



APPENDIX 'D'  
SUPPLEMENTAL GENERAL CONDITIONS



**REGIONAL DISTRICT OF FRASER-FORT GEORGE  
CONTRACT NO. ES-15-08  
BEAR LAKE WATER SYSTEM UPGRADES**

**Supplemental General Conditions**

**SGC 1**

Refer to the MMCD General Conditions of Contract, which apply to this Contract:

**Clause 3.0 Contract Administration**

3.3 Contract Administration

3.3.5 Delete this clause and replace with the following:

3.3.5 Unless otherwise specified in the Contract Documents, the Contract Administrator shall set out or cause to be set out survey monuments or control points at the Place of the Work, sufficient to enable the Contractor to determine the required lines and grades, and to set out the Work. The Contractor shall protect and preserve such monuments and control points for so long as they are required for the Work and if any of them must be replaced because they are disturbed or destroyed by the Contractor, then the Contractor shall pay the costs of such replacement.

To 3.3.5, add the following:

Add: The Contractor shall be responsible for survey layout required for the installation and construction of the pipeline, access road, and lagoon embankment. The Contractor shall furnish all assistance necessary to measure in and drive stakes and shall furnish such lines, straight edges, and stakes for locating line and grade.

Add: The Contractor shall, before commencing work at any point, satisfy himself as to the meaning and correctness of all stakes and works and no claims shall be entertained for any allowances based on alleged inaccuracies or for alternatives on account of his failure to read same correctly.

Add: If the Contractor, in the course of the work, finds any discrepancy between the drawings and the physical conditions of the locality or any errors or omissions in drawings or in the layout as given by points and instructions, it shall be his duty to immediately inform the Engineer, in writing, and the Engineer shall promptly verify the same. Any work done after such discovery, until authorized will be done at the Contractor's risk.

**SGC 2**

Refer to the MMCD General Conditions of Contract, which apply to this Contract:

**Clause 4.0 Contractor**

4.12 Tests and Inspections

4.12.4 Delete this clause and replace with the following:

4.12.4 The Contractor shall as part of the Work perform, or cause to be performed, all tests, inspections, and approvals of the Work as required by the Contract Documents, and if a test, inspection or approval requires a representative sample of materials or workmanship the Contractor shall at the Contractor's own cost supply the labour and materials necessary to provide the sample.

To 4.12.4, add the following:

Add: The Contractor shall be required to perform all Standard Proctor Density tests in compliance with ASTM D1557 for compaction of trench, driveways, roads, and any embankments. Frequency of tests to be determined by the Contract Administrator. Payment for the inspection and initial testing will be made by force account from the cash allowance specified in the Schedule of Quantities. If initial test determine materials or compaction is not as specified, the Contractor to take all steps necessary to correct deficiencies. Subsequent testing to Contractor's account.

**SGC 3**

Refer to the MMCD General Conditions of Contract, which apply to this Contract:

**Clause 18.0 Payment**

Delete this clause in its entirety and replace with the entire Clause 21 "Payment" of Part 1, the Invitation to Tender.

**SGC 4**

Refer to the MMCD General Conditions of Contract, which apply to this Contract:

**Clause 20.0 Laws, Notices, Permits and Fees**

Delete this clause in its entirety and replace with the entire Clause 18.0 "Licenses, Permits and Insurance" of Part 1, the Invitation to Tender.

**SGC 5**

Refer to the MMCD General Conditions of Contract, which apply to this Contract:

**Clause 21.0 Workers Compensation Regulations**

to the clauses of this section, add clause 21.4, as follows:

21.4 Worksafe BC

Add Clause 19 "Worksafe BC" of Part 1, the Invitation to Tender.

**SGC 6**

Refer to the MMCD General Conditions of Contract, which apply to this Contract:

**Clause 22.0 Indemnification**

Clause 22.1 Contractor to Indemnify

Delete Clause 22.1 and replace with Clause 20 “Indemnity” of Part 1, the Invitation to Tender.

**SGC 7**

Refer to the MMCD General Conditions of Contract, which apply to this Contract:

**Clause 24.0 Insurance**

Delete this clause in its entirety and replace with the entire Clause 25 “Insurance” of Part 1, the Invitation to Tender.

**SGC 8**

This Supplemental Condition provides for the mechanism of measurement and payment of the work.

**Measurement and Payment Section**

**Description of Pay Items**

The Sections, titles and numbering of the items which follow match the numbering in the Schedule of Quantities and Prices which appears in Part 1 of these documents, the Invitation to Tender. They describe the basis of the measurement and payment of individual items of work or payment for contract requirements. The completed work of this Contract shall be measured and paid for in accordance with this Section.

