

PART 1 - GENERAL

- 1.1 DESCRIPTION .1 This Section specifies requirements for:
- .1 General site grading and maintenance of designated areas and Temporary Staging Areas.
 - .2 The Upgrading and Maintenance of site access routes.
 - .3 Restoration of worked areas, waste debris areas and depressions created by the removal of debris.
- 1.2 DEFINITION .1 Re-shaping: The leveling and grading of designated areas to blend in with the natural terrain and provide positive drainage. Reshaping does not require the supply and placement of additional materials but does entail spreading and compaction of the surplus materials.
- .2 Re-grading: The leveling and grading of designated areas and which includes the supply and placement of additional fill to blend in with the natural terrain and provide positive drainage.
- 1.3 SITE CONDITIONS .1 Ensure that all work under this section meet the terms and references of applicable operations-use permits for the site.
- .2 Suspend operations whenever climatic conditions are unsatisfactory for grading or re-shaping to conform to this Specification.
- .3 Only operate equipment in work areas where materials are sufficiently dry to prevent excessive rutting.
- .4 Areas to be graded or shaped are to be free from debris and excessive snow, ice or standing water.
- 1.4 PROTECTION .1 Protect unanticipated archaeological resources encountered during construction, suspend all activities in that area and notify Departmental Representative immediately.
- .2 Environmental protection measures are to be in accordance with the requirements specified in Section 01 35 43 - Environmental Protection. Follow the approved Erosion, Sediment and Drainage Control Plan submitted in accordance with Section 01 35 43 - Environmental Protection.
- .3 Prevent damage to the garage building and the utilidor (underground services). Immediately repair any damage, at no cost to Departmental Representative

PART 2 PRODUCTS

2.1 MATERIALS .1 Backfill requires the approval of Departmental Representative.

PART 3 EXECUTION

3.1 GENERAL SITE GRADING AND MAINTENANCE .1 Maintain natural drainage patterns and keep areas free of standing water.

3.2 UPGRADING AND MAINTENANCE OF ACCESS ROUTES .1 Upgrade and maintain access routes to facilitate work.
.2 Ensure drainage of access routes and adjacent lands to provide surface drainage. Where necessary, cut swales to channel surface drainage in such a manner as to minimize surface erosion.

3.3 SITE RESTORATION OF WORKED AREAS .1 Re-shape and re-grade work areas and depressions created by the removal of debris, and relocation of debris.
.2 Ensure drainage of restored areas to maintain natural drainage patterns and keep areas free of standing water.

3.4 TEMPORARY STORAGE AREA .1 Develop a Temporary Storage Area for the storage of containerized hazardous waste materials as required.
.2 Prepare the Temporary Storage Area to comply with the AHJ and approved by Departmental Representative.
.1 Provide easy access to the off-site transport equipment. For the purposes of this contract a 15 m by 15 m area is to be assumed.
.2 Allow the equipment and packaging containers to be level and distribute the weight of the containers evenly to the supporting surface.
.3 The area is to be free of standing water.
.4 Surface water run-on to the area must be minimized. The area must not be subject to flooding, excessive snow drifting, and/or seasonal saturation.
.5 Sufficiently compact the area so as to prevent the containers from settling into the soil.
.6 Locate at least 30 m from any body of water.
.7 More than 30 metres away from flammable materials.
.8 Set timbers or another form of base to ensure that containers used to package non-hazardous and hazardous materials going off-site do not freeze to the ground prior to demobilization from site.
.3 Within the Temporary Storage Areas, segregate the various types of containerized materials as

- described in Section 02 61 33 - Hazardous Waste Material.
- .4 Provide signage for Temporary Storage Area in accordance with Section 02 61 33 - Hazardous Waste Material.
- .5 Erect a barricade to demarcate the limits of the Temporary Storage Area.

<u>3.5 MAINTENACE</u>	.1	Maintain finished surfaces in a condition in accordance with this Section until demobilization.
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END OF SECTION

