



REQUEST FOR QUOTATION

RFQ-2018-02

Garnet Dam Access Road Bridge

Issue Date: April 4, 2018

One (1) complete printed copy of the Quotation in a sealed envelope plainly marked "RFQ-2018-02 Garnet Dam Access Road Bridge" may be hand delivered, couriered, mailed and must be received prior to the Closing Date and Time or one (1) complete copy of the Quotation with subject line clearly stating "RFQ-2018-02 Garnet Dam Access Road Bridge" may be emailed and must be received prior to the Closing Date and Time. Please note that the District will not be responsible for any transmission problems that may occur. Faxed copies will not be accepted.

RFQ Closing Time: 2:00 pm PST

RFQ Closing Date: **Wednesday, April 11, 2018**

Delivered to: Devon van der Meulen
Manager of Utilities
District of Summerland
9215 Cedar Avenue, Box 159
Summerland, BC, V0H 1Z0
dvandermeulen@summerland.ca

It is the sole responsibility of the Contractor to check the District's website at www.summerland.ca for any updated information and/or addenda issued before the closing Date and Time. The District's website is the only authorized website to obtain competitive bid documents for District of Summerland opportunities. The District of Summerland shall not be held responsible for our competitive bid documents that may be located on any other website.

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1. INTRODUCTION

1.1 General

This Request for Quote (RFQ) is being issued by the District of Summerland ("the District") who is soliciting Quotes from qualified Contractors ("the Contractor") with a demonstrated expertise in this type of project.

The general scope of work to be considered under the terms of this RFQ is outlined in Schedule 'A' – Scope of Work.

The Contractor must demonstrate compliance with all applicable bylaws and regulations of the District and all applicable laws of the Province of British Columbia and the Government of Canada.

2. INSTRUCTIONS TO CONTRACTORS

2.1 Responsibility of Contractors

It is the responsibility of the contractor to check the District's website for any addenda. Contractors must acknowledge receipt of all addenda in the quotation package.

2.2 Not a Tender

This RFQ is not a tender call and the submission of any response to this RFQ does not create a tender process. This RFQ is not an invitation for an offer to Contract and it is not an offer to Contract made by the District.

By this RFQ, the District reserves the absolute and unfettered discretion to invite submissions, consider and analyze submissions, select and shortlist Contractors, or attempt to negotiate a Contract with the Contractor that the District considers the most preferable.

2.3 Local Conditions

It is the Contractor's responsibility, either personally or through a representative, to examine the Project site to determine local conditions and all matters pertaining to the Work. The Contractor is fully responsible for obtaining all information necessary for the preparation of their Quote. By submitting a Quote, the Contractor is confirming that he has examined the Project site, or that he has specifically elected not to do so. No additional payment will be claimable or due because of difficulties experienced by the Contractor relating to any condition which was reasonably foreseeable by a Contractor qualified to undertake the Work.

2.4 Contract Documents

Contractors shall carefully examine the Contract Documents and shall fully inform themselves as to all existing conditions and any limitations that may affect the execution of the Work. No consideration will be given, after the submission of a Quote, to any claim that there was any misunderstanding with respect to the terms and conditions imposed by the Contract Documents.

2.5 Submission of Quotes

- a. One (1) complete printed copy of the Quotation in a sealed envelope plainly marked "RFQ-2018-02 Garnet Dam Access Road Bridge" may be hand delivered, couriered, mailed and must be received prior to the Closing Date and Time or one (1) complete copy of the Quotation with subject line clearly stating "RFQ-2018-02 Garnet Dam Access Road Bridge"

may be emailed and must be received prior to the Closing Date and Time. Please note that the District will not be responsible for any transmission problems that may occur.

The Quote shall be submitted to the attention of:

Devon van der Meulen
Manager of Utilities
District of Summerland
9215 Cedar Avenue, Box 159
Summerland, BC, V0H 1Z0
dvandermeulen@summerland.ca

Quotes may be couriered, mailed or emailed. Please note that the District will not be responsible for any transmission problems that may occur.