This section shall take precedence over Measurement and Payment clauses which may appear in other sections of this document.

**SECTION 1: GENERAL**

**Item 1.0**

**Mobilization and Demobilization**

- .1 This item refers to the cost of mobilizing / transporting the work force, equipment and materials to site to commence the work, including work associated with Section 01535 Temporary Facilities, permits, temporary communications, electrical or water supply and again at the end of the project after commissioning to remove all temporary facilities from site and leave the site in an ‘as found’ condition.
- .2 Payment will be made as follows:
  - 60% of the item price at the start of the actual construction
  - 40% at the end of the project after the site has been vacated

**Item 1.1 Insurance, Bonding, Safety Program, Env Protection, etc.**

- .1 This item refers to all the ‘soft costs’ associated with the project, including but not limited to Insurance, Bonding, Workers Compensation contribution, Environmental Protection, Safety Programme, Traffic Regulation, Project Documentation, Meetings, Reference Specifications, set-out, maintaining record drawings, overheads, operational costs and the like, necessary to run and manage the project but not included in pay items elsewhere.
- .2 Payment for this item will be made as follows:
  - 40% of the item price after award and prior to the start of construction
  - 15% per pay certificate thereafter (four equal payments).

**Item 1.2 Materials Testing**

- .1 This item refers to materials or compaction testing that is required during backfilling or construction of bedding gravels, trenches, driveways and roads.
- .2 If a materials or compaction test determines materials or compaction are not as specified, the Contractor shall take the necessary steps to correct deficiencies. The cost of subsequent testing shall be to the Contractor’s account.
- .3 Payment for this item will be made for initial tests which do not fail, using the Force Account procedure under the identified ‘allowance’ in the Schedule of Quantities and Prices.

**SECTION 2: WATER SYSTEM DISTRIBUTION LOOPING**

**Item 2.0 Clearing and Grubbing**

- .1 This item refers to the clearing and grubbing required to install the watermain off the end of Cub Avenue.
- .2 Measurement for clearing and grubbing items will be based on the areas to be cleared and grubbed shown on Contract Drawings.

- .3 Payment for clearing and grubbing items includes removal and disposal of all branches, stumps, timbers, and vegetation remains, and all other labour, material, equipment, and work necessary. Cleared and grubbed waste material may be stockpiled adjacent to the cleared area at a location to be determined with the Contract Administrator and may be disposed of by burning. The Contractor remains responsible for burning of rubbish, fire control, and burning permits and for grading the burnt stockpile.

**Item 2.1**

**Stripping**

- .1 This item refers to the stripping and stockpiling of topsoil to the depth indicated on the drawings or as agreed in the field, (including reuse of the stockpile for reinstatement) of cleared and grubbed areas and also where required to construct the works as shown on the Contract Drawings where vegetation and topsoil exists.
- .2 Measurement shall be by the square metre (m<sup>2</sup>) of area stripped, ready for construction.
- .3 Payment shall be made on the measured area and the unit price tendered for topsoil stripping.

**Item 2.2**

**Watermain Connections**

- .1 This item refers to connections where the watermain of this contract connect to the existing watermain system.
- .2 This item includes locating the connection point, co-ordinating with the Regional District to find and close relevant isolation valves, coordinating with the Regional District to notify residents, excavation (by machine and manually) to expose the connection point including shoring and dewatering if necessary, removing any valves, fittings, appurtenances and thrust blocks necessary to make the connection, cutting, preparing the existing pipe and connecting the new pipe, swabbed disinfection as required, backfilling of the connection.
- .3 Payment for watermain connections shall be at the unit price tendered per watermain connection for any pipe diameter.

**Items 2.3 and 2.4****Watermain**

- .1 This item refers to the new buried watermain to be constructed as a part of the work of this contract
- .2 Measurement for watermain will be by the linear metre (lm) made along centreline of main, through valves and fittings (no deduction for length of valves or fittings) measured over the ground surface after work has been completed.
- .3 For watermain and service connections, the work includes saw cutting pavement, trench excavation, disposal of surplus excavated material, pipe bedding and pipe surround material as shown on the typical trench cross-section (supply and installation), supply and installation of all pipe, bolts, gaskets and tie rods, poured-in-place concrete thrust blocks (and formwork and supply and placement of concrete as specified in Section 03300 - Cast-In-Place Concrete), imported or native backfill and its compaction as shown on the Drawings, cleaning, pressure and leakage testing, flushing, disinfection, surface restoration identified in Section 02223 - Excavating, Trenching and Backfilling - 3.6, except permanent pavement restoration, and all other work and materials necessary to complete the installation as shown on the Drawings and specified under Section 02666 Waterworks.
- .4 Payment for watermain shall be at the unit price tendered and will be made separately for various sections of watermain consistent with pipe materials and diameters, depths of mains and backfill requirements shown on Contract Drawings and described under the individual payment items in the Schedule of Quantities and Prices.

