

CONTRACT SPECIFICATIONS FOR:

Roadside Vegetation Clearing
Highway 16 West
Jasper National Park, Canada

August 2019

END OF SECTION

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General

G000	Cover Sheet
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Civil Engineering

Highway 16

C700	CLEARING & BRUSHING DETAILS
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C702	PLANS
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C705	PLANS

END OF SECTION

Part 1 General

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- .1 Specific work for this contract shall be comprised of work associated with but not limited to what is indicated in the drawings and specifications.
- .2 The work includes, but is not limited to, the following:
 - .1 Brushing and Clearing including approximately
 - Isolated Tree falling: 250 units
 - Close Cut Clearing: 16.4 ha
 - Brushing: 2.50 ha
 - Mowing: 8.54 ha
- .3 The work, unless specifically stated otherwise, shall include transportation, labour, material, tools, equipment, and all other incidentals required to complete the work. The intent is that the contractor provides a complete product.
- .4 The work shall include all required permissions, permits, and approvals; traffic accommodation; submission, revision and implementation of site specific Traffic Accommodation Plans, submission, revision and implementation of site specific Environmental Management Plans including ECO (Environmental Construction Operations) Plan, ESC (Erosion and Sedimentation Control Plan, and Spill Response procedures; supply and installation of erosion and sedimentation control (ESC); disposal of waste, and cleanup of site.
- .5 Any minor item of the work not called for in the specifications or shown on the drawings but clearly required to meet the intent of design and normally provided for the proper operation of the work shall be provided as if specifically called for in the contract documents. No additional payment will be made for this incidental work.
- .6 The contractor shall supply all material for the work unless expressly stipulated otherwise in the contract documents.

1.2 CONTRACT METHOD

- .1 Construct Work under unit price contract.

1.3 CONSTRUCTION DURATION

- .1 Certain dates may have limited or no construction activities permitted, depending on date of award and statutory holidays.
- .2 Work is anticipated to commence in September 2019 and must be complete by November 30, 2019.
- .3 Mowing works must be completed prior to snowfall. Clearing and felling activities may continue after snowfall, but final acceptance will be delayed until sufficient spring melt to verify brushing completion. Clearing and felling activities will not influence

or impede the roadway snow clearing priorities of Parks Canada.

1.1 HOURS OF OPERATION

- .1 Construction can be performed from Monday to Sunday excluding statutory holidays.
- .2 Obtain written permission from Parks Canada Representative before undertaking holiday work or work that may be disruptive to the existing park business.
- .3 Hours of Operation: 0700 – 1900, or during appropriate daylight working hours. No works can be completed outside of daylight hours without approved light plants.

1.2 SITE ACCESS

- .1 At a minimum, one-way traffic on all roadways with flag people must be maintained during clearing and brushing and any other operations. Lane closures must be detailed in the Traffic Accommodation Strategy. Works may be restricted on Highway 16 during peak tourism hours.

1.3 TRAFFIC ACCOMMODATION STRATEGY

- .1 Prepare and submit Traffic Accommodation Plans for approval that details the proposed methods for accommodating the Traffic during each phase of the work.

1.4 BUSINESS LICENSE/PERMITS

- .1 All contractors and subcontractors must obtain a Business License to operate within Jasper National Park.
- .2 All business and private vehicles are required to display a vehicle work permit.
- .3 Obtain Restricted Activity (Special Activity) Permits as required. This includes but may not be limited to Light and Maintain a Fire and Vegetation Removal. No work can be performed without the appropriate permit.

1.5 CONTRACTOR USE OF PREMISES

- .1 Accommodations are available in Jasper, Alberta. Contractor is to make their own accommodation. Camping is not allowed on site premises.
- .2 A Parks Canada Work Camp may be available for this contract
- .3 Limit use of premises for Work, for storage, and for access, to allow Owner occupancy.
- .4 Co-ordinate use of premises under direction of Parks Canada Representative.
- .5 Assume full responsibility for protection and safekeeping of construction site and products under this contract.
- .6 At completion of operations restore all premises such as laydown area: equal to or better than that which existed before new work started.
- .7 Contractor to follow all environmental conditions and mitigations measures identified in Section 01 35 43 Environmental Procedures and BMPs located in Appendix A

1.6 CRITICAL ENVIRONMENTAL TIMING WINDOWS

- .1 The following are the critical environmental timing window:
 - .1 April 19 to August 24 - Migratory Bird Protection Period (Migratory Birds Convention Act)
 - .2 Trees with diameter of 150mm or greater cannot be felled prior to August 25 or after April 15 without approval from Departmental Representative
- .2 It is expected that clearing work including brushing and mowing be performed outside of the critical environmental timing windows. However, if clearing, brushing, and mowing works are required outside of the critical windows, work may be permitted within the restricted period. Any clearing works undertaken within the restricted dates will require the Contractor to explicitly comply with requirements of the Act and with Parks Canada BMPs, including but not limited to nest surveys (sweeps) completed by qualified biologists. Additional efforts required to undertake clearing work within the restricted period will be considered incidental and the Contractor is responsible for all costs.

1.7 PROJECT SCHEDULE

- .1 The Contractor shall prepare a meaningful bar chart or network diagram showing the proposed schedules of the components of the work, which shall be submitted to the Parks Canada Representative one (1) week prior to commencement of any work.
- .2 Ensure the project schedule includes as minimum the following milestones as applicable:
 - .1 Mobilization
 - .2 Falling and Clearing works
 - .3 Brushing and Mowing
 - .4 Burning, if applicable
 - .5 Demobilization.
- .3 Project Schedule to include dates excluded from construction as per Section 1.1 of this document, including long weekend dates. Schedule to be updated and resubmitted within one week if any other dates are identified.
- .4 Parks Canada Representative will review and approve or return a revised schedule within 3 working days.
- .5 Revise schedule, if required, and resubmit within 3 working days.
- .6 Accepted revised schedule will become Master Plan and be used as baseline for updates.

1.8 DOCUMENTS REQUIRED

- .1 Maintain at job site one copy each document as follows:

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- .1 Project Drawing Sets, including all plan-profiles, typical sections, and details
 - .2 Specifications
 - .3 Addenda
 - .4 Restricted Activity Permits
 - .5 Change Orders
 - .6 Other Modifications to Contract
 - .7 Approved Work Schedule
 - .8 Contractor's Quality Control (CQC) Program
 - .9 Health and Safety Plan and Other Safety Related Documents including WHMIS if applicable
 - .10 Traffic Accommodation Plan
 - .11 Environmental Management Plan including ECO, ESC, and Spill Response
 - .12 Field Test Reports

1.9 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 buildings to be demolished, remain property of the Owner. Protect such articles and request directives from the Parks Canada Representative.
- .2 Notify the Parks Canada Representative and stop work in the affected area immediately if evidence of archaeological finds is encountered and await the Parks Canada Representative's written instructions before proceeding with work in area.

1.10 FIELD ENGINEERING

- .1 Maintain an accurate log of any changes in the field. Record station and offset of all bid item work completed for historical record of work completed.

1.11 SETTING OUT OF WORK

- .1 Parks Canada Representative will provide:
 - .1 Complete set of Construction Drawings.
 - .2 Locations of milestone stations.
- .2 Contractor to
 - .1 Set additional control points as necessary.
 - .2 Set all work stakes necessary to complete the work, including marking out roadway stationing.

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- .3 Allow sufficient time to take measurements for payments. The Parks Canada Representative may need to verify the measurements for payment and the work will be coordinated with the Contractor.
 - .4 Do not damage geodetic benchmarks unless authorized by Parks Canada Representative.
 - .5 At all work sites, the Contractor shall mark accurately, at regular intervals, the location and type of existing painted lines, including start and ends of passing lanes and intersections, with a stake at the side of the roadway and make a written record of markings in a book, in order that painted lines can be accurately re-established after work is completed.
- .3 All survey work required by the contractor to layout, monitor, and provide measurements for quantities for payment is considered incidental to the completion of the Works and will not be considered for separate payment.

Part 2 Products

2.1 NOT USED

Part 3 Execution

3.1 NOT USED

END OF SECTION

Part 1

General

1.1

PRECEDENCE

- .1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.

1.2

RELATED SECTIONS

- .1 Section 01 32 16.07 - Construction Progress Schedules - Bar (Gantt) Chart.
- .2 Section 01 35 43 - Environmental Procedures.

1.3

EXISTING SERVICES

- .1 Provide for pedestrian, railway and vehicular traffic for the duration of the construction.

1.4

USE OF THE WORK SITE

- .1 The Work Sites specified in these specifications shall only be used for the purposes of the Work. The Work Sites will be made available by Parks Canada to the Contractor for its non-exclusive use for the duration of the Work, unless otherwise provided in the Contract Documents.
- .2 The Contractor shall include in the tender, payment to taxes properly levied by law (Federal, Provincial and Municipal) including the cost of any collection of permits and business license.
- .3 The Contractor shall keep the Work Site clean and free from accumulation of waste materials and rubbish regardless of source. Snow shall be removed by the Contractor as necessary and at his cost for the performance and inspection of the Work.
- .4 The Contractor shall provide sanitary facilities for work force in accordance with governing regulations and the Environmental Procedures for this project. The Contractor shall post notices and take such precautions as required by local health authorities and keep area and premises in sanitary condition.
- .5 Any damage to the Work Site caused by the Contractor shall be repaired by the Contractor at its expense.
- .6 The Contractor will not be permitted to work on Civic Holidays or long weekends unless prior written approval is granted by the Parks Canada Representative.

1.5

NATIONAL PARK REGULATIONS

- .1 All components of the Work shall be conducted in accordance with Section 01 35 43 - Environmental Procedures.
- .2 The Contractor shall ensure that all work is performed in accordance with the ordinances, laws, rules and regulations set out in the Canada National Parks Act and Regulations.
- .3 For the Work in Jasper, the Contractor and any sub-Contractors shall obtain a business

license from the Parks Canada Administration Office in Jasper, prior to commencement of the contract.

- .4 All Contractor's vehicles are required to display a vehicle work pass from Parks Canada.

1.6 NON-NATIVE VEGETATION

- .1 All equipment must be steam cleaned or pressure washed and inspected prior to entering the Park. All equipment must be inspected after respective works are completed, works prior to transport from the project limits, with the intent to prevent spreading invasive weed species.

