

SECTION 329115 – AMENDED PLANTING SOIL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Amending of existing soil to prepare for installation of planting beds, turf, and specimen trees.

Related Sections:

1. Division 32 – Topsoiling
2. Division 32 – Seeding
3. Division 32 - Sodding
4. Division 32 – Planting

1.2 STANDARDS

- A. The quality of materials and performance of work specified in this section shall be in accordance with the most recent edition of the Maryland Department of Transportation Standard Specifications for Road and Bridge Construction.

1. Section 733: Topsoiling

1.4 SUBMITTALS

A. Legal Documents

1. Submit a complete materials list of items to be provided under this section for approval by the Owner's Representative before the purchase of any material.
2. Submit a list of proposed methods of execution of work under this section for approval by the Owner's Representative when proposed methods are different from or supplementary to those specified herein.
3. Submit copies of soil test recommendations called for in this section.

B. Delivery Slips

1. Submit delivery slip for all shipments showing the product volume and name of supplier.

1.5 PRODUCT DELIVERY AND STORAGE

- A. Obtain all legal rights or easements necessary from private owners on whose lands topsoil may be stored. Furnish rights or easements in written form and signed by both CONTRACTOR and property OWNER involved, or their duly authorized representatives.

1.6 JOB CONDITIONS

A. Existing Conditions

1. Perform work in this scope only after preceding work affecting ground surface is completed.
2. Verify locations of all underground utilities prior to start of work.

B. Environmental Requirements

1. Topsoil shall not be moved or spread in frozen or muddy condition.

C. Protection

1. Protect trees and shrubs to remain as part of final landscaping against damage.

PART 2 - PRODUCTS

2.1 COMPOST

- A. Compost shall be certified by US Composting Council as STA Organic Compost. Laboratory results of submittal sample shall satisfy the following:

Soluble Salts no greater than 10 mmhos/cm

% solids content 50-60% (50-40% moisture)

Organic matter 30-60%

Nitrogen 0.5-2.5 % (dry weight basis)

pH 5.0 to 8.0

Total Carbon up to 55% by weight

C:N Ratio less than 20% dry weight basis

Pass select pathogens and Trace Metals

Bio Assay >95%

2.2 SOIL AMENDMENTS TO ALTER pH AS PER SOIL TEST RECOMMENDATIONS

- A. Dolomite Lime: Shall be agricultural grade mineral soil conditioner containing 35% minimum magnesium carbonate and 49% minimum calcium carbonate, 100% passing No. 65 sieve, Kaiser Dolomite 65 AG or approved equal.

2.3 TOPSOIL

If, after completion of soil amendments, soil volume is insufficient to meet finish grades then topsoil may be imported to job site. See Section 329119 - TOPSOILING.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Do not amend or place any soil or soil amendments until conditions are satisfactory. No work shall be performed when existing conditions are porous, wet, frozen or spongy.
- B. Verify that clearing, earthwork, grading and other preceding work affecting ground surface have been completed and approved by Landscape Architect or Owner's Representative.

3.2 SOIL TESTING

- A. Complete soil test through approved soil testing laboratory from a representative sample of all existing soil to remain on project site in planting beds or turf areas. The soil test should determine mechanical analysis, soluble salt level, N,P,K, levels, pH, organic matter content, cation exchange, micro-nutrient levels, and bulk density. Submit soil test results for approval by Landscape Architect.
- B. Submit lab test results from an approved soil testing laboratory from a representative sample of the proposed imported compost to Landscape Architect for approval a minimum of 30 days in advance of plans to transport it to the site.
- C. Submit source of compost (name and location) to Landscape Architect for approval.

- D. Submit a physical sample of 1 gal. compost to be provided. This is in addition to submittals to analytical labs made by contractor.

3.3 COORDINATION

- A. Coordinate work to maintain optimum moisture content of materials and existing soil to attain required compaction density.
 - 1. Employ a placement method that does not disturb or damage other work, existing conditions, or surrounding soils.
 - 2. Do not move or set heavy objects over proposed planting areas at any time during project sequence.

3.4 INSTALLATION FOR PLANTING BEDS

- A. Plan sequence of work to minimize compaction of soil and ensure that no heavy equipment will run across finished surfaces. Sequence of work must ensure a uniform profile and prevent localized compaction. (For example, work performed to back machines out of areas where work occurs.) Soil media shall be spread on these areas to a depth sufficiently greater than that specified on the plans. After natural settlement has taken place, the work must be in close conformity to acceptable compaction tolerances and finish grade or meet surrounding edge conditions.
- B. Final soil grades in flat areas will result in slight crowning of the soil, while grades on other areas will be with the intent of guiding runoff to drainage
- C. Remove stones, lumps, roots and other objects larger than one inch in any dimension from graded surface.

3.5 DEWATERING

- A. See Section "Earth Moving" for dewatering measures

3.6 STORAGE OF MATERIALS

- A. Stockpile materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust or importation of weed seed.
 - 1. Stockpile materials away from edge of excavations. Do not store within drip line of remaining trees.

3.7 AMENDING SOIL FOR PLANTING BED AREAS

- A. Loosen existing soil in planting beds to a minimum depth of 12 inches. Loosen existing soil in turf areas to a depth of 6 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
- B. All planting beds shall be amended by spreading horticultural compost over loosened surface to uniform depth of 3". Incorporate compost with existing soil by tilling to a depth of 6 to 8 inches. If required to meet finish grades, place imported topsoil over amended planting soil. If required as per soil test results, apply soil amendments to alter pH and thoroughly blend into planting bed.
- C. Grade planting beds to a smooth, uniform surface with loose, uniformly fine texture. Rake, remove ridges, and fill depressions to meet finish grades.
- D. Restore planting beds if eroded or otherwise disturbed after finish grading and before planting.

3.8 MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content.
 - 1. Do not place compost on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air-dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.9 COMPACTION

- A. See Section Earth Moving for specifications regarding backfill and fill.
- B. Compact planting areas to 90 percent (90%) maximum dry density for soils which exhibit a well-defined moisture density relationship determined in accordance with ASTM D-1557.

3.10 FINE GRADING

- A. General: Uniformly grade planting areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 - 1. Provide a smooth transition between adjacent existing grades and new grades.
 - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
 - 3. Slope grades to direct water away from buildings and to prevent ponding.

3.11 PROTECTION

- A. When required, erect temporary signs and barriers to protect work area.

3.12 MAINTENANCE

- A. Immediately before establishment of planting material, regrade areas which become eroded, settled or otherwise disturbed.
- B. Perform all maintenance work in accordance with the Specifications without additional compensation.
- C. Maintenance period to extend until installation of planting material.

3.13 CLEANING

- A. Immediately clean spills, soil, and conditioners on paved and finished areas.
- B. Haul and dispose of materials in excess of the quantity required for the project off site.
- C. Dispose of protective barricades and warning signs at termination of maintenance period.

END OF SECTION 329115