

PART 1 GENERAL

1.1 Work Included

- .1 The Work covered by this Section includes placement of rip-rap stone as required.

1.2 Related Sections

- .1 Section 31 05 16 – Aggregates.
- .2 Section 31 23 33.01 – Trenching and Backfilling.
- .3 Section 33 42 13 – Pipe Culverts.

PART 2 PRODUCTS

2.1 Stone

- .1 Rip-rap stone to shall be in accordance with Section 31 05 16 – Aggregates.

PART 3 EXECUTION

3.1 Placement

- .1 Where rip-rap is to be placed on slopes, excavate trench at toe of slope to dimensions as indicated.
- .2 Fine grade area to be rip-rapped to uniform, even surface. Fill depressions with suitable material and compact to provide firm bed.
- .3 Place stones in a manner approved by the Owner's Representative to secure surface and create a stable mass. Place larger stones at bottom of slopes.
- .4 Hand placing:
 - .1 Use larger stones for lower courses and as headers for subsequent courses.
 - .2 Stagger vertical joints and fill voids with rock spalls or cobbles.
 - .3 Finish surface even, free of large openings, and neat in appearance.
- .5 Where required, install a geotextile filter fabric on a firm, compacted bed as recommended by the manufacturer. Place rip-rap in such a manner as to avoid damage to geotextile filter fabric.

PART 4 BASIS FOR PAYMENT

4.1 Rip-Rap

- .1 Unit of Measurement: Square Metres
- .2 Method of Measurement: The number of square metres of rip-rap supplied and placed.

- .3 Item Includes: Supply, processing, handling, and placement of the rip-rap and geotextile, excavation and backfill of key trench, and fine grading as specified, and all materials, equipment, tools, labour, and incidentals necessary to complete the Work.

END OF SECTION