

PART 1 - GENERAL

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| <u>1.1 RELATED SECTIONS</u> | .1 | Section 31 11 00 - Siteworks, Demolition and Removals. |
| | .2 | Refer to Section 01 33 00 for Shop Drawings/ Submission Requirements. |
| <u>1.2 REFERENCE STANDARDS</u> | .1 | ASTM C127-88 (1993)el (or latest edition) Specific Gravity and Absorption of Coarse Aggregate. |
| | .2 | AASHTO T85-88 (or latest edition) Specific Gravity and Absorption of Coarse Aggregate. |
| <u>1.3 SUBMISSIONS</u> | .1 | Product Data/Samples:
.1 Provide samples of materials proposed for the work. |
| | .2 | Methodology:
.1 Provide methodology for carrying out the work. |
| | .3 | Provide submissions in accordance with Section 01 33 00. |
| <u>1.4 MEASUREMENT FOR PAYMENT</u> | .1 | Measurement of, supply and installation of rock fill, including compaction, in cubic meters placed measure (CMPM) as indicated on Department drawings. |
| | .2 | Rock fill prices will include the entire cost of supplying and placing the material in the work, rough grading as necessary, the levelling and finish grading of the listed materials, taking soundings, diving inspections, shoring, bracing, underpinning, dewatering of excavation, all as shown on the drawings, and as specified. |
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PART 2 - PRODUCTS

- 2.1 MATERIALS
- .1 Hard durable, crushed quarried rock, free from silt, clay, organic matter and other foreign substances and free from splits, seams or defects likely to impair its soundness during handling or under action of water.
 - .2 Specific gravity of not less than 2.65 when tested to ASTM C127 or AASHTO T85. Max absorption shall be 3.5%.
 - .3 Rock fill shall be imported, well graded and free from fines. Gradation as per Table 1. The following materials will not be considered acceptable for use as rock fill: slate, siltstone, sandstone, shale, conglomerate, and mudstone. The material is to be blended to ensure a homogeneous mix of smaller and larger stone sizes will be obtained.

Table 1

<u>Sieve Size</u>	<u>% Passing</u>
600 mm	100
200 mm	45-70
100 mm	25-40
50 mm	0

PART 3 - EXECUTION

- 3.1 ROCK FILL
- .1 Place rock fill material to lines, grades and dimensions indicated on the plan.
 - .2 Execute work in such a manner to protect rock fill material from storm wave action or tidal erosion damage. Replacement of material lost due to storm or erosion damage will be the responsibility of the Contractor.
 - .3 Rock fill material may be placed by end dumping.
 - .4 Rock fill shall be compacted to 98% Standard Proctor Density.

- 3.2 TOLERANCES .1 Completed rock fill layers to be within a tolerance of +/- 50mm of line and grades indicated.
- 3.3 PROTECTION .1 Take into account anticipated weather conditions and degree of exposure of site in setting requirements for protection.
- .2 Schedule and carry out construction so that each phase of work is not left exposed longer than necessary.
- .3 The Contractor should note that the work site is subject to water level variations due to tidal action.
- .4 The Contractor will be responsible to replace any material lost due to storms, tidal erosion or by his own activities.

PART 1 - GENERAL

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| <u>1.1 RELATED SECTIONS</u> | .1 | Refer to other specification sections for related information. |
| | .2 | Refer to Section 01 33 00 for Shop Drawings/ Submission Requirements. |
| <u>1.2 SUBMISSIONS</u> | .1 | Product Data/Samples:
.1 Provide samples of materials proposed for the work. |
| | .2 | Methodology:
.1 Provide methodology for carrying out the work. |
| <u>1.3 MEASUREMENT FOR PAYMENT</u> | .1 | Measurement of, supply and installation of Type 1 granular base, including compaction, to be in square meters (m2) as indicated on Department drawings from neat dimensions indicated or authorized in writing by Department Representative. |

PART 2 - PRODUCTS

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| <u>2.1 MATERIALS</u> | .1 | Granular Base: Material to Section 31 05 17 and the 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 the following limits: |
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2.1 MATERIALS .2 (Cont'd)
(Cont'd)

<u>ASTM Sieve Size</u>	<u>% Passing by Mass</u>
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 PLACEMENT
- .1 Do not place clear stone material until rock fill area has been accepted by Departmental Representative.
 - .2 Place clear stone material to avoid segregation of material sizes.
 - .3 Level top surface to specified grade.
 - .4 Grade, lines, dimensions, and quantity of rock fill material to be reviewed and approved by the Departmental Representative before proceeding with pouring the concrete deck.

- 3.2 TOLERANCES
- .1 Surfaces of bearing layer to be within 25mm of elevation indicated and variation in elevation over whole area of bearing layer not to exceed 50mm. Variation shall be acceptable if the top surface is below the design grade only.

- 3.3 PROTECTION
- .1 Take into account anticipated weather conditions and degree of exposure of site in setting requirements for protection.
 - .2 Schedule and carry out construction so that each phase of work is not left exposed longer than necessary.
 - .3 The Contractor should note that the work site is subject to water level variations due to tidal action.

3.3 PROTECTION <u>(Cont'd)</u>	.4	The Contractor will be responsible to replace any material lost due to storms, tidal erosion or by his own activities.
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