

## SECTION 2210

### RIPRAP

#### 1.00 GENERAL

##### 1.01 Description.

- A. Work shall consist of the furnishing and placement of riprap according to the location(s) as shown on the project drawings.
- B. Work shall conform to the provisions of Section 506 "Riprap" of the Standard Specifications for Road and Bridge Construction, State Department of Highways, Division of Highways, State of Colorado, latest edition except as modified wherein or as accepted in project documents.

#### 2.00 PRODUCTS

##### 2.01 Riprap

- A. Riprap shall consist of hard, dense rough fractured rock as nearly cubical as possible. Thin slab, flaking rock and sandstone shall not be used. The rock shall have a minimum specific gravity of 2.25. Removed concrete may not be substituted for rock.
- B. The average diameter of rock shall be as shown on the project drawings.

#### 3.00 CONSTRUCTION METHODS

3.01 Slope Preparation. Areas on which the riprap is to be placed will be trimmed and dressed to conform to cross sections shown on the Drawings within an allowable tolerance of plus or minus two inches (2") from the theoretical slope lines and grades. Where such areas are below the allowable minus tolerance limit, they shall be brought to grade by filling with material similar to the adjacent material and well compacted with no additional compensation to be allowed to the Contractor for any extra materials thus required.

3.02 Filter Cloth. As required by accepted Submittals

3.03 Bedding Blanket. To be six inches (6") thick placed on top of prepared slope and under riprap where called for on Drawings.

<u>Sieve Measure</u>	<u>% By Weight Passing Square Mesh Sieves</u>	
3"		100
3/4"	20	90
#4	0	20
#200	0	3

3.04 Riprap Placement. Stone for riprap will be placed on the prepared slope in such a manner as to produce a reasonably well-graded mass of rock with the minimum practicable percentage of voids, and will be constructed within tolerances specified herein and to the slopes, lines, and grades shown on the Drawings or as otherwise approved by the Town.

The placement of riprap at all drainage pipe will be such as not to obstruct the flow in any way. In all other areas, a tolerance of plus or minus three inches (3") from the slope lines and grades shown on the drawings shall be allowed in the finished surface of the riprap (see Section 506.03).

Riprap will be placed to its full course of thickness in one operation. The placing shall progress upwards on the slopes. The riprap will be carefully placed on the prepared slope in such a manner that adjacent stones are in close contact and, in general, have their greatest dimensions across or perpendicular to the slope. Through stones will be well distributed throughout the mass.

As used herein, a "through stone" is defined as a stone whose dimension as normal to the surface being riprapped is not less than the full depth of riprap. The finished riprap will be free of objectionable pockets of small stone and clusters of larger stones. Placing riprap in layers will not be permitted.

End of Section