

Appendix A2 Model Soil Management Plan Form

Section 1: Project Information

Site address:	
Lot number:	
Permit type:	Permit number:
Permit holder:	Phone:
Mailing address:	
Contact person:	Phone:
Plan prepared by:	Phone:

Section 2: Required Documentation (Check off all required items that are attached to this plan.)

<input type="checkbox"/>	Soil Management Plan drawing to scale (minimum 11" x 17"), identifying: <ul style="list-style-type: none"> • Areas where existing trees, vegetation and soil will be protected from disturbance. • Planting areas by type and what Best Management Practice option and variant will be applied. • Areas where stripped site topsoil will be stockpiled and preserved (if applicable)
<input type="checkbox"/>	Copies of laboratory analyses for proposed compost or imported topsoil products.
<input type="checkbox"/>	Copies of laboratory analyses for pre-construction topsoil quality over the site (OPTIONAL. Required if proposing custom compost amendment rates).

Section 3: Pre-construction Soil Conditions

Testing not required if information is already available from geotechnical investigations (Section 4.2 of the Soil Management Best Practices Guide).

Pre-construction topsoil depth			
Record depth of topsoil (soil horizon A) at a minimum of five (5) locations evenly distributed over the site (determined from soil core samples or dug test holes to 30 centimetres depth or a depth slightly greater than the full extent of the topsoil layer) with one (1) additional location for every 4,000 m ² of site area. Calculate the mean depth of topsoil over the site.			
Location 1 topsoil depth (cm):		Location 6 topsoil depth (cm):	
Location 2 topsoil depth (cm):		Location 7 topsoil depth (cm):	
Location 3 topsoil depth (cm):		Location 8 topsoil depth (cm):	
Location 4 topsoil depth (cm):		Location 9 topsoil depth (cm):	
Location 5 topsoil depth (cm):		Location 10 topsoil depth (cm):	
Mean topsoil depth (cm):			
Pre-construction topsoil quality (OPTIONAL. Required if proposing custom compost amendment rates.)			
Collect and combine a minimum of five (5) samples from soil cores or dug test holes evenly distributed over the site with one (1) additional sample for every 4,000 m ² of site area. Mix thoroughly and subsample to produce a 600 gram composite sample and submit for laboratory testing. Attach a copy of the laboratory test results.			
Parameter	Result		
Particle size distribution	% sand	% silt	% clay
Soil texture classification			
Organic matter content (by dry weight) (%)			
Soil pH			
Soil bulk density (g/cm ³)			
Pre-construction subsoil quality (OPTIONAL. Recommended if soil compaction testing following completion of grading and construction activities to confirm or refine prescribed treatments is proposed)			
Parameter	Result		
Particle size distribution	% sand	% silt	% clay
Soil texture classification			

Section 4: Total Amendments Required

(Sum the required quantities for all planting areas. Refer to Section 6.)

Product type (compost, imported topsoil, mulch)	Product name	Total volume required (m ³)	Total mass required (kg)	Product quality meets OMOE, municipal or CA requirements?*	Product quality meets Soil Mgmt. Best Practices Guide recommended standards?**
				Yes / No	Yes / No
				Yes / No	Yes / No
				Yes / No	Yes / No
				Yes / No	Yes / No
				Yes / No	Yes / No
Comments:					

* Applies to compost and imported topsoil products only. For compost quality requirements refer to the most recent OMOE guideline document. For imported topsoil quality requirements contact the relevant municipality or Conservation Authority. **Attach copies of all laboratory test results.**

** Applies to imported topsoil products only. Turf areas: 5 to 10% organic matter content and pH 6.0 to 8.0; Planting beds and Tree Pits: 10 to 15% organic matter content and pH 6.0 to 8.0. **Attach copies of all laboratory test results.**

Section 5: Approval

Date	SMP Approved (Y / N)	Name of Inspector	Signature of Inspector
Comments / Revisions Required			

Section 6: Soil Management Plan Details

(Complete a separate table for each BMP area. Copy and attach additional pages as needed.)