- b. Quotes are to be submitted on or before **2:00 pm PST, Wednesday April 11, 2018** (the 'Closing Time and Date'). Quotes received after the Closing Time and Date will not be considered and will be returned to the Contractor unopened.
- c. The Quote shall be submitted on the attached Quote Form as outlined in Schedule 'B' and include:
 - i. the Contractor's legal status and business address;
 - ii. signatures of a duly authorized official and, in the case of a Corporation, be sealed with the Corporate Seal.
- d. The cover of the Quote shall include the name and address of the Contractor and be clearly marked "RFQ-2018-02 Garnet Dam Access Road Bridge".
- e. Written amendments to a Quote will be permitted if they are received prior to the Closing Date and Time and are endorsed by the same parties who signed and sealed the original Quote. All amendments shall include the name and address of the Contractor and be clearly marked "RFQ-2018-02 Garnet Dam Access Road Bridge".
- f. Contractors are advised that, except as expressly and specifically permitted in these Instructions to Contractors, no Contractor shall have any claim for any compensation of any kind whatsoever, as a result of participating in the Request for Quotation and by submitting a bid each Contractor shall be deemed to have agreed that it has no claim.
- g. Contractors are advised to contact the District, as per item 2.3.b to discuss any questions or issues regarding this competition.
- h. The District will issue a written Notice of Removal to any Contractor whose submission is being removed from consideration for this competition.

A Contractor who wishes to dispute the Notice of Removal must submit a formal written appeal to the District of Summerland's Director of Works and Utilities within five (5) working days of the issuance of the Notice of Removal or before the Request for Quotation closing date and time, whichever is earliest.

The appeal must clearly state the reasons the Contractor feels their submission should be reinstated. Under this process, if the Contractor is not satisfied with the Director of Works and Utilities decision, then the appeal will be submitted to the Chief Administrative Officer who, at his sole discretion, will make the final decision.

2.6 Addenda

- a. A Contractor must immediately notify the District if they find discrepancies or omissions in the RFQ or if they have any doubt as to the meaning or intent of any part of the RFQ.
- b. Every request for an interpretation shall be made in writing and addressed and forwarded to:

Devon van der Meulen
Manager of Utilities
District of Summerland
9215 Cedar Avenue, Box 159
Summerland, BC, V0H 1Z0
dvandermeulen@summerland.ca

- c. All responses to queries regarding this RFQ will be made by the District in a form of a written addendum.
- d. The District will not be responsible for or be bound by any verbal instructions, interpretations, or explanations issued by its officials, employees, agents, successors, or assigns.
- e. Addenda will be posted on the District of Summerland website at www.summerland.ca. It is the sole responsibility of the Contractor to check the District's website for any addenda issued before the closing Date and Time.
- f. Contractors must acknowledge receipt of all addenda in their Quote.
- g. Addenda may be issued up to 48 hours prior to the Closing Date and Time. After this time the RFQ will be considered complete and no further Addenda will be issued.
- h. For emailed or faxed inquiries, the Contractor takes full responsibility for the risk that the inquiry may not reach the intended recipient.

2.7 Acceptance or Rejection of Quotes

- a. The District reserves the right to:
 - consider and analyze Quote submissions;
 - meet with the Contractors, either individually or collectively, to discuss the RFQ and their submissions;
 - negotiate any changes, amendments, or modifications with the preferred Contractor, without offering the other Contractors the right to amend their Quotes;
 - cancel this RFQ at any time without incurring liability to any Contractor;
 - reject any or all Quotes;
 - accept any Quote whether complete or not;
 - not accept the Quote with the lowest Contractor Fee; and
 - alter any aspects of this RFQ.
- b. A Quote may be rejected for reasons that include, but are not limited to, the following:
 - the District considers a Quote not in the District's best interest;
 - incomplete, conditional, or non-compliant submissions;
 - obscure or irregular erasures or alterations;

- omitted or unbalanced prices;
 - insufficient or irregular guarantees;
 - insufficient evidence of qualifications, experience, financial stability, or capacity to perform the Work; or
 - sub-standard performance of similar Work.
- c. The District will notify the successful Contractor through the issuance of a formal written 'Notice of Award'.

2.8 Validity Period

Quotes shall remain valid and irrevocable for thirty (30) days after the Closing Date and Time.