1.7 WORK CONDUCTED OVER OR ADJACENT TO WATERWAYS

- .1 All components of the Work shall be conducted in accordance with Section 01 35 43 - Environmental Procedures.
- .2 All components of the Work shall be conducted without equipment entering into wetlands, water bodies, streams and rivers.
- .3 Clearing, brushing, and mowing within 10m of near waterbodies, including the Miette River and various stream crossings, must have direct oversight by Departmental Representative. The Contractor may be required to include erosion and sedimentation controls or to adjust falling, clearing, and brushing methodology within a 5m buffer on each side of the water course, The Departmental Representative may reduce the clearing width as measured from the roadway shoulder in these areas as shown on the table below in 1.7.9. The water courses have been identified by station on the drawings.
- .4 All waste materials from the Work shall be contained and collected in a manner to prevent any contact with the river valleys and waterways. All collected waste materials shall be disposed of in accordance with Section 01 35 43 - Environmental Procedures and the Environmental Protection Plan prepared for the project.
- .5 Waterbodies and clearing modifications within project limits that have been identified include:

STATION (KM)	LEFT + RIGHT	CLEARING WORK	WIDTH (M)	PROXIMITY CONCERN	MITIGATION	NOTES
1600+325	LT	Close Cut Clearing	10.0	YES	Maintain 5m buffer from water	Oxbow pond from Miette River
1600+937	LT/RT	-	-	NO	-	Miette River Crossing. Bridge.
1601+375	RT	Brushing	10.0	YES	Reduce brushing to 6m width from shoulder. Maintain 10m buffer to water.	Parallel to Miette River
1601+850	LT/RT	Brush Clearing	10.0	YES	River is 15m away from roadway. Reduce brushing width to 7m from RT shoulder. Limit brushing to gravel bench	Water Crossing.

					or 8m on LT.	
1603+462	LT	Brush Clearing	5.0	YES	Locate LT culvert end, maintain 3m parallel buffer from watercourse, reduce clearing to 3m from LT shoulder.	Water Crossing.
1603+462	RT	-	-	NO	-	Water Crossing. Guardrail.
1603+717	LT	Close Cut Clearing	5.0	YES	Locate culvert ends, maintain 3m parallel buffer from watercourse, reduce clearing to 3m on LT.	Water Crossing.
1603+717	RT	Close Cut Clearing	10.0	YES	Locate culvert ends, maintain 3m parallel buffer from watercourse, reduce clearing to existing brushing on RT.	Water Crossing.
1604+050	RT	Mowing	10.0	YES	Reduce mowing to 5m width from shoulder. Maintain 8m buffer to water.	Parallel to Miette River
1606+853	LT	Close Cut Clearing	10.0	YES		Water Crossing.
1606+853	RT	Mowing/Clearing	10.0	YES	Locate culvert end, maintain 3m parallel buffer from watercourse, reduce mowing to existing brush on RT.	Water Crossing.
1607+653	LT	Close Cut Clearing	10.0	YES	Locate culvert, maintain 3m parallel buffer from watercourse, reduce clearing to 3m on LT.	Water Crossing.
1607+653	RT	-	-	NO	-	Water Crossing. Guardrail.
1608+941	LT	Brush Clearing	10.0	YES	Reduce brushing on LT to existing tree line around culvert inlet.	Water Crossing.
1608+941	RT	Brush Clearing	10.0	YES	Locate culvert, maintain 3m parallel buffer from watercourse, reduce mowing to 5m on RT. Culvert estimated 10m from shoulder.	Water Crossing.
1609+125	RT	-	-	NO	-	Roadside Pullout.
1609+170	LT	Brush Clearing	10.0	YES	Locate culvert, reduce brushing to 7m from shoulder or 5m from culvert inlet.	Water Crossing.
1609+875	RT	-	-	NO	-	Miette River. Guardrail.
1610+980	LT/RT	-	-	NO	-	Meadow Creek Crossing. Bridge.
1615+522	LT/RT	-	-	NO	-	Clairvaux Creek Crossing.
1619+225	LT	Close Cut Clearing	5.0	YES	Locate culvert, maintain 3m parallel buffer from watercourse. No	Water Crossing.

					apparent watercourse during investigation. Adjust clearing as per Departmental Representative site instruction.	
1619+225	RT	Close Cut Clearing	10.0	YES	Locate culvert, maintain 3m parallel buffer from watercourse. No apparent watercourse during investigation. Adjust clearing as per Departmental Representative site instruction.	Water Crossing.
1620+067	LT	Close Cut Clearing	5.0	YES	Locate culvert, maintain 3m parallel buffer from watercourse. Reduce clearing to 3m from edge of roadway.	Water Crossing.
1620+067	RT	Close Cut Clearing	10.0	YES	Locate culvert end, maintain 3m parallel buffer from watercourse. Reduce clearing to 5m, or maintain 3m from culvert inlet.	Water Crossing.
1620+482	LT	-	-	NO	-	Guardrail.
1620+482	RT	Close Cut Clearing	10.0	YES	Locate culvert end, maintain 3m parallel buffer from watercourse. Reduce clearing to 2m from edge of roadway.	Water Crossing.
1621+526	LT	-	-	NO	-	Water Crossing. Guardrail.
1621+526	RT	Close Cut Clearing	10.0	YES	Locate culvert end, maintain 3m parallel buffer from watercourse. Reduce clearing to 2m from edge of roadway. Works near guardrail.	Water Crossing.
1624+487	LT	Close Cut Clearing	10.0	YES	Locate culvert end, maintain 3m parallel buffer from watercourse. Reduce clearing to 5m from edge of roadway or maintain 5m from culvert inlet.	Water Crossing.
1624+487	RT	-	-	NO	-	Water Crossing. Guardrail.

1.8 HALLER'S APPLE MOSS

- .1 Haller's Apple Moss is located at three locations within or near the project limits. In Canada, Haller's apple moss has been assessed as threatened by COSEWIC, and is protected under federal law by the *Species at Risk Act*. Alberta has ranked it as the highest category of conservation concern (S1). The Contractor must avoid and prevent

any activity within a 50m proximity to these three locations.

- .2 The approximate Haller's Apple Moss locations are shown on the drawings. The Contractor must avoid any activity that may have a detrimental impact to Haller's Apple Moss.

1.9 MOUNTAIN PINE BEETLE

- .1 There are Mountain Pine Beetle infested trees within the project limits. The contractor shall be familiar with the data available at <https://www.nrcan.gc.ca/forests/fire-insects-disturbances/top-insects/13397> and <http://cfs.nrcan.gc.ca/mpb-dpp>.
- .2 Dead previously infested trees may be handled normally, as detailed in Section 31 11 00 – Clearing, Mowing, and Grubbing. These are referred to as “Red” or “Grey” attack trees.
- .3 Live or “Green” attack trees may have live beetles present under the bark and mitigation measures are required to avoid further beetle spread. All Green attack trees must be identified prior to commencing tree removal and can be readily identified by the presence of pitch tubes.
 - Green attack trees are nominally to be burnt, minimizing transportation and storage duration of felled green attack trees.
 - Alternatively the wood may be debarked and shipped to an approved off-site facility for firewood or disposal. Bark and other materials removed from green attack trees must also be burnt, minimizing transportation and storage duration.
 - The Contractor will be permitted a location within Marmot Pit for burning of green attack trees, stripped bark and other potentially infested woody materials.

1.10 ACCESS TO ADJACENT PROPERTIES

- .1 Construction operations shall be conducted so as to cause minimal inconvenience to the public and to owners of adjoining property. Existing access to property shall be maintained as far as possible and if new access must be provided, every effort shall be taken to provide the new access before the existing access is removed.

1.11 OTHER WORKS WITHIN PROJECT LIMIT

- .1 The Contractor is advised to review current INFO-WORK bulletins parkscanada.gc.ca/jasper-construction.
- .2 Known project operations in fall 2019 include the Bridge Rehabilitation on Highway 16-Meadow Creek Bridge (approximate project stationing 1607+180) and Rock Slope Stabilization, Scaling (1608+600 to 1609+00) and Mesh Install (1607+800 to 1608+600) on Highway 16 West. Works are expected to occur 7 days a week and are scheduled to be completed in November.
- .3 The Contractor is advised that additional projects may be concurrent during project works. The Contractor is advised that Roadside Vegetation Clearing works will need to be scheduled and coordinated with Other Works which may result in work restrictions.

1.12 UTILITIES

- .1 The Contractor shall become familiar with all utilities and services adjacent to the Work and shall be responsible for cost of repair of any damage resulting from his operations. The drawings and specifications make no representations of the existing utilities and it is entirely the responsibility of the Contractor to identify any conflicts or impacts. This effort is incidental to the contract.
- .2 Preliminary review indicates a Kinder Morgan pipeline right-of-way parallels Hwy 16 along the project extent. This is shown with approximate linework on the Drawings, with no warranty or claim of accuracy. The Contractor shall ensure that any proximity or crossing agreements required to complete the works are established with the utility owner.
- .3 Preliminary review indicates telecommunication lines run parallel with Hwy 16 along the project extent. The Contractor shall ensure appropriate contact, agreements, and communication with the telecom operators.
- .4 The Contractor shall establish and maintain direct and continuous contact with the owners Operators of any Utilities which may interfere with the Work. The Contractor shall co-operate with them at all times and in all places of Work. The Contractor shall keep the Parks Canada Representative informed of all communications with the Utility companies and authorities.
- .5 The Contractor shall notify the Parks Canada Representative and the Utility companies at least seven days in advance of any activities which may interfere with the operation of such Utilities.
- .6 Whenever working in the vicinity of Utilities, the Contractor shall locate such Utilities and expose those that may be affected by the Work, using hand labour as required.
- .7 The Contractor shall assess the possible impact of its operations on all Utilities that may be affected by its operations, and shall, in consultation with Utility owner(s), protect, divert, temporarily support or relocate, or otherwise appropriately treat such Utilities to ensure that they are preserved.
- .8 The Contractor shall immediately report any damage to Utilities to the Parks Canada Representative and to the Utility company or authority affected, and shall promptly undertake such remedial measures as are necessary at no additional cost to the Owner.

1.13 SURVEY OF EXISTING PROPERTY CONDITIONS

- .1 Submission of tender is deemed to be confirmation that the Contractor has inspected the site and is conversant with all conditions affecting execution and completion of work.
- .2 The Contractor shall regularly monitor the condition of the Work Sites and of properties on and adjoining the Work Sites throughout the construction period, and shall immediately notify the Owner if any deterioration in condition is detected. Such monitoring shall cover all pertinent features and properties including, but not limited to, buildings, structures, roads, walls, fences, slopes, sewers, culverts and landscaped areas.
- .3 The Parks Canada Representative may, but shall not be obligated to survey and record the condition of the Work Sites and of properties on or adjoining the Work Sites prior to the commencement of construction by the Contractor. If requested, the Parks Canada Representative will provide a copy of the survey records to the Contractor for reference.

- .4 Whenever supplied with survey records, the Contractor shall satisfy itself as to the accuracy and completeness of the survey records provided by the Parks Canada Representative for any area before commencing construction in that area. Commencement of construction in any area shall be interpreted to signify that the Contractor has accepted such survey records as being a true record of the existing conditions prior to construction.
- .5 The provision of the records of a survey of existing conditions by the Parks Canada Representative shall in no way limit or restrict the Contractor's responsibility to exercise proper care to prevent damage to all properties within or adjacent to the Work Sites, whether all such properties are covered by the survey or not.

1.14 PROTECTION OF PERSONS AND PROPERTY

- .1 Comply with provincial Occupational Health and Safety Acts, and General Safety Regulations
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.
- .3 The Contractor shall take all necessary precautions and measures to prevent injury or damage to persons and property on or near the Work Sites.
- .4 The Contractor shall promptly take such measures as are required to repair, replace or compensate for any loss or damage caused by the Contractor to any property or, if Parks
- .5 Canada so directs, shall promptly reimburse to Parks Canada the costs resulting from such loss or damage.

1.15 USE OF PUBLIC AREAS

- .1 Steel tracked equipment with cleats will not be allowed on pavement designated for future use.
- .2 The Contractor shall ensure that its vehicles and equipment do not cause nuisance in public areas. All vehicles and equipment leaving the Work Sites and entering public roadways shall be cleaned of mud and dirt clinging to the body and wheels of the vehicle.
- .3 All vehicles arriving at or leaving the Work Sites and transporting materials shall be loaded in a manner which will prevent dropping of materials or debris on the roadways, and where contents may otherwise be blown off during transit such loads shall be covered by tarpaulins or other suitable covers. Spills of materials in public areas shall be removed or cleaned immediately by the Contractor at no cost to the Owner. All activities shall be in accordance with Section 01 35 43 - Environmental Procedures and the Environmental Protection Plan prepared for the project.

1.16 MEETINGS

- .1 The Work includes attending meetings between the Contractor and the Parks Canada Representative. The meetings will be called and chaired by the Parks Canada Representative as required. The Contractor shall be represented at such meetings to the satisfaction of the Parks Canada Representative.
- .2 The Parks Canada Representative will schedule an initial meeting to be held on site after award notification. Senior representatives of the Owner, Parks Canada Representative,

Contractor, major Subcontractors, field inspectors and supervisors are to be in attendance.

- .3 The Contractor will be requested to assemble his site staff and sub-contractors for an **environmental briefing** to be conducted by Parks Canada. The briefing shall be of approximately half hour in duration and held at initial project start-up. The Contractor shall ensure that all his current project staff is in attendance. The Parks Canada Representative and the Contractor will co-operate in setting the most appropriate time and place for the briefing. Subsequent to the initial environmental briefing, briefings will be arranged for new staff and sub-contractors showing up on the project.
- .4 Cost of attending the above meetings shall be considered incidental to the Unit Price items and no additional payment will be made.

