volume of 1 part Portland cement, 1 part hydrated lime, and 4 parts of sand; or, 1 part of Type II masonry cement and 3 parts of sand.
- 3.1.1. Add water content in the mortar to obtain a workable plastic mortar. Mix for a minimum period of 3 min. in a drum type batch mixer and used within 1 hr. after mixing. Discard mortar not used within that time and re-tempering is not permitted. Clean mortar boxes at the end of each day's work.
- 3.2. **Footing.** Construct a reinforced concrete footing to the dimensions shown on the plans. The footing will be given a wood float finish and will be in place a minimum of 24 hr. before any masonry is placed on it. No curing or strength testing of the footing will be required.
- 3.3. **Workmanship.** Set stone masonry by a competent, experienced mason. Each stone will be cleaned, sponged, and drenched with clean water just before setting. Each stone will be set in a full bed of plastic mortar.
- 3.3.1. Face joints of Random Rubble Stone may vary from 1/2 in. to 2 in. in thickness. Face joints of Roughly Squared Stone may vary from 1/4 in. to 1/2 in. in thickness. Make joints uniform and raked out 3/4 in. deep for face pointing. Where necessary to prevent crushing mortar, small lead pads the thickness of the joint and set 1 in. back of the face will be used. Wood wedges will not be allowed. Joints not pointed at the time the stone is laid will be thoroughly wet with clean water and filled with mortar. Drive mortar into the joints and finished with an approved pointing tool. Keep wall wet while the pointing is being done.

- 3.3.2. Clean all showing surfaces of loose mortar and cement stains after the pointing is completed and the mortar set. Just prior to the completion of the contract clean the showing surfaces again in a manner satisfactory to the Engineer.

4. MEASUREMENT

This Item will be measured by the sq. ft. of surface area, complete in place. The coping and concrete footing are not included in the measurement of the masonry area. Only accepted work will be included, and the dimensions used for measurement will be those shown on the plans or ordered in writing by the Engineer.

5. PAYMENT

The work performed and materials furnished, when required, in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Stone Masonry Repair." This price will be full compensation for furnishing and hauling all materials; for all freight involved; for preparing and placing all materials, including concrete and reinforcement for footing and stone masonry wall; stone masonry column; and for all labor, tools, equipment, anchoring appurtenances, and incidentals necessary to complete the work.

The coping and concrete footing will be subsidiary to this item.