

General**1.1 PRECEDENCE**

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

1.2 DEFINITIONS

- .1 “Department” shall mean Public Works and Government Services Canada and is abbreviated as “PWGSC”.
- .2 “Departmental Representative” shall mean a representative appointed by PWGSC for the purpose of execution of this Contract.
- .3 “Owner” shall mean Parks Canada, Pacific Region.
- .4 “British Columbia” is referred to as BC.
- .5 British Columbia Ministry of Transportation and Infrastructure is referred to as “BC MoTI”.
- .6 “BC MoTI Specifications” shall mean the 2012 BC MoTI Standard Specifications for Highway Construction, Volume 1 and 2 including all amendments.
- .7 Changes in Definition, - The following changes in definitions have been made to the “BC MoTI Specifications”:
- .1 The term “Ministry” shall mean Public Works and Government Services Canada.
- .2 The term “Ministry Representative” shall mean Departmental Representative or his duly appointed representative.
- .3 The term “Schedule” shall mean provisions presented in this specifications.
- .8 BC MoTI specifications including all its amendments specified for the work can be found at the following MoTI website address:
http://www.th.gov.bc.ca/publications/const_maint/contract_serv/standards_pcs.htm
- .9 “Hot Mix Asphalt” shall mean Asphalt Mix as defined in BC MoTI Specifications.
- .10 “Traffic Control Manual” shall mean the latest addition of the BC MoTI Traffic Control Manual for Work on Roadways. The manual can be found at the following MoTI website address:
http://www.th.gov.bc.ca/publications/eng_publications/TCM/Traffic_Contr_of_Manual.htm

1.3 HIERARCHY OF DOCUMENTS

- .1 In the event of discrepancies, the hierarchy of documents shall be as follows, in descending order:
 - .1 These Specifications.
 - .2 BC MoTI Specifications.
- .2 In the event of a difference between scaled dimensions on Plans and the figures written thereon, the figures shall govern. In the event that two or more plans show conflicting information, the information on the most recently dated plan shall govern.
- .3 Any technical and manufacturer's standard, Government Act, Regulation, or Code of Practice referred to in the Contract documents shall be the version current at the time the Contract is awarded.

1.4 RELATED SECTIONS

- .1 All Division 01, 02, 31, 32 and 33.

1.5 PROJECT LOCATION

- .1 The project is located at Highway 4 near Tofino, British Columbia. The limits of this project are km 0.000 (the south park boundary) to km 21.500, approximately 60 m north of park boundary. Construction work is within the highway right-of-way.

1.6 DESCRIPTION OF WORK

- .1 Without limiting the scope of work, the work of this Contract generally comprises the following:
 - .1 Supply and installation of traffic control, Departmental Representative office trailer and other temporary construction facilities required for completion of the Project Work.
 - .2 Remove existing asphalt by milling. Dispose of unused milled reclaimed asphalt pavement (RAP) outside the Park in an environmental friendly way at Contractor's expense.
 - .3 Perform mix designs for hot mix asphalt using performance grade (PG) 58-28 asphalt cement, RAP and asphalt mix aggregates supplied by the Contractor. Asphalt mix design is subject to acceptance by the Departmental Representative. RAP will be available under Item 3 - Section 02 41 13.14. The use of RAP in the hot mix asphalt is optional.
 - .4 Supply asphalt binder, mix with crushed aggregate and RAP, haul and construct hot mix asphalt.
 - .5 Supply anti-stripping agent, if required and approved by the Departmental Representative. It is the Contractor's responsibility to pre-determine the aggregate source and to verify the mix design in order to establish if use of the anti-stripping agent is

required. Payment for anti-stripping shall be incidental to "**Unit Price Item 8 – Supply, Haul, Place and Compact Hot Mix Asphalt (EPS)**".

- .6 Supply and apply emulsified tack coat prior to placing hot mix asphalt.
- .7 Supply paint and painting directional dividing and 2 edge lines; intersection lines, turn arrows, painted islands and pavement crosshatch at intersection median areas.
- .8 Culvert Improvements; the planned work involves the following:
 - .1 Construct detour for the culvert installation at Station 16+110.
 - .2 Cut existing asphalt concrete pavement (ACP) and excavate.
 - .3 Remove and dispose of exiting culverts material.
 - .4 Prepare culverts bed.
 - .5 Supply and install new culverts material.
 - .6 Supply and place rip rap material.
 - .7 Repair inlet/outlet of the existing two CSP culverts.
 - .8 Supply and spread topsoil and perform seeding.
- .9 In preparation for and during construction of this project, an "Environmental Protection Plan" (EPP) is to be prepared by the Contractor to meet the requirements of Section 01 35 43 – Environmental Procedures to ensure the desired minimal adverse effects are achieved. The Contractor's EPP must be approved by the Departmental Representative prior to the commencement of construction. The Departmental Representative and PWGSC will refer to the approved EPP in determining compliance with the plan and contract specifications. The EPP will form part of the Contract.

.2 Other related work.

1.7 MATERIAL SUPPLIED BY THE DEPARTMENT

- .1 Department shall not supply any material for this Contract. The Contractor shall supply all material required for this Contract.

1.8 CONTRACT METHOD

- .1 Construct Work under Unit Price Contract.

1.9 WORK BY OTHERS

- .1 The Contractor is advised that the following Work in the vicinity has been or will be in progress during the life of this contract:

- .1 Bridge culverts replacement on Swim Beach Road and Wick Road.
 - .2 Where it is necessary that work is to proceed in areas of this project common to both the Contractor and forces of others, the Contractor shall cooperate with the other Contractors and the Department in reviewing their construction schedules, sharing his work space, and shall coordinate his operations with the other Contractors, including traffic management and construction staging.
- 1.10 WORK SCHEDULE**
- .1 Complete work in sequence as dictated by site conditions.
 - .2 Work under this Contract to be substantially completed by **October 01, 2015**.
 - .3 Work under this Contract to be completed by **October 15, 2015**.
- 1.11 ACCESSES TO SITE**
- .1 Maintain and control traffic through construction zone in accordance with Section 01 35 31 – Special Procedure for Traffic Control.
 - .2 Allow Owner/Departmental Representative unrestricted access to inspect all phases of the Work.
 - .3 Maintain fire, police and emergency access on the highway at all times.
 - .4 Maintain access to private, public and commercial facilities for Contract duration.
 - .5 Co-ordinate Work with other Contractors/Departmental Representatives doing survey/testing work.
- 1.12 CONTRACTOR USE OF PREMISES**
- .1 Contractor has unrestricted use of site subject to the above, Section 01 14 00, Section 01 29 01 and Section 01 35 43 until Contract Completion date.
 - .2 Contractor shall limit use of premises for Work, for storage, and for access, to allow:
 - .1 Owner occupancy.
 - .2 Work by other Contractors.
 - .3 Public usage.
 - .3 Coordinate use of premises under direction of the Departmental Representative.
 - .4 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.
 - .5 The Contractor and any Subcontractors shall obtain a business license from Park Canada prior to commencement of the contract.

- .6 All Contractor's business and private vehicles are required to display a vehicle work pass from Parks Canada. These permits may be obtained free of charge from Park Canada or as directed by the Departmental Representative.

1.13 OWNER OCCUPANCY

- .1 Owner will occupy premises during entire construction period for execution of normal operations.
- .2 Cooperate with Owner in scheduling operations to minimize conflict and to facilitate Owner usage.

1.14 SPECIAL REQUIREMENTS

- .1 Contractor shall supply asphalt mix aggregate from the source of his choice; subject to meeting the requirements listed under Sections 31 05 17 and 32 12 16. The Contractor is not permitted to extract and process native material for the production of aggregates within the Park.

1.15 WEIGH SCALE AND WEIGHING MATERIALS PROCEDURES

- .1 The Contractor shall provide a truck weigh scale wherever measurement of materials by mass is required.
- .2 Weigh scale and weighing material procedures shall be per the BC MoTI Specifications Section 145.18.04 and 145.19.

1.16 SETTING OUT OF WORK

- .1 The Departmental Representative shall identify location of all work sites. The Contractor shall be responsible for all layout of work. No separate payment for any survey work.
- .2 The Contractor shall mark accurately, at regular intervals, the location and type of existing painted lines 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. If no lines are present the Contractor shall mark accurately (+ or – 20 mm) and at regular intervals (spaced 15 m on center in tangent sections and 7.5 m apart on curves), the location of the centerline. The Contractor shall survey the layout of existing intersection lines, transverse crosshatch and island paint lines so that they are re-established after paving is complete.
- .3 Staking at the side of the roadway for roadway markings and other work shall be at 20 m interval along the roadway.
- .4 The Contractor is responsible for the accurate layout of temporary lines and temporary marking in this contract. This Work shall not be measured for payment.

1.17 CONSTRUCTION SIGNAGE

- .1 No signs or advertisements, other than warning signs, are permitted onsite.

- .2 Signs and notices for safety and instruction shall be in both official languages. Graphic symbols shall be diamond grade and shall conform to CAN3-Z321.
- .3 Maintain approved signs and notices in good condition for duration of project, and dispose off-site on completion of project or earlier if directed by the Departmental Representative.
- .4 The cost of all traffic management requirements, including the provision of pilot cars, all flagging and traffic control equipment, and personnel covered in this section and the Contract Documents, or as ordered by Departmental Representative, will be paid under "**Lump Sum Price Item 2 – General Traffic Accommodation**".

1.18 SUPPLY AND INSTALL OF PIPE CULVERTS

- .1 The Contractor shall supply and install 1200 mm and 600 mm high-density polyethylene (HDPE) pipe culverts. The 1200 mm shall be installed at one location and 600 mm shall be installed at two locations.
- .2 The Contractor shall supply and perform a repair of 1800 mm and 750 mm corrugated steel pipe (CSP) culvert inlets.

1.19 ASPHALT PAVEMENT COLD MILLING

- .1 All asphalt pavement cold milling shall be completed as described under Section 02 41 13.14. Payment for milling shall be per the Unit Price Table Item 3 and 4.

1.20 SUPPLY, HAUL, PLACE AND COMPACT HOT MIX ASPHALT (END PRODUCT SPECIFICATIONS)

- .1 Final hot mix asphalt lift shall be placed in one compacted layer of 60 mm in accordance with Drawings D-03, D-04 and D-05.
- .2 At culvert replacement areas a layer of 50 mm hot mix asphalt shall be placed prior to a 60 mm final lift as shown on Drawing D-05.
- .3 Re-pave full depth milled section of the road in accordance with Drawing D-04.
- .4 Payment for hot mix asphalt shall be per Item 8 of the Unit Price Table.

1.21 MATERIAL AND LABOUR

- .1 Contractor shall supply all material and labour required to complete this Contract

1.22 MEASUREMENT FOR PAYMENT

- .1 For any work listed in Division 01 Sections there will be no separate payment but is considered incidental unless noted otherwise.

Part 2 Products

- .1 Not Used

Part 3	Execution
.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 Specifications document.
- 1.2 RELATED SECTIONS**
- .1 Section 01 32 18 - Construction Progress Schedules - Bar (GANNT) Chart.
- .2 Section 01 35 31 - Special Procedures for Traffic Control.
- .3 Section 01 35 43 - Environmental Procedures.
- 1.3 MEASUREMENT FOR PAYMENT**
- .1 This Work shall be incidental to the contract and will not be measured for payment.
- 1.4 ACCESS AND EGRESS**
- .1 Contractor must provide for access to the site. It is up to the Contractor to plan the work accordingly.
- .2 Provide for pedestrian, cyclists, motorcycles, airport and vehicular traffic for the duration of the construction.
- .3 Maintain at least one lane of traffic during the day and two way-two lanes traffic flow at night.
- 1.5 USE OF THE WORK SITE**
- .1 The Work Site shall be specified by the Departmental Representative and shall only be used for the purposes of the Work. The Work Site will be made available by Department to the Contractor for its non-exclusive use for the duration of the Work, unless otherwise provided in the Contract Documents.
- .2 Contractor shall not establish a construction camp within the Park.
- .3 Upon receiving prior approval from the Departmental Representative, the Contractor may temporarily store construction equipments at the locations noted below. Availability of these areas is not guaranteed and the Contractor shall have no claim against the Department in such encounter.
- .1 Bottom of Radar Hill (parking lot)
- .2 Wood Lot (parking lot)
- .3 Long Beach North Parking Lot
- .4 Long Beach South Parking Lot
- .5 Lostshoe Campground
- .6 Comber's Parking Lot

- .4 Temporary equipment storage area shall be clearly defined and safely secured using snow fence or other approved means. The Contractor shall maintain a minimum of twenty parking stalls for use by others while utilizing the aforementioned storage areas. Unrestricted access by the public, Owner or Departmental Representative shall be maintained by the Contractor at the time of occupancy. Long term storage or routine servicing of construction equipments at these locations is not permitted.
- .5 While the Work Site is under the Contractor's control, the Contractor shall be entirely responsible for the security of the Work Site and of the Work, and for the security of any other Contractors located on the Work Site.
- .6 The Contractor shall keep the Work Site clean and free from accumulation of waste materials and rubbish regardless of source.
- .7 The Contractor shall not set asphalt plant or any other materials processing plant within the Park.
- .8 The contractor shall maintain adequate drainage at the Work Site.
- .9 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.
- .10 Any damage to the Work Site caused by the Contractor shall be repaired by the Contractor at its expense.
- .11 Work, including paving, is restricted to daylight hours, from 0700 to 2200 hours, seven days per week subject to the following restrictions:
 - .1 No stoppage of traffic will be allowed for the period commencing at 7:00 a.m. on the day before a Statutory Holiday or long weekend to 7:00 a.m. on the day following a long weekend.
 - .2 Special Events: The Contractor shall schedule work to avoid conflicts with special events that may require the use of sections of the work sites. The Owner/Departmental Representative may restrict access to areas of the Work during special events due to high traffic volumes or conflicts with event routes.

