

**CONSTRUCTION SPECIFICATION FOR
TOPSOIL**

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TS 5.10.01 SCOPE

This specification describes the requirements for supplying, placing and fine grading of topsoil in areas designated by the City.

TS 5.10.02 REFERENCES – Not Used

TS 5.10.03 DEFINITIONS – Not Used

TS 5.10.04 SUBMISSION AND DESIGN REQUIREMENTS

Prior to the use of any topsoil, it shall be tested for clay, sand, silt, NPK, Mg, soluble salt content, pH value, organic matter, growth inhibitors and soil sterilants. Submit one copy of soil analysis and recommendations for corrections and approval to proceed from the City. Implement recommended corrections with appropriate soil additives.

Should the source of topsoil be exhausted, topsoil from any new source must be tested, as above. Submit a soil analysis report and recommendations for correction and obtain the approval of the City before using.

Report, in writing, prior to commencing work any conditions or defects encountered on site upon which the work of this Specification depends upon and which may adversely affect the performance of the work.

TS 5.10.05 MATERIALS

TS 5.10.05.01 Topsoil

Topsoil shall be fertile loose friable loam containing 1 part peat moss, 1 part organic matter, 2 parts silty-sand. It shall have an acidity range (pH) of 5.5 to 7.5. Topsoil shall be friable and free from lumps, boulders or undecayed leaves and branches. Topsoil shall be free of any admixture of subsoil, lumps, stones, roots over 50 mm in diameter and any other extraneous matter. The topsoil shall be reasonably free of weeds, weed seeds and rhizomes. A herbicide programme may be required to eliminate undesirable and/or noxious plant material from the topsoil. Should the City approve the use of the topsoil from stock piles on site, the topsoil must be brought into conformance with this specification.

If the area is to be seeded with wildflowers, a Sandy Topsoil Mix shall be used consisting of 1 part peat moss, 1 part organic matter, 1 part silty-sand, 5 parts clean sand. The soil shall be free of weed seeds, and shall be submitted to the City for approval prior to sterilizing soil.

- (1) Gradation requirements for clean sand: 10% to 100%
between 0.2 and .01

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- (2) Gradation requirements for silty-sand: 10% to 100%
between 0.4 and 0.002

Topsoil stockpiled on site shall not exceed 1.2m in height.

Stripped native topsoil stockpiled on site shall be a friable natural loam conforming to the above specifications regarding quality. Native topsoil shall not contain any noxious weeds including crabgrass, couchgrass or weed seeds. If weeds sprout, sterilize soil using method pre-approved by the City. Repeat at intervals over a 3-4 week period to assure weed kill.

TS 5.10.05.02 Fertilizer

Supply complete commercial fertilizers from an approved manufacturer, containing not less than 60% urea formaldehyde and the following percentages by weight:

<u>Nitrogen</u>	<u>Phosphoric Acid</u>	<u>Potash</u>
10	.6	4
12	.6	6

and subject to modification in accordance with the results of the soil analysis.

TS 5.10.05.03 Lime

- (1) Ground agricultural lime containing minimum 85% of total carbonates.
- (2) Gradation requirements: percentage passing by weight, 90% passing 1.0mm sieve, 50% passing 0.125 mm sieve.

TS 5.10.06 EQUIPMENT – Not Used

TS 5.10.07 CONSTRUCTION

TS 5.10.07.01 Placing

Schedule sterilization of soil (if applicable), placing of topsoil and finish grading to permit seeding and sodding operations under optimum conditions.

Remove surface debris, roots, vegetation branches and stones in excess of 50 mm diameter.

Cultivate soft landscape treatment areas in all those areas where future planting is expected. Depth of cultivation and aeration of subgrade shall be 900 mm below topsoil. Spread topsoil to a uniform depth after the City has inspected and approved subgrade. Apply topsoil to a minimum depth of 100 mm for seeded and sodded areas. See drawings for soil depth in tree and shrub planting areas.

TS 5.10.07.02 Finish Grading

1. Consolidate topsoil to within 80%-85% Standard Proctor Density using equipment approved by the City. Leave surfaces smooth, uniform and firm against deep footprinting.
2. Maintain existing grades at the dripline of existing trees that are to remain.
3. Keep topsoil 15 mm below finished grade for sodded areas. Elsewhere, bring topsoil up to finished grade.
4. Fine grade topsoil to eliminate rough and low areas. Ensure positive drainage to catch basins. Provide a minimum 1:50 slope away from building faces.
5. Provide smooth transitions at top and bottom of slopes.
6. Blend new grades smoothly with existing grades to remain at the edges of the work area.
7. Apply fertilizer and limestone at a rate determined by the soil sample test. For areas to be sodded or seeded, apply fertilizer up to a maximum of 48 hours before sodding or seeding.
8. Apply fertilizer at a rate in accordance with soil analysis and work it into the upper 50 mm of the planting bed.
9. Moisten the surface with a fine spray to avoid surface disturbances.
10. Make good any damage caused by topsoil spreading and finish grading activities.

TS 5.10.07.03 Cleanup and Restoration

- a. All surplus materials including topsoil, amendments, packaging and equipment shall be removed from the site immediately upon completion of the Work.
- b. Stockpile sites shall be restored to their original condition and according to the requirements of this Section.

TS 5.10.08 QUALITY ASSURANCE – Not Used

TS 5.10.09 MEASUREMENT FOR PAYMENT

TS 5.10.09.01 Topsoil

Topsoil acceptably placed to the required depth and to the satisfaction of the City shall be measured by area in m².

TS 5.10.10 METHOD OF PAYMENT

TS 5.10.10.01 Topsoil - Item

Payment at the contract price for the above tender item shall be full compensation for all labour, equipment, materials and incidentals to do the work. Payment shall include, but shall not be limited to, the supplying, hauling, spreading, sterilizing (if applicable) clearing away undesirable materials, and fine grading of topsoil to the specified depth, as well as application of fertilizer and lime where required and directed on site.