

This specification outlines the requirements for removing and disposing of trees, brush, logs, surface boulders, rock fragments, stumps, roots, matted roots, other vegetation, and surface litter, as indicated on the drawings or as designated by the Owner.

PART 1 REFERENCES

This specification refers to the following standards, specifications, or publications:

Government of Newfoundland and Labrador, Department of Transportation and Infrastructure (TI), Highway Design and Construction Division, Highway Specifications Book

Division 12 Standard Drawings

Other

Canada Labour Code, Part 2, Canada Occupational Health and Safety

Canadian Environmental Protection Act, 1999 (CEPA 1999)

Canadian Pest Control Products Act (S.C. 2002, c. 28)

PART 2 GENERAL

2.1 REGULATORY AGENCIES

- .1 Obtain necessary cutting permits from Regulatory Agencies. Comply with all municipal, provincial and federal laws and regulation.
- .2 Provide copies of all permits to the Owner's prior to commencing the Work.

2.2 SAFETY REQUIREMENTS

- .1 Safety Requirements: worker protection.
- .2 Ensure workers are wearing gloves, dust masks, safety boots, protective clothing, eye protection, safety vests and any other protection required in the SSSP while performing clearing and grubbing activities.
- .3 Ensure workers are wearing gloves, dust masks, eye protection, protective clothing, and any other protection required in the SSSP while applying herbicide materials.
- .4 Ensure that workers are not allowed to eat, drink or smoke while applying herbicide material.
- .5 Smoking is not permitted within 15 metres of pest control area.

- .1 Provide and post "No Smoking" signs at certain locations as directed by the Owner.

2.3 STORAGE AND PROTECTION

- .1 Prevent damage to fencing, trees, shrubs, landscaping, natural features, bench marks, existing buildings, existing pavement, utility lines, site appurtenances, water courses, and root systems of trees which are to remain.
 - .1 Repair any damaged items to approval of Owner.
 - .2 Replace any damaged trees designated to remain as directed by Owner.
- .2 No timber, brush or logs shall, in any event, be piled upon adjacent lands unless authority is first obtained from the Owner.

2.4 ENVIRONMENTAL PROTECTION

- .1 Complete all protective measures noted in 1560 Environmental Requirements.
- .2 Clean up spills of preservative materials immediately with absorbent material and safely discard to landfill.
- .3 Do not dispose of unused preservative materials into sewer systems, into streams, lakes, onto ground or in other locations where they will pose health or environmental hazards.
- .4 Ensure safe use and disposal of wood preservatives complies with all Federal, Provincial, and Municipal regulations, particularly the Canadian Environmental Assessment Act (CEAA), the Canadian Environmental Protection Act, and the Pest Control Products Act.
 - .1 For information and procedures on pest control products, call the Pest Management Information Service at 1-800-267-6315. Ensure that the use and disposal of wood preservatives complies with all departmental regulations, particularly the Environmental Assessment Review Process.
- .5 Where clearing or grubbing operations are required near a watercourse or water body, the Contractor shall ensure that a minimum 15 metre "No Grub" zone is left between the watercourse or water body and adjacent work area. Where possible, ditch waters shall be directed to existing vegetation at least 30 metres from watercourse crossing locations rather than directly discharging to the watercourse.

.6 The Contractor shall take all necessary precautions to guard against damage to surrounding timber and shall assume all liability for claims that may arise from any such damage.

PART 3 PRODUCTS

.1 Ensure that wood preservatives and other pesticides delivered to the Site are registered by Health Canada as part of the Pest Control Products Act.

.2 Bituminous based paint of standard manufacture specially formulated for tree wounds.

.3 Herbicide: effective for killing annual and perennial weeds, and bamboo grass, by being absorbed through roots and foliage.

.1 Spray applied on non-crop land areas.

.2 Type as indicated.

.4 Soil Material for Fill:

.1 Excavated soil material: free of debris, roots, wood, scrap material, vegetable matter, refuse, soft unsound particles, deleterious, or objectionable materials.

PART 4 EXECUTION

4.1 PROTECTION

.1 Erosion and Sediment Control Measures

.1 Provide temporary erosion and sedimentation control measures in accordance with 01560 – Environmental Requirements to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to the requirements of the Authorities Having Jurisdiction.

.2 Silt fences are to be installed as per the Standard Drawing Form 1238 of the TI, Highway Specifications Book.

.3 Inspect, repair, and maintain temporary erosion and sedimentation control measures during construction until permanent vegetation has been established.

.4 Remove temporary erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

4.2 PREPARATION

.1 Inspect site and verify with Owner any items designated to remain.

- .2 Locate and protect utility lines: preserve in operation condition active utilities traversing the Site.
 - .1 Notify the Owner immediately of damage to or when unknown existing utility lines are encountered.
 - .2 When utility lines which are to be removed are encountered within area of operations, notify the Owner in ample time to minimize interruption of services.
 - .3 Notify utility authorities before starting clearing and grubbing activities.
 - .4 Keep roads and walks free of dirt and debris.

4.3 CLEARING

- .1 Clear trees, shrubs, uprooted stumps and surface debris not designated to remain.
- .2 Cut off trees, brush, and scrub as indicated or as directed by the Owner at a height of not more than 150 mm above ground.
- .3 Cut off unsound branches on trees designated to remain
- .4 Cut down dangerous trees overhanging area cleared.
- .5 Apply herbicide at the rate indicated or in accordance with manufacturer's instructions to top surface of stumps designated not to be removed.
- .6 All tree branches extending into the area cleared, which hang within six metres of the ground, shall be cut off close to the trunk in a neat and competent manner.
- .7 No trees shall be cut down outside the limits except any trees considered unsafe by the Owner or noted for Isolated Trees Clearing and Grubbing.
- .8 If so ordered by the Owner, certain trees within the area to be cleared shall be preserved. Underbrush, down timber, snags, and roots shall be removed from the vicinity of such preserved trees and disposed.