1.6**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 and the Environmental Protection Plan prepared for the project.
- .2 All components of the Work shall be conducted without equipment entering into wetlands, water bodies, and streams.
- .3 Refer to Section 01 35 43 - Environmental Procedures, for details.
- .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.

- .5 The Contractor is responsible for the development and supply of construction access to the Work as approved by the Departmental Representative.

1.7 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 or blocked.

1.8 UTILITIES

- .1 There are active utilities within the project limits (power lines, manholes, waterlines, water valves etc).
- .2 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.
- .3 If it is determined by the Departmental Representative that utilities require relocation by other forces, the Contractor shall co-operate and coordinate as required with other Contractors engaged in utility relocation operations on the Work Site.
- .4 The Contractor shall establish and maintain direct and continuous contact with the Department or 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 Departmental Representative informed of all communications with the utility companies and authorities.
- .5 The Contractor shall notify the Departmental Representative and the utility companies at least seven (7) 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 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 Departmental 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 Department.

- .9 All costs associated with utility relocation shall be incidental to the work and no additional payment shall be made.

1.9 MONITORING THE CONDITION OF THE WORK SITE

- .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 Site and of property on and adjoining the Work Site throughout the construction period, and shall immediately notify the Department if any deterioration in condition is detected. Such monitoring shall cover all pertinent features and property including, but not limited to, buildings, structures, roads, walls, fences, slopes, sewers, culverts and landscaped areas.

1.10 PROTECTION OF PERSONS AND PROPERTY

- .1 The Contractor shall comply with all applicable safety regulations of the Workers' Compensation Board of British Columbia (WCB) including, but not limited to, WCB's Industrial Health and Safety Regulations, Industrial First Aid Regulations, and Workplace Hazardous Materials Information System Regulations.
- .2 The Contractor shall take all necessary precautions and measures to prevent injury or damage to persons and property on or near the Work Site.
- .3 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 PWGSC so directs, shall promptly reimburse to PWGSC the costs resulting from such loss or damage.

1.11 USE OF PUBLIC AREAS

- .1 Hauling units on the highways not to exceed legal highway load limits. Off-road construction equipment will not be allowed on the existing highways/roads except at designated crossing points and loading areas. Steel tracked equipment with cleats will not be allowed on pavement designated for future use. Asphalt, granular, embankment and excavation materials may be hauled on existing highway but this shall be by standard highway trucks not exceeding legal BC highway load limits.
- .2 Flag persons shall be provided when vehicles are entering or exiting Work Site access points.
- .3 The Contractor shall ensure that its vehicles and equipment do not cause nuisance in public areas. All vehicles and equipment leaving the Work Site and entering public roadways shall be cleaned of mud and dirt clinging to the body and wheels of the vehicle. All vehicles arriving at or leaving the Work Site 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 Department. All activities shall be in accordance with Section 01 35 43 - Environmental Procedures.

1.12 SUPERVISORY PERSONNEL

- .1 Within five Days after award notification, the Contractor shall submit to the Departmental Representative confirmation of the names of the supervisory personnel and other key staff designated for assignment on the Contract.
- .2 The following personnel shall be included in the list:
 - .1 Project Superintendent;
 - .2 Safety Representative.
- .3 The above personnel shall perform the following duties:
 - .1 The Project Superintendent shall be employed full time and shall be present on the Work Site each and every workday that Work is being performed, from the commencement of Work to Total Performance of the Work;
 - .2 The Project Superintendent shall nominate a Deputy Project Superintendent who shall have the authority of the Project Superintendent during the latter's absence;
 - .3 The Safety Representative shall possess safety experience in general construction. Duties shall encompass all matters of safety activities from commencement of Work until the Total Performance of the Work.

1.13 MEETINGS

- .1 The Work includes attending meetings between the Contractor and the Departmental Representative. The meetings will be called and chaired by the Departmental Representative as required. The Contractor shall be represented at such meetings to the satisfaction of the Departmental Representative.
- .2 The Departmental Representative will schedule an initial meeting to be held on site after award notification. Senior representatives of the Owner, Departmental 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 two (2) hours in duration and held at initial project start-up. The Contractor shall ensure that all his current project staff is in attendance. The Departmental 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.

1.14 WASTE DISPOSAL

- .1 All surplus, unsuitable and waste materials shall be removed from the job site to approved sites outside of the Park. Refer to Section 01 35 43 - Environmental Procedures.
- .2 Deposits of any construction debris into any waterway are 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.

1.15 WORK STOPAGE

- .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 RELATED SECTIONS**
- .1 All Divisions 01, 02, 31, 32 and 33.
- 1.2 DESCRIPTION**
- .1 Mobilization and Demobilization consists of the necessary Work and operations including, but not limited to, the movement to and from the project site of personnel, equipment, supplies, and incidentals to the Site, the establishment of offices, camps, and other facilities necessary to undertake the Work and all other Work Items and operations which must be initiated and finished as part of completion of the Work.
- 1.3 MEASUREMENT PROCEDURES**
- .1 Payment will be made under “**Lump Sum Price Item 1 - Mobilization and Demobilization**”.
- .2 The Lump Sum Price for mobilization and demobilization includes any or all of the related expenses incurred for mobilization, demobilization and any re-mobilization not covered under the Work Items which must be initiated and finished as part of the Work. The Lump Sum Price for mobilization will be paid in increments as the Work progresses.
- .3 Payment for mobilization will be made at the tendered Lump Sum Price as follows:
- .1 The Contractor will be paid any portion of the mobilization Lump Sum Price exceeding five percent (5%) of the Tender Price within sixty (60) days after the Actual Completion Date or on the final progress estimate (whichever occurs first).
- .2 That portion of the mobilization Lump Sum Price not exceeding five percent (5%) of the total Tender Price, will be paid to the Contractor according to the following breakdown:
- .1 Seventy-five percent (75%) when the Contractor has submitted, in an acceptable form, to the Departmental Representative each of the following that is required under the Contract
- Construction Schedule,
 - Cash Flow Projection Schedule,
 - Traffic Management Plan,
 - Quality Control Plan,
 - Sediment Control Plan.
 - Environmental Protection Plan,
- and the value of the Work completed on bid Items other than mobilization exceeds ten percent (10%) of the Tender Price.

- .2 The remaining twenty-five percent (25%) of this portion of the mobilization Lump Sum Price will be paid prorated on a monthly basis for the percentage of Work completed as determined by the Departmental Representative.
 - .4 The payments from the Lump Sum Price, as set out above, will be full compensation for mobilization, demobilization and re-mobilization, regardless of the number of times the Contractor mobilizes.
- Part 2 Products**
- .1 Not Used.
- Part 3 Execution**
- .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 specifications document.
- 1.2** **RELATED SECTIONS**
- .1 SACC R2850D GC 5.10.
- .2 Section 01 11 00 – Summary of Work Clause.
- 1.3** **DEFINITION OF OCCUPANCY**
- .1 Notwithstanding SACC R2850D - GC 5. 10, the Contractor shall be permitted to lease and occupy sites where working in Pacific Rim National Park for construction, free of charge from the date of award of the contract up to the completion date of **October 15th, 2015** (Section 01 11 00 – Summary of Work Clause 1.12 – Contractor use of Premises). The sites to be leased by the Contractor include all the roads and areas specified in this contract and as directed by the Departmental Representative.
- .2 The Departmental Representative may grant an Extension of Time for an event beyond the control of the contractor on account of inclement weather. Any such extension will be made solely at the Departmental Representative's discretion, and, if made, will reflect the following conditions:
- .1 Where there is a delay for reasons of inclement weather, or conditions resulting from inclement weather, such delays will be considered when the Contractor cancels work for the shift based on forecasted inclement weather or when the Contractor works on the roadway surface less than half a normal working day for reasons of inclement weather. A normal working day shall comprise the average duration worked by the Contractor on the preceding five (5) uninterrupted working days or the first five (5) planned days when the Contractor has not been able to achieve five (5) uninterrupted working days where a single shift is observed.
- .3 In the case of a Contractor employing multiple shifts, once a total of eight (8) working hours is reached by adding the working hours from each shift, then it will have been deemed the Contractor has worked that day and there is no delay for reasons of inclement weather.
- .4 The Contractor's occupancy of the site will be deemed to have ended when the following conditions are met to the satisfaction of the Departmental Representative:
- .1 All the work identified under this contract has been completed.

- .2 All sites cleaned up and any outstanding deficiencies addressed to the satisfaction of the Departmental Representative.
- .3 Contractor has removed from the park all trailers and equipment and sites have been cleaned-up to the satisfaction of the Departmental Representative.

Part 2 Products

- .1 Not Used.

Part 3 Execution

- .1 Not Used.

END OF SECTION

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| Part 1 | General |
| 1.1 | RELATED SECTIONS |
| .1 | Section 01 11 10 – Summary of Work. |
| .2 | Section 01 14 00 – Work Restrictions. |
| .3 | Section 01 32 18 – Construction Progress Schedules – Bar (GANTT) Chart. |
| .4 | Section 01 33 00 - Submittal Procedures. |
| .5 | Section 01 35 43 – Environmental Procedures. |
| .6 | Section 01 45 00 – Quality Management. |
| .7 | Section 01 52 00 – Construction Facilities. |
| .8 | Section 01 77 00 – Closeout Procedures. |
| .9 | Section 01 78 00 – Closeout Submittals. |
| 1.2 | MEASUREMENT PROCEDURES |
| .1 | This Work shall be incidental to the Contract and will not be measured for payment. |
| 1.3 | 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 Departmental Representative. |
| 1.4 | PROJECT MEETINGS |
| .1 | Schedule and administer weekly project meetings throughout progress of Work as determined by the Departmental Representative. |
| .2 | Schedule and administer pre-installation meetings when specified in sections and when required to coordinate related or affected Work. |
| .3 | Prepare agenda for meetings. |
| .4 | Distribute written notice of each meeting four (4) days in advance of meeting date to the Departmental Representative. |
| .5 | Provide physical space and make arrangements for meetings. |
| .6 | Preside at meetings. |
| .7 | Record minutes, include significant proceedings and decisions, identify action by parties. |
| .8 | Reproduce and distribute copies of minutes within three days after each meeting and transmit to meeting participants, affected parties not in attendance, and Departmental Representative. |

1.5 CONSTRUCTION ORGANIZATION AND START-UP

- .1 Within seven (7) days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- .2 Senior representatives of the Owner, Departmental Representative, Contractor, major Subcontractors, field inspectors and supervisors are to be in attendance.
- .3 Establish time and location of meeting and notify parties concerned minimum five (5) days before meeting.
- .4 Incorporate mutually agreed variations to Contract Documents into Agreement, prior to signing.
- .5 Agenda to include the following:
 - .1 Appointment of official representative of participants in Work.
 - .2 Schedule of Work, progress scheduling in accordance with Section 01 32 18.
 - .3 Schedule of submittals in accordance with Section 01 33 00.
 - .4 Requirements for temporary facilities, offices, storage sheds, utilities, fences in accordance with Section 01 52 00.
 - .5 Site safety and security in accordance with Sections 01 14 00, 01 52 00 and 01 35 43.
 - .6 Quality Control in accordance with Section 01 45 00.
 - .7 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, and administrative requirements.
 - .8 Monthly progress claims, administrative procedures, photographs, and holdbacks.
 - .9 Close out procedures and submittals in accordance with Section 01 77 00 and 01 78 00.
 - .10 Insurances and transcript of policies.
 - .11 Other business.
- .6 Comply with Departmental Representative's allocation of mobilization areas of site; for field offices and sheds, for access, traffic, and parking facilities.
- .7 During construction, coordinate use of site and facilities through Departmental Representative's procedures for intra-project communications: submittals, reports and records, schedules, coordination of drawings, recommendations, and resolution of ambiguities and conflicts.

- .8 Comply with instructions of the Departmental Representative for use of temporary utilities and construction facilities.
- .9 Coordinate field engineering and layout work with Departmental Representative.

1.6 ON-SITE DOCUMENTS

- .1 Maintain at job site, one copy each of the following:
 - .1 Specifications.
 - .2 Addenda.
 - .3 Reviewed Shop Drawings and asphalt mix design.
 - .4 Manufacturer's installation and Application Instructions.
 - .5 Change Orders.
 - .6 Other modifications to Contract.
 - .7 Traffic Management Plan.
 - .8 Sediment Control Plan.
 - .9 Safety Plan.
 - .10 WHMIS.
 - .11 Environmental Protection Plan.
 - .12 Field test reports.
 - .13 Reviewed copies of submittals.
 - .14 Copy of approved Work schedule and most recent updated schedule.
 - .15 Labour conditions and wage schedules.
 - .16 Applicable current editions of municipal regulations and by-laws.
 - .17 Applicable Federal Permit and Licenses.
 - .18 All Applicable Provincial Permits and Licenses.

