

## Approval & Reception Procedure

DG – Geotechnical Department	
<b>Sub-grade Material for Road Construction</b>	Document no. <b>ARP/DG/02</b>
	Date: <b>2010/07/01</b>
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### 1. Reference standard

Guia de Dimensionamento de Fundações, Regulamento de Fundações, Regulamento de Estruturas de Suporte e Obras de Terra), ASTM C127, ASTM C128, ASTM C136, ASTM D422, ASTM D 1241, ASTM D1557, ASTM D1883, ASTM D4253.

### 2. Approval procedures

*Lot: A lot is any quantity limited to 5000m<sup>3</sup> of materials of the same type and origin used for sub-grade layer of a pavement.*

#### 2.1 Information to be submitted

Type of material

Source of material

Test report (not older than 6 months)

#### 2.2 Sampling

For soil samples, the minimum mass of the sample for testing shall be 60 kg.

For sand samples, the minimum mass of the sample for testing shall be 30 kg.

For crush stone samples, the minimum mass of the sample for testing shall be 30 kg.

#### 2.3 Laboratory Tests

For soil samples, the following laboratory tests shall be performed (1 test per lot):

Particle Size Distribution Test (ASTM D422)

Proctor Test (modified) (ASTM D1557)

CBR Test (ASTM D1883)

For sand samples, the following laboratory tests shall be performed (1 test per lot):

Particle Size Distribution Test (ASTM D422)

Maximum index density (Vibratory Table) (ASTM D4253)

For crush stone samples, the following laboratory tests shall be performed (1 test per lot):

Particle Size Distribution Test (ASTM C136)

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Specific Gravity Test (ASTM C127, C128)

### 3. Field Tests

The reception of compactness of sub-base and base follow Approval & Reception Procedure ARP/DG/07 “Compaction of Sub-grade”.

### 4. Acceptance criteria

Technical specification must be followed.

For Particle Size Distribution Test, ASTM D1241 is suggested.

For CBR Test, test result shall comply with the requirement of specification (normally CBR  $\geq 15$ ).