


AWARD SUMMARY

Tender Opening Date:
2014/08/28

Project No.: 23697-0001
Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE
GRADING AND PAVING CONSTRUCTION
Est. Completion Date: 2015/10/31

Total Tender Price and Associated Ministry Cost Estimates		Low Bid	Variance
Tender Price Estimate:		\$4,371,423.06	
Associated Ministry Cost Estimates:			
Contingencies:			
Engineering:			
Materials Supplied by MOT:			
Miscellaneous:	\$17		\$17
Utility Relocation:		\$17	
Total Tender Price and Associated Ministry Cost Estimates:			

Certified lowest qualified bidder: Emil Anderson Construction (EAC) Inc

Recommended by Contract Administration:  Date: SEPTEMBER 2, 2014

Spending Authority approval for award: Please see attached email Date: SEPTEMBER 3, 2014 ^m

Awarded to: Emil Anderson Construction (EAC) Inc. Date: SEPTEMBER 3, 2014

Wong, Jeannie TRAN:EX

From: King, Spencer TRAN:EX
Sent: Wednesday, September 3, 2014 9:14 AM
To: PROVINCIAL CONTRACTS, TRAN:EX
Cc: Wong, Jeannie TRAN:EX
Subject: Project No. 23697-0001 WSR Waterfront to Blue Grouse - Request to approve award
Attachments: 23697MJ0001 Official Summary.xlsx; 23697MJ0001 Award Summary.xlsx

Dear Provincial Contracts,

Please find below, approval from the spending authority to award 23697MJ0001.

Kind regards,

Spencer King

Senior Project Manager
Ministry of Transportation and Infrastructure
Ph: 250-828-4976
Cell: 250 318-8497
Email: spencer.king@gov.bc.ca

From: Blixrud, Rick G TRAN:EX
Sent: Wednesday, September 3, 2014 9:11 AM
To: King, Spencer TRAN:EX
Cc: Lorimer, Mike TRAN:EX; Fraser, Jennifer TRAN:EX; Dulay, Rampaul S TRAN:EX; Knight, Jeff J TRAN:EX
Subject: Re: Project No. 23697-0001 WSR Waterfront to Blue Grouse - Request to approve award

Approved

Thanks,
Rick

On Sep 3, 2014, at 9:00 AM, "King, Spencer TRAN:EX" <Spencer.King@gov.bc.ca> wrote:

Dear Mike and Rick,

Re: Project No. 23697-0001
Westside Road Improvements – Waterfront Farm to Blue Grouse, Grading and Paving
Construction

Please find attached the Tender Summary for 23697-0001 Westside Road Improvements – Waterfront
to Blue Grouse.

s17

s17

I can recommend awarding the contract to the low bidder, Emil Anderson Construction Inc.

Therefore, you are kindly requested to approve the award.

Kind regards,

Spencer King

Senior Project Manager
Ministry of Transportation and Infrastructure
Ph: 250-828-4976

ORIGINAL



**Ministry of Transportation
and Infrastructure**

**Major Works
CONTRACT**

**Project No. 23697-0001
WESTSIDE ROAD IMPROVEMENTS
WATERFRONT FARM TO BLUE GROUSE
GRADING AND PAVING CONSTRUCTION**

Date of Contract: September 3, 2014

**Contractor:
Emil Anderson Construction (EAC) Inc.
907 Ethel Street
Kelowna, BC V1Y 2W1**


MAJOR WORKS
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GRADING AND PAVING CONSTRUCTION

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PLEASE INITIAL

Contractor

Initials

Ministry Official

Initials

CONTRACT

MAJOR WORKS GENERAL CONDITIONS

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BRITISH
COLUMBIA

Ministry of Transportation
and Infrastructure

This Major Works Contract

BETWEEN:

**HER MAJESTY THE QUEEN
IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA,**
as represented by the Minister of Transportation and Infrastructure
(the "Ministry")

OF THE FIRST PART

AND:

THE CONTRACTOR
as identified on the execution page of the Contract
(the "Contractor")

OF THE SECOND PART

WITNESSES THAT WHEREAS:

- A.** The Contractor has offered to perform the Work herein described at the price and on the terms herein set out; and
- B.** The Ministry has accepted the offer by Contractor to perform the Work at the price and on the terms herein set out;

Now therefore the Ministry and the Contractor agree as follows:

GC 1.00 GLOSSARY OF TERMS

GC 1.01 A capitalized term shall have the meaning as set out in Schedule 1 – Supplemental General Conditions / Glossary of Terms.

GC 2.00 CONTRACTOR'S REPRESENTATIONS, WARRANTIES AND COVENANTS

GC 2.01 The Contractor represents and warrants to the Ministry that, at the time of execution of the Contract and until the expiration of the Term:

- (a) in the case of a limited company or a corporation within the meaning of the [Business Corporations Act](#), that it is duly organized and validly existing under the laws of British Columbia, under the laws of Canada, or under the laws of any other province, state or country in which case it is registered extra-provincially in British Columbia;
- (b) in the case of a partnership as defined in the [Partnership Act](#), that it is duly organized and validly existing under the laws of British Columbia or under the laws of any other province, state or country, and that it is registered in or registered extra-provincially in British Columbia if required at law;
- (c) in the case of a partnership as defined in the [Partnership Act](#), that GC 2.01(a) is true of any limited company or corporation within the meaning of the [Business Corporations Act](#) that is a partner in the partnership;
- (d) in the case of a joint venture, that each venturer in the joint venture is either an individual, a limited company or a corporation within the meaning of the [Business Corporations Act](#), or a partnership as defined in the [Partnership Act](#);
- (e) in the case of a joint venture, that GC 2.01(a) is true with respect to any limited company or corporation within the meaning of the Business Corporations Act that is a venturer in the joint venture, and that GC 2.01(b) is true with respect to any partner as defined in the Partnership Act that is a venturer in the joint venture;
- (f) the Contractor, or in the case of a Contractor which is a joint venture each of the venturers that form the joint venture, has or have full legal capacity to execute the Contract, and all necessary steps have been taken to authorize the execution and delivery of the Contract by the Contractor or by each of the venturers in the case of a Contractor which is a joint venture;
- (g) the Contractor is fully legally authorized, licensed and permitted to perform the Work;
- (h) the Contractor has no knowledge of any fact that materially and adversely affects or, so far as it can foresee, may materially and adversely affect its financial condition or its ability to fulfill its obligations under the Contract;
- (i) the Contractor is not aware of any actual or contingent claims, actions, demands or suits which might adversely affect the Contractor's ability to carry out or complete the Work or any of its obligations under the Contract;
- (j) the Contractor has filed all tax, corporate information, and other returns required to be filed by the laws of British Columbia and Canada, has complied with all workers' compensation legislation and other similar legislation to which it is subject, and has paid all taxes, fees, and assessments due by the Contractor under those laws as of the date of the Contract;
- (k) the Contractor is not in breach of any law which might disqualify the Contractor from undertaking or completing the Work; and
- (l) the Contractor holds all permits, licenses, consents, and authorities issued by any level of

government or any agency of government, that are required by law to conduct its business.

GC 2.02 The representations and warranties contained in GC 2.01 are continuing representations or warranties and shall remain in effect until the completion of all of the Contractor's obligations under the Contract.

GC 2.03 The Contractor covenants with the Ministry that:

- (a) it shall continue to file all tax, corporate information, and other returns required to be filed by the laws of British Columbia and Canada, and shall comply with all workers' compensation legislation and other similar legislation to which it is subject, and shall pay all taxes, fees, and assessments due by the Contractor under those laws;
- (b) it shall pay punctually as they become due, all accounts, expenses, wages, salaries, taxes, rates, fees and assessments required to be paid by it on any of its undertakings;
- (c) it shall ensure that the Work is carried out with all reasonable diligence and in particular, without limiting the foregoing, with due regard to public safety, and in accordance with the Contract;
- (d) it shall comply with all laws, bylaws and regulations relating to the Work; and
- (e) the Contract does not operate as a permit, license, approval or other statutory authority which the Contractor may be required to obtain from any competent government authority, branch or agency thereof, and the Contractor shall obtain, at its own expense, licenses, approvals or other statutory or regulatory authorizations which are applicable to the Work or the Contract, save and except any licenses and permits which are specified within the Contract to be obtained by the Ministry.

GC 2.04 The Contractor agrees that all representations, warranties, covenants, and agreements made in the Contract and all documents delivered by or on behalf of the Contractor to the Ministry are material and the Contractor acknowledges and agrees that the Ministry has relied on them, notwithstanding any prior or subsequent investigation by the Ministry.

GC 3.00 INFORMATION PROVIDED BY THE MINISTRY

GC 3.01 The geotechnical investigation datum and test results, but not the interpretations and analyses thereof, provided in the borehole and test pit logs contained within the Contract Document Package and the Specific Reference Documents are a reasonable representation of the conditions encountered at the specific locations investigated on the dates of the investigations, and to that extent may be relied upon by the Contractor.

GC 3.02 The survey point datum, but not information derived or interpolated therefrom such as digital terrain models, contours and cross-sections, contained within the Contract Document Package and the Specific Reference Documents are a reasonable representation of the individual points surveyed at the time of such survey, and to that extent may be relied upon by the Contractor.

GC 3.03 Except as provided by GC 3.01 and GC 3.02,

- (a) the Ministry makes no representation and accepts no responsibility or liability, and
- (b) the Contractor acknowledges and agrees that it has not relied upon any representation by the Ministry,

with respect to the completeness, accuracy or relevance of any information provided in, or accessed through the URL's or the internet sites set out in the Contract Document Package, the Specific Reference Documents or the General Reference Documents or any analysis or interpretation thereof, and any reliance thereon or use made thereof by the Contractor shall be at the sole risk of the Contractor.

GC 3.04 The Ministry does not provide any warranties whatsoever under the Contract.

GC 4.00 ***TERM***

GC 4.01 The Term of the Contract shall commence on the Award Date and shall end on the date on which all of the obligations of the parties have been fulfilled or upon the earlier termination of the Contract.

GC 4.02 The following obligations, without limitation, of the Contractor survive the completion of Term or the earlier termination of the Contract:

- (a) provision of the indemnity pursuant to GC 14.00,
- (b) maintenance of records pursuant to GC 64.00, and
- (c) maintenance of the Bonds and insurance pursuant to GC 12.00.

GC 5.00 ***MINISTRY APPOINTMENTS***

GC 5.01 The Ministry shall designate a Ministry Representative and a Ministry Manager and shall provide the Contractor with notice in writing as to such designations. The Ministry may change these designated personnel, and provide written notice of the change to the Contractor. The Ministry at its discretion may appoint one person as Ministry Manager and Ministry Representative.

GC 5.02 Notwithstanding any other provision of the Contract, the Ministry Representative and Ministry Manager, in carrying out their obligations under the Contract, may obtain and rely upon any technical, managerial, and other input and direction from the Ministry or any third party to aid them in carrying out such obligations.

GC 5.03 The Ministry Representative and Ministry Manager may delegate any of their duties and responsibilities under the Contract, and shall notify the Contractor in writing of any such delegation.

GC 6.00 ***EMPLOYEES OF THE CONTRACTOR***

GC 6.01 The Contractor shall provide and maintain at all times sufficient personnel, including without limitation, competent supervisory personnel in place and available to it to fully perform and complete the Work in accordance with the Contract.

GC 6.02 Prior to commencing any Work on the Site, the Contractor shall notify the Ministry Representative in writing of the appointment of:

- (a) a Contractor Manager with full authority, as agent of the Contractor, to act on behalf of and legally bind the Contractor in connection with the Work and the Contract; and
- (b) a Contractor Representative with full authority to supervise the Work, who shall be directly available to the Ministry Representative during all active periods of Work.

GC 6.03 The Contractor may, at its discretion, appoint one person as both Contractor Manager and Contractor Representative.

GC 6.04 In the event of any change(s) to these designated personnel, the Contractor shall promptly provide written notice to the Ministry Representative.

GC 6.05 The Contractor Representative and Contractor Manager may delegate any of their duties and responsibilities under the Contract, and shall notify in writing the Ministry Representative of any such delegation.

GC 6.06 The Contractor shall promptly comply with any written request by the Ministry Representative for full disclosure of the relevant knowledge, skills, prior experience, and professional standing or technical or trade certification of any person appointed, employed, or used by the Contractor in carrying out any part of the Work.

GC 6.07 If, at any time, the Ministry Representative does not consider any person appointed to discharge any of the functions of the Contractor Representative or the Contractor Manager to be acceptable, the Contractor shall forthwith replace such person with a person acceptable to the Ministry and provide written notice to the Ministry of the appointment of such replacement.

GC 7.00 LEGAL RELATIONSHIP AND PRIME CONTRACTOR

GC 7.01 The Contractor is an independent contractor and not the servant, employee, partner, or agent of the Ministry.

GC 7.02 The Contractor shall not commit the Ministry to the payment of any money to any person.

GC 7.03 No partnership, joint venture, or agency involving the Ministry is created by the Contract or by any action of the parties under the Contract.

GC 7.04 All personnel employed by the Contractor to carry out the Work are at all times the employees of the Contractor and not of the Ministry. The Contractor is solely responsible for any and all labour relations and employment obligations with respect to the personnel including, without limitation, all matters arising, directly or indirectly from the relationship of employer and employee between the Contractor and the personnel employed by the Contractor.

GC 7.05 Unless the Ministry expressly designates another party by written notice to the Contractor, the Contractor shall be the specified "prime contractor", as defined in the [Workers Compensation Act](#), for the Site and shall fulfil the responsibilities of the position under the [Workers Compensation Act](#), the Workers Compensation Act [Occupational Health & Safety Regulation \(296/97\)](#), and Standard Specification 135 – Site Safety (SS 135).

GC 8.00 ASSIGNMENT AND SUBCONTRACTING

GC 8.01 The Contractor shall not, without the prior written consent of the Ministry, assign, either directly or indirectly, any right or obligation of the Contractor under the Contract to any person.

GC 8.02 The Contractor shall not, without the prior written consent of the Ministry, subcontract any obligation of the Contractor under the Contract to any person.

GC 8.03 The total value of subcontracted Work shall not exceed two-thirds (2/3) of the total Tender Price. Work involving off-Site fabrication and off-Site production of materials and trucking necessary to carry out the Work shall not be included in the calculation of the total value of subcontracted Work.

GC 8.04 The Contractor shall use:

- (a) a purchase order agreement in form and content acceptable to the Ministry for the purchasing of materials; and
- (b) a hired equipment agreement in form and content acceptable to the Ministry for the hiring of equipment.

GC 8.05 The Contractor shall provide a complete copy of every Subcontract having a value of fifty thousand dollars (\$50,000) or more to the Ministry Representative severing the numeric portion of the pricing information only at the Contractor's option. All Subcontracts shall be substantially in the form of the latest edition of:

- (a) the [B.C. Road Builders and Heavy Construction Association's](#) "Standard Form of Construction Contract Between Contractor and Subcontractor"; or
- (b) the [Canadian Construction Association's](#) "[CCA 1 Stipulated Price Subcontract](#)".

GC 8.06 The appointment of any Subcontractors by the Contractor does not relieve the Contractor of its responsibility hereunder or for the quality of work, materials, and services provided by it.

GC 8.07 The Contractor is wholly responsible for the acts and omissions of the Subcontractors and persons employed by the Contractor and the Subcontractors. No Subcontract entered into by the Contractor imposes any obligation or liability upon the Ministry to the Subcontractor or any of the Subcontractor's employees.

GC 8.08 The Contractor shall make copies of the Labour and Material Payment Bond available to each Subcontractor and shall post and maintain copies of the Labour and Material Payment Bond at the Site.

GC 8.09 The Contractor shall ensure every Subcontractor observes the terms of the Contract so far as they apply to that portion of the Work to be performed by that Subcontractor.

GC 8.10 Nothing in the Contract creates any contractual relationship between the Ministry and a Subcontractor.

GC 9.00 SUBCONTRACTOR AND SUPPLIER DISPUTES

GC 9.01 The Contractor shall ensure every Subcontract, purchase order agreement, and hired equipment agreement contains the following provisions:

- (a) the parties to any such Subcontract, purchase order agreement and/or hired equipment agreement shall immediately notify the Contractor in writing of any dispute which remains unresolved for a period of thirty (30) days or more;
- (b) the parties to any such Subcontract, purchase order agreement and/or hired equipment agreement shall negotiate in good faith to resolve all disputes by providing frank, candid and timely disclosures of relevant information and documentation in their possession;
- (c) all disputes which have not been resolved within forty-five (45) days after the delivery of the notice to the Contractor shall be referred to and finally resolved by a single arbitrator following the rules of the [British Columbia International Commercial Arbitration Centre](#) for the conduct of domestic commercial arbitration; and
- (d) the parties to any such Subcontract, purchase order agreement and/or hired equipment agreement agree to conduct the arbitration in an expeditious and efficient manner in accordance with the time lines established in the rules.

GC 10.00 DESIGNATED SUBCONTRACTOR(S) AND DESIGNATED SUPPLIER(S)

GC 10.01 Prior to a Designated Subcontractor or Designated Supplier performing any portion of the Work at the Site, the Contractor shall deliver to the Ministry Representative a copy of each Designated Subcontractor's or Designated Supplier's Subcontract showing:

- (a) that a written Subcontract as described in GC 8.05 exists;
- (b) the total value of the Subcontract; and
- (c) the scope of the Work being subcontracted.

GC 10.02 The Contractor shall ensure that each Subcontract with a Designated Subcontractor or Designated Supplier contains a requirement that the Designated Subcontractor or Designated Supplier provide a performance bond and labour and material payment bond each in the amount as specified in GC 10.04 as a part of that Subcontract.

GC 10.03 Prior to the Contractor allowing a Designated Subcontractor or Designated Supplier to perform any Work, the Contractor shall ensure that:

- (a) a performance bond and labour and material payment bond which meet the requirements of GC 10.04 are in place;

- (b) copies of the bonds referenced in GC 10.03(a) are provided to the Ministry Representative; and
- (c) a copy of the performance bond, and the labour and material payment bond is securely and visibly posted at the Site.

GC 10.04 The Contractor shall ensure that the performance bond and labour and material payment bond referenced in GC 10.03(a) for each Designated Subcontractor or Designated Supplier:

- (a) is in the amount not less than fifty percent (50%) of such applicable Subcontract;
- (b) is maintained in force during the term of the Subcontract;
- (c) is validly executed by both the surety and the Designated Subcontractor or Designated Supplier;
- (d) shows the business address of the surety for filing of claims and delivery of notices; and
- (e) remains posted at the Site during the term of the Subcontract.

GC 10.05 If the Ministry becomes aware that a Designated Subcontractor or Designated Supplier is performing a Work activity but such Designated Subcontractor or Designated Supplier is not in compliance with GC 10.03 or GC 10.04, the Ministry Representative may issue a Stop Work Order for that Work activity. The Stop Work Order shall remain in effect until the Contractor brings itself into compliance with GC 10.03 and GC 10.04. The Stop Work Order shall not be treated as a Change to Work for the purposes of the Contract.

GC 10.06 The Contractor shall not be entitled to any compensation including without limitation an Extension of Time or compensation for Reimbursable Delay in connection with or as a result of a Stop Work Order under GC 10.05.

GC 10.07 The Contractor shall provide written notice to the Ministry Representative for:

- (a) any change to or addition of a Designated Subcontractor or Designated Supplier; or
- (b) any change to the scope of work for a Designated Subcontractor or Designated Supplier.

GC 11.00 *CONDITIONS OF EQUIPMENT*

GC 11.01 All trucks and other equipment rented by the Contractor for use on the Work shall, as far as practicable, be obtained from local residents.

GC 11.02 To qualify under GC 11.01, equipment shall:

- (a) where the Contractor has a collective agreement with its employees, have an operator who is a member of or has the permission of the appropriate union bargaining unit;
- (b) fulfill, in the opinion of the Ministry Representative, the specialized needs as may be required to reasonably complete the Work of the Contractor; and
- (c) be registered on the Ministry's hired equipment list for the geographic area encompassing the Site, or on the Ministry's hired equipment list for an adjacent area.

GC 12.00 *BONDS AND INSURANCE*

GC 12.01 The Contractor shall comply with the requirements in Schedule 2 – Contract Securities and maintain the Bonds in force and effect until the Actual Completion Date and any longer period specified in Schedule 2 – Contract Securities.

GC 12.02 The Contractor shall comply with the requirements in Schedule 6 – Insurance and maintain the insurance in force and effect until the Actual Completion Date and any longer period specified in Schedule 6 – Insurance.

GC 12.03 If the Surety notifies either party that the Bonds are or are going to be terminated or cancelled for any reason whatsoever, the Contractor shall obtain and deliver to the Ministry forthwith upon receipt of such notification valid Bonds effective from the time of termination or cancellation of the Bonds, which comply with Schedule 2 – Contract Securities.

GC 12.04 The delivery of valid replacement Bonds by the Contractor under GC 12.03 is in addition to and does not preclude the Ministry from exercising any right, power or remedy available to the Ministry under the Contract, at law or in equity in connection with the cancellation or termination of the Bonds.

GC 13.00 *THIRD PARTY CONSENTS TO CHANGES*

GC 13.01 The Ministry may require the Contractor to obtain the written consent of the Surety to any Work Order or Supplemental Agreement.

GC 13.02 The Contractor shall notify its insurer, with a copy to the Ministry Representative, of any event or circumstances applicable to the insurance coverages stipulated in Schedule 6 - Insurance and of any Change to Work or Stop Work Order that could result in the unavailability or denial of insurance coverage in the absence of such notice. If any additional or amended insurance coverage is required pursuant to the notice then the Contractor shall obtain and maintain any such additional or amended insurance coverage.

GC 13.03 If an insurer or a Surety notifies either party that they decline coverage and consent for any Work Order or Supplemental Agreement, the Contractor shall obtain and provide the Ministry with valid additional Bonds or insurance, covering the Work specified in the Work Order, which comply with the Contract.

GC 14.00 *INDEMNITY*

GC 14.01 The Contractor shall assume the defence of and shall indemnify and save harmless the Ministry, its agents and employees, from and against all claims, liabilities, demands, losses, damages, costs and expenses, fines, penalties, assessments and levies made against or incurred, suffered or sustained by the Ministry, its agents and employees, or any of them at any time or times before or after the completion of the Term or earlier termination of the Contract where the same or any of them are based upon or arise out of or from anything done or omitted to be done by the Contractor, its employees, agents or Subcontractors, in connection with the Contract or the Work, which indemnity shall survive the completion of the Term or earlier termination of the Contract.

GC 14.02 Notwithstanding the obligation of the Contractor to assume the defence of any claims under GC 14.01, the Ministry may retain its own counsel to represent it and the Contractor shall reimburse the Ministry for the cost of any such counsel.

GC 15.00 *NOTICE OF LIABILITY AND PROPERTY INSURANCE CLAIMS*

GC 15.01 In addition to any obligation the Contractor may have to notify any insurer or insurers or any regulatory agency, the Contractor shall give Notice to the Ministry at the address provided in GC 15.02 or such other address as the Ministry may from time to time direct in writing:

- (a) of any accident or occurrence, enclosing pertinent details of the accident or occurrence; within seven (7) days from the date on which the accident or occurrence arises or occurs; and
- (b) within fifteen (15) days following final disposition of any such accident or occurrence, enclosing pertinent details.

GC 15.02 The address for Notices required by GC 15.01 is:

The Manager, Claims

Ministry of Transportation and Infrastructure
 4C - 940 Blanshard Street
 PO Box 9850 Stn Prov Govt
 Victoria, B.C. V8W 9T5

or other such address as the Ministry may nominate by written notice to the Contractor.

GC 16.00 COMMENCEMENT OF THE WORK

GC 16.01 Before commencing the Work the Contractor shall:

- (a) deliver the Contract, duly executed by the Contractor, to the Ministry;
- (b) purchase and deliver the Bonds to the Ministry in accordance with the requirements in Schedule 2 – Contract Securities;
- (c) submit evidence of insurance coverage to the Ministry, covering all required policies and endorsements, complying with the form and in the amounts specified in Schedule 6 - Insurance Specifications;
- (d) submit a preliminary Construction Schedule to the Ministry Representative showing:
 - (i) compliance with all Milestone Dates and the Completion Date;
 - (ii) anticipated timing and duration of all major work elements;
 - (iii) major traffic detours and disruptions;
 - (iv) submission dates for all quality, traffic, and environmental management plans;
 - (v) Environmental Windows and approval periods; and
 - (vi) details of all events anticipated to occur within sixty (60) days of commencing Work on Site; and
- (e) provide the Ministry Representative with written confirmation of the names, addresses, and telephone numbers of all persons required to be appointed by the Contractor pursuant to the Contract.

GC 16.02 The Contractor shall not commence work on the Site until it has:

- (a) provided not less than three (3) days prior written notice of intention to commence Work to the Ministry Representative; and
- (b) obtained written authorization to commence Work on the Site from the Ministry Representative.

GC 17.00 PROSECUTION OF THE WORK

GC 17.01 Unless otherwise specified in the Special Provisions or by a Work Order, the Contractor may prosecute the Work at the times and seasons, in the order of procedure, and in the manner and method the Contractor considers to be most conducive to economy of construction.

GC 18.00 STANDARD OF WORK

GC 18.01 The [Standard Specifications](#) form a part of the Contract and the Contractor shall comply with the requirements of the Standard Specifications and all Schedules to the Contract in the performance of the Work.

GC 18.02 The Contractor shall ensure that all finished surfaces conform to the lines, grades, typical cross-sections, and dimensions as specified in the Contract.

GC 18.03 Where the Contractor is responsible for the Design of anything that will form part of the completed Work, including but not limited to a proprietary structure or an accepted value engineering proposal, the Contractor shall ensure that, in addition to any other requirements, its Design and Construction are signed off in a Letter of Assurance in accordance with the [Engineer of Record and Field Review Guidelines](#).

GC 19.00 *ERRORS OR OMISSIONS*

GC 19.01 The Contractor shall not be entitled to any additional compensation or Extension of Time because of any error, inconsistency, or omission in the Contract which was, or ought to have been, apparent or known to the Contractor at the time of the Award.

GC 19.02 If the Contractor discovers any error, inconsistency or omission in the Contract which shall, or is likely to adversely affect the Work, the Construction Schedule or the Contract Price, including but not limited to any error, inconsistency or omission referred to at GC 19.01, the Contractor shall, within three (3) days of detecting the error, inconsistency or omission, provide Notice of such error, inconsistency or omission to the Ministry Representative and shall not proceed with any Work affected until the Ministry has determined how the error, inconsistency or omission should be corrected.

GC 19.03 Within seven (7) days of receiving Notice from the Contractor pursuant to GC 19.02, the Ministry Representative shall respond as to how the error, inconsistency, or omission is to be corrected.

GC 20.00 *INSPECTION OF THE WORK*

GC 20.01 The Contractor shall provide access to the Work and to the Site, to all persons designated by the Ministry Representative including but not limited to representatives of other competent authorities and bodies and agencies of government.

GC 20.02 The Ministry Representative may at any time or times inspect the Work. The Contractor shall provide the Ministry Representative with access to the Work at all times and shall provide all information and assistance required by the Ministry Representative.

GC 20.03 The Contractor shall comply forthwith, at the Contractor's expense, with any order of the Ministry Representative to remove or replace any Unauthorized Work or Unacceptable Work.

GC 20.04 If the Ministry Representative deems any portion of the Work to be Unauthorized Work or Unacceptable Work, the Ministry Representative may issue a Stop Work Order covering that portion of the Work and any or all similar Work. The Stop Work Order shall not be treated as a Change to Work for the purposes of the Contract.

GC 20.05 Any inspection, consent, or approval by the Ministry Representative or any other party including representatives of other competent authorities and bodies and agencies of government does not relieve the Contractor from any obligation to perform the Work in accordance with the requirements of the Contract or derogate from or reduce the obligations of the Contractor to the Ministry under the Contract.

GC 20.06 The Contractor shall do all things necessary to satisfy the Ministry Representative that the Work is being completed in accordance with the Contract, including, without limitation, removing or uncovering parts of the Work, and restoring those parts to conform to the Contract.

GC 20.07 If the uncovered Work is found acceptable to the Ministry Representative, the Contractor shall be compensated for the removal, uncovering, and restoration of that portion of the Work on a Force Account Basis.

GC 21.00 SAMPLES AND TESTING

GC 21.01 The Contractor shall co-operate with the Ministry Representative in sampling, testing, and inspecting materials that are used or are intended to be used in the Work.

GC 21.02 Unless the Contract contains a contrary provision, sampling, testing, and inspecting of materials by the Ministry Representative shall be done at the expense of the Ministry.

GC 21.03 If requested, the Contractor shall obtain and provide to the Ministry Representative a complete written statement of the origin, composition, and manufacture of any materials supplied by the Contractor that are used or are intended to be used in the Work.

GC 22.00 CO-OPERATION OF THE CONTRACTOR

GC 22.01 The Ministry may perform, or retain or permit others to perform other work on or near the Site and may permit public utility companies and others to do work on or near the Site during the progress of the Work. The Contractor shall conduct and schedule the Work and co-operate with those other parties so as to cause as little interference as possible with any such other work being carried out.

GC 23.00 UTILITIES

GC 23.01 The Ministry shall be responsible for payment for the relocation of the infrastructure of utility companies or municipalities from their existing locations to their final locations, as well as to any interim locations identified on the Drawings or in the Special Provisions. Such infrastructure includes, without limitation, pole lines, conduits, gas pipes, oil pipes, water pipes, sewers, and tile lines.

GC 23.02 Any interim Utility Relocation, where such moves are not indicated on the Drawings or in the Special Provisions, required to suit the design or the Contractor's work plan are to the Contractor's account.

GC 23.03 The Contractor shall schedule and co-ordinate the Work with respect to any Utility Relocation with the utility company or municipality.

GC 23.04 The Contractor shall preserve and protect the infrastructure affected by the Utility Relocation and shall assume full responsibility for all damage caused by the Contractor.

GC 23.05 The Ministry makes no representation or warranty and accepts no responsibility for the completeness, accuracy or relevance of any such information with respect to the infrastructure of the utility companies or municipalities, including without limitation, any underground utility information, or any analysis or interpretation thereof, and any reliance thereon or any use made thereof by the Contractor is at the sole risk of the Contractor.

GC 23.06 The Contractor acknowledges and agrees that it has not relied upon any representation or warranty of the Ministry with respect to the accuracy or completeness of any information with respect to the underground utility information, including, without limitation, the infrastructure of the utility companies, or municipalities.

GC 24.00 CONTAMINANTS

GC 24.01 Before the Contractor commences Work, the Ministry shall:

- (a) take all reasonable steps to determine whether any Contaminants are present at the Site;
- (b) provide the Contractor with a written list of any such Contaminants which the Ministry determines at that time to be present at the Site; and

- (c) be responsible for disposing of, storing, or otherwise remediating or rendering harmless any Contaminants present at the Site as is determined to be necessary by the Ministry, unless such Work is designated in the Contract to be performed by the Contractor.

GC 24.02 The Ministry and the Contractor shall take all reasonable steps, including stopping Work if necessary, to ensure that no person suffers injury, sickness, or death and that no property is injured or destroyed as a result of exposure to, or the presence of Contaminants on the Site.

GC 24.03 If the Contractor after commencing Work:

- (a) encounters Contaminants at the Site beyond those designated as part of the Work; or
- (b) has reasonable grounds to believe that Contaminants are present at the Site, which were not discovered or disclosed by the Ministry, as required under GC 24.01(b), or which were disclosed but have not been dealt with as required under GC 24.01(c);

the Contractor shall immediately provide Notice to the Ministry Representative.

GC 24.04 If the Contractor is delayed in performing the Work or incurs additional costs as a result of dealing with Contaminants which are not part of the Work, the Contractor may provide a Notice of a Reimbursable Delay, a request for an Extension of Time, and claims for costs in accordance with GC 38.00.

GC 25.00 PROTECTION OF SITE AND WORK DURING CONSTRUCTION

GC 25.01 The Contractor shall protect the Site and the Work from any damage or injury for the period from the Contractor's effective date of occupancy of the Site until the date of Substantial Completion.

GC 25.02 The Contractor shall repair or restore, at its expense, any public or private property which the Contractor, or its employees, Subcontractors, agents, have damaged directly or indirectly in connection with the execution of the Work, to a condition equal to or better than what existed prior to the damage, or it shall compensate the owner in full for the damage caused.

GC 25.03 Where, pursuant to GC 25.02, the repair or restoration of any damage necessitates compliance with current standards, codes or laws, the Contractor shall, at its expense, perform all necessary work inclusive of any betterment necessary to comply with such current standards, codes or laws.

GC 26.00 MAINTENANCE OF WORK DURING CONSTRUCTION

GC 26.01 The Contractor shall maintain all Disturbed Features in accordance with:

- (a) the Maintenance Specifications,
- (b) the Electrical Maintenance Standards, and
- (c) to the satisfaction of the Ministry Representative,

save and except that for all roadways open to the public, the routine winter maintenance services described in chapter 3 of the Maintenance Specifications shall be performed by, and at the cost of the road and bridge maintenance contractor engaged by the Ministry.

GC 26.02 Notwithstanding GC 26.01, where any roadway is a Disturbed Feature and has a surface condition that shall, in the opinion of the Ministry Representative, cost more to maintain than the surface as it existed at the time of the Award, the Contractor shall be responsible for the routine winter maintenance services or, at the option of the Ministry Representative, for any additional cost of maintenance, as determined by the Ministry Representative, resulting from the actual surface conditions.

GC 26.03 The requirements of GC 26.02 shall be met if the Contractor arranges directly with and pays the Ministry road and bridge maintenance contractor to perform all additional maintenance, and provides documentary evidence satisfactory to the Ministry Representative that such an arrangement is in place.

GC 26.04 If the Ministry Representative issues a Stop Work Order or authorizes a State of Suspension, the Contractor shall continue to provide maintenance in accordance with GC 26.00 unless otherwise instructed in the Stop Work Order.

GC 27.00 EMERGENCY WORK

GC 27.01 The Ministry Representative may designate Emergency Work.

GC 27.02 Notwithstanding any other provisions in the Contract, the Ministry Representative may direct the Contractor to use its labour and equipment in any manner and to perform any work the Ministry Representative considers to be Emergency Work and the Contractor shall promptly perform any Emergency Work.

GC 27.03 Where in the opinion of the Ministry Representative the Emergency Work falls within the Contractor's responsibilities under the Contract, or where such Emergency Work arose as a result of:

- (a) an event within the control of the Contractor; or
- (b) any fault, failure, negligence, action or malfeasance on the part of the Contractor,

then the cost of the Emergency Work shall be to the Contractor's account. In all other cases payment for Emergency Work shall be made in accordance with GC 38.00.

GC 28.00 WORK ORDERS

GC 28.01 The Ministry may from time to time issue one or more Work Orders to require the Contractor to carry out or refrain from carrying out Work or, without limitation, to add or delete Work, alter the Drawings, Special Provisions or [Standard Specifications](#), accelerate or delay Work, stop or resume Work, and remedy defects or deficiencies in the Work.

GC 28.02 The Contractor shall diligently comply with every Work Order.

GC 29.00 STOP WORK ORDER

GC 29.01 A Stop Work Order may be issued to:

- (a) require the Contractor to cease work on all or any portion of the Work; or
- (b) initiate a State of Suspension.

GC 29.02 The Contractor shall immediately comply with a Stop Work Order, and shall not resume the prohibited Work until:

- (a) the Contractor has remedied any non-compliance on its part with respect to the Contract;
- (b) the Contractor has removed or repaired any Unauthorized Work and Unacceptable Work and demonstrated to the Ministry Representative's satisfaction that the Contractor's materials and procedures have been modified as necessary to ensure that further Work meets the requirements of the Contract; and
- (c) the Ministry Representative has issued a Resume Work Order.

GC 29.03 Notwithstanding a Stop Work Order, the Contractor shall for the duration of any Stop Work Order provide all services necessary to maintain and protect the Site and the Work, and protect the public and any other persons on Site.

GC 29.04 The Contractor shall resume Work on the date specified by the Ministry Representative in a Resume Work Order.

GC 29.05 No Stop Work Order shall relieve the Contractor of any obligation of the Contractor under the Contract.

GC 29.06 A Stop Work Order shall not be treated as a Change to Work for the purposes of the Contract.

GC 29.07 Where a Stop Work Order has been issued to the Contractor as a consequence of any non-compliance with or any breach, non-observance, or non-performance of any term or other provision of the Contract, the Ministry may, in addition to any other remedy or right to which the Ministry may be entitled, require the Contractor to pay the Ministry as consideration the amount of one thousand dollars (\$1,000.00) per day, for each day or part of any day during which a Stop Work Order is in force.

GC 29.08 Any payment to be made by the Contractor pursuant to GC 29.07 relates directly to the performance by the Contractor of a condition, covenant, or promise in the Contract and shall not be construed by the parties as punitive but as importing a reasonable measure by mutual consent of the minimum damages caused to the Ministry by the Contractor's failure or neglect.

GC 30.00 SEASONAL SHUT-DOWN

GC 30.01 If the Work continues into the late fall or winter, or other such period as may be acceptable to the Ministry Representative, and the weather conditions are beginning to deteriorate, or have deteriorated, to the extent that the Contractor's performance of the Work may:

- (a) fail to meet the quality requirements and specifications of the Contract; or
- (b) pose an unwarranted risk to public safety;

the Contractor may submit a written request to the Ministry Representative for a State of Suspension.

GC 30.02 In response to a request from the Contractor pursuant to GC 30.01, or where the Ministry Representative believes that the anticipated weather conditions shall effectively prevent the Contractor from meeting the quality requirements and specifications of the Contract or believes that continued Work may pose an unwarranted risk to public safety, the Ministry Representative may issue a Stop Work Order to invoke a State of Suspension for such period as the Ministry Representative deems appropriate.

GC 30.03 A State of Suspension shall only be granted pursuant to GC 30.02 where the Ministry Representative anticipates that the weather may be poor for a period of twenty-eight (28) days or longer.

GC 30.04 Where the Ministry Representative issues a Stop Work Order to invoke a State of Suspension pursuant to GC 30.02, the Contractor shall immediately:

- (a) suspend Work, except such Work as necessary to protect the Work and the Site for the period of the State of Suspension;
- (b) bring the Site, all traffic control and safety measures, and all Disturbed Features to a condition satisfactory to the Ministry Representative;
- (c) arrange and pay for monitoring and response to address any routine maintenance services, except routine winter maintenance services, that are required on the Site for the duration of the State of Suspension, all in accordance with the terms of the [Maintenance Specifications](#) and [Electrical Maintenance Standards](#); and
- (d) comply with any additional and/or revised requirements or constraints that the Ministry

Representative may deem appropriate under the conditions.

GC 30.05 During a State of Suspension, the Contractor shall not perform any Work other than that:

- (a) stated on the Stop Work Order; and
- (b) arising during the State of Suspension that is deemed by the Ministry Representative to have resulted from the incomplete Work or any Unacceptable Work.

GC 30.06 Notwithstanding any other provision of the Contract, a State of Suspension shall not entitle the Contractor to an Extension of Time or any other compensation.

GC 30.07 Unless the Ministry Representative deems otherwise, any payment of consideration under GC 33.02 that would otherwise accrue during the State of Suspension shall be waived.

GC 31.00 *RESUME WORK ORDERS AND COMPENSATION*

GC 31.01 The Contractor shall resume Work and the full responsibilities under the Contract on the date specified by the Ministry Representative in a Resume Work Order.

GC 31.02 The Contractor may claim compensation for impacts where such impacts resulted solely from a Stop Work Order in accordance with and subject to GC 42.00.

GC 32.00 *PROVISIONAL SUM AND CONDITIONAL ITEMS*

GC 32.01 The Contractor shall not proceed with any Work with respect to a Provisional Sum Item or a Conditional Item, nor be entitled to any payment for such Work, until the Ministry Representative has provided written authorization for the Contractor to proceed with such Work with respect to that Provisional Sum Item or Conditional Item, as the case may be.

GC 33.00 *COMPLIANCE WITH THE TIME SCHEDULE*

GC 33.01 The Contractor shall complete the Work in accordance with Schedule 5 - Time Schedule and any amendment thereto.

GC 33.02 If the Contractor fails to achieve completion of any specified portion of the Work on or before the corresponding Milestone Date or the Completion Date, then in addition to and without limiting any other remedy available to the Ministry under the Contract, the Ministry Representative may elect to proceed with one or more of the following:

- (a) terminate the Contract;
- (b) where the Contractor has failed to achieve completion of the portion of the Work corresponding to a Milestone Date on or before a Milestone Date, require the Contractor to pay consideration in the amount specified in the Supplemental General Conditions as consideration for late completion for each day or part thereof between the specified Milestone Date and the actual date upon which the relevant portion of the Work is completed;
- (c) where the Contractor has failed to complete the Work on or before the Completion Date, require the Contractor to pay consideration in the amount specified in the table below as consideration for late completion for each day or part thereof between the specified Completion Date and the Actual Completion Date or the date that the Ministry elects another remedy under GC 33.06;

Tender Price		Amount Payable by the Contractor to the Ministry Per day
Greater than	But equal to or less than	
\$0	\$1,000,000	\$1,000
\$1,000,000	\$10,000,000	\$2,500
\$10,000,000	Unlimited	\$3,500

and

- (d) extend the Completion Date or Milestone Date, as the case may be, for such period as the Ministry Representative determines, without requiring the Contractor to pay any consideration during such extended time.

GC 33.03 Should the consideration periods associated with GC 33.02(b) and GC 33.02(c) overlap, the Ministry shall waive the lesser of the two daily amounts for the overlapping days.

GC 33.04 If the Ministry elects to extend a Milestone Date or the Completion Date pursuant to GC 33.02(d), and the Contractor does not complete the Work on or before such extended Milestone Date or Completion Date then, upon written Notice by the Ministry Representative to the Contractor, the Ministry may avail itself of any remedy available to the Ministry under the Contract, including without limitation one or more of the remedies specified in GC 33.02.

GC 33.05 It is a condition of any extension to the Milestone Date or the Completion Date pursuant to GC 33.02(d) that the Contractor shall proceed diligently to complete the Work.

GC 33.06 If the Ministry elects to require the Contractor to pay consideration pursuant to GC 33.02(b) or GC 33.02(c) and the Contractor fails to complete the Work within a reasonable time, as determined in the discretion of the Ministry Representative, after the relevant Completion Date or Milestone Date, then, upon notice from the Ministry Representative to the Contractor, the Ministry may avail itself of any remedy available to the Ministry under the Contract, including without limitation termination.

GC 33.07 Any payment to be made by the Contractor pursuant to GC 33.00 relates directly to the performance by the Contractor of a condition, covenant, or promise in the Contract and shall not be construed by the parties as punitive but as importing a reasonable measure by mutual consent of the minimum damages caused to the Ministry by the Contractor's failure or neglect.

GC 34.00 SUBSTANTIAL COMPLETION

GC 34.01 The Contractor may submit a written request for a Letter of Substantial Completion to the Ministry Representative.

GC 34.02 Substantial Completion occurs when the Contractor has requested a letter of Substantial Completion pursuant to GC 34.01, and in the opinion of the Ministry Representative, all of the following conditions have been met:

- (a) the facility for which the Work is being done is in, or suitable for, full use by the public and is free of any deficiencies affecting the safety of motorists, pedestrians, or workers;
- (b) the value of the remaining Work is less than two percent (2%) of the Contract Price; and
- (c) the Contractor is not in breach of any provision of the Contract, including the requirement of completion of the Work by the Completion Date.

GC 34.03 If the Contractor requests a Letter of Substantial Completion pursuant to GC 34.01 the Ministry Representative may, subject to GC 34.04, inspect the Work and, if in the opinion of the

Ministry Representative, Substantial Completion has occurred, issue a Letter of Substantial Completion. Only one Letter of Substantial Completion may be issued pursuant to the Contract.

GC 34.04 If, in the opinion of the Ministry Representative, the Contractor has satisfied the conditions set out in GC 35.03, the Ministry Representative may issue a Completion Certificate rather than a Letter of Substantial Completion.

GC 35.00 TOTAL COMPLETION

GC 35.01 Total completion occurs when the Ministry Representative issues a Completion Certificate with respect to the Work.

GC 35.02 The Contractor may submit a written request for a Completion Certificate to the Ministry Representative.

GC 35.03 The Contractor shall be entitled to a Completion Certificate when:

- (a) the Contractor has completed all Work, including correction of all deficiencies in that Work identified in GC 35.03(b) to GC 35.03(g), but excluding correction of defects in the Work that appear during the warranty period, to the satisfaction of the Ministry Representative;
- (b) the Site and any borrow pits, gravel pits, or other property occupied by the Contractor in performing the Work are clean of rubbish, equipment, surplus materials, and temporary structures and the Site is left in a neat, tidy, and presentable condition;
- (c) after completion of any gravel, base, or surfacing operations, the roadway, ditches, slopes and culverts are cleaned of accumulations and reconditioned and maintained;
- (d) surplus or waste aggregates at gravel deposits are piled or disposed of, as directed by the Ministry Representative;
- (e) any areas from which material is removed or where stripping takes place are left in a condition suitable for routine maintenance in accordance with the [Maintenance Specifications](#) by the road and bridge maintenance contractor engaged by the Ministry;
- (f) waste asphalt oil, crude oil, and any Contaminants deposited or left on, in or underneath the Site by the Contractor, the Subcontractors, or the Contractor or Subcontractor's respective agents or employees, are disposed of in accordance with applicable laws and regulations and with approval of the Ministry Representative; and
- (g) the Contractor has, where applicable, submitted to the Ministry Representative such documentation as is required by the Contract including, without limitation, as-built plans, Letters of Assurance associated with any Design elements of the Work for which the Contractor is responsible, and a statistical summary of health and safety records as required by the [Standard Specifications](#).

GC 35.04 If the Contractor requests a Completion Certificate, but the Work is not completely acceptable to the Ministry, the Ministry Representative shall advise the Contractor, in writing, of particular defects in the Work preventing issuance of the Completion Certificate and the Contractor shall forthwith rectify the defects to the satisfaction of the Ministry Representative.

GC 36.00 WARRANTY

GC 36.01 Notwithstanding any other provision of the Contract or the expiry or termination of the Contract, the Contractor warrants to the Ministry, for a period of one (1) year commencing on the earliest of the date of Substantial Completion, the Actual Completion Date, or any earlier termination date, that:

- (a) all Work is free from any defect in materials and workmanship; and

- (b) the Contractor shall, upon notification by the Ministry, promptly and diligently remedy any defect, to the satisfaction of the Ministry.

GC 36.02 The warranty period for the whole or a portion of the Work may be extended by a Supplemental Agreement when the Ministry approves an amendment or specific change to the requirements set out in the Contract.

GC 36.03 For any Work incomplete on the date of Substantial Completion, upon Notice from the Ministry Representative itemising the portion of incomplete Work and requiring a full warranty, the Contractor warrants to the Ministry for a period of one (1) year, commencing on the Actual Completion Date of the Work, for all such Work identified in the Notice that:

- (a) it is free from any defect in materials and workmanship; and
- (b) the Contractor shall, upon notification by the Ministry, promptly and diligently remedy any defect to the satisfaction of the Ministry.

GC 36.04 If a significant portion of the Work is complete and in use by the public well before the Completion Date, upon receipt of a written request from the Contractor specifying the portion of the Work which has been completed, the Ministry Representative may, by providing written confirmation to the Contractor, allow the warranty period to commence for the completed portion of the Work on the date that portion is put into use by the public.

GC 36.05 Unless the Special Provisions indicate otherwise, the Ministry shall consider a maximum of one (1) request for an early warranty start date in response to GC 36.04.

GC 37.00 NOTICES

GC 37.01 Except as provided in GC 37.02, any Notice shall be in writing.

GC 37.02 In addition to the Notice required by GC 37.01 and GC 37.03, a verbal Notice shall be given as soon as the party giving the Notice becomes aware of the event or circumstances which give rise to the Notice being given.

GC 37.03 A Notice shall include all of the following information with respect to the event or circumstances giving rise to the Notice being given:

- (a) a full and detailed description of the event or circumstances;
- (b) the date upon which or the dates during which the event or circumstances is said to have occurred;
- (c) the date upon which the event or circumstances first came to the attention of the party giving Notice;
- (d) the claimed impact of the event or circumstances on the party giving Notice;
- (e) the clauses of the Contract relied upon by the party giving Notice; and
- (f) any proposed resolution.

GC 37.04 Compensation for any claim made in a Notice shall be limited to unavoidable costs and time impacts arising directly from the event or circumstances reported.

GC 37.05 In the event of the Contractor's failure to provide Notice within the Notice Period, the Contractor shall not be entitled to any compensation for unavoidable costs or time impacts unless the Ministry determines that it has not been prejudiced in its ability to either assess the Contractor's claim or to reasonably mitigate the impacts of such claim or the circumstances giving rise to such claim by reason of the Contractor's failure.

GC 37.06 Any Notice Period in the Contract commences on the earlier of the date that the Contractor:

- (a) first became aware of the event or circumstances giving rise to the Notice; and
- (b) ought reasonably to have been aware of the event or circumstances giving rise to the Notice.

GC 37.07 The Notice Period for any Notice for which there is no specific Notice Period, shall be seven (7) days.

GC 37.08 Upon delivery of a Notice the parties shall make reasonable efforts to resolve the issue presented by the Notice in accordance with the terms of GC 58.00.

GC 38.00 *CHANGES TO WORK*

GC 38.01 All claims for impacts arising from any Change to Work shall be in accordance with GC 38.00.

GC 38.02 If a provision of the Contract assigns the risk of a Change to Work, then all impacts arising from that Change to Work shall be for the account of the party to whom the risk is assigned.

GC 38.03 The Ministry may make a Change to Work by issuing a Work Order.

GC 38.04 The Contractor may request a Change to Work by giving Notice to the Ministry Representative.

GC 38.05 If a Work Order or Change to Work constitutes a Reimbursable Delay the Ministry shall pay the Contractor in accordance with GC 50.00.

GC 38.06 If a Reimbursable Delay results in a change in the quantity or nature of the Work, the Contractor may also request consideration under GC 38.07 or GC 38.08, whichever may be appropriate.

GC 38.07 If a Change to Work or Work Order increases, decreases or eliminates the quantity of Work covered by an Item, or if in the opinion of the Ministry Representative the Work resulting from the change is of similar nature to Work described for another existing Item:

- (a) the Contractor shall perform the changed Work in accordance with the Contract; and
- (b) the Ministry shall pay the Contractor:
 - (i) in accordance with the provisions of GC 40.00;
 - (ii) the Unit Price for the final quantity of Work, subject to the provisions of GC 39.00; or
 - (iii) in respect of an additional Lump Sum Item, compensation equal to that of the similar Lump Sum Item.

GC 38.08 If a Change to Work or Work Order does not fall under GC 38.07 and is of the nature that the costs and impacts can be assessed by the Contractor:

- (a) the Ministry shall provide specifications for the performance of the Work;
- (b) the Contractor shall offer a Lump Sum Price or Unit Price for the Work; and
- (c) the Ministry Representative shall either:
 - (i) accept the Contractor's offer under GC 38.08(b) and add the Work to the Contract as a new Item, which shall be subject to all the provisions of the Contract; or
 - (ii) reject the Contractor's offer.

GC 38.09 If a Change to Work or Work Order does not fall under GC 38.07 and is of the nature that the costs and impacts cannot be assessed by the Contractor, or if the Contractor's offer under GC 38.08(b) is rejected, the Ministry Representative may:

- (a) issue a Work Order to the Contractor authorizing the Work to be performed, in which event those components of the Item that in the opinion of the Ministry Representative have been materially impacted by the Change to Work or Work Order will be paid on a Force Account Basis;
- (b) retain a third party to perform the Change to Work and, if applicable, eliminate the affected portion of the Work from the Contract; or
- (c) terminate the Contract in accordance with GC 63.00, in which case the Ministry may re-tender the Work in whole or in part.

