

The portions of the Ministry of Transportation and Infrastructure - 2016 Standard Specifications for Highway Construction Volume 1 and 2, adopted July 1, 2016, as amended prior to the Closing Date, apply to this Contract.

The intent is that the MOTI specifications are met, except where modified by the supplementary specifications, but that they are executed within the framework of the Capital Regional District's General Conditions and Contract Administration procedures.

The following terminology shall be modified to match the contract definitions as follows:

- Ministry shall read as Capital Regional District where it refers to payment
- Ministry Representative shall read as Engineer
- Ministry Responsibilities shall read as Engineer Responsibilities

Any defined term which is not listed above, but is used with the MOTI Specifications incorporated into this Contract, shall be read as the similar term defined in the General Conditions.

The supply and installation of the works such as trench backfill, filter cloth, tack coat, temporary asphalt patching, watering, dewatering, trail shoulders, asphalt removal, service tie-ins, etc. shall be considered incidental to the works listed in the schedule of quantities and prices. No additional payment is applicable to incidental items.

Traffic management, survey layout, pre-blast survey and stockpiling shall be incidental to the Contract Unit Prices.

MOTI will not be responsible for any materials or payments to the Contractor.

References to "Standard Detail Drawings" in a MOTI specification are to be the corresponding drawings found in 2016 Standard Specifications for Highway Construction Volume 1 and 2, as amended by any supplementary drawings and specifications.

Should there be any issue with respect to the meaning or application of any MOTI defined term, specification, or CRD General Condition reference, the issue shall be determined by the Engineer.

The CRD has obtained working Right of Way agreements with some adjacent property owners. Contractor to repair any damage, within the Right of Way, to property owner's requirement and at the discretion of the Engineer.

It is expected that the 6.35mm pathway blend will have to be imported from off the island. Other granular materials meeting MoTI Standards may be in short supply or not available on Salt Spring Island, and may have to be trucked in from off island. Gravel for paths can be relaxed to MMCD standards.

The Schedule of Estimated Quantities and Prices provides different payment units from the MOTI specifications, therefore, the Schedule of Estimated Quantities and Prices to take precedence.

The 2016 Standard Specifications for Highway Construction Volume 1 and 2 are available for purchase from:

Crown Publications, Queens's Printer for BC  
Box 9452, Stn Prov Govt  
Victoria, BC, V8W 9V7  
Tel: 1.800.663.6105 or 250.387.6409

Or as an electronic version at: <http://www.gov.bc.ca/standardspecifications-highways.htm>

<b>Section</b>	<b>Sub-section</b>	<b>Title</b>	<b>Supplementary Specifications</b>
<b>Project Record Documents 001</b>	<b>Add Sub-section</b>		
	<b>1.0</b>	<b>Existing Condition Survey and Record Drawings</b>	<p>1.9.1 The Contractor shall coordinate with the Engineer to document the existing condition of the roads, trees, landscaping, structures or other items that the Engineer and Contractor wishes to document prior to construction. The documentation will be either photographs or video in a manner acceptable to the engineer and submitted to the Engineer 5 days prior to the start of construction.</p> <p>Contractor shall provide field record drawings of the completed works within 1 week of achieving substantial completion.</p>
<b>Reference Specifications 002</b>	<b>Add Sub-section</b>		
	<b>1.0</b>	<b>General</b>	<p>The construction documents contain references to standard specifications for testing, materials, manufacturing and installation procedures. These references have been abbreviated to identify only the referenced Association and specification designation.</p> <p>All references to these Specifications, Standards or Methods shall be understood to refer to the latest adopted revision, including all amendments.</p>
	<b>1.1</b>	<b>Nomenclature</b>	<p><b>Add Clause 1.1: MMCD</b> – Master Municipal Construction Documents</p> <p><b>Add Clause 1.2: CRD</b> – Capital Regional District</p> <p><b>Add Clause 1.3: NSSIWW</b> – North Salt Spring Island Waterworks</p>
	<b>1.2.1</b>	<b>Master Municipal Construction Documents</b>	<b>Add Clause 1.2.1:</b> Master Municipal Construction Documents – Platinum Edition 2009
<b>Quality Management 101</b>	<b>101.02.03</b>	<b>Plan Submission Requirements</b>	Contractor to follow <b>101.02.03 (ii) Partial Submission</b>

