# GEneral

## Summary

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

## Related Sections

### Division 1 – General Requirements.

### Section 02200 – Site Preparation.

### Section 02933 – Sodding

### Section 02934 - Compost Seeding

### Section 02935 – Planting of Trees, Shrubs and Groundcovers.

## Measurement and Payment

### All costs associated with the work of this Section shall be included in the price for Item No. A2.xx in the Bid Form.

# 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

### 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

### 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**