GC 38.10 Subject to GC 49.03(f), a Change to Work or Work Order that extends the Completion Date or a Milestone Date may give rise to an Extension of Time in accordance with GC 44.00. A Change to Work or Work Order that reduces the time required to carry out the Work or an applicable portion of the Work may give rise to a Reduction of Time in accordance with GC 45.00.

GC 38.11 The Contractor shall not proceed with any Change to Work or Work Order until instructed in writing by the Ministry Representative to do so.

GC 38.12 The Contractor shall not be entitled to payment for any Change to Work or Work Order or an Extension of Time for any Change to Work or Work Order except in accordance with a duly executed Supplemental Agreement.

GC 38.13 The Contractor shall not be entitled to receive compensation or payment for any loss of profits resulting from any Change to Work or Work Order.

GC 38.14 The Contractor shall, in accordance with GC 13.00, provide the Ministry with all third party consents for any Change to Work or Work Order.

GC 39.00 *CHANGES IN QUANTITIES FOR UNIT PRICE ITEMS*

GC 39.01 The provisions of GC 39.03 to GC 39.06 inclusive apply only to Unit Price Items. GC 39.06 shall not apply to Conditional Items.

GC 39.02 An increase or decrease in the quantity of an Item is determined as the difference between the final quantity of the Item, as measured or calculated in accordance with the Contract, and the Approximate Quantity of the Item specified in Schedule 7 - Approximate Quantities and Unit Prices as at the date of Award of the Contract.

GC 39.03 Where an Item is not a Major Item, the Unit Price shall apply to the entire quantity as measured or calculated in accordance with the Contract.

GC 39.04 If the quantity of a Major Item does or is anticipated by either the Ministry or the Contractor to increase by an amount exceeding twenty percent (20%) of the Approximate Quantity specified in Schedule 7 - Approximate Quantities and Unit Prices as at the date of Award of the Contract, either the Ministry or the Contractor may provide Notice to the other requesting that a new Unit Price be determined for the excess quantity.

GC 39.05 Where Notice has been provided under GC 39.04, the Unit Price for the Major Item may be adjusted, subject to the following:

- (a) the unadjusted Unit Price applies on the quantity up to and including one hundred and twenty percent (120%) of the Approximate Quantity;
- (b) any adjusted Unit Price applies only to the excess quantity, being that portion beyond one hundred and twenty percent (120%) of the Approximate Quantity;
- (c) the Ministry shall not make an allowance for losses sustained or profits accrued on a quantity up to and including one hundred and twenty percent (120%) of the Approximate Quantity;

- (d) the adjusted Unit Price for the excess quantity shall be determined as:
 - (i) negotiated by the Ministry and the Contractor, failing which; then
 - (ii) the actual cost of the excess Work divided by the excess quantity where the excess quantity can be measured separately, failing which; then
 - (iii) the same Unit Price for material which is similar in nature to other material being used within the Work being performed that has documented productivity and cost figures, failing which; then
 - (iv) where none of the above conditions are met, the cost to date divided by the quantity to date as assessed on the date of the first progress estimate in which the quantity to date exceeds one hundred and twenty percent (120%) of the Approximate Quantity;
- (e) if the final costs applicable to that Major Item include fixed costs, those fixed costs are excluded from the Unit Price for the excess quantity.

GC 39.06 If the final quantity of a Major Item is less than eighty percent (80%) of the Approximate Quantity specified in Schedule 7 - Approximate Quantities and Unit Prices, as at the date of the Award of the Contract the Contractor may submit a written request for compensation and the Ministry Representative shall consider that request, subject to the following:

- (a) the request shall be considered:
 - (i) only if the total payments to the Contractor under the Contract are less than the Tender Price; and
 - (ii) only insofar as it compensates the Contractor for unrecovered fixed expenses which can be demonstrated to have been included within the original Unit Price of the Major Item by the production of original bid preparation documents and to the satisfaction of the Ministry Representative; and
- (b) any compensation granted for the unrecovered fixed expenses accepted by the Ministry Representative pursuant to GC 39.06(a)(ii) above:
 - (i) shall be a maximum of

$$Comp_{Max} = \left[0.80 - \left(\frac{Qty_{Final}}{Qty_{Approx}} \right) \right] \times Exp_{Fixed}$$

where $Comp_{Max}$ = maximum compensation

Qty_{Final} = final quantity

Qty_{Approx} = Approximate Quantity

Exp_{Fixed} = fixed expenses, pursuant to GC 39.06(a)(ii),

- (ii) shall not, when added to the Unit Price payment for the final quantity, exceed the payment that would be made for eighty percent (80%) of the Approximate Quantity;
- (iii) shall not make any allowance for loss of profits; and
- (iv) shall not cause the total payments made to the Contractor under the Contract to exceed the Tender Price.

GC 40.00 ELIMINATED ITEM

GC 40.01 The provisions of GC 40.02 to GC 40.05 inclusive do not apply to Conditional Items or to Provisional Sum Items.

GC 40.02 The Ministry, in its sole discretion, may, at any time by Work Order, eliminate one or more Items from the Work.

GC 40.03 In the event that any Item is eliminated from the Work the Contractor shall take all reasonable and necessary steps to mitigate the effect of any such action and to minimize or avoid any costs associated with the elimination of that Item and as such this shall include, without limitation:

- (a) making reasonable efforts to immediately cancel all orders for materials, services or supplies in connection with the eliminated Item; and
- (b) returning any materials that are returnable to the vendor.

GC 40.04 The Ministry shall pay the Contractor for materials which the Contractor ordered or received for an eliminated Item, which the Contractor cannot cancel or return to the vendor, in accordance with GC 40.05 and the materials shall then become the exclusive property of the Ministry.

GC 40.05 If any Items are eliminated from the Work, then, unless a contrary provision is contained in the Contract or, the Ministry shall pay the Contractor:

- (a) the actual direct costs and overhead costs incurred and substantiated by the Contractor in connection with the elimination of the Item; and
- (b) on a Force Account Basis for:
 - (i) materials ordered and received where the order cannot be cancelled and the materials are not returnable to the vendor, and
 - (ii) any handling costs to return the materials to the vendor or to deliver the materials to the Ministry, as applicable.

GC 40.06 The elimination of one or more Items may result in a Reduction of Time in accordance with GC 45.00.

GC 41.00 *CHANGED CONDITIONS*

GC 41.01 The Contractor shall give seven (7) days Notice to the Ministry of a Changed Condition.

GC 41.02 If the Ministry determines that a Changed Condition has arisen, and such Changed Condition would cause an increase or decrease in the costs to be incurred by the Contractor or in the time required to perform the Work, the Ministry may enter into a Supplemental Agreement with the Contractor adjusting the payment required for the performance of the Work or adjusting the time required to perform the Work.

GC 41.03 With respect to any Changed Condition claim, the Contractor shall not claim for that portion of costs which could have been avoided by the Contractor.

GC 42.00 *REIMBURSABLE DELAY*

GC 42.01 "Reimbursable Delay" means any material cessation or suspension of the Work or any portion thereof caused by:

- (a) the Ministry and includes, without limitation, any of the following:
 - (i) failure of the Ministry to deliver materials, equipment, or information in the condition or within the time frame specified in the Special Provisions;
 - (ii) failure by the Ministry to provide a Ministry Representative; or
 - (iii) failure of the Ministry to provide access to the Site as reasonably contemplated in the Contract; or
- (b) third parties, only for the following events:
 - (i) the establishment of an Environmental Window after the Closing Time;

- (ii) failure to perform any Utility Relocation or other public works in a timely fashion that was unforeseeable by the Contractor;
- (iii) failure of another Ministry contractor to perform its work in a timely fashion; and
- (iv) a material change of any applicable law, code, statute or regulation.

GC 42.02 The following events and any event listed in GC 42.01 that arise by reason of one of the following events are specifically excluded from the definition of "Reimbursable Delay":

- (a) adverse weather, acts of God, or other natural conditions;
- (b) preconsolidation and settlement of embankments, as may be contemplated in the Contract;
- (c) failure of the Contractor to comply with a Work Order;
- (d) strike (including, without limitation, illegal work stoppage or slow down), lockout, or other labour dispute, regardless of whether it is caused by a third party;
- (e) failure of the Contractor to comply with the Contract or any part or provision thereof;
- (f) failure of the Contractor to provide for the safety of the public;
- (g) failure of the Contractor to protect the property of the Ministry;
- (h) defects in connection with the Project which are caused by the Contractor whether or not such defects are being rectified at the time;
- (i) quality control or quality assurance testing, inspecting, reviewing, or auditing by any person of components of the Work for compliance with the Contract;
- (j) Utility Relocation work, except where a prior Reimbursable Delay has changed the timing of the actual Utility Relocation resulting in a material adverse effect on the Contractor's operations;
- (k) failure of the Contractor to discharge any responsibility it may have for protecting the environment; and
- (l) road restrictions.

GC 42.03 A Reimbursable Delay ends on the earliest of:

- (a) the date on which the Ministry Representative issues a Resume Work Order requiring the Contractor to resume the Work;
- (b) the date on which the Contractor becomes aware, or should reasonably have become aware, that the condition or cause of the Reimbursable Delay is corrected; or
- (c) the date on which the Contractor resumes the portion of the Work impacted by the Reimbursable Delay.

GC 42.04 The Contractor shall take all reasonable and necessary steps to minimize or avoid the costs and impacts of any Reimbursable Delay, to recover all lost time, and to resume, as soon as possible, performance of its obligations under the Contract, and shall fully document the costs incurred.

GC 42.05 Compensation for the Contractor for a Reimbursable Delay shall be limited solely to an Extension of Time in accordance with GC 44.00 and any approved payments under GC 50.00 and GC 38.06.

GC 43.00 CHANGE IN TAXES

GC 43.01 If prior to Completion Date a change occurs in any Sales Tax then the Contract Price shall be increased or decreased by an amount that is determined in the sole and absolute discretion of

the Ministry to represent the amount that is demonstrably and directly attributable to that change in Sales Tax as set out in GC 43.03. For greater certainty for the purposes of the Contract, GST is not an applicable Sales Tax, and not included in the Contract Price.

GC 43.02 Where the Contract Price is increased or decreased due to a change in Sales Tax, the costs of calculating the change in the Contract Price shall be borne by:

- (a) the Contractor where the Contract Price is increased; or
- (b) the Ministry where the Contract Price is decreased.

GC 43.03 Where a Sales Tax increases or decreases, the change in the Contract Price shall be limited to those Sales Taxes accruing on or after the date of such decrease or increase on materials incorporated into the Work and to Sales Taxes on those items totally consumed by the Contractor in the process of and for the sole purpose of carrying out the Work.

GC 43.04 An increase in Sales Tax shall be paid as a separate item to be added by the Ministry Representative to the progress estimate.

GC 43.05 Where a Sales Tax decreases, the Ministry may set-off against progress payments or any other money payable to the Contractor, the amount calculated pursuant to GC 43.01.

GC 43.06 The Contractor shall provide the Ministry with all information and documentation necessary, in the opinion of the Ministry Representative, to determine the amount by which the Contract Price is increased or decreased due to a change in Sales Tax.

GC 44.00 *EXTENSION OF TIME*

GC 44.01 The Ministry may grant an Extension of Time for the impact on the Completion Date or on any Milestone Date of:

- (a) a Change to Work;
- (b) Changed Conditions; or
- (c) a material delay, cessation or stoppage in the performance of the Work, or any part thereof, caused by any one of the following events:
 - (i) a Reimbursable Delay;
 - (ii) a strike (including, without limitation, illegal work stoppage or slow down), lockout, or other labour dispute;
 - (iii) an event arising in connection with conditions resulting from Abnormal or unexpected patterns of occurrence on the Site, including without limitation:
 - (A) Abnormal weather conditions,
 - (B) Abnormal river flow, or
 - (C) Abnormal road restrictions; or
 - (iv) any other event beyond the control of the Contractor.

GC 44.02 Notwithstanding GC 44.01, the Ministry shall only grant an Extension of Time where:

- (a) the Contractor has diligently proceeded with the Work;
- (b) the Contractor has applied all reasonable means to complete the Work by the Completion Date, or the portion thereof corresponding to the applicable Milestone Date; and
- (c) the event is not an Event of Default, or in connection with an Event of Default.

GC 44.03 The Contractor may, not later than fourteen (14) days after the occurrence or the detection of any one of the events referenced in GC 44.01, submit to the Ministry Representative a Notice for

an Extension of Time, specifying the event, describing how the requirements set out in GC 44.02 are satisfied, and proposing the period of time by which the Completion Date or the applicable Milestone Date, should be extended.

GC 44.04 Not later than fourteen (14) days after receiving the Notice for an Extension of Time, the Ministry Representative shall deliver a written reply to the Contractor:

- (a) granting the Extension of Time for the time period proposed by the Contractor pursuant to GC 44.03; or
- (b) refusing to grant the Extension of Time and setting out the reasons for such refusal.

GC 44.05 Forthwith upon receipt of any grant of an Extension of Time in writing from the Ministry Representative under GC 44.04(a), the Contractor shall obtain and deliver to the Ministry Representative written confirmation from the Surety that issued the Bonds, of the Surety's consent to the Extension of Time granted under GC 44.04(a), and the Surety's confirmation of the continued force and effect of the Bonds.

GC 44.06 Where a delay occurs because of two or more causes acting concurrently, one of which is the responsibility of the Contractor, and the other or others are the responsibility of the Ministry or a third party, then:

- (a) where the delay for which the Contractor is responsible commences first, no Extension of Time shall be granted for the period commencing when such delay first occurred and ending when the said cause of such delay ceases to operate;
- (b) where the delay for which the Ministry or a third party is responsible commences first, an Extension of Time shall, subject to GC 44.07 and GC 44.08, be granted for the period commencing when such delay first occurred and ending when the said cause of such delay ceases to operate; and
- (c) where the delay commences as a result of concurrent causes, then an Extension of Time shall, subject to GC 44.07 and GC 44.08, be granted in the amount of one-half (1/2) of the duration between the date of commencement of the delay until the time the first of any one of the concurrent causes ceases to operate.

GC 44.07 An Extension of Time shall only be granted for the period of time that exceeds the available float time (the length of time an activity may be delayed without affecting completion by a Milestone Date or the Completion Date).

GC 44.08 Notwithstanding GC 44.07, where, in the opinion of the Ministry Representative, a significant portion of the said float time has been consumed by events for which the Ministry is responsible and the Contractor subsequently suffers a delay which consumes more time than can be accommodated within the remaining float time, the Ministry may give consideration to granting an Extension of Time.

GC 45.00 *CHANGE OF COMPLETION DATE*

GC 45.01 Where the Ministry grants an Extension of Time pursuant to GC 44.00, any affected Milestone Date and, where affected, the Completion Date, shall be extended by the number of days in the Extension of Time.

GC 45.02 Where a Change to Work reduces the anticipated time required to complete the Work, the Ministry and the Contractor, subject to the written consent of the Surety, may negotiate a Reduction of Time for an earlier Completion Date and/or any affected Milestone Date.

GC 46.00 PAYMENT

GC 46.01 Subject to the terms of the Contract, the Ministry shall pay the Contract Price as full payment and reimbursement to the Contractor for all costs incurred for labour, materials, equipment, and overhead, including without limitation all applicable taxes, other than GST, required to completely incorporate all the Items into the Work. Payment for individual Items shall be made, subject to the terms of the Contract, as follows:

- (a) For Unit Price Items, the Ministry shall pay the Contractor only for actual quantities of Work furnished and incorporated into the Work, as measured or calculated in accordance with the Contract. The actual quantities of Work to be furnished and incorporated into the Work may be greater or less than the Approximate Quantities specified in Schedule 7 - Approximate Quantities and Unit Prices;
- (b) For Lump Sum Items, the Ministry shall pay the Contractor the Lump Sum Price, regardless of the actual quantities of Work required to complete the Item;
- (c) For each Provisional Sum Item, the Ministry shall pay the Contractor in accordance with the express method of payment as contemplated within the Contract, failing which, in accordance with each Work Order authorizing that part of the Work to proceed;
- (d) For Conditional Items, the Ministry shall pay the Contractor only for actual quantities of Work furnished, as measured or calculated in accordance with the Contract, and only where the Contractor has been authorized by the Ministry Representative in accordance with the terms of the Contract. The actual quantities of Work to be furnished may be greater or less than the Approximate Quantities specified in Schedule 7 - Approximate Quantities and Unit Prices; and
- (e) The Ministry shall pay the Contractor for any Change to Work in accordance with the Supplemental Agreement authorizing such Work.

GC 46.02 The Ministry will pay any applicable GST on any payments or reimbursements to the Contractor under the Contract. The documentation for such payments and reimbursements, whether prepared by the Ministry or the Contractor, shall show the calculation of the amount of the applicable GST as a separate line item.

GC 46.03 The Ministry is not obligated to pay the Contractor for Unauthorized Work or Unacceptable Work.

GC 46.04 The Ministry may set-off any consideration required to be paid by the Contractor from any current or future sums owed by the Ministry to the Contractor.

GC 46.05 Notwithstanding any other provision of the Contract, the payment of money by the Ministry to the Contractor pursuant to the Contract is subject to the provisions of the [Financial Administration Act](#).

GC 47.00 PROVISIONAL SUM ITEMS

GC 47.01 The Contractor shall not be entitled to any payment for Work against a Provisional Sum Item until the Ministry Representative has authorized that Work.

GC 47.02 The Ministry shall not pay the Contractor for any portion of a Provisional Sum Item which has not been authorized by the Ministry Representative.

GC 47.03 GC 40.00 does not apply to Provisional Sum Items.

GC 47.04 Any Provisional Sum Item for which no express method of payment is provided in the Contract shall be paid as authorized on the Work Order.

GC 48.00 CONDITIONAL ITEMS

GC 48.01 The Contractor shall not be entitled to any payment for Work against a Conditional Item until the Ministry Representative has authorized that Work.

GC 48.02 GC 39.06 and GC 40.05 do not apply to Conditional Items.

GC 49.00 FORCE ACCOUNT

GC 49.01 The Contractor shall not be entitled to compensation for any Work performed on a Force Account Basis prior to written authorization of such Work from the Ministry Representative.

GC 49.02 The Contractor shall submit a "[Daily Report for Extra Work](#)" to the Ministry Representative for any Work performed on a Force Account Basis no later than one day after such Work is performed.

GC 49.03 Payment to the Contractor on a Force Account Basis shall be made subject to the terms of the Contract, including but not limited to GC 49.05 and shall be calculated as follows,

(a) for the cost of labour:

- (i) an amount equal to the actual wages and salaries, including payroll burden, paid directly by the Contractor in respect of labour and for supervisory personnel actively and necessarily engaged on the particular portion of Work on the Site, if supported by recorded time and hourly rates of pay for that labour and supervision, but not including any payment or costs paid for operators of All Found Equipment, the Contractor Manager and Contractor Representative(s) or their delegates under GC 6.05, administration, or management time spent on the portion of Work; and
- (ii) an amount for small tool allowance, plus any other similar items which the Ministry Representative considers appropriate;
- (iii) plus an amount equal to twenty percent (20%) of the total costs referred to in GC 49.03(a)(i) and GC 49.03(a)(ii) in respect of the related costs and expenses described in GC 49.06;

(b) for food and lodging:

- (i) an amount equal to the actual reasonable costs paid directly by the Contractor in respect of food and lodging for labour and for supervisory personnel actively and necessarily engaged on the particular Item,
- (ii) plus ten percent (10%) of such costs in respect of the related costs and expenses described in GC 49.06;

(c) for materials supplied:

- (i) an amount equal to the actual cost of materials supplied by the Contractor at invoice cost (which includes all freight and express charges, all applicable taxes, and all other costs incurred to supply the materials to the Site),
- (ii) plus ten percent (10%) of such costs in respect of the related costs and expenses described in GC 49.06;

(d) for Equipment:

- (i) the applicable Equipment Rental Rate for equipment approved by the Ministry Representative prior to its use;
- (ii) for equipment brought to the Site for the sole purpose of being used to perform Work to be paid on a Force Account Basis, where both the equipment and its point of hire are approved in writing in advance by the Ministry Representative, a mobilization /

demobilization allowance in an amount equal to,

- (A) where the equipment is used for less than 8 hours in total, the actual transportation costs properly incurred by the Contractor, or
 - (B) where the equipment is used for 8 hours or more in total, that portion of the transportation costs properly incurred by the Contractor (if any) which exceeds the amount which is five percent (5%) of the payments made to the Contractor for the equipment under GC 49.03(d)(i),
- (iii) plus an amount equal to fifteen percent (15%) of the total amounts referred to in GC 49.03(d)(i) and GC 49.03(d)(ii) in respect of the related costs and expenses described in GC 49.06;
- (e) for preparatory work, provided that the payment is approved in writing by the Ministry Representative prior to the preparatory work being performed:
 - (i) an amount equal to the actual costs to the Contractor of preparatory work performed by the Contractor including, without limitation, assembly, set-up and tear-down of specialized equipment, transportation of tools and the Contractor's personnel travel time (when personnel travel time is included pursuant to a collective agreement),
 - (ii) plus fifteen percent (15%) of such costs in respect of the related costs and expenses described in GC 49.06; and
- (f) where the Work being conducted on a Force Account Basis is performed by a Subcontractor, the compensation due to the Contractor will be:
 - (i) equal to the costs properly incurred by the Subcontractor, rather than by the Contractor, under GC 49.03(a)(i), GC 49.03(b)(i), GC 49.03(c)(i), GC 49.03(d)(i), GC 49.03(d)(ii), and GC 49.03(e)(i);
 - (ii) plus the additional allowance under GC 49.03(a)(ii) and the mark-ups under GC 49.03(a)(iii), GC 49.03(b)(ii), GC 49.03(c)(ii), GC 49.03(d)(iii), and GC 49.03(e)(ii); and
 - (iii) where the Subcontractor is at arms length to the Contractor, as determined in the Ministry's sole discretion, including without limitation where:
 - (A) the Subcontractor is not affiliated with the Contractor,
 - (B) if the Contractor is a joint venture, the Subcontractor is not a venturer, or affiliated with a venturer, in that joint venture, or,
 - (C) the Contractor is a partnership, the Subcontractor is not a partner, or affiliated with a partner, in that partnership,

(as 'affiliated' is defined pursuant to Section 2 of the [Business Corporations Act](#)), the Ministry shall pay the Contractor an additional amount equal to five percent (5%) of the total of all payments specified in GC 49.03(f)(i) and GC 49.03(f)(ii) subject to a cumulative maximum of fifty thousand dollars (\$50,000) exclusive of GST over the Term.

GC 49.04 When the cumulative entitlement to payment for Work performed on a Force Account Basis in accordance with GC 49.03 equals twenty-five percent (25%) of the Tender Price, then payment for all further entitlements for Force Account Work performed on the following or subsequent days shall be calculated in accordance with GC 49.05.

GC 49.05 For Work performed on a Force Account Basis in the circumstances described in GC 49.04:

- (a) the costs claimed shall be limited to those incurred on the Site;

- (b) the mark-up percentage specified in GC 49.03(a)(iii) shall be reduced to twelve and one-half (12.5%);
- (c) the mark-up percentage specified in GC 49.03(d)(iii) shall be reduced to zero percent (0%); and
- (d) the mark-up percentage specified in GC 49.03(e)(ii) shall be reduced to ten percent (10%).

GC 49.06 Unless otherwise provided for in the Contract, payment on a Force Account Basis represents complete payment (exclusive of GST) and reimbursement for all impacts, related costs and expenses, including, without limitation: time; labour; materials; equipment; mobilization; subcontracting; overhead; profit; general supervision; occupational tax and any other Federal or Provincial revenue legislation exclusive of GST; premiums for public liability and property damage insurance policies; bonding; for the use of all tools and equipment for which no specific rental payment provision exists; and for all costs incurred by the Contractor in supplying the materials.

GC 49.07 Standby and overtime are not compensable for Work paid on a Force Account Basis unless agreed to in advance by the Ministry Representative.

GC 49.08 The Contractor shall not be eligible for payment for any part of Force Account Basis Work that is not recorded in accounting records as to the resources and hours attributable to the specific Work.

GC 49.09 The accounting records shall not establish entitlement to compensation.

GC 50.00 *COMPENSATION FOR REIMBURSABLE DELAY*

GC 50.01 The Contractor may claim compensation for a Reimbursable Delay by:

- (a) not later than seven (7) days following the start of a Reimbursable Delay, giving written Notice to the Ministry Representative of the intention of the Contractor to make a claim together with detailed reasons for the claim;
- (b) notifying the Ministry Representative in writing as to its claim for compensation not later than seven (7) days after the Contractor's resumption of Work on the Project; and
- (c) not later than thirty (30) days after the resumption of Work, giving the Ministry Representative full written particulars of the nature and magnitude of the claim including, without limitation, the following claim documentation:
 - (i) a description of the basis for the Reimbursable Delay citing the specific provision of the Contract under which the claim is being brought;
 - (ii) a list of all equipment on the Site as a result of the Reimbursable Delay;
 - (iii) a list of any equipment moved to other locations during the Reimbursable Delay;
 - (iv) a list of the Contractor's supervisory staff at the Site before and after the Reimbursable Delay began and details of applicable pay rates;
 - (v) a schedule of equipment operator costs;
 - (vi) the most recent Construction Schedule prior to the Reimbursable Delay and the impact of the Reimbursable Delay thereon; and
 - (vii) any other documents requested by the Ministry Representative.

GC 50.02 If a Reimbursable Delay occurs and the Contractor complies with GC 50.01, the Ministry shall, subject to the terms of the Contract, pay the Contractor only the following direct costs which in the opinion of the Ministry Representative were necessarily and properly incurred and documented by the Contractor pursuant to GC 42.04:

- (a) costs of supervisory staff committed to the Project, excluding costs of time paid for greater than eight (8) hours in any one day and excluding costs for Saturdays, Sundays, and Holidays;
- (b) costs of labour (other than supervisory staff), including All Found Equipment operators, approved in writing by the Ministry Representative;
- (c) costs of equipment for equipment idled by the Reimbursable Delay determined as:
 - (i) in the case of equipment owned or leased by the Contractor on a long term basis,
 - (A) for the first twenty-one (21) continuous days only the number of hours that the equipment was idle, subject to a maximum of eight (8) hours per day and excluding Saturdays and Holidays, multiplied by the Bare Equipment Rates for such idle equipment, and
 - (B) for the twenty-second (22nd) continuous day and all subsequent days excluding Saturdays and Holidays the actual loss which the Contractor demonstrates is wholly attributable to the Reimbursable Delay where the Contractor demonstrates that an actual loss was suffered by the Contractor with respect to other work being available to the Contractor which the Contractor was precluded from carrying out as a result of the costs of moving such idled equipment to the site of such other work;
 - (ii) in the case of rented equipment which is rented on a short term basis, the incremental rental costs that are wholly attributable to the Reimbursable Delay; and
 - (iii) in the case of hired equipment, the equipment idle time, to a maximum of three (3) days, a maximum of eight (8) hours per day and excluding Saturdays and Holidays, multiplied by the Bare Equipment Rates;
- (d) five percent (5%) of the sum of GC 50.02(a), GC 50.02(b), and GC 50.02(c) as overhead;
- (e) reasonable board and lodging costs for supervisory and other staff authorized under GC 50.02(a) and GC 50.02(b) above;
- (f) increases in materials costs wholly attributable to the Extension of Time if an Extension of Time has been granted pursuant to GC 44.00; and
- (g) the reasonable costs of moving idled equipment off and back to the Site where the anticipated costs of moving the idled equipment would be less than anticipated costs which would be incurred pursuant to GC 50.02(c).

GC 50.03 The Ministry shall not pay the Contractor for equipment that is inoperative due to breakdown or for idled equipment which was not in use when the Reimbursable Delay started.

GC 51.00 CONSEQUENTIAL LOSSES

GC 51.01 Under no circumstances shall the Contractor be entitled to any compensation or payment not specifically provided for in the Contract including, without limitation, any payment for loss of profits or consequential damage or loss.

GC 52.00 PROGRESS PAYMENTS

GC 52.01 The Ministry Representative shall, subject to the terms of the Contract, no later than seven (7) days following the first day of each month or such later date and/or less frequent period as may be agreed to between the Ministry Representative and the Contractor, prepare and endorse a progress estimate of the amount of Work performed by the Contractor.

GC 52.02 Subject to the terms of the Contract, the Ministry shall make a progress payment to the Contractor monthly in arrears.

GC 52.03 The progress payment made under GC 52.02 shall be at the applicable rates set out in Schedule 7 - Approximate Quantities and Unit Prices, and be based upon the estimated amount of the Work performed under GC 52.01, as follows:

- (a) the progress payment for any Unit Price Item shall be based on the total quantity of Work performed for the Item, as estimated by the Ministry Representative, less the amount paid for the Item pursuant to any previous progress estimate(s);
- (b) the progress payment for any Lump Sum Item shall be based on the percentage complete of the Item, as estimated by the Ministry Representative, less the percentage complete pursuant to any previous progress estimate(s);
- (c) the progress payment for any Provisional Sum Item shall be based on the total value of Work, which had been authorized in advance by the Ministry Representative, performed for the Provisional Sum Item less the amount paid for the Provisional Sum Item pursuant to any previous progress estimate(s);
- (d) the progress payment for any Work paid on a Force Account Basis will be based on total value of the Work performed as documented by completed "[Daily Report for Extra Work](#)" forms received and approved by the Ministry Representative during the period covered by the progress estimate; and
- (e) each progress payment shall be subject to the Holdback, pursuant to GC 54.00.

GC 52.04 Progress estimates and progress payments do not represent a final determination of quantities of Work or an acceptance of the Work by the Ministry.

GC 53.00 FINAL PROGRESS PAYMENT

GC 53.01 The Ministry Representative shall, within ninety (90) days following the Actual Completion Date, prepare the final measurements and calculations of the amount of Work performed by the Contractor and deliver a draft of the final progress estimate for review by the Contractor.

GC 53.02 At the Contractor's request, the Ministry shall provide the Contractor with access to any back-up documentation which, in the Ministry Representative's opinion is applicable and relates to the final quantities of the Work performed.

GC 53.03 The Contractor shall review the draft final progress estimate and shall, within sixty (60) days of the delivery of the draft of the final progress estimate, provide Notice to the Ministry of any claims based upon the quantities or an indication of acceptance of the final quantities.

GC 53.04 During the sixty (60) day period referenced in GC 53.03, the Contractor and the Ministry Representative shall review any discrepancies noted by either party with respect to the draft final progress estimate and shall review the calculations and records, exchange information, and conduct discussions or negotiations in an effort to reach agreement and/or a resolution with respect to the final quantities of Work for any Item in dispute. The Ministry Representative shall revise the draft final progress estimate to reflect any adjustments to the quantities of disputed Items that may be agreed to between the Ministry Representative and the Contractor and shall endorse and issue the final progress estimate.

GC 53.05 The final progress payment pursuant to the Contract shall be made within thirty (30) days of the Ministry receiving the following from the Contractor:

- (a) acceptance of the final quantities;
- (b) Notice of outstanding disputed Items, if any;

- (c) an original statutory declaration duly executed in the applicable form set out in the [Standard Specifications](#); and
- (d) any other documentation required under the Contract.

GC 53.06 Payment for any disputed Items that are resolved after issuance of the final progress estimate shall be paid within thirty (30) days of receipt by the Ministry of a letter from the Contractor, in a form and content acceptable to the Ministry Representative, containing:

- (a) a list of each resolved Item and the net amount payable for that Item;
- (b) the total net amount owing;
- (c) subject to GC 53.06(d), a statement indicating that payment of the agreed-upon amount shall release the Ministry for any and all liability associated with the claim for those items;
- (d) any other conditions of the settlement; and
- (e) the signature of an authorized signatory of the Contractor.

GC 54.00 *HOLDBACK*

GC 54.01 Subject to GC 54.02 and GC 55.04, the Ministry shall retain from each progress payment a holdback equal to five percent (5%) of the amount approved by the Ministry Representative for payment by the Ministry to the Contractor (the "Holdback").

GC 54.02 The Ministry may, in the sole discretion of the Ministry, accept from the Contractor a substitute security, in a form and content satisfactory to the Ministry, in place of the Holdback, in which case the substitute security is deemed to be the Holdback.

GC 54.03 The Ministry shall not pay interest or other charges on any amounts retained pursuant to GC 54.01 or GC 54.02.

GC 55.00 *INTERIM HOLDBACK RELEASE*

GC 55.01 In the sole discretion of the Ministry and subject to the terms and conditions of the Contract, the Ministry may release, one time only, a portion of the Holdback in accordance with GC 55.02, no sooner than the Ministry determines that all of the following conditions have been met:

- (a) the Ministry Representative has issued a Letter of Substantial Completion;
- (b) the Contractor has provided to the Ministry a clearance letter from the [Workers' Compensation Board](#) indicating that all current assessments due from the Contractor have been paid; and
- (c) the Contractor has provided to the Ministry the applicable executed statutory declaration in the format set out in the [Standard Specifications](#).

GC 55.02 An interim Holdback release shall be in the amount of the Holdback less two times the cost to complete the Work as estimated by the Ministry Representative. This amount shall be retained until such time as the conditions in GC 56.01 have been satisfied.

GC 55.03 If the Ministry has accepted a substitute form of security pursuant to GC 54.02 or if the Ministry Representative has issued a Completion Certificate pursuant to GC 34.04, no portion of the security shall be released until all conditions in GC 56.01 have been satisfied.

GC 55.04 In the event of an interim Holdback release, the Ministry shall discontinue retaining Holdbacks from all subsequent progress payments.

GC 56.00 FINAL HOLDBACK RELEASE

GC 56.01 Subject to the terms and conditions of the Contract, the Ministry shall release the Holdback, or the remaining balance thereof, within sixty (60) days following written acknowledgement by the Ministry that all of the following conditions have been satisfied:

- (a) the Ministry Representative has issued a Completion Certificate;
- (b) the Contractor has provided to the Ministry a clearance letter from the [Workers' Compensation Board](#) indicating that all current assessments due from the Contractor have been paid;
- (c) the Contractor has provided to the Ministry the applicable originally executed statutory declaration in the form set out in the [Standard Specifications](#); and
- (d) the Contractor has provided to the Ministry:
 - (i) written confirmation of the final measurement quantities that the Contractor accepts; and
 - (ii) written confirmation of the final measurement quantities which the Contractor disputes.

GC 57.00 APPROPRIATION

GC 57.01 Notwithstanding any other provision of the Contract, the obligation of the Ministry to pay money to the Contractor under the Contract is subject to:

- (a) there being sufficient moneys available in an Appropriation to enable the Ministry, in any fiscal year or part thereof when any payment of money by the Ministry to the Contractor falls due under the Contract, to make that payment; and
- (b) the Treasury Board as defined in the [Financial Administration Act](#) not having controlled or limited expenditure under any appropriation referred to in GC 57.01(a).

GC 58.00 DISPUTE RESOLUTION

GC 58.01 A dispute occurs between the Ministry and the Contractor when a difference exists between the parties as to the interpretation, application, or administration of the Contract.

GC 58.02 If a dispute occurs as contemplated in GC 58.01, the Contractor shall abide by the Ministry's decision with respect to the dispute, proceed diligently with the Work without prejudice to the Contractor's right to advance any claim it may wish to assert with respect to the dispute, and closely track all costs and impacts associated therewith.

GC 58.03 The Ministry and the Contractor agree that, both during and after the performance of the Work, each of them shall:

- (a) make bona fide efforts to resolve any dispute arising between them by negotiation; and
- (b) provide frank, candid, and timely disclosure of all relevant facts, information, and documents to facilitate the resolution of any dispute.

GC 58.04 The Contractor Representative shall give the Ministry Representative Notice of a dispute within seven (7) days of the circumstance which gives rise to the dispute.

GC 58.05 If the Ministry Representative and the Contractor Representative fail to resolve the dispute, the Contractor Representative shall file a statement of dispute with the Ministry Representative no later than fourteen (14) days after the date of the Notice given pursuant to GC 58.04, and which a statement of dispute shall update the information provided in the Notice to reflect any change in the

Contractor's position or proposed resolution and provide any additional information that may assist in the resolution of the dispute.

GC 58.06 The Ministry Representative shall provide a written reply to the Contractor's statement of dispute within fourteen (14) days of receiving the information specified in GC 58.05. The Ministry Representative's reply shall provide the Ministry's position in trying to resolve the dispute.

GC 58.07 If the dispute remains unresolved, the Contractor shall give a Written Protest respecting the dispute to the Ministry Representative no later than thirty (30) days following the date of the Ministry Representative's reply pursuant to GC 58.06. The Written Protest shall include, without limitation:

- (a) a response to each point raised in the Ministry Representative's reply as provided pursuant to GC 58.06;
- (b) relevant provisions of the Contract;
- (c) relevant cost estimates; and
- (d) estimates of any resulting changes to Schedule 5 – Time Schedule.

GC 58.08 The Ministry Representative shall give a written decision to the Contractor no later than forty-five (45) days following receipt by the Ministry Representative of the Written Protest described in GC 58.07 either:

- (a) accepting the position of the Contractor as set out in the Written Protest, in which case the Ministry shall enter into a Supplemental Agreement, as necessary;
- (b) making an offer to the Contractor to settle the dispute as set out in the Written Protest by entering into a Supplemental Agreement, as necessary; or
- (c) addressing each point in the Contractor's protest and rejecting the position of the Contractor as set out in the Written Protest.

GC 58.09 A Supplemental Agreement entered into pursuant to GC 58.08, constitutes full and final settlement of the dispute.

GC 58.10 If the dispute is not resolved pursuant to GC 58.08, the Contractor shall, within thirty (30) days of the date of the Ministry Representative's written decision, provide the Ministry Representative with:

- (a) Notice of intent to pursue a Formal Claim pursuant to GC 59.00; or
- (b) Notice that the Contractor requests a Referee in lieu of GC 59.00 and GC 60.00.

GC 58.11 The services of a Referee invoked pursuant to GC 58.10(b) or GC 59.05(b) shall be provided in accordance with the Supplemental General Conditions, or where the Supplemental General Conditions do not contain provisions for a Referee, the Ministry's standard Referee Services Agreement.

GC 59.00 FORMAL CLAIM

GC 59.01 If the dispute is not resolved by the decision of the Ministry Representative, pursuant to GC 58.08, and the Contractor has provided the Notice of intent pursuant to GC 58.10, the Contractor Manager may file a Formal Claim with the Ministry Manager no later than ninety (90) days following the issuance of the Completion Certificate.

GC 59.02 A Formal Claim shall be in writing, and shall set out in sufficient detail the particulars of the dispute so as to reasonably enable the Ministry Manager to ascertain the basis and the amount of the dispute. A Formal Claim shall include the following information:

- (a) Project and contract number;

- (b) description of the Work;
- (c) detailed description of the dispute providing all necessary dates, location, and Items affected by the Formal Claim;
- (d) date in which the circumstances which gave rise to the Formal Claim arose;
- (e) name of each official or employee of the Ministry involved in or knowledgeable about the Formal Claim;
- (f) relevant provisions of the Contract which support the Formal Claim and the reasons therefor;
- (g) in the case of a Formal Claim relating to a decision of the Ministry Representative, a detailed description of all of the relevant facts supporting the position of the Contractor in connection with that decision;
- (h) identification of any documents and particulars of any oral communications that support the Formal Claim;
- (i) copies of any documents identified pursuant to GC 59.02(h), other than documents of the Ministry and documents previously furnished to the Ministry by the Contractor, that support the Formal Claim;
- (j) if the Contractor seeks a modification to Schedule 5 - Time Schedule, the Contractor shall provide the particulars of the modification as well as the reasons therefor;
- (k) if the Contractor seeks additional compensation, the exact amount and a breakdown of that amount separated into the following categories:
 - (i) direct labour;
 - (ii) direct materials;
 - (iii) direct Contractor and Subcontractor equipment with rates claimed for each described piece of equipment based on hours and dates of use and calculated in accordance with the Equipment Rental Rates (Less Operator);
 - (iv) direct All Found Equipment with rates claimed for each described piece of equipment based on the hours and dates of use and calculated in accordance with the Equipment Rental Rates;
 - (v) overhead (general and administrative);
 - (vi) claims of Subcontractors in detail as described in this paragraph;
 - (vii) standby; and
 - (viii) other categories, if specified by the Contractor or the Ministry.

GC 59.03 The Ministry Manager shall give a written decision to the Contractor Manager no later than ninety (90) days after receiving the Formal Claim stating either that:

- (a) the Ministry accepts the position of the Contractor as set out in the Formal Claim, in which case the Ministry shall enter into a Supplemental Agreement;
- (b) the Ministry makes an offer to the Contractor to settle the Formal Claim by entering into a Supplemental Agreement; or
- (c) the Ministry rejects the position of the Contractor as set out in the Formal Claim.

GC 59.04 A Supplemental Agreement entered into pursuant to GC 59.03 constitutes full and final settlement of the Formal Claim.

GC 59.05 If the decision of the Ministry Manager does not resolve the dispute, the Contractor may, not later than thirty (30) days following receipt of the decision:

- (a) file a written appeal to the Deputy Minister in accordance with GC 60.00;
- (b) refer the dispute to a Referee, in accordance with GC 58.11; or
- (c) refer the dispute directly to arbitration, in accordance with GC 61.00.

GC 60.00 *APPEAL*

GC 60.01 The Deputy Minister shall give a written decision to the Contractor not later than sixty (60) days following receipt by the Deputy Minister of the appeal described in GC 59.05, stating that:

- (a) the decision of the Ministry Manager, pursuant to GC 59.03, is reversed, in which case the Ministry shall enter into a Supplemental Agreement, as necessary; or,
- (b) the decision of the Ministry Manager, pursuant to GC 59.03, is affirmed.

GC 60.02 A Supplemental Agreement entered into pursuant to GC 60.01 constitutes a full and final settlement of the Formal Claim.

GC 60.03 If the decision of the Deputy Minister does not resolve the dispute, the Contractor may, not later than thirty (30) days following receipt of the decision, refer the dispute to arbitration.

GC 61.00 *ARBITRATION*

GC 61.01 If the dispute is not resolved in accordance with GC 60.00 or in lieu of an appeal to the Deputy Minister as described in GC 60.00, the dispute shall be referred to and finally resolved by binding arbitration:

- (a) by a single arbitrator appointed by the parties;
- (b) at a place agreed to by the parties; and
- (c) unless the parties agree otherwise, under the rules of the [British Columbia International Commercial Arbitration Centre](#) for the conduct of domestic commercial arbitration.

GC 62.00 *DEFAULT*

GC 62.01 Any of the following events shall constitute an Event of Default whether any such event is voluntary, involuntary, or results from the operation of law or any judgment or order of any court or administrative or government body:

- (a) an order is made, resolution passed, or petition filed, for the liquidation or winding up of the Contractor;
- (b) the Contractor becomes insolvent, commits an act of bankruptcy, makes an assignment for the benefit of its creditors, or otherwise acknowledges its insolvency;
- (c) a bankruptcy petition is filed against the Contractor, or a proposal under the [Bankruptcy and Insolvency Act](#) is made by the Contractor;
- (d) a receiver or receiver-manager of any property of the Contractor is appointed;
- (e) the Contractor ceases, in the opinion of the Ministry, to carry on business as a going concern;
- (f) a floating charge granted by the Contractor crystallizes or becomes enforceable or any other action is taken to enforce any charge granted by the Contractor;
- (g) the Contractor fails to perform any of its obligations or breaches any term or provision of the Contract;

- (h) the Contractor fails to give to the Ministry notice, specifying particulars, that there has occurred or is continuing a default under the Contract;
- (i) any representation or warranty made by the Contractor in the Contract is materially incorrect;
- (j) any information, or document furnished by or on behalf of the Contractor to the Ministry in connection with the Tender or as a result of the Contract is materially incorrect;
- (k) there is any bona fide proceeding, pending or threatened against the Contractor, which would, in the opinion of the Ministry Representative, if successful, materially adversely affect the ability of the Contractor to fulfill its obligations under the Contract;
- (l) a change occurs with respect to the property or business of the Contractor which, in the opinion of the Ministry Representative, materially adversely affects the ability of the Contractor to fulfill its obligations under the Contract; and
- (m) the Contractor permits any sum pertaining to the Work to remain unpaid, which it does not in good faith dispute to be due from it, after legal proceedings have been commenced to enforce payment thereof.

GC 62.02 On the occurrence of any Event of Default, or at any time thereafter the Ministry may, in addition to any other remedy to which the Ministry may be entitled, deliver written notice to the Contractor specifying the Event of Default and the Ministry may, at its option, elect to carry out any one or more of the following:

- (a) pursue any remedy available to it at law or in equity;
- (b) subject to the approval of the Ministry Manager, retain any payment or any part of any payment due to the Contractor under the Contract, including any sums currently being held-back by the Ministry and any other amount which the Ministry Representative reasonably believes, on the basis of information available to the Ministry Representative, reflects an estimate of the costs, expenses or liabilities which the Contractor has saved or not incurred as a consequence of the Event of Default;
- (c) notify the Surety that the Contractor is in default under the Contract;
- (d) take all actions in its own name or in the name of the Contractor that may reasonably be required to remedy the Event of Default, in which case any payments, costs and expenses incurred by the Ministry in remedying the Event of Default shall be payable by the Contractor to the Ministry on demand, and the Ministry may set off against any sums owing by the Ministry to the Contractor, including any amount retained by the Ministry under GC 62.02(b);
- (e) by written Notice to the Contractor suspend the rights and obligations of the Contractor under the Contract, in whole or in part;
- (f) waive the Event of Default in writing and on such conditions as the Ministry Representative may determine;
- (g) provide written Notice to the Contractor stating that it is in default under the Contract, providing a summary of the Event of Default and the time period in which the Event of Default must be remedied; and
- (h) terminate the Contract.

GC 62.03 If any amounts have been retained by the Ministry in accordance with GC 62.02(b), the subject funds shall continue to be retained and shall be dealt with as follows:

- (a) where the Event of Default has been cured or remedied by the Contractor to the satisfaction of the Ministry within such time period as may be specified by the Ministry, then the Ministry shall pay the amount previously retained by the Ministry to the Contractor less any amount

which the Ministry Representative reasonably believes, on the basis of information available to the Ministry Representative, reflects an estimate of the costs, expenses or liabilities which the Ministry has incurred as a consequence of the Event of Default;

- (b) where in the Ministry's reasonable opinion, the Event of Default is not curable, or has not been remedied by the Contractor to the satisfaction of the Ministry within such time period as may be specified by the Ministry, then the Ministry may, at its option, keep the amount retained in reduction for payment otherwise payable to the Contractor under the Contract; and
- (c) no interest shall be calculated or payable by the Ministry with respect to any amount being retained by the Ministry in accordance with GC 62.02(b).

GC 62.04 The rights, powers and remedies conferred upon the Ministry under GC 62.02 and GC 62.03 are not intended to be exclusive and each such right, power and remedy referred to therein shall be cumulative and in addition to and not in substitution for every other right, power or remedy existing or available to the Ministry under the Contract, at law or in equity, and the exercise by the Ministry of any right, power or remedy shall not preclude the simultaneous or later exercise by the Ministry of any other right, power or remedy.

GC 62.05 No failure or delay on the part of the Ministry to complain of or provide Notice to the Contractor of any act or failure on the part of the Contractor, or to declare the Contractor in default under GC 62.01, irrespective of how long such act or failure or Event of Default has continued, shall constitute a waiver by the Ministry of its rights hereunder.

GC 63.00 *TERMINATION FOR REASONS OTHER THAN DEFAULT*

GC 63.01 Notwithstanding any other provision of the Contract, the Ministry may at any time, upon giving thirty (30) days prior written Notice to the Contractor, terminate the Contract.

GC 63.02 Subsequent to receipt of Notice from the Ministry pursuant to GC 63.01, the Contractor shall only proceed with those portions of the Work specifically authorized in writing by the Ministry Representative.

GC 63.03 Upon the termination of the Contract in accordance with GC 63.01, the Ministry shall have no further obligation to the Contractor save and except to pay to the Contractor:

- (a) the amount the Contractor is entitled to for Work completed satisfactorily on the Project to the date of termination; and
- (b) other actual expenses of the Contractor, such as demobilization and compensation for unrecovered actual fixed expenses which are, in the opinion of the Ministry, reasonable in the circumstances.

GC 64.00 *RECORDS*

GC 64.01 The Contractor shall, in connection with the Contract:

- (a) establish and maintain, at a location within British Columbia, accurate books of account and records (including supporting documents) to the satisfaction of the Ministry;
- (b) forthwith following the request of the Ministry, give written particulars of the location of the books of account and records; and
- (c) permit the Ministry, at any time during normal business hours, to copy and audit any one or more of the books of account or records (including supporting documents),

for three (3) years following the Actual Completion Date or until the date any proceeding, claim, dispute, audit or litigation arising in connection with the Project is resolved or completed, whichever is later.

GC 65.00 REPORTS

GC 65.01 The Contractor shall, upon the request of the Ministry, co-operate with the Ministry to:

- (a) fully inform the Ministry of Work done and to be done by the Contractor including information related to the Contractor's performance of its obligations under the Contract and, if requested by the Ministry, submit that information in writing; and
- (b) permit the Ministry at all reasonable times to inspect, and copy any or all of the Project Material.

GC 66.00 AUDIT

GC 66.01 The Ministry may, in its sole discretion, conduct an audit of the Contractor and has all powers necessarily incidental to conducting an audit including, without limitation, the right to inspect and take copies of the books and records of the Contractor in connection with the Contract upon reasonable notice and at reasonable times.

GC 66.02 Without limiting the generality of GC 66.01, the Contractor shall make available to any auditors of the Ministry all information requested by them, including without limitation the following:

- (a) daily time sheets and supervisors' daily reports and diaries;
- (b) insurance, welfare and benefits records;
- (c) payroll registers and tax forms;
- (d) material invoices and requisitions;
- (e) material cost distribution worksheets;
- (f) equipment records (including, without limitation, hours of use and distribution);
- (g) invoices from vendors, rental agencies, Subcontractors, suppliers of All Found Equipment and agents;
- (h) payment certificates of Subcontractors, suppliers of All Found Equipment and agents;
- (i) cancelled cheques (payroll and vendors);
- (j) all documents relating to every Formal Claim; and
- (k) worksheets used to establish the cost components for all items of each Formal Claim.

GC 66.03 The Contractor shall fully co-operate with and assist the Ministry, as necessary, to conduct an audit pursuant to GC 66.01 and GC 66.02.

GC 67.00 CONFIDENTIALITY

GC 67.01 The Contractor shall treat as confidential and shall not, without the prior written consent of the Ministry, publish or disclose or permit to be published or disclosed, any information supplied to, obtained by, or which comes to the knowledge of the Contractor as a result of the Contract except insofar as such publication or disclosure is required by law or is necessary to enable the Contractor to fulfill any obligations that the Contractor may have under the Contract.

GC 67.02 Any documentation related to the Project that is in the custody or under the control of the Ministry is subject to the [Freedom of Information and Protection of Privacy Act](#).

GC 67.03 Unless otherwise stated in the Contract and subject to the [Freedom of Information and Protection of Privacy Act](#), all information submitted by the Contractor to the Ministry shall be considered confidential during the Term and the Ministry shall not, without the prior written consent of the Contractor, publish or disclose the information, except as insofar as such publication or disclosure is required by law.

GC 67.04 Notwithstanding GC 67.03, the Ministry may use any such information for the purposes of administration, analysis of and cost estimation of this and other projects and may disclose such information to its consultants for that purpose.

GC 68.00 ANNOUNCEMENTS

GC 68.01 The Ministry shall arrange any public announcement relating to the Contract in consultation with the Contractor.

GC 69.00 PROVINCIAL PROPERTY

GC 69.01 Any property provided by or on behalf of the Ministry to the Contractor as a result of the Contract is the exclusive property of the Ministry. The Contractor shall deliver the property to the Ministry forthwith following the completion or termination of the Contract.

GC 69.02 The Ministry may, prior to the completion or termination of the Contract, give written notice to the Contractor requiring the Contractor to deliver to the Ministry the property or any part of the property, in which event the Contractor shall forthwith comply with the request.

