

**CONCRETE PAVERS**

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**1.0 PAVERS - GENERAL**

**1.1 RELATED WORK SPECIFIED IN OTHER SECTIONS**

1.1.1 Site Preparation - Excavation and Fill - Section 05210

**2.0 PRODUCTS**

**2.1 MATERIALS**

2.1.1 Crushed stone and gravel consisting of hard, durable, angular particles, free from lumps, cementation, organic material, frozen material, and other deleterious materials.

2.2.2 Physical Properties of Aggregates

% Fracture, by Weight (2 Faces)	-60 min
Los Angeles Abrasion, loss, %	-45 max
Liquid Limit, %	-25 max
Plasticity Index, %	- 6 max
Lightweight Particles, %	- 5 max
California Bearing Ratio, when Compacted to 100% of ASTM D698	-80 min

2.2.3 Gradation to be within the following limits when tested to ASTM C-117 with the sieve sizes to CAN/CGSBD 8-GP-2M rather than ASTM E11, and to have a smooth curve without sharp breaks when plotted on a semi-log grading chart.

<b>SIEVE SIZE</b>	<b>% PASSING BY WEIGHT</b>
25 000	100
16 000	73 - 94
10 000	56 - 80
5 000	40 - 66
1 250	24 - 45
315	13 - 27
160	9 - 19
80	4 - 10

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- 2.2.4 Sand fill shall be free from clay, shale and any other organic matter and shall be graded as follows:

<b>SIEVE SIZE</b>	<b>% PASSING BY WEIGHT</b>
5 000	100
2 000	80 - 90
400	40 - 55
63	2 - 10

- 2.2.5 Paving Stones shall be Holland stone, or approved similar 225 X 115 X 60 mm thick. Colour shall be determined following submission of samples. Two colours shall be provided.
- 2.2.6 Edge restraints shall be shown on the Contract Drawings and shall be subject to the approval of the Engineer.

**3.0 EXECUTION**

**3.1 STANDARD BASE CONSTRUCTION**

- 3.1.1 Pavers to be installed as per manufacturers specifications in patterns indicated on the drawings.
- 3.1.2 Excavate material as required to accommodate subbase and remove excavated material from the site.
- 3.1.3 Compact subgrade, install gravel and compact sand and pavers according to manufacturer's specifications.
- 3.1.4 Where thickness of base courses differ between the drawings, and the manufacturer's instruction, the drawings shall govern.
- 3.1.5 Ensure that finished grade of pavers is consistent with spot elevations and pitches as indicated on the drawings.
- 3.1.6 Place and level pavers ensuring that edges are level with adjacent blocks.
- 3.1.7 Ensure that there is no rocking of pavers when pressure is applied at any given corner.

**3.2 CONSTRUCTION OF LEAN CONCRETE BASE**

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- 3.2.1 Excavate as required to accommodate subbase and remove excavated material from site.
- 3.2.2 The lean concrete base should be a minimum of 50 mm in depth and placed on a compacted gravel base. Compaction of the gravel base will be to 98% of maximum design density.
- 3.2.3 Where insulation is required it shall be Type H 35 or equal and will be situated between crushed gravel and lean concrete.
- 3.2.4 The lean concrete base will conform to design grade and cross section with a tolerance of 14 mm in 3 M.

**3.3 SAND LAYING COURSE**

- 3.3.1 The sand laying course shall be spread evenly over the area to be paved and screeded to a level that will produce the required thickness when the paving stones have been placed and vibrated.
- 3.3.2 Once screeded level the sand laying course shall not be disturbed in anyway.

**3.4 LAYING OF CONCRETE PAVING STONES**

- 3.4.1 The paving stones shall be laid in patterns indicated on the drawings and approved by the Engineer.
- 3.4.2 The paving stones shall be laid in such a manner that the described pattern is maintained and the joints between the stones do not exceed 3 mm.
- 3.4.3 The gaps at the edge of the paved surface shall be filled with standard edge pieces with stones cut to fit. The stones shall be cut to a straight even surface without cracks or chips.
- 3.4.4 Pavers shall be cut to fit cleanly around structures i.e. Building edges, tree boxes, garbage receptacle bases, light bases, etc.
- 3.4.5 The paving stones shall be vibrated to their final level.
- 3.4.6 After vibration, sand shall be brushed over the surface and vibrated to completely fill the joints. Sands worked between the paving stones shall be thoroughly mixed with 6% by weight of bentonite clay.

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- 3.4.7 Surplus material shall be swept from the surface and the entire site left clean.
- 3.4.8 After final vibration the surface shall be true to line and grade and shall not vary by more than 8 mm when tested with a 3 M board at any location on the surface.
- 3.4.9 Top of pavers shall be laid flush with adjacent finished surfaces.

**4.0 METHOD OF PAYMENT**

**4.1 PAVERS**

Pavement for pavers shall be made at a unit price bid per square metre measured in place. This price shall include excavation, subgrade preparation and compaction, granular base, sand bedding supply and installation of pavers, compaction, clean up and all other work incidental thereto.

**4.2 PAVERS ON LEAN MIX BASE**

Payment for pavers will be made at the unit price bid per square metre, measured in place. This will include excavation, subgrade preparation and compaction, granular base, sand bed, supply and installation of pavers, compaction, clean up and all other work incidental thereto.