PART 1 - GENERAL

<u>1.1 MEASUREMENT PROCEDURES</u>	.1	All associated backfill works, including but not limited to, excavation, loading, hauling, stockpiling, packaging, storage, backfilling, compaction, grading, surface restoration, etc., carried out by the contractor will be included within the stipulated price for the work.
<u>1.2 DEFINITIONS</u>	.1	Common excavation: excavation of materials of whatever nature, which are not included under definitions of rock excavation.
	.2	Imported/Borrow material: material obtained from locations outside area to be graded and required for construction of fill areas or for other portions of Work.
<u>1.3 ACTION AND INFORMATION SUBMITTALS</u>	.1	Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
	.2	Quality Control: .1 Submit condition survey of existing conditions as described in EXISTING CONDITIONS article of this Section. .2 Submit to Departmental Representative testing inspection, results and report as described in PART 3 of this Section.
	.3	Preconstruction Submittals: .1 Submit construction equipment list for major equipment to be used in this section prior to start of Work.
	.4	Samples: .1 Submit samples in accordance with Contract Documents. .2 Inform Departmental Representative at least 5 days prior to beginning Work, of proposed source of fill materials and provide access for sampling. .3 Submit to Departmental Representative 15 kg samples of each type of fill specified. .4 Ship samples prepaid to Departmental Representative in tightly closed containers to prevent contamination and exposure to elements.
<u>1.4 QUALITY ASSURANCE</u>	.1	Do not use soil material until written report of soil test results are reviewed and approved by Departmental Representative.
<u>1.5 WASTE MANAGEMENT AND DISPOSAL</u>	.1	Not used.

- 1.6 EXISTING CONDITIONS
- .1 Examine soil report available at an attachment to this document.
 - .2 Buried services:
 - .1 Before commencing work establish location of buried services on and adjacent to site.
 - .2 Arrange with appropriate authority for relocation of buried services that interfere with execution of work: pay costs of capping services.
 - .3 Remove obsolete buried services at the property demarcation point and within 2 m of foundations: cap cut-offs.
 - .4 Size, depth and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.
 - .5 Prior to beginning excavation Work, notify Departmental Representative of established location and state of use of buried utilities and structures. Departmental Representative to clearly mark such locations to prevent disturbance during Work.
 - .6 Confirm locations of buried utilities by careful test excavations.
 - .7 Maintain and protect from damage, water, sewer, electric, telephone and other utilities and structures encountered.
 - .8 Where utility lines or structures exist in area of excavation, obtain direction of Departmental Representative before removing.
 - .9 Record location of maintained, re-routed and abandoned underground lines.
 - .10 Confirm locations of recent excavations adjacent to area of excavation.
 - .3 Existing buildings and surface features:
 - .1 Conduct, with Departmental Representative condition survey of existing buildings, trees and other plants, lawns, service poles, wires, pavement, survey bench marks and monuments which may be affected by Work.

PART 2 - PRODUCTS

- 2.1 MATERIALS
- .1 Fill: Locally available borrow material selected from excavation, approved by Departmental Representative for use intended, unfrozen and free from rocks larger than seventy-five (75) mm, cinders, ashes, sods, refuse or other deleterious materials.
 - .2 All borrowing for materials must follow the conditions of the quarry permit.

PART 3 - EXECUTION

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| <u>3.1 SITE PREPARATION</u> | .1 | Remove obstructions, ice and snow, from surfaces to be excavated within limits indicated. |
| | .2 | Remove cleared materials. |
| | .3 | Minimize rutting and erosion of all access trails and clearings. |
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<u>3.2 PREPARATION/
PROTECTION</u> | .1 | Protect existing features in accordance with applicable local regulations. |
| | .2 | Keep excavations clean, free of standing water, and loose soil. |
| | .3 | Where soil is subject to significant volume change due to change in moisture content, cover and protect to Departmental Representative approval. |
| | .4 | Protect natural and man-made features required to remain undisturbed. Unless otherwise indicated or located in an area to be occupied by new construction, protect existing trees from damage. |
| | .5 | Protect buried services that are required to remain undisturbed. |
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<u>3.3 STOCKPILING</u> | .1 | Stockpile fill materials in areas designated by Departmental Representative. |
| | .1 | Stockpile granular materials in manner to prevent segregation. |
| | .2 | Protect fill materials from contamination. |
| | .3 | Implement sufficient erosion and sediment control measures to prevent sediment release off construction boundaries and into water bodies. |
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<u>3.4 BACKFILLING AND
COMPACTION</u> | .1 | Inspection: do not commence backfilling until fill material have been inspected and approved by Departmental Representative. |
| | .2 | Area to be backfilled is to be free from debris, snow, ice, water and frozen ground. |
| | .3 | Do not use backfill material which is frozen or contains ice, snow or debris. |
| | .4 | Place backfill material in uniform layers not exceeding 300 mm compacted thickness up to initial site grades. Compact each layer before placing succeeding layer to a level of compaction where only a 5mm deflection is observed under a 5 tonne axle load. |
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<u>3.6 RESTORATION AND
GRADING</u> | .1 | Reinstate excavation area to match the grades that existed around the structure prior to demolition. |
| | .2 | Clean and reinstate areas affected by Work as directed by Departmental Representative. |

END OF SECTION