July 2011 No. 550

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#### SPECIFICATIONS FOR LANDSCAPING

#### 550. 1 SCOPE

Landscaping shall include the supplying and placing of topsoil and sod in areas as described in the special provisions or as shown on the Detailed Design Drawings.

#### 550. 2 MATERIALS

#### 2.1 Topsoil

Topsoil shall consist of an imported clay textured or loam textured dark peat, a friable material containing no more than 25% nor less than 5% by volume organic matter (peat, rotted manure or composted materials). It shall be free of roots and any subsoil clay lumps, stones and roots over 15mm diameter and free of any other extraneous material.

# 2.2 Sod

Sod shall be supplied by the Contractor and shall consist of the following alternatives:

- (a) Nursery sod grown from Canada No. 1 Kentucky Blue Grass or a mixture of Kentucky Blue and Creeping Red Fescue.
- (b) Cultured sod produced from native grass sod improved by top seeding with Canada No. 1 grade Kentucky Blue Grass after at least two years of maintenance in the field.

Sod shall be healthy field grown sod containing not more than 12 mm thick thatch. The age of the sod shall be not less than 8 months or more than 16 months. Sod shall be machine cut at a uniform soil thickness of 15 mm  $\pm$  6 mm, not including top growth and thatch.

The sod shall be free from disease, weeds, insects, and non-desirable types of grasses and clovers. The sod field shall contain a good stand of grass without couch grass present in the sod. The Engineer will not accept sod sections with couch grass.

The sod shall have a soil base of 25 mm and shall be mowed to a height of 40 mm prior to delivery. Sod shall be protected with tarps or other protective covers during delivery and shall not be allowed to dry out during delivery or prior to placement.

### 550. 3 CONSTRUCTION METHODS

#### 3.1 Storage

The Contractor shall exercise care to retain the native soil on the roots of the sod during the transplanting operations. Dumping of sod from vehicles will not be permitted. Sod shall be planted within 24 hours from the time of harvesting, unless it is tightly rolled or stored roots-to-roots in a satisfactory manner. All sod in stacks shall be kept moist and protected from exposure to the sun and from freezing. The maximum period of storage shall be five days. Sod that is dry or fails to meet the specification requirements will be rejected.

#### 3.2 Notification

The Contractor shall notify the Engineer at least 48 hours in advance of the time he intends to begin sodding and shall not proceed with such work until permission has been granted. No frozen sod shall be placed nor shall sodding be done on frozen earth. Sodding operations will not be permitted when, in the opinion of the Engineer, frost, excessive moisture or other conditions indicate that satisfactory results are not likely to be obtained.

#### 3.3 Topsoil

Topsoil shall be placed on the graded subsoil, so that after grading and compacting, the topsoil is 25 mm lower than the finished curb or sidewalk. The topsoil layer shall be a minimum of 75 mm in thickness after compaction. Areas shall be harrowed or raked prior to placing the sod. The soil on which the sod is to be laid shall be reasonably moist and shall be watered by the Contractor if so directed by the Engineer.

# 3.4 Laying Sod

Weeds and debris shall be removed before cultivation and shall be disposed of. Areas to be planted to sod shall be graded to drain and shall be smooth and uniform prior to placing sod.

The sod shall be laid smoothly, edge to edge. Sod shall be placed firmly against adjacent sod and against sidewalks, concrete headers, header boards, and other paved borders and surfaced areas. These areas shall be  $25 \text{mm} \pm 5 \text{ mm}$  below the top grade of the facilities, after fine grading, rolling, and settlement of the soil. All openings shall be plugged with sod. Vertical joints between sod shall be staggered. Sod shall be laid starting at the base of slopes and progressing upward in continuous parallel rows.

Immediately after laying, sod shall be pressed firmly into contact with the sod bed by tamping, rolling or by other approved methods so as to eliminate air pockets, provide true and even surfaces, insure knitting and to protect all exposed sod edges, but without displacement of the sod or deformation of the sod surface.

If irregular or uneven areas appear before or during the plant establishment period, these areas shall be restored to a smooth and even appearance.

#### 3.5 Watering

The newly sodded areas shall be watered evenly at a rate of 11 L/m<sup>2</sup>, unless otherwise directed.

When the sod is watered, sufficient water shall be applied to wet the sod at least 50 mm into the sod bed. Watering shall be done in a manner that will not cause erosion or other damage to the finished surfaces. Any surfaces that become gullied or otherwise damaged shall be repaired to re-establish the grade and conditions of the soil prior to sodding and shall then be re-sodded as specified under this work. Sod shall not be allowed to dry out.

#### 3.6 Maintenance and Acceptance

The Contractor shall be responsible for maintaining all sodded areas until acceptance by the Engineer. When the Engineer determines that an area of sod has failed, for any reason, to produce a satisfactory turf before the expiry of the one year time period as outlined in the General Conditions, the Contractor shall re-sod such areas in the same manner as specified in the contract until a satisfactory turf has been established. Any work to be corrected shall be at the Contractor's expense. Final acceptance of the work will not be made by the Department until a satisfactory turf has been produced. The Engineer will reserve the right to refuse acceptance of any landscaped areas if shown to be poorly knit, have a deformed surface, uneven in distribution, discoloured or otherwise unhealthy.

Any further preparation and re-sodding required shall be done wholly at the contractor's expense at the earliest opportunity, weather and season permitting.

#### 550. 4 METHOD OF MEASUREMENT

Landscaping will be measured on an area basis. The area to be paid for will be the total number of square metres landscaped and accepted by the Engineer and as computed from measurements made by the Engineer.

## 550. 5 BASIS OF PAYMENT

The unit price for "Landscaping" will be considered payment in full for operations described herein and for all work necessary or incidental thereto.