1.17 WASTE DISPOSAL

- .1 All surplus, unsuitable and waste materials shall be removed from the job site to approved sites outside National Parks. Refer to Section 01 35 43 - Environmental Procedures.
- .2 Deposit of any construction debris into any waterway is strictly forbidden.
- .3 Cost for Waste Disposal described above shall be considered incidental to the Unit Price items and no additional payment will be made.
- .4 Waste Disposal shall be completed in accordance with Section 01 35 43 - Environmental Procedures.

1.18 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of the environment over cost and schedule considerations for Work.

Part 2 Products

- .1 Not used.

Part 3 Execution

- .1 Not used.

END OF SECTION

Part 1 General

1.1 MEASUREMENT FOR PAYMENT

- .1 For each unit price item, payment shall be based on surveyed quantities provided by the contractor and verified by Parks Canada Representative.
- .2 Parks Canada Representative will validate payment based on tendered unit price and Parks Canada Representative's agreement of the determination and value of units of work item completed.
- .3 Method of measurement to be used is listed herein and may be detailed in the section of the specification covering each work item.
- .4 Each scope of work shall be inclusive of all materials and procedures required to complete the item.
- .5 Where a method of measurement for payment for a work item is not specified, payment for that item will be deemed to be included in another pay item or other pay items.

1.2 PROGRESS CLAIMS

- .1 Contractor's Responsibilities:
 - .1 Contractor is responsible for quantity measurement.
 - .2 Submit progress claim to Parks Canada Representative within 5 working days after each month end. Claim to cover preceding month.
 - .3 Progress claim to include all labour and materials incorporated in Work and all materials stored at Site.
 - .4 Progress claim to include all agreed extras and deductions.
 - .5 Supply documentation to support claim for materials on site in the form of itemized lists or unpriced purchase orders showing quantities.
 - .6 Supply other evidence required by Parks Canada Representative in support of progress claim including field book measurements and survey.
- .2 Parks Canada Representative's Responsibilities:
 - .1 Review Contractor's claim, prepare Progress Payment Certificate and issue to Parks Canada Representative within 10 working days following receipt of Contractor's claim.
 - .2 Parks Canada Representative's estimate of percentage of work completed will govern calculation of payment on all Progress Payment Certificates.
 - .3 Inform Contractor of amendments to claim by copy of Progress Payment Certificate.

1.3 CHANGE ORDERS

- .1 Complete and promptly return all change price requests issued by Parks Canada Representative, quoting unit and/or lump sum prices as requested. Include appropriate supporting documentation to verify prices.
- .2 Do not proceed with work affected by price until authorized to do so by Change Order.
- .3 Make no change in the Work unless Change Order issued. Change Order is only valid when signed by Parks Canada Representatives.

1.4 MEASUREMENT AND PAYMENT ITEMS

.1 Mobilization

- .1 Mobilization will be measured as a Lump Sum item and will include: all costs related to project set-up, mobilization and demobilization of equipment, application of all permits, submission of all requested submittals, layout and maintenance of baseline and chainage, development of the erosion and sedimentation control plan, erosion control measures as per the erosion and sedimentation control plan, dust control, cleaning of site thought-out and at the end of the project to the satisfaction of the Parks Canada Representative, restoration of all used sites including laydown yard to existing condition and better, general clean-up, labour, tools, materials, equipment and all other incidentals required to perform work under general requirements:
- .2 Payment will be made as follows, as approved by the Parks Canada:
 - .1 Up to 50% of the Lump Sum bid may be included in the first progress payment certificate after the Contractor has established their operations and facilities and performed all the required submissions.
 - .2 The remaining 50% of the Lump Sum bid will be included in the final progress payment certificate after the removal of all equipment and cleanup of the work areas to the satisfaction of the Parks Canada Representative.

.2 Traffic Accommodation

- .1 Traffic Accommodation will be measured as a Lump Sum item and will include: traffic accommodation related efforts for project set-up; mobilization and demobilization of equipment and labour; to develop, revise, and execute the traffic accommodation strategy including any and all labour, tools, materials, equipment and incidentals required to perform work.
- .2 Payment will be made as a percentage of the total work completed.

.3 Section 31 11 00 – Clearing, Mowing, and Grubbing

- .1 Clearing:
 - .1 Close Cut Clearing, Brush Clearing, and Mowing will be measured and paid by surveyed square metres of clearing completed, to the nearest 10m².

- .2 Isolated Tree Clearing will be measured and paid by the individual tree by the unit based on a physical count of isolated trees felled.
- .3 The price includes but is not limited to mowing, brushing, disposal offsite, burning of Mountain Pine Beetle ‘green attack trees’ loading, hauling, limbing, hauling and stockpiling of salvageable trees, labour, materials, equipment, tools and all other incidentals required to perform the work.
- .2 Grubbing:
 - .1 Grubbing work shall be avoided. Any such work and restoration required shall be considered incidental to the work.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1	General
1.1	SECTION INCLUDES
.1	Coordination of the Work.
.2	Progress meetings.
.3	Construction organization and start-up.
.4	Submittal schedule.
.5	Construction progress meetings.
.6	On-site documents.
.7	Schedules.
.8	Submittals.
.9	Close out procedures.
1.2	RELATED SECTIONS
.1	Section 01 11 00 - Summary of Work.
.2	Section 01 14 00 – Work Restrictions.
.3	Section 01 32 16.07 - Construction Progress Schedules – Bar (Gantt) Chart. Section 01 33 00 - Submittal Procedures.
.4	Section 01 35 43 - Environmental Procedures.
.5	Section 01 52 00 - Construction Facilities.
.6	Section 01 77 00 – Close out Procedures.
.7	Section 01 78 00 – Close out Submittals.
1.3	MEASUREMENT PROCEDURES
.1	This Work shall be incidental to the contract and will not be measured for payment.
1.4	COORDINATION
.1	Perform coordination of progress schedules, submittals, use of site, temporary utilities, construction facilities, and construction Work, with progress of Work of other Contractors, and Work by Owner, under instructions of the Parks Canada Representative.

1.5 PROJECT MEETINGS

- .1 Attend bi-weekly project meetings chaired by the Parks Canada Representative, throughout progress of Work and provide information as determined by the Parks Canada Representative.
- .2 Attend pre-construction, seasonal shutdown and startup, and any other milestone meetings as and when required to coordinate related or affected Work and provide information, as determined by the Parks Canada Representative.

1.6 CONSTRUCTION ORGANIZATION AND START-UP

- .1 Within seven (7) days after award of Contract, request a meeting of Contract Representatives to discuss and resolve administrative procedures and responsibilities. Meeting to be chaired by the Parks Canada Representative who will also record the minutes of the meeting.

Senior representatives of the Owner, Parks Canada Representative, Contractor, major Subcontractors, field inspectors and supervisors are to be in attendance.

Agenda to include following:

- ☐ Appointment of official representative of participants in Work.
- ☐ Schedule of Work, progress scheduling in accordance with Section 01 32 16.07.
- ☐ Schedule of submittals in accordance with Section 01 33 00.
- ☐ Requirements for temporary facilities, offices, storage sheds, utilities, fences in accordance with Section 01 52 00.
- ☐ Site safety and security in accordance with Sections 01 14 00, 01 52 00 and 01 35 43.
- ☐ Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, and administrative requirements.
- ☐ Monthly progress claims, administrative procedures photographs, and holdbacks.
- ☐ Close out procedures and submittals in accordance with Sections 01 77 00 and 01 78 00.
- ☐ Insurances and transcript of policies. Other business.

Comply with Parks Canada Representative's allocation of mobilization areas of site; for field offices and sheds, for access, traffic, and parking facilities.

During construction, coordinate use of site and facilities through Parks Canada Representative's procedures for intra-project communications: Submittals, reports and records, schedules, coordination of Drawings, recommendations, and resolution of ambiguities and conflicts.

Comply with instructions of the Parks Canada Representative for use of temporary utilities and construction facilities.

Coordinate field engineering and layout work with the Parks Canada Representative.

1.7 ON-SITE DOCUMENTS

.1 Maintain at job site, one copy each of the following:

- ☐ Contract Drawings if part of tender.
- ☐ Specifications.
- ☐ Addenda.
- ☐ Reviewed Shop Drawings and mix designs.
- ☐ Change Orders.
- ☐ Other modifications to Contract.
- ☐ Traffic Management Plan.
- ☐ Safety Plan.
- ☐ WHMIS.
- ☐ Environmental Protection Plan.
- ☐ Field test reports.
- ☐ Copy of approved Work schedule and most recent updated schedule.
- ☐ Labour conditions and wage schedules.
- ☐ Applicable current editions of municipal regulations and by-laws.

1.8 SUBMITTAL SCHEDULE

- .1 Prepare a schedule of the required submissions and the date the submissions will be made. Include columns for Actual Date of Submission, Review Comments Received, Final Submission and Final Acceptance Received.
- .2 The Owner will not be responsible for any construction delays resulting from delays in submission acceptance if the submittal dates shown in the Submittal Schedule are not achieved.

1.9 PROJECT SCHEDULES

- .1 Submit preliminary construction progress schedule in accordance with Section 01 32 16.07 to Parks Canada Representative coordinated with Owner's project schedule.
- .2 After review, revise and resubmit schedule to comply with revised project schedule.
- .3 During progress of Work revise and resubmit as directed by the Parks Canada Representative.
- .4 In addition to the project schedule, submit weekly schedules to the Parks Canada Representative showing Work planned for the following week on a day by day basis.

1.10 CONSTRUCTION PROGRESS MEETINGS

- .1 See Section 01 31 19

1.11 SUBMITTALS (IF REQUIRED)

- .1 Submit product data to Section 01 33 00 for review for compliance with Contract Documents.
- .2 Submit requests for payment for review, and for transmittal to Parks Canada Representative. Payment request on last day of the month.
- .3 Submit requests for interpretation of Contract Documents, and obtain instructions through Parks Canada Representative.
- .4 Process substitutions through Parks Canada Representative.
- .5 Process change orders through Parks Canada Representative.
- .6 Deliver closeout submittals for review and preliminary inspections, for transmittal to the Parks Canada Representative.

1.12 CLOSEOUT PROCEDURES

- .1 Notify Parks Canada Representative when Work is considered ready for Substantial Performance.
- .2 Accompany Parks Canada Representative on preliminary inspection to determine items listed for completion or correction.
- .3 Comply with Parks Canada Representative's instructions for correction of items of Work listed in executed certificate of Substantial Performance.
- .4 Notify Parks Canada Representative of instructions for completion of items of Work determined in Parks Canada Representative's final inspection.

Part 2 Products

.1 Not Used.

Part 3 Execution

.1 Not Used.

END OF SECTION

Part 1 General

1.1 ADMINISTRATIVE

- .1 Parks Canada Representative will schedule and administer pre-construction, mid-project, seasonal shutdown and startup, and other milestone meetings as required.
- .2 Attend all project meetings chaired by the Parks Canada Representative, throughout progress of Work and provide information as determined by the Parks Canada Representative.
- .3 Contractor's superintendent and senior representatives of major subcontractors to attend all meetings.
- .4 Distribute written or email notice of each meeting four days in advance of meeting date to major subcontractors.
- .5 Parks Canada Representative to make arrangements for meetings.
- .6 Parks Canada Representative will record the project start up and close out meeting minutes.
- .7 Parks Canada Representative will reproduce and electronically distribute copies of minutes within 3 days after meetings and transmit to meeting participants.
- .8 Representative of Contractor, Subcontractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

1.2 PRECONSTRUCTION MEETING

- .1 The Parks Canada Representative will schedule a pre-construction meeting of parties in contract within 10 days after contract award to discuss and resolve administrative procedures and responsibilities.
- .2 Senior representatives of the Contractor, major Subcontractors supervisors are to be in attendance.
- .3 After the time and location of the meeting has been established, the Contractor is to notify parties concerned minimum 5 days before meeting.
- .4 The Parks Canada Representative will record discussions and decisions, and circulate the minutes to all parties in concern.
- .5 Agenda to include:
 - .1 Introduction of the Project Personal.
 - .2 Notice of Award/Agreement.
 - .3 Project Work Review.
 - .4 Project Schedule.
 - .5 Temporary facilities.

