|  |  |  |
| --- | --- | --- |
| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | November 5, 2007 | Minor revisions by Legal Services. |
| 3 | November 13, 2009 | Modified ‘Related Section’ |
| 4 | June 5, 2012 | Addition of References and Replacement Parts sections on this page |
| 5 | June 29, 2012 | Reformatted to remove White Space |
| 6 | April 23, 2015 | General formatting |
| 7 | March 31, 2020 | 1.1 section added  3.1.4 added  3.3.2 added (BM) |

NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

# GEneral

## Summary

This specification covers the requirements for stockpiling, supplying, finish grading and placing topsoil.

## Related Sections

### [Under "Related Sections", identify other Sections that are related to, and/or dependent on, the work results or information specified elsewhere. The list should be limited to Sections with specific information that the reader might expect to find in this Section, but is specified elsewhere. For example, if hardware for aluminum entrances is specified in the aluminum entrance Section, a cross-reference would be appropriate in the finish hardware Section. The purpose of this cross-referencing is for information only, to aid in finding those other requirements—not to define the scope of the Section.

### Cross-referencing here may also be used to coordinate assemblies or systems whose components may span multiple Sections and which must meet certain performance requirements as an assembly or system.

### Contractor is responsible for coordination of the Work.

### This Section is to be completed/updated during the design development by the Consultant. If it is not applicable to the section for the specific project it may be deleted.]

### [List Sections specifying installation of products supplied but not installed under this Section and indicate specific items.]

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Execution requirements for ...[item]... specified under this Section.

### [List Sections specifying products installed but not supplied under this Section and indicate specific items.]

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Product requirements for ...[item]... for installation under this Section.

### [List Sections specifying related requirements.]

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: [Optional short phrase indicating relationship].

## Measurement and Payment

### [The Work outlined in this Section will be measured and paid for at the unit price as indicated in the Bid Form] or [The Work outlined in this Section is included in the Contract Price.] or [The Work outlined in this Section will be measured and paid for at the unit price for Work under Section……]. [Select appropriate method for each project].

# PRODUCTS

## Topsoil

### Topsoil for seeded areas and planting beds: a mixture of particulates, micro organisms and organic matter which provides a suitable medium for supporting the intended plant growth.

#### Soil texture based on The Canadian System of Soil Classification, to consist of 20 to 70 % sand, a minimum of 7% clay, and containing 2 to 10 % organic matter by weight.

#### Shall contain no toxic elements or growth inhibiting materials.

#### Finished surface shall be free from:

##### Debris and stones over 50 mm in diameter.

##### Course vegetative material, 10 mm in diameter and 100 mm in length, occupying more than 2% of the soil volume.

#### Consistence: friable when moist.

#### Do not use topsoil that is in a frozen or muddy condition.

#### Imported topsoil shall be screened.

## Soil Amendments

[Specify quality of material for required soil amendments. Include additional soil amendments for special turf and plant material requirements].

### Fertilizer:

#### Fertility: major soil nutrients present in the following amounts:

##### Nitrogen (N): [20] to [40] micrograms of available nitrate per gram of topsoil.

##### Phosphorus (P): [40] to [50] micrograms of phosphate per gram of topsoil.

##### Potassium (K): [75] to [110] micrograms of potassium per gram of topsoil.

##### Calcium, magnesium, sulphur and micro nutrients present in balanced ratios to support germination and/or establishment of intended vegetation.

##### pH value: 6.5 to 8.0.

### Sand: washed coarse silica sand, medium to course textured.

### Fertilizer: industry accepted standard medium containing nitrogen, phosphorous, potassium and any other micro nutrients suitable to the specific plant species or application or as defined by the soil test.

## Source Quality Control

### The Contractor will be responsible for obtaining soil test analysis and determining any requirements for soil amendments for topsoil. The Consultant is to be provided with a copy of the analysis.

#### Advise the Consultant of the sources of topsoil and manufactured topsoil to be utilized with sufficient lead time for testing.

#### The Contractor is responsible for amendments to supply topsoil as specified in the Contract Documents.

#### Provide soil testing results by a recognized testing facility acceptable to the Consultant for pH, P, K, and organic matter.

#### Independent testing of topsoil will be carried out by a testing laboratory designated by the Consultant. Soil sampling, testing and analysis is to be in accordance with applicable Provincial standards. The Region will pay for all costs for these tests.

# EXECUTION

## Stripping of Topsoil

### Commence topsoil stripping of the Site as indicated on the Contract Drawings, and as directed by the Consultant, after the area has been cleared of brush, weeds and grasses and removed from Site.

### Strip topsoil to the depths as indicated on the Contract Drawings, or as directed by the Consultant. Avoid mixing topsoil with subsoil where the textural quality will be moved outside of the acceptable range for the intended application.

### Stockpile in locations as directed by the Consultant. The stockpile height is not to exceed 3 metres.

### Stockpiles that will be in place for an extended period shall be seeded to protect against erosion.

### Dispose of unused topsoil off Site.

### Protect stockpiles from contamination and compaction.

## Preparation of Existing Grade

### Verify that grades are correct. If discrepancies occur, notify the Consultant and do not commence the Work until instructed by the Consultant.

### Grade the soil, eliminate uneven areas and low spots, and ensure positive drainage.

### Remove debris, roots, branches and stones in excess of 25 mm in diameter and other deleterious materials. Remove soil contaminated with calcium chloride, toxic materials and petroleum products. Remove debris which protrudes more than 75 mm above the surface. Dispose of removed material off Site.

## Placing and Spreading of Topsoil/Planting Soil

### Place topsoil after the Consultant has approved the subgrade.

### Remove all stones, roots, and other debris from the stockpiled topsoil during placement.

### Spread topsoil in uniform layers not exceeding 150 mm.

### Keep topsoil 15 mm below the finished grade in sodded areas.

### Spread topsoil as indicated in the Contract Documents to the following minimum depths after settlement.

#### 150 mm for seeded areas

#### 135 mm for sodded areas

#### 300 mm for flower beds

#### 500 mm for shrub beds

### Manually spread topsoil/planting soil around trees, shrubs and obstacles.

## Finish Grading

### Grade to eliminate rough spots and low areas and to ensure positive drainage. Prepare loose friable bed by means of cultivation and subsequent raking.

### Consolidate topsoil to the required bulk density using equipment approved by the Consultant. Leave surfaces smooth, uniform and firm against deep footprinting.

## Acceptance

[Test topsoil for PK to determine fertilizer requirements and application rates].

### The Consultant will inspect and test topsoil in place and determine acceptance of the material, depth of topsoil and finish grading.

## Surplus Material

### Dispose of surplus materials not required off Site.

**END OF SECTION**