<b>Section</b>	<b>Sub-section</b>	<b>Title</b>	<b>Supplementary Specifications</b>
			<p>Contractor to retain services of qualified testing firm and any other qualified companies required to provide the required Quality Control Plan and follow the Quality Control Plan.</p> <p>The minimum materials and compaction testing requirements shall be as shown on the Contract Drawing notes.</p>
		<b>Payment</b>	Payment for Quality Management will be at the Contract Lump Sum
<b>Construction Site Safety 135</b>	<b>135.04.02</b>	<b>Prime Contractor Responsibilities</b>	<p><b>Revised Clause b):</b> Replace Drawing SP135-01 with:</p> <p><b>2 each of 2</b> different Signs will be required, one at each end of the project. See two samples in Appendix A. CRD Contact on sign to be Allen Xu 250-538-4305. Sign shop drawing to be provided to Engineer and CRD a minimum of 5 days prior to order and installation.</p> <p>Signs to be aluminum, 1200mm x 1200mm, black on orange E/G Reflective vinyl. To include both Contractor and CRD contacts.</p>
		<b>Payment</b>	Payment for Construction Site Safety signs to be at the Contract Lump Sum.
<b>General Requirements for Highway, Bridge and Marine Construction 145</b>	<b>145.08 and 145.08.01</b>	<b>Mobilization and Payment for Mobilization</b>	<p><b>Replace sections 145.08 and 145.08.01 with Added Specification -Project Startup 145.08.02 attached</b></p> <p><b>Specifications Added.</b></p>
	<b>145.21</b>	<b>Layout of Work and Calculation of Quantities</b>	<p><b>Add Clause:</b> Contractor shall provide all survey layout as required to complete construction. Layout is to be off the existing painted centerlines / median paint lines at maximum 10 metres on center. Paint label stations at maximum 20 metre intervals. The contractor shall assume full responsibility for the alignment, dimensions and elevations of each and every part of the work and their mutual agreement. Engineer will provide elevations and stations at features surveyed, such as sewer and drain manholes, and also some points along Lower Ganges Road. A legal surveyor will be retained by CRD to locate applicable property lines (ie drain outfall location property lines, Plan 7516 PL, PL at tight corner opposite Upper Ganges Road)</p>

<b>Section</b>	<b>Sub-section</b>	<b>Title</b>	<b>Supplementary Specifications</b>
		<b>Payment</b>	Payment for layout shall be incidental with individual construction items' Contract Unit Price or Lump Sum Prices.
<b>Protection of the Environment 165</b>		<b>General</b>	<b>Replace Section 165 with MMCD Section 01 57 01 Environmental Protection</b>
	<b>1.2</b>	<b>Temporary Erosion and Sediment Control</b>	<b>Add Clause 1.2.5:</b> Contractor to provide an Environmental Protection/Erosion and Sediment Control Plan to the Engineer at least ten (10) days prior to the start of any Works.
		<b>Payment</b>	Payment for Protection of the Environment to be paid at the Contract Lump Sum.
<b>Traffic Management For Work Zones 194</b>	<b>194.12</b>	<b>Traffic Management Plan Review</b>	<p><b>Revised Clause:</b> A Traffic Control Plan shall be submitted to the Engineer for review at least ten (10) days prior to the start of any Works effecting traffic flows. Include provision for bikes and pedestrians. <i>All other within this section shall apply.</i></p> <p>Additional Traffic Management requirements may be included in the MoTI Construction Permit. Traffic Management will be very important for this project, and must include maintaining one way traffic at all times. A traffic controller will be required to ensure that traffic flow is maintained, and to make adjustments as necessary. Public and worker safety must be maintained as the highest priority at all times.</p> <p>Maintenance of existing Canada Post access and transition to new location must be addressed in the traffic Management Plan.</p> <p>Coordination of parking with School District to minimize disruption must be addressed in the Traffic Management Plan.</p>
	<b>194.61</b>	<b>Payment</b>	<p><b>Add Clause:</b> The preparation and submission of the Traffic Management Plan will be at the Contract Lump Sum.</p> <p>Traffic Management to be incidental to the Contract Unit Prices.</p>
<b>Clearing and Grubbing 200</b>	<b>200.01</b>	<b>Add</b>	Contractor to maintain work within the limits of the vegetation left on site, and remove stumps and roots left following vegetation removal.

