

**Part 1 General**

**1.1 RELATED REQUIREMENTS**

- .1 Section 31 05 16 – Aggregate materials

**1.2 REFERENCE STANDARDS**

- .1 Canadian Standards Association (CSA International)
  - .1 CSA-A23.1-04/A23.2-04, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
  - .2 Quebec standard office – standard NQ: 2624-210

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submittals in accordance with Section 01 33 00- Submittal Procedures.
- .2 Inform Departmental Representative of proposed source of materials and provide access for sampling at least 4 weeks prior to commencing work.

**1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Waste Management and Disposal:
  - .1 Separate waste materials for recycling in accordance with Section 01 74 21- Construction/Demolition Waste Management and Disposal.

**Part 2 Products**

**2.1 MATERIALS**

- .1 Concrete mixes and materials, 15 MPa
- .2 Road curbs (PBO-300R-XX) in accordance to NQ 2624-210.
  - .1 Absorption %: Less than 5%
  - .2 Compressive strength: More than 45 MPa
  - .3 Dynamic elastic modules after 500 freeze and thaw cycles %: No less than 60%
- .3 Granular base: material to Section 31 05 16- Aggregate Materials following requirements:
  - .1 Crushed stone or gravel.
  - .2 Gradations: within limits specified when tested to ASTM C136. Sieve sizes to CAN/CGSB-8.1.

**Part 3 Execution**

**3.1 GRADE PREPARATION**

- .1 Do grade preparation work in accordance with Section 31 23 33.01- Excavating, Trenching and Backfilling.

- .2 Construct embankments using excavated material free from organic matter or other objectionable materials.
  - .1 Dispose of surplus and unsuitable excavated material off site.
- .3 Place fill in maximum 150 mm layers and compact to at least 95 % of maximum dry density to ASTM D698.

### **3.2 GRANULAR BASE**

- .1 Obtain Departmental Representative's approval of subgrade before placing granular base.
- .2 Place granular base material to lines, widths, and depths as indicated.
- .3 Compact granular base in maximum 150 mm layers to at least 95% of maximum density to ASTM D698.

### **3.3 CONCRETE**

- .1 Obtain Departmental Representative approval of granular base prior to placing concrete.

### **3.4 TOLERANCES**

- .1 Finish surfaces to within 3mm in 3 m as measured with 3 m straightedge placed on surface.

### **3.5 BACKFILL**

- .1 Allow concrete to cure for 24 hours prior to backfilling.
- .2 Backfill to designated elevations with material as directed by Departmental Representative.
  - .1 Compact and shape to required contours as indicated Departmental Representative.

### **3.6 CLEANING**

- .1 Proceed in accordance with Section 01 74 11- Cleaning.
- .2 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

**END OF SECTION**