GC 70.00 ENTIRE CONTRACT

GC 70.01 The Ministry and the Contractor acknowledge and agree that the Contract represents the entire contract and agreement between the Contractor and the Ministry and that the Contractor has not relied upon or been induced by any representation, promise or warranty whatsoever by the Ministry or any officer, employee or agent of the Ministry, in entering into the Contract or with respect to the Work, other than as set out in the Contract.

GC 70.02 Each Schedule, Appendix, Addendum, and any Supplemental General Conditions attached to the Contract is an integral part of the Contract as if set out at length in the body of the Contract.

GC 71.00 AMENDMENTS

GC 71.01 The Contract may be amended only by a duly executed Supplemental Agreement.

GC 72.00 ADDRESS FOR NOTICES

GC 72.01 Any written notice, including a Notice, document, or payment desired or required to be given, delivered or made under the Contract will be conclusively deemed validly given, delivered or made to and received by the addressee, for the purposes of any time restrictions of the Contract,

- (a) if delivered personally to the addressee, on the date of delivery, or
- (b) if mailed in Canada with postage prepaid addressed to the party at the address set out on the execution page of the Contract, on the third day after its mailing, except in the event of disruption of postal services in Canada in which case it is deemed received by the addressee when actually delivered to the address for the addressee or as changed pursuant to GC 72.03.

GC 72.02 Any notice or document desired or required to be given under the Contract may be transmitted by facsimile transmission from either party and will be conclusively deemed validly given to and received by the intended recipient, for the purposes of any time restrictions of the Contract, when so transmitted to the numbers set out on the execution page.

GC 72.03 Either party may from time to time notify the other party in writing of a change in address, for the purposes of GC 72.01, or a change in facsimile number, for the purposes of GC 72.02, and the change in address or facsimile number will be effective upon receipt of the notice.

GC 73.00 FURTHER ASSURANCES

GC 73.01 Each of the parties shall, upon the reasonable request of the other, do or cause to be done all further things for the better performance of the Contract.

GC 74.00 DUTY TO MITIGATE

GC 74.01 The Contractor shall take all reasonable and necessary steps to minimize and avoid all costs and impacts arising out of the Contract.

GC 75.00 WAIVER

GC 75.01 No waiver by either party of a right of that party or any breach by the other party in the performance of any of its obligations under the Contract is effective unless it is in writing.

GC 75.02 No waiver of any right or obligation is a waiver of any other right or obligation under the Contract.

GC 76.00 TIME

GC 76.01 Time is of the essence of the Contract.

GC 77.00 INTERPRETATION

GC 77.01 Where the Contract references a statute such reference is a reference to a statute of the Province of British Columbia unless otherwise stated, and includes every amendment to it, every regulation made under it, and any enactment passed in replacement or substitution for it.

GC 77.02 Unless the context otherwise requires, any reference in the Contract to any Article, Schedule, Section or Subsection, Paragraph or Subparagraph by number is a reference to the appropriate Article, Schedule, Section or Subsection, Paragraph or Subparagraph of the Contract.

GC 77.03 Head notes and indices in these General Conditions or any other part of the Contract are inserted for convenience of reference only, form no part of the Contract, and do not affect the interpretation of the Contract.

GC 77.04 In the Contract, a person includes a corporation, firm, association and other legal entity, and wherever the singular or masculine is used it is as if the plural, the feminine, or the neuter, as the case may be, had been used where the context or the parties requires.

GC 77.05 If any provision of the Contract or the application thereof to any person or circumstance is unenforceable, the remainder of the Contract and the application of that provision to any other person or circumstance are not affected and the Contract is enforceable to the extent permitted by law.

GC 77.06 If any one or more provisions of the Contract are in conflict, then the provisions apply in the following prioritized order:

- (a) any Supplemental Agreements, in reverse chronological order;
- (b) Schedule 8 – Contract Addenda, in reverse chronological order;
- (c) the Supplemental General Conditions;
- (d) the [Glossary of Terms](#);
- (e) these General Conditions;
- (f) Schedule 3 – Special Provisions;
- (g) appendices to Schedule 3 – Special Provisions;
- (h) Schedule 4 – Drawings;

- (i) the [Standard Specifications](#);
- (j) the [Maintenance Specifications](#);
- (k) the [Electrical Maintenance Standards](#); and
- (l) the remaining provisions of the Contract and the remaining Schedules.

GC 77.07 In the Special Provisions and the Drawings, figured dimensions prevail over scaled dimensions.

GC 77.08 In the Contract, the units of measurement are:

- (a) determined on the basis of the "[International System of Units](#)" established by the "[General Conference on Weights and Measures](#)"; and
- (b) as defined by the [Weights and Measures Act](#).

GC 77.09 A reference to a "day" or "days" means a calendar day or days, unless a contrary intention is expressed in the Contract.

GC 77.10 Where there is a time limitation under the Contract, and the time in question for performance of an obligation expires on a Saturday, Sunday, or a Holiday, the time for performance of the obligation governed by the time limitation is extended to the next day that is not a Saturday, Sunday, or Holiday.

GC 77.11 In the calculation of time, the first day shall be excluded and the last day included.

GC 77.12 The rights, powers, and remedies conferred on the Ministry under the Contract are not intended to be exclusive but are cumulative and are in addition to and not in substitution for any other right, power, and remedy existing under the Contract, under any other agreement, at law, or in equity. The exercise by the Ministry of any right, power, or remedy does not preclude the simultaneous or later exercise by the Ministry of any other right, power, or remedy.

GC 77.13 Approval or acceptance by the Ministry of any aspect of the Work does not relieve the Contractor of its obligation to perform all Work in accordance with the Contract.

GC 77.14 Where the Contract anticipates the use of a specific form, an alternative instrument may be used which clearly identifies the instrument as being a substitute for the specified form, and by such use, shall implicitly incorporate any terms and conditions pre-printed on the specified form.

GC 78.00 SURVIVAL OF TERMS

GC 78.01 All terms of the Contract in favour of the Ministry and all rights and remedies of the Ministry, either at law or in equity, survive the termination of the Contract.

GC 79.00 SUCCESSORS AND ASSIGNS

GC 79.01 The Contract continues to the benefit of and binds the Ministry and its assigns and the Contractor and its successors and permitted assigns, and the Ministry may, upon notice to the Contractor, assign any or all of its rights or obligations under the Contract to any third party.

GC 80.00 GOVERNING LAW

GC 80.01 The Contract shall be governed, construed, and interpreted in accordance with the laws of the Province of British Columbia.

GC 80.02 The Contractor hereby irrevocably attorns itself to the exclusive jurisdiction of the courts of the Province of British Columbia in all matters related to the Contract.

GC 81.00 JOINT AND SEVERAL LIABILITY RE JOINT VENTURES

GC 81.01 If the Contractor is a joint venture, each venturer within the joint venture shall be jointly and severally liable for the representations, warranties, debts and obligations of the joint venture made,

given or incurred under, pursuant to, or as a result of or arising from the Contract, notwithstanding the nature of the legal relationship between the venturers.

GC 82.00 LIMITATIONS FOR CLAIMS

GC 82.01 The Contractor's right to commence any legal proceedings or any action against the Ministry for any matter arising directly or indirectly out of the performance or non-performance of the Contractor's or Ministry's obligations under the Contract, shall be absolutely barred upon the expiration of eighteen (18) months after the Actual Completion Date.

GC 82.02 The Contractor shall not assert any claim, file or commence any legal proceeding or any action of any kind whatsoever, in contract or in tort, or seek any other recourse against the Ministry's officers, employees or agents for any matter whatsoever in connection with the Contract.

IN WITNESS WHEREOF duly authorized representatives of the Minister of Transportation and Infrastructure, on behalf of Her Majesty the Queen in Right of the Province of British Columbia, and of the Contractor have hereunto set their hands on the dates set out below:

Project Number: 23697-0001 Contract ID Number: 23697MJ0001

Project Description: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO
BLUE GROUSE, GRADING AND PAVING CONSTRUCTION

Date of Contract: September 3, 2014

SIGNED on behalf of Her Majesty the Queen in Right of the Province of British Columbia by a duly authorized representative of the Minister of Transportation and Infrastructure, this

16 day of September, 2014,



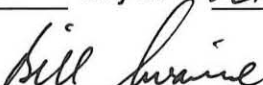
For the Minister of Transportation and Infrastructure
Victoria Godsaye-Simpson

(Print Name and Title)

Team Lead
Provincial Contracts

SIGNED on behalf of the Contractor by a duly authorized representative, this

5th day of SEPTEMBER, 2014,



For the Contractor

BILL SWAINE SENIOR PROJECT MANAGER

(Print Name and Title)

Emil Anderson Construction (EAC) Inc.

(Name of Contractor)


907 Ethel Street

Kelowna, BC V1Y 2W1

(Address)

(604) 869-7171

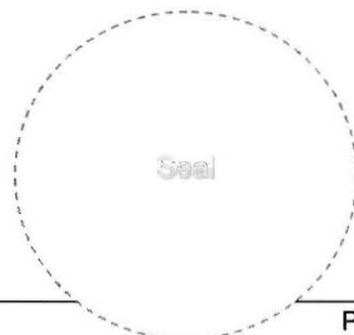
(Telephone)


Witness for the Contractor

Brian Arnott, Senior Project Manager

(Print Name and Title)

Have witnessed above or affix Corporate Seal below (as applicable)



Major Works General Conditions

(250) 762-6171

(Fax)

[In the event that the Contractor is not a corporation or limited company, then the signature part of this Contract shall be modified as may be required to reflect the appropriate signature format for the Contract for an individual, partnership, joint venture, or other entity as the case may be.]

MAJOR WORKS GENERAL CONDITIONS INDEX

All entries indexed below may be found in page #

ALL CAPITAL entries indicate Article headers
Leading Capitals entries indicate defined terms (see the “Glossary of Terms”)
lower case entries indicate some other terms that are used

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SCHEDULE 1

**SUPPLEMENTAL GENERAL
CONDITIONS
&
GLOSSARY OF TERMS**

SUPPLEMENTAL GENERAL CONDITIONS

PROJECT NO. 23697-0001

WESTSIDE ROAD IMPROVEMENTS

WATERFRONT FARM TO BLUE GROUSE

GRADING AND PAVING CONSTRUCTION

The General Conditions set out in the Contract Document Package, form an integral part of these Supplemental General Conditions and are incorporated herein. Where any condition or provision set out within the General Conditions conflicts with any of the conditions and provisions set out within these Supplemental General Conditions, the condition or provision set out in these Supplemental General Conditions shall govern.

A capitalized term when used herein shall have the meaning set out in the Glossary of Terms.

There are no Supplemental General Conditions for this Contract

GLOSSARY OF TERMS

1. Application

Unless otherwise expressly set out, this Glossary of Terms is incorporated into and forms a part of the Tender Document Package, the Contract Document Package and the Contract, including without limitation, for purposes of greater certainty, the Conditions of Tender, the General Conditions, and the Schedules.

2. Cross References Abbreviations and Inclusions

To facilitate the cross referencing among the components of each of the Tender Document Package, the Contract Document Package and the Contract, unless the context by implication requires otherwise, the following is used: a reference to XX#.# means to the article, section, subsection, or paragraph #.# of document XX, where "XX" refers to the following, as the case may be:

CT means Conditions of Tender;

DBSS means Design Build Standard Specifications;

GC means General Conditions;

SCT means Invitation to Tender – Supplemental Conditions of Tender;

SGC means Supplemental General Conditions;

SP means Special Provisions; and

SS means Standard Specifications for Highway Construction.

A reference to a higher level clause includes a reference to any subclauses (e.g. XX#.00 includes XX#.01, XX#.02 etc.; XX#.01 includes XX#.01(a), XX#.01(b)(i), etc.).

In this Glossary of Terms, a reference to a statute whether or not that statute has been defined, means a statute of the Province of British Columbia unless otherwise stated and includes every amendment to it, every regulation made under it and any enactment passed in substitution therefore or in replacement thereof.

Any information, including statutes and regulations, that may be found by accessing the URL's or Web sites set out in the Tender Document Package, the Contract Document Package or the Contract including without limitation, for purposes of greater certainty, this Glossary of Terms, the Conditions of Tender, the General Conditions, and the Schedules, are not the official versions and may not be accurate, complete, current or reliable.

3. Definitions and Interpretation

In the Tender Document Package, the Contract Document Package and the Contract, including for purposes of greater certainty, the Conditions of Tender, the General Conditions, and the Schedules, the words "including" and "includes", when following any general term or statement, are not to be construed as limiting the general term or statement to the specific items or matters set forth or to similar items or matters, but rather as permitting the general term or statement to refer to all other items or matters that could reasonably fall within the broadest possible scope of the general term or statement.

References in the Tender Document Package, the Contract Document Package and the Contract, or in any of them, including for purposes of greater certainty, the Conditions of Tender, the General Conditions, and the Schedules, to "in its sole discretion", "at the discretion", "in its discretion", "at its discretion", "in the opinion", "in its opinion" and "to the satisfaction of" or similar words or phrases when

used in relation to the Ministry are to be interpreted as meaning the sole, absolute and unfettered, including unfettered by any implied or express duties of good faith or of fairness, discretion, opinion or satisfaction, as the case may be, of the Ministry.

In the Tender Document Package, the Contract Document Package and the Contract including without limitation, for purposes of greater certainty, the Conditions of Tender, the General Conditions, and the Schedules, unless the context otherwise requires including by express definition within any such documents, the following terms shall have the following definitions.

Abnormal means timing of road restrictions, extent of stream flow, or weather which, in any two (2) week period, differs from the statistical average for that condition in that period by more than one standard deviation, calculated based on relevant data covering the twenty (20) year period immediately preceding the Award as available from,

- (a) with respect to road restrictions, the Ministry,
- (b) with respect to stream flow, the Ministry of Environment, and
- (c) with respect to weather, Environment Canada;

Actual Completion Date means the date specified in the Completion Certificate;

Addenda means the documents expressly identified as an addendum and includes the documents entitled and designated "Amendments" through the BC Bid eService, and issued by the Ministry in accordance with the Conditions of Tender, and "**Addendum**" means any one of such documents;

Administrative Contact Office means the Office designated as such in the Invitation to Tender - Supplemental Conditions of Tender;

All Found Equipment Rates means the applicable Equipment Rental Rates including operator and all associated costs for All Found Equipment;

All Found Equipment means any equipment hired on a time basis inclusive of operator, unless such equipment is hired through a Subcontract, approved in advance, by the Ministry;

Appendix or Appendices means any appendix(ces) or supplement(s) to a Schedule of the Contract;

Appropriation means the same as in the [Financial Administration Act](#);

Approximate Quantity(ies) means the Ministry's estimate as at Closing Time of the quantity of a Unit Price Item applicable to the Work, as specified in the applicable "Approx. Quantity" column of the Schedule of Approximate Quantities and Unit Prices;

Authorized Venturer means the entity, being of a type described in any one of the clauses (a) to (e) of the definition of Bidder, that is appointed as the Authorized Venturer under the Joint Venture Confirmation Agreement.

Authorized Representative means the person or persons having the legal authority and agency to legally bind the Ministry, Bidder, Contractor or Authorized Venturer;

Award means the written notice to the Bidder from the Ministry, in the form of an Award letter signed by an Authorized Representative of the Ministry accepting the Bidder's Tender;

Award Date means the date of the Award letter or, if specified in the Award letter, the date specified as such in the Award letter;

Bankruptcy and Insolvency Act means the [Bankruptcy and Insolvency Act, \[R.S.C. 1985\] c. B-3](#);

Bare Equipment Rates means the applicable Equipment Rental Rates (Less Operator) multiplied by thirty-five percent (35%);

BC Bid eService means the electronic procurement system defined in the BC Bid Terms and Conditions as the "Service";

BC Bid eService Delivery Method means the electronic delivery of a Tender, save and except for the accompanying Bid Security, using the BC Bid eService;

BC Bid Terms and Conditions means, collectively, the terms and conditions listed as the “Terms and Conditions” set out in the BC Bid form entitled “e-Bidding Registration and Change of Information Form” and the BC Bid terms and conditions set out as terms and conditions of use in the form entitled “BC Bid Service Terms and Conditions”, as such forms, terms and conditions, or any of them, may be amended from time to time;

BC Bid Website means the website maintained by BC Bid at www.bcbid.gov.bc.ca or any replacement for that website maintained by BC Bid;

Bid Bond means a bond in the form and containing the terms described or set out, as the case may be, in the Schedule entitled “Tender Securities” set out in the Tender Document Package in accordance with the Conditions of Tender;

Bidder means an entity of one of the following types which submits a Tender to the Ministry in accordance with the Conditions of Tender:

- (a) a corporation as defined in the *Business Corporations Act*;
- (b) a partnership as defined in the *Partnership Act*, including, whether formed inside or outside British Columbia, a general partnership, limited partnership, or limited liability partnership and in such case includes each of the partners;
- (c) an individual;
- (d) a sole proprietorship;
- (e) any other type of entity having the legal capacity to enter into the Contract contained in the Tender Document Package; and,
- (f) a Joint Venture Bidder and in such case includes each of the entities comprising the joint venture.

Bid Security(ies) means a Bid Bond or other security in the form and containing the terms described or set out, as the case may be, in the Schedule entitled “Tender Securities” as set out in the Tender Document Package and to be delivered by the Bidder as Bid Security in accordance with the Conditions of Tender;

Bonds means the Performance Bond and the Labour and Material Payment Bond for the Work;

Builders Lien Act means the [Builders Lien Act, S.B.C. 1997, c.45](#);

Business Corporations Act means the [Business Corporations Act, \[S.B.C. 2002\], c. 57](#);

Changed Conditions means surficial or subsurface conditions at the Site materially different from those indicated in the Tender Document Package at the Closing Time of Tender which were

- (a) not foreseen by the Contractor, and
- (b) which would not be reasonably foreseeable by a reasonably experienced contractor which had, prior to submitting the Tender, conducted a thorough investigation and inspection of the Site and reviewed all information in the Tender Document Package, General Reference Documents and Specific Reference Documents,

but does not include any change in quantities or any change to the surficial or subsurface conditions caused by the weather, excepting Abnormal weather, or any natural event;

Change to Work means the deletion, extension, increase, decrease or alteration of lines, grades, dimensions, methods, drawings, substantial changes in geotechnical, subsurface, surface or other conditions, changes in the character of the Work to be done or material of the Work or part thereof, within the intended scope of the Contract;

Closing Date means the date specified as such in the Invitation to Tender – Supplemental Conditions of Tender, and designated in the “Close Date & Time” field on the BC Bid eService and the BC Bid Website, as such date may be adjusted, including by extension, from time to time and at any time, by the Ministry in its sole discretion;

Closing Location means the location specified as such in the Invitation to Tender - Supplemental Conditions of Tender;

Closing Time means the time, on the Closing Date, specified as such in the Invitation to Tender - Supplemental Conditions of Tender, and designated in the “Close Date & Time” field on the BC Bid eService and the BC Bid Website, as such time may be adjusted, including by extension from time to time and at any time, by the Ministry in its sole discretion;

Commencement Date is the date on which the Contractor commences the Work pursuant to the Contract, which, for Operational Services Contracts, is the “from” date specified in Operational Services Clause 2;

Completion Certificate means a written certificate issued by the Ministry in the form and subject to the conditions stipulated in the Contract;

Completion Date means the date specified in Schedule 5 – Time Schedule for the completion of the Work as may be extended from time to time in accordance with the Contract;

Conditional Item means an Item identified in the Schedule of Approximate Quantities and Unit Prices with the notation “Conditional Item” in the column entitled “Description of Work”, for Work that requires approval from the Ministry Representative;

Conditions of Tender means the document of the same name specifying the terms and conditions of the Tender Call, and includes any and all Addenda, and the Invitation to Tender - Supplemental Conditions of Tender, as set out in the Tender Document Package;

Construction in relation to a Design Build Minor Project, means all things necessary to complete the Work, including any and all rehabilitation work, but does not include Design;

Construction Schedule means the time schedule provided by the Contractor in accordance with the terms of the Contract and includes any amendments thereto accepted by the Ministry;

Contact Person means the person designated as such in the Invitation to Tender - Supplemental Conditions of Tender;

Contaminants means any materials, substances or special (hazardous) wastes, the storage, manufacture, disposal, treatment, generation, use, transport, remediation, or release into the environment of which is now or hereafter prohibited, controlled, or regulated under the [Environmental Management Act, \[S.B.C. 2003, c. 53\]](#) and the [Contaminated Sites Regulations Reg. 375/96](#);

Contract means,

- (a) in regard to the Tender Document Package, the specimen contract to be entered into by the Ministry and by the Bidder who is given the Award to perform the Work, including for greater certainty, the General Conditions or the Operational Services Terms & Conditions, the Special Provisions, all Schedules and Appendices listed in the “Order of Contents” of the Contract, and all Addenda, as at the Closing Time; and
- (b) in regard to the Contract Document Package, the contract executed on behalf of the Ministry and the Contractor, including for greater certainty, the General Conditions or the Operational Services Terms & Conditions, the Special Provisions, all Schedules, Appendices and Addenda listed in the “Order of Contents” of the Contract, all as may be amended in accordance with the Contract;

Contract Document Package means the document package of the same name, containing amongst other things the Contract, the Drawings, all Schedules and other information as set out in the “Order of Contents” of the Contract, together with any and all Addenda issued prior to Closing Time;

Contract Price means the Tender Price of the Contractor, as specified in the Contract, as it may be adjusted from time to time pursuant to the Contract, and for greater certainty does not include GST;

Contractor means the Bidder, if any, with whom the Ministry executes the Contract for the performance of the Work;

Contract Security(ies) means the Performance Bond and Labour and Material Payment Bond or such other securities required of the Contractor as specified in the Contract;

Contractor Manager means the person, designated by the Contractor, having the authority specified in Major Works GC 6.02(a) or Design Build Minor GC 6.02(a);

Contractor Representative means the person, designated by the Contractor, having the authority specified in Major Works GC 6.02(b) or Design Build Minor GC 6.02(b);

Design means the compendium of drawings, plans, calculations, specifications and other Project Material produced by the Designer to define the Work, or a portion thereof, to be constructed;

Design Build Minor General Conditions means the General Conditions set out in the document having the title “Design Build Minor General Conditions”;

Design Build Minor Project means a Project where the General Conditions contained in the Contract are the Design Build Minor General Conditions;

Design Build Standard Specifications means the Design Build Standard Specifications for Highway Construction so named and published by the Ministry and in effect on the date the Tender Call was issued unless a different version is specified in Schedule 3 – Special Provisions or any Addenda, in which case the version so specified will prevail;

Design Schedule means the time schedule delivered by the Contractor in accordance with the Contract, detailing the various components of the Design and the anticipated milestone and completion dates and includes any amendments thereto accepted in writing by the Ministry;

Designated Subcontractor means any Subcontractor with one or more Subcontracts having an aggregate value of not less than two hundred thousand dollars (\$200,000) but does not include a subcontractor who is solely providing one or more of the following professional services:

- (a) engineering,
- (b) surveying,
- (c) material testing,
- (d) geotechnical investigation,
- (e) environmental services, or
- (f) any other services which are explicitly exempted within Schedule 3 – Special Provisions

Designated Supplier means any Supplier with one or more Subcontracts or purchase agreements used in or incorporated into the Work having an aggregate value of not less than two hundred thousand dollars (\$200,000) who is not a Supplier of any of the following materials,

- (a) liquid asphalt cement products,
- (b) electrical materials,
- (c) steel other than fabrications,
- (d) expanded Styrofoam[®] or equivalent product,

- (e) granular materials,
- (f) manufactured Portland cement concrete, where delivered by the Supplier using its own trucks,
- (g) plastic, steel or concrete pipe, or
- (h) any other materials explicitly exempted within Schedule 3 – Special Provisions;

Designer means a professional engineer, or other such professional as appropriate to the task, lawfully registered to practice in the Province of British Columbia, who is responsible for any portion of the Design;

Disqualification means a decision by the Ministry to reject a Tender, including for certainty, any or all Revisions, or a Revision, as the case may be, including to exclude a Tender from continuing to be evaluated in accordance with the Conditions of Tender, as the case may be, and **Disqualified** and **Disqualify** have a corresponding meaning;

Disturbed Feature(s) means any feature, natural or man-made, whether within or outside the Site, which has been, in the opinion of the Ministry,

- (a) disturbed, damaged, destroyed, modified, replaced, or constructed by the Contractor, or
- (b) deleteriously affected by an action or inaction of the Contractor or by any Subcontractor or an element under the Contractor's control or responsibility,

including but not limited to detours, embankments, excavations, drainage ditches and systems, shoulders, signs, luminaires, traffic signals, and existing roads to and within the Site;

Drawings means the drawings as set out in the Schedule 4 – Drawings;

e-Bidding Key means a valid BC Bid electronic signature key as defined in the BC Bid eService Terms and Conditions;

Electrical Maintenance Standards means the “Performance Based Electrical Maintenance Standards,” March 2007 edition as updated from time to time and, as available on the Ministry website at: http://www.th.gov.bc.ca/publications/eng_publications/electrical/elect_maint_specs.htm.

Emergency Work means work classified by the Ministry Representative as Emergency Work pursuant to Major Works GC 27.00 or Design Build Minor GC 36.00;

Engineer of Record and Field Review Guidelines means the “[Engineer of Record and Field Review Guidelines](#)” published by the Ministry of Transportation and Infrastructure in [Technical Circular T-06/09](#), as amended or replaced by the Ministry from time to time;

Environmental Management Act means the [Environmental Management Act, \[S.B.C. 2003, c. 53\]](#);

Environmental Window means any period of time during the Term designated as such by the Ministry, or by any competent federal or provincial environmental government authority, branch or agency whose jurisdiction or authority may be applicable to the Contract;

Equipment Rental Rates means the applicable rates, including All Found Equipment Rental Rates and Equipment Rental Rates (Less Operator) for equipment rental established in accordance with the “Equipment Rental Rate Guide” published and distributed by the B.C. Road Builders and Heavy Construction Association in effect at the time the applicable Work is performed, and any rate premiums specified in Schedule 3 – Special Provisions; or where the rates are not set out within the Equipment Rental Rate Guide, then through negotiation between the Ministry and the Contractor prior to use of the equipment on the Project;

Equipment Rental Rates (Less Operator) means the applicable Equipment Rental Rates for equipment provided without operators;

Event of Default means an event described as such in Major Works GC 62.01 or Design Build Minor GC 62.01;

Extended Amount means the amount in the “Extended Amount” column of the Schedule of Approximate Quantities and Unit Prices being,

- (a) the product of the Unit Price for a Unit Price Item multiplied by the Approximate Quantity of that Item,
- (b) the Lump Sum Price for a Lump Sum Item, or
- (c) the sum for the Provisional Sum Item as the context so requires and as specified by the Ministry;

Extension of Time means an extension of time to complete the Work, pursuant to Major Works GC 44.00 or Design Build Minor GC 48.00;

Extra Work means any additional work, beyond the scope of the Work, which is authorized by the execution of a Work Order or a Supplemental Agreement;

Financial Administration Act means the [Financial Administration Act, \[R.S.B.C. 1996\] c. 138](#);

Force Account Basis means the method of payment to the Contractor for the performance of the Work in the absence of any other stipulated or negotiated method of payment, as described in Major Works GC 49.00, Minor Works GC 21.00, or Design Build Minor GC 51.00;

Force Account Rate means the rate calculated on a Force Account Basis, to be applied to the Work performed pursuant to Major Works GC 49.00, Minor Works GC 21.00, or Design Build Minor GC 51.00 for which payment is on a Force Account Basis;

Formal Claim means a claim filed by the Contractor pursuant to Major Works GC 59.00 or Design Build Minor GC 59.00;

Freedom of Information and Protection of Privacy Act means the [Freedom of Information and Protection of Privacy Act, \[R.S.B.C. 1996\] c. 165](#);

General Conditions means,

- (a) in regard to the Tender Document Package, the terms and conditions of the Contract set out in the document having any one of the following titles: “Major Works General Conditions”, “Minor Works General Conditions”, or “Design Build Minor General Conditions”, that is set out in the Tender Document Package as the applicable General Conditions for the Contract, and
- (b) in regard to the Contract Document Package, the terms and conditions set out in the document having any one of the following titles: “Major Works General Conditions”, “Minor Works General Conditions”, or “Design Build Minor General Conditions”, that is set out in the Contract executed on behalf of the Ministry and the Contractor;

General Reference Documents means the following standard documents, as amended or replaced by the Ministry from time to time, which may relate to this and other Ministry contracts, and which, unless otherwise indicated, may be obtained from the Ministry of Labour and Citizens’ Services, Queen’s Printer, Publications Index at the address shown on <http://www.publications.gov.bc.ca> and which are available for viewing upon request at the Ministry’s Regional offices (Internet addresses are provided for convenience only, and may not be current or provide access to the specific document applicable to the Contract):

- (a) Standard Specifications (edition as specified in the Contract)
http://www.th.gov.bc.ca/Publications/const_maint/contract_serv/standardspecs.htm
- (b) Traffic Control Manual for Work on Roadways
http://www.th.gov.bc.ca/publications/eng_publications/TCM/Traffic_Control_Manual.htm
- (c) Maintenance Specifications
http://www.th.gov.bc.ca/BCHighways/contracts/maintenance/Schedule_21_Maintenance_Specifications.pdf,

- (d) Manual of Standard Traffic Signs and Pavement Markings (September 2000)
http://www.th.gov.bc.ca/publications/eng_publications/electrical/MoST_PM.pdf,
- (e) Traffic Management Guidelines for Work on Roadways (September 2001)
http://www.th.gov.bc.ca/publications/eng_publications/geomet/traffic_mgmt_guidelines.htm
- (f) Manual of Control of Erosion and Shallow Slope Movement (August 1997)
http://www.th.gov.bc.ca/publications/eng_publications/environment/references/Manual_Erosion_Control_Shallow_Slope_Movmnt.pdf
- (g) Ministry of Transportation and Infrastructure Recognized Products List (current version)
http://www.th.gov.bc.ca/publications/eng_publications/geotech/rpl.htm,
- (h) Manual of Test Procedures for Paving Material and Mixes (1993),
- (i) Equipment Rental Rate Guide (current edition, available only from the [B.C. Road Builders and Heavy Construction Association](#)), and
- (j) Performance Based Electrical Maintenance Standards (March 2007)
http://www.th.gov.bc.ca/publications/eng_publications/electrical/elect_maint_specs.htm;

GST means the Goods and Services Tax imposed under the [Excise Tax Act \(R.S., 1985 c. E-15\)](#);

Hard Copy Delivery Method means the delivery in accordance with the Conditions of Tender of a Tender including Bid Security, Revisions and Notices of Withdrawal, if any, to the Closing Location by hand or courier, and in regard to the delivery of Notices of Withdrawal, or Revisions includes, subject to the Conditions of Tender, delivery of such documents to the Closing Location by facsimile transmission;

Holdback means any or all sums retained by the Ministry from any progress payment pursuant to Major Works GC 54.01, Design Build Minor GC 54.01, or Operational Services clause 8(b);

Holiday has the meaning as set out in the [Interpretation Act](#);

Insurance Specifications means the insurance specifications attached to the Contract in the Schedule 6 – Insurance;

Interpretation Act means the [Interpretation Act, \[R.S.B.C. 1996\] c. 238](#);

Item means an item of the Work having both a separate identifier in the "Item #" column and an entry in the "Unit of Measure" column, in the Schedule of Approximate Quantities and Unit Prices;

Invitation to Tender - Supplemental Conditions of Tender means the document entitled "Invitation to Tender - Supplemental Conditions of Tender" as set out in the Tender Document Package and forming a part of the Conditions of Tender;

Joint Venture Bidder means a Bidder comprised of two or more separate entities of a type described in any one of the clauses (a) to (e) of the definition of Bidder,

Joint Venture Confirmation Agreement means the form of agreement entitled "Joint Venture Confirmation Agreement" set out in the Tender Document Package.

Labour and Material Payment Bond means the labour and material payment bond required of the Contractor pursuant to the Contract and, subject to the terms of the Schedule 2 – Contract Securities, in the form set out in such Schedule 2 – Contract Securities;

Letter of Substantial Completion means a letter issued to the Contractor by the Ministry acknowledging the occurrence of Substantial Completion for the Work, as described in Major Works GC 34.00 or Design Build Minor GC 41.00;

Limits of Construction means the geographic limits of the Project, as described in Schedule 3 – Special Provisions or the Drawings, or both as the case may be;

Lump Sum Item means an Item identified in the Schedule of Approximate Quantities and Unit Prices by the notation “L.S.” in the column entitled “Unit of Measure”;

Lump Sum Price means the amount that subject to the terms of the Contract, is to be paid by the Ministry to the Contractor for the completion of a Lump Sum Item in accordance with the Contract;

Maintenance Specifications means the “2003 – 2004 Highway Maintenance Contracts Maintenance Specifications (February 2003)” published by the Ministry as amended or replaced by the Ministry from time to time by written notice to the Contractor;

Major Item means an item that,

- (a) is not a Provisional Sum Item, and
- (b) is an Item with a total cost exceeding \$20,000 determined by multiplying the Unit Price for the Item by the greater of either the final quantity measured by the Ministry Representative or the estimated quantity in the Schedule of Approximate Quantities and Unit Prices;

Major Works General Conditions means the General Conditions set out in the document having the title “Major Works General Conditions”;

Milestone Date means any one date, as specified in Schedule 5 – Time Schedule, for completion of the specific portion of the Work that corresponds to that date and that is generally described in such Schedule and more specifically described in Schedule 3 – Special Provisions;

Ministry means Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure;

Ministry Manager means the person designated as such by the Ministry;

Ministry Representative means the person designated as such by the Ministry;

Ministry Website means the website maintained by the Province of British Columbia at www.gov.bc.ca/tran;

Minor Works General Conditions means the General Conditions set out in the document having the title “Minor Works General Conditions”;

Notice means notification in writing by one party to the Contract to the other party to the Contract, to make the second party aware that an event or circumstances have, or are anticipated to give rise to, cost or time impacts to the other party;

Notice of Withdrawal means a clear notice in writing by the Bidder delivered in accordance with the Conditions of Tender setting out the Bidder’s unequivocal statement withdrawing its Tender from the Tender Call;

Notice Date means the date on which the Notice was received by the second party;

Notice Period means the time period specified in the Contract, for the appropriate circumstances, within which an aggrieved party to the Contract must provide Notice to the other party to the Contract;

Operational Services Terms and Conditions means the “Terms and Conditions” set out in the Ministry document entitled “Operational Services Contract”;

Partnership Act means the [Partnership Act, R.S.B.C. 1996, c. 348](#);

Performance Bond means the performance bond required of the Contractor pursuant to the Contract and, subject to the terms of the Schedule 2 – Contract Securities, in the form set out in such Schedule 2 – Contract Securities;

Planholder means a person or entity who has

- (a) purchased a Tender Document Package before Closing Time from the Queen’s Printer for British Columbia, or

- (b) registered on BC Bid and clicked on “Send Me Amendments” in the Invitation to Tender – Supplemental Conditions of Tender;

Project means the project being undertaken by the Ministry for which the Work is required;

Project Manager means the person designated as such in writing by the Ministry;

Project Material means any findings, data, specifications, drawings, working papers, reports, documents and other material, whether complete or otherwise, that have been produced, received or acquired by the Contractor, or provided by or on behalf of the Ministry to the Contractor as a result of the Contract;

Project Schedule, means the first overall project time schedule, including the Design Schedule, if any, and the Construction Schedule, provided by the Contractor in accordance with the Contract and includes any amendments thereto accepted by the Ministry;

Provisional Sum Item means an Item identified in the Schedule of Approximate Quantities and Unit Prices by the notation “P.S.” in the column entitled “Unit of Measure”, for Work or Extra Work that requires approval and further specification from the Ministry Representative;

Quality Assurance means the planned and systematic activities implemented in the quality system to provide adequate confidence that an entity will fulfill the requirements for quality;

Quality Control means operational techniques and activities that are used to fulfill requirements for quality;

Quality Management Plan means the plan of the same name as described in the Contract;

Quality Manager means the Contractor’s Quality Manager appointed in accordance with the Contract;

Reduction of Time means a reduction of time to complete the Work, pursuant to Major Works GC 45.00;

Referee Services Agreement means the Ministry Referee Services Agreement;

Reimbursable Delay has the meaning ascribed to it in Major Works GC 42.00 or Design Build Minor GC 46.00;

Resume Work Order means a Work Order issued by the Ministry to the Contractor, requiring the Contractor to resume Work, in whole or in part as described in the Work Order, on the Project;

Revision means an amendment, which may include one or more changes, supplements or replacements, made by the Bidder to its Tender or any part of its Tender including to the Bid Security and to the completed Schedule of Approximate Quantities and Unit Prices, in accordance with the Conditions of Tender, and delivered by the Bidder in accordance with the Conditions of Tender;

Sales Tax means any applicable federal or British Columbia tax arising from the provision or sale of either goods or services, or both, and for greater certainty, GST is not an applicable sales tax;

Schedule means a document that is expressly identified as a schedule set out in or incorporated by reference in the Tender Document Package or to the Contract, as set out or incorporated by reference in the Contract Document Package, and includes,

- (a) in respect of the Tender Document Package,
 - (i) Schedule T1 – Conditions of Tender,
 - (ii) Schedule T2 – Tender Securities,
 - (iii) Schedule T3 – Specific Reference Documents, and
 - (iv) each of the Schedules listed in subsection (b) to this definition of Schedule, and
- (b) in respect of the Contract,

- (i) Schedule 1 – Supplemental General Conditions / Glossary of Terms,
- (ii) Schedule 2 – Contract Securities,
- (iii) Schedule 3 – Special Provisions and Appendices,
- (iv) Schedule 4 – Drawings,
- (v) Schedule 5 – Time Schedule,
- (vi) Schedule 6 – Insurance,
- (vii) Schedule 7 – Approximate Quantities and Unit Prices, and
- (viii) Schedule 8 – Contract Addenda;

Schedule of Approximate Quantities and Unit Prices means,

- (a) in regard to the Tender Document Package,
 - (i) that part of the Tender Envelope, that is entitled the “Schedule of Approximate Quantities and Unit Prices” to be utilized by Bidders pursuant to the BC Bid eService Delivery Method, and
 - (ii) the document of the same name that is set out in the Schedule 7 - Schedule of Approximate Quantities and Unit Prices forming part of the Tender Document Package and to be utilized pursuant to the Hard Copy Delivery Method, and
- (b) in regard to the Contract, the Schedule entitled “Schedule 7 – Approximate Quantities and Unit Prices”;

Services in respect to an Operational Services Contract means the scope of Work described in Schedule 3 – Special Provisions;

Site means the areas:

- (a) vested as highway, as defined in the [Transportation Act](#), and
 - (i) on or within the Limits of Construction, and
 - (ii) outside the Limits of Construction, where described, referenced or designated in the Traffic Management Plan, the Special Provisions, the Standard Specifications, and the Traffic Control Manual for Work on Roadways, as the case may be,
- (b) within the licenses to construct that are indicated or referenced in Drawings or the Special Provisions, and
- (c) all additional areas as may, from time to time, be designated in writing or be depicted by Drawings by the Ministry pursuant to the Contract;

Site Occupancy means the same as described in Schedule 3 – Special Provisions;

Special Provisions means the terms set out within the Schedule 3 – Special Provisions and, for greater certainty, includes the Appendices to that Schedule;

Specific Reference Documents means the documents listed in Schedule T3 – Specific Reference Documents set out in the Tender Document Package, and provided or otherwise made available by the Ministry for viewing by Bidders, containing specific information related to the Project and the Work, and which may without limitation include: as-built Drawings; geotechnical reports; borehole test logs; and geotechnical and survey information relating to the Site;

Standards means the compendium of the design requirements, specifications, and other technical reference documents set out in the Tender Document Package or the Contract Document Package, as applicable, which set out the technical requirements for the Design;

Standard Specifications means the Standard Specifications for Highway Construction so named and published by the Ministry and in effect on the date of first publication of the Tender Call for the Project unless a different version is specified in Schedule 3 – Special Provisions or any Addenda, in which case the version so specified will prevail;

State of Suspension means an extended interruption of Work, approved or directed by the Ministry, in a Stop Work Order, but does not include a suspension pursuant to Major Works GC 62.00 or Design Build Minor GC 62.00;

Stop Work Order means a Work Order issued by the Ministry to the Contractor requiring the Contractor to stop Work, in whole or in part, on the Project;

Subcontract means any contract to perform any portion of the Work to which the Ministry is not a party;

Subcontractor means any person having a Subcontract;

Substantial Completion has the meaning as described in Major Works GC 34.00 or Design Build Minor GC 41.00;

Supplemental Agreement means a written agreement entered into by the parties to the Contract for the purpose of modifying the Contract, and in the case of a Contract incorporating the Major Works General Conditions, the Minor Works General Conditions, or the Design Build Minor General Conditions, means Ministry form H0177 “Work Order/Supplemental Agreement”;

Supplemental General Conditions means the document of the same name as set out in the Tender Document Package and forming a part of the General Conditions and the Contract Document Package;

Supplier means any person supplying materials that are used in or incorporated into the Work;

Surety means a bonding company acceptable to the Ministry which undertakes and, in the case of co-surety bond, the bonding companies acceptable to the Ministry which undertake, the obligations of the Bid Bond or the Bonds;

Tender means the offer to perform the Work delivered by the Bidder in response to the Tender Call and in accordance with the Conditions of Tender and includes the Tender Envelope, Tender Form, the Schedule of Approximate Quantities and Unit Prices, the Bid Security, any and all Revisions and if required pursuant to the Conditions of Tender in respect of the applicable Bidder, the Joint Venture Confirmation Agreement;

Tender Call means,

- (a) the procurement process for the Work, including the call for Tenders issued by the Ministry pursuant to the Conditions of Tender in connection with the Work and the Project and any part or phase or phases of the procurement process, and includes the Conditions of Tender, Addenda, the Tender Document Package, the Award, the Contract Document Package, the Contract, investigations, workshops, meetings including pre-Tender meetings, processes, exercises of discretion, waivers and assessments conducted and determinations, rulings, and decisions including disqualification decisions issued by or on behalf of the Ministry and the consultations, discussions, negotiations, closings and settling of agreements and documents relating to the Project including the Contract; and
- (b) activities, participation, continued participation, waivers, evaluation, inclusion, exclusion, determinations, assessments, exercises of discretion, reports, comments, advice, notices, interpretations, actions and decisions, including the rejection, acceptance or disqualification of any Tender including any submissions, information, documents, or instruments forming part of or intended to form part of any Tender, whether compliant or otherwise,

involving the Ministry, the officers, employees, servants, consultants, advisors and agents of the Ministry, or any of them, the Bidder or any or all Bidders including Joint Venture Bidders, or any of their respective contractors, subcontractors, directors, officers, employees, consultants, advisors or agents,

or any other person, in connection with the matters described in paragraphs (a) and (b) of this definition.;

Tender Document Package means the document package of the same name, containing the Invitation to Tender - Supplemental Conditions of Tender, the Conditions of Tender, the Schedule T2 – Tender Securities, the Specific Reference Documents, the form of Contract including the General Conditions, Schedule 2 – Contract Securities, Special Provisions, Drawings, Schedule 6 – Insurance and all Schedules, all Addenda and other information as set out in the “Order of Contents”, but excluding the General Reference Documents;

Tender Envelope means,

- (a) in regard to the BC Bid eService Delivery Method, the response form, entitled “Tender Envelope”, or any such replacement amended forms entitled “Tender Envelope” submitted by the Bidder in connection with a Revision in accordance with the Conditions of Tender, as the case may be, and
- (b) in regard to the Hard Copy Delivery Method, the envelope entitled “Tender Envelope” contained in the Tender Document Package or any other envelope including any additional or substituted envelope, courier, carrier or shipping envelope or package, and container;

Tender Form means,

- (a) in regard to the BC Bid eService Delivery Method, the ‘pop-up’ screen form entitled “Tender Form”, or any such replacement amended forms entitled “Tender Form” submitted by the Bidder in connection with a Revision in accordance with the Conditions of Tender, as the case may be, and
- (b) in regard to the Hard Copy Delivery Method, the form of the same name contained in the Tender Document Package;

Tender Item means a Unit Price Item, a Lump Sum Item or a Provisional Sum Item as listed in the Schedule of Approximate Quantities and Unit Prices;

Tender Opening means the formal, public event conducted by or on behalf of the Ministry after Closing Time at the time and place specified in the Invitation to Tender - Supplemental Conditions of Tender, during which the unverified Tender Price as stated in each Tender and any Revisions delivered before Closing Time in accordance with the Conditions of Tender are read out;

Tender Price means the total of all Extended Amounts, excluding GST, if any, as set out in the Schedule of Approximate Quantities and Unit Prices delivered as part of the Bidder’s Tender, and as may be calculated and adjusted by the Ministry pursuant to the Conditions of Tender;

Term means the term of the Contract as set out in Major Works GC 4.00, Minor Works GC 3.00, Design Build Minor GC 4.00, or Operational Services clause 2;

Traffic Control Manual for Work on Roadways means the manual published by the Ministry and entitled “Traffic Control Manual for Work on Roadways”, 1999 update, as it may be amended or replaced by the Ministry from time to time;

Traffic Management Plan means the document of the same name to be delivered by the Contractor to the Minister pursuant to the Contract, as it may be amended from time to time by the Contractor, in accordance with the terms and conditions of the Contract;

Transportation Act means the [Transportation Act, \[S.B.C. 2004\] c.44](#);

Unacceptable Work means any work, workmanship, materials, or products produced or supplied by the Contractor or any Subcontractor which, in the opinion of the Ministry, does not conform to the requirements of the Contract;

Unauthorized Work means any work done,

- (a) by a Bidder prior to the acceptance of the Tender,
- (b) contrary to or regardless of the instructions of the Ministry,
- (c) beyond the lines and dimensions shown on the Drawings, notwithstanding due consideration for permissible variations as determined by the Ministry, or
- (d) other than the Work, without the approval of the Ministry;

Unit Price means the amount that subject to the terms of the Contract, is to be paid by the Ministry to the Contractor for the completion of a specified quantity of the Unit Price Item in accordance with the Contract;

Unit Price Item means a Tender Item which is neither a Lump Sum Item nor a Provisional Sum Item;

Utility Relocation means the relocation of the infrastructure of utility companies or municipalities as described in Major Works GC 23.00 or Design Build Minor GC 32.00;

Value Engineering Proposal means a proposal submitted by the Contractor in accordance with SS 125;

Warranty Period means the period defined in the Contract during which the Contractor is required to repair or otherwise remedy any deficiencies that arise in the Construction;

Weights and Measures Act means the [Weights and Measures Act \(R.S. 1985, c. W-6\)](#);

Work means the provision of all labour, services, material, and equipment as necessary, for the Contractor to complete and perform its obligations in accordance with the Contract;

Workers Compensation Act means the [Workers Compensation Act, \[R.S.B.C. 1996\] c. 492](#);

Work Order means a written order by the Ministry in the form prescribed by the Ministry for the specific situation, requiring the Contractor to do Work or refrain from doing Work, whether covered by the Contract or not, and includes, without limitation, an order to,

- (a) add, extend or delete Work,
- (b) alter the Drawings and specifications,
- (c) speed up or delay Work,
- (d) stop or resume Work, and/or
- (e) remedy defects or deficiencies in the Work,

and, without limiting the foregoing, includes a Work Order on one of the following forms,

- (i) [Stop Work Order](#),
- (ii) [Resume Work Order](#),
- (iii) Work Order/Supplemental Agreement [for certainty, used for Major Works, Minor Works, and Design Build Minor Contracts],
- (iv) [Amending Agreement](#) [for certainty, used for Operational Services Contracts],
- (v) a [Ministry's Instruction](#) [form H202], or
- (vi) any other document prepared by the Ministry clearly marked with one of the above titles and indicating the Ministry's intent to use it as a Work Order;

Written Protest has the meaning ascribed to it in Major Works GC 58.07 or Design Build Minor GC 58.07.

SCHEDULE 2

CONTRACT SECURITIES



CONTRACT SECURITIES REQUIREMENTS AND BOND SPECIMENS INS-265

FOR MAJOR WORKS, MINOR WORKS, DESIGN BUILD MINOR AND OPERATIONAL SERVICES CONTRACTS

1. GENERAL INFORMATION ON CONTRACT SECURITIES

- (a) Any and all costs related to or for any and all Bid Securities and Contract Securities must be included in the Contract Price and the Ministry will not be responsible for or pay for any such costs as separate or as extra items.
- (b) The Ministry will not pay interest on any deposits held by the Ministry.

2. REQUIREMENTS

- (a) If the Bidder is awarded the Contract and if the Bidder delivered a Bid Bond as Bid Security in compliance with the Conditions of Tender and this Schedule, the Bidder will, on the earlier of:
- (i) fourteen (14) days from the date shown on the Ministry cover letter delivering the Contract to the Bidder; and
 - (ii) three (3) days before commencement of the Work on the Site,
- deliver to the Ministry at the address set out in the Award letter or in the letter referenced in clause 2(a)(i) above, a Performance Bond and Labour and Material Payment Bond, each
- (iii) in the format and containing the terms and conditions set out in the Specimen form of Performance Bond and Labour and Material Payment Bond set out in this Schedule, and
 - (iv) in the amount of **fifty percent (50%)** of the Tender Price.
- (b) If the Bidder is awarded the Contract and if the Bidder delivered a bank draft, certified cheque or money order as Bid Security in compliance with the Conditions of Tender and this Schedule, the Bidder may elect to apply one of the following options.

- (i) The Bidder may deliver to the Ministry a Performance Bond and a Labour and Material Payment Bond, each

- (1) in the format and containing the terms and conditions set out in the Specimen form of Performance Bond and Labour and Material Payment Bond set out in this Schedule, and
- (2) in the amount of **fifty percent (50%)** of the Tender Price.

Upon receipt of the Performance Bond and the Labour and Material Payment Bond in compliance with this Schedule, the Ministry will return the Bid Security to the Contractor.

or

- (ii) The Bidder may notify the Ministry in writing before execution of the Contract that the Bid Security may be retained by the Ministry as Contract Security in connection with the Contract. On receipt of such notice, the Ministry will deposit the Bid Security in the amount of **five percent (5%)** of the Contract Price and hold the funds as Contract Securities in connection with the Contract.

- (c) All Bonds must show the business address of the Surety for filing claims and delivery of notices by the Ministry.
- (d) The Ministry may require the Contractor to obtain the written consent of the Surety to any Work Order or Supplemental Agreement.
- (e) The Contractor must maintain the Bonds in force and effect during the Term. If the Surety notifies either party that the Bonds are no longer in force, the Contractor must obtain and deliver to the Ministry, forthwith, valid replacement Bonds that comply with the terms of this Schedule including the Specimen forms of bonds set out in this Schedule.
- (f) Despite any term of this Schedule, the format, terms and conditions, execution and identification of the Contractor on the Bonds or other form of Contract Securities, as applicable, may be modified as required by the Ministry and to the satisfaction of the Ministry, to reflect the structure of the Contractor, as a limited company, an individual, partnership, other entity or joint venture comprising the Contractor.

