

**Breakwater Repairs****Battery Pt.****Lunenburg, Nova Scotia****Project No.R.074340.001**

Granular Base

Page 1

PART 1 - GENERAL

- 1.1 Related Work .1 Refer to other Specification Sections for related information.
- 1.2 Reference Standards .1 ASTM D698-91 (or latest edition) Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft) - Method C.
- 1.3 Measurement for Payment .1 Granular base will be measured in accordance with **Section 01 29 00**.

PART 2 - PRODUCTS

- 2.1 Materials .1 Granular Base: Material to **Section 31 05 17** and following requirements:
- .1 Crushed stone or gravel consisting of hard, durable, angular particles, free from clay lumps, cementation, organic material, frozen material and other deleterious materials.
- .2 Type 1 (previously Class "A") granular fill gradation will be within following limits:

| ASTM SIEVE<br>SIZE | % PASSING BY<br>MASS |
|--------------------|----------------------|
| 20 mm              | 100                  |
| 14 mm              | 50 - 85              |
| 5 mm               | 20 - 50              |
| 0.16 mm            | 0 - 10               |
| 0.080 mm           | 0 - 7                |

PART 3 - EXECUTION

- 3.1 Inspection of Underlying

**Breakwater Repairs****Battery Pt.****Lunenburg, Nova Scotia****Project No.R.074340.001**

## Granular Base

## Page 2

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- |                              |    |   |
|------------------------------|----|---|
| <u>Sub-Base</u>              | .1 | Do not place granular base until finished sub-base surface is inspected and approved by <i>Departmental Representative</i> .  |
| <br>                         |    |   |
| 3.2 <u>Placing</u>           | .1 | Place material only on a clean unfrozen surface, properly shaped and compacted and free from snow and ice.  |
|                              | .2 | Place using methods which do not lead to segregation or degradation of aggregates.  |
|                              | .3 | Place material to full width in a uniform layer to mm compacted thickness.  |
|                              | .4 | Shape each layer to a smooth contour and compact to specified density before succeeding layer is placed.  |
| <br>                         |    |   |
| 3.3 <u>Compacting</u>        | .1 | Compact to density not less than 98% maximum dry density in accordance with ASTM D698.  |
|                              | .2 | Shape and roll alternately to obtain a smooth, even and uniformly compacted base.   |
|                              | .3 | Apply water as necessary during compacting to obtain specified density. If material is excessively moist, aerate by scarifying with suitable equipment until moisture content is corrected. |
|                              | .4 | In areas not accessible to rolling equipment, compact to specified density with approved mechanical tampers.  |
| <br>                         |    |   |
| 3.4 <u>Finish Tolerances</u> | .1 | Finished base surface shall be within plus or minus 10 mm of established grade but not uniformly high or low.   |
|                              | .2 | Correct surface irregularities by loosening and adding or removing material until surface is within specified tolerance.  |
| <br>                         |    |   |
| 3.5 <u>Maintenance</u>       | .1 | Maintain finished base in a condition conforming to this section until succeeding material is applied or until acceptance.  |