

SECTION 02840 – ROCK RIPRAP FOR ROCK CHUTES

PART 1 – GENERAL

1.1 DESCRIPTION:

- A. This section covers rock riprap to be used at various locations within the project area. Items include, but are not necessarily limited to:
 - 1. Procurement, storage and handling of riprap.
 - 2. Preparation of subgrade for installation of riprap.
 - 3. Installation of riprap.

1.2 RELATED WORK IN OTHER SECTIONS:

- A. Excavation, Filling, and Grading: Section 02200
- B. Filter Fabric: Section 02205

1.3 REFERENCES:

- A. The publications listed below form a part of this specification to the extent referenced. The latest revision of the following standards shall apply to work hereunder:
 - 1. ASTM C 88: Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
 - 2. ASTM C 127-88: Standard Test Method for Specific Gravity and Absorption of Coarse Aggregate
 - 3. ASTM D 5312-92: Standard Test Method for Evaluation of Durability of Rock for Erosion Control under Freezing and Thawing Conditions

1.4 LINES AND GRADES:

- A. All placement of riprap shall conform to the lines and grades shown on the drawings.

PART 2 – PRODUCTS

2.1 ROCK RIPRAP:

- A. Material shall be free from dirt, clay, sand, rock fines and other materials not meeting the required gradation limits.
- B. The rock shall be dense, sound and free from cracks, seams and other defects conducive to accelerated weathering. Except as otherwise specified, the rock shall be angular to sub rounded in shape. The least dimension of an individual rock fragment shall not less than one-third the greatest dimension of the fragment.

- C. The riprap materials shall be reasonably well graded by weight within the limits stated on the Drawings:

PART 3 – INSTALLATION

3.1 INSTALLING ROCK RIPRAP:

- A. The sub-grade surfaces on which the rock riprap, filter, bedding or geotextile is to be placed shall be cut and graded to the lines and grades shown on the drawings. The surface to which the riprap is to be placed shall be reasonably smooth and free of mounds, dips, or windrows.
- B. The riprap shall be placed by equipment on the surfaces and to the depths specified. The riprap shall be installed to the full course thickness in one operation and in such a manner as to avoid serious displacement of the underlying material. The riprap shall be delivered and placed in a manner that will ensure that the riprap shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks and spalls filling the voids between the larger rocks. Riprap shall be placed in a manner to prevent damage to structures. Hand placing will be required as necessary to prevent damage to any new and existing structures.

3.2 MAINTENANCE:

- A. If, at any time before 2 months after the completion and acceptance of the work, there shall be any settlement requiring repairs to be made in any property along the line of work, or should any defect appear in the work due to neglect, carelessness or improper construction on the part of the Contractor, the Contracting Officer will notify the Contractor to make such repairs and remedy any defects. The Contractor shall, within 5 days after such notice, begin and carry out such repairs at no additional cost to the Owner.

END OF SECTION 02840