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- .6 Permits
 - .7 Access.
 - .8 Environmental.
 - .9 Occupational Health and Safety.
 - .10 Emergency Services.
 - .11 Hours of Work.
 - .12 Progress Payment Certificate.
 - .13 Lien Fund.
 - .14 Force Accounts.
 - .15 Contract Change Orders.
 - .16 Construction Documents, typical cross sections and site plan.
 - .17 Construction Survey.
 - .18 Record information in accordance with Section 01 78 00 – Closeout Submittals.
 - .19 Material Testing.
 - .20 Submissions
 - .21 Insurances, transcript of policies.
 - .22 Other Business.

1.3 PROGRESS MEETINGS

- .1 Progress meetings though the progress of the work will be held on a weekly, bi-weekly, mid project, or as required.
- .2 Contractor, major Subcontractors involved in the Work and the Parks Canada Representative are to be in attendance.
- .3 Notify parties a minimum of 5 days prior to meetings.
- .4 Parks Canada Representative will record discussions and decisions, and circulate the minutes to all parties in concern.
- .5 Agenda to include the following:
 - .1 Review, approval of minutes of previous meeting.
 - .2 Construction schedule and review of work progress since previous meeting.

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- .3 Field observations, problems, conflicts.
 - .4 Problems which impede construction schedule.
 - .5 Corrective measures and procedures to regain projected schedule.
 - .6 Revision to construction schedule.
 - .7 Progress schedule, during succeeding work period.
 - .8 Review submittals
 - .9 Pending changes and/or substitutions.
 - .10 Safety issues/concerns.
 - .11 Other business.

Part 2 Products

- .1 Not Used.

Part 3 Execution

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 DEFINITIONS

- .1 Activity: element of Work performed during the course of the Project. Activity normally has expected duration, and expected cost and expected resource requirements. Activities can be subdivided into tasks.
- .2 Bar Chart (GANTT Chart): graphic display of schedule related information. In typical bar chart, activities or other Project elements are listed down left side of chart, dates are shown across top, and activity durations are shown as date placed horizontal bars.
- .3 Generally, Bar Chart should be derived from commercially available computerized project management system.
- .4 Baseline: original approved plan (for project, work package, or activity), plus or minus approved scope changes.
- .5 Construction Work Week: Monday to Sunday, inclusive will provide a seven days' work week and define schedule calendar working days as part of Bar (GANTT) Chart submission.
- .6 Duration: number of work periods (not including holidays or other nonworking periods) required to complete activity or other project element. Usually expressed as work days or work weeks.
- .7 Master Plan: summary level schedule that identifies major activities and key milestones.
- .8 Milestone: significant event in project, usually completion of major deliverable.
- .9 Project Schedule: planned dates for performing activities and the planned dates for meeting milestones. Dynamic, detailed record of tasks or activities that must be accomplished to satisfy Project objectives. Monitoring and control process involves using Project Schedule in executing and controlling activities and is used as basis for decision making throughout project life cycle.
- .10 Project Planning, Monitoring and Control System: overall system operated by the Parks Canada Representative to enable monitoring of project work in relation to established milestones.

1.2 REQUIREMENTS

- .1 Develop and submit a Project Master Schedule that is practical and remains within the specified Contract duration.
- .2 Include all identified contract work in the Project Schedule.
- .3 Plan to complete Work in accordance with prescribed milestones and time frame.
- .4 Limit activity durations to maximum of approximately 14 working days, to allow for progress reporting.

- .5 Award of the Contract, the time of beginning, rate of progress, Interim Certificate and Final Certificate as defined milestones and are of importance to the successful completion of this contract.

1.3 SUBMITTALS

- .1 Submit to Parks Canada Representative one week prior to work a (GANTT) Chart as Master Plan for planning, monitoring and reporting of project progress.

1.4 PROJECT MILESTONES

- .1 Project milestones form targets for Project Schedule:
- Work is anticipated to commence in fall 2019 and must be complete by November 30, 2019, including full cleanup, burning, and demobilization.

1.5 MASTER PLAN

- .1 Structure schedule to allow orderly planning, organizing and execution of Work as Bar Chart (GANTT).
- .2 Parks Canada Representative will review and return revised schedules within 3 working days.
- .3 Revise impractical schedule and resubmit within 3 working days.
- .4 Accepted revised schedule will become Master Plan and be used as baseline for updates.

1.6 PROJECT SCHEDULE

- .1 Develop detailed Project Schedule derived from Master Plan.
- .2 Ensure detailed Project Schedule includes as minimum milestone and activity types as follows:
- ☐ Mobilization
 - ☐ Falling and Clearing works
 - ☐ Brushing and Mowing
 - ☐ Burning, if applicable
 - ☐ Demobilization.
- .3 Update Project Schedule on weekly basis reflecting activity changes and completions, as well as activities in progress.
- .4 Include as part of Project Schedule, narrative report identifying Work status to date, comparing current progress to baseline, presenting current forecasts, defining problem areas, anticipated delays and impact with possible mitigation.

Part 2 Products

.1 Not used.

Part 3 Execution

.1 Not used.

END OF SECTION

Part 1 General

1.1 SUBMITTAL REQUIREMENTS

- .1 Project schedule: List of Sub-contracts and Suppliers.
- .2 Contractor's chain of command including Subcontractors.
- .3 Work plan.
- .4 Certificates.
- .5 Traffic Accommodation Strategy.
- .6 Environmental Management Plan (including ECO and ESC Plans)
- .7 Emergency Response Plan.
- .8 Site specific Health and Safety Plan.
- .9 Hazardous Spill Plan.
- .10 Record Information and all Pertaining Reports.

1.2 ADMINISTRATIVE

- .1 Submit to the Parks Canada Representative submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 At the Parks Canada Representative's request, prepare and submit schedule fixing dates for submission and return shop drawings, product data and or samples.
- .3 Do not proceed with Work affected by the submittal until the review is complete.
- .4 Review submittals prior to submission to the Parks Canada Representative. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .5 Notify the Parks Canada Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .6 Verify field measurements and affected adjacent Work is coordinated.
- .7 Contractor's responsibility for errors and omissions in submission is not relieved by Parks Canada Representative's review of submittals.
- .8 The Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Parks Canada Representative review.
- .9 Keep one reviewed copy of each submission on site.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.
- .2 Province of Alberta
 - .1 Occupational Health and Safety Act, R.S.A. 2000.

1.2 SUBMITTALS

- .1 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit site specific Health and Safety Plan: Within 14 days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:
 - .1 Results of site specific safety hazard assessment.
 - .2 Results of safety and health risk or hazard analysis for site tasks and operation.
- .3 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .4 Submit copies of incident and accident reports.
- .5 Submit WHMIS MSDS - Material Safety Data Sheets.
- .6 The Parks Canada Representative will review the Contractor's site specific Health and Safety Plan and provide comments to the Contractor within 7 days after receipt of plan. Revise the plan as appropriate and resubmit the plan to the Parks Canada Representative within 7 days after receipt of comments from the Parks Canada Representative.
- .7 The Parks Canada Representative's review of the Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
- .8 Submit, and post at work site, the emergency numbers for police, fire and ambulance for the locale of the work, as well as the names and after hours number for key site personnel related to health, safety or security of the site.
- .9 Notify Jasper Emergency Services (including EMS, Fire, and RCMP) prior to commencing work.

1.3 SAFETY ASSESSMENT

- .1 Perform site specific safety hazard assessment related to the project.

1.4 MEETINGS

- .1 Pre-Construction meeting to include a Health and Safety meeting with the Parks Canada Representative prior to the commencement of Work.
- .2 Arrange for "Tool Box" safety meetings and submit the report to the Parks Canada Representative on a weekly basis.

1.5 REGULATORY REQUIREMENTS

- .1 Do Work in accordance with Section 01 41 00 Regulatory Requirements.
- .2 Comply with the specified standards and regulations to ensure safe operations on site.

1.6 GENERAL REQUIREMENTS

- .1 Develop written site specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
- .2 The Parks Canada Representative may respond in writing, where deficiencies or concerns are noted and may request re submission with correction of deficiencies or concerns.

1.7 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site specific Health and Safety Plan.

1.8 COMPLIANCE REQUIREMENTS

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.

1.9 UNFORESEEN HAZARDS

- .1 When unforeseen or peculiar safety related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of the Province Alberta and advise the Parks Canada Representative verbally and in writing.

1.10 HEALTH AND SAFETY COORDINATOR

- .1 Employ and assign to Work, competent and authorized representative to fulfill the role as Health and Safety Coordinator. The supervisor or foreman may satisfy the role of Health and Safety Coordinator. Health and Safety Coordinator must:

- .1 Have site related working experience.
- .2 Have working knowledge of occupational safety and health regulations.
- .3 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.
- .4 Be responsible for implementing, enforcing daily and monitoring site specific Contractor's Health and Safety Plan
 - .1 Be on site during execution of Work and report directly to and be under direction of site supervisor.

1.11 POSTING OF DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province Alberta having jurisdiction, and in consultation with Parks Canada Representative.

1.12 CORRECTION OF NON COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Parks Canada Representative.
- .2 Provide Parks Canada Representative with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 Parks Canada Representative may stop Work if non-compliance of health and safety regulations is not corrected.

1.13 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

1.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Measurement Procedures for Traffic Management.
- .2 Informational and Warning Devices.
- .3 Protection and Control of Public Traffic

1.2 PRECEDENCE

- .1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.

1.3 RELATED SECTIONS

- .1 All sections in Divisions 01, 02 and 32.

1.4 MEASUREMENT PROCEDURES

- .1 Cost of Traffic Control, including temporary pavement marking and layout, described in this Section 01 35 31 and Section 01 74 11, shall be paid under the bid lump sum value. No additional payment will be made the duration of the Contract.

1.5 REFERENCES

- .1 The Contractor shall provide traffic control in accordance with current edition of:
 - ☐ Alberta Transportation – Traffic Accommodation in Work Zones Manual
 - ☐ Alberta Transportation –Standard Specifications for Highway Construction, Edition 15, 2013, Section 7.1 – Traffic Accommodation and Temporary Signing.
 - ☐ Manual of Uniform Traffic Control Devices for Canada, (MUTCD) distributed by Transportation Association of Canada.

1.6 QUALITY CONTROL

- .1 All Quality Control by the Contractor.

1.7 GENERAL

- .1 The Contractor shall develop and implement a Traffic Management Plan in accordance with Alberta Transportation's 2013 Standard Specifications for Highway Construction, Edition 15, Section 7.1 – Traffic Accommodation and Temporary Signing, except where specified otherwise in these specifications.

- .2 The Contractor shall design, supply, erect, move and maintain all traffic control devices, signs, temporary pavement marking, other safety measures, and provide staff to ensure safe passage of all traffic from commencement of site work to date of acceptance by the Parks Canada Representative.
- .3 All traffic and warning signs shall be either bilingual or of a symbolic or pictorial type. If bilingual signs are used, the English and French message shall be of equal letter size and at same elevation, with English on left and French on right. Assistance in translation of construction and warning signs to French may be obtained from Parks Canada.
- .4 All speed limits, traffic control and warning signs shall have an "NPC" adhesive sticker added to bottom right-hand corner. These stickers will be supplied by Parks Canada following the acceptance by the Parks Canada Representative of the Contractor's traffic management plan.
- .5 Temporary pavement marking used shall be accepted by the Parks Canada Representative. These temporary pavement markings shall be in accordance with Alberta Transportation's Traffic Accommodation in Work Zones 2008 (1st Edition) Manual. Temporary markings that conflict with the Final permanent paint lines and other associated markings will be removed at the contractor's expense.
- .6 Contractor shall have appropriate traffic control measures in place so that one lane of highway traffic is maintained through the work zone at all times throughout the construction.
- .7 The Contractor shall coordinate traffic management procedures with other Contractors working in the area.