3. GENERAL CONDITIONS

3.1 Definitions

In the Contract Documents, unless the context requires otherwise,

- a. **Contract Documents** means the documents outlined in Section 3 - Contract.
- b. **Contract Fee** means the lump sum rates as outlined in Schedule 'B' – Quote Form.
- c. **Contractor** means the individual, firm, co-partnership, or corporation retained by the District to perform the Work in accordance with the Contract Documents.
- d. **Contractor's Superintendent** means the Contractor's on site representative who is responsible on a daily basis to ensure the Work is completed in accordance with the Contract Documents.
- e. **CAO** means the Chief Administrative Officer, as appointed by the Council of the District, and his duly appointed representative.
- f. **District** means the Corporation of the District of Summerland.
- g. **District's Representative** means that person or persons appointed by the CAO to manage and administer the Contract.
- h. **Equipment** means anything and everything, except persons and material, used by the Contractor in the performance of the Work.
- i. **Person** means an individual, a body corporate, a firm, partnership, association, or any other legal entity or an employee or agent thereof.
- j. **Work** means all materials, labour, equipment, transportation, traffic control or other ancillary items required by the Contractor to complete the Work, in accordance with the Contract Documents.

3.2 Notice to Proceed

- a. The CAO will issue a formal Notice to Proceed.
- b. The Contractor must commence the Work on the date specified in the Notice to Proceed.

3.3 Changes to the Scope of Work

- a. Where the District requests the Contractor to provide Work that the Contractor considers is not included in the original scope of work, the Contractor must notify the District that a change order will be required.
- b. The District shall not be required to pay for any Work not included in the Scope of Work unless the District's Representative approves a Change Order prior to the Contractor performing the Work.

3.4 Payment

- a. The Contract Fee shall be firm, expressed in Canadian currency, and shall be all inclusive for the Work. GST shall be in addition to the Contract Fee.
- b. The District will pay the Contractor within 30 days from the date the Contractor submits an invoice for payment.
- c. The District's Representative may request the Contractor to submit, at no cost to the District, with the final invoice, a Statutory Declaration or other proof, that there are no outstanding costs, assessments, liens, or claims against the Contractor or against the District's property arising out of or in connection with the Work.

3.5 Taxes, Tariffs, and Duties

The Contractor is responsible for all taxes, tariffs, and duties applicable to labour, Work and equipment and these taxes, tariffs, and duties shall be included in the Contract Fee. notwithstanding, GST shall be billed as a separate item.

3.6 Payment Withheld

- a. The District may withhold or nullify the whole or part of any payment to the extent necessary to protect themselves from loss due to one or more of the following:
 - i.. the Contractor is not performing the Work to the satisfaction of the District's Representative;
 - ii defective Work is not being remedied;
 - iii. there is an affidavit, claim of lien, or lien filed against the equipment on which the Work is done or is being done, or reasonable evidence of the probable filing of an affidavit, claim of lien, or lien;
 - iv. the Contractor is failing to make prompt payments to anyone employed by the Contractor in connection with the Work; or
 - v. an unsatisfied claim exists for damages caused by the Contractor in connection with the Work.
- b. Where subcontractors or Contractors of material are not receiving prompt payment, the District may deduct the amount of such payments from amounts otherwise due to the Contractor and will, if deducted, hold these funds in trust until such time as the Contractor has resolved the issue to the satisfaction of the CAO.

3.7 Wages and WorkSafe BC

- a. The Contractor shall comply with the requirements of the British Columbia Employment Standards Act, the Workers Compensation Act, and all other applicable federal and provincial legislation regarding wages and labour regulations.
- b. The Contractor shall, upon request by the District, provide proof of payment in good standing with WorkSafe BC.

3.8 Permits

The Contractor shall, at their own expense, procure all permits, certificates, and licenses required by law for the execution of the Work.

3.9 Bankruptcy or Default by Contractor

- a. If the Contractor:
 - is adjudged bankrupt; or
 - makes a general assignment for the benefit of creditors due to insolvency; or
 - has a receiver appointed because of his insolvency, the District may, without prejudice to any other of the District's rights or remedies, give the Contractor, the receiver, or the trustee written notice and terminate the Contract.
- b. If the Contractor fails to perform the Work in accordance with the Contract Documents, the District may provide written notice informing the Contractor that he is in default of his contractual obligations and instruct the Contractor to correct the default within five days, or such other longer specified time as outlined in the notice.
- c. If the Contractor fails to correct the default within the time specified, the District may, without prejudice to any other of the District's rights or remedies,
 - correct the default and deduct the District's direct costs from any payment owing to the Contractor or any security held by the District; and/or
 - deduct any portion of the remaining Work from the Contract; or
 - terminate the Contract.

