

PART 1 - GENERAL

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| <u>1.1 Precedence</u> | .1 | For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual. |
| <u>1.2 Related Sections</u> | .1 | Section 01 35 45 - Environmental Protection Refueling Vehicles. |
| | .2 | Section 01 74 21 - Constructional/Demolition Waste Management and Disposal. |
| <u>1.3 Fires</u> | .1 | Fires and burning of rubbish on site not permitted. |
| <u>1.4 Disposal of Wastes</u> | .1 | Do not bury rubbish and waste materials on site unless approved by Departmental Representative. |
| | .2 | Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers. |
| | .3 | Dispose of uncontaminated construction/demolition material which cannot be recycled or reused, at an approved construction and debris disposal site. |
| <u>1.4 Drainage</u> | .1 | Provide temporary drainage and pumping as necessary to keep excavations and site free from water. |
| | .2 | Do not pump water containing suspended materials into waterways, sewer or drainage systems. |
| | .3 | Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements. |
| <u>1.5 Site Clearing and Plant Protection</u> | .1 | Protect trees and plants on site and adjacent properties where indicated. |

- .2 Wrap in burlap, trees and shrubs adjacent to construction work, storage areas and trucking lanes, and encase with protective wood framework from grade level to height of 2 m.
- .3 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .4 Minimize stripping of topsoil and vegetation.
- .5 Restrict vegetation removal to areas indicated or designated by Departmental Representative.
- .6 Vegetation and topsoil should not be removed to obtain fill for road construction purposes.
- .7 Whenever possible, organic debris removed during grading operations should be stored for use during site restoration. Such stockpiles should be located well away from any stream or water body and should be covered with coarse material or tarps to minimize wind and water erosion.

1.6 Work Adjacent to Waterways

- .1 Do not operate construction equipment in waterways.
 - .2 Do not use waterway beds for borrow material without Departmental Representative's approval.
 - .3 Do not dump excavated fill, waste material or debris in waterways.
 - .4 Design and construct temporary crossings to minimize erosion to waterways.
 - .5 Do not skid logs or construction materials across waterways.
 - .6 Avoid indicated spawning beds when constructing temporary crossings of waterways.
 - .7 Do not blast under water or within 100 m of indicated spawning beds.
 - .8 Temporary diversion ditches, approved by the
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Departmental Representative, are to be plastic lined.

- .9 Temporary storage sites for debris generated from clearing operations should be deposited away from watercourses and should be surrounded by a natural vegetative buffer.
- .10 Do not pump or drain water containing suspended materials into waterways. Water containing suspended materials shall be pumped into vegetation a minimum of 30 m away from watercourses.

1.7 Pollution Control

- .1 Maintain temporary erosion and pollution control features installed under this contract.
- .2 Control emissions from equipment and plant to local authorities' emission requirements.
- .3 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads. Chemicals used in dust control must have prior approval of the Departmental Representative.

1.8 General Requirements

- .1 Work under this contract is to be carried out in a National Park, and environmental protection must be given a high priority by all staff involved with the work.
- .2 An Environmental Briefing will be held prior to work commencing at the site, which will outline environmental factors to be considered during the work. It is mandatory that all current staff of the Contractor attend this meeting with the Departmental Representative and Environmental Protection Officer (EPO).
- .3 The Contractor shall meet all requirements as detailed in Table V - Environmental Effects and Mitigation Measures: Small Bridge and Culvert

Rehabilitation and Replacement included in Appendix A. This document is not all-inclusive, and site adjustment of the mitigation methods for the work may be required. The Departmental Representative will advise the Contractor of any additional requirements as they arise.