1.8 PROTECTION OF PUBLIC TRAFFIC

- .1 Comply with requirements of Acts, Regulations and By-Laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out Work or haul materials or equipment.
- .2 Carry out traffic regulation in accordance with the 2013 Standard Specifications for Highway Construction, Edition 15, Section 7.1 – Traffic Accommodation and Temporary Signing, except where specified otherwise.
- .3 A minimum of one lane 3.5 m wide, of traffic on roadways shall be maintained by the Contractor at all times to provide for safe movement of traveling public through work area. The Contractor shall submit a Traffic Management Plan prior to commencement of work.
- .4 Regardless of type of traffic control being used, maximum period of delay to public traffic shall be less than 10 minutes. Emergency vehicles (i.e., ambulance, RCMP, Park Warden) must be granted immediate passage at all times. The Parks Canada Representative reserves the right to reduce delay time for public traffic at times when specified delay results in excessive backup of public traffic.

- .5 The Contractor shall provide competent flag persons, properly equipped, and certified and registered as a Traffic Control Person (TCP) with the Construction Safety Network, the Construction Safety Association of British Columbia or certified using the ACSA industry standards program.
- .6 The Contractor shall also provide competent supervision and/or contract personnel as required during non-working hours to ensure that safety flares, flashing beacons, signs, lights, etc. are in proper working order.
- .7 The Parks Canada Representative will monitor the traffic control measures, and he may require modifications of these measures from time to time to achieve satisfactory traffic flow, safety of traveling public and coordination with adjacent contracts.
- .8 The Contractor shall maintain a dust free construction zone by means of cleaning and watering when required.
- .9 Traffic control measures will be monitored by the Parks Canada Representative, who may require modifications of these measures from time to time to achieve satisfactory traffic flow, safety of traveling public and coordination with adjacent contracts.

1.9 INFORMATIONAL AND WARNING DEVICES

- .1 Provide and maintain signs, flashing warning lights, and a changeable message board (to be installed at the start of the project) and other devices required to indicate construction activities or other temporary and unusual conditions resulting from Project Work which requires road user response.
- .2 Supply and erect signs, delineators, barricades and miscellaneous warning devices as specified in the Traffic Management Plan submitted by the Contractor and approved by the Parks Canada Representative. All temporary signs that are used for longer than one day shall be mounted on wood posts.
- .3 Place signs and other devices to standards and in locations recommended in Traffic Accommodation in Work Zones Manual. Provide intermittent signage if work zones exceed 2.0 km in length.
- .4 Signs shall be wind resistant.
- .5 As situation at work sites changes, Contractor to update his Traffic Management Plan outlining signs and other devices required for the project and submit for the approval of the Parks Canada Representative.
- .6 Continually inspect and maintain traffic control devices in use by:
 - ☐ Checking signs daily for legibility, damage, suitability and location.
 - ☐ Cleaning, repairing or replacing signs as required ensuring clarity and reflectance.
 - ☐ Removing or covering signs which do not apply to conditions existing from day to day or time to time.

1.10 CONTROL OF PUBLIC TRAFFIC

.1 Contractor shall provide competent flag persons, properly equipped, and certified and registered as a Traffic Control Person (TCP) with the Alberta Construction Safety Association and in accordance with Alberta Transportation standards.

- ☐ When public traffic is required to pass working vehicles or equipment, which block all or part of travelled roadway.
- ☐ When vehicles are entering or exiting Worksite access points.
- ☐ When it is necessary to institute one-way traffic system through construction area or other blockage and traffic signal system is not in use.
- ☐ When workmen or equipment are employed on travelled way over brow of hills, around sharp curves or at other locations where oncoming traffic would not otherwise have adequate warning.
- ☐ Where temporary protection is required while other traffic control devices are being erected or taken down.
- ☐ For emergency protection when other traffic control devices are not readily available.
- ☐ In situations where complete protection for workers, working equipment and public traffic is not provided by other traffic control devices.
- ☐ At each end of restricted sections where pilot cars are required.

Delays to public traffic due to Contractor's operators: maximum 10 minutes.

No stoppage of traffic will be allowed for the periods specified in Section 01 14 00, Work Restrictions, 1.5 pertaining to Statutory Holiday or long weekend.

During hours of darkness, if permitted under these specification, Contractor shall determine requirements but as a minimum, flag persons shall be additionally equipped with a red signal hand-light of sufficient brightness to be clearly visible to approaching traffic and flagging stations shall be illuminated by overhead lighting. Signs indicating hazardous conditions and signs requiring increased attention shall be marked with flashers.

Part 2 Products

.1 Not used.

Part 3 Execution

.1 Not used.

END OF SECTION

Part 1	General
1.1	SECTION INCLUDES
.1	Precedence.
.2	Measurement procedures.
.3	National Park regulations.
.4	Canadian Environmental Assessment Act (CEAA).
.5	Start-up and environmental briefing.
.6	Site access and parking.
.7	Protection of work limits.
.8	Erosion control.
.9	Pollution control.
.10	Equipment maintenance, fueling and operation.
.11	Operation of equipment.
.12	Fire prevention and control.
.13	Wildlife.
.14	Relics and antiquities.
.15	Waste materials storage and removal.
.16	Miscellaneous site management contingencies.
.17	Clearing and grubbing.
1.2	RELATED SECTIONS
.1	All Divisions 01, 02 and 32 Sections
1.3	PRECEDENCE
.1	For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.
1.4	MEASUREMENT PROCEDURES
.1	The cost of environmental and aesthetic protection in accordance with this Section 01 35 43 – Environmental Procedures will not be measured separately for payment and will be considered incidental to the Work.
1.5	SUBMITTALS

-
- .1 The Contractor shall describe environmental mitigation measures he will implement to ensure that all work in compliance with this Section 01 35 43 – Environmental Procedures.

1.6 NATIONAL PARK REGULATIONS

- .1 The Contractor shall ensure that all work is performed in accordance with the ordinances, laws, rules and regulations set out in the Canada National Parks Act and Regulations.
- .2 For the Work in Jasper, the Contractor and any sub-Contractors shall obtain a business license from the Parks Canada Administration Office in Jasper, prior to commencement of the contract.

All Contractor's vehicles are required to display a vehicle work pass from Parks Canada.

1.7 CANADIAN ENVIRONMENTAL ASSESSMENT ACT (CEAA)

- .1 Execution of the work is subject to the provisions within the Canadian Environmental Assessment Act (CEAA) Guidelines Order of 2003 and subsequent amendments.
- .2 Failure to comply with or observe environmental protection measures as identified in these specifications may result in the work being suspended pending rectification of the problems.

1.8 WORK RESTRICTIONS

- .1 Refer to section 01 14 00 – Work Restrictions, for additional Environmental Procedures associated with the project, including Work conducted over or adjacent to waterways, Haller's Apple Moss, and Mountain Pine Beetle.

1.9 START-UP AND ENVIRONMENTAL BRIEFING

- .1 All staff employed at the construction site will be subject to an approximately half hour briefing regarding their individual and collective responsibilities to ensure avoidable adverse environmental impact do not arise from their activities and personal choices. Employees must attend this briefing before beginning their work at the site. It is recognized new employees may join the Contractors' work force after the initial round of "environmental briefing". In that case and as required, subsequent "environmental briefings" can be presented as numbers warrant, by arrangement with the ESO through the Parks Canada Representative. Also, some sub-trades may be present at the site for a short time, to perform once-only duties. In these cases, the "environmental briefing" will be replaced by the Contractor explaining the environmental sensitivity of the work location to the sub-trade worker(s), and reviewing highlights of personal conduct expected, with reference to a one-page briefing summary to be provided to the Contractor by the ESO. A copy of this summary will be provided to each sub-trade worker joining the work force at the site.
- .2 Parks Canada will have an ESO attending the site to monitor the construction activity for conformance with these specifications. The ESO or alternate designated Parks Canada staff member will present the "environmental briefing". The ESO's main duties are to monitor the progress of the construction on an on-going basis to ensure

compliance with environmental protection measures, and to provide guidance through the Parks Canada Representative, in the event of unanticipated environmental problems. Although the ESO has authority to enforce National Parks Act violations, direction to the Contractor will be the duty of the Parks Canada Representative.

1.10 CONSTRUCTION SITE ACCESS AND PARKING

- .1 The Contractor shall review both short and long term construction access requirements with the Parks Canada Representative, both at start-up and on an ongoing basis. In consultation with the Parks Canada Representative, the Contractor shall formulate an agreement for worker transportation to and from the work sites and where workers shall park their private vehicles. Generally, personal vehicles shall be parked at least 10 metres distance from any watercourse.
- .2 The Contractor shall ensure that the environment beyond the work limits is not negatively impacted or damaged by workers' vehicles or construction machinery and shall instruct workers so that the "footprint" of the project is kept within defined boundaries.

1.11 PROTECTION OF WORK LIMITS

- .1 The Contractor shall ensure that workers and equipment do not trespass outside the project limits to the satisfaction of the Parks Canada Representative and the ESO.

1.12 EROSION CONTROL

- .1 Erosion control measures that prevent sediment from entering any waterway, water body or wetland in the vicinity of the construction site are a critical element of the project and shall be implemented by the Contractor.
- .2 The regular monitoring and maintenance of all erosion control measures shall be the responsibility of the Contractor. If the design of the control measures is not functioning effectively they are to be repaired. The Parks Canada Representative and ESO also will monitor erosion control performance.
- .3 The site will be secured against erosion during any periods of construction inactivity or shutdown.

1.13 POLLUTION CONTROL

- .1 The Contractor shall prevent any deleterious and objectionable materials from entering streams, rivers, wetlands, water bodies or watercourses that would result in damage to aquatic and riparian habitat. Generally, hazardous or toxic products shall be stored no closer than 100 meters from water.
- .2 A Spill Response Plan will be prepared by the Contractor and shall detail the containment and storage, security, handling, use and disposal of empty containers, surplus product or waste generated in the application of these products, to the satisfaction of the Parks Canada Representative and the ESO and in accordance with all applicable federal and provincial legislation. The Plan shall include a list of products and materials to be used or brought to the construction site that are considered or defined as hazardous or toxic to the environment.

- .3 The containment, storage, security, handling, use, unique spill response requirements and disposal of empty containers, surplus product or waste generated in the use of any hazardous or toxic products shall be in accordance with all applicable federal and provincial legislation. Generally, hazardous or toxic products shall be stored no closer than 100 metres from streams, wetlands, water bodies or waterways.
- .4 An impervious berm shall be constructed around fuel tanks and any other potential spill area. The berms shall be capable of holding 110% of tank storage volumes and shall be to the satisfaction of the Parks Canada Representative and the ESO before start-up. Measures such as collection/drip trays and berms lined with occlusive material such as plastic and a layer of sand, and double-lined fuel tanks can prevent spills into the environment.
- .5 The Contractor shall provide spill kits at re-fueling, lubrication, and repair locations that will be capable of dealing with 110% of the largest potential spill and shall be maintained in good working order on the construction site. The ESO and Parks Canada Representative prior to project start-up must approve these spill kits. The Contractor and site staff shall be informed of the location of the spill response kit(s) and be trained in its use
- .6 Timely and effective action shall be taken to stop, contain and clean-up all spills as long as the site is safe to enter. The Parks Canada Representative and the ESO shall be notified immediately of any spill. In the event of a major spill, all other work shall be stopped and all personnel devoted to spill containment and clean-up.
- .7 The costs involved in a spill incident (the control, clean up, disposal of contaminants and site remediation to pre-spill conditions), shall be the responsibility of the Contractor. The site will be inspected to ensure completion to the expected standard and to the satisfaction of the Parks Canada Representative and ESO.