3.10 Dispute Resolution

- a. The CAO shall be the interpreter of the requirements of the Contract.
- b. In the event of any Dispute, which shall be any disagreement or misunderstanding between the District and the Contractor after initial attempts at resolution, either party may provide the other with a written summary of the Contract question at issue and the redress sought. Within fourteen calendar days of receipt of such communication the recipient shall acknowledge and respond in writing addressing all the issues raised in the initial communication or request a time extension.
- c. If a party does not provide any written response to the written communication issued as per the foregoing, the communication will be deemed to have been accepted by the receiving party.
- d. If there is an exchange of communication and issues remain unresolved, both parties shall:
 - i. make immediate bona fide efforts to resolve the outstanding issues by amicable negotiations involving the assistance of senior persons in both parties' organizations and;
 - ii. provide frank, conditional, and timely disclosure of all relevant facts, information, and documents to facilitate those negotiations.
- e. If the dispute cannot be settled within fourteen calendar days of the end of the above negotiations, or such other time period as agreed to by both parties, the dispute may be referred to and finally resolved by arbitration conducted by a single arbitrator, agreed to by both parties, and under the rules of the British Columbia International Commercial Arbitration Centre. The place of arbitration shall be in Summerland, B.C. unless otherwise agreed to by both parties. The findings of the arbitrator shall be final and binding upon both parties.
- f. The Contractor shall not delay any of the Work on account of or during any dispute, negotiation, or arbitration proceedings. The parties shall each bear their own costs

throughout the process and the costs of a mediator or arbitrator shall be divided equally between the parties.

3.11 Termination Notice

A termination notice shall be in writing, delivered by registered mail, and specify the date the Contract will be terminated and the date the Contractor must vacate the place of Work. Termination notice must be a minimum of 30 days unless the termination is due to fraud, dishonesty, bankruptcy, default, or other significant issue that irrevocably damages the relationship between the District and the Contractor.

3.12 Remedies

On any early termination of the Contract by the District:

- i. The District shall pay to the Contractor the money owing to them under this Contract to the date of termination and upon such payment being made the District shall have no further obligation to the Contractor under this Contract; and
- ii. If the Contractor's right to perform the Work is terminated in accordance with the provisions of the Contract, the District shall not be liable to the Contractor for any damage or loss, including economic loss, sustained, or suffered by the Contractor as a result of any action taken by the District.

SCHEDULE 'A' – SCOPE OF WORK

The District of Summerland is requesting quotes from qualified bidders for the Installation of the Garnet Dam Access Road Bridge. Contractor are to supply all labour, equipment, materials and supplies to complete the construction and installation of the bridge. The project includes but may not be limited to the following:

1. Site preparation includes excavation and backfill
2. Supply and install abutments
3. Supply and install bridge and deck
4. Remove existing culvert including regrading of channel
5. Supply and install rip-rap
6. Re-align roadway to match new bridge
7. Install bridge load rating signage
8. Modify existing fence and gate to match new alignment

SCHEDULE ‘B’ – QUOTE FORM

The Supplier may provide information on a separate page if there is insufficient room on this page.

Supplier Information

Contact: _____

Company Name: _____

Address: _____

Schedule of Quantities and Prices

Pricing to be evaluated and will be awarded based on pricing, term, and lead time the District deems most beneficial to its interests. The lump sum rates shall be all inclusive and include, but not be limited to, all materials, labour, equipment, delivery, and all applicable taxes and levies, excluding GST and PST.

Item	Description	Unit	Quantity	Unit Price	Total Price
1	Mob / Demob	ls	1		
2	Excavation site prep, removal and compaction	ls	1		
3	Abutments Supply and Install	ls	1		
4	Bridge Supply and Install	ls	1		
5	Fence and Gate Repair	ls	1		
6	Realign and regrade roadway	ls	1		

Quoted Price _____

GST _____

PST _____

TOTAL QUOTED PRICE _____

Lead Time

Describe the estimated lead time required for delivery of your product

Schedule

Describe the estimated schedule to complete the project

Contractor by its authorized signatories:



SCHEDULE 'C' - **SAMPLE** CONTRACT

Garnet Dam Access Road Bridge

Reference Number: 2018-02

THIS CONTRACT made in duplicate and entered into effective as of the _____ day of _____, 201__.