Section	Sub-section	Title	Supplementary Specifications
	200.08	Quantities and Payment	<b>Revised Clause:</b> Payment for Clearing and Grubbing will be paid at the Contract Lump Sum.
<p><b>Roadway and Drainage Excavation 201</b></p> <p><b>(Updated in November, 2016)</b></p>	<p><b>Add Sub Section</b></p>		<p><b>Add Clause 201.10:</b> Payment for Test Pits will include all excavation, disposal and restoration (if required). The Test Pit locations will be reviewed by the engineer following Contractor / Utilities locating existing services, and Contractor locating proposed services. Contractor may add more at his expense. The Test Pits will generally be used for confirming critical crossings, Telus ducts or any other items which the Engineer wishes to expose. Test Pits will be conducted at the beginning of the job after the existing services and proposed works have been laid out. The contractor must pre-dig as many of the pits as practical so that the test pits can be reviewed by the Engineer and Contractor within one (1) days. Contractor to mark depth, location, direction, slope, material on the asphalt for review and provide a sketch to the engineer.</p> <p>See vactoring existing CB's to remove all sediment which may relate to test holes.</p> <p><b>Add Clause 201.11.03:</b>                      Over-excavation shall be excavation of any material, except Type A Excavation (Rock), that is more than 0.7m (0.85m over the watermain on Lower Ganges Road) below the existing ground elevation. Any excavation of materials more than 0.7m below existing ground shall be approved for removal by the engineer prior to commencing work.</p> <p><b>Add Clause 201.11.04:</b>                      No rock blasting will be allowed.</p>

Section	Sub-section	Title	Supplementary Specifications
			<p>Type A Excavation – See Section 204 Rock Cuts. No rock blasting will be allowed. A rock breaker should be considered.</p> <p>Type B, C and D Excavation to be considered Common Excavation and paid at the Contract Lump Sum.</p> <p>Fills to underside of SGSB/CBC shall be paid at the Contract Lump Sum.</p>
	Part G	Measurement and Payment	<p><b>Replace with:</b> Payment shall include all that is required for supply and placement of the granular surfacing, granular base and granular sub-base including waste allowance as follows:</p> <p><b>MOTI SGSB For Road Widening</b> minimum 300mm deep including waste allowance shall be paid at the Contract Unit Price per square metre.</p> <p><b>MOTI 75mm minus CBC – Road Widening</b> – 150mm thickness including waste allowance, shall be paid at the Contract Unit Price per square metre.</p> <p><b>MOTI 25mm minus CBC – Road Widening</b> – 150mm thickness, including waste allowance, shall be paid at the Contract Unit Price per square metre.</p> <p><b>MOTI 25mm minus CBC – Gravel Shoulder Widening Adjacent to Road Shoulders</b> – 50mm to 100mm deep, shall be paid at the Contract Unit Price per square metre.</p> <p><b>MOTI 25mm minus CBC – 2.4m wide Asphalt Sidewalk</b> (2.2m) - 150mm deep, shall be paid at the Contract Unit Price per lineal metre. CBC will be 2.4m wide at top.</p> <p><b>MOTI 25mm CBC – 2.0m wide Asphalt Sidewalk</b> (1.8m) – 150mm deep, shall be paid at the Contract Unit Price per lineal metre. CBC will be 2m wide at top.</p> <p><b>6.35mm minus Gravel Pathway</b> – 75mm thick pathway blend on 75mm thick of 25mm CBC c/w Filter Fabric, shall be paid at the Contract Unit Price per lineal metre.</p> <p>See payment section in Appendix A.</p>

<b>Section</b>	<b>Sub-section</b>	<b>Title</b>	<b>Supplementary Specifications</b>
<b>Rock Cuts 204</b>		<b>Definition</b>	<b>Type A Trench or Mass Excavation:</b> Rock removed during excavation for roads, sidewalk, and utility trenches
		<b>Payment</b>	Type A <b>Trench</b> Excavation (rock) shall be paid at the Contract Unit Price per cubic metre. Rock volumes in trenches will be limited to maximum 250mm each side of the services and 150mm below bottom of pipe.  Note that the quantities of rock are not exactly determined. As small volumes are more costly than large volumes, we have provided line items for small volumes and for larger volumes.  Rock is expected to be encountered during service trench excavation.
<b>Culverts 303</b>		<b>Materials</b>	<b>Add 302.02 f)</b> Ductile Iron Pipe – Supplied in accordance with AWWA C151. Documents and standard cement mortar lined to AWWA C104/A21.4.
		<b>Payment</b>	Where headwalls are specified in the contract drawings refer to <b>303.08.02 Concrete End Walls for payment</b> . End Walls shall be paid at the Contract Unit Price.
<b>Traffic Marking Paint and Special Markings 321</b>		<b>Payment</b>	<b>Revise Section 321.08 General to:</b> Payment for Traffic Marking Paint and Special Markings will be paid at the Contract Lump Sum inclusive for supply and application of Traffic Marking Paint, layout of traffic lines, glass beads, and Special Markings, costs associated with the quality control, material supply, application, related material manufacture's requirements and costs for surface preparation.
<b>Asphalt Pavement Construction (EPS) 502</b>		<b>Payment</b>	<b>Asphalt Pavement</b> supply and placement will be paid at the Contract Unit Price per square metre.
<b>Pavement Drainage 504</b>		<b>504.11 a)</b>	<b>Replace 504.11 a) with:</b> Contractor to supply all materials, equipment and labour required to complete the work.
		<b>Payment</b>	Asphalt curbs will be paid per lineal metre.



