SPECIFICATION

SECTION 12.0: Compost Manufactured Planting Soil

12.1 Description:

This work shall consist of preparing a topsoil manufactured from compost and other soil constituents for use in turf or planting areas. This material can be either pre-blended and brought on-site or the compost can be blended with soils stockpiled at the construction site.

12.2 Materials (component specifications)

The materials will consist of the three components listed below which must meet the corresponding testing standards for each component.

A: Nutrient Grade Compost: Quality compost must be manufactured by a composter enrolled in the **U**nited **S**tates **C**ompost **C**ouncil's (USCC) **S**eal of **T**esting **A**ssurance (STA) Program. (33% by volume)

1. Compost must meet following parameters as tested by an STA approved lab using the Test Methods for Evaluating Compost and Compost Manufactures method.

		TMECC
2. Plant Nutrients	%, dry weight basis	Method
Nitrogen	>1.2	4.02D
Phosphorus	>0.50	Calc.
Potassium	>0.50	Calc
Calcium	>0.90	4.05
Magnesium	>0.20	4.05
Organic Matter Content	>50%	5.07-A
3. Soluble Salts dS/m (mmhos/cm)	<4.0	4.08-A
4. Particle Size % under 9.5 mm	95% or greater	2.02-B
5. Stability Indicator (respirometry)		
CO_2 Evolution mg CO_2-C/g OM/day	<2	5.08-F777
6. Maturity Indicator (bioassay)		
Percent Emergence	85% or greater	5.05-A
Relative Seedling Vigor	85% or greater	
7. Select Pathogens	Pass	Standard
(pass/fail per US EPA Class A standard, 40 CFR 503.32(a))		Method 9221E

B: Soil and/or Washed Sand

1. A clean processed topsoil, a clean washed sand or a combination of both shall serve as the structure for the composted manufactured topsoil. It shall consist of loose, friable soil. Free of rubbish with no admixture of refuse or material toxic to plant growth. Soil shall be reasonably free of stones, lumps, roots and weeds or similar objects larger than two inches in diameter.
2. Soil shall meet the following parameters:

Parameters	Range
PH	5.5 – 7.5
Moisture Content	25% - 55%
Soluble Salts	2.5 mmhos (dS)
Stone & Debris	< 5% (by weight)
Foreign matter	= 0%

3. Particle Size
   a) 100 by volume must pass a 2 inch screen
   b) 95 by volume must pass a ¾ inch screen
   c) Not more than 70% of the soil by weight shall be less than .25mm (fine sand) of which no more than 25% by weight shall consist of particles less than .002mm (clay)

12.3 Compost Manufactured Topsoil

Compost manufactured topsoil shall consist of soil as described in Section 9.2 part B amended with compost as described in Section 9.2 part A. Compost manufactured topsoil will be uniformly mixed to meet the final requirements listed below:

A.

Parameters	Range
pH	5.5 – 7.5
Moisture Content	30% - 55%
Soluble Salts	2.5 mmhos (dS)
Stone & Debris	> 5% (by weight)
Foreign matter	= 0%

B. Particle Size
   1) 100 by volume must pass a 2 inch screen
   2) 95 by volume must pass a ¾ inch screen

C. Compost manufactured topsoil shall meet the following mechanical analysis

Textural Class	% of Total Weight
Sand (0.05 – 2.0 mm dia. range)	50-75
Silt (0.002-0.05 mm dia. range)	10-35
Clay (less than 0.002 mm dia range)	2-15

12.4 Construction Requirements

A. Turf

Compost manufactured topsoil shall be spread evenly upon the previously prepared subgrade surface to the depth specified on the plans. The compost-manufactured topsoil shall be spread in such a manner as to establish a loose, friable seedbed. Measures should be taken on steep grades to slow run-off.

B. Plantings

Compost manufactured topsoil shall be spread evenly upon the prepared subgrade surface to the depth specified in the plans.
For all woody plant material, compost manufactured topsoil shall be placed around rootball to even the base of the plants main leader with the soil grade. All compost-manufactured topsoil shall be firmly dressed into place to prevent settling and provide support.
Compost manufactured topsoil used for planting beds of herbaceous plants needs to be spread and remain loose and friable for installation of plant material.

12.5 Method of Measurement

All compost manufactured topsoil, loam and compost will be measured by the cubic yard.

End of Section