1.7 SUBMITTAL SCHEDULES

- .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 Department 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.

1.8**CONSTRUCTION PROGRESS MEETINGS**

- .1 During course of Work prior to project completion, schedule progress meetings weekly.
- .2 Contractor, major Subcontractors involved in Work and Departmental Representative are to be in attendance.
- .3 Notify parties a minimum seven (7) days prior to meetings.
- .4 Record minutes of meetings and circulate to attending parties and affected parties not in attendance within five (5) days after meeting.
- .5 Agenda to include following:
 - .1 Review, approval of minutes of previous meeting.
 - .2 Review environmental issues.
 - .3 Review traffic control and emergency response protocol issues.
 - .4 Review site safety and security issues
 - .5 Review of Work progress since previous meeting.
 - .6 Field observations, problems, conflicts.
 - .7 Problems which impede construction schedule.
 - .8 Review of off-site fabrication delivery schedules.
 - .9 Corrective measures and procedures to regain projected schedule.
 - .10 Revision to construction schedule.
 - .11 Progress schedule, during succeeding work period.
 - .12 Review submittal schedules: expedite as required.
 - .13 Maintenance of quality standards.
 - .14 Review proposed changes for affect on construction schedule and on completion date.
 - .15 Other business.

1.9**SUBMITTALS**

- .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 Departmental Representative.
- .3 Submit requests for interpretation of Contract Documents, and obtain instructions through Departmental Representative.
- .4 Process substitutions through Departmental Representative.
- .5 Process change orders through Departmental Representative.

- .6 Deliver closeout submittals for review and preliminary inspections, for transmittal to Departmental Representative.

1.10 CLOSEOUT PROCEDURES

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

Part 2 Products

- .1 Not Used.

Part 3 Execution

- .1 Not Used.

END OF SECTION

- Part 1** **General**
- 1.1** **RELATED SECTIONS**
- .1 All Division 01, 02, 31, 32 and 33.
- 1.2** **PRECEDENCE**
- .1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this specifications document.
- 1.3** **MEASUREMENT PROCEDURES**
- .1 Cost of providing Construction Progress Schedules will be considered incidental to the work and no additional payment will be made.
- 1.4** **DEFINITIONS**
- .1 **Activity:** An element of Work performed during course of Project. An activity normally has an expected duration, and expected cost and expected resource requirements. Activities can be subdivided into tasks.
- .2 **Bar Chart (GANTT chart):** A 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. Generally Bar Chart should be derived from commercially available computerized project management system.
- .3 **Baseline:** Original approved plan for project, plus or minus approved scope changes.
- .4 **Construction Work Week:** Monday to Sunday, inclusive, will provide seven day work week and define schedule calendar working days as part of Bar (GANTT) Chart submission.
- .5 **Duration:** Number of work periods (not including holidays or other nonworking periods) required to complete an activity or other project element, usually expressed as work days or work weeks.
- .6 **Master Plan:** A summary-level schedule that identifies major activities and key milestones.
- .7 **Milestone:** A significant event in project, usually completion of major deliverable.
- .8 **Project Schedule:** The planned dates for performing activities and the planned dates for meeting milestones. A 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.

- .9 **Project Planning, Monitoring and Control System:** Overall system operated by Departmental Representative to enable monitoring of project work in relation to established milestones.
- 1.5 REQUIREMENTS**
- .1 Ensure Master Plan and Detail Schedules are practical and remain within specified Contract duration.
- .2 Plan to complete Work in accordance with prescribed milestones and time frame.
- .3 Limit activity durations to maximum of approximately twenty (20) working days, to allow for progress reporting.
- .4 Ensure that it is understood that Award of Contract or time of beginning, rate of progress, Interim Certificate and Final Certificate as defined times of completion are of essence of this contract.
- .5 Include the requirements of Section 01 14 00 - Work Restrictions.
- 1.6 SUBMITTALS**
- .1 Submit to Departmental Representative within ten (10) working days of Award of Contract, Bar Chart (GANTT) as Master Plan for planning, monitoring and reporting of project progress.
- .2 Submit Project Schedule to Departmental Representative within ten (10) working days of receipt of acceptance of Master Plan.
- 1.7 PROJECT MILESTONES**
- .1 Project milestones form targets for Project Schedule. Completion of Construction:
- .1 Interim Certificate (Substantial Completion) by **October 1, 2015**.
- .2 Complete all work by **October 15, 2015** (Contract Completion Date).
- 1.8 MASTER PLAN**
- .1 Structure schedule to allow orderly planning, organizing and execution of Work as per the Bar Chart (GANTT).
- .2 Departmental Representative will review and return revised schedules within five (5) working days.
- .3 Revise impractical schedule and resubmit within five (5) working days.
- .4 Accepted revised schedule will become Master Plan and be used as baseline for updates.
- 1.9 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:
 - .1 Award.
 - .2 Permits.
 - .3 Submission of:
 - .1 Project Schedule.
 - .2 List of Sub-Contractors, supplies and Departmental Representative.
 - .3 Prime Contractor/co-ordination with other Contractors Plan.
 - .4 Contractor Chain of Command including Sub-Contractors and Departmental Representatives.
 - .5 Work Plan.
 - .6 Environmental Protection Plan.
 - .7 Traffic Management Plan.
 - .8 Campsite Plan.
 - .9 Site access/Detour Plan.
 - .10 Emergency Response Protocol.
 - .11 Site Specific Health and Safety Plan, incl. MSDS sheets.
 - .12 On site Contingency and Emergency Response Plan.
 - .13 Survey Plan.
 - .14 Quality Control Plan.
 - .15 Shop Drawings.
 - .16 Asphalt mix design.
 - .4 Mobilization.
 - .5 Aggregate Crushing.
 - .6 Material Delivery.
 - .7 Work for all Items including:
 - .1 Culverts installation, including other works
 - .2 Supply of Asphalt Mix Aggregate.
 - .3 Asphalt Pavement Cold Milling.
 - .4 Hot mix asphalt paving.
 - .5 Pavement markings and installation of pavement lines.
 - .6 Quality Control.

- .7 Interim inspection.
- .8 Site clean-up and demobilization.

1.10 PROJECT SCHEDULE REPORTING

- .1 Update Project Schedule on monthly basis reflecting activity changes and completions, as well as activities in progress.
- .2 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.

1.11 PROJECT MEETINGS

- .1 Discuss Project Schedule at regular site meetings, identify activities that are behind schedule and provide measures to regain slippage. Activities considered behind schedule are those with projected start or completion dates later than current approved dates shown on baseline schedule.

Part 2 Products

- .1 Not used.

Part 3 Execution

- .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 specifications document.
- 1.2 RELATED SECTIONS**
- .1 All Divisions 01, 02, 31, 32 and 33.
- 1.3 REFERENCES**
- .1 Not used.
- 1.4 ADMINISTRATIVE**
- .1 Submit to Departmental Representative submittals listed for review. Submit with reasonable promptness and in orderly sequence so as to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Work affected by submittal shall not proceed until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .4 Where items or information is not produced in SI Metric units converted values are acceptable.
- .5 Review submittals prior to submission to Departmental Representative. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated 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 shall be considered rejected.
- .6 Notify Departmental Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations:
- .7 Verify field measurements and affected adjacent Work is consistent.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative review.
- .10 Keep one reviewed copy of each submission on site.

1.5 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .3 Allow five (5) days for Departmental Representative's review of each submission.
- .4 Adjustments made on shop drawings by Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Departmental Representative prior to proceeding with Work.
- .5 Make changes in shop drawings as Departmental Representative may require, consistent with Contract Documents. When resubmitting, notify Departmental Representative in writing of any revisions other than those requested.
- .6 Accompany submissions with transmittal letter containing:
 - .1 Date.
 - .2 Project Title and Number.
 - .3 Contractor's Name and Address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other Pertinent Data.
- .7 Submissions shall include:
 - .1 Date and Revision Dates.
 - .2 Project Title and Number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.

- .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Performance characteristics.
 - .3 Standards.
- .8 After Departmental Representative's review, distribute copies.
- .9 Submit six (6) prints and one electronic copy of shop drawings for each requirement requested in specification Sections and as Departmental Representative may reasonably request.
- .10 Submit six (6) copies of product data sheets or brochures for requirements requested in specification Sections and as requested by Departmental Representative where shop drawings will not be prepared due to standardized manufacture of product.
- .11 Delete information not applicable to project.
- .12 Supplement standard information to provide details applicable to project.
- .13 If upon review by Departmental Representative, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.
- .14 The review of shop drawings by Departmental Representative is for sole purpose of ascertaining conformance with general concept. This review shall not mean that Departmental Representative approves detail design inherent in shop drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or omissions in shop drawings or of responsibility for meeting all requirements of construction and Contract Documents. Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of all sub-trades.

1.6**SAMPLES**

- .1 Submit for review samples as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Departmental Representative's site office.
- .3 Notify Departmental Representative in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where color, pattern or texture is criterion, submit full range of samples.

- .5 Adjustments made on samples by Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Departmental Representative prior to proceeding with Work.
- .6 Make changes in samples which Departmental Representative may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

1.7 CERTIFICATES AND TRANSCRIPTS

- .1 Immediately after Award of Contract, submit Workers' Compensation Board status.
- .2 Health and Safety Plan which is acceptable to the Authority Having Jurisdiction.
- .3 Submit transcription of insurance immediately after award of Contract.

1.8 REQUIRED CONTRACTOR SUBMITTALS

- .1 General
 - .1 This Clause identifies the plans, programs, and documentation required prior to mobilization on site and during the construction phase.
- .2 Pre-Mobilization Submittals
 - .1 Submit the following plans and programs to the Departmental Representative for review a minimum of five (5) days prior to mobilization to the project site. The Contractor shall not begin any site work until the Departmental Representative has authorized acceptance of the Submittals in writing.
 - .1 Project schedule, detailing the schedule of the workdays required from Contractor, subcontractors, suppliers and consultants to complete each activity of the project by road segment or location. In addition, for each activity critical elements that could impact on the schedule are to be identified. Submission shall include both a paper copy of the schedule and an electronic copy in Microsoft Projects format.
 - .2 List of subcontractors, suppliers and consultants, their role and their key personnel, including names and positions, addresses, telephone, cellular telephone and/or pager numbers.
 - .3 Contractor Chain of Command, listing key Contractor personnel, including names and positions, addresses, telephone, cellular telephone and/or pager numbers. The list shall include the names and telephone/cellular telephone/pager numbers for contact persons who are available on a 24-hour basis in the event of emergencies.

- .4 Work Plan, describing in detail for each activity by road segment and location, the Contractor's intended methods of construction, and materials, equipment and manpower he will use to meet stages specified in Section 01 11 00. The Work Plan has to be linked to the Project Schedule.
- .5 Quality Control Plan, as documented in Section 01 45 00 - Quality Control, documenting its written procedures for maintaining the quality of work. The Contractor shall provide samples of the forms that will be completed to document the results of the inspections.
- .6 Traffic Management Plan, in accordance with the requirements of Section 01 14 00 - Work Restrictions, and Section 01 35 31 - Special Procedures for Traffic Control of these specifications.
- .7 Construction Access Plan, which shall include, but not be limited to procedures for accessing all areas of the Work.
- .8 Environmental Protection Plans (EPP), which shall meet the requirements of Section 01 35 43 - Environmental Procedures.
- .9 Contractor shall develop an "Emergency Procedures Protocol" in consultation with Parks Canada. Parks Canada will supply the Contractor with a template with contact names and numbers to be used for this purpose.
- .10 Health And Safety Plan - The Contractor shall have a Certificate of Recognition (COR) or Registered Safety Plan (RSP) including a site specific Health and Safety Plan acceptable to the Departmental Representative. The Contractor shall implement and maintain the Health and Safety Plan during the Work. Health and Safety Plan must include:
 - Contractor's safety policy.
 - Identification of applicable compliance obligations.
 - Definition of responsibilities for project safety/organization chart for project.
 - Site specific hazard assessment.
 - General safety rules for project.
 - Job specific safe work procedures.
 - Inspection policy and procedures.
 - Incident reporting and investigation policy and procedures.
 - Occupational Health and Safety meetings.
 - Occupational Health and Safety communications and record keeping procedures.