**Items 2.5 to 2.12****Valves, Fittings and Appurtenances**

- .1 This item refers to watermain component items to be constructed as a part of the installation of the watermains.
- .2 This item includes but is not limited to, mechanical joints, couplings, bends, reducers, tees, crosses, end caps, blind flanges, special fittings, joint restraints, valves and valve boxes, stem extensions and nut rings. This item includes supply and installation.

- .3 Measurement shall be per item (each).
- .4 Payment will be at the unit price tendered for each respective item installed.

**Item 2.13**

**Board Insulation**

- .1 This item refers to rigid board insulation used to protect the watermain thermally where the pipe depth of bury is insufficient by circumstance to provide this protection.
- .2 This item includes the supply and installation of the board insulation around the pipe bedding gravels, as shown on the drawings.
- .3 Measurement shall be per square metre (m<sup>2</sup>) of board installed.
- .4 Payment shall be at the unit price tendered for each square metre measured.

**Item 2.14**

**Asphalt Removal and Restoration**

- .1 This item refers to the removal of asphalt driving surfaces and the road base gravels below them and their subsequent replacement in order to undertake the watermain work and the subsequent restoration. The extent of work is anticipated to be at the end of Cub Road but may be 'as required' depending on field conditions.
- .2 This item includes the saw cutting of the existing asphalt surface and excavation and stockpiling of road base and sub-base aggregate, provided it is not cross-contaminated, the re-installation of the base and sub-base gravels if suitable, or the replacement (supply and installation) of base and sub-base aggregate (150mm IGB, 750 SGS) in addition to the supply and installation of a hot-mix 75mm thick asphalt finishing surface. This item includes the removal and disposal off-site, of contaminated or surplus material, at a location of the Contractor's discovery.
- .3 Measurement shall be per square metre (m<sup>2</sup>) of asphalt installed.
- .4 Payment shall be by the measured area at the unit price tendered for each square metre measured.



**Items 2.15**

**Remove/Reinstall Hydrant Assembly**

- .1 This item refers to the existing hydrant in between the two ball fields which requires relocation.
- .2 This item includes but is not limited to, mechanical joints, tie-rods, couplings, joint restraints, valves and valve boxes, stem extensions and nut rings and the re-use of the existing hydrant as shown on the drawings. This item includes supply and installation of the required items.
- .3 Measurement shall be per item (each).
- .4 Payment will be at the unit price tendered for each respective item installed.

**Items 2.16**

**Remove/Reinstall Ball Diamond Fence**

- .1 This item refers to the existing fence in between the two ball fields which requires removal in order to be able to undertake the work and then reinstallation of the fence to a better condition after backfilling and reinstatement has been completed.
- .2 This item includes but is not limited to the neat removal and replacement of the fence. Unavoidable damage to the fence during removal will be rectified by the Force Account procedure but avoidable damage requiring replacement of the fence will be to the Contractor's account.
- .4 The limits of the work required shall be agreed in the field with the Contract Administrator prior to the removal of the fence.
- .5 Measurement shall be per lineal metre (lm) along the length of fence which has been agreed to be removed.
- .6 Payment will be at the unit price tendered for the measured length of the completed work.

**Item 2.17**

**Landscaping or Supplemental Reinstatement (allowance)**

- .1 This item refers to landscaping or reinstatement work which might be required as a result of the work of this contract and which might be triggered by the citizens or by the Regional District.

- .2 Reinstatement of the contract work is required under the unit rates generally, except where provided for otherwise. Expenditures under this item will only be as initiated or authorized by the Contract Administrator.
- .3 Payment for this item will be made using the Force Account procedure in the General Conditions of Contract under the identified 'allowance' in the Schedule of Quantities and Prices.

### **SECTION 3: PACKAGED PSV STATION**

#### **Item 3.0**

#### **Packaged PSV (Pressure Sustaining Valve) Station**

- .1 This item refers to the packaged PSV station at the cul-de-sac end of Cinnamon Street.
- .2 This item includes but is not limited to: - shop drawings, supply, delivery, and installation of materials and equipment, pre-fabrication, pre-testing, excavation, backfilling, compaction, finish grading, reinstatement, disinfection, supply and installation of the pre-cast, pre-engineered, packaged PSV station complete as shown on the drawings and detailed in the specifications, including on-site training, start-up and commissioning by the manufacturer, record drawings and operation and maintenance manuals.
- .3 Measurement shall be Lump Sum of the designated item (LS) installed.
- .4 Payment will be at the unit price tendered for the respective item.