BETWEEN:

The Corporation of the District of Summerland
Box 159, 13211 Henry Ave
Summerland, BC V0H 1Z0

(hereinafter referred to as the "District")

AND:

Contractor name
Contractor address

(hereinafter referred to as the "Contractor")

NOW THIS CONTRACT WITNESSETH that in consideration of their mutual rights and obligations to one another as hereinafter set forth the parties hereto agree as follows:

1.0 Contract Description

The Work for which this Contract pertains to is titled **Garnet Dam Access Road Bridge** and hereinafter shall be referred to as the "Project".

2.0 Contract Documents

The Contract Documents, in order of precedence, for which this Contract pertains, are:

- Instructions to Contractors
- General Conditions
- Schedule 'A' – Scope of Work
- Schedule 'B' – Quote Form

Where there is a conflict between the wording and interpretation of the Contract Documents the wording or interpretation contained in the Contract Document with the highest precedence shall apply.

3.0 Successors or Assigns

- a. This Contract and the terms and conditions herein contained shall ensure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors, and assigns.

- b. Neither party shall assign this Contract, or any portion thereof, without the prior written consent of the other.

4.0 Applicable Laws

This Contract shall be governed by the laws of the Province of British Columbia.

5.0 Waiver

The waiver by the District of any breach of this Contract by the Contractor, shall not require, nor be construed to require, the District to waive any subsequent breach of the same condition, covenant, or obligation.

6.0 Indemnification

- a. The Contractor shall indemnify and save harmless the District, its elected officials, officers, agents, servants and employees from and against all losses and all claims, demands, payments, suits, actions, recoveries, and judgments of every nature and description brought or recovered against them and the District, by reason of any act or omission of the Contractor, their agents, employees, or subcontractors in the execution of the Work and shall pay any and all legal or other costs incurred by the District as a result of such act or omission.
- b. The Contractor hereby waives all rights of recourse against the District, its elected officials, officers, agents, servants and employees with regard to damage to the Contractor's property.

7.0 Entire Contract

This Contract constitutes the sole and entire Contract between the District and the Contractor relating to the Work and completely supersedes and abrogates any prior Contracts existing between the District and the Contractor whether written or oral.

8.0 Notification

- a. All Notices shall be in writing.
- b. Notices between the parties shall be considered to have been received by the addressee:
 - on the date of delivery if delivered by hand to the individual or to a member of the company for whom they are intended;
 - within one working day if sent by email;
 - within five working days if sent by mail or fax.

c. Notices must be sent to the following addresses:

The Corporation of the District of Summerland

Box 159, 13211 Henry Avenue

Summerland, BC, V0H 1Z0

and

Contractor Name

Contractor address

IN WITNESS WHEREOF the parties have executed this Contract on the day and year written above by their officers or persons duly authorized to execute on their behalf.

THE CORPORATION OF THE DISTRICT OF SUMMERLAND by its authorized signatories:

CONTRACTOR by its authorized signatories:

District of Summerland – Garnett Dam Spillway Bridge

Specifications

Revision 0

3					
2					
1					
0	Mar 2018	FR	RA	Issued for Construction	RA
Rev.	Date	By	Chk	Description	Approved

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Disclaimer

This report has been prepared by Austin Engineering Ltd. (Austin Engineering) for the benefit of the client to whom it is addressed (Client) and for the express purpose described herein. In some circumstances, the scope of services may have been limited by a range of factors, including, without limitation, time, budget and other constraints. This report pertains to a specific site, a specific development and a specific scope of work. This report is not applicable to any other site, nor should it be relied upon for types of development other than the specific one to which it refers. Any variation from the site or proposed development would necessitate a supplementary investigation and assessment. Unless expressly stated otherwise, assumptions, data and information supplied by, or gathered from other sources (including the Client, other consultants, testing laboratories and equipment suppliers, etc.) (Third Party Data) upon which Austin Engineering's design and/or opinion as set out herein is based, has not been verified by Austin Engineering and may be incomplete. Austin Engineering makes no representation as to the Third-Party Data's accuracy and disclaims all liability with respect thereto.