1.14 EQUIPMENT MAINTENANCE, FUELLING AND OPERATION

- .1 The Contractor shall ensure that all soil, seeds and any debris attached to construction equipment to be used on the project site shall be removed (e.g. power washing) outside the National Parks before delivery to the work site.
- .2 Equipment fueling sites will be identified by the Contractor and approved by the Parks Canada Representative and the ESO. Any fueling closer than 50 metres from streams, wetlands, water bodies or waterways shall require the authorization of the Departmental Representative. Machinery and equipment, including chainsaws, must be stored, maintained, and fueled on a flat surface, outside of the dripline of trees.
- .3 Diesel and gasoline delivery vehicles, including bulk tankers shall be parked more than 100 metres from streams, wetlands, water bodies or waterways. Gravity fed fuel systems is not allowed. Manual or electric pump delivery systems shall be used. Fueling personnel shall maintain presence at and immediate attention to the fueling operation.
- .4 Mobile fuel containers (e.g. slip tanks, small fuel carboys) shall remain in the service vehicle at all times. Protection and containment of approved fuel storage sites is addressed in 1.12.4 of Pollution Control above.

- .5 Equipment used on the project shall be fueled with E10 and low Sulphur diesel fuels and shall conform to local emission requirements. The Contractor is to ensure that unnecessary idling of vehicles is avoided.
- .6 Oil changes, lubricant changes, greasing and machinery repairs shall be performed at locations approved by the ESO or the Parks Canada Representative. Waste lubrication products (e.g. oil filters, used containers, used oil, etc.) shall be secured in spill-proof containers and properly recycled or disposed of at an approved facility. No waste petroleum, lubricant products or related materials are to be discarded, buried or disposed of in borrow pits, turnouts, picnic areas, viewpoints, etc. anywhere within National Parks.
- .7 The Contractor shall ensure that all equipment is inspected daily for fluid/fuel leaks and maintained in good working order.
- .8 Fuel containers and lubricant products shall be stored only in secure locations specified by the Parks Canada Representative. Fuel tanks or other potentially deleterious substance containers shall be secured to ensure they are tamperproof and cannot be drained by vandals when left overnight in National Parks. Alternatively, the Contractor may hire a security person employed to prevent vandalism. The Contractor is to ensure that workers are briefed on proper 'daisy-chain' use of locks to ensure no other contractor or Parks Canada is locked out.

1.15 OPERATION OF EQUIPMENT

- .1 Equipment movements shall be restricted to the 'footprint' of the construction area. The work limits shall be identified by stake and ribbon or other methods approved by the Parks Canada Representative. Unless authorized by the Parks Canada Representative, activities beyond the work limits are not permitted. No machinery will enter, work in or cross over streams, rivers, wetlands, water bodies or watercourses, nor damage aquatic and riparian habitat or trees and plant communities. Some of the construction shall require working close to creeks and other watercourses or water bodies. In these instances, the Contractor is to describe measures to be employed to ensure fugitive materials (e.g. rocks, soil, branches) and especially deleterious substances (e.g. chemicals) do not enter any watercourses, to the satisfaction of the Parks Canada Representative and ESO.
- .2 The Contractor shall instruct workers to prevent pushing, placement, raveling, storage or stockpiling of any materials (e.g. slash, rock, fill or topsoil) in the trees bordering the right-of-way or into watercourses or water bodies.
- .3 When, in the opinion of Parks Canada, negligence on the part of the Contractor results in damage or destruction of vegetation, or other environmental or aesthetic features beyond the designated work area, the Contractor shall be responsible, at his or her expense, for complete restoration including the replacement of trees, shrubs, topsoil, grass, etc. to the satisfaction of the Parks Canada Representative and ESO.
- .4 Restrict vehicle movements to work limits.
- .5 Workers private vehicles are to remain within the construction footprint.

1.16 FIRE PREVENTION AND CONTROL

- .1 At a minimum, a fire extinguisher shall be carried and available for use on each machine in the event of fire.
- .2 Basic firefighting equipment recommended (e.g. a water truck; minimum 500 Imperial gallons with 500 feet of fire hose and a pump capable of producing 45 psi water pressure at the nozzle, three shovels, two pulaskis and two five gallon backpack pumps) to be maintained at the construction site at a location known and easily accessible to all the Contractors' staff.
- .3 A water truck may be necessary and will depend on the timing of the contract (e.g. – not required during winter or snow covered conditions).
- .4 Construction equipment shall be operated in a manner and with all original manufacturers' safety devices to prevent ignition of flammable materials in the area.
- .5 Care shall be taken while smoking on the construction site to ensure that the accidental ignition of any flammable material is prevented. Fires or burning of waste materials is not permitted.
- .6 In case of fire, the Contractor or worker shall take immediate action to extinguish the fire provided it is safe to do so. The ESO and the Parks Canada Representative shall be notified of any fire immediately. Fires or burning of waste materials is not permitted.

1.17 WILDLIFE

- .1 During the Environmental Briefing all personnel shall be instructed by the ESO on procedures to follow in the event of wildlife appearance near or within the work site and any other wildlife concerns.
- .2 Avoid or terminate activities on site that attract or disturb wildlife and vacate the area and stay away from the immediate location if bears, cougars, wolves, elk or moose display aggressive behaviour or persistent intrusion. Extra care to control materials that might attract wildlife (e.g. lunches and food scraps) must be exercised at all times.
- .3 Notify the ESO and Parks Canada Representative immediately about dens, litters, nests, carcasses (road kills), bear activity or encounters on or around the site or crew accommodation. Other wildlife-related encounters are to be reported within 24 hours.

1.18 RELICS AND ANTIQUITIES

- .1 Artifacts, relics, antiquities and items of historical interest such as cornerstones, commemorative plaques, inscribed tablets and similar objects found on the work site shall be reported to the ESO or the Parks Canada Representative immediately. The Contractor and workers shall wait for instructions before proceeding with their work.
- .2 All historical or archaeological objects found in National Parks are protected under the National Parks Act and Regulations and are the property of Parks Canada. The Contractor and workers shall protect any articles found and request direction from the ESO or the Parks Canada Representative.

1.19 WASTE MATERIALS STORAGE AND REMOVAL

- .1 The Contractor and workers shall dispose of hazardous wastes in conformance with the Environmental Contaminants Act and applicable provincial regulations while observing the Code of Good Practice for Management of Hazardous and Toxic Wastes at Federal Establishments.

All wastes originating from construction, trade, hazardous and domestic sources, shall not be mixed, but will be kept separate.

- .2 Construction, trade, hazardous waste and domestic waste materials shall not be burned, buried or discarded at the construction site or elsewhere in National Parks. These wastes shall be contained and removed in a timely and approved manner by the Contractor and workers, and disposed of at an appropriate waste landfill site located outside the park. Construction waste storage containers, provided by the Contractor, shall be emptied by the Contractor when 90% full. Waste containers will have lids, and waste loads shall be covered while being transported.

- .3 A concerted effort shall be made by the Contractor and workers to reduce, reuse and recycle materials.

- .4 All efforts to prevent wildlife from obtaining food, garbage or other domestic wastes shall be made by the Contractor and contract staff while undertaking their work in National Parks. Such wildlife attractants shall not be stored at the work site overnight. Lunches, coolers and food products, including waste food products, shall be securely stored away from access by animals. Daily removal of food scraps, food wrappers, pop cans or other attractive products to bear proof containers is mandatory. It is incumbent on the Contractor to notify Parks Canada and make specific arrangements to have garbage collected by Parks Canada when using existing Parks Canada receptacles.

- .5 The Contractor and workers shall immediately report any circumstances related to food/garbage (e.g. overflowing container or strong smell) and wildlife to the ESO or the Parks Canada Representative.

Sanitary facilities, such as a portable container toilet, shall be provided by the Contractor and maintained in a clean condition.

1.19 MISCELLANEOUS SITE MANAGEMENT CONTINGENCIES

- .1 The Contractor shall ensure trespass outside the project limits does not occur, to the satisfaction of the Parks Canada Representative and the ESO.
- .2 No Camp will be allowed within National Parks.
- .3 The Contractor shall provide toilets and maintain them in a clean and sanitary condition at the camp. These facilities shall not be used for the disposal of anything but human body wastes.
- .4 The National Park Act regulations prohibit anyone working within National Parks from using public campground facilities.
- .5 Removal and storage of snow shall be arranged with the ESO and the Parks Canada

Representative.

- .6 Security services at the construction site may be desirable or necessary during the contract, especially during quiet times. Fuel tanks or other potentially deleterious substance containers must be secured by the Contractor to ensure they are tamperproof and cannot be drained by vandals at his own cost.
- .7 Pets shall not be brought to or maintained at the construction site.
- .8 Should the Contractor require/request a water source other than at the Maintenance Compound in Jasper National Park, the Parks Canada Representative, in consultation with the ESO may give direction as to an alternative location to be used. Specific intake measures are required when water is approved to be withdrawn from open watercourses.

Part 2 Products

- .1 Not Used.

Part 3 Execution

3.1 SPECIFIC CONCERNS RELATIVE TO EROSION CONTROL AND SEDIMENTATION

- .1 The Contractor shall prepare an Erosion and Sedimentation Management Plan for the components of this contract that are undertaken in proximity to watercourses, wetlands or riparian environments. This plan shall be to the satisfaction of the Parks Canada Representative and ESO. If sediment ponds are required, they shall be designed to settle all sediment particles 0.02 mm or larger. The ponds shall also be designed to handle 1:5 year storm events, with overflow spill capacity for 1:10 year storm events and emergency spillway capacity for 1:100 year storm events.
- .2 An important desired end result is to allow no release into watercourses of sediments in levels that are deleterious to fish or that would harmfully alter, disrupt, or destroy fish habitat. Similarly there is to be no sediment release into areas of vegetation growth or sensitive areas of sediments in levels that would adversely alter growing or hydraulic conditions. The target is 0 mg/L of TSS over background levels. The threshold is a maximum instantaneous increase of 25 mg/L over background levels when background levels are <250 mg/L, or a maximum instantaneous increase of 10% over background levels when background levels are >250 mg/L. This threshold shall not be exceeded.

3.2 CLEARING AND GRUBBING

- .1 The Contractor shall ensure that the substrate or riparian area of streams, rivers or watercourses, whether open water or frozen over shall not be disturbed by tracked, wheeled or self-propelled equipment, (e.g. a skidder or truck). The ESO or Departmental Representative will provide direction in the case of work occurring near any wetland area or watercourses.
- .2 The Contractor shall take all measures to ensure that trees do not fall into streams, rivers, wetlands or water bodies or outside the clearing limits as marked by colored flagging. Generally, work within a 30 metre buffer of watercourses, water bodies or

wetlands require the close oversight of the ESO or the Parks Canada Representative.

- .3 Trees inadvertently felled into streams, rivers, watercourses or outside the clearing limits shall be removed by means (e.g. winch) so as not to damage the substrate or any standing trees left outside the clearing limits. Machinery shall not go outside the clearing limits, or into streams, rivers, watercourses or water bodies to remove felled trees.
- .4 Logs and other salvage materials are to be conveyed to and placed at the storage site without spread of debris or damage to other standing trees or landscape resources outside the marked clearing or storage limits. They shall not be skidded through wetlands, waterways or water bodies.
- .5 Existing areas of vegetation disturbed as a result of this contract shall be rehabilitated using topsoil approved by the Departmental Representative and a native grass seed mix as specified by Departmental Representative.

END OF SECTION

Part 1 General

1.1 REFERENCES AND CODES

- .1 Perform Work in accordance with the codes, regulations, and standard listed below
Amendments up to tender closing date and other codes of provincial or local
application provided that in case of conflict or discrepancy, more stringent
requirements apply:

- .1 Species at Risk Act
- .2 Migratory Bird Convention Act
- .3 Canadian Transportation Agency
- .4 Alberta Transportation
- .5 Alberta Infrastructure
- .6 Alberta Energy
- .7 Alberta Environment.
- .8 Fisheries and Oceans Canada
- .9 Navigation Protection Act
- .10 Environment Canada
- .11 Municipal Utilities.
- .12 Occupational Health and Safety.

- .2 Meet or exceed requirements of:

- .1 Contract documents.
- .2 Specified standards, codes and referenced documents.