#### **Items 3.1**

#### **Isolate, Excavate, Remove Existing Pipe at PSV**

- .1 This item refers to the existing water pipe at the location of the packaged PSV station at the cul-de-sac end of Cinnamon Street.
- .2 This item will be measured and paid for as for Item 2.2 - Watermain Connections, above. The removal and disposal of the existing watermain section through this location shall additionally be included in this item.

**Items 3.2 and 3.3**

**Watermain**

- .1 These items will be measured and paid for as for Items 2.3 and 2.4 - Watermain, above.

**Items 3.4 to 3.7**

**Valves, Fittings and Appurtenances**

- .1 These items will be measured and paid for as for Items 2.5 to 2.12 - Valves, Fittings and Appurtenances above.

**Item 3.8**

**Drain Pipe**

- .1 This item refers to the drain pipe connected to the PSV chamber and which drains towards the lake.
- .2 For drainpipe, the work includes: - trench excavation, disposal of surplus excavated material, pipe bedding and pipe surround material (supply and installation), supply and installation of the pipe, discharge flap valve, imported or native backfill and its compaction as shown on the typical trench cross-section on the Drawings, surface restoration identified in Section 02223 - Excavating, Trenching and Backfilling - 3.6, and all other work and materials necessary to complete the installation as shown on the Drawings and as specified.
- .3 Measurement for the pipe will be by the linear metre (lm) made along centreline of the pipe, measured over the ground surface after work has been completed.
- .4 Payment for drain pipe shall be the measured length in place at the unit price tendered.

**Item 3.9**

**Bollards**

- .1 This item refers to the bollards required at the PSV station.
- .2 This item includes supply and installation of the bollards as shown on the drawings, including excavation, concrete, concrete fill and painting.
- .3 Measurement for the bollards will be by the unit (each / ea) installed.
- .4 Payment will be for each unit at the unit price tendered.

**SECTION 4: CHLORINATION SYSTEM****Item 4.0****Chlorination System**

- .1 This item refers to the chlorination disinfection system required at the Bear Lake well pumping station.
- .2 This item includes supply and installation of the chlorination system complete including:- shop drawings, materials and equipment, pre-fabrication, pre-testing, delivery, supply and installation of packaged and component chlorination system complete as shown on the drawings and detailed in the specifications, including electrical and mechanical (pipe) connections, on-site training, start-up and commissioning by the manufacturer, record drawings and operation and maintenance manuals.
- .3 Measurement shall be Lump Sum (LS) for the completed installation.
- .4 Payment will be at the unit price tendered for the respective item.

**Item 4.1****Eye-wash Station**

- .1 This item refers to the eye-wash station required at the Bear Lake well pumping station.
- .2 This item includes supply and installation of the eye-wash station complete including:- shop drawings, supply and installation of the station as shown on the drawings and detailed in the specifications, operation and maintenance manuals.
- .3 Measurement shall be Lump Sum (LS) for the completed installation.
- .4 Payment will be at the unit price tendered for the respective item.

**Item 4.2****Relocate Existing Wall-mounted Compressor**

- .1 This item refers to relocating the existing wall-mounted compressor at the Bear Lake well pumping station.
- .2 This item includes removing the compressor and its supports from its existing location and remounting same at the location

shown on the drawings, including supply and installation of wall anchors, brackets, shelf and fasteners, as required.

- .3 Measurement shall be Lump Sum (LS) for the completed installation.
- .4 Payment will be at the unit price tendered for the respective item.

#### **SECTION 5: SCADA AND CONTROLS**

- .1 Items in this Measurement and Payment “Section” refer to SCADA, Controls and Communications upgrades/alterations to be made at the Bear Lake well pumping station and in the Bear Lake Community offices / fire hall.
- .2 The items under this Section include all the work specified in Section 16000 – Electrical and Instrumentation.
- .3 There will be no measurement for the work under this Section as such.
- .4 Payment for items under this Section shall be at the unit price tendered and will be made separately under the various scopes of SCADA, controls, electrical and instrumentation consistent with the individual items and requirements shown on the Contract Drawings and described in Section 16000 – Electrical and Instrumentation and found under the associated payment items in the Schedule of Quantities and Prices.

\*\*\* END SUPPLEMENTAL GENERAL CONDITIONS \*\*\*