



2200 - SPECIFICATION FOR EARTH EXCAVATION

2200 - 1 DESCRIPTION

- 1.01 The work shall consist of excavating earth materials from the roadway, borrow pits, side ditches, sub-cuts, drainage ditches, channel improvements, intersections, approaches, and parking areas. The work shall include excavating earth materials from swamps and muskegs, from roads and pavements, from dugouts and disposal pits, from rock excavations, and for culvert removals and installations. The work shall be completed to the lines, grades, and dimensions as shown on the plans, or as designated by the Engineer.
- 1.02 Earth materials shall include unsuitable materials, clays, silts, sands, gravels, pavements, boulders, detached fragmentary rock, and stone. Earth materials shall not include rock materials classified in accordance with the requirements for Rock Excavation (Specification 2250).
- 1.03 For the purpose of this specification, waste excavation shall consist of stripping unsuitable materials, boulders, detached fragmentary rock, and stone from any type of borrow area outside of the right-of-way and stockpiling (or disposing of) the material unless incorporated into an embankment. The work shall be completed to the lines, grades, and dimensions as designated by the Engineer.
- 1.04 The requirements of this specification shall apply in all respects to Earth Excavation in Urban Areas when specified in the tender form.

2200 - 2 MATERIALS

2200 - 3 CONSTRUCTION

- 3.01 Stripping and disposal of unsuitable material from cuts and embankment areas; and the removal and disposal of unclassified rubbish, shrubs, and vegetation that can be cut with a brush scythe or mowing machine; shall be carried out at least two kilometres ahead of the main earthmoving operation.
- 3.02 Excavation earth materials shall be placed in embankments except that surplus or unsuitable material shall be disposed of as designated by the Engineer. Embankments shall be constructed in accordance with the requirements for Embankments (Specification 2300).
- 3.03 The material below the subgrade surface in a cut section shall be removed and disposed of as indicated on the plans, in the special provisions, or as designated by the Engineer. This work will be referred to as "sub-cut".
- 3.04 At cross-section transitions from cut sections to fill section, the longitudinal and transverse grade points will be sub-cut as indicated on the plans, or as designated by the Engineer. Where an embankment is to be constructed over an existing embankment, special sub-cut procedures will be indicated on the plans or as designated by the Engineer. Embankments to backfill sub-cuts shall be constructed in accordance with the requirements for Embankments (Specification 2300).

- 3.05 When unsuitable material is encountered below the natural ground surface in embankment areas, the material shall be excavated and disposed of as indicated on the plans, the special provisions, or as designated by the Engineer.
- 3.06 Material classified as waste excavation shall be excavated and stockpiled, or disposed of as directed by the Engineer. The surfaces of the stockpiled material shall be smooth and evenly trimmed and the side slopes shall not be steeper than four metres horizontal to one metre vertical unless the material is to be replaced on a borrow area or the right-of-way by the Contractor.
- 3.07 The subgrade surface in excavation shall be shaped and finished by means of a blade grader. The surfaces and slopes of all excavations shall be shaped to a uniform smooth surface and graded, if required, to ensure positive drainage. If required by the Engineer, landscaped borrow pits shall be scarified or worked with a disc on an Extra Work basis.
- 3.08 Surplus rock shall be disposed of in accordance with the requirements for Disposal of Surplus Rock (Specification 2320).

2200 - 4 MEASUREMENT

- 4.01 The volume of earth excavation and waste excavation will be measured in cubic metres in its original position. The volume will be determined from the cross-section method, except that disposal pit, culvert, ditch block, and approach excavations may be determined from the average length, width, and depth.
- 4.02 The volume of "sub-cut" will be determined from the length, width, and depth as staked, or as indicated on the plans, or as designated by the Engineer.
- 4.03 If grubbing is required on any area to be excavated, earth excavation will be measured after the grubbing operation has been completed.

2200 - 5 PAYMENT

- 5.01 Payment for EARTH EXCAVATION will be at the contract unit price per cubic metre. The unit price will be full compensation for removing and disposing of unsuitable materials, unclassified rubbish, shrubs, and vegetation; excavating, loading, dumping, spreading, drying if required, and blading earth materials forming embankments; disposing of surplus earth materials except surplus rock; and shaping and trimming of slopes and surfaces. If the contract unit price includes a density requirement for earth embankments, the unit price will also be full compensation for compacting embankments and sub-cuts.
- 5.02 Payment for HAUL ON EARTH MATERIAL will be at the contract unit price per cubic metre hectometre in accordance with the requirements for Haul on the Basis of the Cubic Metre Hectometre (Specification 2400), except for earth material paid for at a unit price for Earth Excavation including Hauling.

- 5.03 Payment for EARTH EXCAVATION INCLUDING HAULING will be at the contract unit price per cubic metre. The unit price will be full compensation for removing and disposing of unsuitable materials, unclassified rubbish, shrubs, and vegetation; excavating, loading, hauling, dumping, spreading, drying if required, and blading earth materials forming embankments; disposing of surplus earth materials except surplus rock; and shaping and trimming of slopes and surfaces. If the contract unit price includes a density requirement for earth embankments, the unit price will also be full compensation for compacting embankments and sub-cuts.
- 5.04 Payment for WASTE EXCAVATION will be at the contract unit price per cubic metre. The unit price will be full compensation for excavating, loading, hauling, stockpiling or otherwise disposing of the material, and trimming the stock-piled or disposed of material if required. The method of payment for replacing waste excavation on borrow areas , if required, will be as specified in the contract special provisions or as designated by the Engineer. If waste excavation is placed in embankments, payment will be at the contract unit price for EARTH EXCAVATION.
- 5.05 Payment for disposal of surplus rock will be in accordance with the requirements for Disposal of Surplus Rock (Specification 2320).
- 5.06 Payment for EARTH EXCAVATION IN URBAN AREAS will be at the contract unit price per cubic metre. The unit price will be full compensation for those items indicated under payment for Earth Excavation.
- 5.07 Payment for HAUL OF EARTH MATERIALS IN URBAN AREAS will be at the contract unit price for Haul On Earth Materials.
- 5.08 Payment for EARTH EXCAVATION INCLUDING HAULING IN URBAN AREAS will be at the contract unit price per cubic metre. The unit price will be full compensation for those items indicated under payment for Earth Excavation including Hauling.