

DIVISION 3 - EARTHWORK

TABLE OF CONTENTS

SPECIFICATION SECTION 03050 - REMOVAL OF TOPSOIL
SPECIFICATION SECTION 03100 - COMMON SOIL EXCAVATION
SPECIFICATION SECTION 03150 - ROCK BLASTING
SPECIFICATION SECTION 03200 - STRUCTURAL EXCAVATION
SPECIFICATION SECTION 03300 - BORROW MATERIAL
SPECIFICATION SECTION 03400 - EMBANKMENT
SPECIFICATION SECTION 03500 - SOFTSOIL IMPROVEMENT MEASURE

SPECIFICATION SECTION 03050 – REMOVAL OF TOPSOIL

TABLE OF CONTENTS

1. DESCRIPTION	5
2. SURVEYS	5
3. CONSTRUCTION REQUIREMENTS	5
4. MEASUREMENT AND PAYMENT	6
4.1 Method of Measurement	6
4.2 Basis of Payment	7

SPECIFICATION SECTION 03050 – REMOVAL OF TOPSOIL

1. DESCRIPTION

This Specification Section prescribes the removal of topsoil to all required areas of the Site.

Removal of Topsoil shall include excavation to remove the top organic layer, hauling to designated locations and stockpiling or removing as instructed, to permit construction of the Works, all as indicated on the Drawings or as instructed by the Engineer and as specified herein. The unit rates shall include for haulage irrespective of distance to all areas within the Site and/or off the Site.

Prior to commencement of Removal of Topsoil the Contractor shall obtain the Engineer's written confirmation regarding; work area, depth of excavation, approval of the equipment to be used and the method of work execution.

The topsoil shall remain the property of the Employer. Topsoil shall generally be set aside for reuse on the Works or transported and deposited by the Contractor at locations on the Site or off the Site.

In the event that topsoil is not required by the Employer it shall be removed by the Contractor from the Site to a disposal area(s) to be selected by the Contractor.

2. SURVEYS

The Contractor shall carry out surveys together with the Engineer after the completion of the following Works:

- a) Clearing and grubbing (where so instructed)
- b) Removal of Topsoil
- c) Common Excavation Works

These surveys shall be carried out on a 10 m grid.

The surveys shall serve as the basis for the computation of the topsoil removed and for agreeing the commencement level of work under Specification Sections 03100 Common Soil Excavation, 03150 Rock Blasting and 03200 Structural Excavation.

3. CONSTRUCTION REQUIREMENTS

In general topsoil shall be removed by the Contractor under embankments, land reclamation areas, buildings, paving and structures as directed by the Engineer.

Topsoil removed shall be kept separate from other excavated material and the Contractor is to take all necessary measures to avoid contamination of the topsoil with other excavated material or debris.

Topsoil removal shall generally be to depths of 300 mm.

If topsoil is not present or is less than 300 mm deep the Contractor shall notify the Engineer and request instructions.

Where the topsoil is considered by the Engineer to exist below the instructed depth then the Contractor shall remove such material to the depth instructed by the Engineer.

4. MEASUREMENT AND PAYMENT

4.1 Method of Measurement

- a) Work under this Specification Section shall be measured according to the item classifications and units contained in the Bill of Quantities (BOQ). Unless specified otherwise excavation of topsoil shall be measured in cubic meters (m³).
- b) The Removal of Topsoil provisions, surveys and construction requirements identified in this Specification Section shall be measured for payment in pay item 03050-01.
- c) Any Removal of Topsoil Works not specifically indentified in this Specification Section but which are necessary for the performance of the Works shall be deemed to be included in pay item 03050-01.
- d) The actual volume to be measured shall be computed from net area necessary to accommodate the Permanent Works multiplied by the average depth determined by the surveys undertaken before commencement of the Removal of Topsoil and after Removal of Topsoil to the designated levels indicated on the Drawings or as instructed by the Engineer.
- e) No allowance shall be made in the quantities for bulking or shrinkage.
- f) No allowance shall be made in the quantities for any additional volume that may be required to accommodate working space for any excavations, space for sloping sides of any excavations even if same is indicated on the Drawings.
- g) The disposal of topsoil to temporary or permanent stockpiles on the Site or off the Site is measured for payment in pay item 03050-01. The unit

prices shall not be adjusted to take cognizance of different haul distance(s) whether within the Site or off the Site.

- h) The unit prices for excavation of topsoil shall include for
 - i) Reinstating any existing adjacent surface paving or sodding disturbed by the topsoil removal.
 - ii) Removal of all water including surface and ground water by whatever means necessary.
 - iii) Trial holes to locate existing pipes or cables.
 - iv) Excavating by hand or machine.
 - v) Bulking.
 - vi) Additional excavation for working space to excavations, earthwork supports or sloping sides of any excavations and all other additional costs associated therewith.
 - vii) Selecting, setting aside and preserving any material suitable for use on Site for topsoiling.
 - viii) Multiple handling.
 - ix) Selecting, setting aside and disposal of surplus topsoil off Site..
 - x) Fees and charges for tipping outside the Site.
- i) The design and construction of the spoil heaps including but not limited to; all necessary temporary roads, drainage, compaction, retaining structures and safety which shall be subject to the approval of the Engineer.

4.2 Basis of Payment

The work under this Specification Section shall be paid for in accordance with the applicable unit prices as indicated in the Bill of Quantities and given below. Payment shall constitute full compensation for performing the requirements of the Contract for the item of work as specified including furnishing all necessary labor, materials, tools, equipment and incidentals.

<u>Pay Item</u>	<u>Description</u>	<u>Unit</u>
03050	Removal of Topsoil	
03050-01	Excavation of Topsoil	m ³