SPECIMEN - PERFORMANCE BOND

NO. _____

\$ _____

KNOW ALL PERSONS BY THESE PRESENTS, that _____ **(CONTRACTOR'S NAME)** as Principal, hereinafter called the Principal, and **(SURETY/INSURANCE COMPANY'S NAME(S) AND ADDRESS(ES))** _____, a corporation or corporations created and existing under the laws of Canada, and duly authorized to transact the business of Suretyship in Canada, as Surety, hereinafter called the Surety if one Surety is named in this Bond and the Co-Sureties if more than one, is/are subject to the conditions hereinafter contained, held and firmly bound, jointly and severally in the case of Co-Sureties, unto HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA AS REPRESENTED BY THE MINISTER OF TRANSPORTATION AND INFRASTRUCTURE, as Obligor, hereinafter called the Obligor, in the amount of _____ Dollars (\$ _____), lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves or Co-Sureties as the case may be, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a contract with the Obligor, dated the _____ day of **(DATE OF AWARD)** 20____ for **(PROJECT NUMBER AND PROJECT NAME)** _____ which contract documents are by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall well and faithfully observe and perform all the obligations on the part of the Principal to be observed and performed in connection with the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

(1) Whenever the Principal shall be, and declared by the Obligor to be, in default under the Contract, the Surety or Co-Sureties as the case may be shall

- (a) if the work is not taken out of the Principal's hands, remedy the default of the Principal,
- (b) if the work is taken out of the Principal's hands, and the Obligor directs the Surety or Co-Sureties as the case may be to undertake the completion of the work, complete the work in accordance with the Contract provided that a contract is entered into for the completion of the work
 - (i) it shall be between the Surety and Co-Sureties as the case may be and the completing contractor, and
 - (ii) the selection of such completing contractor shall be subject to the approval of the Obligor,
- (c) if the work is taken out of the Principal's hands and the Obligor, after reasonable notice to the Surety or Co-Sureties as the case may be, does not direct the Surety or Co-Sureties as the case may be to undertake the completion of the work, assume the financial responsibility for the cost of completion in excess of the moneys available to the Obligor under the Contract,
- (d) be liable for and pay all the excess costs of completion of the Contract, and
- (e) not be entitled to any Contract moneys earned by the Principal, up to the date of Principal's default on the Contract and any holdbacks relating to such earned Contract moneys held by the Obligor, and the liability of the Surety or Co-Sureties as the case may be under this Bond shall remain unchanged provided, however, and without restricting the generality of the foregoing, upon the completion of the Contract to the satisfaction of the Obligor, any Contract moneys earned by the Principal or holdbacks related thereto held by the Obligor may be paid to the Surety or Co-Sureties as the case may be by the Obligor.

(2) The Surety or Co-Sureties as the case may be shall not be liable for a greater sum than the amount specified in this Bond.

(3) No suit or action shall be instituted by the Obligor herein against the Surety or Co-Sureties as the case may be pursuant to these presents after the expiration of two (2) years from the date on which final payment under the Contract is payable.

(4) If this Bond is issued by Co-Sureties, then the Co-Surety that signs the first signature block on this Bond shall be designated as the "Lead Surety" for the purposes of this Bond and the Co-Sureties hereby jointly and severally irrevocably: appoint and authorize the Lead Surety to act as the sole representative of and agent for the Co-Sureties, and with authority to bind the Co-Sureties, in all dealings and matters between the Co-Sureties and the Obligor and/or the Principal arising from or relating to this Bond, including without limitation the receipt on behalf of the Co-Sureties of any notices, directions, demands or draws on or given under this Bond issued by the Obligor and in the investigation, payment, compromise, settlement and defence of any claims, disputes, demands and draws on, arising from or related to this Bond; and, agree and acknowledge that the Obligor and/or Principal shall be entitled to assume that any act done, document executed or entered into or waiver given by the Lead Surety to the Obligor and/or Principal arising from or related to this Bond has been duly authorized by each Co-Surety and is binding upon each Co-Surety without the Obligor and/or the Principal being under any obligation to enquire into the authority of the Lead Surety in such matters.

IN WITNESS WHEREOF, the Principal and the Surety or Co-Sureties as the case may be have signed and sealed this bond this _____ day of _____, 20 ____.

SIGNED and SEALED
In the presence of:

For the Principal/Contractor

SEAL

For the Surety Attorney-in-fact

SEAL

**[IF MORE THAN ONE SURETY ADD
SIGNATURE BLOCKS AS APPROPRIATE
FOR EACH AND EVERY CO-SURETY
OBLIGATED UNDER THIS BOND. THE
FIRST SURETY SIGNATURE BLOCK IS
FOR THE LEAD SURETY]**

SPECIMEN - LABOUR AND MATERIAL PAYMENT BOND

No. _____

\$ _____

Note: This Bond is issued simultaneously with another Bond in favour of the Obligee conditioned for the full and faithful performance of the contract.

KNOW ALL PERSONS BY THESE PRESENTS THAT _____ **(CONTRACTOR NAME)** as Principal, hereinafter called the Principal, and (**SURETY/INSURANCE COMPANY'S NAME(S) AND ADDRESS(ES)**) a corporation or corporations created and existing under the laws of Canada, and duly authorized to transact the business of Suretyship in Canada, as Surety, hereinafter called the Surety if one Surety is named in this Bond and the Co-Sureties if more than one, is/are, subject to the conditions hereinafter contained, held and firmly bound, jointly and severally in the case of Co-Sureties, unto HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA AS REPRESENTED BY THE MINISTER OF TRANSPORTATION AND INFRASTRUCTURE, as Obligee, hereinafter called the Obligee, for the use and benefit of the Claimants, their and each of their heirs, executors, administrators, successors and assigns, in the amount of _____ Dollars (\$ _____) of lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety or Co-Sureties as the case may be bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a written contract with the Obligee, dated the ____ day of _____ 20____ for _____ **(PROJECT NUMBER AND PROJECT NAME)** _____ which contract documents are by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall make payment to all Claimants for all labour and material used or reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A Claimant for the purpose of this Bond is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment directly applicable to the Contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the performance of the Contract under a contract which provides that all or any part of the rent is to be applied towards the purchase price thereof, shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the Contract. The prevailing industrial value of equipment shall be determined, insofar as it is practical to do so, in accordance with and in the manner provided for in the latest revised edition of the publication of the Canadian Construction Association titled "Rental Rates on Contractors Equipment" published prior to the period during which the equipment was used in the performance of the Contract.

2. The Principal and the Surety or Co-Sureties as the case may be, hereby jointly and severally agree with the Oblige, that every Claimant who has not been paid as provided for under the terms of their contract with the Principal, before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's work or labour was done or performed or materials were furnished by such Claimant, may sue on this Bond, prosecute the suit to final judgment for such sum or sums as may be justly due to such Claimant under the terms of their contract with the Principal and have execution thereon. Provided that the Oblige is not obliged to do or take any act, action or proceeding against the Surety or Co-Sureties as the case may be on behalf of the Claimants, or any of them, to enforce the provisions of this Bond. If any act, action or proceeding is taken either in the name of the Oblige or by joining the Oblige as a party to such proceeding, then such act, action or proceeding, shall be taken on the understanding and basis that the Claimants, or any of them, who take such act, action or proceeding shall indemnify and save harmless the Oblige against all costs, charges and expenses or liabilities incurred thereon and any loss or damage resulting to the Oblige by reason thereof. Provided still further that, subject to the foregoing terms and conditions, the Claimants, or any of them, may use the name of the Oblige to sue on and enforce the provisions of this Bond.
3. No suit or action shall be commenced hereunder by any Claimant:
- (a) unless such Claimant shall have given written notice within the time limits hereinafter set forth to each of the Principal, the Surety or Co-Sureties as the case may be and the Oblige, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal, the Surety and the Oblige, at any place where an office is regularly maintained for the transaction of business by such persons or served in any manner in which legal process may be served in the Province or other part of Canada in which the subject matter of the Contract is located. Such notice shall be given
 - (1) in respect of any claim for the amount or any portion thereof, required to be held back from the Claimant by the Principal, under either the terms of the Claimant's contract with the Principal or under the Mechanic's Liens Legislation applicable to the Claimant's contract with the Principal whichever is the greater, within one hundred and twenty (120) days after such Claimant should have been paid in full under the Claimant's contract with the Principal.
 - (2) in respect of any claim other than for the holdback, or portion thereof, referred to above, within one hundred and twenty (120) days after the date upon which such Claimant did, or performed, the last of the work or labour or furnished the last of the materials for which such claim is made, under the Claimant's contract with the Principal;
 - (b) after the expiration of one (1) year following the date on which the Principal ceased work on the Contract, including work performed under the guarantees provided in the Contract.
 - (c) other than in a Court of competent jurisdiction in a Province or Territory of Canada in which the subject matter of the Contract, or any part thereof, is situated and not elsewhere, and the parties hereto agree to submit to the jurisdiction of such Court.
4. The Surety or Co-Sureties as the case may be agrees not to take advantage of Article 2365 of the Civil Code of the Province of Quebec in the event that, by an act or an omission of a Claimant, the Surety or Co-Sureties as the case may be can no longer be subrogated in the rights, hypothecs and privileges of said Claimant.
5. The amount of this Bond shall be reduced by, and to the extent of any payment or payments made in good faith, and in accordance with the provisions hereof, inclusive of the payment by the Surety or Co-Sureties as the case may be of mechanics' liens which may be filed of record against the subject matter of the Contract, whether or not claim for the amount of such lien be presented under and against this Bond.

6. The Surety or Co-Sureties as the case may be shall not be liable for a greater sum than the specified penalty of this Bond.
7. If this Bond is issued by Co-Sureties, then the Co-Surety that signs the first signature block on this Bond shall be designated as the "Lead Surety" for the purposes of this Bond and the Co-Sureties hereby jointly and severally irrevocably: appoint and authorize the Lead Surety to act as the sole representative of and agent for the Co-Sureties, and with authority to bind the Co-Sureties, in all dealings and matters between the Co-Sureties and the Oblige, Principal and/or any Claimant(s) arising from or relating to this Bond, including without limitation the receipt on behalf of the Co-Sureties of any directions, notices, demands or draws on or given under this Bond issued by the Oblige and/or any Claimant(s) and in the investigation, payment, compromise, settlement and defence of any claims, demands and draws on, arising from or related to this Bond; and, agree and acknowledge that the Oblige, the Principal and/or any Claimant(s) shall be entitled to assume that any act done, document executed or entered into or waiver given by the Lead Surety to the Oblige, the Principal and/or the Claimant(s) arising from or related to this Bond has been duly authorized by each Co-Surety and is binding upon each Co-Surety without the Oblige, Principal and/or the Claimant(s) being under any obligation to enquire into the authority of the Lead Surety in such matters.

IN WITNESS WHEREOF, the Principal and the Surety or Co-Sureties as the case may be have signed and sealed this Bond this _____ day of _____ 20 ____.

SIGNED and SEALED
In the presence of:

**[IF MORE THAN ONE SURETY ADD
SIGNATURE BLOCKS AS APPROPRIATE
FOR EACH AND EVERY CO-SURETY
OBLIGATED UNDER THIS BOND. THE
FIRST SURETY SIGNATURE BLOCK IS
FOR THE LEAD SURETY]**

For the Principal/Contractor

SEAL

For the Surety Attorney-in-fact

SEAL

SCHEDULE 3

SPECIAL PROVISIONS & APPENDICES

PROJECT NO. 23697-0001
WESTSIDE ROAD IMPROVEMENTS
WATERFRONT FARM TO BLUE GROUSE
GRADING AND PAVING CONSTRUCTION
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Appendix – Survey Layout Services and Products

Appendix – List of Subcontractors and Suppliers

Appendix – Guidelines on the use of Speed Reader Boards (SRB) in work zone

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SCHEDULE 3 - SPECIAL PROVISIONS AND APPENDICES

PROJECT NO. 23697-0001

WESTSIDE ROAD IMPROVEMENTS

WATERFRONT FARM TO BLUE GROUSE

GRADING AND PAVING CONSTRUCTION

SPECIAL PROVISIONS

SECTION 1– GENERAL

1.01 Location of the Site

The Site is located on Westside Road No. 138 approximately 12 km north of the Highway 97 and Westside Road interchange in West Kelowna and 47 km south of the Highway 97 and Westside Road intersection in Vernon.

1.02 Scope of Work

The scope of work is the construction, widening and realignment of approximately 810 metres of narrow 2-lane rural road (Westside Road No. 138) from the north boundary of District Lot 4490 known as Waterfront Farm to the Blue Grouse subdivision driveway.

The general nature of the Work to be carried out under the Contract consists of but is not necessarily limited to the following:

- 0.81 km of Two Lane Road Widening
- Mobilization/Demobilization
- Traffic Management and Traffic Control
- Quality Management
- Survey Layout
- Clearing and Grubbing
- Removals and Relocations
- Utility Conduit Installation
- Construct Driveway to DL 3792
- Asphalt Pavement Removal and Milling
- Stripping
- Type D Roadway & Drainage Excavation
- Type A Excavation
- Embankment Construction
- Disposal of Surplus Excavation Material

- Supply, Haul and Place Granular Materials
- Supply and Install Asphalt Pavement (EPS)
- Supply and Install Culverts and Spillways
- Supply and Install Precast Concrete Barriers
- Signing and Pavement Marking
- Revegetation Seeding
- Installation of Slope Mesh for Rock and Specified Soil Cuts
- Cleanup and Site Restoration

1.03 Interpretation

Cross-reference abbreviations are defined in the Glossary of Terms.

Any reference to the Ministry of Transportation and Highways or the Ministry of Transportation shall mean the Ministry of Transportation and Infrastructure.

Any reference to other Ministries should follow the enclosed link

<http://www.gov.bc.ca/ministries/index.html?WT.svl=leftnav>

1.04 Standard Specifications

The 2012 Standard Specifications for Highway Construction and the attached Special Provisions Appendix for Amendments to the 2012 Standard Specifications for Highway Construction apply to this Contract.

1.05 Availability of Relevant Publications

The Equipment Rental Rate Guide is available from:

B.C. Road Builders and Heavy Construction Association
Suite #307 - 8678 Greenall Avenue
Burnaby, British Columbia
V5J 3M6

Phone Number: (604) 436-0220

Fax Number: (604) 436-2627

All other General Reference Documents and other relevant publications can be obtained through Queen's Printer at:

Queen's Printer
Government Publication Services
Box 9452, Stn Prov Govt
Victoria BC V8W 9V7

or

Phone toll free at: 1-800 663-6105

and can be accessed at:

www.publications.gov.bc.ca

If a relevant publication is not available from Queen's Printer, please contact the Ministry Representative.

1.06 Limited Fiscal Funds

The Work on this Project is subject to the availability of funds.

1.07 Insurance

The Contractor shall comply with the insurance requirements as described in Insurance Specifications - Major Works Contracts - INS-152, Part 1.

The following and any of their employees, servants or agents shall be added to the liability policy as additional insureds:

- BC Hydro
- TELUS Communication BC Ltd.
- Shaw Communications Ltd

The coverage under Clause 3 – Third Party Liability Insurance shall be increased to inclusive limits and in the annual aggregate of not less than \$5,000,000.00 (five million).

The Contractor shall obtain, maintain and provide evidence of “ALL RISKS” insurance coverage, satisfactory to the Ministry, covering all equipment owned, rented, or leased, or for which the Contractor may be responsible. The insurance policy shall also include a Waiver of Subrogation against Her Majesty the Queen in Right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure, together with the employees, servants and agents of the Minister.

No separate payment shall be made for insurance coverage; the cost thereof shall be included in the Tender Items.

1.08 Construction Schedule and Cash Flow Projection Schedule

In addition to GC 16.01, the Construction Schedule shall also comply with the following requirements.

The Contractor will submit to the Ministry Representative prior to the pre-construction meeting or within seven (7) days of the Award date, whichever is sooner, the Construction Schedule.

The Construction Schedule will be consistent in all respects with the requirements of the Contract, and will make adequate provision for adverse weather which may be expected from records for the area.

The Contractor will identify the critical path in all Construction Schedule submissions. The start date and finish date of each item on the critical path will be identified in each Construction Schedule submission.

The Construction Schedule will be submitted in one of the following formats:

- (i) A network diagram which will, as a minimum, include all the operations listed below, logically linking them to show the manner in which the Project will be constructed. These operations will be further divided into locations within the Work, as also shown below; or
- (ii) A bar chart derived from the network diagram, listing all of the same operations by subsection, and showing graphically the length of time needed for each.

Operation	Subsections
Mobilization	By Project
TELUS and Shaw Conduit Installation	By Station Range
Clearing	By Station Range
Site Safety Plans	By Project
Traffic Management Plan	By Project and By Location
Construction Environmental Management Plan	By Project and By Location
Quality Management Plan	By Project
Grubbing	By Station Range
Utility Relocation by TELUS	By Station Range
Utility Relocation by Shaw	By Station Range
Construct Driveway to DL 3792	By Station Range
Temporary detours	By Location
Grading to subgrade	By Station Range
Granular sub-base	By Station Range
Crushed base courses	By Station Range
Culverts	By Location
Pavement Marking	By Station Range
Removals	By Station Range
Paving	By Station Range
Signing	By Location
Re-vegetation Seeding	By Station Range
Completion Date	Per Schedule 5

The Contractor will provide an updated Construction Schedule to the Ministry on a monthly basis. It will include the progress to date, with comparison to the Contractor's initial Construction Schedule, and a forecast for completion. The updated Construction Schedule will also include the Contractor's proposed operations for the next sixty (60) days. This information, in a form satisfactory to the Ministry, will be provided to the Ministry Representative within five (5) working days after the end of each month, and will also be provided at any other time, within ten (10) working days of the Ministry Representative's request.

Where the monthly update shows that the Contractor's execution of the Work is falling behind the Construction Schedule to the extent that in the opinion of the Ministry Representative any one of the Milestone Dates or the Completion Date shown in Schedule 5 – Time Schedule may not be met, the Contractor will immediately submit to the Ministry Representative details of the action the Contractor proposes to take to bring the Work back on schedule.

If the Contractor fails to submit an updated Construction Schedule as required by the Contract, the Ministry Representative will withhold the payment of the Progress Estimate until an updated Construction Schedule meeting the requirements of the Contract is submitted and reviewed by the Ministry Representative.

The Contractor shall also submit, with the Construction Schedule and monthly updates a Cash Flow Projection Schedule based on the Construction Schedule and following the same format.

1.09 Mobilization

Mobilization will be in accordance with SS 145.08.

Payment for Mobilization will be made at a Lump Sum Price bid and in accordance with SS 145.08.01.

1.10 Hours of Work

The Contractor shall comply with all of the applicable bylaws of Regional District of the Central Okanagan which only permit activities creating a noise disturbance between 7 a.m. to 7 p.m. daily except for Sundays and Statutory Holidays, which have total prohibitions or with the written approval of the Ministry Representative.

No Work will be carried out at times outside of these hours of work without written approval of the Regional District of the Central Okanagan and the Ministry Representative.

1.11 Availability of Site or Right-of-Way

The Site is available for immediate commencement of construction.

No mechanical rock scaling, pneumatic hammering, drilling or blasting shall occur within a 200 m radius of the Wildlife Special Conditions Site identified on the drawings (approximately Sta. 114+56 to 118+46) from October 1 to April 30 in any given year. In addition, no works associated with access road construction above the rock face shall occur between these stations from October 1 to April 30 in any given year. In the event the Contractor wishes to undertake work between stations 114+56 and 118+46 outside the period October 1 to April 30 in any given year, the Contractor must retain the services of a Qualified Professional (R.P.Bio.) to develop an impact mitigation plan that completely mitigates any harmful alteration or disturbance to the North American Racer hibernacula site shown on the drawings. The Contractor must provide copy of the impact mitigation plan to the Ministry Representative for distribution to the environmental regulatory agencies for acceptance.

1.12 Access to Site

Access to the Site can be gained by Westside Road No.138.

1.13 Site Safety

Requirements and responsibilities for construction site safety are set out in SS 135 - Construction Site Safety of the Standard Specifications.

Within the Site, the Contractor has all the responsibilities of an “employer” under the *Workers Compensation Act* and the *Occupational Health and Safety Regulation* and may, where designated as the “Prime Contractor” by the Ministry, have additional responsibilities for an “Area of Responsibility” as detailed in SS 135 and these Special Provisions.

The distinction between the geographic areas of the “Site” (where the Contractor is contracted to the Ministry to construct the works) and the “Area of Responsibility” (where the Contractor or another party has responsibilities for occupational health and safety issues between multiple employers) is important.

Area(s) of Responsibility:

The Area(s) of Responsibility encompassing the Site are as described below and may, if agreeable to the Ministry and with proper notice to the Workers Compensation Board by the Prime Contractor for each affected Area of Responsibility, include other such areas as required by the specific methodology and equipment used during the course of the Work.

The Area(s) of Responsibility are:

Area of Responsibility	Description
#1	The Project Area
#2	All areas downslope of Westside Road to Okanagan Lake within the Project Limits
#3	Contractor Pits and haul roads utilized by the Contractor

Prime Contractor Designations:

In accordance with SS 135, the Ministry intends to make the following appointments to fulfill the responsibilities of Prime Contractor in the Area(s) of Responsibility, commencing when the “Trigger” event occurs or for such time as the “Condition” specified exists.

The Ministry Representative will confirm the identity of the Prime Contractor(s) at the pre-construction meeting, or as soon as practical thereafter, and prior to any change in responsibility.

The Contractor shall not start Work on Site until the Ministry has provided written notice confirming the identity of the Prime Contractor.

Trigger / Condition	Prime Contractor, by Area of Responsibility		
	Area #1	Area #2	Area #3
During the Term	The Contractor	The Contractor	The Contractor

1.14 Obscure Hazards

The Contractor will continually assess, investigate and evaluate the Work and Site for potential hazards.

The following hazards have been identified:

- Unstable slopes and loose rock upslope and downslope of Westside Road.

1.15 Work by Others in Project Area

Further to GC 22.01, the following parties are anticipated to be working on or near the Site:

- Argo Road Maintenance Inc.
 - Roadway maintenance
- TELUS Communications B.C. Ltd.
 - Relocation of overhead lines
- BC Hydro
 - Relocation of overhead lines
- Shaw Communications Ltd.
 - Relocation of overhead lines
- Lafrentz Road Marking Ltd.
 - Roadway Marking Contractor

1.16 List of Subcontractors and Suppliers

The Contractor must complete the “List of Subcontractors and Suppliers” form H1108 (2008/07/14), in accordance with the instructions on the form, submit this form to the Ministry Representative at the pre-construction meeting, and provide updates of any subsequent changes. A copy of the form is attached herewith as an Appendix or, if not present, is available from the Ministry Representative.

1.17 Quality Management

a) QC Plan Contract-Specific Work Submission Requirements

In addition to the Work elements listed in SS 101.02.03(ii), the submission must also contain details for the following:

- Asphalt Pavement and related products, in accordance with SS 502
- Aggregate properties other than gradation (sand equivalent, degradation, soundness, etc.)
- Type A drilling and blasting
- Other Items for which specific QC requirements or other submission requirements are included within the Contract.

b) Minimum Testing and Inspection Frequencies

Minimum QC testing and inspection frequencies shall meet or exceed those indicated in Table 1 below, elsewhere in these Special Provisions, and/or in the Standard Specifications.

Lump Sum Price payment for Quality Management will be in accordance with SS 101.07.

Table 1: Minimum Frequencies of Quality Control Testing / Inspection

Product	Description	Minimum QC Testing / Inspection Frequencies ^{1, 2, 3}	Acceptance Criteria
Survey/Layout	Staking Accuracy	1 per 20 stakes	SS 145 Benchmark Level loops: 2 nd order: $\pm 0.008 \text{ m } \sqrt{\text{km}}$ Layout level loops: 3 rd order: $\pm 0.024 \text{ m } \sqrt{\text{km}}$ Control Line Traverse: 1:10,000.
Traffic Control / Management		On-going monitoring during active work, spot check after hours.	SS 194 & SPs
Concrete Roadside Barrier	Per SS 941	Materials and Concrete tests per SS 211, with all plastic concrete tests performed on each batch of concrete	Per SS 941

¹ QC frequencies may be reduced below this level, subject to the Ministry Representative’s approval, should the Contractor’s QC Plan be proven very effective.

² For all standards based on production, specified frequencies are based on hours of crusher or plant production time.

³ A *shift* is a production period of up to 10 hours duration.

Product	Description	Minimum QC Testing / Inspection Frequencies 1, 2, 3	Acceptance Criteria
Roadway Aggregate Quality (other than gradation and fracture)	ASTM D 2419 Sand Equivalent	1 per aggregate source	SS 202
	D 6928 Micro Deval	1 per aggregate source	SS 202
	ASTM C 88 Mg SO ₄ Soundness	1 per aggregate source, if Micro Deval fails	SS 202
	SS 202 Appendix 2 - Petrographic Analysis Test	1 per source if the aggregate fails any of the above three tests	To the satisfaction of the Ministry Representative
Add'l test for High Fines Surfacing Aggregate	ASTM D 4318 Plastic Limit	1 per aggregate source	SS 202
During all Roadway Aggregate Production	ASTM C 136, Dry Sieve Analysis of Aggregates ²	1 per hour per 300 t/hr or part thereof of production	SS 202 or SS 531
	ASTM C 117, Sieve Analysis of Aggregates by Washing	1 per shift	SS 202 or SS 531
	SS 202 Appendix 1 - Fracture Count on Coarse Aggregate (BCH 1-13)	1 for every second sample of dry sieve test for base aggregates	SS 202 or SS 531
Compaction:			
• Embankment	Proof Roll	As required by the Ministry Representative	To Ministry Representative's satisfaction
	Test Strip	1 per material, if required by the Ministry Representative	To Ministry Representative's satisfaction
	ASTM D 2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods	3 tests per 20 m per lift, on C and on Lt & Rt fog lines	SS 201
• Top 300 mm of Subgrade	ASTM D 698 Standard Test Method for Laboratory Compaction	1 per material	
	ASTM D 2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods	3 tests per 20 m per lift, on C and on Lt & Rt fog lines.	SS 201
• Base and sub-base aggregates	ASTM D 698 Standard Test Method for Laboratory Compaction	1 per 25,000 m3 of each type of material and whenever the accepted gradation curve is changed.	SS 202
	ASTM D 2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods	3 tests per 50 m per lift, on C and on Lt & Rt fog lines	SS 202

Product	Description	Minimum QC Testing / Inspection Frequencies 1, 2, 3	Acceptance Criteria
All other Items and Work	Per the Contract.	Per the Contract. Where frequencies are not specified in the Contract, as mutually agreed between the Ministry Representative and the Contractor as necessary to ensure conformance with the specified quality requirements.	Per the Contract.

1.18 Traffic Management

Traffic Management will comply with SS 194 except as specified below.

The Contractor's Traffic Management Plan must ensure a high level of safety and mobility for all traffic (i.e. motorists, cyclists and pedestrians) throughout the limits and duration of construction traffic control.

PART A – GENERAL

The Traffic Management Guidelines for Work on Roadways Manual and The Traffic Control Manual for Work on Roadways can be found at the following links:

http://www.th.gov.bc.ca/publications/eng_publications/geomet/traffic_mgmt_guidelines.pdf

http://www.th.gov.bc.ca/publications/eng_publications/TCM/Traffic_Control_Manual.htm

Contrary to Section 6.3 of the Traffic Management Guidelines for Work on Roadways, the Traffic Control Plans are not required to be signed and sealed by a Professional Engineer.

PART B – TRAFFIC MANAGEMENT PLAN

In accordance with SS 194.11, this Project is a Category 5 as defined in the Traffic Management Guidelines for Work on Roadways manual. The Traffic Management Plan requires the following documentation:

1. Traffic control plan
2. Public information plan
3. Incident management plan
4. Implementation plan

For the convenience of the Contractor, a sample Traffic Control Plan template and an excerpt from the Traffic Management Guidelines for Work on Roadways Manual for a Category 5 project may be obtained from the Ministry Representative. The Contractor will ensure that all relevant factors whether included on the sample sheet or not, are addressed prior to implementing each individual Traffic Control Plan.

Copies of the Traffic Management Plan shall be retained on Site by the Contractor's Superintendent, the Traffic Control Supervisor(s), and by at least one Traffic Control Person at each specific work area. The Traffic Control Supervisor and each Traffic Control Person shall

have a copy of the specific Traffic Control Plan applicable to the work area(s) under their control.

Upon request, any of the above parties will immediately provide those documents to the Ministry Representative, a Work Safe BC officer, or any other party interested in the Traffic Control on the Site.

Further to the responsibilities outlined in SS 194.04 the Traffic Control Supervisor shall maintain road closure logs and submit the information to the Ministry Representative within twenty-four (24) hours of a request.

The TMP (General) shall include, but not be limited to, the Contractor's detailed provisions for:

- Deviations to the traffic patterns or behavior including all detours, lane shifts and drops, and construction speed zones;
- Highway/Roadway geometry;
- Classification of traffic;
- Local driving patterns;
- Queue and delay control through major and minor intersections and Highway/Roadway geometry;
- The Contractor shall make provision to maintain continuous, clean and safe passage of pedestrians and cyclists to the satisfaction of the Ministry Representative during all phases of the Work;
- Any other relevant risk factors; and
- Any additional information as requested by the Ministry Representative.

Traffic Management Plan document shall include detailed provisions for the following:

1. Traffic Control Plan

The Traffic Control Plan shall include, but not be limited to the following:

- Two lane open (one lane each direction) Traffic Control Plan;
- Single Lane Alternating Traffic Operation Traffic Control Plan;
- Road Closures for Blasting Operations;
- Traffic Control Plan for the periods of inactivity when crew and/or equipment are not on the Site.

2. Public Information Plan

The Public Information Plan shall include, but not be limited to the following:

- Provisions to ensure that regularly scheduled public and school transportation is not interrupted and that emergency services (ambulance, fire, police) can be maintained in a timely and efficient manner.
- Prior to implementing a pre-approved Lane Closure, the Contractor shall provide five (5) working days advance notification of the Lane Closure by means of advertisement, including but not limited to:
 - DriveBC
 - City of Vernon
 - City of Kelowna
 - District of West Kelowna
 - Regional District of Central Okanagan
 - All emergency services
 - Regional Transportation Management Centre (RTMC)

- Local BC MoTI Road, Bridge and/or Electrical Maintenance Contractors
- BC Trucking Association
- BC MoTI Okanagan-Shuswap District
- Commercial Vehicle Safety and Enforcement (CVSE)
- School District # 23 (Central Okanagan)
- Westbank First Nations
- Okanagan Indian Band
- Any other local groups specific to this location
- The Contractor is required to operate a toll-free HOTLINE where public can receive REAL TIME status updates of the road closure, i.e. confirm road is open as scheduled, or be informed of expected delays.

3. Incident *Management Plan*

The Incident Management Plan shall include, but not be limited to the following:

- The Contractor's plan to adequately store and/or redirect highway vehicles both on and off the Site in the event the highway is closed for longer than one (1) hour.
- An alternate-route detour plan in the event the highway is closed for a period longer than two (2) hours.
- A response plan to allow the passage of Emergency Vehicles.
- A communication plan to notify emergency services of openings and closings.

4. Implementation Plan

In accordance with SS 194.11.

The Contractor shall submit an Implementation Plan that defines processes to ensure that the Traffic Control Plan, Public Information Plan, and Incident Management Plan are developed and implemented efficiently and appropriately.

PART C – TRAFFIC MANAGEMENT OPERATIONAL DETAILS

1. TMP Definitions

Active Work means that workers and equipment are present on the Site

A **traffic delay** is defined as the time interval from the first vehicle being stopped at a traffic control point, to the resumption of travel.

Travel time is defined as the time interval a vehicle or traffic controlled line requires to traverse the project operation(s) site(s) and attain normal highway speeds.

Road Closure(s) means stoppage of traffic in one or both directions for the purpose of blasting rock, tie-ins, girder erection and paving activities, etc.

Lane Closure(s) means one (or more than one) lane of traffic is closed to traffic use in one or both directions but the entire road has a minimum of one lane available for the passage of traffic for each direction.

Random Minor Traffic Interruption(s) means a very brief stoppage of traffic of no more than two (2) minutes in one or both directions for construction activities such as allowing construction equipment to cross the highway.

Queue Clearing Time means the minimum amount of time that the highway must remain open to clear queued traffic and restore free-flow operation prior to implementing a subsequent Road Closure. Pursuant to SS 194.30, traffic must be cleared prior to starting another Road Closure, Random Minor Traffic Interruption, or Single Lane Alternating

Traffic Operation. **Any vehicle shall only be stopped once as a result of traffic control within the Site.**

Single Lane Alternating Traffic means a lane closure is in effect and the road has a minimum of one lane available for the passage of traffic that is continuously alternating in each direction.

Scheduled Stoppage(s) means a stoppage of traffic in one or both directions.

2. Speed Zones

Where the Ministry Representative and District Manager, Transportation and Infrastructure consider it appropriate, a construction speed zone giving an overall reduction in speed limit may be granted, to a speed of not less than 50km/h.

The minimum posted work zone speed limit during periods of inactivity – when no Active Work is taking place such as in between shifts, holidays, and special events – shall be 60 km/h.

3. Road Closures, Lane Closures and Delays

a) Road Closures, Lane Closures and Delays

Road and/or Lane Closure(s) shall not be permitted unless approved by the Ministry Representative.

Scheduled Road Closures may be permitted for blasting rock, girder erection, clean up and paving related work and must be approved in advance by the Ministry Representative. The Contractor shall meet the advance notification requirements of these Special Provisions.

Provisions to accommodate slowly moving commercial vehicle (truck) traffic on steep grades shall be demonstrated in the Traffic Control Plan, to achieve the delay requirements stated. The Contractor shall ensure that no traffic queues are allowed through rock fall zones and that no truck traffic will be queued on grades greater than 4%. Queue staging areas should be identified where the heavy vehicles can be safely stored.

The Contractor shall supply and maintain public toilets at the project site during road closure periods.

Road Closure will be permitted for the purpose of blasting, and may be carried out only during the following times.

- Monday to Friday only
- 09:30 – 11:30
- 12:30 – 14:30
- Excluding Fridays and Mondays on Statutory weekends.

A Traffic Stoppage shall not be initiated unless delays resulting from any previous Traffic Stoppage have been completely dissipated and the traffic is moving freely throughout the site.

The Contractor must demonstrate to the Ministry Representative that the construction activity causing the Road Closure will be completed within the allowable Road Closure times. The Contractor must demonstrate this by progressive build-up of construction activities in order to prove to the Ministry Representative that the queue can be cleared within the minimum Queue Clearing Times specified. An

example of this during blasting activities is the gradual build-up of the blast sizes from 50% to 75%, 90%, and 100% of estimated design blasts, while assessing and modifying the blasting design and activities to ensure that all requirements of the Contract (i.e. Traffic, Safety, etc.) have been met before proceeding to the next increase. The Contractor shall not proceed with the next increased blast unless approved by the Ministry Representative.

b) Single Lane Alternating Traffic

Single lane alternating traffic will only be permitted, as per Table below, Monday to Thursday, except for the days when no work is permitted, provided that:

- the distance between opposing stopped traffic does not exceed 300 m
- the queue lengths in any one direction do not exceed 200 m while stopping sight distance, based on posted speed, to the back of the queue is always available
- the accumulative delays for traffic through the project does not exceed permitted delays.
- The Contractor must ensure that traffic delays do not exceed five (5) minutes and that the total delay and travel time does not exceed ten (10) minutes throughout the Project operations

Should either of the above limits be exceeded the Contractor must immediately cease operations and restore the road conditions for safe passage of traffic.

4. Long Weekend/Special Event Table

No Work that affects traffic will be permitted in any calendar year for the statutory holidays listed below:

Events	Times
Family Day	Starting from noon of the weekday prior to the statutory holiday until noon of the following weekday
Easter and Good Friday	
Victoria Day	
Canada Day	
BC Day	
Labour Day	
Thanksgiving	
Remembrance Day	

5. Requirements for Westside Road:

- Class of Roadway: Rural Arterial Undivided 2 Lane
- Minimum posted work zone speed limit: 50km/h
- Minimum number of lanes opened in each direction: SLAT only during Active Work.
- Provisions for Traffic during a seasonal shut down are to be in accordance with SS 194.29. The Site is to be left in a condition as specified below:
 - Site must be left in a safe and functional condition considered acceptable by the Ministry Representative.
- The Contractor will be required to provide two (2) Speed Reader Boards for use when flag persons/traffic control persons are controlling traffic. The deployment of the SRB's with regards to application and placement shall be in accordance with

the Technical Circular Guidelines in Appendix on the Use of Speed Reader Boards (SRB) in Work Zones

http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2012/t02-12.pdf

- Safety Apparel and Traffic Control Retro-Reflectivity Signs and Devices:
The safety apparel and traffic control retro-reflectivity signs and devices referenced in the Traffic Control Manual for Work on Roadways (TCM) have been revised as per Technical Circular T-09/05

http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2005/t09-05.pdf, and shall apply to all Work under this Contract.

6. Specific Work Activity Requirements

In accordance with SS 194.11, the following traffic engineering requirements must be incorporated into all traffic control plans unless otherwise approved by the Ministry Representative.

- Contrary to the Traffic Control for Work on Roadways manual, the Contractor shall supply and use 100cm tubular marker Type “D” cones for all traffic control activities spaced at double the frequency listed in the Traffic Control for Work on Roadways manual.
- Where excavations are made adjacent to a traveled lane, causing a drop off which is or could be hazardous to public traffic, the Contractor shall either place CRB to separate the traffic from the hazard, or backfill the excavation with Select Granular Sub-base shaped to eliminate the hazard prior to the end of each shift. The Contractor is advised that this requirement will be strictly enforced.
- The Contractor shall maintain access to existing driveways at all times via the existing driveway, or a new driveway, or as agreed with the property owner.
- The Contractor is advised that the Maintenance Contractor, at times, allows traffic to back up into this site during emergencies such as avalanches or other events causing closures. The Contractor shall coordinate with these activities and adjust the work accordingly.

PART D – TRAFFIC CONTROL DEVICES

All traffic control signs and devices shall be in accordance with the Ministry’s current standards and as defined in updated T-Circulars. The Contractor is required to review all T-Circulars below prior to the preparation of the TMP:

- Catalogue of Standard Traffic Signs 2010 Edition.
http://www.th.gov.bc.ca/publications/eng_publications/geometsigns.htm
- Idle Reduction Sign during daytime traffic stoppages at each stoppage zone or an approved alternative to discourage idling of engines.
http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2008/t08-08.pdf
- The safety apparel and traffic control retro-reflectivity signs and devices.
http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2005/t09-05.pdf
- The Contractor will be required to provide two (2) Portable Changeable Message Signs (PCMS) throughout the duration of the project and shall comply with SS 194.46 and shall be operated in accordance with Technical Circular T16-06.
http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2006/t16-06.pdf
- The Contractor will be required to provide two (2) Speed Reader Boards for use when flag persons/traffic control persons are controlling traffic.
http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2012/t02-12.pdf
- A flashing arrow board is to be used at all lane drop locations.

- Where excavations are made adjacent to a traveled lane, causing a drop off which is or could be hazardous to public traffic, the Contractor will either place CRB to separate the traffic from the hazard, or backfill the excavation and install Select Granular Sub-base shaped to eliminate the hazard prior to the end of each shift.
- The Contractor shall supply and install the “Barrier Removed” (C-069 [http://www.th.gov.bc.ca/publications/eng_publications/signs/2010_Catalogue/Standard Traffic Signs/Construction_Signs.pdf](http://www.th.gov.bc.ca/publications/eng_publications/signs/2010_Catalogue/Standard_Traffic_Signs/Construction_Signs.pdf)) signs in advance of construction zones on roadways where median and/or roadside barrier have been temporary removed. When used in advance of the construction zone, the C-069 sign may be tabbed with the C-024 FOR ____ km” sign that indicates the total distance covered by the construction project. On longer projects, confirmatory C-069 signs may be repeated at regular intervals, and/or at locations within the construction zone as specified by the Ministry Representative. These signs are not yet incorporated in the TCM, and shall meet the ASTM D4956-04 Type 9 sheeting requirement.
- The Contractor shall supply and install the appropriate Idle Reduction Sign during daytime traffic stoppages at each stoppage zone or an approved alternative to discourage idling of engines. The P-081-Tb “Daylight Hours Only” tab shall be installed if traffic stoppages occur before or extend beyond daylight hours. Sign application and placement shall be in accordance with Technical Circular T-08/08 – Idle Reduction Signs, http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2008/t08-08.pdf
This is an initiative by the Ministry to reduce greenhouse gas emissions from the Project. These signs are to be included in the Contractor’s Traffic Management Plan and shown on Traffic Control Plans

PART E – GENERAL MAINTENANCE

General Maintenance shall be in accordance with SS 194.51.

PART F – PAYMENT

Contrary to SS 194.61, the Contractor will be paid for Traffic Management. The payment of the Lump Sum Price bid will be made as follows:

- 25% of the Lump Sum when the Ministry accepts the Traffic Management Plan, as described in these Special Provisions.
- 65% of the Lump Sum paid prorated on a monthly basis based on the percentage of the Contract completed. The prorated amount will be adjusted as and when the Contractor revises its construction schedule.
- 10% of the Lump Sum when the Contractor has completed all Work and has left the Site in a condition acceptable to the Ministry Representative.

The Lump Sum Price paid will be full compensation for all costs resulting from the foregoing requirements for Traffic Management except that separate payment from the appropriate Unit Price Item or Provisional Sum will be made for the following when shown on the plans and/or approved for payment by the Ministry Representative:

- the construction and removal of detours and other temporary construction, when they are required for long duration work as defined in the Traffic Control Manual for Work on Roadways;
- the provision and removal of temporary concrete barrier, or energy attenuating systems;
- the provision and removal of temporary pavement markings, including any reflective devices affixed directly to the pavement; and
- other Work for which payment is expressly provided in the Contract.

1.19 Traffic Management for Oversized vehicles

The Contractor shall maintain the following minimum clearance envelope(s) through the construction site:

- 1) Westside Road - Minimum Width = 5.0m, Minimum Height 5.0m

The Contractor will notify the Regional Transportation Management Center (RTMC) about clearance envelope restrictions affecting over dimensional loads that will be imposed on traffic passing through the construction site at least five (5) business days before starting construction. Additional notification shall occur at least five (5) business days before any changes to clearance envelopes actually occur. The Contractor shall provide the following information in their notification:

- project name
- project contact person and their contact information
- project location
- highway number
- duration of the project
- width restriction = what dimensions are allowed, when in effect, and for what duration
- height restriction = what dimensions are allowed, when in effect, and for what duration
- a map indicating the closest alternative route around the clearance restriction able to accommodate up to 5.0 m height and 5.0 m wide.

If construction requires a vertical clearance less than 5.0 meters or a narrowing of the existing horizontal clearance, the Contractor shall provide signage in accordance with The Ministry's Manual of Standard Traffic Signs & Pavement Markings available at the following URL:

http://www.th.gov.bc.ca/publications/eng_publications/electrical/MoST_PM.pdf

For specific signs: contact the Regional Traffic Engineer

The Contractor shall also provide Portable Changeable Message Signs (PCMS) that indicate the restricted dimensions and provide details regarding alternative routing for oversized vehicles. One PCMS will be placed at each of the north and south intersections of Westside Road and Highway 97 and prior to each of the Limits of the Project for a total of four (4) signs.

The Contractor shall cooperate with haulers of oversized load to facilitate the passage of these loads through the construction site whenever this can be reasonably accommodated by the Contractor.

1.20 Materials Supplied by the Ministry

Ministry will not supply any material for this Contract.

1.21 Available Ministry Pits

There are no Ministry pits available for this project.

1.22 Protection of the Environment

a) General

Protection of the environment will be carried out according to SS 165, and SS 165 will apply to the Contract in its entirety unless otherwise specified in these Special Provisions.

b) Designated Fisheries Sensitive Areas

The following waterbodies are classified as a 'designated fisheries sensitive zones' in accordance with SS 165.01.04 and are subject to all the restrictions set out in SS 165 except as modified herein:

- Okanagan Lake

c) Designated Environmentally Sensitive Areas

No mechanical rock scaling, pneumatic hammering, drilling or blasting shall occur within a 200 m radius of the Wildlife Special Conditions Site identified on the drawings (approximately Sta. 114+56 to 118+46) from October 1 to April 30 in any given year. In addition, no works associated with access road construction above the rock face shall occur between these stations from October 1 to April 30 in any given year. In the event the Contractor wishes to undertake work between stations 114+56 and 118+46 outside the period October 1 to April 30 in any given year, the Contractor must retain the services of a Qualified Professional (R.P.Bio.) to develop an impact mitigation plan that completely mitigates any harmful alteration or disturbance to the North American Racer hibernacula site shown on the drawings. The Contractor must provide copy of the impact mitigation plan to the Ministry Representative for distribution to the environmental regulatory agencies for acceptance.

d) Contractor's Environmental Monitor

The Contractor shall retain an Environmental Monitor. This person shall be a Registered Professional Biologist (RPBio).

During periods of active construction, the Contractor's environmental Monitor shall submit bi-weekly environmental monitoring report in an approved electronic format to the Ministry Representative which will include, but not be limited to, the following information:

1. Reporting Period
2. Project name/Geographic Location
3. Prime Contractor Firm Name/ Contact
4. Environmental Monitor/ Contact
5. Summary of Construction Activities during the Reporting Period
6. Summary of Environmental Issues encountered during the Reporting Period
7. Summary of Mitigation Measures Implemented during the Reporting Period
8. Summary of Planned Corrective Measures to Address Site Deficiencies that arose during the Reporting Period
9. Summary of any Incident Reports during the Reporting Period
10. Representative Site Photographs taken during the Reporting Period.

Further to SS 165.02, the Contractor's Environmental Monitor shall be present for all earthworks including clearing and grubbing, excavation, rock hammering and drilling and blasting activities.

The Ministry has completed reptile searches within the project site, however, if reptiles are encountered during construction activities the Contractor shall halt work, and the Contractor's Environmental Monitor shall determine an appropriate temporary no work zone and contact the Ministry Representative. The Contractor shall immediately comply with this

requirement and such requirement shall be specifically excluded from the definition of Reimbursable Delay for the purposes of GC 42, and will not be accepted as cause for granting an Extension of Time.

e) Construction Environmental Management Plan

Further to SS 165.02.02 the Contractor shall provide, in a form acceptable to the Ministry, one hard copy and one digital PDF copy of the Construction Environmental Management Plan (CEMP) and any subsequent updates to the plan. Updates and addendums will be numbered sequentially.

Further to SS 165.02.02, the CEMP shall reference the Breeding Bird Window requirements noted in Section 2.01 (Clearing and Grubbing).

f) Water Detention and Treatment Facilities

The extent of water detention and treatment facilities required by the Contractor to meet its responsibilities for protection of the aquatic environment while carrying out the Work will depend on a number of factors, including but not limited to the methods and schedule chosen by the Contractor for performing the Work, and the weather or other Site conditions encountered during the Work.

Where facilities for water detention or treatment are shown on the Drawings, or otherwise required as part of the Work, they have been designed only for conditions which will apply after the completion of the Work. Unless otherwise stated elsewhere in the Special Provisions or on the Drawings, such facilities may be used by the Contractor for runoff detention and treatment while carrying out the Work, subject to the Ministry Representative's approval and subject to the Contractor's discretion as to their effectiveness for this purpose. Whether intentionally so used or not, these facilities will be restored by the Contractor prior to completion of the Work to the lines and grades specified in the Contract Documents Package.

Whatever further water treatment facilities may be necessary will be provided, maintained and removed by the Contractor.

g) Idle Reduction

The Ministry is taking initiatives to reduce greenhouse gas emissions from the Project and has identified reduced idling of construction vehicles and equipment as a reduction strategy. Further to SS 165.16.02, and 165.02.02, the Contractor's Construction Environmental Management Plan shall include procedures outlining how drivers and equipment operators will be engaged in idle reduction practices.

The Contractor is encouraged to develop innovative and practical methods to influence workers to participate in this program. The following are sample idle reduction strategies grouped within four areas of opportunity which may be applicable to the Project and that can be used as a basis for the Contractor to develop the Idle Reduction Plan:

Location of staging areas to minimize impact of emissions:

- Locate combustion engines away from sensitive receptors such as fresh air intakes, air conditioners, and windows.
- Establish a staging zone for trucks that are waiting to load or unload material in the Contract area, away from sensitive receptors.

Idling time restrictions:

During periods of inactivity and while stopped within a queue formed under the direction of a traffic control person or device, idling of Contractor and Sub-Contractor off-road equipment shall be minimized and are not to exceed the following:

- Motor vehicles and light diesel trucks - 1 minute;
- Heavy duty diesel vehicles - 5 minutes;
- Diesel Vehicles involved in construction Site passenger transportation - 10 minutes; and
- Construction Equipment - exempt when actually employed at the Site for work intended.

Idling for more than the above times is permitted only under the following circumstances:

- When the vehicle or equipment is forced to remain motionless because of other traffic conditions or mechanical difficulties over which the operator has no control;
- To bring the vehicle or equipment to the manufacturer's recommended operating temperature;
- When the outdoor temperature is below 0°C or above +30°C and the operator or passengers are inside the vehicle, and there are no auxiliary power sources available to provide temperature control;
- When it is necessary to operate auxiliary equipment that is located in or on the vehicle or equipment to accomplish the intended use of the vehicle or equipment (for example, cranes and cement mixers);
- When the vehicle is detaching or exchanging a trailer;
- When the vehicle or equipment is being repaired or engaged in repairing another vehicle, if idling is necessary for such repair;
- When the vehicle or equipment is queued for inspection, if idling is necessary for such inspection;
- For designated emergency vehicles or any vehicle or equipment assisting in police, fire or ambulance services; and/or
- When defrosting or defogging windows. Idling shall end when fog, frost, or ice conditions have been eliminated.

Outreach and Communications:

- The Contractor shall implement a system of education and training as part of Site orientation for all on-site staff and Sub-contractors.
- The Contractor shall reinforce the idle reduction initiative via signage and during toolbox, health and safety, and Ministry meetings.

Idle Reduction Technologies:

The Contractor is encouraged to utilize idle reduction technologies where appropriate and applicable. Some examples are available at:

<http://www.epa.gov/diesel/>

1.23 Utilities

The following is a list of utility company representatives who are to be contacted regarding the co-ordination of scheduling of any Utility Relocation. The Contractor will provide the Ministry Representative and the appropriate utility company representatives listed below at least fourteen (14) days' notice prior to commencement of any portion of the Work being undertaken adjacent to any utility:

BC Hydro

Name:	Ken Yesilcimen	Title:	Design Technologist
Address:	2401 Juliann Road	Phone Number:	(250) 769-1372
	Kelowna, BC V1Z 2M3	Email:	ken.yesilcimen@bchydro.com

TELUS Communications BC Ltd.

Name:	Gary Gilbertson	Title:	O.P. Engineering
Address:	02-2002 Enterprise Way	Phone Number:	(250) 861-2445
	Kelowna, BC V1Y 9S9	Email:	gary.gilbertson@telus.com

Shaw Communications Inc.

Name:	Gareth Williams	Phone Number:	(250) 712-2356
Address:	2340 Hunter Road Phone	Email:	gareth.williams@sirb.ca
	Kelowna, BC V1X 7H6		

The Contractor will be responsible for the coordination of any Utility Relocation necessary to facilitate the Work.

(a) Utilities Scheduling Constraints

BC Hydro, Shaw and TELUS Relocations

The relocation of utilities by BC Hydro, Shaw and TELUS, and the Contractor's conduct of the Work will be interdependent. The Contractor shall cooperate with the utility companies to ensure:

- that the conduit for temporary relocations is installed in accordance with the Drawings and the TELUS specifications in the Appendices.
- that the utility companies are provided with access to the work site at all times;
- that the Construction Schedule submitted and maintained by the Contractor in accordance with Special Provisions clause SP 1.08 is realistic, and that its schedule and the utility companies' relocation schedule are mutually consistent and are also consistent with the availability of property
- that the utility relocation is not being delayed by the Contractor's scheduling and performance of the Work.

TELUS and Shaw require six (6) weeks advance notice prior to relocating their lines from the existing poles to the conduit installed by the Contractor. The Contractor shall notify the Ministry Representative immediately if it considers that its Work is being delayed by the failure of any utility company to relocate its services in a timely manner.

1.24 Trenching Existing Pavement Structures

Where trenches are cut into existing pavement structures, backfill will match the existing materials and thickness.

Payment for granular material used as backfill will be made under the appropriate Tender Items.

1.25 Haul and Overhaul

In accordance with SS 201.45, haul and overhaul is incidental to the Works and no payment will be made.