<b>Section</b>	<b>Sub-section</b>	<b>Title</b>	<b>Supplementary Specifications</b>
<b>Cold Milling 511</b>		<b>Payment</b>	Sawcut and cold milling shall be paid at the Contract Unit Price per lineal metre.
<b>Concrete Curb and Gutter and Storm Drainage 582</b>			All references to manholes, MMCD cleanouts and MMCD Inspection Chambers shall be in accordance with <b>MMCD 33 44 01</b> .
		<b>Payment</b>	<p>Payment for MMCD Cleanout, MMCD Inspection Chamber and Manholes shall be in accordance with <b>MMCD 33 44 01 - 1.5 Measurement and Payment</b></p> <p>Payment for catch basins shall be in accordance with <b>MoTI 582.92</b></p> <p>Payment for Paver Brick installation shall include lateral support and shall be paid at the Contract Lump Sum and shall include all materials, labour, equipment etc. necessary to complete the work.</p> <p>Payment for Concrete Sidewalk shall be paid at the Contract Unit Price per lineal meter unless otherwise indicated.</p>
<b>Electrical and Signing 635</b>		<b>General</b>	<b>Payment:</b> Payment for 50mm electrical duct will be per lineal metre.
<b>Topsoil and Landscape Grading 751</b>		<b>Payment</b>	<p><b>Revise 751.91 General to include:</b> Supply and spreading of all topsoil shall be paid at Contract Unit Price per square metres and shall include supply, labour and equipment required for the preparation, spreading and finish grading of the topsoil and for all incidental work not required to be separately paid for.</p> <p>The extent of topsoil payment shall be limited to maximum 0.5m beyond the extent of work.</p>
<b>Planting of Trees, Shrubs, and Ground Covers 754</b>		<b>Shrub and Tree Preservation</b>	All existing trees and shrubs that are not being removed per the Contract Drawings shall be preserved. Contractor shall delineate the vegetation being preserved with 63mm Yellow Marking Tape. Where special measures are indicated on the Contract drawings the Contractor shall review with Engineer prior to commencing work.
		<b>Payment</b>	Payment for Shrub and Tree Preservation per Contract Lump Sum and shall include materials, labour and equipment necessary to complete the work.

<b>Section</b>	<b>Sub-section</b>	<b>Title</b>	<b>Supplementary Specifications</b>
<b>Revegetation Seeding 757</b>	<b>757.91</b>	<b>Payment</b>	Contract Unit Price per square metre shall be accepted as full compensation for the work described and all work subsidiary and incidental thereto for which separate payment is not elsewhere provided. The extent of topsoil payment shall be limited to maximum 0.5m beyond the extent of work.
<b>Sanitary Sewer 1001</b>	<b>See Contract Drawings</b>		BC Hydro: Grant Spray, 250-538-4201 Telus: Ryan Ika-Heimonen, 250-475-5148 Shaw: Andrew Galbraith, 250-940-3992 Canada Post: Robert Binning, 250-479-0862
<b>Waterworks 1002</b>	<b>See Contract Drawings</b>		NSSIWW Contact: Ron Stepaniuk 250-537-9902

**Mobilization and Payment for Mobilization**

**Section 145.08.02**

- 1.0 General** .1 Mobilization and Demobilization shall include the contractor’s costs of mobilization at the beginning of the project and costs of demobilization at the end of the project.

Included in Mobilization are the following items:

- Mobilizing personnel, materials and equipment to the site as required to complete the Works.
- Setting up temporary facilities on-site
- All other preparation for the work for which incidental payment is not specified elsewhere.

Included in Demobilization are the following items:

- Preparation and submission of:
  - Record Documents and Samples
  - “Recording Actual Site Conditions” (Contractor Mark-ups)
  - Operation and Maintenance Manuals, if applicable.
- Removal of all materials, equipment from site
- Cleanup of the site and of the work.

