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2.6 TOPSOIL PLACEMENT

2.6.1 GENERAL

Topsoil placement shall consist of the placing and finishing of select topsoil material on the areas designated on the plans or as directed by the Consultant, for the purpose of establishing vegetation for erosion control.

Generally, those areas containing highly erodible soils such as sand, those areas containing sterile soils such as gravel, and those areas containing exposed subsoil which is subjected to highly erosive action such as in the case of flow channels, will be considered for a covering of topsoil.

2.6.2 MATERIALS

2.6.2.1 **Topsoil**

Topsoil shall consist of a natural, friable surface soil of organic character, suitable for agricultural purposes. Topsoil shall be free of objectionable quantities of sub-soil, roots, stones and other deleterious substances.

Topsoil shall be obtained from within the highway right-of-way, unless otherwise directed by the Consultant.

The excavation and removal of topsoil from any source shall be under the direction of the Consultant, insofar as the selection of material and/or the exact location of excavation is involved.

2.6.3 CONSTRUCTION

2.6.3.1 **General**

The excavation of the topsoil shall be carried out to the lines and depths as established by the Consultant. Topsoil shall be selected as to quality during excavation. Excavated material which, in the opinion of the Consultant, is not suitable for use as topsoil shall be disposed of as directed by the Consultant.

Topsoil placement shall be undertaken as either a single or two phase operation.

When topsoil placement is done in a single operation, the excavated topsoil shall be moved directly to its final position without intermediate stockpiling.

When done in two phases, the first phase of the work shall consist of excavating select topsoil from the designated sources and hauling to stockpile sites. Generally, stockpile sites shall be located within the highway right-of-way. The location of all sites shall be subject to the approval of the Consultant.

The second phase shall be undertaken when the highway grade is near completion. In this operation, the topsoil shall be excavated from the stockpiles, hauled and placed in its final position.

Upon completion of excavation, stockpile sites shall be trimmed to present a neat and tidy appearance, fences removed for purposes of entry shall be replaced, and debris resulting from the operation shall be removed and disposed of, all in a manner satisfactory to the Consultant.

2.6.3.2 Preparation of Placement Areas

Before placing the topsoil, the areas to be covered with topsoil shall be shaped to the uniform lines prescribed. The surface shall then be loosened to a minimum depth of 50 mm, by means of discs, spike-tooth harrows, or other means satisfactory to the Consultant.

2.6.3.3 Placing Topsoil

Topsoil shall be uniformly spread on the prepared areas, to the minimum required depth of 70 mm, or a greater depth as directed by the Consultant. If there is insufficient topsoil to attain a 70 mm depth throughout the Work, the Consultant may direct spreading topsoil to a lesser depth or over a lesser area. After spreading, all hard lumps shall be broken down and all rocks larger than 70 mm in dimension, roots, stumps, and other foreign matter shall be removed and disposed of in a manner satisfactory to the Consultant. After the topsoil has been spread, it shall be satisfactorily compacted. The area covered with topsoil shall be left in a condition suitable for seeding or planting, without additional preparation of any nature.

At the completion of topsoil placement, the adjacent roadway surface shall be cleaned of all debris resulting from the operation, and the completed work left in a neat and tidy condition.

2.6.4 MEASUREMENT AND PAYMENT

2.6.4.1 Excavation

Measurement and payment for excavation from the original source will be in accordance with Specification 2.3, Grading, for the classification of soil as described.

Excavation from intermediate stockpiles, where applicable, will be paid for at the unit price bid per cubic metre for "Common Excavation", in accordance with Specification 2.3, Grading. The quantity will be determined by cross-section measurement of the intermediate stockpiles.

2.6.4.2 Overhaul

Measurement and payment for overhaul will be made in accordance with Specification 2.3, Grading, except that for measurement of overhaul, distribution of topsoil will be considered to be of uniform depth over the area of topsoil placement. When intermediate stockpiling of topsoil is done, overhaul of topsoil material will be paid for from the source to the stockpile and from the stockpile to the final placement position, with 300 m of freehaul in each operation.

2.6.4.3 Topsoil Placement

Topsoil placement will be measured by the square metre of surface topsoiled based on horizontal measurements. No allowances will be made for uneven or sloping ground.

Payment will be made at the unit price bid per square metre, regardless of depth, for "Topsoil Placement". This payment will be full compensation for preparing the surface and placing the topsoil material.

Work on areas which were not specifically designated for topsoil placement, but were disposal areas or

embankments constructed of surplus topsoil material, will not be classified or paid for as "Topsoil Placement", but will be paid for in accordance with Specification 2.3, Grading.