1.26 Project Signs

The Contractor shall supply all signs, including C-018-1A, C-082 and appropriate Idle Reduction Sign, with the exception of the C-035 project signs.

If the C-035 project signs are not already in place, the Ministry will supply the sign boards for erection and potential removal by the Contractor, with compensation paid by Work Order. Maintenance of these signs during the term of the Contract shall be incidental.

If directed by the Ministry Representative to remove the C-035 project signs after completion of the Work, the Contractor shall return the signs to the following location at no additional costs:

Argo Road Maintenance / Penticton Yard
290 Waterloo Avenue, Penticton, BC
V2A 7N3

In accordance with Traffic Management Special Provisions sub-clause Part C (5), the reflectivity standards on C- and TW- signs, channelizing devices, and barricades shall meet minimum levels of ASTM Type 6 or 9, as applicable.

All permanent, custom and construction signs shall meet Ministry's specifications in accordance to the Sign Pattern Manual:

http://www.th.gov.bc.ca/publications/eng_publications/geometsigns.htm

1.27 Engineer of Record and Field Review

The Contractor shall allow site access to the Design Engineer(s) of Record and Field Review Engineer(s) of Record or their respective designates, to review aspects of construction in accordance with the Engineer of Record and Field Review Guidelines (T-circular T-06/09). The qualified professionals are to be given a minimum of five (5) working days' notice of works deemed of geotechnical concern including subgrade preparation, placement and compaction of base, sub base and borrow, suitability of native soils for use as random borrow, and, placement of geotextile.

In addition, any variation from the Contract Documents must be submitted to, and acceptance obtained by the Coordinating Professional Engineer prior to proceeding with construction of such variations. Acceptance of variations will not preclude rejection of the defective works.

1.28 Record Drawings

Upon the completion of construction, the Contractor will provide the Ministry Representative with one marked-up set of Contract Drawings as record drawings.

These record drawings may be hand- or CAD-produced, will show in a neat and accurate manner all changes, additions, and deletions to the original Contract Drawings to show the "as-built" installation. The record of changes and additions will include both horizontal and vertical layout and the location of equipment as installed. As construction progresses, changes will be submitted periodically to the Ministry Representative in (x, y, z) co-ordinates for review as approved by the Ministry Representative.

Record drawing sets are required for all components of the Project including roadway location, drainage, structural, electrical, and signing installations.

For any portion of the Work which the Contractor is responsible to design (such as proprietary structures or elements of a Value Engineering Proposal), the Contractor's Engineer of Record shall produce CAD drawings in accordance with the Ministry's Technical Circulars [T06-09 Engineer of Record and Field Review Guidelines](#) and [T07-09 Record Drawings](#) and provide signed and sealed copies to the Ministry Representative.

These Technical Circulars are available from the Ministry Representative or on-line at the Ministry's web page:

<http://www.th.gov.bc.ca/publications/Circulars/lister.asp?set=Current&circ=T&year=2009>

All record drawings will be submitted to the Ministry Representative on or before completion of the Project. Pursuant to GC 35.00 and GC 53.00, the Completion Certificate and final progress payment will not be released if record drawings, in compliance with the Contract and to the satisfaction of the Ministry Representative, have not been received.

No separate payment will be made for this Work and the cost thereof will be considered incidental to the various items of Work to be performed.

1.29 Contractor Survey Layout

The Contractor is responsible for all staking and survey layout required for the completion of all Work, as shown on the Drawings, and to affect incidental field adjustments, such as staking of embankments and culverts to match post-stripping ground lines and actual field drainage patterns.

All calculations necessary shall be performed by the Contractor and provided to the Ministry Representative at any time upon request. The Contractor will give the Ministry Representative a copy of the construction grades prior to the start of earthwork operations.

The Contractor's survey layout shall conform, as a minimum, to the requirements outlined in the Appendix – *Survey Layout Services and Products*.

Except as noted below, survey layout is incidental to the Work and no separate payment will be made.

The Contractor shall provide any additional or revised survey layout for any design change approved by the Ministry Representative and will be paid for such additional survey layout. Compensation will be determined in accordance with GC 38.00 and any approved payments will be made from the Provisional Sum for Site Modifications.

1.30 Provision of Electronic Information

At the Contractor's request and at Ministry Representative's option, the Ministry may provide the Contractor with electronic copies of the Drawings, design digital terrain model, or other such information.

If the Ministry does provide such information, it is provided "as is" and at the Contractor's request, without warranty of any kind, whether express or implied. All implied warranties, including, without limitation, implied warranties of accuracy, completeness, merchantability, fitness for a particular purpose, and non-infringement, are hereby expressly disclaimed.

Under no circumstances will the Ministry be liable to any person or business entity for any direct, indirect, special, incidental, consequential, or other damages based on any use of this information or any information referenced therein, including, without limitation, any lost profits, business interruption, or loss of programs or information, even if the Ministry has been specifically advised of the possibility of such damages.

1.31 Acid Rock Drainage or Metal Leaching Potential for Contractor Supplied Materials

Where the Contractor elects to obtain material from a private quarry (or other private source) the Contractor shall engage a Qualified Professional (QP) who shall be responsible for evaluating the acid rock drainage (ARD) and metal leaching (ML) potential of the material. The QP is required to be registered as a professional engineer or geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) and have experience with ML/ARD evaluation and geological field mapping.

The evaluation will fulfill the Ministry of Transportation and Infrastructure's Technical Circular T-04/13 *Evaluating the Potential for Acid Rock Drainage and Metal Leaching at Quarries, Rock Cut Sites and from Stockpiled Rock or Talus Materials Used by the MOTI*, available on-line at:

http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2013/t04-13.pdf

The QP is responsible for ensuring that their evaluation is representative of the material within the proposed quarry development areas and/or other material sources (i.e. rock cuts, stockpiled rock, and/or talus materials). All QP reports shall include data to support their conclusion that the material is acceptable for use, it shall be signed and sealed by the QP, and it shall be provided to the Ministry Representative fourteen (14) days before any material is placed on the construction site. No material shall be sourced or placed until the report is received and accepted by the Ministry Representative. Only materials that are evaluated as having low potential for ML/ARD shall be accepted by the Ministry.

In the event that the Contractor's off-site source of rock is found to be adversely impacting the environment (proven by an ML/ARD evaluation and a contaminated sites investigation carried out by the Ministry), the Contractor will remedy the situation and impacts entirely on their own account including reimbursing the Ministry for the investigation costs. The Contractor shall engage a QP for a Stage 1&2 Preliminary Site Investigation, a Detailed Site Investigation (both as per the BC Environmental Management Act (EMA)) and have a remediation plan prepared by a QP to ensure that all potential environmental impacts are addressed as per the EMA (e.g. groundwater and soil contamination, etc.). The Contractor's investigation and remediation plans, as prepared by the QP, shall be submitted and accepted by the Ministry (at the onset of discovery of the unsuitable material) and shall include but not be limited to: removal of all ML/ARD material brought onto the site, disposal of all material to an environmentally accepted location (as per the EMA), the requisite contaminated site investigations as mentioned above, removal of any impacted material at the site, all environmental and contaminated sites remedial works, as well as the location and provision of an alternative source of rock to replace the unsuitable material. There will be no additional cost to the Ministry that may include but not be limited to: testing costs, source development costs and additional hauling and placement costs.

Payment: There will be no separate payment for ML/ARD evaluation, testing, and remediation in accordance with the above noted T- Circular. Payment will be incidental to the supply of material for the project.

1.32 Motor Vehicle Act Hours of Service

Solely for the purposes of the [Motor Vehicle Act Regulations – Division 37, Part 3 Hours of Service, Section 37.11\(h\)](#) the “site of the work” referenced therein shall include the Site and, subject to the approval in writing of the Ministry Representative, any of the following areas as the Contractor may explicitly request in writing as desired “Extensions to the *site of the work*”

(a) any Contractor-provided pits, quarries, crusher or asphalt plant sites, and

(b) such highway rights-of-way for the entire distance from a Limit of Construction to the property boundary of a Contactor-provided pit, quarry, crusher or asphalt plant site, up to a maximum cumulative length of thirty (30) km.

1.33 First Nations Employment

The Contractor is strongly encouraged to employ first nation community members from the Westbank First Nation and Okanagan Indian Band communities for available labour and equipment opportunities for the Project, including flaggers and first aid attendants.

A list of personnel and equipment is available from:

Raf De Guevara
Westbank First Nation
310 – 515 Highway 97 South
Kelowna, BC V1Z 3J2
Tel: 250-769-2440

Colleen Marchand
12420 Westside Road
Vernon, BC V1T 7Z3
Tel: 250-542-4990

1.34 Site Modifications

Where the Ministry Representative directs the Contractor to carry out work that the Ministry Representative determines to be extra to that required in the Contract, the Ministry Representative may choose to pay for such work from Site Modifications Provisional Sum at contract Unit Prices where applicable, or otherwise at negotiated prices or on a Force Account Basis.

SECTION 2 – GRADING

2.01 Clearing and Grubbing:

Clearing and grubbing shall be carried out to the limits as shown on the Drawings and in accordance with SS 200 except as modified herein.

Pursuant to the protection of active bird nests under the B.C. Wildlife Act, tree and large shrub clearing activities should not be carried out between April 1 and July 31. Tree and large shrub clearing between April 1 and July 31 may only proceed if a survey has concluded that no nests are present. The survey will be the responsibility of the Contractor and shall be performed to the satisfaction of the Ministry Representative. If required, the survey shall be considered incidental to the Work and no additional payment will be made.

The Contractor's disposal of debris resulting from clearing and grubbing shall meet the requirements of SS 165.05.04 and SS 200.02. Burning of clearing and grubbing debris is prohibited. The Contractor shall be responsible for the removal of debris to the Contractor's disposal site in accordance with SS 200.

The payment limits for clearing and grubbing shall be the limits designated on the Drawings or as approved by the Ministry Representative. Payment for Clearing and Grubbing will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for removal of danger trees will be made in accordance with SS 200.05 from Provisional Sum for Site Modifications.

2.02 Pavement Removal

Pavement removal shall be carried out to the Limits of Construction.

No pavement will be used in the embankment construction. All pavement removed shall be disposed of at a Contractor supplied off-site disposal area in accordance with SS 145.27.02, and SS 165.

Field measurement for payment shall be in square metres of existing asphalt pavement prior to starting the work, regardless of depth.

Payment for Pavement Removal will be made at the Unit Price bid in Schedule 7, regardless of asphalt thickness, and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.03 Cold Milling

Pavement milling shall be carried out in accordance with SS 511 to the lines and grades shown on the Drawings for tie-ins at each end of the new construction. The milled pavement shall not be utilized in embankments and shall be disposed of off-site.

After milling, the Contractor shall install and maintain temporary tar paper let-downs as per SS 511, except that the let-down slope shall be 50:1.

Field measurement for payment will be in square metres of material to be removed, based on the average width of existing roadway x roadway length from milled surface face to face.

Payment for Cold Milling shall be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.04 Pavement Cutting

Pavement cutting shall be performed where shown on the Drawings, using a saw or other equipment satisfactory to the Ministry Representative, which will leave a straight edge with a neat vertical face and will not distort the remaining pavement.

The average asphalt depth from the drill logs is 80 mm.

Generally, these cuts shall be at the tie-in points of new pavement to existing pavement and at limits of pavement removal.

Field measurement of pavement cutting shall be in lineal metres, regardless of pavement depth.

Payment for Pavement Cutting shall be at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.05 Utility Conduit and Manhole Installation

The Contractor shall supply and install two underground conduits in a single trench as shown on the Drawings in accordance with TELUS specifications in the Appendices and as follows:

- a) Supply work necessary to dig trench for underground conduit.
- b) Supply and install conduit in trench as shown on the Drawings. Backfill trench and finish top of trench to match existing surroundings and restore the surface to as good as or better than original condition.
- c) Supply and install manholes as shown on the Drawings. Backfill around and finish top of excavation to match existing surroundings and restore the surface to as good as or better than original condition.
- d) Where a minimum 750 mm cover cannot be achieved, the Contractor is to concrete encase the conduit.

Payment for 2-Conduit Installation in Type D will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for 2-Conduit Installation in Type A (Conditional Item) will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for Concrete Encasement (Conditional Item) will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for TELUS Manhole Installation will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.06 Organic Stripping

Topsoil and organic stripping shall be windrowed or removed to stockpile sites. Topsoil and organic material shall be spread on finished slopes. No stripped material shall be hauled off the Site without prior approval of the Ministry Representative. Stripping shall not be spread or stockpiled in a manner that could impede Site or pavement drainage.

Payment for Organic Stripping will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

No additional payment will be made for moving, spreading and trimming organic stripping that is temporarily stockpiled, and such work will be considered incidental to the single payment at the Unit Price.

2.07 Type D Excavation and Disposal

Type D Excavation and Disposal, inclusive of drainage ditching and subexcavation as approved by the Ministry Representative, shall be carried out in accordance with SS 201 and SS 204, except as modified herein.

Rounding of the excavation slopes at the intersection with the existing ground shall conform to the intent of SS Drawing SP201-01, but contrary to that drawing, slope treatment including rounding shall be accepted as incidental to the Works and no additional payment will be made.

Further to SS 201.14, all Type D Excavation material shall become the property of the Contractor and will be removed from the site to a Contractor supplied disposal site. All disposal sites shall be supplied by the Contractor.

In fills over 3 metres high, the new benched fill excavation will be “keyed” into the existing fill slope using a series of 3.0 m wide by 3.0 m high benches with back slope of 1H:1V. The benches shall be excavated starting at the toe of the slope and rise as the new fill is placed. Not more than one bench shall be exposed at a time. The bench excavation under the existing road bed shall not extend past the centreline of the existing road as shown on the Drawings. The upper bench is permitted to be higher than 3 m to ensure the excavation does not extend past the existing road bed centreline. All material excavated for the benching shall be removed from the site to a Contractor supplied disposal site.

During construction of the new benched fill slope, the Contractor shall undertake the works in the following manner and incorporate the following measures to maintain stability of the temporary cut slopes:

- No construction or vehicular traffic shall be permitted in the north bound lane during excavation and filling of the benches;
- No excavation or filling work should be performed on the benched fill slope during periods of extended inclement weather, as determined by the Ministry representative.
- During periods of extended inclement weather any exposed cut faces shall be protected with polyethylene sheeting;
- The contractor shall ensure that all surface water discharging from the road and upslope areas shall be prevented from flowing over the exposed cut slopes; and
- Daily inspections of the temporary slopes should occur prior to commencing work. Should any cracking, bulging or slope deformation be observed work shall cease in the affected area and the Ministry representative notified.

Payment for Type D Excavation and Disposal will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.08 Type A Excavation

2.08.01 General

Type A Excavation shall be in accordance with SS 201 and SS 204.

Type A excavation shall be executed in a manner to optimize the production of rock fill.

The Ministry Representative will at all times have the authority to prohibit or halt the Contractor's blasting operations, or limit the extent of the blast, if it is apparent that the methods employed are not consistent with the blasting plan requirements, and the effect of such methods are unsatisfactory in the opinion of the Ministry Representative.

SS 201.95 shall not apply to this Contract, and no payment will be made for any overbreak. The Contractor shall provide the Ministry Representative with a written forecast of anticipated Type A excavation production rate (volume) for the following week, at the end of each week.

All Type A surplus material not utilized for embankment material and unsuitable material shall become the property of the Contractor and will be removed from the site to a Contractor supplied disposal site.

The Contractor shall ensure that sufficient excavated materials remain on Site to fulfill the embankment requirements of the Project. Should the Contractor dispose of excavated materials prior to completing the embankments and require borrow materials, these borrow materials shall be acquired and placed at the Contractor's expense.

In the event that excavated rock materials tend to shatter, crumble, or otherwise break down under normal construction equipment loads during the embankment construction process, the material shall be placed and compacted as described in SS 201.37.

Within the entire area of the Contract, complete and continuous precautions shall be taken by the Contractor to prevent damage to persons, vehicles, utility service structures, private dwellings or other installations by reason of concussion, vibration or flying material due to blasting. Such precautions shall be taken at the Contractor's expense.

The Contractor shall allow the Ministry or its designate access to the Type A excavation for additional sampling for ARD and ML potential. Note that temporary stockpiling of materials may be required until the testwork is confirmed, and if ARD/ML material is encountered during excavation it would not be suitable for construction materials.

2.08.02 Drilling

Where applicable, the spacing of drill holes for the final backslope of the excavation shall not exceed 0.45 m. Production holes shall be drilled at a spacing of 0.45 to 0.75 metres; drilling shall be down hole in general.

Drills used shall be pluggers, benchers, Leyner or equivalent, which shall be approved by the Ministry Representative. Drill holes to be 38 mm in diameter or smaller.

Only drillers completely conversant with drills and drilling at heights shall be employed.

2.08.03 Blasting

Blasting shall be undertaken in accordance with SS204 and shall include protection of and vibration monitoring for potentially affected structures and buried utilities. The Contractor shall utilize Controlled Blasting and shall retain a Blasting Consultant in accordance with SS 204.03.02. Further to SS 204.03.02, the blasting plan is to be provided to the Ministry Representative, signed and stamped by a professional Engineer registered within B.C.

Blasting work shall not proceed until the applicable blast design plans, have been submitted to the Ministry Representative, at least seven (7) days in advance of blasting operation for review and comment, and authorization to proceed has been provided in writing by the Ministry Representative. Any delays resulting from the Contractor's failure to submit the appropriate documentation shall be to the Contractor's account.

2.08.04 Pre-blast & Post-blast Survey

Further to 204.04.08 the Contractor shall carry out field investigations prior to the Work and provide written documentation, records and photographs of the pre-construction condition of the wells, structures, foundations and the private property in these areas. Upon completion of Type A excavation, the Contractor shall conduct field investigations and provide written documentation, records and photographs of the post-construction condition of wells, structures, foundations and the private property to the satisfaction of the Ministry Representative and the Contractors insurance company.

2.08.05 Scaling After Blasting

After blasting, the slope shall be scaled to remove all loose material disturbed by the blast to the satisfaction of the Ministry Representative.

2.08.06 Rock Fall Control Measures

Further to SS 204.04.06, the Contractor shall design and construct any temporary rock fall control measures to protect road users during construction as well as preventing any material to travel down the slope towards the lake. The temporary measures shall be a proven system and shall be fully integrated into the Contractor's Blasting Plan. The Contractor will be responsible for temporary rock fall measures and rock scaling before, during and upon completion of any Type A excavation. The cost of rock fall measures and rock scaling is incidental to the Work and will be considered included in the applicable items listed in Schedule 7.

Precautions shall be taken to prevent damage from fly rock to Shaw, Telus and all other existing utilities. Such precautions shall include, but not limited to, the use of appropriate blast designs, covering blasts with blasting mats and adjusting the weight of explosive detonated per delay.

No fly rock or other debris is to enter Okanagan Lake during the blasting operations.

2.08.07 Payment

Payment for Type A Excavation to Embankment will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for Type A Excavation and Disposal will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.09 Excavation Backslope Stabilization

2.09.01 Stabilization

Backslope stabilization shall be carried out in accordance with the applicable Sections of SS 201, SS 2204, SS 206 and SS 207.

Further to SS 204.47.01 The Ministry's Geotechnical Engineer will only provide recommendations on the methods of slope stabilization. The Contractor shall be responsible for providing a geotechnical engineer for any written safe work procedures that may be required to carry out the Work in accordance with Worksafe BC requirements.

2.09.02 Steel Slope Mesh

Steel Slope Mesh shall be installed in accordance with SS 207 unless otherwise specified on the Drawings or herein. Steel Slope Mesh shall be installed at the locations shown on the drawings. Additional areas of Steel Slope Mesh maybe required by the Ministry Representative

based on field assessment of the geotechnical conditions. The location of steel slope mesh shall be approved by the Ministry Representative prior to installation.

Contrary to SS207

- a) The mesh will be placed on soil cuts as identified on the Drawings and approved by the Ministry Representative between approximately STA. 118+05 to STA. 120+00.
- b) The mesh shall extend 1 m above rock and soil cut to contain debris from upslope.

Payment for Steel Slope Mesh on Type A Excavation will be made in accordance with SS 207.91 at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for Steel Slope Mesh on Type D Excavation will be made in accordance with SS 207.91 at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.09.03 Rock Bolts (Provisional Sum)

During the Type A excavation, the Ministry Representative may determine that support of the excavation slope is required in the form of rock bolts. Bolt length and placement of the bolts will be as approved by the Ministry Representative.

Installation of pattern rock bolts shall be in accordance with SS 206. Work will be carried out only when Ministry Representative determines it is required and will be carried out only as approved by the Ministry Representative.

Payment for Rock Bolts will be made from the Provisional Sum for Rock Bolts and shall be accepted as full compensation for everything furnished and done in connection therewith.

In accordance with SS 201.49, "Back Slope Stabilization", no adjustments in prices for changes in quantities or compensation for eliminated items will be made.

2.10 Trim Blasting (Provisional Sum)

2.10.01 General

Trim blasting shall mean the complete removal of the designated rock material by appropriate drilling and blasting methods to the satisfaction of the Ministry Representative. The method of blasting used shall ensure that there is no significant rock damage or overbreak behind the required backslope of the excavation, and no disturbance to the rock in the remainder of the slope. Flyrock must be controlled during all blasts.

Trimming shall include removal of all excavated material to highway level, loading and hauling to the designated stockpile site, preparing, grooming, and maintaining the designated stockpile as authorized by the Ministry Representative.

2.10.02 Submittals

The Contractor shall make submittals in accordance with SS204.

2.10.03 Payment

Payment for Trim Blasting, when directed by the Ministry Representative, will be made from the Provisional Sum for Trim Blasting and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.11 Type A Embankments

All embankments shall be constructed from Type A excavation material in accordance with SS 201.36, unless otherwise specified on the Drawings or herein.

Contrary to SS 201.36,

- a) The maximum particle size of the material shall be no greater than 450 mm diameter;
- b) Fines shall be $< 75 \mu$ and not comprise greater than 5% of the passing material; and
- c) Where the rock embankment is supporting sub-base or base course materials, the top 0.5 m of the rock fill shall comprise a transition zone with a maximum particle size of 150 mm
- d) Where the height of the fill is greater than 3 m, the fill benches shall be 3 m wide by 3 m height, as shown on the Drawings

In accordance with SS 201.36 no additional payment will be made for placing of rock material or transition zone material and such work will be considered incidental to the single payment at the Unit Price for Type A Excavation to Embankment. Overbuilding embankment beyond the design neat lines will not be permitted.

2.12 Granular Materials: Production and Placement

2.12.01 General

The Contractor will be responsible for the supply, loading, hauling and placing of all granular materials, each complying with the appropriate section of the Standard Specification for which the use is intended.

25mm High Fines Surfacing Aggregate, 25mm Well Graded Base Course and Select Graded Granular Sub-Base will be placed as shown on the Drawings.

2.12.02 Measurement and Payment

Granular materials including 25mm High Fines Surfacing Aggregate (HFSG), 25mm Well Graded Base Course Aggregate and Select Granular Sub-Base (SGSB) shall be supplied in place, in accordance with SS 202.36 and shall be based on design neat line quantities to be constructed, with no adjustment for shrinkage or settlement.

Payment for 25mm High Fines Surfacing Aggregate will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for 25mm Well Graded Base Course Aggregate will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for Select Granular Sub-Base will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Granular material produced for purposes other than the construction of surfacing, base and sub-base road gravels shall be accepted as incidental to the cost for the applicable Items and no additional payment will be made unless specifically stated in these Special Provisions. Some examples include, but are not limited to granular material for:

- Bedding for culverts, conduits; and
- Any other Work requiring granular material other than the roadway gravels.

2.13 Revegetation Seeding

2.13.01 General

The Contractor shall perform the Work in accordance with SS 757 except as modified by these Special Provisions. The Contractor shall record all details of seeding operations and shall provide these records to the Ministry Representative.

The following supplements SS 757 Table 757.1

The grass seed mix shall be Interior Dryland Mix.

In contrast to SS 757.1

Fall rye shall be applied at a rate of 75kg/ha

Wood Fibre Mulch shall be applied at a rate of 2000kg/ha

2.13.02 Construction

Seeding shall be carried out on all disturbed areas of the site following placement of topsoil and stripping material as directed by the Ministry Representative. The Ministry Representative will have approved the grading works prior to seeding. Seeding operation shall be carried out within forty-eight (48) hours of such approval being given.

2.13.03 Payment

Payment for Revegetation Seeding will be made at the Unit Price bid in Schedule 7 and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.13.04 Watering

The Ministry Representative may direct the Contractor to apply water to seeded slopes on an as-needed basis during periods of dry weather to facilitate seed germination.

Payment for Watering, if required, will be made on a Force Account Basis from the Provisional Sum for Site Modifications.

SECTION 3 – DRAINAGE

3.01 Supply and Install Culverts

The supply and installation of all culverts shall be carried out in accordance with SS 303 and SS 320 and at the locations, depths and grades shown on the Drawings, unless modified in these Special Provisions.

Foundation excavation, bedding and backfill for all culverts shall be carried out in accordance with SS 407. Contrary to SS 407.06, the cost of foundation excavation shall be accepted as incidental to the installation of culverts and no additional payments will be made.

Corrugated steel culverts shall have annular re-corrugated ends and bolted, corrugated couplers, in accordance with SS 320. Dimple couplers are not permitted.

Culverts shall be measured in metres and paid for each pipe size with no allowance for depth. Measurement shall be for the length of pipe installed after work has been completed. All work required to direct and maintain the drainage on a temporary basis shall be accepted as incidental to the Work and no separate payment will be made.

Where extensions to existing culverts are required the Contractor shall ensure that the existing pipe, at the connection point, is true to shape and in good condition. If the existing culvert end is damaged the culvert shall be cut back to sound material and the length of damaged pipe removed and disposed of before making the extension to satisfaction of the Ministry Representative. All cut ends and exposed metal shall be repaired by the application of two coats of zinc rich paint. Cutting pipes to amend the lengths, disposing of damaged pipe sections and application of zinc rich paint shall be accepted as incidental and no additional payment will be made.

At the completion of grading the Contractor shall flush all culverts, storm drains and associated appurtenances to leave them clean and hydraulically efficient. Flushing of culverts and drains shall be accepted as incidental and no separate payment will be made.

Trenching for culvert installations shall be done with consideration to traffic safety. All trenches across the traveled portion of the highway shall be backfilled prior to leaving the job each day. Temporary restoration of the existing road structure shall match existing gravel and asphalt thicknesses unless approved otherwise by the Ministry Representative.

Bedding and backfill shall be granular material in accordance with SS 303 Table 303-A. Trenches shall be dry when bedding and backfill is placed.

Payment for supply and installation of culverts will be made at the Unit Prices bid for each culvert size in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

3.02 Riprap

(a) Riprap – Class 10

The Contractor shall supply and place riprap, Class 10, where and as shown on the Drawings, in accordance with SS 205.

Riprap shall be used for ditching and at the inlet and outlet of culverts and areas requiring erosion control as approved by the Ministry Representative.

A non-woven geotextile, as specified elsewhere in these Special Provisions, shall be installed under all riprap, as shown on the Drawings.

The supply and placement of non-woven geotextile used under the riprap shall be accepted as incidental to the Works and no separate payment will be made.

Contrary to SS 205.10, no separate payment will be made for foundation excavation and disposal of the excavated materials for the installation of riprap, which shall be accepted as incidental to the Works and no additional payment will be made.

Payment for Riprap – Class 10 will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

3.03 Geotextile

The Contractor shall supply and place geotextile under riprap emplacements and as shown on the Drawings.

The geotextile shall be non-woven or have a non-woven element meeting the following specifications:

- Grab Tensile Strength (N)(1) > 670
- Mullen Burst Strength (kPa)(2)..... > 1700
- Puncture Strength (N)(3)..... > 230
- Equivalent Opening Size (µm)(4)..... 120 < AOS < 200
- (1) ASTM D-4632*
- (2) ASTM D-3786*
- (3) ASTM D-4833*
- (4) ASTM D-4751

* Based on Minimum Average Roll Values (ASTM D4759)

Securing pins and washers, supplied and installed by the Contractor, are required, as necessary to prevent slippage of the fabric and along fabric joints. Securing pins shall be a minimum 0.3 m long, minimum 3 mm diameter, steel, pointed at one end, and be fabricated with a head to retain the washer. Washers will be plastic or steel, not less than 100 mm in diameter.

Where fabric joints are required, a minimum 0.5 m overlap of adjacent pieces of geotextile is required. Securing pins and washers shall be installed along a line through the midpoint of each joint overlap at no greater than 1.5 m intervals.

The Contractor shall exercise care during rock placement to avoid damage or displacement of the geotextile. Construction equipment shall not be operated directly on the surface of the geotextile. The smallest sized rock shall be placed on the geotextile prior to placement of the larger rock sizes. No rock shall be dropped directly on the geotextile from a height exceeding 0.5 m. Geotextile that is damaged or displaced during rock placement or construction shall be replaced by the Contractor at the Contractor's expense.

Payment for Geotextile shall be considered incidental to the work done, no payment will be made for placement and material.

3.04 Slope Erosion Protection (Conditional Item)

Excavated slopes with seepage shall be surfaced with a minimum 500 mm thick layer of Class 10 Riprap as shown on the Drawings when directed by the Ministry Representative. If excavation of material is required to install slope protection the excavated material will be paid as Type D Excavation.

Payment for Slope Erosion Protection will be paid from the Conditional Item for Slope Erosion Protection at the Unit Price bid in Schedule 7 and shall be accepted as full compensation for everything furnished and done in connection therewith.

SECTION 4– PAVING

4.01 General/End Product Specifications

a) Applicable Specifications

SS 502 – Asphalt Cement Construction (EPS) shall apply to this Work unless otherwise specified herein.

Contrary to SS 502 there will be no EPS Payment Adjustments made within this contract. Notwithstanding any other provision of the Contract, including full or partial waivers of EPS payments adjustments for any or all of the six rated characteristics (density, smoothness, AC content, gradation, application rate, and segregation), the rejection limits for each and every characteristic will apply to the Work.

b) Illumination of Work

Should night-time paving be performed on this Project, the Contractor shall supply, install and maintain adequate lighting so as to fully illuminate the Work to the satisfaction of the Ministry Representative. Tower lighting will be required. Pavement rolling equipment shall be equipped with adequate individual auxiliary lighting units. The Contractor shall provide auxiliary lighting such that the lamps can be adjusted or tilted so as not to be a safety hazard to traffic. Tube cones and pylons must be equipped with reflective bands to provide maximum visibility. All costs of illumination shall be accepted as incidental to the Work and no additional payment will be made.

4.02 Emulsified Primer and Tack Coat

The Contractor shall supply an emulsified penetrating primer that meets the requirements of SS 952 and is one of the products listed in the current edition of the Ministry's Recognized Products List under "Emulsified Penetrating Primers and Tack Coat".

All surfaces to be paved shall be primed or tack coated, in accordance with the following requirements.

For tack coating milled, existing or newly paved surfaces, the Contractor may use a Regular Emulsified Primer listed in the current edition of the Ministry's Recognized Products List under Tack Coat and Primers rather than an Emulsified Penetrating Primer.

Application shall be in accordance with SS 502.21 except as modified in these Special Provisions. Application shall be by pressure distributor.

The Contractor shall exercise caution before spraying the primer or tack coat on the roadway to ensure absolutely no contamination may occur to any watercourse. This will mean not spraying when the weather forecast or visual assessment indicates the potential for rain.

(a) Supply of Emulsified Primer and Tack Coat

The Contractor shall not dilute the product before spraying, unless prior approval has been granted by the Ministry Representative.

Quantity will be determined based on the supplier's delivery slips and the actual amount applied.

Payment for the Supply Emulsified Primer and Tack Coat will be made at the Unit Price bid in Schedule 7 and shall be accepted as full compensation for everything furnished and done in connection therewith.

(b) Application of Emulsified Primer and Tack Coat

All surfaces to be paved shall be primed or tack coated, in accordance with the following requirements:

- Prepared granular surfaces to be paved shall be primed at an application rate of 1.5 l/m², or as approved by the Ministry Representative. Granular surfaces shall be primed to a width of 0.3 m beyond the proposed pavement edge;
- Milled surfaces to be paved shall be swept clean and tack coated at an application rate of 0.10 l/m² to 0.25 l/m², or as approved by the Ministry Representative;
- Existing or newly placed asphalt pavement shall be tack coated at an application rate of 0.2 l/m², or as approved by the Ministry Representative.

Quantity will be determined based on the actual litres applied.

Payment for Apply Emulsified Primer and Tack Coat will be made at the Unit Price bid in in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

4.03 Supply Asphalt Mix Aggregate in Stockpile

a) General Requirements for the Production of Aggregate

The following are general requirements for the production of aggregate which are in addition to any other requirements specified in these Special Provisions and the Standard Specifications:

i. Quality Control

The Contractor shall carry out quality control and performance procedures and ensure that all requirements including material and product testing and documentation are achieved. The Contractor shall ensure that the Ministry Representative is provided with all documented test results to confirm that specifications are met.

The Contractor shall obtain samples from the stockpile area or from a location approved by the Ministry Representative using random sample techniques. The minimum frequency of testing shall be in accordance with SS 502 – Table 502 Appendix 1-1 – GUIDELINES FOR MINIMUM TEST FREQUENCIES.

If a QC test determines that the aggregate does not meet the specified requirements, the crusher operator must be immediately notified and any additional material produced must be stockpiled separately until such time that the specifications are met. Any out-of-specification findings shall be logged and immediately reported to the Ministry Representative.

ii. Companion Sampling

When the Contractor takes samples for testing during aggregate production, companion samples shall also be obtained from the splitting process which may be tested by the Ministry Representative.

Companion samples shall be identified, dated, and numbered according to the Contractor's sequential testing numbers and retained by the Contractor for at least ten (10) working days, after which time the Contractor may seek permission from the Ministry Representative to discard them.

iii. Quality Assurance

The Ministry, or such other party, may perform quality assurance testing on the companion samples and/or material in stockpile. The purpose of quality assurance testing is to ensure

that payment is made only for acceptable works/products, and may be based on a limited amount of sampling and testing.

The Ministry may decide that the Contractor's quality control test results/records will be sufficient to determine payment.

The Ministry will monitor and may audit the Quality Control work to ensure compliance with the Contractor's Quality Control Plan.

b) **Asphalt Medium Mix Aggregate**

The Contractor shall supply a 16 mm Asphalt Medium Mix Aggregate, in split stockpiles at the Contractor's plant site. This aggregate shall be used for all asphalt pavement production on this Project.

The Asphalt Medium Mix Aggregates shall meet the requirements of SS 502.06 and the gradation shall conform to TABLE 502-C-1 – ASPHALT MIX AGGREGATE GRADATION LIMITS.

Payment for Asphalt Medium Mix Aggregate in Stockpile will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

4.04 Weighing Material

Further to SS 145.19, the Contractor must provide certified automated scales that will generate weigh tickets. The Contractor's scale person will be required to scale and record the weights of the material required for the Project according to the requirements of SS 502.04.04.

4.05 Asphalt Pavement

4.05.01 Class 1 Asphalt Medium Mix Pavement

(a) **General**

Asphalt Pavement shall be Class 1, 16 mm Asphalt Medium Mix produced and placed in accordance with SS 502.

Contrary to SS 502 Table 502-C-2, the job mix formula asphalt content for all medium mix asphalt for this Contract shall be based on 3.5% air voids. The production mix air voids must be maintained at $\pm 1.0\%$ of the 3.5% air void target.

(b) **Asphalt Cement**

The Contractor shall supply a Group A, 120-150 penetration asphalt cement from an approved supplier.

(c) **Asphalt Mix Antistrip Additives**

The Contractor shall, as part of the mix design process, determine the Index of Retained Marshall Stability (IRMS) of each asphalt mix in accordance with ASTM D 1075 "Standard Test Method for Effect of Water on Compressive Strength of Compacted Bituminous Mixtures".

Where the IRMS is less than eighty-five (85), or where the Ministry Representative specifically requests it, the Contractor shall add an antistrip additive, chosen by the Contractor from the Ministry's "Recognized Products List", to all asphalt mixes used in the Work, at an application rate of 0.3% additive by weight of asphalt cement.

Compensation for supplying, storing and blending the additive into the asphalt mixes shall be determined in accordance with GC 38.00 and any approved payments will be made from the Provisional Sum for Site Modifications.

(d) Bottom Lift

Westside Road

Bottom lift paving will be required on Westside Road, as shown on the Drawings. The application rate specified for bottom lift paving shall be 120 kg/m² per 50mm lift.

Payment for Class 1, Asphalt Medium Mix Bottom Lift will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in accordance with SS 502.36.

(e) Top Lift

Westside Road

Top lift paving on Westside Road shall be placed as shown on the Drawings or as approved by the Ministry Representative. Generally, top lift paving shall overlay the paved bottom lift travel lanes and shoulders. The application rate for Top Lift paving shall be 120 kg/m² per 50mm lift.

Tie-ins and let-downs abutting the highway shall be paved as shown on the Drawings or as approved by the Ministry Representative.

Payment for Class 1, Asphalt Medium Mix Top Lift will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in accordance with SS 502.36.

4.06 Shouldering

The Contractor shall, following the construction of top lift paving, construct granular shoulders to a width of 0.5 m or as shown on the Drawings.

Contrary to SS 502.27.01, shouldering aggregate shall be 16 mm Medium Asphalt Mix Aggregate. The gradation of shouldering aggregate shall conform to SS 502 Table 502-C-1, 16 mm Medium Asphalt Mix aggregate (single stockpile acceptable). The fracture count must be a minimum of 70%. Drainage courses must not be impeded by the shouldering operation. The Contractor shall ensure a smooth transition from the newly paved edge to existing surfaces.

An approved shouldering machine shall be used for placement of shouldering aggregate. Drainage courses shall not be impeded by this operation.

The finished granular shoulders must be consistent in width and must be left neat and trimmed and be performed to the satisfaction of the Ministry Representative.

Payment for Shouldering will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

No separate payment will be made for the supply of shouldering aggregate into stockpile which shall be accepted as incidental to the Works and no additional payments will be made.

4.07 Asphalt Spillways

4.07.01 Asphalt Spillways

The Contractor shall supply and install asphalt spillways at the locations shown on the Drawings and in accordance with SS Drawing SP504-02. The asphalt used shall be Class 1, Asphalt Medium Mix.

The installation of asphalt spillways requires pre-shaping of the gravel shoulder to ensure consistent shape and adequate pavement depth. Strict adherence to SS Drawing SP 504-02 and the Drawings is required to ensure water does not bypass any spillway.

Payment for the asphalt mix used in the construction of the asphalt spillways will be made at the Unit Price bid for Class 1, Asphalt Medium Mix, Top Lift.

Payment for Asphalt Spillways will be made at the Unit Price bid for each spillway and shall be accepted as full compensation for everything furnished and done in connection therewith.

4.08 Concrete Roadside Barrier

The Contractor shall supply and install new precast concrete barrier, as shown on the Drawings.

Precast concrete barriers shall be supplied in accordance with SS 941, except as modified herein.

Contrary to SS 941, fibrillated fibre strand reinforced concrete may not be substituted.

Barrier units shall be protected from damage during handling and placing. Any barrier units that become damaged as a result of the Contractor's Work shall be replaced at the Contractor's expense. Concrete repair is not an option.

A CDB-E barrier section shall be installed in the road barrier directly opposite from any CDB-E installed for a spillway, to facilitate wildlife crossing as shown on the Drawings.

a) Ethafoam™

To prevent water passage underneath the concrete barrier, the Contractor shall supply and install 25 mm diameter Ethafoam™ closed cell rod sealant or equivalent, approved by the Ministry Representative, under the barriers on the low side of superelevated roadways. After installing the barriers, the Contractor shall test the drainage using sufficient amounts of water to observe that the water is contained by the barrier and directed to the appropriate drainage appurtenance.

The installation of the Ethafoam™ closed cell rod sealant is not required under the barriers on the low side of superelevated roadways where the barrier unit specified include slotted barriers or as approved by the Ministry Representative.

b) Barrier Mounted Reflectors

The Contractor shall supply and install white top mounted reflectors on concrete barriers. The reflectors shall be installed in accordance with the colour, spacing, and mounting locations outlined in the Ministry Manual of Standard Traffic Signs and Pavement Markings, Section 7.6, Table 7.4a and Figure 7.14. Where required, installations must commence at the end of the approach flare of the roadside barrier and the last roadside barrier unit must also be reflectorized.

The reflector type must be an approved top mounted barrier reflector as listed in the current edition of the Ministry's Recognized Products List.

A template must be used to ensure uniform placement of these reflectors. TRS 600 Adhesive or an equivalent Ministry approved epoxy shall be applied to the entire bottom of the reflector, which is then affixed to the designated area of the barrier, which must be clean and dry. A minimum of one 300 ml tube of epoxy shall be used for every 15 reflectors. A wire brush shall be used to ensure cleanliness. The ambient air temperature shall be a minimum of 5° C when doing the work.

To ensure motorist and worker safety, the installation of reflectors shall be limited to one side of the roadway at a time. Workers are not permitted to cross open lanes of traffic.

The supply and installation of reflectors to concrete barriers shall be accepted as incidental to the Works and no additional payment will be made.

No separate payments will be made for temporary moves to or from stockpile(s) as may be necessary to complete the Works or for drainage testing after installation of the precast concrete barrier, which shall be accepted as incidental to the Works and no additional payments will be made.

Payment for Precast Concrete Barrier will be made at the Unit Price per component type in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

SECTION 5 – SIGNING AND PAVEMENT MARKING

5.01 Signing

5.01.01 Description of Work

The Contractor shall be responsible for the supply, installation, removal and relocation of all signs as shown on the Drawings, as approved by the Ministry Representative, in accordance with these Special Provisions, SS 635 Part D, and the Ministry's Manual of Standard Traffic Signs and Pavement Markings.

Signs shall include all regulatory, warning, guide and directional signs, both permanent as indicated on the Drawings or in the Standard Specifications, and temporary as approved by the Ministry Representative during construction.

5.01.02 Maintenance of Signs

The Contractor shall maintain all signs within the Site for the duration of the Project.

Sign maintenance shall include the straightening, placing, repairing and cleaning of all signs found or as approved by the Ministry Representative. Signs shall be maintained in accordance with the Ministry's Manual of Standard Traffic Signs and Pavement Markings Section 1.10. Signs shall be regularly inspected to ensure consistent maintenance for maximum visibility.

Prior to Contract Completion, all signs shall receive a final cleaning. Chemical washing of sign faces will not be permitted.

Power washing or steam cleaning of signs shall be undertaken using pressures not exceeding 1000 psi. and temperatures not exceeding 65°C.

Contrary to the various payment clauses contained within SS 635, the cost of sign maintenance shall be accepted as incidental to the Work and no additional payment will be made.

5.01.03 Staking of Sign Locations

The Contractor shall stake the exact location of all signs. The staked locations must be reviewed and approved by the Ministry Representative before sign installation.

Contrary to the various payment clauses contained within SS 635, the cost of staking of sign locations shall be accepted as incidental to the Work and no additional payment will be made.

5.01.04 Excavation and Backfill for Sign Posts

Further to SS 635.07.01 and SS 635.14, all new sign post backfill shall be 25 mm Well Graded Base Course aggregate meeting the requirements of SS 202.

Contrary to the various payment clauses contained within SS 635, the cost of excavation and backfill for sign posts shall be accepted as incidental to the Work and no additional payment will be made.

5.01.05 Remove Existing Signs

The Contractor shall remove all existing signs and their associated structure in accordance with SS 635.

The Contractor must obtain approval from the Ministry Representative prior to removing any signing equipment and, if so directed by the Ministry Representative, existing signs shall not be removed until new signs or temporary signs have been installed.

The Contractor shall remove and dispose of all existing sign faces, boards, redundant posts and bases to a Contractor supplied off-Site disposal area in accordance with SS 145.27.02, unless

otherwise directed by the Ministry Representative. Voids remaining after the removal of sign bases shall be backfilled and compacted with suitable native materials.

Existing Ministry signs, which are not marked for removal or relocation but are in conflict with the progress of the Project, shall be removed and temporarily relocated as approved by the Ministry Representative. No separate payment will be made for these temporary relocations which shall be accepted as incidental to the Works and no additional payment will be made.

No separate payment will be made for the removal and disposal of existing signs and delineator posts which shall be accepted as incidental to the Works and no additional payment will be made.

5.01.06 Supply and Install Concrete Sign Bases

The Contractor shall supply and install concrete sign bases in accordance with SS Drawing SP635-1.1.44.

5.01.07 Supply and Install of Sign Posts

The Contractor shall supply and install perforated 2 ¼" OD square galvanized steel posts, in accordance with SS Drawing SP 635-3.6.1.

Barrier mounted sign posts shall be supplied and installed in accordance with SS Drawing SP 635-3.8.3.

Contrary to the various payment clauses contained within SS 635, the cost of sign posts shall be accepted as incidental to the Work and no additional payment will be made.

5.01.08 Supply and Install New Signs

The Contractor shall supply and install new signs including, guide, warning and regulatory signs, in accordance with these Special Provisions, the Drawings, SS 635 or as approved by the Ministry Representative.

All permanent signs shall be obtained from a supplier approved by the Ministry, in accordance with SS 635.

Payment for Install Single Post Sign will be made at the Unit Price bid per sign in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for Install Barrier Mounted Sign will be made at the Unit Price bid per sign in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

5.02 Pavement Marking

5.02.01 Temporary Pavement Markings

The Contractor shall supply and place temporary line marking tape on newly constructed hard surfaces (pavement) throughout the Project, in accordance with SS 194.22 and TCM 2.2.1, establishing centreline and all lane-dividing lines prior to being opened to traffic, and shall maintain such markings until the earlier of the Actual Completion Date or the date permanent markings have been placed. Temporary line markings are not required for lane edge lines (fog lines) unless otherwise directed for specific areas by the Ministry Representative.

Marking dimensions, spacing, colour, layout and other characteristics shall follow the recommendations of the TCM unless otherwise specified herein or approved by the Ministry Representative, and must be placed on each lift of pavement.

Temporary line marking tape on the final surface shall be laid within ± 100 mm of the permanent line design location, so as to not detract from the permanent lines when laid.

Centreline shall be marked throughout as “no passing” unless otherwise directed by the Ministry Representative.

Painted temporary lines are not permitted on the final paved surface.

In those areas where permanent markings have been applied prior to the Actual Completion Date, the Contractor shall remove the temporary pavement marking tape. Where the permanent marking has been sprayed on top of temporary tape, that piece of tape may be left in place.

5.02.02 Permanent Pavement Marking Layout

The Contractor shall, upon completion of the final hard surfacing, be responsible for the layout of all new pavement markings in accordance with the Drawings. The layouts must be reviewed and approved by the Ministry Representative prior to the painting of the new inventory.

The Contractor shall coordinate all pavement marking painting. The painting of permanent long lines, including edge lines, lane divisions, median lines and centrelines, will be done by a pavement marking contractor retained by the Ministry. The Ministry’s pavement marking contractor will require a minimum of three (3) weeks’ notice to mobilize to the Project. The Contractor shall be responsible for notifying the Ministry Representative of the earliest possible opportunity for such markings to be placed.

The Contractor shall, upon completion of the final hard surfacing, layout all key control points throughout the Project, in accordance with the Drawings and the Ministry’s Manual of Traffic Signs and Pavement Markings or as approved by the Ministry Representative.

Key control points are as follows on all paint lines, including centreline, lane lines, islands, etc.:

- Curvature points: EC, BC, TS, SC, CS, ST, and any other points of deflection.
- Intersections and Interchanges: PI for design control lines; curvature points (EC, BC, TS, SC, CS, ST) and any other points of deflection; all points as indicated on the “Typical Intersection Pavement Marking Control Points” (attached as an Appendix) drawing and such additional points as may be required for more complex situations.
- Intermediate points (on centreline only for undivided highway; one lane line for each direction on a divided highway): On tangents, curves and spirals, at maximum 100m spacing.
- Lane widening: Where the design incorporates pavement and lane widening designed into the curves and spirals to accommodate off-tracking of large vehicles, additional intermediate points shall be marked on centerline and all lane lanes at maximum 50m spacing.

All layout markings shall be done with white or yellow centreline paint which will be clearly visible after exposure to all Site conditions for a minimum period of two (2) months past the Actual Completion Date.

Key control points shall be marked at their design location within tolerances of ± 50 mm transversely and ± 100 mm longitudinally. Longitudinal tolerances for intermediate points, when required, are ± 10 m.

Payment for temporary pavement markings shall be accepted as incidental to the Work and no additional payment will be made.

Payment for Permanent Pavement Marking Layout will be made at the Lump Sum price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith, to the satisfaction of the Ministry Representative, including the removal of any temporary marking tape from the final lift of pavement.

**SPECIAL PROVISIONS APPENDIX
FOR AMENDMENTS TO THE 2012 STANDARD SPECIFICATIONS
FOR HIGHWAY CONSTRUCTION
Updated: July 18, 2013**

The Amendments to the 2012 Standard Specifications for Highway Construction are as follows:

SECTION 101 – Quality Management

Issued Date: Sep 25th, 2012

101.07 Payment – The Lump Sum Price bid for Quality Management shall be full compensation for all costs resulting from the Quality Management requirements set out in the Contract.

Payment will be made on a monthly basis prorated for the percentage of the total Work completed as determined by the Ministry Representative, subject to the Contractor being totally compliant with the requirements of this Section and with its own Quality Control Plan.

The Ministry Representative, in consultation with the Ministry construction manager following the issuance of a Ministry- issued NCR pursuant to SS 107.05.02 may deduct an amount from any monthly payment so computed, for any quality management work required but not satisfactorily undertaken during that month. The Ministry Representative may also reduce the total Lump Sum payable by the value of any quality management work required but not satisfactorily undertaken during the Term of the Contract. The foregoing determinations will be made in the sole discretion of the Ministry Representative.

Inspection or testing by the Ministry Representative will be at the Ministry's cost. However, re-inspection or re-testing by the Ministry for repaired or replaced Work items that originally did not meet contract requirements shall be at the Contractor's cost.

Work that is deemed unacceptable in accordance with SS 101.01 will not be eligible for payment from the applicable Item for that Work.

The Completion Certificate will not be issued if there are any unresolved Non-Conformance Reports.

SECTION 145 – GENERAL REQUIREMENTS FOR HIGHWAY, BRIDGE AND MARINE CONSTRUCTION

Issued Date: Dec 20th, 2011

145.24 Alterations to Drawings and Plans – It shall be understood that the Drawings and Plans represent the nature and general layout of the work to be executed and not necessarily the works exactly as they will be carried out. The Ministry Representative will, without invalidating the Contract, be at liberty to make reasonable alterations or to furnish any additional or amended Drawings which do not materially change the type of construction.

Payment for any such altered Work will be at the rates set forth in the Schedule 7 Approximate Quantities and Unit Prices.

SECTION 201 – ROADWAY AND DRAINAGE EXCAVATION

Issued Date: Dec 20th, 2011

201.33 Overbreak in Solid Rock - Overbreak in solid rock excavation encountered in the contract is that portion of any such material which is excavated, displaced or loosened outside and beyond the slopes or grades as staked or re-established (with the exception of slides as described in Subsection 201.42).

Any overbreak that occurs due to the inherent character of any formation encountered, as determined by the Ministry Representative in consultation with the Qualified Professional will be classified as allowable overbreak as described in subsection 201.33.01.

All other overbreak, as so defined, shall be removed by the Contractor at the Contractor's expense, and shall be disposed of by the Contractor, in the same manner as provided for "Surplus Material", but at the Contractor's expense without any allowance for overhaul, except as hereinafter stated.

The Qualified Professional is defined as the Ministry's Geotechnical Engineer, Rockwork Engineer, or consultant engineer working for the Ministry whose discipline is in geotechnical engineering.

201.33.02 Contractor's Negligence – Overbreak resulting from fault or negligence of the Contractor shall be removed and disposed of, as directed by the Ministry Representative, at no cost to the Ministry.

