



vegetative growth and suitable for use in top dressing, landscaping and seeding.

.2 Material reasonably free from subsoil, clay lumps, brush, objectionable weeds, and other litter, and free from cobbles, stumps, roots, and other objectionable material larger than 25mm in any dimension.

.4 Waste material: excavated material unsuitable for use in Work or surplus to requirements.

.5 Borrow material: material obtained from locations outside area to be graded, and required for construction of fill areas or for other portions of Work.

.6 Recycled fill material: material, considered inert, obtained from alternate sources and engineered to meet requirements of fill areas.

1.4 ACTION AND  
INFORMATIONAL  
SUBMITTALS

.1 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Preconstruction Submittals:

.1 Submit records of underground utility locates, indicating: location plan of relocated and abandoned services to Departmental Representative, as required.

.3 Samples:

.1 Inform Departmental Representative at least 4 weeks prior to beginning Work, of proposed source of fill materials and provide access for sampling.

.2 Submit 70 kg samples of type of fill specified including representative samples of excavated material.

.3 Ship samples to Departmental Representative, in tightly closed containers to prevent contamination and exposure to elements.

.4 Make submittals in accordance with Section





- Representative reviews the material and deems it useful. Permission must be granted by Department Representative.
- .4 Following completion of unsuitable material removal, exposed sub-grade shall be proof rolled.
  - .5 Soft spots or loose areas defined by the proof rolling process will be excavated and refilled with 100mm Crushed Gravel fill and compacted to 95% of the material's maximum dry density as determined in accordance with ASTM D1557 (Modified Proctor).
  - .6 Excavation to be backfilled with approved 100mm Crushed Gravel. The top 300mm below finished surface grade is to be 31.5mm Crushed Gravel material (see herein);
  - .7 Fill shall be placed in lifts not exceeding 300mm in loose thickness, and be compacted throughout the lift thickness to a maximum of 95% the material's maximum dry density as determined in accordance with ASTM D1557 (Modified Proctor). Depending on the compaction equipment, thinner lifts may be necessary in order to achieve the specified compaction criteria.
  - .8 In the event of winter construction, fill shall be placed and compacted in an unfrozen condition.

**31.5mm Crushed Gravel**

Shall meet the requirements of NBDTI 31.5mm Crushed Gravel Aggregate Base.

**100mm Crushed Gravel**

Shall meet the requirements of NBDTI 100mm Crushed Gravel Aggregate Subbase.

**Sand**

Where required, shall meet the requirements of Concrete Sand CSA A23.1







- for continuous placement of fill lifts during the work day without the requirement for excavation of frozen material prior to placement of the next lift.
- .2 For immediate fill lifts, frost protection (e.g.: straw, insulated tarp, etc.) should be provided at the end of the work day, or alternatively, fill that freezes overnight should be removed in the morning. Snow and ice is considered unsuitable for construction (see Section 2.1.2.1) and should be completely removed from the excavation. Fill surfaces should be sloped to prevent ponding of water during milder weather.
  - .3 The final fill surface, the base of slab subgrade should be protected from freezing. If the final fill surface is exposed to freezing temperatures, heat will be required to thaw the soil. Test pits and temperature readings should be completed to determine if the soil is above freezing. Consideration should also be given to the installation of thermocouples in the fill during placement, as a means of reading temperatures at depth
  - .4 Loose edges of the structural fill lifts should be avoided to reduce frost penetration. Edges of fill lifts should be tapered and compacted.
  - .5 Regular checks of the temperature of the fill should be made. The soil temperature should be greater than +2°C to allow for compaction to the