General information				
Area number or identification code (Corresponding to the number/code on the Soil Management Plan drawing):				
Best Management Practice (BMP) to be implemented: <input type="checkbox"/> Option 1 – Protect existing vegetation and soil from disturbance <input type="checkbox"/> Option 2 – Stockpile, preserve and replace site topsoil (no amendment) <input type="checkbox"/> Option 2 – Stockpile, preserve, replace and amend site topsoil <input type="checkbox"/> Option 3 - Amend site subsoil <input type="checkbox"/> Option 4 - Import topsoil				
Planting type: <input type="checkbox"/> Undisturbed existing vegetation <input type="checkbox"/> Turf area <input type="checkbox"/> Planting bed <input type="checkbox"/> Tree pit				
Size of area (m²):				
Protection measures (Complete this section for areas of undisturbed existing vegetation only)				
Are protection measures required? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Describe protection measures to be implemented (e.g. erosion and sediment control practices, construction fencing).				
Subsoil decompaction				
Recommended total uncompacted soil depths for each type of planting area are as follows: Turf area: 30 cm Planting bed: 30 cm Tree pit: 90 cm				
Will a decompaction treatment likely be needed? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Depth of decompaction treatment (cm) required (refer to Section 5.2 of the Soil Mgmt. Best Practices Guide for depths specific to the BMP and planting area type)				
Proposed decompaction treatment: <input type="checkbox"/> Tilling with a rototiller <input type="checkbox"/> Scarifying with a chisel plow or backhoe <input type="checkbox"/> Ripping with a subsoiler <input type="checkbox"/> Excavation and replacement with uncompacted soil <input type="checkbox"/> Other:				
Proposed materials				
Type	Product name	Application depth (cm)*	Volume required (m³)**	Mass required (kg)***
Stockpiled site topsoil	Not applicable			
Compost				
Imported topsoil				
Mulch				
Topsoil depth				
Refer to Section 5.2 of the Soil Mgmt. Best Practices Guide for detailed guidance on options for achieving the recommended topsoil depth standards.				
Recommended topsoil depths for each type of planting area are as follows: Turf: 20 cm Planting beds: 20 cm Tree pits: 60 cm				
Compost amendment incorporation depth (cm):				
Method of compost incorporation (i.e. tilling; excavation, mixing and replacement; mechanical mixing of stockpiled site topsoil and compost on-site and placement):				

*For default compost amendment rates for each planting type, refer to Section 5.2 of the Soil Mgmt. Best Practices Guide. Custom compost amendment rates can be calculated using the calculation worksheet in Appendix A3 of the Soil Mgmt. Best Practices Guide or the spreadsheet calculator available at www.sustainabletechnologies.ca.

**Volume of material required (m³) = [Application rate (cm)/100] x Size of planting area (m²)

***Mass of material required (kg) = [Volume of material (m³) x 1x10⁶ x Bulk density of material (g/cm³)]/1000

Section 7: Soil Compaction Testing

Cone penetrometer tests (OPTIONAL. Recommended prior to implementation of prescribed treatments to confirm or refine where soil decompaction is needed)

Perform at least five (5) tests per planting area with an additional test for every 400 m² of planting area. **If 50% or more of the tests exceed maximum acceptable penetrometer readings for the soil texture (see below), decompaction is needed.**

Penetrometer test results		Measured penetrometer reading	Result exceeded maximum acceptable reading?	Soil is uncompacted to the recommended depth?
		Test 1:	Yes / No	Yes / No
		Test 2:	Yes / No	Yes / No
		Test 3:	Yes / No	Yes / No
		Test 4:	Yes / No	Yes / No
		Test 5:	Yes / No	Yes / No
		Test 6:	Yes / No	Yes / No
		Test 7:	Yes / No	Yes / No
		Test 8:	Yes / No	Yes / No
		Test 9:	Yes / No	Yes / No
		Test 10:	Yes / No	Yes / No
Acceptable cone penetrometer readings				
Dominant Soil Texture (Refer to Section 3):	All Textures of Sand	Sandy (includes loamy sand, sandy loam, sandy clay loam and sandy clay)	Silty (includes loam, silty loam, silty clay loam, and silty clay)	Clayey (includes clay loam)
Surface Resistance:	≤ 110 PSI	≤ 260 PSI	≤ 260 PSI	≤ 225 PSI
	≤ 7.7 kg/cm ²	≤ 18.3 kg/cm ²	≤ 18.3 kg/cm ²	≤ 15.8 kg/cm ²
	≤ 758 kPa	≤ 1793 kPa	≤ 1793 kPa	≤ 1551 kPa

Notes:

4. PSI = Pounds per square inch (lb/in²)
5. kg/cm² = kilogram per square centimetre
6. kPa = kilopascal