- 1.9 Site Set-up and Use .1 All site activities related to construction are to be confined within the defined project boundaries.
- .2 Work sites will be equipped with appropriate and properly maintained sanitary facilities.
- .3 Garbage must be collected and removed daily from the work site. All material must be removed, transported and disposed of in accordance with existing provincial - municipal and Park solid waste disposal guidelines and/or regulations.
- .4 Littering is prohibited.
- .5 Temporary storage, parking areas, and turn-a-round facilities for contractor-related equipment and vehicles will be limited to those areas agreed to and designated by the Departmental Representative.
- 1.10 Environmental Protection Plan .1 The Contractor is required to submit a plan showing all pollution control measures that will be used to fulfill the requirements of the Environmental Protection Section. This plan will be reviewed by the Departmental Representative and the Environmental Protection Officer prior to commencement of any work. Any deviation from this plan will require further approval by the Departmental Representative. The protection plan shall be submitted prior to the pre-construction meeting.
- .2 The Environmental Plan will outline how the Contractor will address the environmental protection requirements, including removal and installation of culverts, and ensure pollution created by the construction is controlled. It will show sufficient detail on products to be used and physical placement on site to determine
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effectiveness of these items.

- .3 The plan must cover all activities within the limits of all construction, laydown and traffic diversion areas.

1.11 Environmental Performance

- .1 The Contractor is required to follow the Canadian Environmental Protection Act.
- .2 The Contractor is held responsible to ensure that all necessary permits related to Environmental Protection have been obtained and that necessary documentation is available on-site.

1.12 Vehicular Movements

- .1 Restrict movement of vehicles and equipment to existing disturbed areas (access roads, borrow pits, disposal areas and right-of-ways).

1.13 Storage and Handling of Fuels and Dangerous Fluids

- .1 Locate fuel storage facility outside Park and a minimum of 100 m from any water body in an area approved by Departmental Representative and construct impermeable dykes so that any spillage is contained. Fueling of vehicles or equipment will not be permitted within 100 m of any water body. Maintenance of vehicles and equipment will be permitted only in designated areas as directed by the Departmental Representative.
- .2 Exercise care in handling of fuels or dangerous materials to minimize potential for spills. Report immediately any spills to Departmental Representative. Contractor is responsible for responding immediately to any spill to minimize environmental damage and for clean-up, repair or rehabilitation resulting from any spills to the satisfaction of the Departmental Representative.
- .3 Supply and maintain on site emergency response material to contain spills and minimize environmental damage, i.e. absorbent material, to the approval of Departmental Representative. Disposal of all contaminated material shall be off-site at an approved facility.
- .4 Dangerous goods, whose release into the environment could cause adverse effect, should

be stored and handled in a manner which gives due regard for workers and public safety, and for the protection of the environment.

- .5 No material toxic to fish or any aquatic life shall be permitted to enter any stream, river, or lake. This shall include, but not be limited to lubricants, fuels, testing fluids, insecticides, detergents, herbicides, cement, lime or concrete.
- .6 The management of fuels, lubricants and chemicals must meet with the requirements of the Newfoundland & Labrador Department of Environment & Conservation and all other appropriate provincial and federal regulations.
- .7 Fuel storage containers must be accompanied by impermeable structures that would provide containment of 125% of the container capacity in the event of a leak or spill.
- .8 All refueling and lubricating operations should employ protection measures such as drip pans, to reduce the potential for escape of petroleum products to the environment.
- .9 The Departmental Representative and the Park's Environmental Protection Officer (EPO) must be immediately contacted after a spill of fuel or lubricant, and after any amount of other chemical products has escaped.
- .10 Storage of any fuel has to occur only in previously approved locations, and with Park consent. The Contractor must submit plans for fuel management and a Spill Contingency Plan seven days prior to the start of the Work. The Contractor is expected to be prepared to effect the containment and cleanup of all spills related to the Work.
- .11 Storage of hazardous material, including explosives, shall not be permitted, except for quantities which shall normally be expected to be utilized in a day of Work, and which are not permitted to stockpile.
- .12 Emulsion storage tanker and transfer of emulsion

from tanker to spray vehicle are not permitted.

