

Wharf Reconstruction  
Seal Cove White Bay, NL

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## PART 1 - GENERAL

- 1.1 GENERAL .1 This section specifies the requirements for rip rap material to protect the side slopes on the infilled area at approach. Rip rap will not be measured separately for payment and is to be included in the lump sum arrangement. Similarly, the stone barricades at the top of the slope (as noted on the drawings) will not be measured for payment and is to be included in the lump sum.
- 1.2 REFERENCES .1 American Society for Testing and Materials (ASTM)  
.1 ASTM C117-04, Standard Test Method for Material Finer than 0.075 mm Sieve in Mineral Aggregates by Washing.  
.2 ASTM C136-06, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
- .2 Canadian General Standards Board (CGSB)  
.1 CAN/CGSB-8.1-88, Sieves, Testing, Woven Wire.  
.2 CAN/CGSB-8.2-M88, Sieves, Testing, Woven Wire, Metric.
- 1.3 SUBMITTALS .1 Submit to Departmental Representative for approval, 4 weeks before blasting, details of proposed blasting operations showing types and quantities of explosives, loading charges and patterns, type of blasting caps, blasting techniques, blast protection measures, time of blasting and other pertinent details. Submit subsequent changes to Departmental Representative before proceeding.
- 1.4 REGULATORY REQUIREMENTS .1 Comply with municipal, provincial and national codes and regulations relating to project.

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## PART 2 - PRODUCTS

### 2.1 ROCK MATERIAL

- .1 Hard, angular rock free from cracks, seams and other defects which may impair durability.
- .2 Relative density, 2.65 minimum.
- .3 Absorption, 1.5 to 2.0% maximum as determined by ASTM C127 test procedure.
- .4 Durability, less than 35% abrasion Wear, ASTM C535 test procedure.
- .5 Sulphate Soundness Determination maximum 12% by ASTM C88.

### 2.2 RIP RAP

- .1 New rip rap to be hard, dense with relative density (formally specific gravity) not less than 2.65, durable quarry stone, free from seams, cracks or other structural defects, to meet following size distribution for use intended.
- .2 Rip-rap stone to be well graded, sizes as indicated on drawings (1 tonne).
- .3 Supply rock spalls to fill open joints.
- .4 Field stones of appropriate sizes are acceptable for hand placed rip-rap.
- .5 Stone barricades at top of the slope to be as shown on the drawings.

## PART 3 - EXECUTION

### 3.1 GENERAL

- .1 Take precautions not to damage existing properties during hauling of rock materials.

Damage to existing roads or other private or public properties will be repaired at the Contractor's expense.

### 3.2 PREPARATION

- .1 Haul roads: construct and maintain haul roads.

### 3.3 RIP RAP

- .1 Place rip-rap as directed to thickness and details indicated or as designated by Departmental Representative.
- .2 Where rip-rap is to be placed on slopes, excavate trench at toe of slope to dimensions as indicated.
- .3 All side slopes to be as shown on the drawings.
- .4 Fine grade area to be rip-rapped to uniform, even surface. Fill depressions with suitable material and compact to provide firm bed.
- .5 Place stones in manner approved by Departmental Representative to secure surface and create a stable mass. Place larger stones at bottom of slopes.
- .6 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.
- .7 Finish surface evenly, free of large openings and neat in appearance.