Designs, plans and recommendations are provided for the specific purpose indicated herein and may need to be modified depending on new operating conditions and actual field conditions that may be discovered during subsequent investigations and construction. Austin Engineering expressly denies any responsibility for constructed works that are subject to new operating conditions that affect the integrity of the design. Sufficient monitoring, testing and consultation should be provided by Austin Engineering during construction to confirm that the conditions encountered are consistent with those anticipated, to provide recommendations for design changes should the conditions revealed differ from those anticipated, and to evaluate whether or not earthwork activities are completed in accordance with Austin Engineering's recommendations. The development of suitable options and final design modifications based on encountered conditions requires that Austin Engineering be commissioned for construction quality assurance and design review during construction when actual soil, hydrogeological and other conditions can be identified with certainty. Accordingly, Austin Engineering disclaims all responsibility for constructed works where Austin Engineering is not commissioned to provide site inspection, construction quality assurance and design review services during construction of works that have been designed by Austin Engineering.

Except as required by law, this report and the information and data contained herein are to be treated as confidential and may be used and relied upon only by the Client, its officers, directors, employees and those parties who has been expressly authorized to do so by Austin Engineering in writing, subject at all times to the terms and conditions of Austin Engineering's contract with Client. Austin Engineering denies any liability whatsoever to other parties, who may obtain access to this report, for any injury, loss or damage suffered by such parties arising from their use of, or reliance upon, this report or any of its contents without the express written consent of Austin Engineering and the Client.

1 General

Payment for work will be made at the prices bid for the Items appearing in the Schedule of Quantities and Unit Prices.

Any work called for which is not listed as an Item in the Schedule of Approximate Quantities and Unit Prices will not be paid for separately. The cost of such work shall be included in the prices bid for the Items in the Schedule of Approximate Quantities and Unit Prices.

The Owner may require an acceptable declaration from the Contractor transferring ownership of materials to the Owner.

1.1 Dewatering

Dewatering shall include all work required to ensure that all concrete is placed in the dry and protected from damage by water.

1.2 Access

Access for bridge construction consists of the necessary work and operations to allow for the movement and placement of personnel, equipment and materials on the Site to facilitate construction of the Work. Access includes, but is not limited to, the construction of temporary works including roads and associated cuts and fills and retaining walls.

1.3 Detour

Before removal of the existing culvert, the Contractor shall construct the new bridge to accommodate traffic.

After traffic has been permanently routed onto the new bridge, the Contractor shall remove the existing culvert and restore the channel bottom to match the configuration directly upstream of the culvert to the satisfaction of the Owner's Representative.

1.4 Foundation Excavation and Backfill

a) Excavation

All materials shall be removed as necessary for the construction of foundations or other works. Foundation excavations shall not be larger than is reasonably necessary. Excavations and adjacent roads and other facilities shall be protected as necessary by barricades and shoring.

Excavations shall be constructed in compliance with the applicable Workers Compensation Act, Occupational Health and Safety Regulations, BC.

b) Description of Material Types

"Solid rock" shall include all material of sufficient hardness to require breaking up by continuous drilling and blasting before removal, and boulders 1.5 cubic metres volume or more.

"Other materials" shall include all other solid materials which must be excavated.

No distinction shall be made between wet and dry excavation.

c) Preparation of Foundations

For excavations in material other than rock, care shall be taken to not disturb the bottom of the excavation. If the bottom of the excavation is disturbed, the Contractor shall remove and dispose of all disturbed material and shall replace it with material meeting the material, placement and compaction requirements of SS 201.40 "Bridge End Fill".

Where concrete is to be placed on rock, the rock surfaces shall be clean and free from any loose material.

Where, in the opinion of the Owner's Representative, the bottom of an excavation is not competent, the Owner's Representative may direct the Contractor to excavate deeper. The Owner's Representative may direct replacement of the incompetent material with material meeting the requirements SS 201.40 "Bridge End Fill" or with a concrete fill or sub-footing.

Unless underwater concreting is approved by the Owner, excavations for concrete structures shall be dewatered, if necessary, so that concrete is placed in the dry.

d) Backfilling

After the structures are sufficiently built, excavations shall be backfilled to the original ground contours, or as directed by the Owner's Representative.