**1.1 Measurement and Payment**

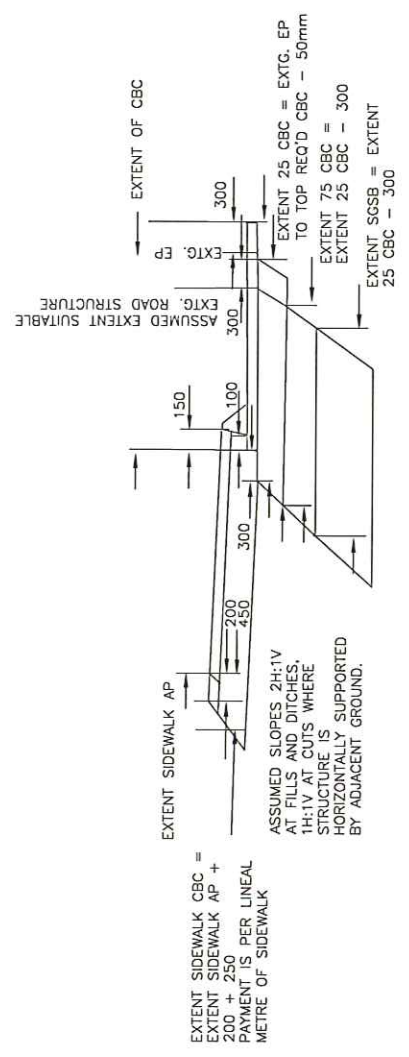
- .1 The lump sum price for this works shall be relative to the actual costs involved but shall not exceed six percent (6%) of the Total Contract Price (excluding GST).
- .2 Payment will be made as follows, as approved by the Engineer:
1. Mobilization and Bonding and Insurance will be included in the first progress payment certificate,
  2. Demobilization will be included in the final progress payment certificate.
  3. Note that the Engineer may recommend partial payment if the works are incomplete.

**2.0 PRODUCTS NOT USED**

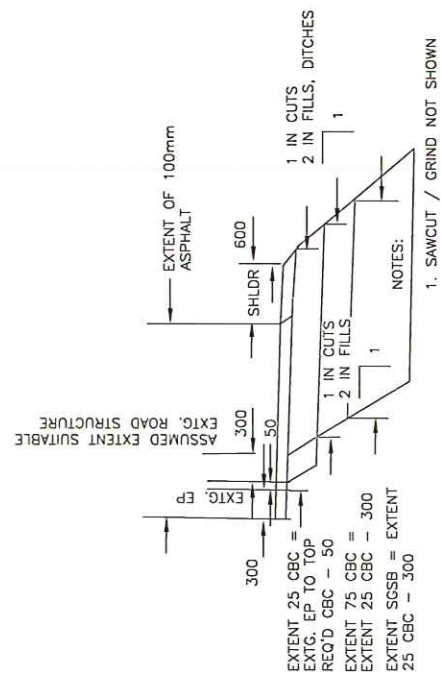
**3.0 EXECUTION NOT USED**

NOTES:

1. THE CONTRACTOR IS EXPECTED TO USE MORE GRAVEL THAN INDICATED DUE TO CONSTRUCTION TOLERANCES, CONSTRUCTION METHODS, WASTE, ETC. CONTRACTOR TO TAKE THIS INTO ACCOUNT IN HIS PRICING. CONTRACTOR TO INCLUDE FOR THIS WASTE IN HIS UNIT PRICE.



ROAD WIDENING WITH CURB/GUTTER AND SIDEWALK  
SCALE: NTS



ROAD WIDENING ONLY  
SCALE: NTS

**JEA**  
J.E. ANDERSON  
& ASSOCIATES  
SURVEYORS -- ENGINEERS  
1A - 3411 SHENTON ROAD, NANAIMO, B.C. V8T 2H1  
TEL: 250 - 758 - 4031 FAX: 250 - 758 - 4600  
E-MAIL: nrd@jeaanderson.com

**CRPD**  
Making a difference...together

DESIGNED	DRAWN	SCALE	CHECKED	APP	DATE	DWG. NO.	REV.	PAGE
X.X.	J.B	NTS			07/29/19	APPENDIX A	1	24 of 24

SALT SPRING ISLAND - JEA 88678  
GANGES TRANSPORTATION INFRASTRUCTURE WORKS  
PAYMENT SECTIONS