- Results of safety and health risk or hazard analysis for site tasks and operation.
 - .11 Submit copies of Material Safety Data Sheets (MSDS).
 - .12 Sediment Control Plan.
 - .13 Medical Surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to Departmental Representative.
 - .14 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.
 - .15 The Contractor shall not begin any site Work until the Departmental Representative has authorized acceptance of the submittals in writing.
- .3 Construction Phase Submittals:
- .1 Submit samples as per Section 32 12 15.
 - .2 Performance characteristics of Asphalt Cement and Emulsified Tack Coat.
 - .3 Asphalt Mix Design and Job Mix Formula.
 - .4 Monthly Progress Reports in accordance with Section 01 32 18 – Construction Progress Schedule - Bar (GANTT) Chart.
 - .5 Weekly Progress Reports that outline the detailed Work (Contractor, Sub-Contractors, suppliers, Consultants) completed to date as well as the anticipated Work to be performed for the following week on a day-by-day basis. Work to be linked to activities by road segment or location identified in project schedule and to provide information on materials, equipment and manpower. Also, alternate Work to be identified if Work or a portion of, proposed cannot be done due to weather, equipment breakdown, delays in delivery, etc.
 - .6 Quality Control Inspection Reports - The Contractor shall maintain a daily inspection report that itemizes the results of all Quality Control inspections conducted by the Contractor. The reports shall be made available for review by the Departmental Representative upon request. A summary of all Quality Control inspections conducted to date shall be submitted by the Contractor with each request for payment.
 - .7 Shop Drawings – The Contractor shall submit all shop drawings required to fabricate and conduct the work a minimum thirty (30) days prior to fabrication.
 - .8 Progress Photographs:

- Formats: Electronic: .jpg files, minimum three (3) mega pixels.
- Submission requirements: one (1) set of electronic files.
- Identification: Name and number of project, description of photograph and date.
- Viewpoints: viewpoints determined by the Departmental Representative.
- Viewpoints: viewpoints determined by Construction Manager or Departmental Representative.
- Submission Frequency: prior to commencement of Work and weekly thereafter with progress statement, or as directed by the Departmental Representative.

.9 Submit CD with all electronic pictures as part of closeout package.

.10 Submit an electronic copy of Contractor's authorized representative's work site health and safety inspection reports to Departmental Representative and authority having jurisdiction, weekly.

.11 Submit copies of reports or directions issued by Federal and Provincial health and safety inspectors.

.12 Submit copies of incident and accident reports.

.4 Project Completion Submittals

.1 Record Drawings -The Contractor shall submit copies of all Contractor's Drawings revised as necessary to record all as-built changes to the Work and the Contractor shall submit a set of Contract Drawings clearly marked to record as-built changes to the Work.

.2 Quality Control Records – The Contractor shall submit a bound and itemized set of project quality control.

Part 2 Products

.1 Not Used.

Part 3 Execution

.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 these Project specifications.
- 1.2 RELATED SECTIONS**
- .1 All Division 01, 02, 31, 32 and 33.
- 1.3 REFERENCES**
- .1 BC MoTI Specifications, Section 135 and Section 145.30
- .2 Government of Canada
- .1 Canada Labour Code, Part II.
- .2 Canada Occupational Health and Safety Regulations.
- .3 Province of British Columbia
- .1 Worker's Compensation Act Part 3, Occupational Health and Safety.
- .2 Occupational Health and Safety Regulations.
- 1.4 WORKERS' COMPENSATION COVERAGE**
- .1 Comply fully with the Workers' Compensation Act, regulations and orders pursuant thereto, and any amendments up to the completion of the work.
- .2 Maintain Workers' Compensation Board coverage during term of the contract, until and including the date that the Final Certificate of Completion is issued.
- .3 The Department may terminate the contract without liability to PWGSC where the Contractor refuses to comply with the requirements of the Workers' Compensation Act or the Occupational Health and Safety Regulations.
- .4 It is the Contractor's responsibility to ensure that all workers are qualified, competent and certified to perform the work as required by the Workers' Compensation Act or the Occupational Health and Safety Regulations.
- 1.5 SUBMITTALS**
- .1 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit site-specific Health and Safety Plan: Within seven (7) days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:
- .1 Contractor's safety policy.

- .2 Identification of applicable compliance obligations.
 - .3 Definition of responsibilities for project safety/organization chart for project.
 - .4 General safety rules for project.
 - .5 Job specific safe work procedures.
 - .6 Inspection policy and procedures.
 - .7 Incident reporting and investigation policy and procedures.
 - .8 Occupational Health and Safety meetings.
 - .9 Occupational Health and Safety communications and record keeping procedures.
 - .10 Results of site specific safety hazard assessment.
 - .11 Results of safety and health risk or hazard analysis for site tasks and operation.
- .3 Submit a copy of Contractor's authorized representative's work site health and safety inspection reports to Departmental Representative and authority having jurisdiction, weekly.
 - .4 Submit copies of reports or directives issued by Federal and Provincial health and safety inspectors.
 - .5 Submit copies of incident and accident reports.
 - .6 Submit copies of Material Safety Data Sheets (MSDS) to Departmental Representative.
 - .7 Departmental Representative will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within seven (7) days after receipt of plan. Revise plan as appropriate and resubmit plan to Departmental Representative within five (5) days after receipt of comments from Departmental Representative.
 - .8 Departmental Representative's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for compliance with construction Health and Safety.
 - .9 Medical Surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to Departmental Representative.
 - .10 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.

1.6 FILING OF NOTICE

- .1 File Notice of Project with Provincial authorities prior to beginning of Work.
- .2 Supply proof of filing to Departmental Representative.

1.7 SAFETY ASSESSMENT

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

1.8 MEETINGS

- .1 Schedule and administer Health and Safety meeting with Departmental Representative prior to commencement of Work.
- .2 The Contractor shall ensure that Occupational Health and Safety Program is in place prior to the commencement of any Work. The Contractor shall provide evidence that an Occupational Health and Safety Program is in place at the pre-construction meeting.
- .3 PWGSC recognizes that federal Occupational Health and Safety legislation places specific responsibilities upon Parks Canada as owner of the work place. In order to meet those requirements, PWGSC has implemented a contractor safety regime to ensure roles and responsibilities assigned under Part II of the Canada Labour Code and the Canada Occupational Health and Safety Regulations are implemented and observed when involving contractor(s) to undertake work in Parks Canada work places, including on Parks Canada property.
- .4 After contract award and prior to commencement of any work under the contract, the Project Manager will hold a health and safety meeting with the Contractor. At this meeting, the Contractor is required to complete and sign an attestation to certify the Contractor will comply with the requirements set out in the Attestation and the terms and conditions of the contract.

1.9 REGULATORY REQUIREMENTS

- .1 Comply with specified codes, acts, bylaws, standards and regulations to ensure safe operations at site.

1.10 PROJECT/SITE CONDITIONS

- .1 Work at site will involve contact with British Columbia Health and Safety.

1.11 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 Departmental Representative may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

1.12 RESPONSIBILITY

- .1 Assume responsibility as the Prime Contractor for work under this Contract.
- .2 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.
- .3 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.
- .4 Any delays in commencement of the Work related to acceptance of the Contract and site specifics of the Contractor's Occupational Health and Safety Program or interruptions of the Work related to the implementation of the Occupational Health and Safety Program are not Reimbursable Delays unless otherwise agreed to in writing by the Departmental Representative.

1.13 COMPLIANCE REQUIREMENTS

- .1 Comply with Occupational Health and Safety Act, General Safety Regulation, British Columbia.
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.

1.14 WORKSITE HAZARDS

- .1 The Contractor has the responsibility to identify worksite hazards and shall develop operational occupational safety policies and procedures and plans which are specific to the Work to ensure the safety of all persons at the Site and the travelling public passing through the Site.
- .2 When requested by the Departmental Representative, the Contractor shall provide copies of any safety policies, procedures or plans verifying steps have been taken to make all concerned fully aware of all hazards or unsafe conditions in accordance to BC MoTI Specifications Section 135 – Construction Site Safety.
- .3 The Contractor shall provide for the safety, protection and convenience of the general public and residents along the highway.
- .4 The Contractor shall erect and maintain signs, fences and barricades at the ends of the bridges before they are opened to traffic and at other dangerous areas of the Project, as necessary to prevent access of vehicles and pedestrians to the unfinished bridge and other dangerous areas.
- .5 When unforeseen or peculiar safety-related factor, hazard, or conditions occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and

Regulations of Province having jurisdiction and advise Departmental Representative verbally and in writing.

1.15 HEALTH AND SAFETY COORDINATOR

- .1 Employ and assign to Work, competent and authorized representative as Health and Safety Coordinator. Health and Safety Co-ordinator must:
 - .1 Have minimum two (2) years site-related working experience specific to activities associated with roadway construction.
 - .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.
 - .5 Be on site during execution of Work and report directly to and be under direction of site supervisor.

1.16 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 the Province of BC and in consultation with Departmental Representative.

1.17 CORRECTION OF NON-COMPLIANCE

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

1.18 EQUIPMENT

- .1 All trucks and other equipment used by the Contractor whether owned or rented for use on the Project shall meet manufacture's specifications for its purpose.
- .2 All haul vehicles shall be equipped with an automatic audible warning device which will activate whenever the vehicle is backing up. The warning device shall be clearly audible above the ambient noise level at a minimum distance of 6 m from the back of the vehicle.

1.19 BLASTING

- .1 Blasting or other use of explosives is not permitted without prior receipt of written instructions by the Departmental Representative.

- .2 Do blasting operations in accordance with Section 31 24 14 - Roadway Excavation, Embankment and Compaction.

1.20 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

- .1 Not used.

Part 3 Execution

- .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 Specifications document.
- 1.2 RELATED SECTIONS**
- .1 All Divisions 01, 02, 31, 32 and 33.
- 1.3 MEASUREMENT PROCEDURES**
- .1 Traffic Management including the preparation and implementation of traffic accommodation plans shall be paid under "**Lump Sum Price Item 2 – General Traffic Accommodation**" and no additional payment will be made for during the project.
- .2 Payment will be made on a monthly basis prorated for the percentage of the total Work completed as determined by the Departmental Representative, subject to the Contractor being totally compliant with the requirements of this section.
- .3 Payment of detour, if required, shall be considered incidental to "**Lump Sum Price Item 2 – General Traffic Accommodation**" except the detour for the installation of culvert at Station 16+110.
- 1.4 REFERENCES**
- .1 BC MoTI Specifications.
- .2 Traffic Control Manual.
- 1.5 GENERAL**
- .1 The Contractor shall develop and implement a Traffic Management Plan in accordance with the requirements of the latest edition of the Traffic Control Manual except where specified otherwise. The Traffic Management Plan shall be submitted to the Departmental Representative a minimum of five (5) days prior to commencement of site work and be accepted by the Departmental Representative prior to commencement of the site work. The Plan shall include special requirements for traffic control during all phases of the work. The Plan will also include plan specific to each detour and access point required for this project.
- .2 The Contractor shall design, supply, erect, move and maintain all traffic control devices, signs and other safety measures and provide staff to ensure safe passage of all traffic from commencement of site work to date of acceptance by the Departmental Representative.
- .3 All traffic and warning signs shall be bilingual. 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 PWGSC.

- .4 Temporary pavement marking shall be in accordance with Section 32 17 23 – Pavement Marking and Painting.
- .5 The Work shall be staged and/or detour roads provided, with the appropriate controls in place, so that two lanes of highway traffic are maintained through the work zone at night.
- .6 The Contractor shall coordinate traffic management procedures with other Contractors working in the area.
- .7 Applicable requirements of section 194 – Traffic Management for Work Zone of BC MoTI Specifications shall be used in situation where it does not contradict this Section 01 35 31.

1.6 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 When working on travelled way:
 - .1 Place equipment in position to present minimum interference and hazard to traveling public.
 - .2 Keep equipment units as close together as working conditions permit and preferably on same side of travelled way.
 - .3 Do not leave equipment on travelled way overnight.
- .3 Do not close any lanes of road without approval of Departmental Representative. Before re-routing traffic erect suitable signs and devices in accordance with instructions contained in Traffic Control Manual.
- .4 Keep traveled way graded, free of pot holes and of sufficient width for required number of lanes of traffic.
 - .1 Two way two lane traffic detour(s) shall have a minimum top clear width of 7.0 m.
 - .2 Provide dedicated minimum 4 m wide roadway for traffic in one-lane two-way sections through Work zones subject to requirements of paragraph 1.9 of this section.
- .5 Provide well graded, signed, and maintained detours/temporary roads to facilitate passage of traffic around restricted construction area(s).
- .6 Provide and maintain road access and egress to property fronting along Work under Contract and in other areas as indicated, unless other means of road access exists that meets approval of Departmental Representative.
- .7 The Contractor shall maintain a dust free construction zone by means of watering when required.

- .8 Regardless of type of traffic control being used, maximum period of delay to public traffic shall be 10 minutes for total project length. Emergency vehicles (i.e., ambulance, RCMP, Park Warden) must be granted immediate passage at all times. The Departmental Representative reserves the right to reduce delay time for public traffic at times when specified delay results in excessive backup of public traffic.
- .9 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.
- .10 The traffic control measures will be monitored by the Departmental 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.

1.7 **INFORMATIONAL AND WARNING DEVICES**

- .1 Provide and maintain signs, flashing warning lights and other devices required to indicate construction activities or other temporary and unusual conditions resulting from Project Work which requires road user response as specified in Traffic Control Manual.
- .2 Supply and erect signs, delineators, barricades, traffic cones and miscellaneous warning devices as specified in the Traffic Management Plan. All signs used longer than five days shall be mounted on wood posts.
- .3 Place signs and other devices to standards and in locations recommended in Traffic Control Manual. Provide intermittent signage if work zones exceed 2.0 km in length.
- .4 Signs shall be wind resistant.
- .5 Prior to the commencement of Work, the Contractor is to provide the Departmental Representative's a Detour/Traffic Management Plan outlining signs and other devices required for the project. If the situation on site changes, the Contractor shall revise the Plan and resubmit for approval of the Departmental Representative.
- .6 Provide Type D traffic cones as specified in Traffic Control Manual. Provide a minimum of one hundred (100) cones for use on site.
- .7 Ensure that necessary traffic cones and signs are in place prior to interference with traffic on existing roadways.
- .8 Continually maintain traffic control devices in use by:
 - .1 Checking signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.
 - .2 Removing or covering signs which do not apply to conditions existing from day to day or time to time.