Drainage course material shall be installed as shown on the Drawings. The gradation of drainage course material shall be as follows:

SIEVE SIZE mm	% PASSING BY MASS OF TOTAL SAMPLE
40	100
20	0 - 100
10	0

Excavated material which the Owner's Representative deems unsuitable for backfill will be replaced with bridge end fill.

In the case of excavation for footings, box culverts or manholes, no payment will be made for material removed outside vertical planes 600 mm outside the edges of the structures. Volumes shall be above the bottom of the excavations as shown on the Drawings or directed by the Owner's Representative.

In the case of excavation for bridge end fill, payment will be made for material removed to the neat lines as shown on the Drawings or as directed by the Owner's Representative and shall also cover loading, hauling and disposing of such material.

1.5 Bridge End Fill

Bridge end fill shall be constructed as shown on the Drawings and in accordance with the material, placement and compaction requirements of the SS 201.40 "Bridge End Fill".

The Contractor shall perform all quality control, sampling and testing required to verify that the completed bridge end fill meets the specified requirements. Sampling and testing shall include but may not necessarily be limited to; materials sampling, sieve analyses, laboratory proctor density testing and insitu density testing.

1.6 Supply and Fabrication of Structural Steelwork

Structural steelwork shall be supplied and fabricated in accordance with SS 421.

The Owner may require an acceptable declaration from the Contractor transferring ownership of materials to the Owner.

1.7 Shipping and Erection of Structural Steelwork

Structural steelwork shall be shipped and erected in accordance with SS 421.

1.8 Painting of Structural Steelwork

Structural steelwork shall be prepared and painted in accordance with SS 421.

1.9 Bearing Assemblies

The Contractor shall supply and install bearing assemblies acceptable to the Owner's Representative.

1.10 Riprap Protection

The Contractor shall supply and place riprap in accordance with SS 205 and as shown on the Drawings. Measurement and Payment shall be in accordance with this clause.

Supply and installation of riprap shall be carried out in accordance with SS 165 and shall meet the requirements of the environmental agencies as listed in these Special Provisions.

All material excavated in order to facilitate the placement of riprap shall be disposed of by the Contractor in a manner satisfactory to the Owner's Representative. Any excavated material, if suitable for riprap protection may be used with the acceptance of the Owner's Representative.

If material from new bedrock cuts in excess of 1000 m³ is to be used as rip-rap protection, the Owner's Representative may require the material be tested for acid rock drainage (ARD) or metal leaching (ML) as per Technical Circular T-10/04.

1.11 Restrainer Bolt Assemblies

Restrainer bolt assemblies shall be supplied, fabricated and installed in accordance with SS 422. All steelwork shall be galvanized.

Payment for restraints bolt assemblies will be made at the Lump Sum Price bid. Payment shall include quality control, shop drawings and the supply, fabrication, galvanizing and installation of the restraints bolt assemblies.

1.12 Drilling Dowel Holes, Supply and Placement of Grout

a) General

Dowel holes shall be drilled in the existing concrete at the locations and to the minimum depths indicated on the Drawings, for the installation of reinforcing steel dowels which project into new concrete. Existing concrete reinforcing steel shall not be cut when drilling holes. It is the Contractor's responsibility to determine the location of the existing reinforcing steel prior to drilling as required. In cases where a specified dowel hole location interferes with existing embedded reinforcing steel, the hole locations may be displaced from those shown on the

Drawings by up to 50 mm in any direction, provided that specified minimum clear cover is maintained in all cases. Where such adjustments are required, the Contractor shall inform the Owner's Representative, who will determine the new dowel hole locations.

All dowelled and abandoned holes shall be filled with a non-shrink grout acceptable to the Owner's Representative. Grout shall be placed according to the Manufacturer's specifications.

Dowels shall be installed to the full specified embedment length and in a manner that ensures complete bonding within the hole. Manufacturer's specifications and recommendations for application and installation shall be strictly adhered to.

After bonding, dowels shall be temporarily supported, as necessary, to prevent their movement during entire curing period as specified by the manufacturer. The dowels shall remain undisturbed and no load shall be placed on the dowels until the curing is complete.

1.13 Approach Roadways

The Contractor shall supply, haul, water and compact suitable road gravels to build up the roadway to provide smooth vertical alignment and to provide sufficient roadway width for the placement of roadside barriers as directed by the Owner's Representative.