Definition of negligence will be deemed to be lack of following the sequence of operations, lack of a blast design, lack of preblast survey, and lack of as-built blast design as described in 204.04.06, 204.04.07, and 204.04.08 and 204.04.09. Also, definition of negligence will be deemed to mean lack of cut-off holes on the back slope, excessive spacing of drill holes and overloading of same.

SECTION 202 – Granular Surfacing, Base and SUB-BASES

Issued Date: Dec 1, 2011

Table 202-C Aggregate Gradations.

Table 202-C was revised for both the Intermediate Graded base (IGB) and the Intermediate Graded Sub-base (IGSB) % Passing the 0.075mm Sieve to 0-5% rather than 0-15%. Also for the Open Graded Sub-base (OGSB) % Passing 50mm Sieve to 70-100% instead of 75-100%.

SECTION 204 – ROCK CUTS

Issued Date: Dec 20th, 2011

204.03.03 Blast Vibration Monitoring – The Contractor shall provide a blast vibration monitor if required. The blast vibration monitoring shall be under the direction of the Vibration Specialist.

SECTION 205 – RIPRAP

Issued Date: April 11th, 2012

Table 205-C RECOMMENDED TESTS FOR RIPRAP

For property (Specific Gravity and Absorption); Test Designation is corrected to be ASTM D6473 instead of ASTM D6437 for both Specific gravity and Absorption.

SECTION 211 – PORTLAND CEMENT CONCRETE

Issued Date: September 25th, 2012

211.17.03 Class 3 Finish - Class 3 Finish is to be produced on all formed surfaces exposed to view from close distances, such as the top and inside surfaces of curbs and parapets, and to any surface for which a Class 3 finish is specified. A Class 3 finish shall provide surfaces of uniform colour and texture when viewed from less than 15 m.

In order to produce a Class 3 finish, the formwork shall render a true smooth surface, free from fins and projections. New plywood or steel is necessary to produce the required finish. Re-use of plywood forms will be permitted only if in an "as new" condition. Repairs to the forms shall be with full panels of sheathing only.

All ties, bolts, nails and other metal specifically required for construction purposes shall be removed or cut back to a depth of 50 mm from the surfaces of the concrete and the resulting holes filled.

No dry ties shall be permitted; form tie rods shall remain embedded and terminate not less than 50 mm from the formed face of the concrete. Removable embedded fasteners on the ends of the rods shall be such as to leave holes of a regular shape for reaming and filling.

- patch installation projecting slightly from the surrounding concrete surface.
- after 24 hours, saturated and carefully finished to render the surfaces of the patch true to the surrounding concrete, but any grinding using a hand carborundum stone kept to a minimum.
- when a rubbed finish is required, the applied mortar shall be carefully worked into the surface area being finished and, using a hand carborundum stone manipulated in a circular motion, the entire surface rendered true and smooth with all excess mortar removed.

SECTION 211 – PORTLAND CONCRETE CEMENT

Issued Date: July 18th, 2013

211.18 Hot Weather Concreting. The equation in our specifications used to predict the temperature of fresh concrete based on the temperatures and masses on its constituent ingredients has been updated. The coefficient in the numerator is changed from "22" to "0.22". (See attached SS211 (21 of 27)).

SECTION 412 – CONCRETE REINFORCEMENT

Issued Date: July 16th, 2012

SS412.11.02 Epoxy-Coated Reinforcing Steel is amended.

SS412.11.05 Stainless Steel Reinforcing Bar is amended.

SECTION 415 – MANUFACTURE AND ERECTION OF PRECAST AND PRECAST PRESTRESSED CONCRETE MEMBERS

Issued Date: Dec 20th, 2011

415.02.03 Materials and construction shall conform to the current CSA A23.4 and the current PCI "Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products.". Where there is a discrepancy between the requirements of these two standards, the more stringent shall apply. In cases where it may be unclear as to which standard is more stringent, the Ministry Representative in consultation with the Ministry Chief Bridge Engineer will have the final say.

SECTION 502 – ASPHALT PAVEMENT CONSTRUCTION (EPS)

Issued Date: Nov 1, 2011

Table 502-H (Page 21 of 32) – Payment Adjustments for Material Application Rate at Actual Application Rate (Percent as specified rate) at ≥ 94.0 to < 96.0 , the bottom lift or single lift payment adjustment \$ per tonne of material in the Lot (unless otherwise noted) is -\$2.00 not -\$12.00.

Issued Date: Nov 1, 2011

Table 502-H (Page 21 of 32) – Payment Adjustments for Material Application Rate at Actual Application Rate (Percent as specified rate) at ≥ 104.0 to < 105.0 , the bottom lift or single lift payment adjustment \$ per tonne of material in the Lot (unless otherwise noted) is -\$1.00 not \$1.00.

NEW SECTION 505 - USE OF RECLAIMED ASPHALT PAVEMENT IN ASPHALT PAVEMENT CONSTRUCTION - Issued Date Dec 11, 2012

SECTION 508 – GRADED AGGREGATE SEAL COAT (EPS)

Issued Date: Nov 29, 2012

SP508.66 Partial Payment for Rejected Work – In the Ministry representative's sole discretion and without setting precedence, where any work is reject but the Ministry representative determines that it may be left in place, the Ministry representative may authorize partial payment to the Contractor as full compensation for any residual value the work may have. Notwithstanding the foregoing, the Ministry is under no obligation to make any payment for reject work.

SECTION 582 – CONCRETE CURB AND GUTTER AND STORM DRAINAGE

Issued Date: July 16, 2012

SP582-03.08 Corrugated Steel Manhole Main Smaller than Riser is added, missed from the previous update.

SECTION 635 – ELECTRICAL AND SIGNING

Issued Date: Feb 23, 2012

SP 635-1.1.27 (16-25M REINFORCING STEEL BARS) changed to (20M REINFORCING STEEL BARS ON BOTTOM) see amended drawing.

SECTION 941 – PRECAST REINFORCED CONCRETE BARRIERS

Issued Date: Nov 29, 2012

SP941-02.01.04 PRECAST CONCRETE MEDIAN BARRIER 810mm – CMB-E DETAILS.

SECTION 952-K - CONTRACTOR SUPPLY ASPHALT AND PAVING MATERIALS FOR HIGHWAY USE

Issue Date: July 2, 2013

Table 952-K Requirements for High Float Emulsified Asphalts amended to reflect that for HF-150P with regards to penetration and viscosity to refer to Drawing SP952-05. In addition HF-100P is also added to the table.

The Ministry Representative may increase or decrease the frequency of QA inspection and testing during the course of the Work, based in part on the actual effectiveness of the Contractor's QC Plan.

101.04 Quality Audit – The Ministry may have one or more auditors on the Project, supplementing the work of the Ministry QA staff. When utilized, the auditor(s) will report to the Ministry Representative and provide a systematic and independent assessment of whether or not the materials and Project activities and related results comply with the Contract, the Contractor's QC Plan, and the Ministry's QA Plan. These auditors may be Ministry employees but will be assigned from resources which have not otherwise been involved with the Work.

The objective of Quality Auditing is to have an independent opinion on both QC and QA activities and be proactive in avoiding or reducing quality related issues by requiring the process of conformance verification to be systematic.

The auditor(s) will be allowed unrestricted access to the Site and all activities therein, to all testing and documentation of the work done by the Ministry, Contractor and their agents and suppliers.

101.05 Non-Conformance Reports (NCRs) – The Contractor shall and the Ministry may review the Work to determine conformance with the contractual requirements.

Non-conformances found shall be dealt with as follows.

101.05.01 Contractor's Internal NCR – Should the Contractor's QC reporting indicate that the Work is not in conformance, the QC Manager shall issue an internal Non-Conformance Report (NCR) to the Contractor, with a copy to the Ministry, including a response time.

The Contractor shall then respond to the QC Manager, with a copy to the Ministry Representative, with respect to the NCR, within the specified time, with proposed resolutions and corrective actions. The Contractor and/or the QC Manager may consult with the Ministry Representative on the resolutions but is not required to do so.

Payment for a Quality Management will not be affected by internal NCRs, as long as the issue is diligently pursued and resolved.

Payment for the Work itself may be withheld until the NCR issue is resolved.

101.05.02 Ministry-Issued NCR – Should the Ministry's QA reporting indicate that the Work is not in conformance, the Ministry Representative will issue to the Contractor a NCR, including a response time.

The Contractor shall then respond to that NCR, within the specified time, with proposed resolutions and corrective actions.

The Ministry Representative will accept or reject the proposed resolution and corrective action proposal.

Assurance testing and inspection will be performed to determine if the corrective action has provided an acceptable product. Acceptance and rejection will continue until the Ministry Representative determines that a quality product has been achieved.

A portion of the payment for a Quality Management may be withheld until the NCR issue is resolved or, in accordance with SS 101.07, may be withheld permanently.

Payment for the Work itself may be withheld until the NCR issue is resolved.

101.05.03 Opportunity for Improvement – Should the QA review indicate that the Work is not in conformance, but the variance is deemed minor by the Ministry Representative, the Ministry Representative may issue an Opportunity for Improvement (OFI) report.

The Contractor is encouraged to review the findings and undertake such modifications to the QC Plan and the work procedures as necessary to address the issue.

An OFI will not affect payment for Quality Management or for the Work itself.

101.06 Appeal – If the Contractor disputes the validity of a finding in an NCR, the Contractor may file an appeal with the Ministry Representative. The Ministry Representative and the Contractor Representative will use all reasonable efforts to refine the area of dispute and to resolve the determination of conformance with the Contract.

If the Ministry Representative and the Contractor Representative cannot come to a mutually agreeable resolution, the Work that is the subject of the Non-Conformance Report shall be re-evaluated by an independent third-party, selected by the Ministry Representative in consultation with the Contractor, at a test frequency equivalent to twice that specified in the Contract or to such other frequency as may be mutually agreed between the Ministry Representative and the Contractor.

If the appeal testing confirms the non-conformance determination, all appeal testing costs will be borne by the Contractor. If the appeal testing shows that the Work did in fact meet the requirements of the Contract, all appeal testing costs will be borne by the Ministry.

101.07 Payment – The Lump Sum Price bid for Quality Management shall be full compensation for all costs resulting from the Quality Management requirements set out in the Contract.

Payment will be made on a monthly basis prorated for the percentage of the total Work completed as determined by the Ministry Representative, subject to the Contractor being totally compliant with the requirements of this Section and with its own Quality Control Plan.

The Ministry Representative, in consultation with the Ministry construction manager following the issuance of a Ministry- issued NCR pursuant to SS 107.05.02 may deduct an amount from any monthly payment so computed, for any quality management work required but not satisfactorily undertaken during that month.

The Ministry Representative may also reduce the total Lump Sum payable by the value of any quality management work required but not satisfactorily undertaken during the Term of the Contract. The foregoing determinations will be made in the sole discretion of the Ministry Representative.

Inspection or testing by the Ministry Representative will be at the Ministry's cost. However, re-inspection or re-testing by the Ministry for repaired or replaced Work items that originally did not meet contract requirements shall be at the Contractor's cost.

Work that is deemed unacceptable in accordance with SS 101.01 will not be eligible for payment from the applicable Item for that Work.

The Completion Certificate will not be issued if there are any unresolved Non-Conformance Reports.

Manual for Work on Roadways", Special Provisions and Standard Specifications.

145.23.01 Maintenance of Traffic – The Contractor shall comply with the requirements of the Transportation Act and amendments thereto and such other Acts, By-Laws or Regulations as are in force for the governing and regulating of traffic or use of any road upon or over which it is necessary to do work or transport materials. The Contractor must arrange to keep roads open to traffic at all times and must cause as little inconvenience as possible to the travelling public.

145.23.02 Road Closure Notification – Road closures shall not be permitted until the Contractor requests and receives written permission from the appropriate authority in the Ministry. This request shall be submitted in writing not less than seven days in advance of the closure.

Upon receiving written permission for closure, the Contractor shall notify the local police, fire, ambulance, municipality, school board, and public transit at least 72 hours in advance of the closure.

The Contractor shall notify the public by local radio and newspaper at least 24 hours in advance of the closure.

All costs related to the above shall be for the Contractor's account.

145.24 Alterations to Drawings and Plans – It shall be understood that the Drawings and Plans represent the nature and general layout of the work to be executed and not necessarily the works exactly as they will be carried out. The Ministry Representative will, without invalidating the Contract, be at liberty to make reasonable alterations or to furnish any additional or amended Drawings which do not materially change the type of construction.

Payment for any such altered Work will be at the rates set forth in the Schedule 7 Approximate Quantities and Unit Prices.

145.24.01 Adherence to Drawings – The various parts of the Work shall be built in strict accordance with the furnished Drawings and with any supplementary Drawings which may be furnished during the progress of the Work as occasion requires.

Special Provisions, special specifications, Standard Specifications and the Drawings/Plans are to be considered as explanatory of each other, but should anything appear in one that is not described in the other, or should any discrepancy appear, no advantage shall be taken of such omission or discrepancy and the decision of the Ministry Representative as to the true intent and meaning of the Special Provisions, special specifications, Standard Specifications and the Drawings in such instances shall be final and binding, it being clearly understood that the Contractor is to execute all the works requisite for the perfect completion of each and all of the several parts of the

Work according to the true intent and meaning of the Contract.

On all Drawings, in case of any discrepancy between the figured dimensions and the scaled dimensions, the figured dimensions shall govern.

145.25 Use of Explosives – In using explosives the Contractor shall exercise the utmost care so as not to endanger life or property and, whenever directed, the number and size of the charges shall be reduced. Before doing any blasting the Contractor shall ascertain if there are in the neighbourhood any railway, power or other lines, water or other pipes, etc., which are likely to be in danger of being damaged. The Contractor shall give to the owner of such lines, pipes or other works timely notice of the intention to blast.

Whenever possible electric batteries shall be employed for simultaneous blasting.

The storage of explosives shall be in accordance with the regulations of the Canada Explosives Act and with any requirements of the representative of the Explosives Regulatory Division within the Mineral Technology Branch of the Minerals and Metals Sector of the Federal Department of the Natural Resources Canada.

145.26 Work in Pits or Quarries – The Contractor shall be responsible for compliance with appropriate environmental, forestry, agricultural and other applicable regulatory agencies for all work related to development, operation and reclamation of pit or quarry.

145.26.01 Ministry Pit or Quarry - When operating in a Ministry pit or quarry the Contractor shall comply with all provisions of the Mines Act, the Health, Safety and Reclamation Code for Mines in British Columbia, and/or the WCB Occupational Health & Safety Regulation which are applicable to the work undertaken.

145.26.02 Contractor Pit Manager - The Ministry may, at its sole discretion, require that the Contractor, or a party other than the contractor, take responsibility to ensure that the work in the pit or quarry is done in compliance with the requirements of the *Mines Act* (RSBC 1996) and the *Health, Safety and Reclamation Code for Mines in British Columbia* (B.C. Reg. 126/94). When the Contractor is so required, the Contractor must provide the name of a person, or persons, who will act as the Pit Manager to the Ministry Representative prior to the commencement of work. This person must possess the qualifications established by the regulations or code, and attend daily at the pit or quarry when it is in operation.

When the role of Pit Manager is not the responsibility of the Contractor, the Contractor will co-operate with, and follow the direction of the acting or appointed Pit Manager.

145.26.03 Pit Supervisor - The Contractor shall appoint a properly qualified supervisor or shift boss in any Ministry pit

as Type C if it cannot be loosened under such an applied load.

The test will be conducted at the Contractor's expense unless the test indicates, to the satisfaction of the Ministry Representative, that the material is Type C. In that case, the cost of the equipment (including mobilization if the equipment is brought in solely for the purpose of the test) and the operator will be paid as Extra Work.

201.11.04 Type D - All Other Materials – Type D shall include all other materials of a nature not included in the foregoing definitions of Type A, Type B, or Type C; regardless of the nature or condition of the material or the method used to excavate or remove.

Type D shall also include any unsuitable materials of an organic nature, unless such materials have been specifically set apart in the Contract Special Provisions.

201.12 Unsuitable Material – Only material acceptable to the Ministry Representative shall be used in the construction of embankments.

Material deemed unsuitable for the construction may be wasted between the toe of the embankment and the right-of-way boundary or in other areas as designated by the Ministry Representative. If no on-site waste areas are designated then the unsuitable material shall be removed and disposed offsite at the Contractor's expense. Any such material subsequently placed in an embankment, without the approval of the Ministry Representative, shall be removed and disposed of, as directed by the Ministry Representative, and no payment will be made for the removal or haul of such unsuitable material from the embankment.

Where required in the contract all topsoil and organic material shall be stripped over the entire excavation and fill areas and placed in the area between the toe of the embankment and the right-of-way boundary, or on any other area as designated by the Ministry Representative. Topsoil shall meet the requirements of SS 751.16. Organics shall be considered unsuitable material and managed in accordance with SS 201.12. Topsoil shall be stockpiled for later use or disposed of as designated by the Ministry Representative.

All material above or below subgrade in an excavation or in the foundation of an embankment, which in the opinion of the Ministry Representative is unsuitable, shall be removed and paid for as excavation, as classified by the Ministry Representative. Soft clays and peats are typical examples of unsuitable materials.

Where removal of unsuitable material requires backfilling this work shall be carried out with approved fill materials, as directed by the Ministry Representative. Payment for such backfilling and haul will be made at the Unit Price bid for "Roadway and Drainage Excavation".

Upon completion of the road grade, all topsoil and material suitable for growth of ground cover shall be spread to a nominal depth of 150mm on the cleared right-of-way and up the fill slopes to generally blend in with the cross-section. Care shall be taken that proper drainage is maintained. This material shall be placed, compacted and trimmed to a neat appearance in a manner to facilitate growth of revegetation. No additional payment will be made for replacing and trimming topsoil except that haul in excess of 300 m will be paid in accordance with SS 201.45, SS 201.83 and SS 201.93.

201.13 (not used)

201.14 Surplus Material – All suitable excavation material shall, if required, be taken or hauled into the nearest embankment and to any embankment on the project to be constructed out to the extreme distance required by the Ministry Representative.

The surplus beyond what is necessary to form the nearest embankment shall be disposed of by widening embankments uniformly within the limits of right of way, shall be hauled to form or widen any embankment on the road to be constructed, stockpiled on Site or in Ministry pits, or lastly removed from Site for disposal by the Contractor subject to the approval by the Ministry Representative where hauling and placing shall be performed in the most efficient manner. No material shall be wasted without the approval of the Ministry Representative, all surplus material shall be used as much as possible.

CONSTRUCTION

201.31 Rock Cuts – See SS 204.

201.32 Overhanging Rock and Boulders – The Contractor shall remove overhanging rock or boulders within the excavation limits, as ordered by the Ministry Representative, and shall backfill and compact all resulting cavities to allow the safe passage of construction and support vehicles generally in accordance with the requirements of SS 135. Such work will be paid at the Unit Price bid for "Roadway and Drainage Excavation."

201.33 Overbreak in Solid Rock - Overbreak in solid rock excavation encountered in the contract is that portion of any such material which is excavated, displaced or loosened outside and beyond the slopes or grades as staked or re-established (with the exception of slides as

described in Subsection 201.42).

Any overbreak that occurs due to the inherent character of any formation encountered, as determined by the Ministry Representative in consultation with the Qualified Professional will be classified as allowable overbreak as described in subsection 201.33.01.

All other overbreak, as so defined, shall be removed by the Contractor at the Contractor's expense, and shall be disposed of by the Contractor, in the same manner as provided for "Surplus Material", but at the Contractor's expense without any allowance for overhaul, except as hereinafter stated.

The Qualified Professional is defined as the Ministry's Geotechnical Engineer, Rockwork Engineer, or consultant engineer working for the Ministry whose discipline is in geotechnical engineering.

201.33.01 Allowable Overbreak –

If, and only where directed by the Ministry Representative, use is made of the overbreak to replace material which would otherwise have to be borrowed for the construction of the roadway, then such overbreak will be classed as allowable overbreak.

201.33.02 Contractor's Negligence –

Overbreak resulting from fault or negligence of the Contractor shall be removed and disposed of, as directed by the Ministry Representative, at no cost to the Ministry.

Definition of negligence will be deemed to be lack of following the sequence of operations, lack of a blast design, lack of preblast survey, and lack of as-built blast design as described in 204.04.06, 204.04.07, and 204.04.08 and 204.04.09. Also, definition of negligence will be deemed to mean lack of cut-off holes on the back slope, excessive spacing of drill holes and overloading of same.

201.34 (Not used)

201.35 Enlargement of Excavation – In cases where the quantity of material taken from a regular excavation will not be sufficient to form the required embankment, the deficiency shall be supplied by taking material from excavation within or outside the right-of-way, at such places as the Ministry Representative may direct, or from enlargement of the regular excavations made uniformly on one or both sides. The sides of the excavation in all cases shall be dressed to such slopes as the Ministry Representative may require, provided that if the Contractor shall have sloped or scaled such excavation by direction of the Ministry Representative before widening the same, payment for sloping or scaling the second time will be made by Order for Extra Work.

201.36 Rock Embankments – This section applies to embankments constructed from material containing more than 15% by volume of rock larger than 150 mm.

Embankments shall be constructed in layers equal in thickness to the largest size of the material but not exceeding 0.7 m. Greater lift thicknesses will be permitted by the Ministry Representative under special conditions provided the Contractor can spread the larger material satisfactorily and attain a degree of compaction no less than attained for layers less than 0.7m in thickness. Regardless of layer thickness and material particle size all material shall be well compacted to the satisfaction of the Ministry Representative.

The material shall be deposited and spread so that the larger rocks are well distributed and the intervening spaces are filled with smaller sizes as may be available to form a stable embankment. The finer portion of excavated rock shall be retained for the top transition layer. Each layer shall be compacted by routing the loading construction equipment over the entire width supplemented with additional compaction equipment, as necessary to ensure compaction is uniform and to the satisfaction of the Ministry Representative.

When a rock embankment is overlain by an earth embankment or by sub-base or base course materials, the top 0.5 m of the rock fill shall be sealed with smaller rock particles and suitable soil materials, if necessary, to prevent the uppermost layers penetrating into voids in this rock embankment.

Where permitted by the Ministry Representative, and where the width is too narrow to accommodate equipment, material for the toe of the side hill rock fills may be placed by end dumping until sufficient width of the embankment has been formed to carry equipment, after which the remainder shall be placed in layers and compacted as specified. Any loose material left on the slopes by end dumping shall be incorporated in the fill and compacted according to these standards.

When embankments are made on hillsides or where a new fill is to be applied upon an existing embankment, the slopes of the embankment or original ground (except rock) shall be terraced in a continuous series of steps a minimum of 1.5 m wide as the embankment rises.

The material from step excavation shall be spread and compacted into the adjoining embankment. No additional payment will be made for excavation or for placing step material in the adjoining fill.

201.37 Earth Embankments – This section applies to embankments constructed from material containing less

TABLE 202-C – AGGREGATE GRADATIONS

Sieve Size (mm)	Percent Passing (%) Sieve Size													
	Surfacing Aggregate	Base Course									Sub-Base Aggregates			Bridge End Fill
		WGB			IGB			OGB			SGSB	IGSB	OGBS	BEF
		25mm	50mm	75mm	25mm	50mm	75mm	25mm	50mm	75mm				
75	---	---	---	100	---	---	100	---	---	100	100	100	100	100
50	---	---	100	---	---	100	55 - 100	---	100	70 - 100	---	55 - 100	70 - 100	30 - 100
37.5	---	---	80 - 100	60 - 100	---	60 - 100	40 - 80	---	75 - 100	50 - 85	---	40 - 80	50 - 85	---
25	100	100	---	---	100	40 - 75	---	100	---	---	---	---	---	---
19	85 - 100	80 - 100	50 - 100	35 - 80	65 - 100	---	17 - 40	75 - 100	35 - 65	15 - 55	15 - 100	17 - 40	15 - 55	20 - 100
12.5	---	---	---	---	---	15 - 40	---	---	---	---	---	---	---	---
9.5	60 - 85	50 - 85	35 - 75	25 - 60	30 - 70	---	---	30 - 65	5 - 35	---	0 - 100	---	---	---
6.3	---	---	---	---	---	---	---	---	---	0 - 20	---	---	0 - 20	---
4.75	40 - 70	35 - 70	25 - 55	20 - 40	15 - 40	---	---	5 - 30	0 - 15	---	---	---	---	10 - 60
2.36	---	25 - 50	20 - 40	15 - 30	10 - 30	10 - 25	10 - 25	0 - 10	0 - 10	0 - 10	---	10 - 25	0 - 10	---
1.18	20 - 50	15 - 35	15 - 30	10 - 20	---	---	---	---	---	---	---	---	---	6 - 32
0.600	---	---	---	---	---	---	---	---	---	---	0 - 100	---	---	---
0.300	10 - 30	5 - 20	5 - 15	3 - 10	5 - 15	5 - 15	4 - 15	0 - 8	0 - 8	0 - 8	0 - 15	4 - 15	0 - 8	4 - 15
0.075	5 - 15	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5

rock.

204.02.26 Rock – Rock is Type A material as defined in SS 201.11.01.

204.02.27 Scaling – The removal of all loose material using scaling bars, portable hydraulic jacks, other hand tools, wire rope cables, compressed air blow pipes, blasting without the need for drilled holes and other methods authorized by the Ministry Representative.

204.02.28 Setback Distance – The setback distance is the horizontal distance between the top of the excavation backslope and the toe of the overburden material. Setback is created by removing overburden.

204.02.29 Spacing – The distance between blastholes perpendicular to the burden.

204.02.30 Stemming – Material placed on top of the explosive to provide confinement of the explosive gases.

204.02.31 Subdrill – The distance drilled below subgrade level.

204.02.32 Trimming – The removal by drilling and controlled blasting of potentially unstable rock remaining at the exposed excavation backslope. Trimming may not require backline holes.

204.03 Quality Control

204.03.01 General – Quality control shall be conducted for all blasting operations.

204.03.02 Blasting Consultant – The Contractor shall retain a blasting consultant, acceptable to the Ministry Representative, to provide quality control. The consultant shall not be an employee of the Contractor, explosives manufacturer or explosives distributor.

204.03.03 Blast Vibration Monitoring – The Contractor shall provide a blast vibration monitor if required. The blast vibration monitoring shall be under the direction of the Vibration Specialist.

204.03.04 Quality Control Activities For Blasting Operations – Quality control for blasting operations shall be performed for test sections, full scale blasting operations and trimming. The Contractor shall provide to the Ministry Representative a copy of the field report generated by the Consultant within one day of each site visit by the Consultant. Quality control for blasting includes, but is not limited to the following activities by the blasting consultant:

- Viewing the proposed blast area at least one (1) week before drilling operations commence.
- Preparing and submitting blast designs for production and backline holes.
- Intermittently viewing the site during drilling for each blast area.
- Intermittently observing the loading of holes with

explosives and tying in to the delay system.

- Observing the blasts and reviewing the excavated areas.
- Attending on site to view the excavation backslope after each lift and reviewing excavation backslope for quality control purposes.
- Viewing the site while reviewing proposed changes to the blast design and preparing new designs.
- Attending on site at other times as are appropriate to assist the Contractor in the setting up, assessment and adjustment of the various procedures to be employed for blasting.
- Preparing a field report for each site visit, including details of the progress of blasting operations, a statement whether the blast design is being complied with, any changes to the blast design, any recommendations made to the Contractor and any problems encountered by the Contractor.

204.04 Submittals

204.04.01 General – Review of submittals by the Ministry shall not relieve responsibility from the Contractor for the accuracy and adequacy of the submittals. Submittals are for quality assurance and record keeping purposes. Inadequate or incorrect submittals will be returned for revisions prior to acceptance. The Contractor shall submit to the Ministry Representative the following documentation for review.

204.04.02 Qualifications and Experience of Contractor – Prior to the pre-construction meeting, the Contractor shall provide a statement of the qualifications, experience and work function of all personnel assigned to drilling and blasting duties. A statement of previous work experience on similar projects shall also be provided. This statement shall include the project name, location, volume of rock, year constructed and the owner/client contact name. The company, the driller and the blaster shall each have a minimum of 5 consecutive years demonstrated experience in drilling and controlled blasting work on at least 3 projects involving rock cuts over 8 m height along transportation corridors.

204.04.03 Qualifications and Experience of Proposed Blasting Consultant – By the pre-construction meeting, the Contractor shall provide the name of the consulting firm, and the name and qualifications of the blasting consultant's on-site representative who will be providing the quality control for rock excavation. The blasting consultant shall have a minimum of 5 consecutive years demonstrated experience in preparing successful blast designs along transportation corridors for at least 3 projects. The following information shall be included in the qualifications submitted:

- Project name, location and experience.
- Name and phone number of owner/client contact who

**TABLE 205-B APPROXIMATE AVERAGE
DIMENSION OF AN ANGULAR ROCK FOR EACH
SPECIFIED ROCK CLASS MASS (Sg=2.640)**

CLASS (KG)	APPROX. AVERAGE DIMENSION (mm)		
	15%	50%	85%
10	90	195	280
25	120	260	380
50	155	330	475
100	195	415	600
250	260	565	815
500	330	715	1030
1000	415	900	1295
2000	525	1130	1630
4000	660	1425	2055

**TABLE 205-C RECOMMENDED TESTS FOR
RIPRAP QUALITY**

Property	Test Designation	Allowable Value
Specific Gravity	ASTM D6473	≥ 2.60
Absorption	ASTM D6473	$\leq 1\%$
Soundness by use of Magnesium Sulphate	ASTM D5240	$\leq 10\%$ (following 5 cycles)
Micro-Deval Abrasion Loss Factor	ASTM D6928	$\leq 20\%$

At the toe of sloped riprap, a sufficient number of the larger rocks shall be placed to form a firm foundation approximately 50% thicker than the required nominal riprap thickness. The remaining larger rocks shall be regularly spaced, at least one every 2.5 m², when placing the general rock mass to the nominal or required thickness over the area indicated. Smaller rocks or spalls shall be

well hammered in to fill the interstices and to form a closely massed regular surface.

Where riprap is required in two layers, the rocks shall be laid up and generally lap jointed between the regularly spaced larger rocks placed as through headers.

205.08 Grouted Riprap – Where grouted riprap is shown or required, the surfaces of the rocks shall be cleaned and wetted and the interstices filled with cement mortar, well rodded and pounded in for a minimum mortar depth of 300 mm or as otherwise detailed or required by the Ministry Representative. The mortar shall consist of one part Portland cement to three parts well-graded clean fine aggregate mixed to a proper consistency.

MEASUREMENT

205.09 Measurement – Measurements shall be made by multiplying the facial area by the average thickness dimensions as shown on the Drawings or as directed by the Ministry Representative. No allowance will be made for the quantity of rock placed in excess of these dimensions.

PAYMENT

205.10 Payment – Payment shall be on the basis of the Unit Price bid per cubic metre for the type and class of riprap specified or required. The Unit Price bid shall be accepted as full compensation for everything completely furnished and done in connection therewith, but shall not include the excavation for foundation, which shall be paid for under "Roadway Drainage and Excavation" or "Foundation Excavation", whichever is specified in the Contract.

Where the source of supply for the riprap is off-Site or outside the design excavation limits as shown on the Drawings, the Unit Price for Riprap shall include all costs to develop the source and produce the riprap.

Where the source of supply is on-Site and within the design excavation limits as shown on the Drawings, payment to excavate the rock for riprap will be included within the Contract Unit Price for Type A or Type B, as defined in SS 201, as appropriate to the source.

Haul and overhaul are incidental to Unit Prices indicated above unless Schedule 7 includes an Overhaul Item.

- allow patches to attain an initial set.
- keep surfaces saturated with water for 60 minutes before applying mortar.
- remove free water from surfaces.
- apply mortar, proportioned as specified in SS 211.17.05 and mixed at least 60 minutes before application, to the concrete surfaces with a sponge, float or a hand carborundum stone, and work mortar well into the surfaces.
- allow mortar to dry 30 - 60 minutes.
- remove residues from the surfaces by rubbing with clean dry burlap but with no addition of neat cement to the surface during the "sacking" operation and finally cure the surfaces as specified in SS 211.15.

Table 211-M DIMENSIONAL TOLERANCES

Trueness of bearing surfaces	such that there is no gap over 1 mm under a 1 m straight edge
Trueness of bridge deck surfaces	such that there is no gap over 3 mm under a 3 m straight edge
Trueness of slope pavement surfaces	such that there is no gap over 12 mm under a 3 m straight edge
Trueness of other surfaces exposed to view	such that there is no gap over 12 mm under a 3 m straight edge
Curbs and parapets	such that there is no gap over 3 mm under a 3 m straight edge
Horizontal distance to concrete surfaces	±50 mm
Elevations of concrete surfaces except bearings and decks	±25 mm
Elevations of bridge deck surfaces	±15 mm
Elevations of bearing surfaces	±5 mm
Variation from plumb	1:400, but not more than 30 mm
Dimensions of members over 10 m	±25 mm
Dimensions of members under 10 m	-6 mm, +15 mm
Location of anchor bolts	± 6 mm
Projections of anchor bolts, other embedments	±13 mm

NOTE: The tolerances listed in Table 211-M are acceptable only in so far as they do not prevent the proper fit of structural members.

211.17.03 Class 3 Finish - Class 3 Finish is to be produced on all formed surfaces exposed to view from close distances, such as surfaces of curbs and parapets, and to any surface for which a Class 3 finish is specified. A Class 3 finish shall provide surfaces of uniform colour and texture when viewed from less than 15 m.

In order to produce a Class 3 finish, the formwork shall render a true smooth surface, free from fins and projections. New plywood or steel is necessary to produce the required finish. Re-use of plywood forms will be permitted only if in an "as new" condition. Repairs to the forms shall be with full panels of

sheathing only.

All ties, bolts, nails and other metal specifically required for construction purposes shall be removed or cut back to a depth of 50 mm from the surfaces of the concrete and the resulting holes filled.

No dry ties shall be permitted; form tie rods shall remain embedded and terminate not less than 50 mm from the formed face of the concrete. Removable embedded fasteners on the ends of the rods shall be such as to leave holes of a regular shape for reaming and filling.

Patching shall be:

- patch installation projecting slightly from the surrounding concrete surface.
- after 24 hours, saturated and carefully finished to render the surfaces of the patch true to the surrounding concrete, but any grinding using a hand carborundum stone kept to a minimum.

When a rubbed finish is required, the applied mortar shall be carefully worked into the surface area being finished and, using a hand carborundum stone manipulated in a circular motion, the entire surface rendered true and smooth with all excess mortar removed.

211.17.04 Class 3 Finish Alternative Procedures – Class 3 Finish alternative procedures when, in the opinion of the Ministry Representative, the formwork may safely be removed at an early age and the concrete finished while still partly plastic, shall include the following:

- careful removal of the formwork when the concrete has sufficiently hardened so as to hold its shape.
- finishing the surfaces immediately (within 4 to 8 hours of casting, depending upon weather).
- careful rubbing of the concrete surfaces with a carborundum stone, occasionally wetting same to produce a paste from the surface of the concrete.
- rubbing continued, adding necessary sand-cement mortar in small quantities to fill voids, until all voids and form marks are removed.
- surface curing as specified.

Modifications to the surface texture shall be achieved by grinding or other means.

211.17.05 Patching Mortar – Patching mortar where specified above shall be constituted as follows:

Cement: 60% Normal Portland
40% White Normal Portland
Liquid: 70% Water
30% Latex Bonding Agent
Sand: Passing a 1.25 mm sieve

NOTE: Cement blend above may be adjusted to provide close

match to the concrete colour.

211.18 Hot Weather Concreting

When ambient air temperature is 25°C or higher or there is a probability of it rising to 25°C during the placing period (as forecast by the nearest official meteorological office), hot weather concreting procedures as outlined below, shall be used, for all concrete other than deck concrete. Additional requirements for hot weather concreting for bridge decks including diaphragms, bridge parapets, bridge medians, bridge sidewalks and approach slabs are given in SS 413, Bridge Decks and Concrete Overlays.

Prior to the placement of concrete, the Contractor shall submit to the Ministry Representative for acceptance, the proposed placing operations complying with the requirements for hot weather concreting.

Curing shall be accomplished by water spray or by using saturated absorptive material, such as burlap.

Formwork, reinforcement and concreting equipment shall be protected from the direct rays of the sun or cooled by fogging and evaporation.

Concrete for piers, abutments and footings of bridges shall not have a temperature greater than 25°C at any time prior to placement and curing.

The initial temperature of concrete prior to placement may be estimated from the temperatures of its ingredients by using the following equation:

$$T = \frac{0.22(T_a M_a + T_c M_c) + T_w M_w + T_{wa} M_{wa}}{0.22(M_a + M_c) + M_w + M_{wa}}$$

where T_a , T_c , T_w and T_{wa}

= temperature in °C of aggregates, cementing materials, added mixing water, and free water on aggregates, respectively

where M_a , M_c , M_w and M_{wa}

= mass in kilograms of aggregates, cementing materials, added mixing water, and free water on aggregates, respectively

If deemed necessary, the Contractor shall employ the following hot weather concreting procedures to reduce the concrete temperature:

a) Mixing Water

- Shading of storage tanks and water supply lines;
- Refrigeration of mixing water; and/or
- Adding cubed, shaved or chipped ice directly to the concrete mixer drum, and ensuring ice is of a particle size to be completely melted before the concrete is discharged from the

412.11.02 Epoxy-Coated Reinforcing Steel – Epoxy-coated reinforcing steel bars shall conform to the requirements of ASTM A 775M and D 3963M. Application plants shall be certified under the Concrete Reinforcing Steel Institute (CRSI) Voluntary Certification Program for Fusion-Bonded Epoxy-Coating Applicator Plants, and proof of certification shall be submitted to the Ministry Representative. All epoxy-coated bars shall be clearly labelled with the name of the manufacturer, the primer and the coating system used and the date of production. The method of labelling shall be determined by the applicator plants and test certificates of performance of epoxy coated bars shall be submitted to the Ministry Representative.

Further to paragraph 9.2 of ASTM D 3963, the identification marks on all epoxy coated reinforcing bars shall be maintained from the point of delivery until they are incorporated into the structure.

The Ministry Representative may require samples of epoxy resin and epoxy patching material for acceptance testing as called for in ASTM A 775M. The Ministry Representative may require tests of coated bars as called for in ASTM A 775M.

Tie wire used to tie epoxy coated reinforcing bars shall be epoxy coated wire.

412.11.05 Stainless Steel Reinforcing Bar

Stainless steel reinforcing bars and spirals shall conform to ASTM A276 and ASTM A955M, minimum Grade 420, except as noted. Nominal dimensions, unit masses and deformation requirements for Metric bar sizes shall conform to CAN/CSA G30.18.

Stainless steel reinforcing bars shall be deformed unless indicated otherwise on the Drawings.

Stainless steel reinforcing bars shall be of a stainless steel type specified in Table 412-B.

TABLE 412-B: TYPES OF STAINLESS STEEL

TYPE / ASTM DESIGNATION	UNS DESIGNATION
316 LN – A955	S31653
DUPLEX 2205 – A955	S31803
DUPLEX 2304*	S32304

* Chemical composition shall be within the ranges identified in Table 1 (Typical Composition %) of and in conformance to the requirements of ASTM A276. The dimensioning and mechanical properties shall be in conformance with ASTM A955M.

Unless otherwise specified, only one type of stainless reinforcing steel shall be supplied for use throughout the project.

Stainless steel reinforcing bars shall be hot-rolled, de-scaled and pickled to the required mechanical properties and dimensions.

Stainless steel reinforcing bars shall be free of deposits of iron and non-stainless steel.

Fabrication of stainless steel reinforcing bars shall be such that the bar surfaces are not contaminated with deposits of iron and non stainless steel and that the surfaces are not damaged due to straightening from coil.

Tie wire used to tie stainless steel reinforcing bars shall be stainless steel wire of a type listed in Table 412-B except that tie wire used to tie stainless steel reinforcing bars to epoxy coated reinforcing steel bars shall be epoxy coated wire. Tie wire shall be 1.6mm in diameter.

SECTION 415

MANUFACTURE AND ERECTION OF PRECAST AND PRECAST PRESTRESSED CONCRETE MEMBERS

DESCRIPTION

415.01 Scope – This Section covers the manufacture and erection of precast and precast prestressed concrete members.

415.02 General

415.02.01 The manufacture and erection of precast and precast prestressed concrete members shall conform to the requirements of these specifications and details as shown on the Drawings.

415.02.02 Precast concrete elements shall be manufactured in plants certified to the current CSA A23.4 requirements in the appropriate category. Certification shall be by the Canadian Precast Prestressed Concrete Institute (i.e. CPCI Precast Concrete Certification Program for Structural, Architectural and Speciality Precast Concrete Products and Systems) or by a certification organization accredited by the the Standards Council of Canada (ie. Canadian Standards Association (CSA)) Certification shall be in effect prior to the beginning of Work, and maintained throughout the period of manufacture.

415.02.03 Materials and construction shall conform to the current CSA A23.4 and the current PCI "Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products ". Where there is a discrepancy between the requirements of these two standards, the more stringent shall apply. In cases where it may be unclear as to which standard is more stringent, the Ministry Representative in consultation with the Ministry Chief Bridge Engineer will have the final say.

415.03 Prefabrication Meeting – The Ministry will at it's discretion, convene a prefabrication meeting with the Contractor to review issues such as, but not limited to, lines of communication, fabricator and sub-fabricator scope of work, location of all work, procedures on quality control, plant certification, concrete source and mix designs, use of Hydration Stabilization Admixtures (if applicable), mill certificates, alternate details and procedures, and any other specific requirements of this specification as it relates to the Work.

415.04 Working Drawings – Working drawings shall consist of the following:

- Shop drawings,
- Transportation details, and
- Erection drawings

Transportation details and erection drawings shall be

prepared and sealed by a professional engineer registered with Association of Professional Engineers and Geoscientists of British Columbia (APEGBC).

Shop drawings shall be prepared and sealed by a professional engineer registered with APEGBC when the Contractor is responsible for the design of items that are detailed on the shop drawings.

Working drawings shall be in the same system of units as the design drawings.

Working drawings shall be on D size sheets approximately 560 mm (22") by 865 mm (34"), (one drawing per sheet). Lettering for notes and dimensions shall be at least 2.5 mm and 4 mm for headings. Drawings shall be legible when half-sized or microfilmed.

415.04.01 Shop Drawings – Shop drawings shall show all information and details needed for the fabrication of the members including, but not limited to, such items as member shapes and dimensions, mark numbers and general arrangement of member locations, mass, prestressed and non-prestressed reinforcement, embedments, openings, block outs, chamfers, recesses, finishes, concrete mix design, stressing details, special tolerances, special handling instructions, lifting details and lifting locations.

415.04.02 Transportation Details – Transportation details shall include such items as:

- Description of hauling and handling equipment,
- Weight of members,
- Length and height of loads,
- Location and method of member support, and engineering calculations where members are to be supported during transportation further from their ends than outlined in SS 415.48,
- Details for handling, storing, and loading of members.

415.04.03 Erection Drawings

Erection drawings shall show in detail the method of erection including, but not limited to, the following:

- Erection procedures
- Procedures for off loading of members upon delivery
- Details for temporary storage and support of members on site prior to erection
- Equipment to be used
- Layout or general arrangement drawing showing the layout of the members, equipment positioning, and access

**TABLE 502-H – PAYMENT ADJUSTMENTS
FOR MATERIAL APPLICATION RATE**

Actual Application Rate (Percent of specified rate)	Payment Adjustment \$ per tonne of material in the Lot (unless otherwise noted)	
	Bottom Lift or Single Lift	Top Lift of Multiple Lifts
≥ 110	-\$7.00 for all material in the Lot up to 110% and no payment for product in excess of 110.0%	-\$7.00 for all material in the Lot up to 106% and no payment for product in excess of 106.0%
≥ 106.0 to <110.0	-\$5.00	
≥ 105.0 to <106.0		-\$5.00
≥ 104.0 to <105.0	-\$1.00	-\$3.00
≥ 96.0 to <104.0	+\$0.50	+\$0.50
≥ 94.0 to <96.0	-\$2.00	-\$2.00
≥ 92.0 to <94.0	-\$3.00	-\$3.00
≥ 90.0 to <92.0	-\$4.00	-\$4.00
≥ 85.0 to <90.0	-\$7.00	-\$7.00
<85.0	REJECT	REJECT

502.56 Surface Segregation

502.56.01 Lot – A Lot shall be one kilometre length of Top Lift pavement for each driving lane.

502.56.02 Sub-Lot – Sub-Lots are not used for segregation.

502.56.03 Determination of Surface Segregation – The finished pavement shall be homogeneous, free from segregation and shall be uniform with respect to surface texture. A segregated area is defined as an area within the driving lanes of the pavement wherein the texture differs visually from the texture of the surrounding pavement.

Due to the nature of variation in asphalt mixes and their compactive characteristics, the definition of degrees of segregation will be established on a project by project basis. The Contractor and the Ministry Representative shall establish using photographs or other mutually agreed upon tools, the definition of slight, moderate and severe segregation. The Ministry

Representative and the Contractor shall evaluate the first two Lots upon completion of the second Lot, after opening to traffic, to confirm the “agreed to” guidelines. Segregation will then be evaluated only when all paving is complete.

The Ministry Representative, with the Contractor’s Representative, will observe the finished pavement to evaluate the existence, severity and extent of segregation and other surface defects. The evaluation will be completed prior to the issuance of the Completion Certificate

The rating system for categorizing the severity of Top Lift surface segregation, and repair methodology is shown in Table 502-I-1.

502.56.04 Payment Adjustments – The payment adjustment for Top Lift segregation will be the applicable amount shown in Table 502-I-2.

502.56.05 Repair – On Top Lift all segregation, including any areas outside the driving lanes assessed for the payment adjustment, shall be repaired according to Table 502-I-1.

SECTION 505

USE OF RECLAIMED ASPHALT PAVEMENT IN ASPHALT PAVEMENT CONSTRUCTION

505.01 Preliminary and General

The work covered by this section covers the use of Reclaimed Asphalt Pavement (RAP) material in hot mix asphalt construction. This specification allows for the use of both Classified and Unclassified RAP.

The contractor's development and processing of RAP into an end paving product must meet SS 502 Asphalt Pavement Construction (EPS) for Highway Construction.

The maximum allowable percentage of RAP allowed in asphalt pavement will be based on the classification of the roadway and the location of the mix in the pavement structure or as identified in the Special Provisions.

505.02 Roadway Categories

Roadways are divided into the following 2 categories:

- Category A – All numbered Highways.
- Category B - Other Roads.

The roadway Category shall be identified in the Special Provisions.

505.03 Definitions

Reclaimed Asphalt Pavement (RAP) – Removed and/or reprocessed pavement materials containing asphalt and aggregates. These materials are generated when asphalt pavements are removed for reconstruction and/or resurfacing. When properly screened and crushed, it consists of high quality aggregate coated by asphalt cement.

Classified RAP – RAP obtained from Ministry roadways will be termed as Classified RAP.

Unclassified RAP – RAP obtained from non-Ministry sources or mixed with RAP from other sources.

Rheology - is the study of deformation and flow of matter. For asphalt binder rheology, it refers to the flow characteristics of the asphalt binder in the asphalt mix. Deformation and flow of the asphalt binder in asphalt mix is important in determining asphalt pavement performance.

505.04 Allowable RAP Addition Rates

The maximum RAP allowed in the asphalt mix shall be determined by the contribution of the RAP Asphalt Cement (AC) towards the total AC content in the mix by weight as per the percentages specified in Table 505-A. The Contractor shall notify the Ministry Representative, 14 days in advance of Paving if RAP will be used in the project, and shall fill all fields as applicable and sign this Appendix II – RAP RECORD SHEET and submit it to the Ministry Representative 10 days in advance unless the project Special Provisions state differently.

Table 505-A: Maximum Percent RAP AC Replacement allowed in Asphalt Mix

Road Classification	Top Lift	Lower Lifts
Category A	15	30
Category B	30	30

The amount of total AC replaced by AC in the RAP will be calculated as follows:

$$\% \text{ AC Replacement} = \frac{(a \times b)}{c}$$

Where;

a = AC content of RAP

b = RAP percent in mixture by total weight of mix

c = Total Percent AC content in mixture

Inclusion of RAP into the hot mix asphalt will be as per the maximum allowable percentage of AC replacement unless otherwise noted in the Special Provisions.

505.05 Materials

505.05.01 RAP

The Contractor shall fulfill or exceed the requirements of SS 505 Appendix 1 – RAP Management Best Practices for the management of RAP materials from the time of collection through processing, mix design and quality control practices during the production of asphalt mixtures containing RAP and the Contractor

shall provide documentation to the Ministry Representative that best practices have been followed in the handling, classification, and storage of RAP material, prior to being allowed to use the RAP.

505.05.02 Asphalt Cement

When the Percent RAP AC Replacement amount is greater than 15%, the blended AC must meet the penetration and viscosity requirements of the specified asphalt cement specified in the Special Provisions (when penetration graded asphalt cement is specified) or the temperature requirements of the specified Performance Graded Asphalt Cement (PGAC) when a PGAC is specified or substituted for penetration graded asphalt cement.

505.05.03 Use of Rejuvenators

Usage of Softening agents, rejuvenators or recycling agents will not be permitted.

505.05.03 Use of Recycled Asphalt Shingles

Usage of Recycled asphalt shingles will not be permitted.

505.06 RAP Sampling

Sampling of the RAP shall be as per SS 505 Appendix 1 – RAP Management Best Practices.

505.07 Quality Control

The quality control testing requirements for RAP shall be based on the percent of AC replacement in the asphalt mix as per the requirements listed in Table 505-B and the Minimum test frequency guidelines for Quality Control listed in (Table 505-C in Appendix I)

505.07.01 RAP Aggregate Testing

a) Basic Tests

The following basic properties shall be determined for the proposed RAP:

- Moisture Content;
- Asphalt Content;
- Gradation;
- Percent Fracture; and
- Specific Gravity of coarse and fine fractions (for mix design purposes).

Individual representative RAP samples shall be tested to determine moisture content, gradation, percent

fracture and asphalt content.

Tests to determine the specific gravity of the coarse and fine fractions of RAP shall be completed on the combined aggregates (obtained by combining the individual reclaimed aggregates retained after the extraction of the asphalt cement).

b) Consensus Tests

The tests for the consensus properties shall be completed on the combined aggregates (virgin aggregates and reclaimed aggregates) mixed in the proportions proposed for the mix design.

The following aggregate consensus properties shall be determined for the combined aggregate samples:

- Maximum Micro Deval Abrasion loss factor (%);
- Standard Test Methods for un-compacted void content of fine aggregate (as influenced by particle shape, surface texture and grading) (ASTM C1252); and
- Percentage of flat and elongated particles (for Superpave mixes only).

505.07.02 AC Rheology Testing

When AC rheology testing and design is required, the blended AC must meet the penetration and viscosity requirements of the specified AC type. For penetration graded asphalt, rheology is measured in terms of penetration at 25°C and viscosity at 60°C. For performance grade asphalt cements (PGAC), rheology is tested as per the procedures outlined in AASHTO MP1 and reported in terms of high and low temperature service ratings, i.e. PG 58-34.

Since the rheological properties of asphalt binder vary with temperature, rheological characterization involves two key considerations:

- To compare different asphalt binders, their rheological properties must be measured at some common reference temperature.
- To fully characterize an asphalt binder, its rheological properties must be examined over the range of temperatures that it may encounter during its life.

For mixes specified to use PGAC, the blended AC must meet the temperature requirements of the specified PGAC. For asphalt mixtures containing RAP and specified to use Performance Graded (PG) asphalts, the RAP rheology and the grade of virgin asphalt to be used shall be determined according to Appendix X1 of AASHTO MP2.

