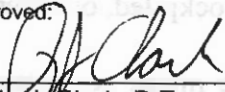


To: SUPERSEDED BY EI 12-001 EFFECTIVE 9/6/12		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 06-023
Title: DESIGN GUIDANCE FOR ALLOWABLE MODIFICATIONS OF SECTION 713-01 TOPSOIL, AND PLACING TOPSOIL PAY ITEMS			
Distribution: ☒ Manufacturers (18) ☒ Surveyors (33) ☒ Local Govt. (31) ☒ Consultants (34) ☒ Agencies (32) ☒ Contractors (39)		Approved:  Philip J. Clark, P.E. Deputy Chief Engineer, Design Date: <u>08/28/06</u>	

ADMINISTRATIVE INFORMATION:

- Effective Date: This Engineering Instruction (EI) is effective with projects submitted for the letting of January 11, 2007.
- Superseded Issuances: No issuances are superseded.
- Disposition of Issued Materials: The information provided in this EI will be incorporated into a future Highway Design manual chapter regarding landscape architecture and environmental design.

PURPOSE: This EI issues design guidance that discusses designers' opportunities to modify several provisions of the topsoil specifications in Section 713-01 Topsoil.

TECHNICAL INFORMATION: The following discuss provisions of Section 713-01 that designers may not modify:

- The MATERIALS REQUIREMENTS have been revised to include two distinct types of topsoil. None of the materials requirements for these topsoil types may be modified by use of Supplemental Landscape Development Specifications. The first, Topsoil-Type A, is intended for use in most situations where regularly managed turf will be established. The requirements for topsoil-Type A are based on university research that clearly establishes the importance of using topsoil containing at least 6% organic matter in order to assure sufficient nutrient and moisture availability for successful germination, satisfactory establishment, and long-term sustainability of turf. This is especially important where sustainable stands of regularly managed turf are desired. The second type of topsoil, Topsoil-Type B, may be considered for locations where naturally occurring topsoil with at least 2% but less than 6% organic matter may be suitable for infrequently managed turf, i.e. where a lower density and less vigorous turf would be suitable, and where seeding on existing sub-soils is not a viable alternative. Designers must specify which types of topsoil are to be placed in which project locations.

Section 613 Placing Topsoil includes a Payment Item Number for each type of topsoil.

- The last paragraph under MATERIALS REQUIREMENTS specifies that organic materials used to amend topsoil shall meet the requirements of Section 713-15 Organic Materials. Designers may not modify that specification requirement by substituting an alternative composted organic material specification. The reason is that composted organic materials used by the Department must be consistent with NYSDEC requirements and commitments made regarding adaptive reuse of the wide variety of organic materials that are composted consistent with State and Federal regulations. Therefore, for example, designers are not free to exclude composted bio-solids from use on a project (unless the use of composted bio-solids is prohibited by a law, rule, or regulation in a project area) or to specify that compost must be manufactured from lawn or leaf litter, yard waste, etc.

- The first paragraph under STOCKPILING provides opportunities for designers to identify suitable on-site sources of topsoil that may be designated in the contract documents for contractors to use if they desire to do so. However, designers may not require contractors to be subject to the topsoil sampling and testing requirements of the specification provided that the topsoil has been suitably stripped (i.e. not contaminated with subsoil), stockpiled, or otherwise handled prior to its use.

When designers believe there might be suitable on-site topsoil, they should verify the quality of the topsoil during design.

This arrangement was unanimously decided by the Regional Landscape Architects more than twenty-five years ago and has been an accepted way of doing business with the contracting community since then. In fact, departures from this practice have been the subject of discussions during recent AGC/DOT Specification Committee meetings.

- The last paragraph under STOCKPILING and the BASIS OF ACCEPTANCE allow contractors to place topsoil that is deficient in organic content or pH when it will be used for turf or wildflower establishment. In those cases, the contractors must (at their cost) obtain recommendations for correcting the organic content and/or pH deficiencies from recognized firms that provide soils laboratory services. (Regional Landscape Architects should become aware of firms that provide those services in their areas of the state.)

Re-sampling and retesting amended topsoil are not required when the Engineer determines that the materials for correcting organic or pH deficiencies have been applied to, or incorporated with, in-place topsoil consistent with the laboratory recommendations. Designers may not modify that specification provision.

In the case of pH correction, it can take six months, or more, for amendments to chemically react with the soil sufficiently to assure laboratory test results that accurately reflect pH changes. Topsoil that has been amended in-place for pH and/or organic deficiencies in accordance with laboratory recommendations has minimal risks of significant departures from the specified requirements and there would be virtually no risk of failure to establish turf. We have determined that the risks of failure are not significant enough to warrant re-sampling and retesting topsoil that has been amended in place.

CONTACT: Gary Glath, Design Quality Assurance Bureau, Landscape Architecture Section, 518-457-5286, gglath@dot.state.ny.us.