1.2 COMPLIANCE WITH REGULATIONS

- .1 Ascertain requirements and regulations listed above.
- .2 Comply with all such requirements and regulations as applicable to the work.
- .3 Requirements set out in this section are for guidance and information are not
necessarily complete.

1.3 PERMITS

- .1 Obtain all required construction permits including but is not limited to:
 - .1 Parks Canada Business License.

.2 Restricted Activity (Special Activity) Permit

1.4 NATIONAL PARKS ACT

- .1 Perform Work in accordance with National Parks Act when projects are located within boundaries of National Park.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
- .1 Leave Work area clean at end of each day.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 74 11 – Cleaning

1.2 INSTALLATION AND REMOVAL

- .1 Prepare site plan indicating proposed location and dimensions of area to be fenced and used by Contractor, avenues of ingress/egress to fenced area and details of fence installation.
- .2 Indicate use of supplemental or other staging area.
- .3 Provide construction facilities in order to execute work expeditiously.
- .4 Remove from site all such work after use.

1.3 SITE STORAGE/LOADING

- .1 Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
- .2 Do not load or permit to load any part of Work with weight or force that will endanger Work.

1.4 CONSTRUCTION PARKING

- .1 Parking will only be in the laydown area or along the existing roadway. Parking along an existing roadway must be in accordance with the Contractor's Traffic Accommodation Strategy and include advanced signage and pylons.
- .2 Provide and maintain adequate access to project site.

1.5 EQUIPMENT, TOOL AND MATERIALS STORAGE

- .1 Provide and maintain, in clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof sheds on site in manner to cause least interference with work activities.

1.6 SANITARY FACILITIES

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.
- .3 Contractor usage of campground facilities and Day-use areas is not permitted.

1.7 INSTALLATION AND REMOVAL

- .1 Contractor to provide a site specific traffic accommodation plan. Parks Canada Representative will review and approve the traffic accommodation plan.
- .2 Provide and erect project signage as per traffic accommodation plan.
- .3 Signs and notices for safety and instruction in both official languages graphic symbols to CAN/CSA Z321.
- .4 Maintain approved signs and notices in good condition for duration of project, and dispose of off-site on completion of project or earlier if directed by Parks Canada Representative.

1.8 PROTECTION AND MAINTENANCE OF TRAFFIC

- .1 Provide measures for protection and diversion of traffic, including provision of watch-persons and flag-persons, erection of barricades, placing of lights around and in front of equipment and work, and erection and maintenance of adequate warning, danger, and direction signs.
- .2 Contractor's traffic on roads selected for hauling material to and from site to interfere as little as possible with public traffic.
- .3 Verify adequacy of existing roads and allowable load limit on these roads. Contractor: responsible for repair of damage to roads caused by construction operations.
- .4 Dust control: adequate to ensure safe operation at all times.

1.9 CLEAN-UP

- .1 Remove construction debris, waste materials, packaging material from work site daily.
- .2 Clean dirt or mud tracked onto paved or surfaced roadways.
- .3 Store materials resulting from demolition activities that are salvageable.
- .4 Stack stored new or salvaged material not in construction facilities.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 74 21 – Construction Demolition Waste Management and Disposal

1.2 REFERENCES

- .1 Canadian General Standards Board (CGSB)
 - .1 CGSB 1.59, Alkyd Exterior Gloss Enamel.
 - .2 CAN/CGSB 1.189-, Exterior Alkyd Primer for Wood.
- .2 Canadian Standards Association (CSA International)
 - .1 CSA O121 M1978 (R2003), Douglas Fir Plywood.

1.3 PAYMENT

- .1 All work associated with this item is considered incidental to the work and will not be reimbursed separately.

1.4 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use

1.5 FENCES AND BARRICADES

- .1 Provide secure, rigid fences and barricades around deep excavations and work area. Fences to be 1.8m high minimum.
- .2 Provide as required by governing authorities.

1.6 ACCESS TO SITE

- .1 Provide and maintain access roads, sidewalk crossings, ramps and construction runways as may be required for access to Work.

1.7 PUBLIC TRAFFIC FLOW

- .1 Provide a Traffic Accommodation Strategy identifying public traffic flow.
- .2 Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect public.

1.8 FIRE ROUTES

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

- .2 Contractor is required to notify the Fire Department in writing of any works occurring on a fire route. Contractor is required to notify the RCMP of location of works.

1.9 PROTECTION FOR OFF SITE AND PUBLIC PROPERTY

- .1 Protect surrounding public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

1.10 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 74 21 – Construction Demolition Waste Management and Disposals

1.2 PAYMENT

- .1 All work associated with this item is considered incidental to the work and will not be reimbursed separately.

1.3 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by Parks Canada Representative. Do not burn waste materials on site.
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Provide approved wildlife proof on-site containers for collection of waste materials and debris.
- .5 Dispose of waste materials and debris off site or as directed by the Parks Canada Representative.
- .6 Promptly clean up any spillage that occurs on construction site, site roads, access roads or public roads, or other areas where construction vehicles are travelling. Notify the Parks Canada Representative of any spillage occurred on site.
- .7 If the Contractor is negligent in maintaining cleanliness on construction site, site roads, access roads or public roads, or other areas where construction vehicles are travelling, the Parks Canada Representative will arrange for cleaning to be completed at Contractor's expense. The costs will be subtracted from final progress payment.
- .8 Use only cleaning materials recommended by the manufacturer of the surface to be cleaned, and as recommended by cleaning the material manufacturer.

1.4 FINAL CLEANING

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .3 Prior to final review remove surplus products, tools, construction machinery and equipment.

Part 2 Products

2.1 NOT USED

.1 Not used.

Part 3 Execution

3.1 NOT USED

.1 Not used.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 35 43 – Environmental Procedures
- .2 Section 01 74 11 – Cleaning

1.2 PAYMENT

- .1 All work associated with this item is considered incidental to the work and will not be reimbursed separately.

1.3 PROJECT CLEANLINESS

- .1 Recyclable: ability of product or material to be recovered at end of its life cycle and re manufactured into new product for reuse.
- .2 Recycle: process by which waste and recyclable materials are transformed or collected for purpose of being transferred into new products.
- .3 Recycling: process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for purpose of using in altered form. Recycling does not include burning, incinerating, or thermally destroying waste.

1.4 WASTE PROCESSING SITES

- .1 All waste, dumping and debris sites to be determined by Contractor and subject to approval by the Parks Canada Representative.

1.5 STORAGE, HANDLING AND PROTECTION

- .1 Store, materials to be reused, recycled and salvaged in locations as directed by Parks Canada Representative.
- .2 Protect, stockpile, store and catalogue salvaged items.
- .3 Separate non salvageable materials from salvaged items. Transport and deliver non salvageable items to licensed disposal facility.
- .4 Protect surface drainage, mechanical and electrical from damage and blockage.
- .5 Separate and store materials produced during dismantling of structures in designated areas.
- .6 Prevent contamination of materials to be salvaged and recycled and handle materials in accordance with requirements for acceptance by designated facilities.

1.6 DISPOSAL OF WASTES

- .1 Do not bury rubbish or waste materials. Burning of rubbish or waste materials is not permitted.
- .2 Haul waste from brushing offsite unless otherwise directed by Parks Canada

Representative.

- .3 Chipped timber may be transported to Marmot Pit and burned. If allowable conditions for burning do not occur during the project duration, the Contractor must transport and dispose off-site, outside of the Park.
- .4 Haul limbed trees and branches of diameter greater than 150mm to Marmot Pit.
- .5 Live or “Green” attack trees may have live beetles present under the bark and mitigation measures are required to avoid further beetle spread.
 - Green attack trees are nominally to be burnt, minimizing transportation and storage duration of felled green attack trees.
 - Alternatively the wood may be debarked and transported to Marmot Pit for firewood or disposal. Bark and other materials removed from green attack trees must also be burnt, minimizing transportation and storage duration.
 - The Contractor will be permitted a location within Marmot Pit for burning of green attack trees, stripped bark and other potentially infested woody materials.

1.7 USE OF SITE AND FACILITIES

- .1 Execute work with least possible interference or disturbance to normal use of premises.

1.8 SCHEDULING

- .1 Co-ordinate Work with other activities at site to ensure timely and orderly progress of Work.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 74 11 – Cleaning

1.2 PAYMENT

- .1 All work associated with this item is considered incidental to the work and will not be reimbursed separately.

1.3 ADMINISTRATIVE REQUIREMENTS

- .1 Acceptance of Work Procedures:
 - .1 Contractor's Inspection: Contractor: conduct inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify Parks Canada Representative in writing of satisfactory completion of Contractor's inspection and submit verification that corrections have been made.
 - .2 Request Parks Canada Representative inspection.
 - .2 Parks Canada Representative Inspection (Substantial Completion):
 - .1 Parks Canada Representative and Contractor to inspect Work and identify defects and deficiencies.
 - .2 Contractor to correct Work as directed.
 - .3 Completion Tasks: submit written certificates that tasks have been performed as follows:
 - .1 Work: completed and inspected for compliance with Contract Documents.
 - .2 Defects: corrected and deficiencies completed.
 - .3 Work: complete and ready for final inspection.
 - .4 Final Inspection:
 - .1 When completion tasks are done, request final inspection of Work by Parks Canada Representative, and Contractor.
 - .2 When Work incomplete according to Parks Canada Representative, complete outstanding items and request re-inspection.
 - .5 Payment of Holdback: after issuance of Certificate of Substantial Performance of Work, submit application for payment of holdback amount in accordance with contractual agreement.

1.4 FINAL CLEANING

.1 Final Inspection:

- .1** When completion tasks are done, request final inspection of Work by Parks Canada Representative, and Contractor.
- .2** When Work incomplete according to Parks Canada Representative, complete outstanding items and request re-inspection.

Part 2 Products

2.2 NOT USED

- .1** Not used.

Part 3 Execution

3.2 NOT USED

- .1** Not used.

END OF SECTION

Part 1

General

1.1 RELATED REQUIREMENTS

- .1 Section 01 77 00 - Closeout Procedures.

1.2 PAYMENT

- .1 All work associated with this item is considered incidental to the work and will not be reimbursed separately.

1.3 AS BUILT DOCUMENTS AND SAMPLES

- .1 Maintain, in addition to requirements in General Conditions, at site for Parks Canada Representative one record copy of:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change Orders and other modifications to Contract.
 - .5 Inspection certificates.
 - .6 Manufacturer's certificates, if applicable.
- .2 Store record documents and samples on site apart from documents used for construction.
 - .1 Provide files, racks, and secure storage.
- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual.
 - .1 Label each document "PROJECT RECORD" in neat, large, printed letters.
- .4 Maintain record documents in clean, dry and legible condition.
 - .1 Do not use record documents for construction purposes.
- .5 Keep record documents and samples available for inspection by Parks Canada Representative.

1.4 RECORDING INFORMATION ON PROJECT RECORD DOCUMENTS

- .1 Record information on set of black line opaque drawings.
- .2 Record information concurrently with construction progress.
 - .1 Do not conceal Work until required information is recorded.
- .3 Contract Drawings and shop drawings: mark each item to record actual construction, including:
 - .1 Field changes of dimension and detail.
 - .2 Changes made by change orders.
 - .3 Details not on original Contract Drawings.
 - .4 References to related shop drawings and modifications.
 - .5 Upon completion of project, provide a copy of redline drawings showing all changes, additions, and deletions to the Parks Canada Representative showing the as-built construction details of the project.
- .4 Specifications: mark each item to record actual construction, including:
 - .1 Changes made by Addenda and change orders.
- .5 Provide digital photos, if requested, for site records.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1	General
1.1	SECTION INCLUDES
.1	Definitions.
.2	Submittals.
.3	Storage and handling.
.4	Transportation.
.5	Materials.
.6	Disposal.
1.2	PRECEDENCE
.1	For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.
1.3	MEASUREMENT PROCEDURES
.1	This work shall be incidental to contract and will not be measured for payment.
1.4	RELATED SECTIONS
.1	Section 01 33 00 - Submittal Procedures.
.2	Section 01 35 43 – Environmental Procedures.
1.5	REFERENCES
.1	Export and Import of Hazardous Waste Regulations (EIHWR Regulations), SOR/92637.
.2	National Fire Code of Canada 1995.
.3	Transportation of Dangerous Goods Act (TDG Act) 1992, (T-19.01).
.4	Transportation of Dangerous Goods Regulations (TDGR), (SOR/85-77, SOR/85-585, SOR/85-609, SOR/86-526).
1.6	DEFINITIONS
.1	Dangerous Goods: Product, substance, or organism that is specifically listed or meets the hazard criteria established in Transportation of Dangerous Goods Regulations.
.2	Hazardous Material: Product, substance, or organism that is used for its original purpose; and that is either dangerous goods or a material that may cause adverse impact to the environment or adversely affect health of persons, animals, or plant life when released into the environment.
.3	Hazardous Waste: Any hazardous material that is no longer used for its original purpose and that is intended for recycling, treatment or disposal.