505.07.03 Quality Control Testing

Table 505-B: Quality Control Testing Requirements

Classified RAP	% AC Replacement	Required Tests
	≤ 15%	<ul style="list-style-type: none">• Basic Tests
	> 15%	<ul style="list-style-type: none">• Basic Tests• Consensus Tests• AC Rheology Testing
Unclassified RAP	≤ 15%	<ul style="list-style-type: none">• Basic Tests• Consensus Tests
	> 15%	<ul style="list-style-type: none">• Basic Tests• Consensus Tests• AC Rheology Testing

- All RAP aggregate gradations for each RAP product;
- Asphalt Content for RAP;
- Results for Consensus properties of combined aggregates as specified in Section 505.07.01 (when applicable);
- Design RAP Rheology test results; and
- Blending Charts for the virgin and reclaimed AC. (when applicable)

Should a change in the source or addition rate of RAP be made after the mix design has been approved, a new mix design and/or job mix formula shall be submitted to the MoT for review.

505.09 Payment Adjustments

SS 502 PART F – PAYMENT ADJUSTMENTS shall

apply to all work utilizing reclaimed asphalt pavement in the asphalt mix unless otherwise specified in the Special Provisions.

505.08 Asphalt Mix Design

RAP shall be included at the proposed addition rates during the mix design. The Contractor shall submit a mix design to the Ministry Representative for review at least 5 business days prior to the start of asphalt mix production.

In addition to the information required in SS502.08.04 - Asphalt Mix Design Submittals, the following information shall be provided in the mix design submittal for the asphalt mixes containing RAP:

SS 505 APPENDIX 1

RAP MANAGEMENT BEST PRACTICES

A **best practice** in the context of this Standard Specification is a method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark. A "best" practice may evolve to become better as improvements are discovered. Best practice is considered to describe the process of developing and following a standard way of doing things that are commonly achieved in the industry.

RAP Sources - RAP may be obtained from several sources. The common sources of RAP are:

Cold Milling – This is the most common source of RAP. The milling process should be closely examined to make sure that the milled material is not contaminated with soil, base materials, paving geotextiles or other foreign material (sulphur, asbestos, rubber etc.). The milled material that becomes contaminated should be stockpiled separately from RAP to be used in asphalt mix.

A special milling operation may also be beneficial when it is desirable to mill the surface layer in one pass and the underlying layers in a second pass because the surface course millings may contain aggregates with higher fractured aggregates that could be incorporated in the new surface layers.

Full Depth Pavement Removal – RAP can also be obtained from the removal of the existing pavement using a bulldozer or a backhoe. This process typically results in large chunks of pavement that may be contaminated with underlying soils. This contaminated material should be stored in a separate stockpile and not to be used in the hot mix asphalt.

Asphalt Plant Waste – This includes the waste generated during plant start-up, transition between mixes, plant clean out, mix rejected from projects and excess mix produced that could not be placed.

This material usually has fewer fines than the typical RAP since it wasn't milled or broken up during pavement removal and the AC is less aged than RAP since it hasn't been subjected to environmental aging.

This material should be stockpiled and tested separately from the other RAP.

RAP Contamination – Best practice for RAP stockpiles is to keep them free from contaminants. RAP stockpiles should be treated as a valuable material. Truck drivers bringing the material on the site should ensure that unwanted debris or contaminated material does not end up in the RAP stockpile.

The plant QC personnel and the loader operators should continuously monitor processed and unprocessed RAP stockpiles to make sure that they do not contain deleterious materials. If any contaminants are found, they should be removed immediately so that they are not covered up with other RAP brought on to the yard.

RAP Categories – RAP obtained from MoT sources is referred to as **Classified RAP**. RAP obtained from non MoT sources or mixed with RAP from other projects is referred to as **Unclassified RAP**.

RAP Processing – Best practice for RAP processing involves one or more steps to create consistent materials. Screening is used to separate sizes. In some cases, it may be desirable to screen or fractionate RAP to coarse and fine fractions. RAP separation based on sizes increases quality and reduces variability in the RAP properties.

For stockpiles of RAP from multiple sources, particularly stockpiles containing oversize fragments of RAP or pavement slabs, the material should be processed to produce RAP with a maximum size of 37.5 mm for use in hot mix asphalt.

Further processing of RAP may include both screening and crushing to produce a uniform gradation, AC content and other properties. Since crushing RAP will create more aggregate fines, it is best to set up the crushing operation so that the RAP is screened before it enters the crusher.

RAP processing shall occur as early as possible in the construction planning process.

RAP Stockpiling – The best practice to minimize the accumulation of moisture in stockpiles is to cover the stockpile with a shelter, tarp or building to prevent precipitation from getting to the RAP.

RAP stockpiles should be placed on a base with adequate drainage and constructed with minimal segregation. Arc-shaped, conical, uniform stockpiles are preferred for storing processed or unprocessed RAP. No contamination of the RAP from the stockpile base materials should occur.

Use of heavy equipment on top of the RAP stockpile should be minimized to avoid compaction of the RAP. It is also recommended that the RAP stockpiles be limited to 4 m in height to reduce the potential for self-consolidation of the stockpile.

RAP Sampling - Best practice is for representative RAP samples to be collected from the stockpile prepared for the project. At least one sample per 750 tonnes of RAP in the stockpile or a minimum of ten samples per stockpile should be taken and retained for testing.

If the asphalt mix from an existing pavement is to be used as RAP, 150 mm diameter cores should be extracted at a frequency of at least one core every 1.5 kilometer in each lane prior to the start of the project. The asphalt mix from the pavement lift to be recycled should be tested to determine the properties of the aggregates and the asphalt cement in the pavement.

Sampling Method – Best practice for sampling aggregates applies to the sampling of RAP as well. RAP stockpiles should be sampled as they are being built at the location where they will be fed into the asphalt plant. Sampling at the time the stockpile is built is the best practice and will be easier and more representative of the stockpile compared to samples taken later after the formation of the crust on the face of the RAP stockpile.

Proper sampling procedures normally used for virgin aggregates should also be used to sample RAP aggregates as included in “AASHTO T2: *Sampling of Aggregates*”, *Standard Specifications for Transportation Materials and Methods of Sampling and Testing*, 30th Edition.

Minimum Test Frequencies – The quality control tests on the RAP and the extracted aggregates should be completed at the minimum frequencies specified in Table 505-C: Guidelines for Minimum Quality Control Test Frequencies.

All RAP aggregates retained after extraction should be combined together into one sample. The combined sample should then be sieved and split into coarse and fine fractions and used to determine the specific gravity of the recycled aggregates.

Stockpile Management – When a stockpile reaches the desired quantity and has been sampled and characterized, no additional RAP material should be added to it. Subsequent RAP material should be stockpiled in a separate stockpile and characterized in the same manner. This process should continue such that characterized stockpiles are not compromised by new RAP materials.

Samples from the RAP stockpile should be taken and the testing completed as per the minimum test frequencies specified in Table 505-C.

Table 505-C: Guidelines for Minimum Quality Control Test Frequencies

Test	Minimum Frequency
Asphalt Content	One per 750 tonnes
Gradation	One per 750 tonnes
Percent Fracture (%)	One per 750 tonnes
Specific Gravity of coarse fraction of RAP	Minimum of One per 3000 tonnes or three per stockpile
Specific Gravity of fine fraction of RAP	Minimum of One per 3000 tonnes or three per stockpile
Maximum Micro Deval Abrasion loss factor (%)	Minimum of One per 3000 tonnes or three per stockpile
Fine aggregate angularity	Minimum of One per 3000 tonnes or three per stockpile
Flat and elongated particles (For Superpave Only)	Minimum of One per 3000 tonnes or three per stockpile
AC Rheology	Minimum of One per 3000 tonnes of RAP or a minimum of three tests per project.

SS 505 APPENDIX II

RAP RECORD SHEET

This Appendix is part of the Standard Specification SS 505. The Contractor shall notify the Ministry Representative unless the project Special Provisions state differently, 14 days in advance of Paving if RAP will be used in the project, and shall fill all fields as applicable and sign this Appendix II – RAP RECORD SHEET and submit it to the Ministry Representative 10 days in advance unless the project Special Provisions state differently.

Contractor:

Ministry Representative:

Project Name per Signed Contract:

Project Number:

Numbered Highway Name: (if Applicable)

Road Name: (If Applicable)

Segment No.	Tonnage	RAP percentage	Classified RAP	Unclassified RAP	Top Lift %	Bottom Lift %	Left/Right LKI	Start LKI	Finish LKI

Filled by (Name and Date):

Address and Contacts

Submitted by:

Name:

Signature and Date:

508.62 Asphalt Emulsion – Asphalt emulsion will be measured and paid in litres of emulsion actually sprayed on the road, including supply, storage, heating and handling.

508.63 Aggregates - Aggregates will be measured by the cubic metre in stockpile. The volume will be determined by surveying and surface-to-surface volume calculations. Measurement shall be performed by the Contractor at the Contractor's expense using an independent surveying company. Survey results must be verified and signed off by the independent surveying company and survey results must be supplied to the Ministry.

Payment for aggregates will be at the Contract Unit Price per cubic metre in stockpile. Payment for aggregate will be only up to 100% of the Approximate Quantity as stated in Schedule 7.

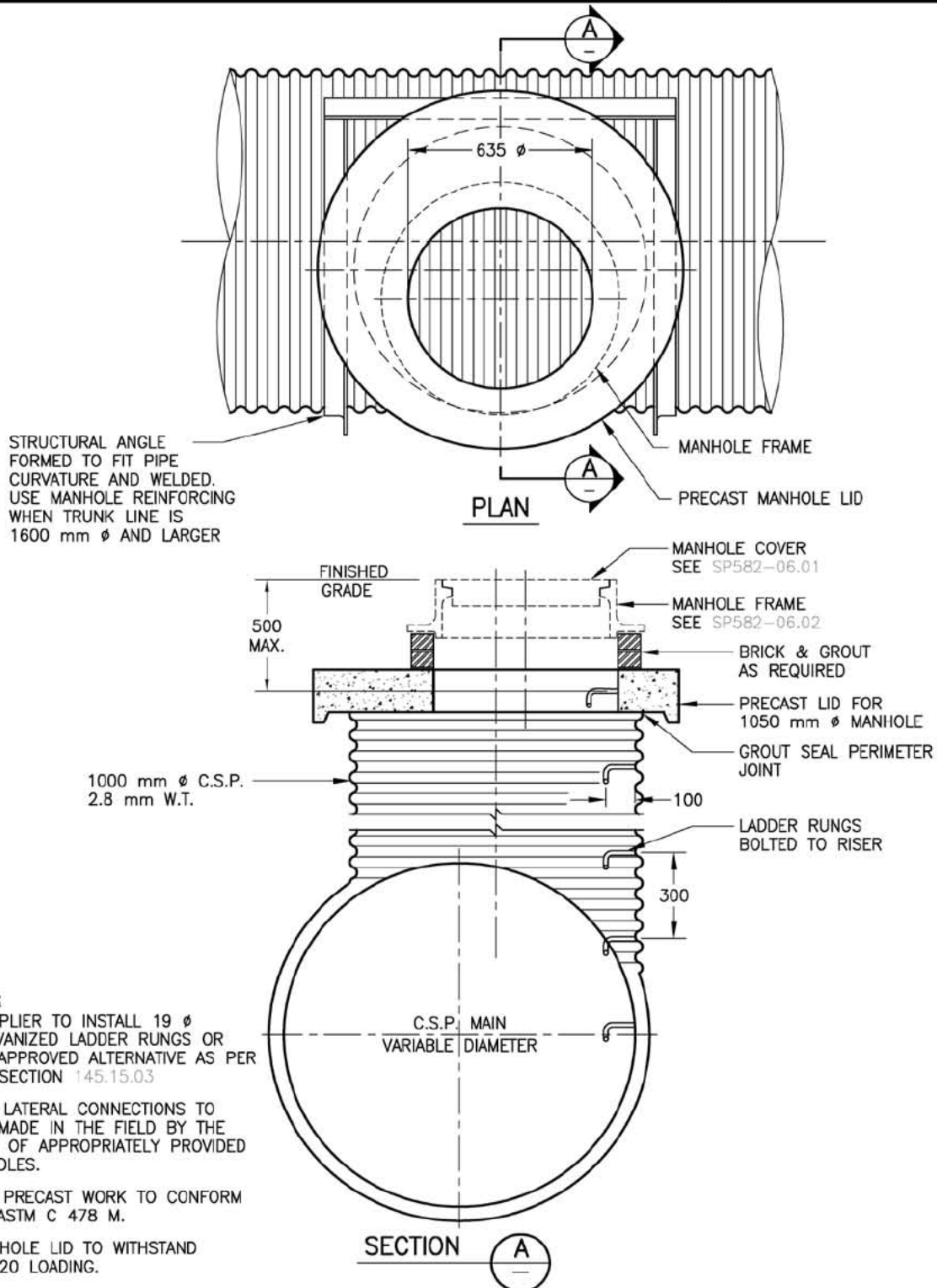
No payment will be made for the supplying, hauling and placing of blinding sand.

The supply of extra aggregate, required to repair or overlay Unacceptable Work, will be the Contractor's responsibility. Where sufficient aggregate quantities are remaining in stockpile, the Ministry will make these available at no cost to the Contractor.

508.64 Stockpile Bases - The stockpile base must be prepared prior to surveying and stockpiling. No payment will be made for stockpile base preparation work and no payment will be made for materials required for the preparation of stockpile bases.

508.65 Claims for Vehicular Damage - Without in any way limiting the Contractor's obligations or liabilities herein, during construction and up until final acceptance of the whole project by the Ministry Representative, the Contractor shall be fully responsible for all claims for damages caused by the work and shall address and deal with each claim submitted.

508.66 Partial Payment for Rejected Work – In the Ministry Representative's sole discretion and without setting precedence, where any work is reject but the Ministry Representative determines that it may be left in place, the Ministry Representative may authorize partial payment to the Contractor as full compensation for any residual value the work may have. Notwithstanding the foregoing, the Ministry is under no obligation to make any payment for reject work.

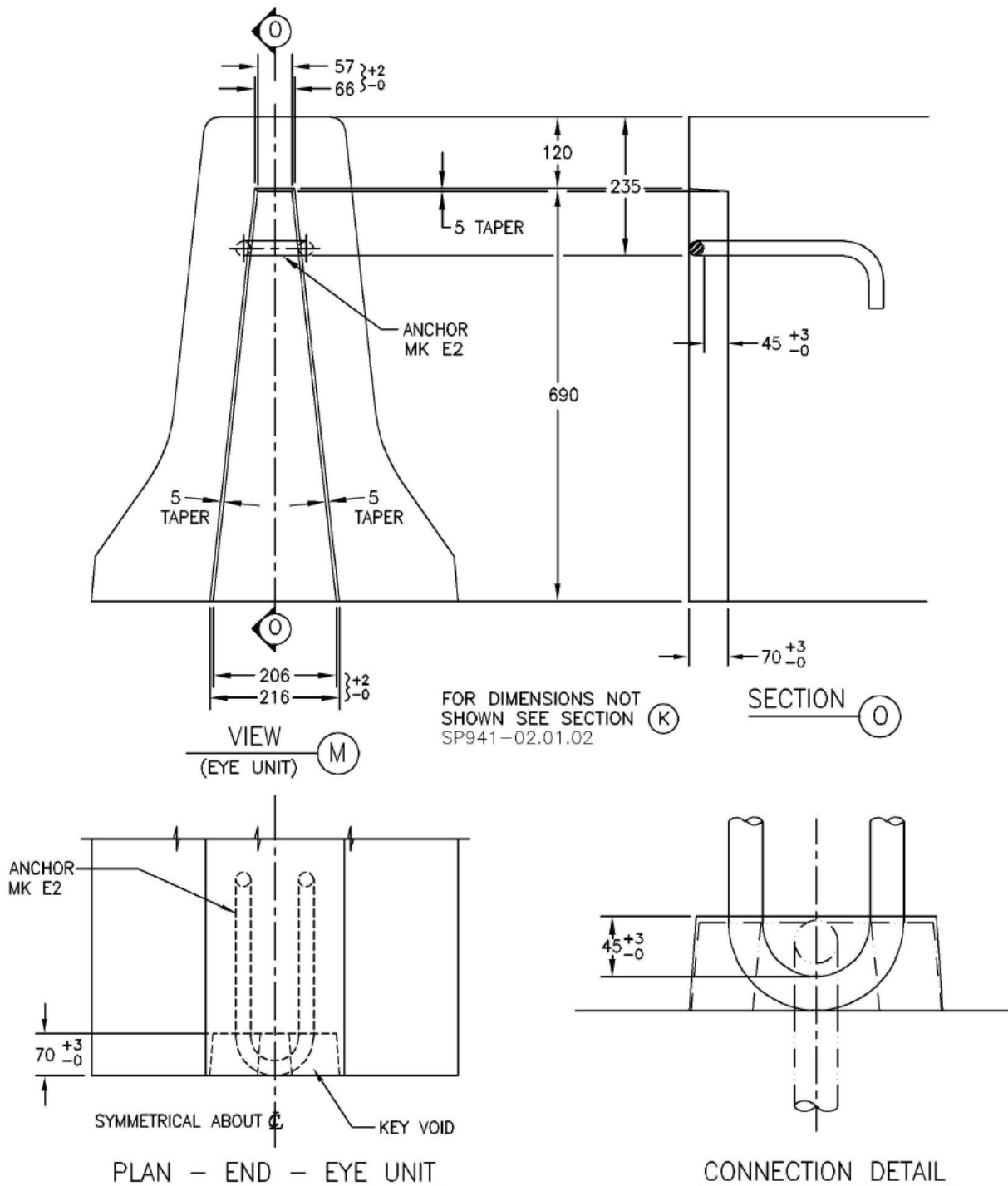


NOT TO SCALE

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED

PRECAST CONCRETE MEDIAN BARRIER
810 mm – CMB-E DETAILS

SP941-02.01.04



NOTES:

1. FOR LOCATION OF VIEW (M) SEE SP941-02.01.02.
2. FOR GENERAL NOTES SEE SP941-01.02.01.
3. FOR DETAILS OF ANCHORS SEE SP941-04.01.01.
4. THE CONNECTION DIMENSIONS PERMIT INSTALLATION TO A MINIMUM HORIZONTAL CURVE RADIUS OF 95.5 METRES.

NOT TO SCALE

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED

TABLE 952-K REQUIREMENTS FOR HIGH FLOAT EMULSIFIED ASPHALTS

REQUIREMENT	GRADE													
	HF-100S		HF-150P/HF-100P		HF-150S		HF-250S		HF-350S		HF-500M		HF-1000M	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Residue by Distillation, % By Mass	62	---	64	---	62	---	62	---	65	---	65	---	65	---
Oil Distillate % By Volume	1	4	0.5	4	1	4	1	6	1.5	6	1	6	1	7
Saybolt Viscosity, Furol Seconds at 50°C	35	150	35	120	35	150	35	150	75	400	50	---	50	---
Sieve Test, % Retained on 1 mm Sieve	---	0.1	---	---	---	0.1	---	0.1	---	0.1	---	0.1	---	0.1
Coating Test %	90	---	---	---	90	---	90	---	---	---	---	---	---	---
Settlement 1 Day, % By Mass	---	1.5	---	---	---	1.5	---	1.5	---	1.5	---	1.5	---	1.5
Demulsibility: 50 mL 5.55 g/L CaCl ₂ , % By Mass	75	---	75	---	75	---	---	---	---	---	---	---	---	---
Workability @ 10°C	---	---	---	---	---	---	---	---	---	---	---	---	Pass	---
TEST ON RESIDUE														
Penetration at 25°C, 100 g, 5 s	*		**		**		**		**		---	---	---	---
Viscosity at 60°C, Pa·s	*		**		**		**		**		8	20	2	8
Float Test at 60°C, s	1200	---	1200	---	1200	---	1200	---	1200	---	1200	---	1200	---
Solubility in Trichloroethylene, %	97.5	---	---	---	97.5	---	97.5	---	97.5	---	97.5	---	97.5	---

* See Drawing SP952-02

** See Drawing SP952-03 or Drawing SP952-05

Note For HF-150P, penetration tests shall be conducted on residue which has been distilled to 201° C ± 5° C

APPENDIX - SURVEY LAYOUT SERVICES AND PRODUCTS ❶

<u>Survey Layout</u>	<u>Maximum Interval</u>	<u>Product</u>
Right-of-way ❷	At each point of deflection and at sufficient points between as to be continuously visible.	Stake showing station and offset, or flagging.
Clearing and Grubbing	Same as Right-of-way.	Same as Right-of-way.
Grading - Slope Stakes	10 m in rock cuts; 20 m in all other cases.	One slope stake each side, at top of cut or bottom of fill, showing station, offset, vertical dimension to subgrade, and slope, plus cut/fill transition stake. Non-standard ditches will be staked separately. An additional slope stake, where applicable, at the top of a rock cut after the removal of overburden.
Grading - Subgrade	20 m.	One stake at each side of the subgrade, showing station, offset and grade at the stake location, one at each break point, and one at centreline.
Top of Sub-base	20 m.	One stake at each side of the sub-base course, showing station, offset and grade at the stake location, one at each break point, and one at centreline.
Each Base Course	20 m.	One stake at each side of the base course, showing station, offset and grade at the stake location, one at each break point, and one at centreline.
Final Base Course only	10 m.	"Blue tops" ❸ at each break point across the base course surface, or final grade stakes.
Culverts	Inlet and outlet.	One stake at each end of the culvert, plus an offset line, showing invert elevation.
Storm Drainage, Subdrain, Watermain or Sanitary Sewer		Stakes showing locations of manholes, catch basins and other structures, and invert locations of pipe inlets and outlets.
Retaining Walls	Not more than 10 m, and at alignment changes.	One stake showing control line location and either the elevation at the top of wall or the elevation at the bottom of footing excavation.
Paving	100 m on tangent, 20 m on curves, and at each deflection point.	Reference points.
Concrete Barriers	Same as paving.	Same as paving.
Signs		Stake at each sign location.
Curb and Gutter	10 m and at alignment changes. Curb returns: 5 m or at quarter points, whichever is less.	Offset hub and nail with cut/fill to gutter grade.
Median/Island Curb	Continuous.	Paint line at face/edge of curb.

APPENDIX - SURVEY LAYOUT SERVICES AND PRODUCTS ❶

<u>Survey Layout</u>	<u>Maximum Interval</u>	<u>Product</u>
Sidewalk or Path	5 m and at alignment changes. No layout required if parallel to curb.	Offset stake or nail with cut/fill to grade.
Electrical Pedestal, Junction Box, Sign Structure	Per installation.	Offset stake or nail with cut/fill to top of pedestal, or junction box; with additional stake to show orientation.
Detection Loops	Per installation.	Survey crew will lay out locations of cross walks, lane lines and stop bars; Contractor to derive location of loop.
Irrigation Preduct	Per installation	One stake at each end of the preduct, and offset line showing lowest elevation.
Pavement Marking (temporary and permanent)	at all alignment break points; 100 m maximum on tangent; 20 m maximum on curves; gores.	Reference points.

Notes:

❶	This table shows layout details for general situations; particular circumstances may require more or less staking.
❷	The right-of-way limit will be laid out only where there is work, including utility relocation, to be performed within three metres of it.
❸	"Blue top" - a stake driven so that its top surface is at the required elevation for the finished surface of the work.

**LIST OF SUBCONTRACTORS AND SUPPLIERS**
(including Designated Subcontractors and
Designated Suppliers)

Project Number _____

Contract ID _____

Project Description _____

- 1) The Contractor shall complete this list and submit it to the Ministry Representative at the preconstruction meeting.
- 2) The list shall identify each Subcontractor and Supplier for:
 - (a) supply or fabrication of precast or prestressed concrete components (if applicable);
 - (b) supply or fabrication of structural steelwork (if applicable); and/or
 - (c) any other portion of the Work valued at \$25,000 or more.
- 3) For Major Works contracts, indicate with "Yes" in the last column where the aggregate value of the Subcontractor or Supplier's portion of the Work is \$200,000 or more, invoking bonding under Major Works GC 10.00.
- 4) The Contractor shall promptly notify the Ministry Representative of any change to the information provided herein.

No.	Subcontractor / Supplier Name & Address	Portion of Work	Is the value of this Sub's Work \$200,000 or more?
1		Precast / Prestressed Concrete (if applicable)	
2		Structural Steelwork (if applicable)	
3			
4			
5			
6			
7			
8			
9			
10			

Contractor's Name		Phone Number	Fax Number	Date (yyyy/mm/dd)
Address		City		Postal Code

Attach additional copies of this form as necessary.

To:

HQ Directors: Operations, Planning and Major Projects	Traffic Control Companies in British Columbia
Regional Directors	Field Services Branch
Regional Managers, Engineering	BC MoT Maintenance Contractors
District Managers, Transportation	BC Construction Safety Alliance
Regional Traffic Engineers	WorkSafe BC
Regional Bridge Engineers	

Subject: **GUIDELINES ON THE USE OF SPEED READER BOARDS (SRB) IN WORK ZONES**

1.0 Background

This circular provides guidelines on the use of SPEED READER BOARDS (SRB) which may be used to enhance traffic control devices in work zones. Specifications regarding work zone layouts shown in the BC Ministry of Transportation's (MoT) *Traffic Control Manual for Work on Roadways* have not changed.

SRB are electronic changeable speed display signs capable of detecting and displaying the speed of approaching vehicles in real-time via radar speed detection. SRB come either as trailer mounted units or pole mounted units.

2.0 Policy

This circular applies to work zones on highways under MoT jurisdiction whose workers are under direct or indirect contract for works carried out on behalf of MoT.

SRB may be used as part of the traffic control plan on:

- Long duration work zones (more than one daytime shift or nighttime work),
- Work zones that utilize Traffic Control Persons (TCP),
- Highway projects as requested by the special provisions in the project documentation.

Examples of typical projects where SRBs would be used include night paving jobs and major highway projects with project duration of one month or longer.

Ministry maintenance contractors are not required to use SRB for maintenance activities on provincial highways.

3.0 Deployment Guidelines

- When used to enhance the initial construction speed limit reduction on entry to a work zone, the SRB should be positioned downstream of the initial regulatory speed sign. This separation distance allows drivers to adjust to the new speed limit and will lessen crash potential due to heavy braking prior to the construction speed limit reduction sign.
- When used to reaffirm the work zone speed limit adjacent to an active work area within the construction zone, the SRB should be placed upstream of the active work area. As a general rule, the SRB are placed 100 m to 200 m in advance of active work areas. However, distances used will be subject to local site and operational conditions.
- When used to highlight TCP setups where active traffic control is being carried out, the location of the SRB should follow the placement guidelines illustrated in Figure 1 of Appendix A.
- SRB should only be in operation when the construction speed limit is in effect.
- The effectiveness of SRB on reducing travel speed will often decrease over time due to driver familiarity, especially on commuter routes. Therefore,
 - On short term, temporary work zones, or where TCP are present, the SRB should operate during the time workers are present and be removed or turned off when the activity is finished.
 - On long term work zones, if the SRB is active for an extended period, it may be periodically repositioned within the work zone to assist in maintaining SRB effectiveness.
- SRB should be installed in each direction where the work affects both directions of travel. Where the work only impacts one side of a divided highway, SRB are not required in the unaffected direction.
- SRB should not be placed in close proximity (on multi-lane highways) to merge and ramp areas. The intent of this measure is to minimize conflicts and improve lane transitions.
- Where work zones are divided into several work areas, or greater than 1.5 km in length, more than one SRB (per direction) may be considered to reaffirm and maintain speed reductions.
- If two or more SRB are used per direction on a work zone site, they should be separated by a minimum of 300 metres. Placement side by side, or within 300 metres may cause conflicting messaging to motorists.
- Once deployed, the SRB should be inspected for shadowing by other construction signs or structures to ensure sign visibility and effective operation.
- See **Appendix A** for examples of typical sign SRB layouts and dimensioning in work zones.

4.0 Sign Operation

Speed Reader Boards (SRB) installed within MoT work zones should meet the following guidelines:

- The SRB should include the text “Your Speed”, or similar, in conjunction with the numeric electronic display. This text may be static (non-electronic).
- Where the work zone speed limit or advisory speed is 80 km/h or greater, a three digit display may be used.
- If no vehicles are approaching the SRB, the display should be blank.
- The SRB should be programmed in relation to the work zone speed limit (if different than the posted speed limit):
 - The electronic display may be programmed to flash and/or display the message “Slow Down” when vehicle speed exceeds 10 km/h over the posted or advisory speed.
 - When vehicle speed exceeds 40 km/h over the posted or advisory speed, the numeric display should be programmed to go blank or display the message “Slow Down”.
- The radar in the SRB should be aimed to measure the speeds of vehicles in the lane closest to the workers, and/or work activity. Detection of approaching vehicles should take place no more than 6 to 10 seconds prior to reaching the radar unit’s location.
- The SRB should be sited and aligned (height, lateral offset, and orientation) to provide maximum legibility.
- SRB should be checked for operation and positioning at time of installation and at regular intervals as deemed appropriate for the sites particular operational parameters (i.e. site location, traffic volume, vehicle mix, type of construction activity, etc.)
- The SRB should be delineated/protected using barrels or tube markers/delineators. A minimum of 3 markers/delineators should be used on the upstream side of the SRB device.
- SRB signs may be connected to an electrical service or be solar/battery powered.

5.0 Contacts

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Chief Engineer
Acknowledgements:

Maryland State Highway Administration – Office of Traffic Safety – *Use of Speed Display Trailers in Work Zones*
Minnesota DoT – Office of Traffic, Safety and Technology, December 2009 – *Work Zone Speed Limit Guidelines*

APPENDIX A

Typical Traffic Control Layouts Utilizing a Speed Reader Board(s)

Figure 1: Long Duration Lane Closure with Traffic Control Persons (TCPs) and Speed Reader Boards (SRB) – Two Lane Two-Way Roadway

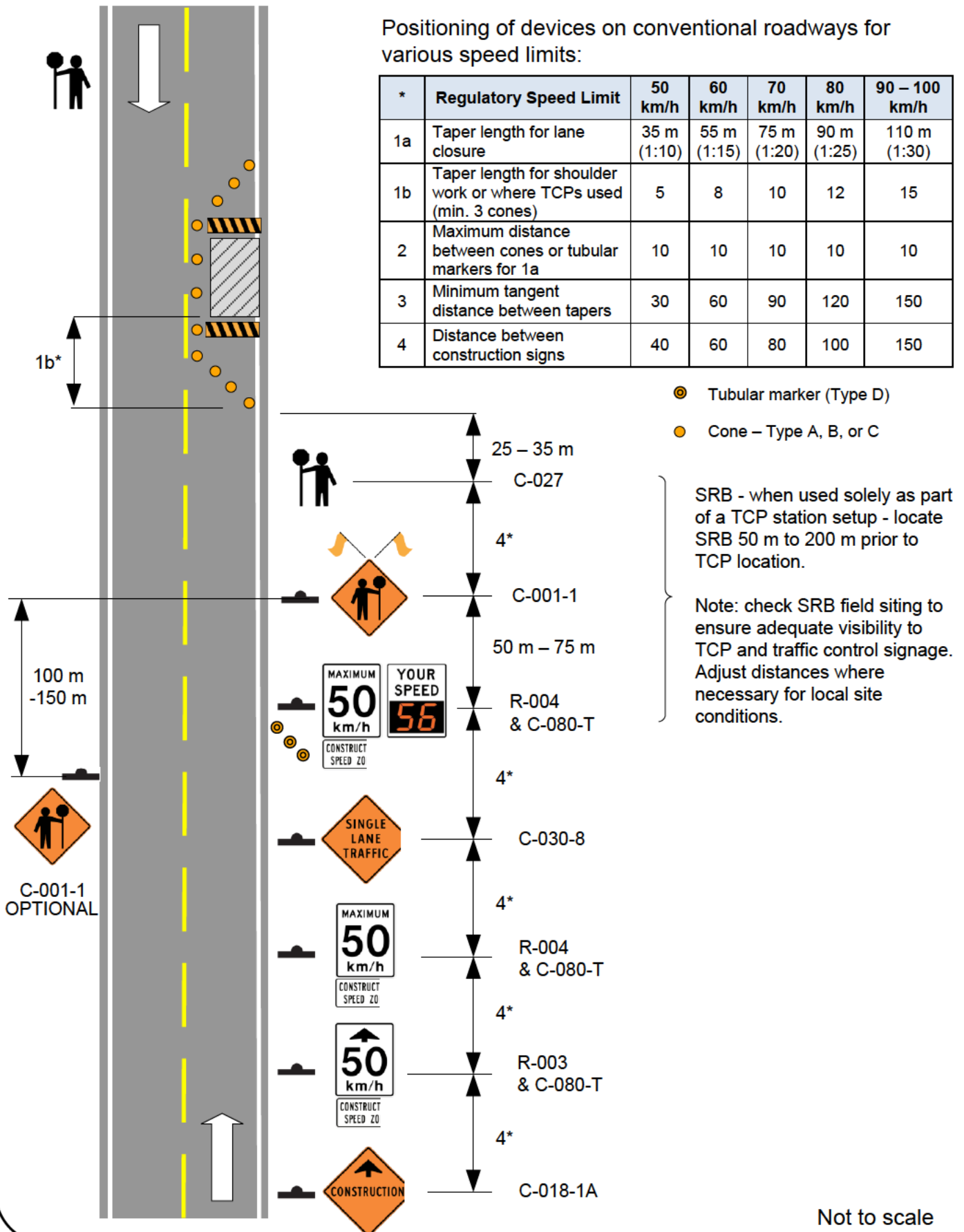


Figure 2: Freeway/Multilane Median Cross Over with Speed Reader Board (SRB)

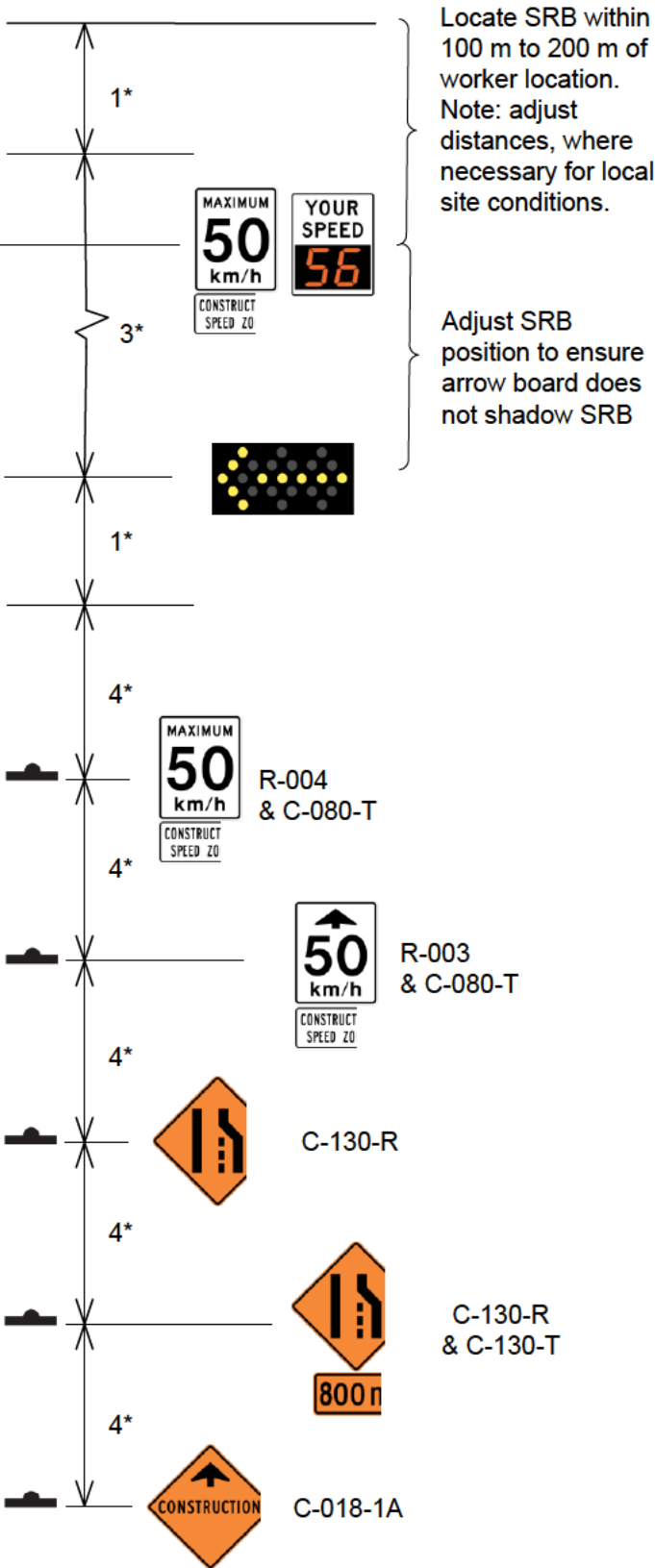
Positioning of devices on Freeways/Multilane Arterials:

*	Regulatory Speed Limit	80 – 110 km/h
1	Taper length for lane closure	165 m (1:45)
2	Maximum distance between tubular markers for (1)	10 m
3	Minimum tangent distance between tapers	200 m
4	Distance between construction signs	200 m

- ⊙ Tubular marker (Type D)
- Cone – Type A, B, or C

Note: Distances in drawing are compressed for display purposes. SRB may be required for both travel directions.

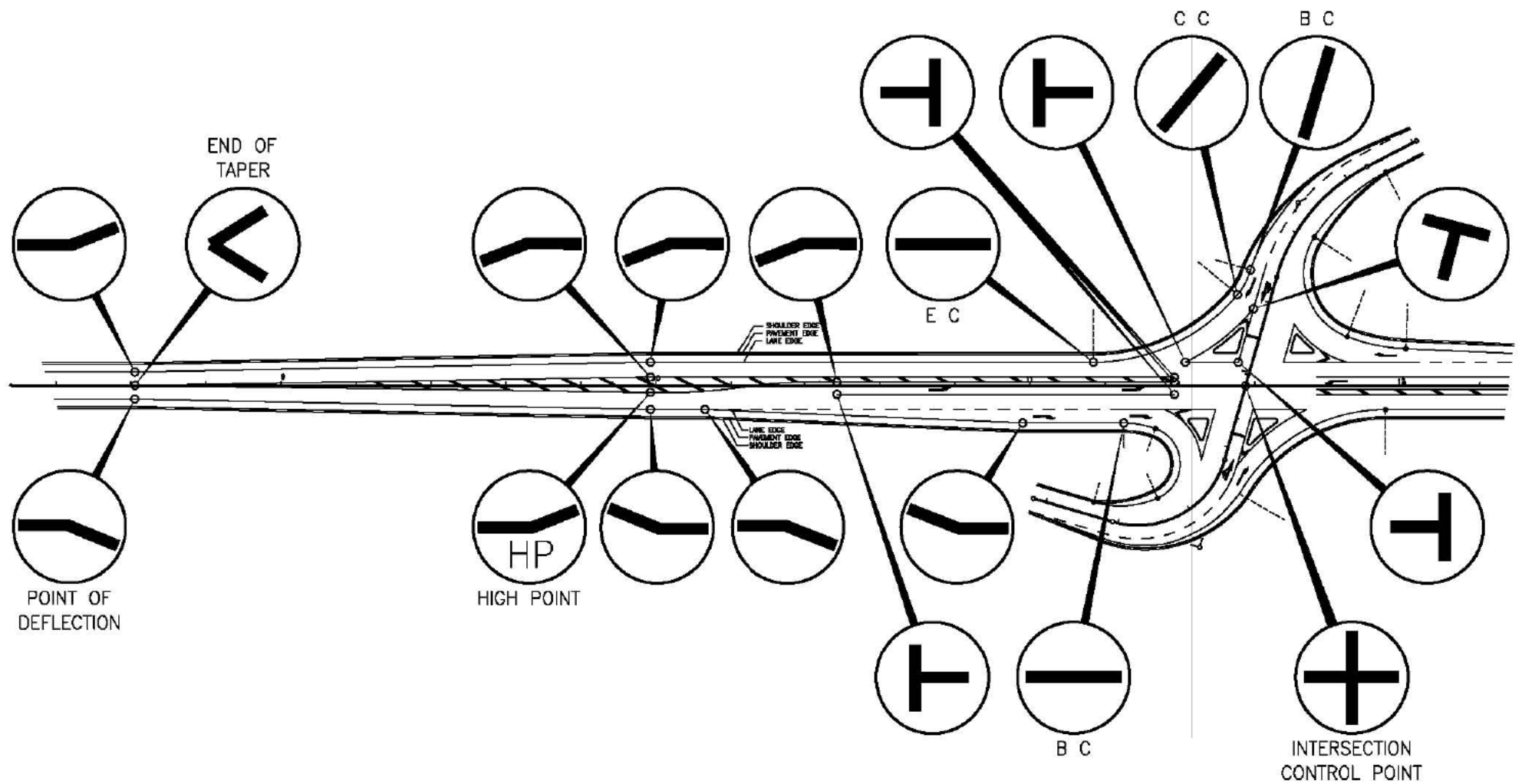
Worker Location



Not to scale

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TYPICAL INTERSECTION PAVEMENT MARKING CONTROL POINTS



Specification 6003

Underground Conduit Systems Construction

Issue: 18

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1. Scope

- 1.01 This specification describes the materials to be used and the standard of work required in the construction of underground conduit facilities to house communication cables.
- 1.02 Wherever there is a perceived conflict between construction procedures described herein and the Industrial Health and Safety Regulations (Workers Compensation Board), the latter shall govern.

2. Definitions

- 2.01 The definition of any word or phrase contained in this specification will be as defined in the "General Agreement for Construction, Installation or Maintenance of Telephone Plant", Form P.9446, latest issue.

2.02 References to the aforementioned agreement shall read:

GEN. AG. PARA. _____

- 2.02 "COMPANY" shall mean TELUS COMMUNICATIONS (BC) INC. or its duly authorized representative.
- 2.03 "CONTRACTOR" shall mean the firm responsible for the provision for the trench and the actual placement of materials as detailed on the Plans and in the Form of Tender.

3. General

- 3.01 Contractor shall make all excavations necessary for the installation of underground facilities to house communication cables and the construction of manholes, which correspond with the plans and the lines and levels given by the Company.
- 3.02 The plans will be marked with information as to the type and location of subsurface structures and utilities as required for construction purposes, where known. (GEN. AG. PARA. 4.1 and 4.2).
- 3.03 Contractor must be familiar with BC Gas Safety Regulations, W.C.B. Provincial Regulations, Provincial Blasting Regulations and all Governing Authority (City, Municipal, and Regional District) specifications.
- 3.04 When vehicles and/or machines (rubber tired backhoes, track backhoes, trucks etc.) that are used in the construction of underground conduit systems and have a hydraulic oil capacity of ninety-one liters (20 gallons) or more, an environmental spill kit will be required for each of these.

4. Proving Route

- 4.01 The contractor shall prove the trench grade far enough along the route so that any relocation or redesign necessitated by unforeseen obstacles may be carried out.
- 4.02 Contractor shall not pour or place a manhole until the sections of the route to all adjacent manholes have been proven feasible by digging test holes.
- 4.03 The depth of the buried utilities, determined by test holes, shall determine the final grade of the bottom of the trench.

- 4.04 When requested by the Company, the Contractor shall dig all test holes in all sections of the project before commencing construction.
- 4.05 Any duct or manhole installation constructed by Contractor in contravention of these requirements, which has to be relocated or redesigned because of a known obstacle which had not been exposed by a test hole prior to construction, shall be relocated or demolished and removed from the site by the Contractor at his own expense.

5. Obstructions

- 5.01 Upon exposure by test hole, should any Public Utility pipes or other structures be at an elevation or offset that requires a revision to the proposed construction, the expense of any change will be borne by the Company (pursuant to Para. 14.01 and 14.02).
- 5.02 Contractor shall have no charge against Company by reason of delay, nor shall Company be held responsible for any delay in completion of the work due solely to the above clause (5.01).
- 5.03 If Contractor desires to temporarily remove, disconnect or relocate service pipes crossing the excavation, he shall make his own arrangements with the owners of the service pipes and shall bear all costs for such temporary work.

6. Excavation - General

- 6.01 All pavements to be excavated prior to installation of conduit and/or manholes shall be cut in a straight line prior to removal.
- 6.02 Pavement shall be cut with an air hammer, hoe ram or concrete saw and under no circumstances shall a drop hammer or the bucket of a backhoe be used unless approved by the Company.
- 6.03 The contractor shall keep all excavations to a minimum size and shall protect the pavement and other structures adjacent to the work location by appropriate means
- 6.04 Any damage caused during the work operation adjacent to the work shall be repaired or replaced at the expense of the Contractor (GEN. AG. PARA. 14.1).
- 6.05 Sidewalks, curbs and gutters shall be cut square and to regular panel lines. Where practicable removal shall be avoided by tunneling unless otherwise specified by Approval Authority.

7. Adjacent Structures

- 7.01 Prior to excavation, Contractor shall consult with owners of buildings, retaining walls, poles, lamp standards or any other structures, including gardens, shrubs and trees, which may be endangered.
- 7.02 Contractor shall provide or arrange at his own expense, adequate support or take other precautions as is necessary to protect the structure, garden or shrubs to the satisfaction of the owner.
- 7.03 To avoid future dispute and/or litigation, Contractor shall establish with the owner the condition of the structure, garden or shrub prior to excavation (GEN. AG. PARA. 14.1).

- 7.04 Under no circumstances shall Contractor permit his forces, materials and/or equipment to encroach on private properties adjacent to the work, without express permission of the property owners.

8. Driveways

- 8.01 Where driveways are opened by excavation, Contractor shall maintain access by means of adequate and safe bridging.
- 8.02 Contractor shall be solely responsible for any and all damage claims resulting from loss of access to private and/or commercial properties (GEN. AG. PARA. 14.1).

9. Drainage

- 9.01 Contractor shall, without extra charge, construct such temporary drains or do such dewatering or well pointing as may be necessary to keep water away from the work operations.

10. Shoring

- 10.01 Contractor shall, without extra charge, provide and place shoring, as required by the Workers Compensation Board, and as required to protect adjacent paving and structures, and to prevent any sloughing in of material that is under adjacent sections of sidewalk or pavement.

11. Blasting

- 11.01 In all cases of blasting, Contractor shall take such measures that are necessary to prevent damage to property or injury to persons.
- 11.02 Contractor shall observe all Federal, Provincial, City and Municipal regulations relative to the use, storage, transportation and hauling
- 11.03 If the Governing Authority will not permit rock to be blasted, or if blasting would create a hazard to property or persons, Contractor shall employ other approved means to remove the rock.

12. Rock and/or Common Excavation

- 12.01 All material excavated shall be classed as "ROCK EXCAVATION" or "COMMON EXCAVATION".
- 12.02 Rock excavation is defined as the removal of solid formations of homogenous sedimentary, igneous or metamorphic material, in one place, of 0.4 cubic meters or more which in the judgment of the Company requires continuous blasting, drilling or wedging for its removal, and detached boulders of 1 cubic meter or more.
- 12.03 Only rock as defined in Paragraph 12.02 above that in the opinion of the Company must be removed from the trench shall be paid for, according to the terms of the contract, as rock excavation. Frozen material, shall in no case be classed as rock excavation.
- 12.04 All obstructions removed from augured or force driven pipe by sending a worker up the pipe to blast or to remove material by hand, will be treated as rock excavation and paid in accordance with Schedule 2 of the contract.

- 12.05 Common excavation will include such materials as are commonly called earth, loam, clay, mulch, sand, gravel, gumbo, boulders less than 1 cubic meter, angular rock fragments, hardpan and all materials of every description not specifically classified in Paragraphs 12.02, 12.03 and 12.04 foregoing.
- 12.06 Extra payment for rock excavation shall be made pursuant to Schedule 2 prices and in no case shall the limits of excavation exceed the following dimensions:
- a) 150mm under all structures
 - b) 150mm on outside of duct bank
 - c) 150mm on outside of precast manholes
 - d) 300mm on outside of cast-in-place manholes
 - e) 300mm outside of drain pipe
- 12.07 Tendered prices for common excavation shall be based on volume measured in void with the excavation limits set as follows:
- a. 75mm on the underside of the concrete outline of the duct bank or the underside of the direct buried duct bank or drain and under wet conditions for direct buried duct an additional 75mm shall be excavated for the placement of clear drain rock.
 - b. 150mm on the underside of the concrete outline of cast-in-place manholes and precast manholes.
 - c. Width shall be the minimum dimension defined as the concrete outline of the duct banks or manholes, plus that required for forming and shoring.
 - d. In the case of direct buried ducts, the width shall be the minimum dimension, defined as 75mm on the outside of the direct buried ducts or drain pipe, plus that required for shoring.
 - e. Any approved excavation, either common or rock, outside the limits as set out herein, will be treated as an extra to the tendered price pursuant to Paragraph 14.01 and 14.02.

13. Protection of Location and Grade Stakes

- 13.01 Contractor shall take every precaution to prevent the disturbance of location or grade stake provided by Company.
- 13.02 At the discretion of the Company, Contractor may be liable for the full cost of replacing such location or grade stakes disturbed by Contractor operations.
- 13.03 Company will not entertain claim by Contractor for any delays resulting from loss of said location or grade stakes.

14. Extra/Deletion Excavation

- 14.01 Changes in trench depth or manhole excavation depth of 150mm or less, unless occasioned by an increase in manhole or duct bank size, shall not be treated as an extra or deletion.
- 14.02 Changes greater than 150mm will be paid or deducted pursuant to unit prices in Schedule 2 of the contract.

15. Construction, Duct Banks, General

- 15.01 The location and arrangement of ducts shall be as shown on the plans.
- 15.02 In no case shall direct buried ducts or the concrete envelope of duct banks be laid within 150mm of any water, sewer or gas distribution pipes when crossing over or under and 300mm when running parallel to unless approved by Company.
- 15.03 A minimum of 50mm separation of concrete must be maintained between ducts and any power conductors that may be encountered.
- 15.04 A minimum of 300mm separation of well tamped material must be maintained between direct buried ducts and any power conductors that may be encountered.

16. Protection of Foreign Underground Utilities

- 16.01 Contractor shall contact each agency and arrange for the support of wood, steel or concrete poles necessary to continue the excavation work. The cost of such work shall be included in the tendered price and in no way shall Company be held liable for costs incurred by reason of delays caused by said agency.
- 16.02 Protection of foreign utilities is the responsibility of Contractor, and any damage caused to structures of any kind shall be paid for by the Contractor (GEN. AG. PARA 14.1).
- 16.03 Contractor shall build around, under over pipes, culverts, sewers, catch basins, or other support structures encountered in the line of the work, and shall supply such materials and make such alterations, substitutions and repairs as may be required for such work.
- 16.04 Every effort must be taken not to alter or remove, without consent of the owner or authority, any structure crossing or running parallel to, the excavation.

17. Laying Procedure, Multiple Duct Banks

- 17.01 The grade for direct buried ducts shall be established by placing a 75mm base of 20mm minus crushed aggregate and under wet conditions the grade shall be established by placing a minimum of 75mm of 20mm clear drain gravel below the 75mm of mulch.
- 17.02 Direct buried systems shall be laid one row at a time and the backfill worked around and tamped in such a manner that will fill all voids.
- 17.03 The horizontal and vertical spacing shall be 50mm between the ducts and a minimum 75mm envelope in direct buried systems.

- 17.04 In direct buried systems, all curves, offsets, sweeps and bends less than 4m radius will be concrete encased.
- 17.05 All lateral ducts including direct buried laterals shall be terminated in a concrete pilaster as shown on standard Company drawing.
- 17.06 For concrete encased duct banks, under wet conditions, the grade shall be established by placing a minimum of 75mm of 20mm clear drain gravel.
- 17.07 All concrete encased duct banks shall be properly formed to facilitate a minimum 50mm envelope, with all forms removed prior to backfilling.
- 17.08 In concrete encased systems, spacers approved by Company, shall be used to maintain a horizontal and vertical separation of 25mm between the ducts and an envelope of 50mm.
- 17.09 Concrete encased conduit which will be extended in the future shall have each row staggered and shall extend a minimum of 300mm beyond the end of the concrete and the open end of the conduit shall be capped and cemented with and approved plastic cap.
- 17.10 All dirt, mud, sand, chips, etc. in the duct and on the areas to be joined, must be removed.
- 17.11 It is mandatory that a primer be used on all PVC duct prior to placing the PVC cement.
- 17.12 PVC cement will be placed on the bell end and spigot as per manufactures instructions, pushed together and the duct twisted a quarter turn to ensure that the cement has even distribution around the joint and that all air pockets are removed.
- 17.13 It is the responsibility of Contractor to ensure that the duct bank is water-tight.
- 17.14 Warning tape, supplied by the Company will be placed in the trench approximately 300mm below final grade.