1.14 Interlocking Concrete Block Retaining Walls

a) Concrete Blocks

Interlocking concrete blocks shall be Lock-Block® or alternate blocks acceptable to the Owner's Representative. Concrete shall comply with the specifications below:

Minimum 28 day compressive strength (MPa)	30
Nominal size of aggregate (mm)	28
Air content (%)	5% - 7%
Maximum slump (mm)	50 ± 20
Maximum water/cement ratio by weight	0.45
Minimum cement content (kg/m ³)	320

The retaining walls shall be constructed with precast monolithic concrete blocks in accordance with the dimensions, lines and grades shown on the Drawings. Blocks shall be 750 mm x 750 mm x (1500

mm or 750 mm) long chamfered on all sides, provided with shear keys, with a 12 mm clearance around the key, and steel lifting devices. All exposed surfaces shall have a smooth finish conforming to CSA CAN3-A23.4-00 Section 24.2.5 Grade A.

Consistency of finish shall be maintained with the use of the same concrete mix (individual blocks shall not contain cold joints) and the same type of form oil for the entire project. Non-exposed surfaces shall be of uniform surface finish, roughly screeded with no open pockets or distortions in excess of 12 mm.

The Owner's Representative reserves the right to reject concrete blocks based on visual and non-destructive methods.

The top course of blocks shall be bench style lock block with recessed lifting devices or inserts.

The top course of blocks shall be supplied flat topped without shear keys, and with recessed lifting devices or inserts.

b) Leveling Pad

25 mm of granular base course material compacted to 100% Standard Proctor Density shall be used for a leveling pad for the first layer of blocks.

c) Excavation and Backfill

Excavation and backfill shall be carried out to the neat lines and dimensions shown on the Drawings. Select granular sub-base material shall be used for backfill of the retaining walls. Free draining granular material if available, may be substituted for select granular sub-base material if acceptable to the Owner's Representative.

d) Perforated Sub-Drain Pipe

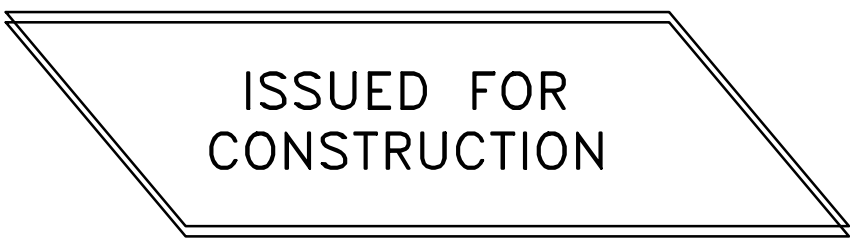
Perforated sub-drain pipe shall be installed to the neat lines and dimensions shown on the Drawings. The pipe shall be installed along the entire length of wall and low points shall have a discharge pipe tee to the face of the wall.

e) Construction and Tolerances

Concrete block elements shall be placed on a graded and compacted base to within the tolerances stated below:

- Vertical and horizontal alignment ± 20 mm in 3000 mm
- Overall vertical tolerance ± 20 mm (measured from top to bottom)

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7

1. CONSTRUCTION NOTES
"CAST-IN-PLACE CONCRETE".

- 6

- 5

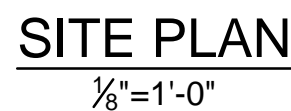
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- 3



AXLE LOAD	FRONT
DESIGN	(40,000#)

ISSUED FOR
CONSTRUCTION



NOM. T.O. BRIDGE DECK
[2045.82]

DETAIL 3

STANDARD HALF BLOCKS REQUIRED, 4 TOTAL

BACKFILL SEE CONSTRUCTION NOTE #2 TYP.

SEE A-A ON DWG. #MUN-D05-1802-007-001

U/S FOUND. [2037.53]

10'-0" REF.

39'-0"



9x - 1" Ø HOLE FOR 7/8" Ø BOLTS

3 1/2" TYP.

1 3/4" TYP.

1 1/2" TYP.

1 1/8" TYP.

2x L3x3x3/4", 5'-3 1/2' LG.

2x L3x3x3/4", 5'-2 1/2' LG.

4'-11 5/16"

4 1/4"

1'-10 9/16" REF.



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PROJECT NUMBER:	MUN-DOS-1802-007
SCALE	AS SHOWN

DWG. NO.	MUN-DOS-1802-007-002
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