4.4 GRUBBING

- .1 Excavate and dispose of stumps, roots, surface boulders, rock fragments, embedded logs, debris, matted roots, and other vegetation to a depth of 150 mm below original ground surface.
- .2 Cross sectioning for purposes of payment for excavated quantities for other items appearing in the contract documents will not be done until grubbing or clearing and grubbing operations in the designated area(s) are completed.

- .3 Where a significant quantity of topsoil exists and as directed by the Owner, the Contractor shall stockpile topsoil separately from common other material for possible rehabilitation work.

- .4 Edge of grubbing debris shall be trimmed to slightly proportions.

4.5 CLEARING AND GRUBBING

- .1 Clearing activities indicated or directed by the Owner at a height of not more than 150 mm above ground and grubbing activities to a depth of 150 mm below original ground surface.

4.6 CLOSE CUT CLEARING

- .1 Cut off trees, shrubs, stumps and other vegetation to original ground surface.
- .2 Perform close cut clearing in such a manner that existing insulation of fibrous material is not damaged.
- .3 Cut off unsound branches and cut down dangerous trees overhanging area cleared.
- .4 All tree branches extending into the area cleared, which hang within six metres of the ground, shall be cut off close to the trunk in a neat and competent manner.

4.7 UNDERBRUSH CLEARING AND GRUBBING

- .1 Clear underbrush from areas indicated at ground level and grub out stumps and roots to a depth of 150 mm below original ground surface.

4.8 ISOLATED TREES

- .1 Cut off isolated trees indicated or directed by the Owner at a height of 150 mm above ground and grub out isolated tree stumps.
- .2 Prune individual trees as indicated.
- .3 Trim trees designated to be left standing within cleared areas of dead branches 4.0 cm or more in diameter; and trim branches to heights as indicated.
- .4 Cut limbs and branches to be trimmed close to bole of tree or main branches.
- .5 Paint cuts more than 3 cm in diameter with approved tree wound paint.

4.9 REMOVAL AND DISPOSAL

- .1 Remove cleared and grubbed materials to disposal area indicated and/or as approved by the Owner. The Contractor shall dispose of all brush and logs not suitable for salvage. Dispose of cleared and grubbed materials by burying, or in an approved waste disposal area provided by the Contractor at their own expense.
- .2 Timber cleared or grubbed from land belonging or leased to private individuals, crown corporations or companies, does not become the property of the Contractor. The Contractor must make prior arrangements with landowners or lessee(s) for the disposal of the timber.
- .3
- .4 Bury by consolidating to highest degree practicable and covering with a minimum 500 mm of mineral soil. Finish to present a neat levelled appearance.
- .5 The Contractor shall dispose of all brush and logs not suitable for salvage.

4.10 FINISHED SURFACE

- .1 Leave ground surface in a condition suitable for immediate grading operations and stripping of topsoil.

4.11 CLEANING

- .1 Cleaning as per Section 01710
- .2 Clean and remove debris and sediment from work area drainage devices and dispose of to an approved landfill site as directed by the Owner.
- .3 Maintain Work in tidy condition, free from accumulation of waste products and debris.
- .4 Do not clean equipment in the waterbody or where the wash-water can enter the waterbody.
- .5 Maintain tidy Work area, free from accumulation of waste products and debris.

PART 5 PAYMENT

5.1 MEASUREMENT FOR PAYMENT

- .1 Following items will be measured in hectares by horizontal area within limits indicated or as directed by the Owner:

- .1 Clearing
- .2 Grubbing
- .3 Clearing and Grubbing
- .4 Close Cut Clearing
- .5 Underbrush Clearing and Grubbing

.2 Measure clearing and grubbing isolated trees, to a depth of 150 mm, as number of isolated trees cleared and number of isolated tree stumps grubbed as detailed on the contract documents.

.3 Clearing and grubbing beyond the limits detailed on the contract documents will not be measured for payment.

.4 Payment for grubbing shall include the cost of removal, from the area to be grubbed, of boulders that are less than 0.5 m³.

.5 ~~Earth excavated as part of any of the above operations and within the theoretical paylines for each excavation, will be paid as earth excavation.~~

~~.6.1 Removal of individual boulders 0.5 m³ and greater in volume will be paid under Section 2215.~~

5.2 BASIS OF PAYMENT

- .1 All costs associated with the work outlined in this specification shall be deemed to be included in the appropriate unit and lump sum prices quoted as outlined in Measurement for Payment subsection of this section and as included in the MERX Schedule of Quantities and Prices.
- .2 Payment at the contract price for Clearing and Grubbing shall be compensation in full for all labour, materials and equipment use to carry out the work indicated in this specification or in any way connected with these operations.
- .3 ~~Material~~ ~~Earth excavated as part of any of the above operations and within the theoretical paylines for each excavation, will be paid as mass earth excavation under Section 02224 – Roadway Embankment~~ ~~Earthwork & Related Work~~.
- .4 ~~Removal of individual boulders 0.5 m³ and greater in volume will be paid under Section 02224 – Site Work & Site Grading~~ ~~Roadway Embankment~~ ~~Earthwork & Related Work~~ ~~15~~.
- .5 No payment, other than that provided for in the contract price for Clearing and Grubbing, will be made for topsoil and surface boulders removed by clearing and grubbing operations, or for any haulage involved in clearing and grubbing debris disposal. The cost to acquire an approved waste disposal area, as required, is deemed incidental to the Work.

Not For Construction