



2540 - SPECIFICATION FOR CLAY STABILIZATION

2540 - 1 DESCRIPTION

- 1.01 The work shall consist of a layer of subgrade soil, mixed with clay, constructed at the locations and in conformity with the lines, grades and dimensions shown on the plans or designated by the Engineer.

2540 - 2 MATERIALS

- 2.01 The clay material for stabilizing the subgrade soil shall be obtained from deposits provided by the Department. The clay material shall be free from objectionable quantities of organic matter, frozen soil, stumps, trees, or other unsuitable material.
- 2.02 Generally, the clay removed from the deposits shall have a plasticity index of approximately fifteen (15).

2540 - 3 CONSTRUCTION

- 3.01 Overburden shall be removed from the material deposit in accordance with the requirements for Removal of Overburden (Specification 2260).
- 3.02 The clay material shall be excavated from the material deposit as staked or designated by the Engineer. The Contractor shall remove the clay from the material deposit in a manner which will ensure a uniform material.
- 3.03 The surfaces of excavations shall be shaped to a uniform smooth surface and graded, if required, to ensure positive drainage.
- 3.04 The subgrade shall be bladed to a smooth finish, conforming to the typical cross section shown on the plans and as staked by the Engineer, before placing the clay material.
- 3.05 If motor vehicles are used for hauling, the clay material shall be hauled in accordance with the requirements for Haul (Specifications 2405).
- 3.06 The thickness of the clay material will generally be between five centimetres (5 cm) and ten centimetres (10 cm).
- 3.07 If necessary, to remove clay lumps or oversize material, the clay material shall be dried and/or screened over a fifty millimetre (50 mm) screen.
- 3.08 The clay material shall be placed without rutting or undesirable displacing of the subgrade.
- 3.09 The clay material shall be uniformly spread over the subgrade surface by means of a blade grader. When necessary to obtain uniform distribution adjacent to structures, spreading by hand methods will be required.
- 3.10 Stones, having a dimension of eight centimetres (8 cm) when measured in any direction, shall be excluded from the clay material.

- 3.11 Surplus rock shall be disposed of in accordance with the requirements for Disposal of Surplus Rock (Specification 2320).
- 3.12 The clay material shall be intimately mixed with the subgrade soil to the depths shown on the plans or in the special provisions. The clay material will be well dried to obtain complete mixing. Mixing operation shall be performed by a rotary blade mixer. A farm cultivator will not be acceptable for total mixing.
- 3.13 The stabilized clay mix in place shall have a plasticity index of approximately six (6).
- 3.14 If a density requirement for stabilized material is specified on the tender from, the stabilized material shall be compacted to not less than ninety-five (95) percent of the maximum density as determined by Test 9200.
- (a) The Engineer will determine from the test results, the section of stabilized material to be considered for evaluation. The density of this section will be considered satisfactory when:
 - (i) Test results average not less than ninety-five (95) percent of maximum density, and
 - (ii) All individual test results are greater than ninety-three (93) percent of maximum density.
 - (b) If the moisture existing in the soil is insufficient for compacting to the specified density and for finishing, the Contractor may elect to add water. The water shall be added in accordance with the requirements for Watering (Specification 2500).
 - (c) If excess moisture exists in the soil, it shall be dried, to the optimum moisture content as determined by Test 9200, at no direct expense to the Department.

2540 - 4 MEASUREMENT

- 4.01 The volume of clay material will be measured, in cubic metres in its original position, by the cross section method.
- 4.02 The volume of clay material on the road may be measured, in cubic metres after spreading on the road, by the cross section method. Measurement of this volume is for the purpose of estimating the distribution of the material over the subgrade.
- 4.03 The area of clay stabilization will be measured by the square metre. The finished trimmed surface as shown on the plans or as staked by the Engineer will be the basis of measurement.

2540 - 5 PAYMENT

- 5.01 Payment for CLAY MATERIAL will be at the contract unit price per cubic metre. The unit price will be full compensation for excavating, screening, loading, dumping and spreading on the road.
- 5.02 Payment for HAULING CLAY MATERIAL will be at the contract unit price per cubic metre kilometre in accordance with the requirements for Haul (Specification 2405).
- 5.03 Payment for CLAY STABILIZATION will be at the contract unit price per square metre. The unit price will be full compensation for mixing the clay material with the subgrade soil, drying of the clay material, finishing, blading, shaping and trimming the slopes and surfaces to the lines, grades, and dimensions specified on the plans or designated by the Engineer. If the contract unit price includes a density requirement for the stabilized material, the unit price will also be full compensation for compacting the stabilized material. Payment for watering on the road will be in accordance with the requirements for Watering (Specification 2500).
- 5.04 Payment for removal of overburden will be in accordance with the requirements for Removal of Overburden (Specification 2260).
- 5.05 Payment for disposal of surplus rock will be in accordance with the requirements for Disposal of Surplus Rock (Specification 2320).