- .3 Posting all finished sections longer than two (2) kilometers at Gazetted speed.

1.8 CONTROL OF PUBLIC TRAFFIC

- .1 Provide traffic control in accordance with Traffic Control Manual.
- .2 Provide competent flag persons, trained in accordance with, and properly equipped as specified in Traffic Control Manual:
 - .1 When public traffic is required to pass working vehicles or equipment which blocks all or part of travelled roadway.
 - .2 When it is necessary to institute one-way traffic system through construction area or other blockage where traffic volumes are heavy, approach speeds are high and traffic signal system is not in use.
 - .3 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.
 - .4 Where temporary protection is required while other traffic control devices are being erected or taken down.
 - .5 For emergency protection when other traffic control devices are not readily available.
 - .6 In situations where complete protection for workers, working equipment and public traffic is not provided by other traffic control devices.
 - .7 When construction traffic is crossing roadway.
 - .8 At each end of restricted sections where pilot cars are required.
- .3 Provide pilot vehicles: Equip pilot vehicles with orange flashing lights and signs clearly designating vehicles as pilot vehicles in following situations:
 - .1 Where equipment is working on section of roadway longer than 300 m.
 - .2 Where traffic is required to travel on partially completed roadway or on detours longer than 300 m
 - .3 Where access through work would be otherwise dangerous.
- .4 No stoppage or traffic will be allowed for the period commencing at 12:00 noon on the day before a long weekend to 7:00 a.m. on the day following a long weekend.
- .5 During hours of darkness, 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.

1.9 OPERATIONAL REQUIREMENTS

- .1 Maintain existing conditions for traffic throughout period of contract except that, when required for construction under contract and when measures have been taken as specified herein and approved by Departmental Representative to protect and control public traffic, existing conditions for traffic to be restricted as follows:
 - .1 Speed limit in work zones in non-work periods shall be as per the approved Traffic Management Plan.
 - .2 Speed limit reduced to 50 km/h in work zones in work periods.
 - .3 Speed limit reduced to 50 km/h on detours at all times
- .2 Maintain existing conditions for traffic crossing right-of-way.
- .3 No stoppage of traffic shall be allowed during inclement weather conditions.

Part 2 Products

- .1 Not Used.

Part 3 Execution

- .1 Not Used.

END OF SECTION

- Part 1 General**
- 1.1 RELATED SECTIONS**
- .1 All Divisions 01, 02, 31, 32, and 33.
- 1.2 DEFINITIONS**
- .1 **Environmental Pollution and Damage:** presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.
- .2 **Environmental Protection:** prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.
- .3 **Wetted Perimeter:** area of stream where water is currently running or pooled.
- .4 **In-stream Work:** any work performed below the high water mark, either within or above the Wetted Perimeter of any Fisheries Sensitive Zone.
- .5 **Fisheries Sensitive Zone:** in-stream aquatic habitats and out of stream habitat features such as side channels, wetlands, and riparian areas.
- .6 **Invasive plants:** are any alien plant species that have the potential to pose undesirable or detrimental impacts on humans, animals or ecosystems. Invasive plants have the capacity to establish quickly and easily on both disturbed and un-disturbed sites, and can cause widespread negative economic, social and environmental impacts
- .7 **Noxious weeds:** are invasive plants that have been designated under the BC Weed Control Act. This legislation imposes a duty on all land occupiers to control a set list of identified invasive plants.
www.agf.gov.bc.ca/cropprot/noxious.htm
- .8 **Species at Risk Act (SARA):** is a federal law that protects those species who are considered endangered or threatened from becoming extinct or extirpated.
- 1.3 MEASUREMENT PROCEDURES**
- .1 Preparation and implementation of an Environmental Protection Plan (EPP) in accordance with this Section 01 35 43 – Environmental Procedures will not be measured separately for payment and will be considered incidental to the Contract.

1.4 REGULATORY OVERVIEW

- .1 Comply with all applicable environmental laws, regulations and requirements of Federal, Provincial, and other regional authorities, and acquire and comply with such permits, approvals and authorizations as may be required.
- .2 Comply with and be subject to those permits and approvals obtained from Departmental Representative to conduct the Work.
- .3 Pay specific attention to the Migratory Birds Convention Act, as amended in 1994.
- .4 Pay specific attention to provincial BC MOE guidelines in Standards and Best Practices for Instream Works (2004).

1.5 SUBMITTALS

- .1 The Contractor is required to prepare an Environmental Protection Plan (EPP) in accordance with Section 01 33 00 – Submittal Procedures. The EPP should include all relevant environmental impacts/issues at the site as indicated by the completion of the EPP Checklist (See attached documents). Review of the PWGSC Environmental Effects Evaluation (EEE) will assist in completing this document. Prior to commencing construction activities or delivery of materials to site, submit the EPP for review and approval by the Departmental Representative. The EPP will require the Contractor to carefully think through the entire project, including identifying what activities as works will be occurring, both generally and at specific sites, and by what methods. The Environmental Protection Plan shall be completed by a P.Biol or RPBio, or other qualified professional, and shall, at a minimum include the following:
 - .1 The specifics of a detailed monitoring program. This includes details and rationale concerning sampling locations, timing, duration, and methods, and identification of the person(s) who will be carrying out the monitoring program.
 - .2 The process and protocol for ensuring that supervisors and individual staff employed by the Contractor are very clear on which environmental standards need to be achieved, how they will be achieved, and establishing how the Contractor will ensure that this is successfully occurring.
 - .3 Erosion, drainage, and sediment control plan which identifies type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with the requirements of the applicable Exclusion for Proposal and/or all other applicable regulations and guidelines including the requirements of these specifications.
 - .4 Drawings should show locations of proposed temporary excavations or embankments for haul roads, stream crossings,

- material storage areas, structures, sanitary facilities, and stockpiles of any excess or spoil materials including methods to control runoff and to contain materials on-site.
- .5 Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use. Plan to include measures for marking limits of use areas including methods for protection of features to be preserved within authorized work areas.
 - .6 Spill Control Plan: including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
 - .7 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
 - .8 Contaminant prevention plan that: identifies potentially hazardous substances to be used on job site; identifies intended actions to prevent introduction of such materials into air, water, or ground; and details provisions for compliance with Federal, Provincial, and Municipal laws and regulations for storage and handling of these materials.
 - .9 Outline the avoidance and mitigate measures which the Contractor will undertake and implement to ensure compliance with the environmental regulations applicable to the project (which may include requirements provided in Exclusion for Proposal) and these contract specifications.
 - .10 The procedures for stopping the work and implementing changes to the construction methods should the Contractor not be achieving the environmental requirements as outlined in these specifications.
 - .11 The procedures for stopping work should the Contractor encounter archaeological anomalies or human remains.
- .2 All submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.6**ENVIRONMENTAL EFFECTS EVALUATION**

- .1 Execution of the work is subject to the provisions within the Environmental Effects Evaluation (EEE) Table 1 attached to the Exclusion for Proposal for the project. See attachments to this tender for a copy of the EEE and Exclusion for Proposal.
- .2 Pursuant to the expectations of the EEE, EPPs are the next step to achieve the desired results of minimal adverse environmental effect, as the project is constructed.
- .3 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.

1.7**CONSTRUCTION SITE ACCESS AND PARKING**

- .1 The Contractor shall review both short and long access requirements with the Departmental Representative, both at the start-up and on an on-going basis. In consultation with the Departmental Representative, the contractor shall formulate an agreement for worker transportation to and from the work site 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.

1.8**PROTECTION OF WORK LIMITS**

- .1 The Contractor shall include in the Environmental Protection Plan (EPP) details on the work limits, how these shall be marked and what procedures will be employed to ensure trespass outside these limits does not occur, to the satisfaction of the Departmental Representative.

1.9**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 If necessary, on-site sediment control measures shall be constructed and functional prior to initiating activities associated with the asphalt plant and the paving. The Contractor shall prepare an Erosion Control Plan to the satisfaction of the Departmental Representative.
- .3 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 Departmental Representative will monitor the Contractor's erosion control performance.
- .4 Disturbed areas of the site shall be secured against erosion during any periods of construction inactivity or shutdown.
- .5 Erosion control measures must be in compliance with both Federal and Provincial legislation where required. Contractors should be referencing the provincial MOE Standards and Best Practices for Instream Works (2004) where required.

1.10**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. Hazards or toxic products shall be stored no closer than 100 m to any surface water.

- .2 A Spill Response Plan will be prepared as part of the EPP 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 Departmental Representative, and in accordance with all applicable federal and provincial legislation. The EPP 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. Such products include, but are not limited to, waterproofing agents, grout, cement, concrete finishing agents, hot poured rubber membrane materials, asphalt cement, tack coat and sand blasting agents, etc.
- .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. Hazardous products shall be stored no closer than 100 m from any water body.
- .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 Departmental Representative 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 prevent blowing dust and debris by covering and/or providing dust control for temporary roads and on-site work by methods that are approved by the Departmental Representative.
- .6 The Contractor shall provide spill kits at re-fuelling, 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 Departmental 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.
- .7 Timely and effective actions shall be taken to stop, contain and clean-up all spills as long as the site is safe to enter. The Departmental Representative shall be notified immediately of any spill as well as the provincial authorities. Basic instructions and phone numbers shall be part of the Contractor's EPP.
- .8 In the event of a major spill, all other work shall be stopped and all personnel devoted to spill containment and clean-up.
- .9 The costs involved in a spill incident (the control, clean up, disposal of contaminant 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 Departmental Representative.

- .10 Maintain temporary erosion and pollution control features installed under this contract.
- .11 Control emissions from equipment and plant to local authorities emission requirements.
- .12 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures.
- .13 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.
- .14 Equipment shall be refueled and serviced at least 100 m away from the water. Equipment operating near any watercourse shall contain only environmentally friendly hydraulic fluids, and be free of external grease, oil and mud. Appropriate precautions shall be taken to ensure that deleterious substances do not enter the watercourse.
- .15 During construction, all deleterious substances including, but not limited to, sand, gravel, rubble, sealant, paint, rust and debris should be captured and properly disposed of. No construction or demolition debris shall be allowed to enter the stream.

1.11**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 Pacific Rim National Park before delivery to the work site.
- .2 Equipment fuelling sites will be identified by the Contractor and approved by the Departmental Representative. Except for chain saws, any fuelling closer than 100 m to the streams, wetlands, water bodies or waterways shall require the authorization and oversight of the Departmental Representative.
- .3 Diesel and gasoline delivery vehicles, including bulk tankers shall be parked more than 100 m from streams, wetlands, water bodies or watercourses. Gravity fed fuel systems are not allowed. Manual or electric pump delivery systems shall be used. Fuelling personnel shall maintain presence at and immediate attention to the fuelling 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.
- .5 Equipment used on the project shall be fuelled 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 Departmental 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 Pacific Rim National Park.

- .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 Departmental 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 Pacific Rim National Park.

1.12 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 Departmental Representative. Unless authorized by the Departmental 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 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 Departmental Representative.
- .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 the Departmental Representative, 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 Departmental Representative.
- .4 Restrict vehicle movements to work limits.
- .5 Workers' private vehicles are to remain within the construction footprint designated by Parks Canada.

1.13 MANAGING INVASIVE PLANT VEGETATION

- .1 Keep equipment clean and avoid parking, turning around or staging equipment in known invasive species infested areas, or mow prior to use.
- .2 Wash equipment prior to mobilization to site.
- .3 Minimize unnecessary disturbance of roadside aggregates or soil, and

retain desirable roadside vegetation whenever possible.

- .4 Where possible, use only clean fill material from an “invasive plant free” source.
- .5 Whenever possible, re-seed with grass mixtures that are free of weeds, locally adapted, non-invasive, and quick to establish. Spread seed in the early spring or late fall to ensure successful establishment.

1.14 FIRE PREVENTION AND CONTROL

- .1 A fire extinguisher shall be carried and available for use on each machine and at locations within the quarry in the event of fire. Basic fire-fighting 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 Pulaski's, and two five gallon backpack pumps) shall be maintained at the construction site at a location known and easily accessible to all Contractors' staff. Contactor's staff shall receive basic training in early response to wildfire events during the “environmental briefing”.
- .2 Construction equipment shall be operated in a manner and with all original manufacturers' safety devices to prevent ignition of flammable materials in the area.
- .3 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.
- .4 In case of fire, the Contractor or worker shall take immediate action to extinguish the fire provided it is safe to do so. The Departmental Representative shall be notified of any fire immediately.
- .5 Fires or burning of waste materials is not permitted.
- .6 Provide supervision, attendance and fire protection measures as directed.
- .7 Obtain all required permits from the province and federal agencies.