1.14 Erosion and Sediment.
Control

- Appropriate preventative controls should be in place at all times during construction to prevent undue erosion and sedimentation. The Contractor is required to provide to the Departmental Representative for approval ten (10) working days before start-up an erosion and sedimentation control plan, as part of the Environmental Protection Plan. The plan shall incorporate all necessary silt fences, silt traps, plastic lined trenches and ditches as approved by the Departmental Representative.
- .2 The Contractor shall install and maintain all sedimentation and erosion control features for the duration of the project, in accordance with the approved plan. The Contractor shall remove all sedimentation and erosion control upon completion of the work and when requested by the Departmental Representative.
 - .3 Sediment fences and erosion control structures shall be constructed in roadside ditches or at culvert inlets prior to any excavation as directed by Departmental Representative.
 - .4 To minimize run-off, work on slopes which may affect water body will be curtailed during periods of heavy rainfall, as directed by the Departmental Representative.
 - .5 Prior to carrying out work, check long range weather forecast to ensure that there is adequate time before forecast of heavy rain storms to stabilize the work. Provide details of stabilization plan to Departmental Representative for review.
 - .6 Maintain a stockpile of appropriate erosion and environmental protection materials (e.g. silt fences, straw bales, wood chips, clean rock fill and aggregate base course) on site at all times.
 - .7 Install additional erosion control measures as required by site conditions to prevent sediment from entering drainage courses.
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- .8 Inspect erosion and sediment control measures on a daily basis and maintain as necessary.
- 1.15 Fisheries Regulations
- .1 Obtain proper permits or authorization from Federal Department of Fisheries and Oceans and maintain a copy of said permit on site. Regulations stipulated in the Permit will be strictly enforced.
- 1.16 Relics and Antiquities
- .1 Relics and antiquities and items of historical or scientific interest such as cornerstones and contents, commemorative plaques, inscribed tablets, and similar objects found on site or in structures to be demolished, shall remain property of Canada. Protect such articles and request direction from Departmental Representative.
- .2 Give immediate notice to Departmental Representative if evidence of archaeological finds are encountered during construction and await his written instructions before proceeding with work in this area.
- 1.17 Treated Wood
- .1 Workers shall be made aware of the possible health risks associated with exposure to CCA or creosote treated timber as well as the recommended safe practices for handling such materials.
- .2 Disposal of treated wood wastes including saw-dust must be outside of the site, and in accordance with all applicable Provincial and Municipal regulations. Similar attention must be given to disposal of any replaced guiderail posts which have been treated with creosote, which must also be removed from the park for disposal.
- 1.18 Environmental Incident or Emergency
- .1 In the event of an environmental incident or emergency such as:
- .1 Chemical spill or petroleum spill;
 - .2 Poisonous or caustic gas emission;
 - .3 Hazardous material spill;
 - .4 Sewage spill;
 - .5 Contaminated water into waterways.
 - .6 The Contractor or his employees shall immediately:
 - .1 Notify the Contractor's job superintendent.
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- .2 Call the local emergency services and give type of emergency.
- .3 Notify the Departmental Representative and the Park's Environmental Protection Officer (EPO).

- .2 The Contractor is to submit to Departmental Representative a copy of its Environmental/Spill Response Plan for approval.

1.19 Site Decommissioning

- .1 Unless prior permission from the Departmental Representative is obtained, all contractor equipment, facilities and materials must be removed from the Park at the finish of each work phase, or if work is suspended due to weather or other circumstances, upon the suspension of work activities.

- .2 All work sites must be returned to a neat and tidy condition upon site abandonment.

1.20 Site Clearing

- .1 Timber and vegetation shall not be cleared unless approved by Departmental Representative.
- .2 Vegetation and topsoil shall not be removed to obtain fill for road construction purposes.
- .3 All cleared trees and timber shall become the property of the Contractor, and are to be disposed of outside the park boundaries.
- .4 All cut shrub vegetation and underbrush shall be chipped and evenly dispersed on-site or dragged from sight into the adjacent forest edge. No burning of any vegetation or debris will be permitted in the park boundaries.
- .5 No roadside vegetation clearing will be permitted during the annual songbird nesting period of June and July.