- .4 Workplace Hazardous Materials Information System (WHMIS): A Canada-wide system designed to give employers and workers information about hazardous materials used in the workplace. Under WHMIS, information on hazardous materials is to be provided on container labels, material safety data sheets (MSDS), and worker education programs. WHMIS is put into effect by a combination of federal and provincial laws.

1.7 SUBMITTALS

- .1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit to Parks Canada Representative current Material Safety Data Sheet (MSDS) for each hazardous material required prior to bringing hazardous material on site.
- .3 Submit hazardous materials management plan to Parks Canada Representative that identifies all hazardous materials, their use, their location, personal protective equipment requirements, and disposal arrangements.

1.8 STORAGE AND HANDLING

- .1 Coordinate storage of hazardous materials with Parks Canada Representative and abide by internal requirements for labelling and storage of materials and wastes.
- .2 Store and handle hazardous materials and wastes in accordance with applicable federal and provincial laws, regulations, codes, and guidelines.
- .3 Store and handle flammable and combustible materials in accordance with current National Fire Code of Canada requirements.
- .4 All explosives must be mixed outside of the Park and delivered to the site. No storage of explosives shall be allowed within the National Parks.
- .5 Observe smoking regulations at all times. Smoking is prohibited in any area where hazardous materials are stored, used, or handled.
- .6 Abide by the following storage requirements for quantities of hazardous materials and wastes in excess of 5 kg for solids, and 5 litres for liquids:
 - .1 Store hazardous materials and wastes in closed and sealed containers which are in good condition.
 - .2 Label containers of hazardous materials and wastes in accordance with WHMIS.
 - .3 Store hazardous materials and wastes in containers compatible with that material or waste.
 - .4 Segregate incompatible materials and wastes.
 - .5 Ensure that different hazardous materials or hazardous wastes are not mixed.
 - .6 Store hazardous materials and wastes in a secure storage area with controlled access.

- .7 Maintain a clear egress from storage area.
- .8 Store hazardous materials and wastes in a manner and location which will prevent them from spilling into the environment.
- .9 Have appropriate emergency spill response equipment available near the storage area, including personal protective equipment.
- .10 Maintain an inventory of hazardous materials and wastes, including product name, quantity, and date when storage began.
- .7 Ensure personnel have been trained in accordance with Workplace Hazardous Materials Information System (WHMIS) requirements.
- .8 Report spills or accidents immediately to Parks Canada Representative. Submit a written spill report to Parks Canada Representative within 24 hours of incident.

1.9 TRANSPORTATION

- .1 Transport hazardous materials and wastes in accordance with federal Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable provincial regulations.

Part 2 Products

2.1 MATERIALS

- .1 Only bring on site the quantity of hazardous materials required to perform Work.
- .2 Maintain MSDSs in proximity to where the materials are being used. Communicate this location to personnel who may have contact with hazardous materials.

Part 3 Execution

3.1 DISPOSAL

- .1 Dispose of hazardous waste materials in accordance with applicable federal and provincial acts, regulations, and guidelines.
- .2 Recycle hazardous wastes for which there is an approved, cost effective recycling process available.
- .3 Send hazardous wastes only to authorized hazardous waste disposal or treatment facilities.
- .4 Burning, diluting, or mixing hazardous wastes for purpose of disposal is prohibited.
- .5 Disposal of hazardous materials in waterways, storm or sanitary sewers, or in municipal solid waste landfills is prohibited.

END OF SECTION

Part 1 General

1.1 GENERAL DEFINITIONS

- .1 There are three types of clearing works included under this contract:

1. Brushing

Brushing consists of removal of all small trees, shrubs, brush, or other vegetative growth. Brushing includes removing materials at, or close to, existing grade and disposing of fallen timber and surface debris. Trees less than 150mm diameter are considered to be eligible for chipping and mulching and are included under the brushing bid item.

2. Close cut clearing

Close cut clearing consists of cutting off all standing trees, brush, scrub, removing at, or close to (no more than 50 mm above), existing grade and disposing of fallen timber and surface debris. Clearing works include salvage of timber (trees, sections of trees, and logs) with diameter greater than 150mm and management of beetle kill pine trees. The close cut clearing bid item includes all clearing and brushing works within the designated areas. Felled timber to be managed as salvage timber to firewood stockpile.

3. Isolated trees

Clearing isolated trees consists of cutting off at or close to (no more than 50mm above) the existing grade of designated trees that are otherwise surrounded only by Brushing areas. Item includes disposing or otherwise managing of felled trees and debris including beetle kill pine. Felled timber to be managed as salvage timber to firewood stockpile.

- .2 Mowing consists of mechanical vegetation control of all vegetative growth to a height between 35 and 65mm from the existing grade. Equipment must be approved by Departmental Representative. Flail, disc, brush cutting, or finishing mowers are anticipated types of equipment, and sickle bar machines may be considered. Handheld brush cutters or trimmers may be required.

1. Contractor is advised to review site conditions including the areas delineated for mowing. Sharp shoulders and ditch transitions, as well as hidden obstacles may limit the Contractor's equipment selection.

- .3 Grubbing consists of excavation and disposal of stumps and roots, boulders, and rock fragments of specified size to not less than specified depth below existing ground surface. Grubbing and any other soil disturbance shall be avoided as part of this project.

1.2 RELATED REQUIREMENTS

- .1 Section 01 14 00 – Work Restrictions
- .2 Section 01 41 00 – Environmental Procedures

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- .3 Section 01 74 11 – Cleaning

1.3 STORAGE AND PROTECTION

- .1 Prevent damage to existing pavement and root systems of trees which are to remain. Prevent damage to landscaping, natural features, bench marks, utility lines, water courses, and any site appurtenances.

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 Refer to Section 01 14 00 – Work Restrictions for details on Mountain Pine Beetle.
- .1 “Green” attack trees must be identified prior to commencing tree removal. Green attack trees should be burnt as soon as possible at a location identified by Departmental Representative. Green attack trees shall not be stored within 100m of healthy live trees. Alternatively the wood may be debarked and shipped to an approved off-site facility for firewood or disposal. All material from the debarking process must be burned at the identified location.
- .2 Consider felled timber (trees, sections of trees, and logs) with diameter greater than 150mm in diameter from which fuel wood can be produced as salvage timber.
- .1 Trim limbs and tops, buck into 3.0m lengths
- .2 Remove immediately from site. Do not impede traffic with felled timber or brush.
- .3 Deliver to Marmot Pit and stockpile as directed by Parks Canada Representative.
- .3 Felled timber (trees, sections of trees, and logs) with diameter less than 150mm in diameter from which fuel wood will not be considered as salvage timber may be chipped. Brush may be mulched.
- .4 Chipped timber may be transported to Marmot Pit and burned. If allowable conditions for burning do not occur during the project duration, the Contractor must transport and dispose off-site, outside of the Park.
- .5 Brush that is mulched may be left on site as approved by a Departmental Representative.
- .1 A test section of mulching works will be required to ensure that the mulch is acceptable, including size and condition of chips and mulch, as well as thickness and coverage. It is anticipated that areas of dense vegetation will require a partial mulch removal from site.
- .2 Unacceptable chipping and mulch will be collected and removed from site by the Contractor as directed by a Departmental Representative.
- .3 A mulcher may be used for less than 50 boles per hectare. Mulch depth is to be a maximum of 50mm, spread over area not greater than 5m x 5m per hectare or 5% of ground cover so as to not cover underlying vegetation

- .6 Mowing trimmings and debris may be left on site, spread and not in visible piles, as accepted by Departmental Representative. The remaining vegetation must not be thicker than 10mm or to otherwise inhibit regrowth.

Part 2 Products

2.1 MATERIALS

- .1 Not applicable.

Part 3 Execution

3.1 NON-NATIVE VEGETATION

- .1 All Contractor operations and procedures must be in compliance the Parks Canada BMP documents. In particular, there is the explicit intent to mitigate and minimize the spread of non-native vegetation.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways. ESC measures to be approved by Parks Canada Representative prior to installation as per the Contractor's ESC Plan.
- .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- .4 Ground disturbance must be kept to a minimum. Off-highway mechanical equipment must have tire pressure of 7 psi or lower when working within a 30m buffer of wetlands or watercourses.

3.3 PREPARATION

- .1 Tree and vegetation clearing will be subject restrictions under the MBCA, SARA, and Wildlife Act. Clearing should be completed outside of the migratory bird nesting window between April 19 and August 31, annually. See Specification 01 11 00 – Summary of Work, Section 1.10.2.
- .2 All equipment must be steam cleaned or pressure washed and inspected prior to entering the Park. This is intended to minimize the risk of introducing invasive weed species.
- .3 Inspect site and verify with Parks Canada Representative, items designated to remain.
- .4 Locate and protect utility lines: preserve in operating condition active utilities traversing site.
- .5 Notify utility Department Representative before starting clearing, brushing, or mowing.

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- .6 Keep roads and walks free of dirt and debris.

3.4 CLEARING AND MOWING

- .1 Clearing, trimming, and mowing as per above definitions.
- .2 Locate and protect utility lines: preserve in operating condition active utilities traversing site.
- .3 Cut off branches and cut down trees overhanging area cleared as directed by Parks Canada Representative.
- .4 Cut off unsound branches on trees designated to remain as directed by Parks Canada Representative.
- .5 Clear all trees, brush, shrubs, or other materials from areas as indicated at or close to (no more than 75mm above) existing grade

3.5 ISOLATED TREES

- .1 Cut off isolated trees as directed by Parks Canada Representative at or close to (no more than 50mm above) existing grade.
- .2 Prune individual trees if directed by the Department Representative.
- .3 Trim trees designated to be left standing within cleared areas of dead branches 40 mm 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.

3.6 BRUSH CLEARING (BRUSHING)

- .1 Clear all brush, shrubs, or other materials from areas as indicated at ground level
- .2 Cut off branches and cut down trees overhanging area brushed as directed by Departmental Representative. Cut off unsound branches on trees designated to remain as directed by Departmental Representative.
- .3 All brushing shall be removed in such a manner that surrounding vegetation is preserved along the construction limits. Stumps remaining within the perimeter are to be cut flush with ground and vegetative mat left undisturbed.
- .4 Wildlife can sustain injuries from long, splintered stumps left after brushing secondary growth vegetation. Contractor shall brush in a manner that cleanly cuts vegetation near to or at ground level without creating splintered stubs that may cause injury to wildlife.

3.7 FINISHED SURFACE

- .1 Minimize disturbance to ground surface.
- .2 Disturbed ground surface must be repaired to the satisfaction of Departmental Representative at Contractor's cost and left in such a condition to mitigate erosion and

sedimentation.

3.8 CLEANING

- .1 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

END OF SECTION

APPENDIX A

**JASPER NATIONAL PARK – BEST MANAGEMENT PRACTICES
(BMPS)**

APPENDIX B

SLEEPY HOLLOW WORK CAMP DETAILS

(TO BE INSERTED BY JFU)

END OF SECTION