1.15 WILDLIFE

- .1 During the Environmental Briefing all personnel shall be instructed on procedures to follow in the event of wildlife appearance near or within the work site and any other wildlife concerns.
- .2 Take care of the Red-Legged Frogs that occurs in ditches/ponds, streams and torrential areas adjacent to Hwy 4. During construction if individuals Red-legged Frogs attempt to cross the highway, special care should be taken to avoid the kill.
- .3 Dramedary Jumping Slug is threatened by infrastructure building. Care should be taken for an occurrence of Dramedary Jumping Slug and the occurrence should be reported to the Departmental Representative.
- .4 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.

- .5 Notify the Departmental 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.

1.16 RELICS AND ANTIQUITIES

- .1 All historical or archaeological objects found in Pacific Rim National Park 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 Departmental Representative.
- .2 If significant historical or archaeological artefacts, or human remains are discovered, stop work, report it immediately to the Departmental Representative or to Tom Dunphy at (604) 775-6659, also contact the Pacific Rim park office at (250) 726-3500 and wait for instructions before proceeding with work. If artefacts are encountered, the park will take a GPS location and photos of the artifact or relic and will contact the park archeologist Bill Perry at (403) 221 7989 for further guidance.
- .3 Human remains must be reported immediately to the local RCMP.

1.17 WASTE MATERIALS STORAGE AND REMOVAL

- .1 The Contractor and workers shall dispose of hazardous wastes in conformance with the applicable federal and provincial regulations and should be part of the EPP.
- .2 All wastes originating from construction, trade, hazardous and domestic sources shall not be mixed, but will be kept separate and dispose off in accordance with applicable regulation(s).
- .3 Construction, trade, hazardous waste and domestic waste materials shall not be burned, buried or discarded at the construction site or elsewhere in Pacific Rim National Park. 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.
- .4 A concerted effort shall be made by the Contractor and workers to reduce reuse and recycle materials where possible.
- .5 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 Pacific Rim National Park. 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, such as the Overflow Campground, is mandatory.

- .6 Particular attention shall be given to management of foods and waste products attractive to wild animals. The Contractor and workers shall immediately report any circumstances related to food/garbage (e.g. overflowing container or strong smell) and wildlife to the Departmental Representative.
- .7 Sanitary facilities, such as a portable container toilet, shall be provided by the Contractor and maintained in a clean condition. These facilities shall not be used for the disposal of anything but human body wastes.

1.18 MISCELLANEOUS SITE MANAGEMENT CONTINGENCIES

- .1 Pets shall not be brought to or maintained at the construction site or worker's camp.
- .2 Do not bury rubbish and waste materials on site unless approved by Departmental Representative.
- .3 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.
- .4 Clearing in the Park is highly discouraged. Removal of trees will not be permitted.

1.19 WORK ADJACENT TO WATERWAYS

- .1 Do not operate construction equipment in waterways unless indicated by the Departmental Representative.
- .2 Do not use waterway beds for borrow material.
- .3 Do not dump excavated fill, waste material or debris in waterways.
- .4 Design and construct temporary crossings to minimize erosion to waterways.
- .5 Do not skid logs or construction materials across waterways.
- .6 Avoid indicated spawning beds when constructing temporary crossings of waterways.
- .7 Do not blast under water within 100 m of indicated spawning beds.

1.20 DRAINAGE

- .1 Provide temporary drainage and pumping as necessary to keep excavations and site free from water. Drainage should be part of the EPP.
- .2 Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements such as the provincial Water Act.

- .4 Provide an erosion and sediment control plan that identifies type and location of erosion and sediment controls to be provided. Plan to include monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan Federal, Provincial, and Municipal laws and regulations.
- .5 Submit and Erosion, Sediment and Drainage Control Plan to Departmental Representative for review and approval prior to commencing Work in fisheries sensitive areas or in areas that may affect fisheries sensitive areas and specifically address the protection of water bodies, water courses, and the following:
 - .1 Details of grading Work to prevent surface drainage into or out of Work areas.
 - .2 Details of erosion control works and materials to be used, including the deployment of silt fencing, floating silt curtains and containment booms during construction and excavation activities.
 - .3 Work Schedule including the sequence and duration of all related Work activities.
 - .4 The treatment of site runoff to prevent siltation of watercourses.
 - .5 Dewatering procedures for excavated materials including silt removal procedures prior to discharge.
 - .6 Stabilizing procedures during excavation.
 - .7 Maintenance of filters and sedimentation traps.
- .6 Any dewatering activities will be released onto the ground at a location that is a minimum of 30 m from natural drainage courses and 100 m from fish bearing waters.
- .7 Have on hand sufficient pumping equipment, machinery, and tankage in good working condition for ordinary emergencies, including power outage, and competent workers for operation of pumping equipment.

1.21**SITE CLEARING AND PLANT PROTECTION**

- .1 Protect trees and plants on site and adjacent properties where indicated.
- .2 Wrap in burlap, trees and shrubs adjacent to construction Work, storage areas and trucking lanes, and encase with protective wood framework from grade level to height of 2 m.
- .3 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .4 Minimize stripping of topsoil and vegetation.
- .5 Restrict tree removal to areas indicated or designated by Departmental Representative.

1.22 ENVIRONMENTAL PROTECTION SUPPLIES

- .1 Comply with federal and provincial fisheries and environmental protection legislation, including preventing the loss or destruction of fish habitat, and minimizing the impact of sedimentation, siltation or otherwise causing a degradation in water quality.
- .2 Provide a minimum of 30 m or more and as required of polypropylene silt fence (typical height of 0.9 m) and the necessary stakes for installation. This will be used as necessary to prevent sediment transport into water bodies.
- .3 Provide a minimum of 50 lineal meters or more and as required of 200 mm diameter hydrophobic, sorbent booms. This will be used as necessary to prevent the migration of hydrocarbons.
- .4 Supply, transport, install and maintain erosion, sediment and drainage controls necessary to complete the Work in accordance with the requirements of the Departmental Representative.
- .5 At the completion of construction, dispose of used silt fence off-site as non-hazardous waste. Dispose of used absorbent boom in accordance with Section 02 61 33 — Hazardous Waste Material.
- .6 Unused Erosion, Sediment and Drainage Control supplies shall remain the property of Departmental until the completion of the Contract.
- .7 Provide inventory of environmental protection supplies prior to mobilization.

Part 2 PRODUCTS

- .1 Not Used.

Part 3 EXECUTION**3.1 MATERIAL LOADING, HAULING, PLACEMENT AND GRADE BUILDING**

- .1 During grade construction conducted close to any watercourse, water body or wetland methods shall be employed to ensure materials are not eroded into the water or wetlands. Generally, work within a 30 m buffer of waterways or wetlands require the close oversight of the Departmental Representative.
- .2 No grade construction shall occur outside of the designated area or within 1 m of the drip line of existing forest. Materials shall be placed at storage sites or on the grade without spillage outside the working limits. Any material inadvertently falling outside the work limits is to be removed promptly in a manner that does not damage trees or vegetation at that location.

3.2 EXCAVATING AND PLACEMENT

- .1 Excavation will be undertaken according to the approved Grading Plan for the Right-of-Way and approved Development Plans.

- .2 Materials shall be placed at storage sites or on the grade without spillage outside the working limits. Any material inadvertently falling outside the work limits is to be removed promptly in a manner that does not damage trees or vegetation at that location.
- .3 All sediment control measures shall be implemented by the Contractor prior to the commencement of the work in the vicinity of the water bodies, watercourses, and wetlands.
- .4 If a pump-out sump to dewater excavation sites is required, the Contractor is to prepare an EPP which details how the dewatering shall be undertaken, to the satisfaction of the Departmental Representative.

3.3 CULVERT INSTALLATION

- .1 All culverts shall be installed using best management practices for working in or near water that will result in a minimum amount of sedimentation and damage to the riparian area of the watercourse.
- .2 The culverts shall be installed using best management practices for placement, including consideration of aquatic ecology.
- .3 It is preferable to install the culvert during periods of low discharge. The use of sediment control measures may be necessary to ensure that excessive amounts of sediments do not enter the watercourse or wetland.
- .4 It may be necessary to exclude fish from the immediate construction site while the culvert is being installed. If this practice is necessary, fish shall be salvaged from within the exclusion area, and construction should be carried out expediently to minimize the time spent working in the drainage.

3.4 ASPHALT PLANT OPERATION AND PAVING

- .1 Trucks for hauling asphalt mixture shall have tight, clean, smooth metal beds that have been sprayed with a minimum amount of thin fuel oil to prevent the mixture from adhering and causing waste asphalt. The vehicle covers shall be securely fastened. Excess truck box lubricants such as light oil, detergent or lime solutions shall not be allowed to contaminate the mix, and shall be disposed of in an environmentally acceptable manner. Truck box lubricant application shall be carried out in a containment berm.
- .2 The asphalt plant must be equipped with pollution control devices in addition to, or in replacement of standard cyclone dust collectors, to effectively eliminate the emission of dust and smoke pollutants into the atmosphere. Use of secondary dust collection systems which require discharge of dust polluted water into natural drainage system will not be allowed. Regardless of requirements stated in above, asphalt plant operation must comply with all environmental pollution control regulations applicable in the plant area.
- .3 The Contractor shall be responsible for the purchase and the safe delivery/storage/handling of asphalt cement and emulsions to the asphalt

plant site. Excess hot mix or reject asphalt shall be temporarily stored as directed by the Departmental Representative, and removed from Pacific Rim National Park for proper recycling or disposal.

- .4 The Contractor shall ensure that there is enough room between the stockpiles and the asphalt plant for a loader in the event of a spill at the asphalt plant. A containment berm with an associated liner made of occlusive material (e.g. plastic of a thickness approved by the Departmental Representative) and covered with absorbent sand or clay shall be installed under the asphalt storage tank to ensure containment of 110% of the tank's capacity.
- .5 The Contractor may wish to protect containment/catchment areas and drip trays at the asphalt plant from rainfall since, if contaminated; all of the collected water will have to be disposed of at the expense of the Contractor at an approved disposal facility.
- .6 Sites from which materials have been removed shall be restored to a neat and presentable condition upon the completion of the work.

3.5 CRUSHING

- .1 The Contractor shall provide drip and spill containment for the crusher, cone, generators and other components where spills may occur (e.g. plastic lined dirt berms, collection/drip trays, double-walled fuel tanks). Spill response in a timely and effective manner in the event of a spill is mandatory. The measure chosen by the Contractor shall ensure containment of 110% of the capacity of the fuel tank, crankcase, etc.
- .2 Excavation, hauling and placing materials associated with a crushing operation shall be conducted within the approved footprint of the total crushing operation. Crushed materials shall be placed at the designated storage without spillage or ravelling outside the limits of this location. Any material inadvertently falling outside the work limits is to be moved promptly to within the storage limits. Repair of damage outside the work limits will be at the complete expense of the Contractor.

3.6 NOTIFICATION

- .1 Departmental Representative will notify Contractor in writing of observed non-compliance with Federal, Provincial or Municipal environmental laws or regulations, permits, etc.
- .2 After receiving such notice the Contractor shall inform Departmental Representative of proposed corrective action and take such action for approval by Departmental Representative.
- .3 Departmental Representative will issue a stop order of Work until satisfactory corrective action has been taken.
- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

3.7 ENVIRONMENTAL MONITORING

- .1 At a minimum the environmental monitoring shall be completed by P.Biol, RPBio, or Qualified Environmental Professional (QEP). If a QEP completes the monitoring, the QEP must work under the direction of the P.Biol or RPBio who completes the Environmental Protection Plan.
- .2 The monitoring program must be anticipatory and responsive to construction practices or environmental changes, reflecting the site specific conditions, level of sensitivity of the receiving environment, potential adverse effects, and level of environmental risk. Submitted documents regarding the proposed monitoring program should clearly identify how monitoring will adhere to this approach.
- .3 The monitoring program shall satisfy all regulatory requirements and terms of these specifications the onus is on the Contractor to monitor and ensure compliance, to identify arising problems, and to subsequently take responsibility and all necessary measures in response.

END OF SECTION

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- Part 1 General**
- 1.1 REFERENCE**
- .1 BC MoTI Specifications, Section 101.
- 1.2 RELATED SECTIONS**
- .1 All Divisions 01, 02, 31, 32 and 33 Sections.
- 1.3 DESCRIPTION OF WORK**
- .1 Quality Management shall be based on testing requirements in these specifications and shall be supplemented by the BC MoTI Specifications for a specified Work as directed by Departmental Representative.
- .2 The Contractor shall utilize a laboratory that has current CCIL "Type A" certification or AMRL (AASHTO Materials Reference Laboratory).
- .3 Minimum Quality Control testing and inspection frequencies shall meet or exceed those indicated in these Specifications, and/or in the BC MoTI Specifications for a specified Work.
- .4 The Contractor shall submit Quality Control Plan that provides details of the means, methods, and frequencies of quality control measures for all elements of Work in the Contract.
- .5 The Contractor shall submit Daily Report to the Departmental Representative which shall encompass an overview of all project activities. The Daily Report shall include but not limited to a breakdown of all Contractual Items worked on, weather conditions as well as pictures. This Daily Report shall be submitted to the Departmental Representative within twenty-four (24) hours of the completion of a regular shift.
- 1.4 MEASUREMENT PROCEDURES**
- .1 Payment for all Quality Management in this Contract shall be incidental to the applicable Section and task involved.
- .2 Inspection or testing by the Departmental Representative will be at the Department's cost. However, re-inspection or re-testing by the Department for repaired or replaced Work items that originally did not meet Contract requirements shall be at the Contractor's cost.
- .3 The Completion Certificate will not be issued if there are any unresolved Non-Conformance Reports.
- 1.5 REFERENCES**
- .1 BC MoTI Specifications.
- .2 American Society for Testing and Materials (ASTM)
- .1 ASTM C 117-95, Standard Test Methods for Material Finer Than 0.075 mm Sieve in Mineral Aggregates by Washing.
- .2 ASTM C 136-96a, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.

