

SECTION 32 91 13 – SOIL PREPARATION**PART 1 - GENERAL****1.01 SUMMARY**

- A. Section Includes
 - 1. Preparation of subsoil.
 - 2. Soil testing.
 - 3. Placing topsoil.

- B. Related Sections:
 - 1. Section 31 22 13 - Rough Grading: Rough grading of site.
 - 2. Section 31 23 16 - Excavation
 - 3. Section 32 91 19 - Landscape Grading: Preparation of subsoil and placement of topsoil in preparation for the Work of this section.
 - 4. Section 32 92 00 – Turf and Grasses.

1.02 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

- B. Certificates:
 - 1. Prior to use or placement of material, submit certifications of material composition of the following for approval:
 - a. Fertilizer
 - b. Lime
 - 2. Submit certified soil sample analyses, including laboratory's recommended soil supplement formulation.

- C. Topsoil Analysis Report: Contractor is responsible to have on-site topsoil and imported topsoil tested by qualified agronomist. Furnish soil analysis by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; deleterious material; pH; and mineral and plant-nutrient content of topsoil.
 - 1. Report suitability of topsoil for lawn growth. State recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory topsoil.
 - 2. Copies of test results and recommended soil amendments are to be submitted to the Engineer for review and written response a minimum of 10 days prior to commencing work.
 - 3. Ideal Topsoil Nutrients: All topsoil for lawns (both on-site and new) to receive proper amendments.

1.03 QUALITY ASSURANCE

- A. Testing Agency:
 - 1. An independent laboratory, recognized by the State Department of Agriculture,

with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.

2. The Contractor has the option to use soil testing to justify decreasing lime and fertilizer rates. When soil testing is selected by the Contractor, the soil and soil supplement testing shall be performed by a Soils Testing Laboratory engaged and paid for by the Contractor and approved by the Engineer. Collect soil samples under the direction of the Engineer.

- B. Analysis and Standards: Package standard products with manufacturer have certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agriculture Chemists, wherever applicable.

1.04 PROJECT CONDITIONS

- A. Restore unpaved surfaces to a condition similar to that prior to excavation.
- B. Refer to Drawings and Special Conditions for sodding or seeding requirements at each specific location of Work.

PART 2 - PRODUCTS

2.01 TOPSOIL

- A. Refer to Section 31 05 13 - Soils for Exterior Improvements: Topsoil material.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify prepared soil base is ready to receive the Work of this section.

3.02 PREPARATION OF SUBSOIL

- A. Prepare sub-soil to eliminate uneven areas and low spots. Maintain lines, levels, profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
- B. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated sub-soil.
- C. Scarify surface to depth of 3 inches where topsoil is scheduled. Repeat scarify in areas where equipment used for hauling and spreading topsoil has compacted subsoil.

3.03 PLACING TOPSOIL

- A. Limit preparation to areas that will be planted in immediate future. Any prepared areas not immediately planted must be re-prepared.
- B. Spread topsoil to minimum depth of 6 inches over area to be seeded. Rake until smooth.
- C. Place topsoil during dry weather and on dry unfrozen subgrade.
- D. Remove vegetable matter and foreign non-organic material from topsoil while spreading.
- E. Grade topsoil to eliminate rough, low or soft areas, and to ensure positive drainage. Install edging at periphery of seeded areas in straight lines to consistent depth.

END OF SECTION