- .3 ASTM D 422-63(1998), Standard Test Method for Particle-Size Analysis of Soils.
- .4 ASTM D 4318-00, Standard Test Methods for Liquid Limit, Plastic Limit and Plasticity Index of Soils.
- .3 Canadian Standards Association (CSA)
 - .1 CAN/CGSB-8.1-88, Sieves, Testing, Woven Wire, Inch Series.
 - .2 CAN/CGSB-8.2-M88, Sieves, Testing, Woven Wire.

1.6**TESTING BY THE CONTRACTOR**

- .1 The Contractor shall be fully responsible and bear all costs for all quality control testing and shall conduct such testing in the following manner:
 - .1 Provide testing facilities and personnel for the tests and inform the Departmental Representative in advance to enable the Departmental Representative to witness the tests if it so desired;
 - .2 Notify the Departmental Representative when sampling will be conducted.
 - .3 Within one (1) day after completion of testing, submit test results to the Departmental Representative; and
 - .4 Identify test reports with the name and address of the organization performing all tests, and the date of the tests.
- .2 Approval of tested samples will be for characteristics or use named in such approval and shall not change or modify any Contract requirements.
- .3 Testing agencies, their inspectors, and their representatives are not authorized to revoke, alter, relax, enlarge or release any requirement of the Contract Documents, nor to approve or accept any part of the Work.

1.7**INSPECTION**

- .1 Contractor is responsible for all Quality Control under this specification. Departmental Representative will audit and monitor Contractor's operation and implementation of Contractor's Quality Control Plan.
- .2 Departmental Representative will not take samples for quality control testing and will in no manner assist in any degree or in any respect of Contractor's operation in production of asphalt mix aggregate, and asphalt mix, beginning from production of asphalt mix aggregate through compaction of hot mix asphalt.
- .3 Quality Control Plan:
 - .1 Prepare and submit detailed written Quality Control Plan to Departmental Representative.
 - .2 Contractor to submit Quality Control Plan five (5) working days before production of asphalt mix aggregate is started.
 - .3 Departmental Representative shall review Contractor's Quality Control Plan and respond in writing within five (5) days.

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- .4 Any change to Quality Control Plan shall be submitted to Departmental Representative for approval twenty-four (24) hours prior to implementing change.
 - .5 Plan to include but not limited to following:
 - .1 Supply of hot mix asphalt materials.
 - .2 Identification of source and proof of quality of aggregates in general.
 - .3 Asphalt Mix Aggregates production and its gradation control.
 - .4 Quality of aggregate components.
 - .5 Stockpile management.
 - .6 Asphalt mix design.
 - .7 Asphalt plant calibration and proportioning of aggregate components.
 - .8 Mixing including asphalt cement content control.
 - .9 Process temperature controls.
 - .10 Material application rates, placing and finishing
 - .11 Joints, compaction, smoothness.
 - .12 Segregation.
 - .13 Name of Quality Control Testing Agency and its proven capability to provide specific services required for project.
 - .14 List roles of dedicated technical staff, their qualifications and experience.
 - .15 List of testing equipment, date last calibrated and by whom.
 - .16 Embankment Construction.
 - .17 Pavement markings quality control.
 - .4 Quality Control Testing and Inspection:
 - .1 Contractor shall provide and maintain equipment and qualified personnel to perform all laboratory testing, field testing and inspection necessary to determine and monitor the characteristics and properties of all materials produced and incorporated into work. Contractor shall monitor workmanship of final product in accordance with Quality Control Plan as most recently submitted and approved.
 - .2 Contractor's Quality Control testing and inspection shall utilize qualified registered member of the Association of Professional Engineers and Geoscientists of British Columbia or a qualified, registered member of the Applied Science Technologists and

Technicians of British Columbia who shall oversee all aspects of the Quality Control and Inspection. This person shall be designated as Quality Control Manager for the purpose of these specifications. Quality Control Manager shall be responsible for the preparation and sign off of the Quality Control Plan, approving all quality control staff, all quality control testing and inspections and for signing submission, within five (5) working days, of all Quality Control testing and inspection records to Departmental Representative.

- .3 Contractor's Quality Control testing equipment and laboratory shall be well maintained and in good working condition. All testing equipment shall be calibrated and evidence of calibration shall be provided when requested by the Departmental Representative. For purpose of obtaining accurate and consistent records between Contractor's Quality Control testing and Departmental Representative's Quality Assurance testing, correlation of Marshall Hammer/Superpave Gyrotory Compactor and Ignition Ovens to be used on project shall be provided during the verification of Job Mix Formula.
- .5 Minimum frequency for Quality Control Testing during embankment construction will be as follows:

Construction Type	Test Type	Minimum Frequency of Tests
Embankment construction with fine grained or granular soil	Standard Proctor by: ASTM D698	1 per change in material or 1 per week, whichever is more frequent
Embankment construction with fine grained or granular soil	Field density by: ASTM D1556 – Sand Cone ASTM D2167 – Balloon ASTM D2922 - Nuclear	1 per 1000 m ² per lift, spaced randomly across full width of embankment
Embankment construction with blasted rock or oversize granular	Field observation with daily report; and a summary report signed and stamped by Professional Engineer	Full time during blasted rock placement
Culvert Installation	Field Density	Minimum two (2) per 300 mm lift per culvert, spaced through the length and depth of the culvert backfill

- .6 Results from Quality Control testing shall be reported on test logs and plotted on charts immediately after each test is completed. Contractor shall report all test results on supplied forms available from Departmental Representative. Reports and forms shall be available for viewing within 24 hours of the end of each working shift.
- .7 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Departmental Representative's instruction, or law of Place of Work.

- .8 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .9 Departmental Representative may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If upon examination such work is found not in accordance with Contract Documents, then Contractor shall correct such Work and pay cost of examination and correction. If Such Work is found to be in accordance with Contract Documents, then Department shall pay cost of examination and replacement.

1.8 ACCESSES TO WORK

- .1 Allow Departmental Representative and inspection/testing agencies access to Work and quality control testing facilities. If part of Work is in preparation at location other than Contract's Project Limits, allow Departmental Representative access to such Work whenever it is in progress.
- .2 The Contractor to provide reasonable facilities for such access.

1.9 PROCEDURES

- .1 Notify appropriate agency and Departmental Representative in advance of requirement for tests, in order that attendance arrangements can be made.
- .2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in the execution of the Work
- .3 Provide labour and facilities that meet requirements necessary to carry out all tests listed within this specification.

1.10 REJECTED WORK

- .1 The Contractor shall remove any Work, which has been rejected by Departmental Representative as failing to conform to Contract Documents. The Contractor shall replace or re-execute the Work in accordance with Contract Documents.
- .2 Make good other Contractor's work damaged by such removal or replacements promptly.
- .3 If in opinion of Departmental Representative it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Departmental Representative may deduct from Contract Price, difference in value between Work performed and that called for by Contract Documents, amount of which shall be determined by Departmental Representative.

1.11 REPORTS

- .1 Submit one (1) electronic copy and hard copy of all inspection and test reports to Departmental Representative in accordance with Section 01 33 00 Submittals Procedures.
- .2 Provide copies to Subcontractor of Work being inspected or tested, to manufacturer or fabricator of material being inspected or tested.

1.12 TEST AND MIX DESIGN

- .1 Furnish test results of asphalt mix design as per Contract Requirements.

Part 2 Products

- .1 Not Used.

Part 3 Execution

- .1 Not Used.

END OF SECTION

- Part 1 General**
- 1.1 RELATED SECTIONS**
- .1 Section 01 11 00 – Summary of Work.
 - .2 Section 01 33 00 – Submittal Procedures.
 - .3 Section 01 35 43 – Environmental Procedures.
 - .4 Section 01 35 31 – Special Procedures for Traffic Control.
- 1.2 PRECEDENCE**
- .1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Specifications document.
- 1.3 MEASUREMENT PROCEDURES**
- .1 Cost for providing Construction Facilities will be considered incidental to the Work and no additional payment will be made.
- 1.4 SCAFFOLDING AND CRANES**
- .1 Scaffolding or temporary platforms supporting workers shall be designed by a Professional Engineer registered in British Columbia.
 - .2 Stamped drawings showing all details and erection procedure shall be provided two (2) weeks prior to erecting scaffolding for workers.
 - .3 The Engineer of Record or his representative shall inspect the scaffolding or temporary platform to ensure conformance to the design.
 - .4 Cranes shall be operated by qualified operators. Proof of the operator's certification shall be made available to the Departmental Representative.
- 1.5 INSTALLATION AND REMOVAL**
- .1 Provide construction facilities in order to execute work expeditiously.
 - .2 Remove from site all such work after use.
- 1.6 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 a weight or force that will endanger the Work.
- 1.7 SECURITY**
- .1 If required by the Contractor, provide and pay for responsible security personnel to guard site and contents of site after working hours and during holidays. For extended shut-downs, the Contractor shall provide the level of security as required to protect the Work. The Contractor is

advised that some random acts of vandalism to equipment have occurred within the Park.

1.8 DEPARTMENTAL REPRESENTATIVE OFFICE TRAILER

- .1 Provide a standalone temporary office trailer for the exclusive use of the Departmental Representative. Location will be determined by the Departmental Representative.
- .2 Provide uninterrupted power supply and heat for office.
- .3 Inside dimensions minimum 7.3 m long x 3 m wide x 2.4 m high, with floor 0.3 m above grade, complete with three 50% opening windows and one lockable door.
- .4 Provide one (1) closed office and one (1) meeting room.
- .5 Insulate building and provide heating system to maintain 22°C inside temperature at -20°C outside temperature.
- .6 Finish inside walls and ceiling with plywood, hardboard or wallboard and paint in selected colours. Finish floor with 19 mm thick plywood.
- .7 Install electrical lighting system to provide min. 750 lx using surface mounted, shielded commercial fixtures with 10% upward light component.
- .8 Provide private washroom facilities adjacent to office complete with flush or chemical type toilet, lavatory and mirror and maintain supply of paper towels and toilet tissue.
- .9 Equip office with 1 x 2 m table, 1.2 x 2.4 m Drafting table and stool, four chairs, 6 m of shelving 300 mm wide, one three-drawer filing cabinet, fire extinguisher, #1 first aid kit, one plan rack, one coat rack and shelf.
- .10 Sub-Contractors may provide their own offices as necessary. Direct location of these offices.

1.9 EQUIPMENT, TOOL AND MATERIALS STORAGE

- .1 Provide and maintain, in a 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 a manner to cause least interference with work activities.

1.10 SANITARY FACILITIES

- .1 Provide sanitary facilities for work force in accordance with governing regulations, ordinances and the EPP.
- .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.11 CONSTRUCTION SIGNAGE

- .1 No other signs or advertisements, other than warning signs, are permitted on site.

- .2 Signs and notices for safety and instruction shall be in both official languages Graphic symbols shall conform to CAN3-Z321.
- .3 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 Departmental Representative.

Part 2 Products

- .1 Not Used.

Part 3 Execution

- .1 Not Used.

END OF SECTION

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|---------------|---|
| 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 Specifications document. |
| 1.2 | MEASUREMENT PROCEDURES |
| .1 | This work shall be incidental to contract and will not be measured for payment. |
| 1.3 | RELATED SECTIONS |
| .1 | Section 01 35 31 - Special Procedures for Traffic Control. |
| .2 | Section 01 52 00 - Construction Facilities. |
| 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 | HOARDING |
| .1 | Provide barriers around trees and plants designated to remain. Protect from damage by equipment and construction procedures. |
| 1.6 | GUARD RAILS AND BARRICADES |
| .1 | Provide secure, rigid guard rails and barricades around deep excavations. |
| 1.7 | WEATHER ENCLOSURES |
| .1 | Not used. |
| 1.8 | DUST TIGHT SCREENS |
| .1 | Not used. |
| 1.9 | ACCESS TO SITE |
| .1 | Provide and maintain access roads, as may be required for access to Work. |
| 1.10 | PUBLIC TRAFFIC FLOW |
| .1 | Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect the public. |
| 1.11 | PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY |
| .1 | Protect surrounding public property from damage during performance of Work. |

- .2 Be responsible for damage incurred.
- 1.12 PROTECTION OF BUILDING FINISHES**
- .1 Not used.
- Part 2 Products**
- .1 Not Used.
- Part 3 Execution**
- .1 Not Used

END OF SECTION

Part 1 General**1.1 RELATED SECTIONS**

- .1 Section 01 45 00 - Quality Management.

1.2 REFERENCE STANDARDS

- .1 Within text of each specifications section, reference may be made to reference standards.
- .2 Conform to these reference standards, in whole or in part as specifically requested in specifications.
- .3 If there is question as to whether any product or system is in conformance with applicable standards, Departmental Representative reserves right to have such products or systems tested to prove or disprove conformance.
- .4 Cost for such testing will be borne by Departmental Representative in event of conformance with Contract Documents or by Contractor in event of non-conformance.
- .5 Conform to latest date of issue of referenced standards in effect on date of submission of Tenders, except where specific date or issue is specifically noted.

1.3 QUALITY

- .1 Products, materials, equipment and articles (referred to as products throughout specifications) incorporated in Work shall be new, not damaged or defective, and of best quality (compatible with specifications) for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .2 Defective products, whenever identified prior to completion of Work, shall be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .3 Should any dispute arise as to quality or fitness of products, decision rests strictly with Departmental Representative based upon requirements of Contract Documents.
- .4 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.

1.4 AVAILABILITY

- .1 Immediately after signing Contract, review product delivery requirements and anticipate foreseeable supply delays for any items. If delays in supply of products are foreseeable, notify Departmental Representative of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.

- .2 In the event of failure to notify Departmental Representative at commencement of Work and should it subsequently appear that Work may be delayed for such reason, Departmental Representative reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

1.5 **STORAGE, HANDLING AND PROTECTION**

- .1 Handle and store products in manner to prevent damage, alteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.
- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .3 Store products subject to damage from weather in weatherproof enclosures.
- .4 Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.
- .5 Store sheet materials, lumber and misc metals on flat, solid supports and keep clear of ground. Slope to shed moisture.
- .6 Store and mix paints in heated and ventilated room. Remove oily rags and other combustible debris from site daily. Take every precaution necessary to prevent spontaneous combustion.
- .7 Remove and replace damaged products at own expense and to satisfaction of Departmental Representative.
- .8 Touch-up damaged factory finished surfaces to Departmental Representative's satisfaction. Use touch-up materials to match original. Do not paint over name plates.

1.6 **TRANSPORTATION**

- .1 Pay costs of transportation of products required in performance of Work.

1.7 **MANUFACTURER'S INSTRUCTIONS**

- .1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.
- .2 Notify Departmental Representative in writing, of conflicts between specifications and manufacturer's instructions, so that Departmental Representative may establish course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes Departmental Representative to

require removal and reinstallation at no increase in Contract Price or Contract Time.

1.8 QUALITY OF WORK

- .1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Departmental Representative if required Work is such as to make it impractical to produce required results.
- .2 Do not employ anyone unskilled in their required duties. Departmental Representative reserves right to require dismissal from site for workers deemed incompetent or careless.
- .3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Departmental Representative whose decision shall be final and binding.

1.9 CO-ORDINATION

- .1 Ensure cooperation of workers in laying out Work. Maintain efficient and continuous supervision.
- .2 Be responsible for coordination and placement of openings, sleeves and accessories.

1.10 REMEDIAL WORK

- .1 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Coordinate adjacent affected Work as required.
- .2 Perform remedial work by a specialist familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.11 FASTENINGS

- .1 Provide metal fastenings and accessories in same texture, colour and finish as adjacent materials, unless indicated otherwise.
- .2 Prevent electrolytic action between dissimilar metals and materials.
- .3 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other material is specifically requested in affected specification Section.
- .4 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood, or any other organic material plugs are not acceptable.
- .5 Keep exposed fastenings to a minimum, space evenly and install neatly.
- .6 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

1.12 PROTECTION OF WORK IN PROGRESS

- .1 Do not cut, drill or sleeve any load bearing structural member without written approval of Departmental Representative, unless specifically indicated.

Part 2 Products

- .1 Not Used.

Part 3 Execution

- .1 Not Used.

END OF SECTION

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|---------------|---|
| 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 Specification document. |
| 1.2 | RELATED SECTIONS |
| .1 | Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart. |
| .2 | Section 01 33 00 – Submittal Procedures. |
| .3 | Section 01 35 31 – Special Procedures for Traffic Control. |
| .4 | Section 01 35 43 – Environmental Procedures. |
| .5 | Section 01 77 00 – Closeout Procedures. |
| .6 | Section 32 11 24 – Supply and Place Crushed Granular Base. |
| .7 | Section 32 12 16 – Supply, Haul, Place and Compact Hot Mix Asphalt (EPS). |
| .8 | Section 32 17 23 – Pavement Marking and Painting. |
| .9 | Section 33 42 13 – Supply and Install Pipe Culverts. |
| 1.3 | REFERENCES |
| .1 | Department’s identification of existing survey control points and property limits. |
| .2 | BC MoTI Specificatins. |
| 1.4 | SURVEY/LAYOUT REQUIREMENTS |
| .1 | The Departmental Representative will indicate the beginning and end of the project and sufficient reference point to be used by the Contractor for his detailed layout. |
| .2 | The Contractor is responsible for all staking and survey layout required for the completion of all Work. |
| .3 | The Contractor is required to establish project stationing and provide layout stakes (25 mm x 50 mm x 900 mm) with a common offset every 20 m, one side of roadway suitable for referencing test locations and for purposes of measurement for payment. |
| .4 | Each stake will have the stationing and the offset written on two sides with indelible markers. Stakes must be protected and replaced if they are removed/destroyed. |

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- .5 The Contractor is required to layout the placement of the hot mix asphalt to ensure the longitudinal joints are in accordance with BC MoTI Specifications, Section 502.22.01.
 - .6 The Contractor shall provide at his own cost, any survey activities as required and including, but not limited to, the following:
 - .1 Layout for interim lane markings, including those for intersection treatments,
 - .2 Re-establishing the start and finish of “No Passing Zones”, or at new limits.
 - 1.5 MEASUREMENT PROCEDURES**
 - .1 Cost for providing all surveys and site preparation will be considered incidental to the Work and no additional payment will be made.
 - 1.6 QUALIFICATIONS OF SURVEYOR**
 - .1 A qualified registered surveyor licensed to practise in British Columbia, acceptable to the Departmental Representative, shall perform the required surveying for the Contractor.
 - 1.7 SURVEY REFERENCE POINTS**
 - .1 Locate, confirm and protect control points prior to starting site work. Preserve permanent reference points during construction.
 - .2 Make no changes or relocations without prior written notice to Departmental Representative.
 - .3 Report to Departmental Representative when reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
 - .4 Require surveyor to replace control points in accordance with original survey control.
 - 1.8 SURVEY REQUIREMENTS**
 - .1 Contractor will be responsible for all staking and layout including but not limited to:
 - .1 Establish lines and levels, locate and lay out, by instrumentation.
 - .2 Stake for grading, cut and fill.
 - .3 Stake slopes and top of embankment, base course and centreline for milling, paving and pavement markings.
 - .4 Establish culvert invert elevations and locations.
 - .2 Provide As-Built survey of the Work if requested.

- .3 The Departmental Representative may elect to verify survey. Verification of the survey by the Departmental Representative does not abdicate the Contractor's responsibility for the correctness and accuracy of the survey.
- .4 Departmental Representative will complete all measurement surveys for final payment.

1.9 RECORDS

- .1 Maintain a complete, accurate log of control and survey work as it progresses.
- .2 Record locations of maintained, re-routed and abandoned service lines.

1.10 SUBMITTALS

- .1 Submit name and address of Surveyor to Departmental Representative.
- .2 On request of Departmental Representative, submit documentation to verify accuracy of field engineering work.
- .3 Submit certificate signed by surveyor certifying those elevations and locations of completed Work that conform with Contract Documents.

Part 2 Products

- .1 Not Used.

Part 3 Execution

- .1 Not Used.

END OF SECTION

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| 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 Specifications document. |
| 1.2 | RELATED SECTION |
| .1 | Section 01 25 20 - Mobilization and Demobilization |
| .2 | Section 01 32 18 - Construction Progress Schedules - Bar (GANTT) Chart. |
| .3 | Section 01 33 00 – Submittal Procedures. |
| .4 | Section 01 35 31 – Special Procedures for Traffic Control. |
| .5 | Section 01 35 43 - Environmental Procedures. |
| .6 | Section 01 77 00 – Closeout Procedures. |
| .7 | Section 02 41 13.14 – Asphalt Pavement Cold Milling. |
| .8 | Section 32 12 16 – Supply, Haul, Place and Compact Hot Mix Asphalt (EPS). |
| .9 | Section 32 17 23 – Pavement Marking and Painting. |
| .10 | Section 33 42 13 – Supply and Install Pipe Culverts. |
| 1.3 | MEASUREMENT PROCEDURES |
| .1 | This work shall be considered incidental to contract and will not be measured for payment. |
| 1.4 | PROJECT CLEANLINESS |
| .1 | Maintain Work in tidy condition, free from accumulation of waste products and debris, including that caused by Owner or other Contractors. |
| .2 | Remove waste materials from site at regularly scheduled times or dispose of as directed by Departmental Representative. Do not burn waste materials on site. |
| .3 | Clear snow and ice from access to work areas during active construction periods and when access to environmental protection facilities required outside active construction times. |
| .4 | Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris. |
| .5 | Provide on-site bear proof containers for collection of waste materials and debris. |
| .6 | Remove waste material and debris from site at end of each working day. |
| .7 | Dispose of waste materials and debris off site. |

- .8 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .9 Provide adequate ventilation during use of volatile or noxious substances.
- .10 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

1.5 FINAL CLEANING

- .1 When work is substantially completed, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Prior to final review, remove surplus products, tools, construction machinery and equipment.
- .3 Remove waste products and debris including that caused by Owner or other Contractors.
- .4 Remove waste materials from site at regularly scheduled times or dispose of as directed by Departmental Representative. Do not burn waste materials on site.
- .5 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .6 Inspect finishes, and ensure specified workmanship and operation.
- .7 Remove dirt and other disfiguration from exterior surfaces.
- .8 Sweep and wash clean paved areas.
- .9 Clean drainage systems.

Part 2 Products

- .1 Not Used.

Part 3 Execution

- .1 Not Used.

END OF SECTION

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- 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 Specifications document.
- 1.2 RELATED SECTIONS**
- .1 Section 01 25 20 - Mobilization and Demobilization.
- .2 Section 01 29 01 - Site Occupancy.
- .3 Section 01 74 11 - Cleaning.
- .4 Section 01 78 00 - Closeout Submittals.
- 1.3 MEASUREMENT FOR PAYMENT**
- .1 No separate payment for Closeout Procedures.
- 1.4 INSPECTION AND DECLARATION**
- .1 Contractor's Inspection: Contractor and all Subcontractors shall conduct an inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
- .1 Notify Departmental Representative in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
- .2 Request Departmental Representative's Inspection.
- .2 Departmental Representative's Inspection: Departmental Representative and Contractor will perform inspection of Work to identify obvious defects or deficiencies. Contractor shall correct Work accordingly.
- .3 Completion: submit written certificate that following have been performed:
- .1 Work has been completed and inspected for compliance with Contract Documents.
- .2 Defects have been corrected and deficiencies have been completed.
- .3 Work is complete and ready for Final Inspection.
- .4 Final Inspection: when items noted above are completed, request final inspection of Work by Departmental Representative, and Contractor. If Work is deemed incomplete by Departmental Representative, complete outstanding items and request re-inspection.
- Part 2 Products**
- .1 Not Used.

Part 3 Execution

.1 Not Used.

END OF SECTION

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- 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 Specifications document.
- 1.2 RELATED SECTIONS**
- .1 Section 01 33 00 – Submittal Procedures.
- .2 Section 01 45 00 - Quality Control.
- .3 Section 01 71 00 - Examination and Preparation.
- .4 Section 01 77 00 - Closeout Procedures.
- 1.3 AS-BUILTS AND SAMPLES**
- .1 In addition to requirements in General Conditions, maintain at the site for Departmental Representative one record copy of:
- .1 Contract Drawings.
- .2 Specifications.
- .3 Addenda.
- .4 Change Orders and other modifications to the Contract.
- .5 Reviewed shop drawings, product data, and samples.
- .6 Field test records.
- .7 Inspection certificates.
- .8 Manufacturer's certificates.
- .2 Store record documents and samples in field office apart from documents used for construction.
- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- .4 Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
- .5 Keep record documents and samples available for inspection by Departmental Representative.
- 1.4 RECORDING ACTUAL SITE CONDITIONS**
- .1 Record information on set of black line opaque Drawings and in copy of the Project Manual.
- .2 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.

- .3 Contract Drawings and shop drawings: legibly 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.
- .4 Specifications: legibly mark each item to record actual construction, including:
 - .1 Changes made by Addenda and change orders.
- 1.5 FINAL SURVEY**
 - .1 Submit final site survey certificate in accordance with Section 01 71 00 - Examination and Preparation, certifying that elevations and locations of completed Work are in conformance, or non-conformance with Contract Documents.
- 1.6 WARRANTIES AND BONDS**
 - .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
 - .2 List Sub-Contractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
 - .3 Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work.
 - .4 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Performance is determined.
 - .5 Verify that documents are in proper form, contain full information, and are notarized.
 - .6 Co-execute submittals when required.
 - .7 Retain warranties and bonds until time specified for submittal.
- Part 2 Products**
 - .1 Not Used.
- Part 3 Execution**
 - .1 Not Used.

END OF SECTION