18. Laying Procedure - Duct Bundling

- 18.01 The duct bank shall be bundled, when specified, in a manner similar to that illustrated in Appendix C.
- 18.02 Duct saddles, as approved by the Company, shall be placed between the ducts at 1.5m intervals, then Polypropylene strapping shall then be placed over the point of the duct saddle support. The belled ends shall be staggered and each duct shall be in contact with adjacent ducts.

19. Mandrelling

- 19.01 After each section of duct, including the manholes/structures at each end of the section is completed, and the concrete and/or mortar (if any) is thoroughly set, a test mandrel sized not less than 6.35mm of the inside diameter of the duct shall be drawn through each conduit in the presence of Company.
- 19.02 Contractor will pull in a Company supplied duct tape, location to be determined by Company. Material supplied by Company will be used to determine duct length.
- 19.03 Contractor shall, at his own expense, correct any discrepancies in the duct configuration between manholes and/or lateral poles.

20. Video Scope Inspection

- 20.01 Company may direct that any or all sections be inspected by "Video Scoping", the cost to be borne by Company.
- 20.02 Contractor shall correct, at his own expense, any substandard conditions revealed by this inspection.
- 20.03 The full cost of additional "Video Scoping" to verify that proper remedial action has been taken, will be borne by Contractor.

21. Manholes – General

- 21.01 Manholes are precast or cast-in-place and shall be constructed and/or placed as shown on the plans.
- 21.02 The top of the manhole casting will be set by the contractor to conform to the grade as determined by the Governing Authority.
- 21.03 There will be a collar of brick or precast concrete rings complete with a sand and cement render inside and out, extending from the manhole roof to the underside of the cast iron ring to provide a water tight neck.

22. Duct Terminators

- 22.01 All ducts will be terminated in the end walls and will leave at right angles for a minimum distance of 1 meter before being formed into the trench configuration.
- 22.02 Contractor will terminate all ducts specified on the plans using an approved primer and jointing cement.
- 22.03 The duct terminator diaphragm will only be removed if duct is to be placed in the terminator.
- 22.04 The duct terminator diaphragm shall be removed and the rough edges of the terminator made smooth before cementing the duct in place.

23. Manhole Hardware

- 23.01 The contractor will install all hardware in precast or cast-in-place manholes such as pulling irons, pulling eyes, ground rods and Unistrut hardware at the locations specified on the standard drawings.
- 23.02 In cast-in-place manholes the floor channel inserts will be welded or mechanically clamped with 1.2mm tie wire to the reinforcing bars as shown on the standard drawings.

24. Drainage

- 24.01 Drain pipe will be 100mm PVC SDR-28 material with all joints caulked and/or cemented or use "O" ring seal.
- 24.02 Contractor will provide all cast-in-place and precast manholes with a sump, backwater valve, and "P" trap when specified.
- 24.03 Connections of drains to storm sewers will be as specified on the plans and in accordance with Governing Authority regulations.
- 24.04 The location and elevation of the storm drain will be proven, by means of a test hole, before the floor slab is poured or before placing a precast manhole.

25. Manhole Installation - Cast-In-Place

- 25.01 Manholes shall be in accordance with the standard drawings except where detailed sketches are provided indicating otherwise.
- 25.02 Floor slabs shall be poured on a 150mm thick bed of 20mm crushed aggregate and under wet conditions, the floor will be poured on a minimum 150mm thick bed of clear 20mm drain gravel.
- 25.03 All manhole pours that are not continuous will have a construction joint similar to that shown on the standard drawings.
- 25.04 Manhole forms shall not be removed before the expiration of 72 hours when normal cement is used or 24 hours when high early strength cement is used. If in the opinion of Company, the concrete has not set sufficiently, then the forms are to be left in place until such time as directed by Company.
- 25.05 When a concrete pour is unavoidable in low temperatures, insulation materials and/or heat generators will be used to prevent the concrete from freezing and the forms will be left in place for an extended period as specified by Company.
- 25.06 Cast-in place manholes will not be subjected to light traffic loads for a period of 7 days for normal cement and 3 days for high early strength cement.
- 25.07 Cast-in-place manholes will not be subjected to heavy traffic loads for a period of 14 days for normal cement and 7 days for high early strength cement.
- 25.08 The inside wall and ceiling of all cast-in-place manholes will be finished with 2 coats of a white water-proof material such as E.M Crete or equivalent, supplied by the contractor no sooner than 24 days after the date the manhole was poured.

26. Manhole Installation – Precast

- 26.01 Precast manholes will be placed in accordance with the plans.
- 26.02 The base preparation will have a minimum of 150mm of 20mm crushed aggregate with screeds set level to within 10mm and compacted to 90% Modified Proctor Density and struck off to grade.
- 26.03 Under wet conditions the manhole will be placed on a minimum of 150mm thick bed of 20mm clear drain gravel.

- 26.04 Precast manholes being set where the terrain slopes will have the sump end of the manhole located with the direction of the slope while being set level in the excavation.
- 26.05 Manhole sections will be placed avoiding damage to the concrete edges of the bottom section by using the four 112mm pulling eyes as lifting points.
- 26.06 The manhole sections will be placed so that the male and female joints are properly engaged and sealed with a grout or other Company approved material to obtain a water-proof seal.
- 26.07 The inside wall and ceiling of all precast manholes will be finished with 1 coat of a white water-proof coating such as E.M. Crete or equivalent, supplied by the contractor.

27. Backfill

- 27.01 Manholes and/or duct banks may be subject to inspection, at the company's discretion, before backfilling is permitted.
- 27.02 The type and depth of backfill material will be as specified on the plans.
- 27.03 When the use of native backfill is specified, it will be free of all organic material and will contain no rock larger than 150mm in diameter and rocks of this size will not be placed within 150mm of the duct bank or manhole.
- 27.04 Frozen spoil excavated from the trench shall not be used as backfill and will be replaced with dry backfill.

28. Compaction

- 28.01 Only hand tamping will be permitted between the trench bed and 150mm above the duct bank in maximum lifts of 150mm; the remainder of the trench will be backfilled in lifts not to exceed 450mm unless otherwise specified by the Governing Authority.
- 28.02 Power tamping will not be permitted unless there is a minimum of 600mm of cover over the ductbank and/or structure.
- 28.03 Water compacting may be employed, with approval of Company and/or Governing Authority, where the soil is loose and friable enough to provide good drainage.
- 28.04 Approval by Company and/or Governing Authority for water compacting does not relieve Contractor of his responsibility for obtaining compaction densities as described hereafter.
- 28.05 Compaction in the following areas will be according to Class A specifications:
 - a. Paved Roadways
 - b. Unpaved Roadways (includes ditches)
 - c. Lanes
 - d. Areas near roadways, sidewalks, curbs, walls or structures within a distance
 - e. Equal to the excavation depth.
 - f. Driveways

28.06 Compaction in the following areas will be according to Class B specifications:

- a. Boulevards
- b. Other areas which, in the opinion of Company, will not be a hazard should
- c. Settlement occur.

28.06 Compaction Specification Class A:

- Within 1.2m of the surface, 95% Modified Proctor Density.
- Below 1.2m from the surface, 85% Modified Proctor Density.
- Or as specified by the Governing Authority.

28.08 Compaction Specification Class B:

- Within 1.2m of the surface, 85% Modified Proctor Density.
- Or as specified by the Governing Authority.

28.09 In place and Modified Proctor Density tests will be in accordance with procedures outlined in ASTM D1557 and ASTM D2167, latest issue.

28.10 In the event that soil density tests are not according to this specification (Para. 28.07, 28.08 and 28.09), the Contractor will, at his own expense, take whatever corrective action is required to meet this specification.

28.11 Contractor will bear the full costs of all further tests which may be required to show that soil density test(s) meet the specification.

29. Landscape Restoration

20.01 In locations where duct bank and/or manhole construction is in landscaped areas, Contractor will employ techniques as to minimize damage, such as by laying plywood sheets for the movement of equipment or for temporary storage of fill and/or materials.

29.02 The contractor shall restore all damaged boulevards and landscaped areas to their original condition or better, to the satisfaction of the property owner and/or Governing Authority.

29.03 If, in the opinion of the Company the season of the year is not suitable for reseeding, Contractor shall enter a mutual agreement with the owner or tenant of the adjacent property and provide him with sufficient first quality seed and fertilizer to sow the damaged area(s) at a later date, or make such other arrangement as is acceptable to aforementioned tenant, property owner and/or Governing Authority.

29.04 Contractor shall keep the entire work location as clean and presentable as practicable at all times during the construction period by removing rubbish and debris resulting from the work keeping the site clean and presentable at all times.

29.05 If in the opinion of the Company, the work site is not kept as clean and presentable as is practicable and Contractor does not correct the situation immediately upon receiving written notice by Company, other forces may be employed for the purpose of cleaning up the work site of which the full cost will be paid by Contractor.

30. Site Maintenance Prior to Permanent Repaving

- 30.01 Contractor will, at his own expense, maintain all backfilled excavations, including temporary patching in road or sidewalk areas until all settlement has ceased or permanent repaving/reconstruction has been completed.
- 30.02 Maintenance is defined as the placing and compaction of whatever additional fill and/or temporary patch, that may be required from time to time.
- 30.03 Contractor will be fully responsible for any damage or accident to persons and/or property resulting from the condition of the backfilled excavation, until permanent restoration of pavement and/or sidewalk has been completed or until the Company, in writing, relieves Contractor of the responsibility (GEN. AG. PARA 14.1)
- 30.04 When in the opinion of the Company any portion of the worksite constitutes a hazard to workers or the general public, Contractor will immediately take whatever action is required to rectify the situation.

31. Plain and Reinforced Concrete and Mortar

- 31.01 Except as otherwise specified or shown on the plans, all plain and reinforced concrete will meet the standards of the Canadian Standards Association specification for Concrete Materials and Methods of Concrete Construction A23.1, latest issue.
- 31.02 Aggregate used in concrete for the construction of manholes will include all the aggregate that will pass through a 20mm mesh but will not pass through a Number 4 mesh.
- 31.03 Aggregate used in concrete for encasing duct banks will include all aggregate that will pass through a 10mm mesh but will not pass through a Number 4 mesh.
- 31.04 All concrete will be proportioned to have a compressive strength, at 28 days, not less than 30MPa for manholes and 20MPa for duct banks.
- 31.05 Concrete for manholes to be compacted by mechanical vibration will have a slump of 50mm to 100mm.
- 31.06 The total air content of the concrete at the time of placing will be 6% plus or minus 1.5%.
- 31.07 The use and choice of admixtures will be subject to approval of Company and will conform to the requirements of ASTM C260, latest issue.
- 31.08 Mortar for brick masonry will be proportioned by volume and will consist of 1 part cement and 3 parts fine aggregate with sufficient potable water to make the mixture workable.
- 31.09 Mortar for sealing between the mating surfaces of manhole grade rings and key-ways will be proportioned by volume and shall consist of 1 part cement and 1.5 parts fine aggregate with sufficient potable water to produce a plastic mixture just thin enough to flow between the mating surfaces.
- 31.10 The aggregate for mortar will be plaster sand containing no particles which will not pass through a Number 8 sieve.
- 31.11 Concrete, during and immediately after depositing, will be thoroughly compacted by mechanical vibration subject to the following provisions:

a) Vibration will be internal or as approved by Company.

- i. Vibrators will be of a type and design approved by Company capable of transmitting vibration to the concrete at frequencies of not less than 4500 impulses per minute.
- ii. The intensity of the vibration will be such as to visibly affect a mass of concrete of 25mm slump over a radius of at least 450mm.
- iii. Contractor will provide a sufficient number of vibrators to properly compact each batch immediately after it is placed.
- iv. Vibrators will be manipulated so as to thoroughly work the concrete around the reinforcement and imbedded fixtures and into the corners of angles and forms.
- v. Vibration will be applied at the point of deposit and in the area of freshly deposited concrete and will be of sufficient duration and intensity to thoroughly compact the concrete but will not be continued so as to cause segregation or to the extent that localized areas of grout are formed.
- vi. Application of vibrators will be at points uniformly spaced and not further apart than twice the radius over which the vibration is visibly affected.
- vii. Vibration will not be applied directly or through the reinforcement to sections or layers of concrete which have hardened to the degree that the concrete ceases to be plastic under vibration.
- viii. Vibration will not be used to make concrete flow in the forms over a distance so great as to cause segregation.
- ix. Vibrators will not be used to transport concrete in the forms.
- x. Vibration will be supplemented by such spading as is necessary to insure smooth surfaces and in corners and locations impossible to reach by vibrators.
- xi. Concrete having a slump of 125mm or more will not be vibrated.
- xii. At the discretion of Company, tests may be conducted by an independent laboratory appointed and paid by Company.

32. Permanent Road Repavement and Sidewalk Repairs

- 32.01 All public road pavement, sidewalk and driveway repairs will be made according to the specifications of the Governing Authority and be subject to their approval.
- 32.02 The permanent repair of asphalt or P.C. concrete surface, commercial and/or residential driveways, commercial and/or private sidewalks will be left in as good or better condition than original.
- 32.03 20mm hot asphaltic mix or 15MPa concrete will be used, compacted to a Laboratory Density of 98% and the minimum thickness may be the same as the original or such greater thickness as may be specified by the Company or Approving Authority.
- 32.04 The grade and camber of all repairs, will be smooth and true and conform to the grade and camber of the existing surface.
- 32.05 No pavement repairs, other than temporary repairs, will be done when the temperature is below zero degrees Celsius or the sub-grade is frozen.

- 32.06 Measurements for payments of repairs in roads and driveways for both asphalt and P.C. concrete surfaces will be as follows:
- a. For trenches, the width as defined in Paragraph 12.07 plus 200mm on each side for trim-back except where the Governing Authority requires a greater trim-back.
 - b. For manholes, the concrete outline of the manhole, plus 600mm trim-back which includes the 600mm allowance for forming and shoring.
 - c. For a cut 450mm or less from pavement edge, joint or crack, the portion of pavement or driveway between the cut and the edge, joint or crack, shall be removed or as specified by the Governing Authority.
 - d. Notwithstanding the measurements outlined in Paragraph 32.06 above, a minimum of 200mm will be trimmed back square and rectangular from the actual cut or broken edge of pavement prior to repair, regardless of any lesser requirement by the Governing Authority.
- 32.07 Measurements for payment of repairs in P.C. concrete sidewalks will be as follows:
- a. For trenches, the width as defined in Paragraphs 12.06, 12.07 and 12.08 plus a maximum of 200mm to the nearest score, groove or joint.
 - b. For manholes, the concrete outline of the manhole, plus a maximum 600mm trim-back to the nearest score, groove or joint which includes the 600mm allowance for forming and shoring.
 - c. Areas in excess of those defined in Paragraph 32.06, 32.07 and 32.08 will be repaired at the expense of Contractor.

Underground Conduit Systems Construction

Appendix A

Mineral Aggregates

Mineral Aggregates

1. This Appendix forms a part of this specification.

2. **220mm Minus, Combined Crushed Aggregate (Surface Dressing)**

This material is used for the surface dressing of gravel streets, lanes and shoulders. It is intended to be used in a layer not exceeding 50mm in depth. The portion retained on a 10mm sieve shall be not less than 100% crushed fragments. The grading limits shall be as follows:

Total Passing 20mm 100%
Total Passing 14mm 60 to 100
Total Passing 10mm 45 to 85
Total Passing #4 35 to 60
Total Passing #10 25 to 45
Total Passing #40 10 to 25
Total Passing #100 5 to 15
Total Passing #200 2 to 8

3. **20mm - 40mm Clear Gravel (Drain Gravel)**

This material is used for covering drain tiles, or for grading wet trenches. It shall be thoroughly washed free of sand, silt and clay. It should not contain more than 15% crushed fragment.

4. **20mm Minus, Combined Crushed Aggregate (Mulch)**

The portion retained on a 10mm sieve shall not be less than 60% crushed. The grading limits shall be:

Total Passing 20mm 100%
Total Passing 14mm 60 to 100
Total Passing 10mm 45 to 85
Total Passing #4 35 to 60
Total Passing #10 25 to 45
Total Passing #40 10 to 25
Total Passing #100 5 to 15
Total Passing #200 2 to 8

5. 10mm To #4 Clear Torpedo

This material shall consist of clean, hard, cubically-shaped particles free from dust, oversized and undersized particles, and flat or elongated particles. The grading requirements are:

Total Passing 10mm 100%

Total Passing 7mm 40 to 60

Total Passing #4 0 to 3

Total Passing #8 0 to 1

6. Pit Run

This granular material is used for deep fills. It does not need to be washed, crushed or well graded. It should be free from organic material stones larger than 75mm and should contain less than 6% clay or silt.

7. River Sand or Sand Fill

This material is used for deep fills where a granular material is required. River Sand or any clean sand containing less than 5% clay or silt is acceptable. It does not need to be washed. This material can contain stones or rock as it comes from the pit.

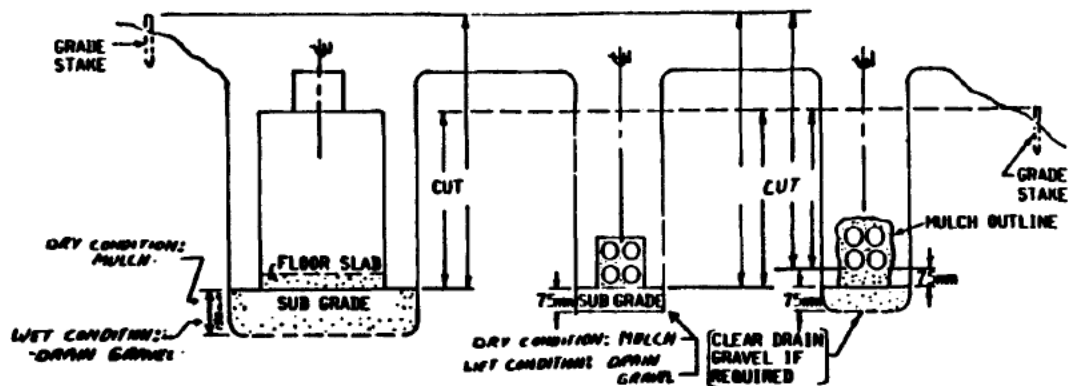
8. Native Fill

Previously excavated material to be used as standard backfill that will be free of organic material and rock larger than 150mm in diameter.

Underground Conduit Systems Construction

Appendix B

Definition of Cuts



CAST-IN-PLACE OR
 PRECAST MANHOLE

CONCRETE ENCASED
 DUCT BANK

DIRECT BURIED
 DUCT BANK

NOTES:

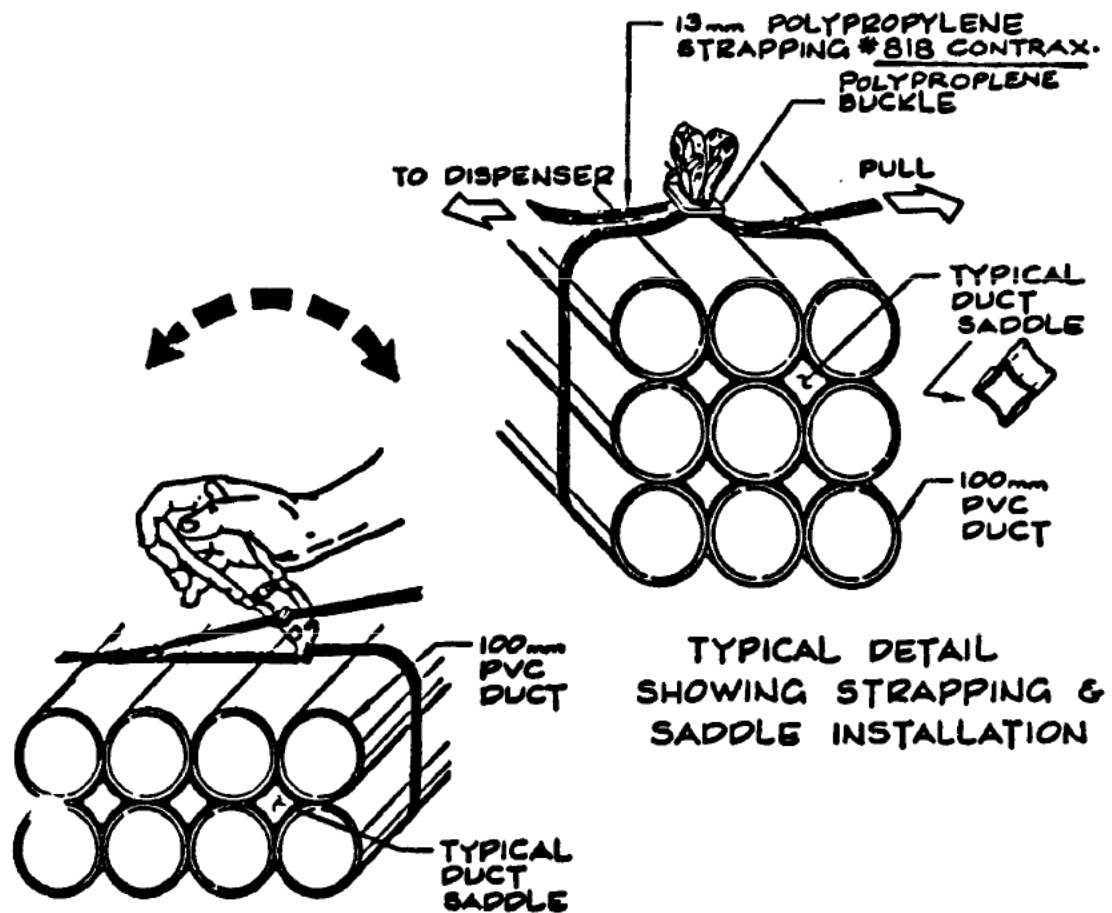
1. CUT - is the measurement from the top of the grade stake on the reference line.
2. GRADE STAKE - any point for which an elevation has been established, usually but not necessarily on a reference line or off set line.
3. REFERENCE - a line established for the purpose (off/set line) of locating the centreline of the trench.
4. Cuts for drain pipe to be given to invert of pipe.
5. Cuts shall be given to above construction points unless otherwise specified.

DEFINITION OF CUTS

Underground Conduit Systems Construction

Appendix C

Duct Bundling





Specification 6020

Underground Services

Subdivisions

Issue 10

Distribution Conduit Provided By Others In Accordance With CRTC TARIFF No. 1005, ITEMS 95, 97, AND 98 Approved By The Canadian Radio-Television And Telecommunications Commission.

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1. Scope

- 1.01 This specification describes the materials to be used, the standard of work required, and the responsibility of the Developer, in the construction of Distribution Conduit Systems for communication cables in accordance with detailed plans furnished by TELUS.
- 1.02 This specification will apply to both TELUS and Joint Hydro-TELUS installations.
- 1.03 On final inspection and acceptance of the installation on public right-of-way, the underground conduit system will become the sole property of TELUS, in accordance with the TELUS Standard Underground Telephone Service Agreement.

2. Definitions

- 2.01 In this specification, unless the context otherwise states:
 - 1. **COMPANY** shall mean TELUS Communications Company or its duly authorized representatives.
 - 2. **DEVELOPER** shall mean the Contractor, Registered Owner, or Corporation having an interest in the land on which the Plant specified is being installed.
 - 3. **LAND DESIGNATED AS PUBLIC RIGHT-OF-WAY** shall mean all public roads, highways, lanes, easements acquired by the Company or such parcels that the Developer is required to dedicate as public roads, highways and lanes.
 - 4. **LAND NOT DESIGNATED AS PUBLIC RIGHT-OF-WAY** shall mean privately owned property and shall also include such parcels as townhouses, garden apartments, condominiums, mobile home parks, recreational vehicle parks, marinas and commercial building entrances.
 - 5. **DEPOT** shall mean a suppliers warehouse or storage yard, a Company storage yard or any other location or locations designated by the Company as a material pick-up point.
 - 6. **HYDRO** shall mean the legally incorporated electrical power distribution company or its duly authorized representative.
 - 7. **GOVERNING AUTHORITY** shall mean the City or Municipal Government having jurisdiction over the work site. In the case of the Provincial Government it shall mean the Ministry of Transportation and Highways (MOTH) or Regional District.
 - 8. **PLANS** shall mean the drawings, approved by the Governing Authority and issued by the Company, detailing the lines and grades of conduit, manholes, service vaults, service boxes, cross-connect boxes or like structures required to be placed for the Company on a specific project.
 - 9. **STANDARD DRAWINGS** shall mean those drawings illustrating typical installations and/or materials to be used.

3. Responsibility of Developer

- 3.01 As outlined in the Underground Telephone Service Agreement.

4. Source of Materials

- 4.01 Where the Company elects to install a underground system on land designated for public right-of-way, the Company may without charge provide the Developer with all precast manholes, precast SAC pads, service vaults, service boxes and associated hardware necessary to assemble and place the underground system as specified on the drawings.
- 4.02 The Developer shall, at his own expense, transport all materials supplied by the Company from the designated depots to the job site, and similarly return surplus materials to the depots unless otherwise directed by the Company.
- 4.03 Any materials lost or damaged after receipt of said material, shall be replaced at the Developers expense.
- 4.04 In all cases where an underground system is required on land not designated for public right-of-way, the Developer shall provide and transport, at no cost to the Company, all conduit and fittings, along with all precast manholes, splicing vaults, service boxes and associated hardware necessary to assemble and place the underground system as specified on the drawings.
- 4.05 The quality of material used (conduit, fittings, precast manholes, splicing vaults, and service boxes) shall be as specified by the Company.
- 4.06 The Developer shall, at his own expense, supply certain materials such as:
 - a. gravel
 - b. sand
 - c. concrete
 - d. reinforcing steel
 - e. forming lumber
 - f. and other miscellaneous construction materials

5. Joint Hydro-TELUS Installation

- 5.01 When Hydro plant is to be installed jointly in the same trench with Company plant, it is a prime responsibility of the Developer that the utmost co-operation is maintained with Hydro to ensure that their plant is in place properly before backfilling takes place.

6. Excavation

- 6.01 Developer shall comply with all requirements of the Governing Authority as to the manner in which the work is done.
- 6.02 The Developer shall make all machine and hand excavations necessary for placing ducts, manholes, service vaults, service boxes and other above surface supporting structures as may be required.
- 6.03 24 hours before excavating on public property the Developer/contractor should phone 611 (dial before you dig) so the Company may mark on the ground the approximate location of existing telephone plant.
- 6.04 The Developer shall be responsible for exposing the telephone plant and for locating and exposing all other buried utilities.
- 6.05 Prior to excavation, the Developer shall consult with the owners of buildings, retaining walls, poles, lamp standards or any other structure, including gardens and shrubs, which may be endangered.
- 6.06 The Developer shall provide adequate support or take such other means as is necessary to protect adjacent structures, gardens and/or shrubs to the satisfaction of the owner and the Governing Authority.

- 6.07 Under no circumstances shall the Developer permit his forces, materials, and/or equipment to encroach on private properties adjacent to the work without the owners consent in writing.
- 6.08 Where driveways are opened by excavation, the Developer will maintain access by means of adequate and safe bridging.
- 6.09 In all cases of blasting, the Developer shall take all necessary means to prevent damage to property or injury to persons.

7. Conduit Installation

- 7.01 The location, number and arrangement of conduits, service boxes service vaults, manholes and other structures will be as shown on the plans.
- 7.02 In trenches where TELUS and Hydro plant is to be installed in a joint trench the minimum cover over the conduit will be the same as that specified by Hydro. Other structures will be as follows:
 - a. Manhole Roof - minimum cover 460mm
 - b. Service Box/Vaults and Manholes - lids at final grade
- 7.03 In trenches where TELUS only is to be installed, the minimum cover over the top of the various structures shall be as follows:
 - a. Conduit - 760mm
 - b. Manhole Roof - 460mm
 - c. Service Box Lids - Final Grade
 - d. Service Vault Lid - Final Grade
 - e. Manhole Lid - Final Grade

Where cover other than the above is required, grade will be specified on the plans.

- 7.04 An underground system constructed in sloping terrain will be drained.
- 7.05 In all locations, a 75mm layer of sand will be placed in the bottom of the trench.
- 7.06 When TELUS conduit has been installed in conjunction with Hydro conduit, sand shall be added and hand compacted to give a minimum cover of 150mm over the conduit and backfilled to grade in accordance with the Governing Authority.
- 7.07 The conduit will be either concrete encased or direct buried as shown on the plans.
- 7.08 Mainway ducts shall be 100mm PVC, DB2, orange in colour and shall be jointed and cemented in a Company approved manner.
- 7.09 The service conduit from the service boxes and/or service vault to the property line will be 50mm PVC, DB2, orange in colour and the bends shall be 50mm PVC, DB2, 300mm radius, orange in colour. The use of 25mm service duct in SF subdivisions has been discontinued.
- 7.10 Building entrance conduit size and number of conduits shall be determined by the Company and shall be PVC, DB2, orange in colour.
- 7.11 When conduit is stubbed out of manholes, service vaults and/or service boxes, PVC caps shall be installed and cemented in place with an approved jointing cement.
- 7.12 The ends of all mainway and service conduit should be marked with a 50mm x 100mm x 1.5m post, painted orange and placed vertically against the capped conduit.
- 7.13 The conduit shall be swabbed and mandrelled by using an acceptable combination of mandrill, swab and/or wire brush to prove that the conduit is free from any obstruction.
- 7.14 A 3mm braided nylon cord (240 pounds or 109Kg breaking strength), supplied by the Developer, shall be left in each mainway and service conduit.

- 7.15 At all changes in directions, requiring manufactured bends, the complete bend will be encased in concrete with a minimum 25mm separation between Company conduits with a minimum 50mm concrete envelope all around the conduits.
- 7.16 Mainway conduit crossing roads shall be encased in concrete when specified by the Governing Authority or as specified on the plans. Service ducts are excluded.
- 7.17 Conduit construction below temperatures of -10°C will not be permitted due to the high risk of conduit damage and coupling separation.
- 7.18 CSA C22.3 No7-94 Underground Systems, requires that the separation from a duct bank and other underground structures running parallel, be a minimum of 300mm. Crossing at 90 degrees cannot be less than 150 mm, and when dealing with gas pipelines, the minimum crossing separation is also 300 mm.

8. Manholes

8.01 General

- a. Manholes are precast or cast-in-place and shall be constructed and/or installed as shown on the plans.
- b. Poured in place manholes are designed by the Company and built by the Developer to company standards.
- c. There shall be a collar of precast concrete rings with cement render inside and out, extending from the manhole roof to the underside of the manhole casting.
- d. The top of the manhole casting, which is placed on top of the precast concrete rings, shall be set by the Developer to conform to final grade.

8.02 Conduit Termination

- a. All conduits must be terminated in the end walls of the manhole and leave at right angles for a minimum distance of 1 meter before being formed onto the trench configuration.
- b. The Developer shall terminate all conduit specified on the plans using an approved cleaning solvent and jointing cement.
- c. The conduit terminator diaphragm will only be removed when specified on the plans.
- d. All rough edges of the terminator must be filed smooth before cementing the conduit.

8.03 Manhole Hardware

- a. The Developer shall install all hardware, such as pulling irons/eyes, ground rods, and unistrut hardware, in precast and/or cast-in-place manholes
- b. The hardware shall be installed in the locations specified on the standard drawings.
- c. The reinforcing bars shall be welded to the floor channel inserts in cast-in-place manholes as shown on the plans.

8.04 Cast-in-Place Manholes

- a. Cast-in-place manholes shall be built in accordance with the standard drawings except where detailed sketches are provided indicating otherwise.
- b. Floor slabs shall be poured on a 150mm thick bed of 20mm minus crushed aggregate.
- c. Under wet conditions, floor slabs shall be poured on a minimum 150mm thick bed of 20mm drain gravel.

- d. All manhole pours that are not continuous shall have a construction joint similar to that shown on the standard drawing.
- e. Manhole forms shall not be removed before the expiration of 72 hours when Normal cement is used or 24 hours when High Early Strength cement is used.
- f. If, in the opinion of the Company, the concrete has not set sufficiently, then the forms are to be left in place for such time as directed by the Company.
- g. When a concrete pour is unavoidable in low temperatures, insulation materials and heat generators shall be used to prevent the concrete from freezing. Forms shall be left in place for an extended period as specified by the Company.
- h. Cast-in-place manholes shall not be subjected to light traffic loads for a period of 7 days for Normal cement construction and a period of 3 days for High Early cement construction.
- i. Where manhole will be subjected to heavy vehicle loading, the time period shall be increased to 14 days for Normal cement and 7 days for High Early cement construction.
- j. The inside walls and ceiling of all cast-in-place manholes shall be finished with two coats of a white, waterproof coating, such as E.M. Crete or equivalent not sooner than 24 DAYS after the manhole was poured.
- k. The inside of the manhole shall be free of all debris accumulated during the construction process and swept clean.

8.05 Precast Manholes

- a. Precast manholes shall be placed in accordance with the plans.
- b. The precast manhole shall be set on a base of 150mm of 20mm crushed aggregate.
- c. Under wet conditions, the precast manhole shall be set on a minimum 150mm thick bed of 20mm clear drain gravel.
- d. Precast manholes shall be graded in such a manner that the floor will slope toward the sump.
- e. Manhole sections shall be placed in such a manner as to avoid damage to the concrete edges.
- f. The bottom section may be lifted by using the 112mm eye bolts on the inside. When using the outer wire loops, the wall joint shall be protected from the lifting sling.
- g. The manhole sections shall be placed so that the male and female joints are properly engaged and sealed with grout.
- h. The inside walls and ceilings of all precast manholes shall be finished with two coats of a white water-proof coating such as E.M. Crete or equivalent.
- i. The inside of the manhole shall be free of all debris accumulated during the construction process and swept clean.

9. Service Vaults

9.01 General

- a. Service vaults are precast concrete structures and are to be placed as indicated on the Plans.
- b. The centre line of the service vaults double hinged lid shall be set parallel to the duct bank and will be set to final grade.

9.02 Conduit Termination

- a. All conduit will be terminated in the bell end terminators provided and leave at right angles for a minimum of one (1) meter before being formed into the trench configuration.
- b. The Developer shall terminate all conduit specified on the plans using an approved cleaning solvent and jointing cement.
- c. The conduit terminator diaphragm shall only be removed when specified on the Plans.
- d. All rough edges of the terminator must be filed smooth before cementing the conduit.
- e. The area broken out to provide access for the 50mm PVC, DB2 or 25mm Schedule 40 service conduits will be grouted with a Company approved material.

9.03 Precast Service Vault Installation

- a. Precast service vaults shall be placed in accordance with the Plans.
- b. In dry soil conditions the base preparation shall have a minimum of 150mm of 20mm crushed aggregate.
- c. In wet soil conditions the base preparation shall have a minimum of 150mm of 20mm clear drain rock
- d. Split service vaults shall be placed in such a manner as to avoid damage to the concrete edges. The bottom section may be lifted by using the 112mm eye bolts on the inside.
- e. The service vault sections shall be placed so that the joints are properly engaged and sealed with a cement grout to obtain a waterproof joint.
- f. The Developer shall install all hardware in the service vault, such as pulling eyes and unistrut hardware as specified on the Plans.
- g. The inside of the service vault shall be free of all debris accumulated during the construction process and swept clean.

10. Drainage of Manholes and Service Vaults

- 10.01 Drain pipe shall be PVC, SDR28 or better. All joints shall be caulked and/or cemented.
- 10.02 The Developer shall provide a sump, backwater valve and "P" trap in manholes and service vaults as specified on the Plans.
- 10.03 Connections of drains to storm sewers shall be as shown on the Plans and installation of the drain will be as specified by the Governing Authority.
- 10.04 The location and elevation of the storm sewer drain shall be proven prior to the manhole and/or service vault being placed.
- 10.05 Drains must be placed from all service vaults and from the lowest service box.

11. Service Boxes

11.01 General

- a. Service boxes are precast concrete construction.
- b. The location of the service boxes shall be as indicated on the Plans.
- c. The service box lid shall be set to final grade.

11.02 Duct Termination

- a. All mainway conduit and service conduit shall be terminated in the end walls.
- b. Typically up to a maximum of 2 - 100mm mainway conduits and a maximum of 4 - 50mm service conduits may be placed in each end of the service box, or as specified on the Plans.
- c. The end walls that are broken out to accommodate the 100mm main conduits and the 50mm or 25mm service conduits will be grouted with a Company approved material.
- d. The Developer shall join all conduits using an approved cleaner and joining cement.
- e. Each 100mm conduit being terminated in the service box will be equipped with an approved end bell.
- f. All service conduits terminated in the service box shall be capped. Do not glue.

11.03 Service Box Installation

- a. Precast service boxes shall be placed in accordance with the Plans.
- b. The base preparation shall have a minimum of 150mm of 20mm crushed aggregate or sand.
- c. Under wet conditions the service box shall be placed on a minimum of 150mm thick bed of 20mm clear drain rock
- d. The service box shall be set so that the lid is set at final grade.

12. Backfill

- 12.01 No backfilling is to be performed until the Company inspector has approved the phase of the project to be backfilled.
- 12.02 When Company conduit has been installed in conjunction with Hydro conduit, sand shall be added and non-mechanically compacted (Section 13) to give a minimum 150mm cover over the conduit, backfilled to grade and compacted in accordance with, and to the satisfaction of the Governing Authorities specifications.
- 12.03 If native fill is specified it shall mean excavated material free of organic materials and rock larger than 150mm (6") in diameter.
- 12.04 Frozen material will not be used as backfill.
- 12.05 Under freezing conditions, backfill material specified shall be dry. Where no suitable backfill material is available, all conduits shall be encased in concrete.

13. Compaction

- 13.01 Only HAND TAMPING (non-mechanical) will be permitted between the trench bed and 150mm above the conduit(s). POWER TAMPING (mechanical) will not be allowed unless there is a minimum of 600mm of cover over the conduits.
- 13.02 It is the responsibility of the Developer to acquire acceptance of backfill compaction from the Governing Authority(s).

14. Responsibility for Backfill Maintenance

- 14.01 All backfilling and compaction shall be done to the satisfaction and acceptance of the Company and the Governing Authority, and is subject to inspection at all times. The Developer shall

maintain the backfilled excavation at his own expense as laid out in the Underground Telephone Service Agreement, Item 7 and 11.

- 14.02 In accepting responsibility for backfill, the Developer shall be fully responsible for any damage or accident which may occur to persons and/or property resulting from the condition of the backfilled trench.

15. Temporary and Permanent Repairs

- 15.01 The Developer shall be solely responsible for the cost of temporary and/or permanent pavement and/or sidewalk repairs in all locations according to the specifications of the Governing Authority.

16. Landscape Restoration

- 16.01 In locations where underground construction is in landscaped areas, it is the responsibility of the Developer to minimize damage and shall restore all damaged pavement, curbs, gutters, boulevards and landscaped areas to the satisfaction of the Property Owner and the Governing Authority.
- 16.02 The Developer shall keep the entire work location as clean as is practicable at all times during the construction period.

17. Governing Authority Regulations

- 17.01 The scope, manner and extent to which public streets may be utilized or occupied by the Developer for the purpose of carrying out the work will be determined by the Governing Authority.
- 17.02 The Developer shall take all precautions, as determined by the Governing Authority to insure that unnecessary damage will not occur to roads, curbs, sidewalks and other street appurtenances.
- 17.03 The developer shall provide to the Company and Governing Authority, accurate and complete AS CONSTRUCTED plans on completion of the installation of the conduit system, prior to final subdivision plan approval.

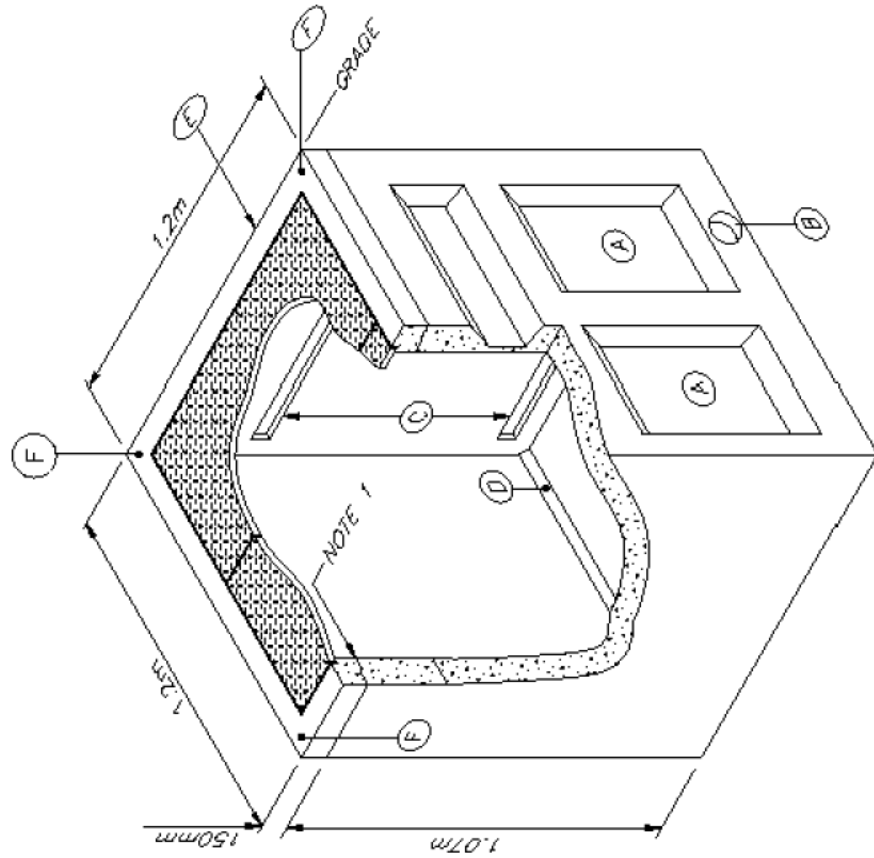
18. Plain and Reinforced Concrete and Mortar

- 18.01 All plain and reinforced concrete shall meet the standards of the current edition of the CANADIAN STANDARDS ASSOCIATION (CSA) specification for Concrete Materials and Methods of Concrete Construction, A23.1.
- 18.02 All concrete will have a compressive strength at 28 days of not less than 30mpa for poured in place manholes and 20mpa for duct banks.
- 18.03 Concrete shall have a slump of 50mm to 100mm.
- 18.04 Air entraining agents, when specified, shall conform to the requirements of ASTM Standard C260.
- 18.05 Mortar to be used for sealing between the mating surfaces of manhole grade rings and manhole and service vault keyways, shall be proportioned by volume and shall consist of 1 part cement and 1.5 parts fine aggregate and sufficient water to produce a plastic mixture.

Appendix

Standard Drawings

SA-100000	1.2m x 1.2m Service Vault (pages 1-3)
SA-100001	1.5m x 1.5m Service Vault (pages 1-4)
SA-100072	1.5m x 1.5m Service Vault c/w 450mm Lift
SA-100079	1.5m x 1.5m Split Service Vault (pages 2-4)
SA-100094	832 Series Sidewalk Vault (pages 1-2)
SA-100095	1102 Series Splice Vault
SA-100073	PLMH 2102 Installation Procedure
SA-100071	PLMH 3152 Installation Procedure
SA-100069	Typical Entry for 3152
SA-100070	Typical Entry for 4162
SA-100093	5686 Series Service Box (pages 1-2)
SA-100004	Standard Sump and Backwater Valve Installation
SA-100019	Standard Backwater Valve End Wall Installation
SA-100005	Residential Underground Conduit Detail
SA-100006	Typical Service Box Location Detail
SA-100007	Typical Service Box Location Detail
SA-100009	Typical Service Vault Location Detail
SA-100010	Typical Service Box Location Detail
SA-100059	Typical Service Box and Counterpoise Location Detail
SA-100011	Cabinet Protection Post Location Detail
SA-100074	Pad Detail for 2400x and 5400x SAC Boxes (pages 1-6)
SA-100015	Precast Concrete 2700x SAC Pad (Interior North)
SA-100021	Precast Concrete 2700x SAC Pad (Interior South)
SA-100058	Precast Concrete Pad for 900x or 600x X-conn Terminal
SA-100067	Joint Pole Preferred Pilaster Location
SA-100030	Pilaster Detail for 1, 2 or 3 Way Installation (pages 1-3)

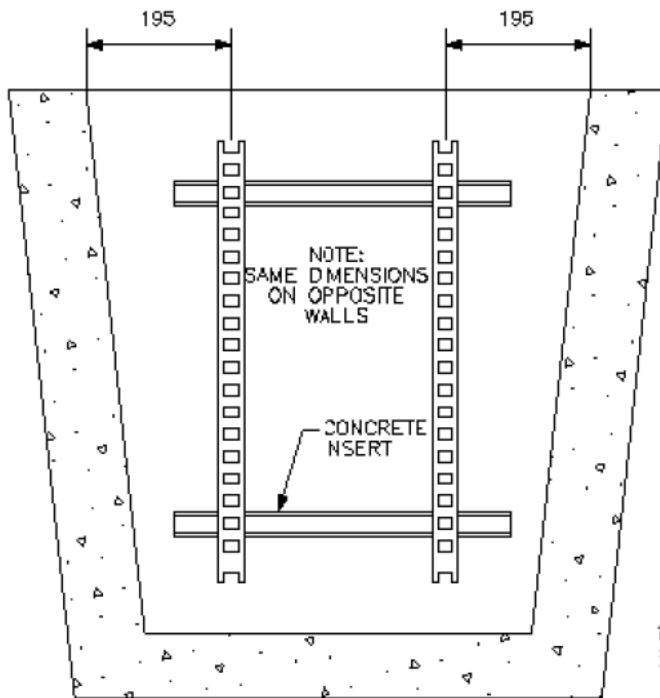


NOTES:

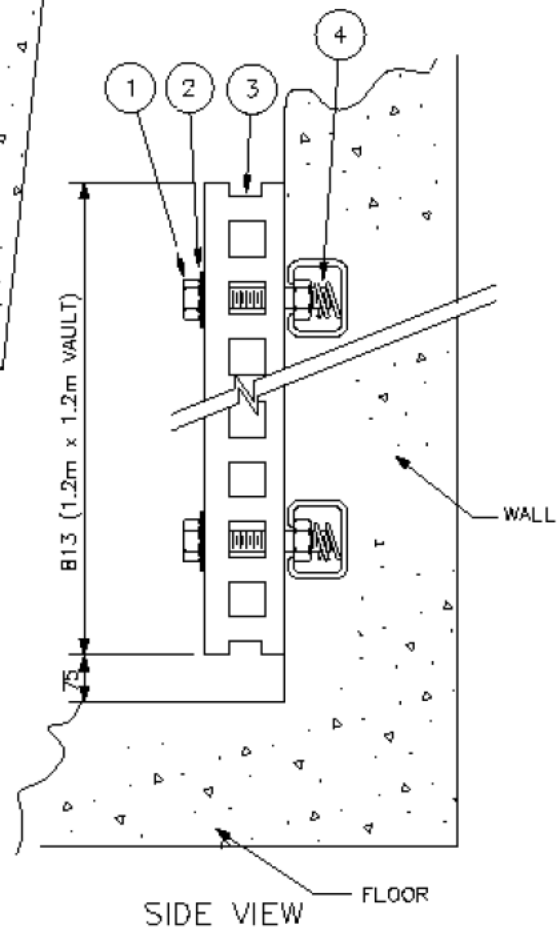
- A. 300mm x 400mm KNOCKOUTS.
 - B. 125mm DRAIN KNOCKOUT (2)
 - C. 41mm x 22mm UNISTRUT CHANNEL
 - D. 25mm PULLING INSERTS,
2 EACH SIDE
 - E. CONCRETE RING C/W HINGED
METAL LIDS
 - F. 19mm LIFTING INSERTS (4)
1. GROUT ALL JOINTS, DUCT AND DRAIN OPENINGS.
 2. VAULT TO BE SET ON 150mm OF 20mm MULCH IN DRY CONDITIONS OR 150mm OF DRAIN ROCK IN WET CONDITIONS.

7	ENG. T.HORNER	DR. R.K.H.	PRECAST 1.2m X 1.2m SERVICE VAULT	
	W.O.	CH. S.T.		
	SCALE N.T.S.	DATE 91-09-12		
	ASSOC. RG			
REF.			SA-100000	SI units
			PAGE 1 OF 3	
			TELUS	A4C
			NETWORK ENGINEERING	

ITEM	QTY.	PART NO.	DESCRIPTION
1	8	—	HEX HEAD CAP SCREW 1/2" x 2 3/4"
2	8	P-1124	FLAT PLATE WASHER 9/16" HOLE
3	4	P-16F	VERTICAL CABLE SUPPORT
4	8	P-4010	SPRING NUT 1/2"



BASE UNIT



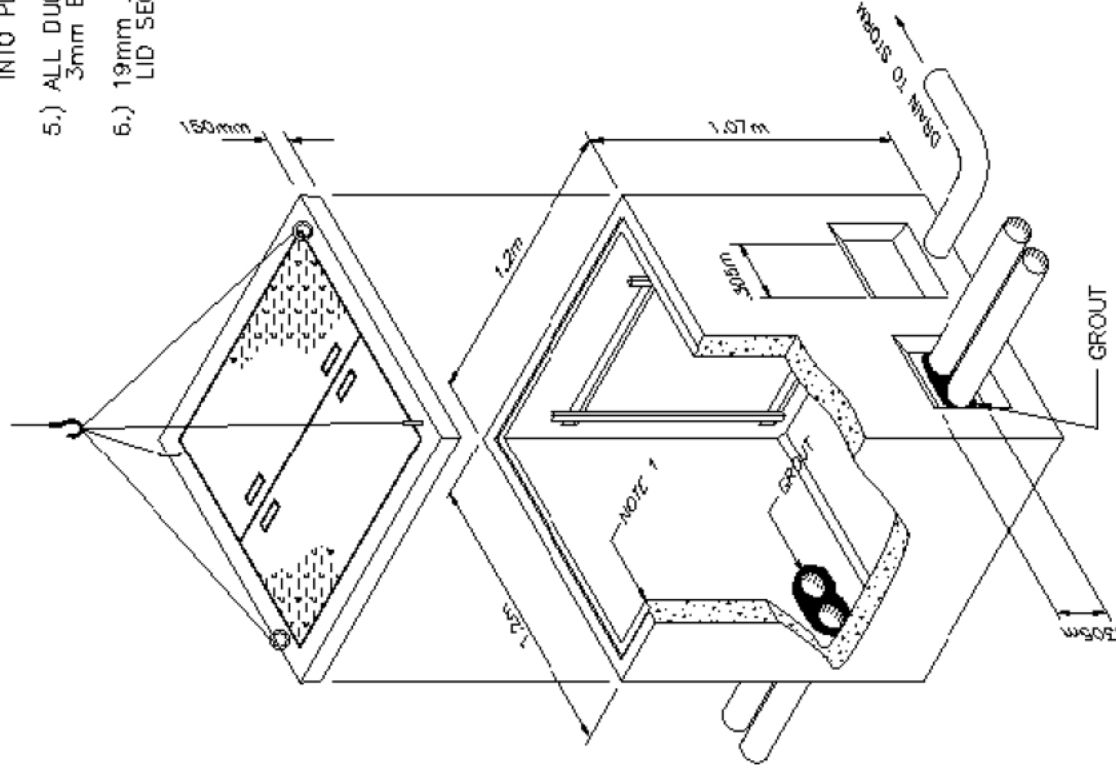
SIDE VIEW

HARDWARE DETAIL 1.2m x 1.2m
SERVICE VAULT

SA-100000
PAGE 2

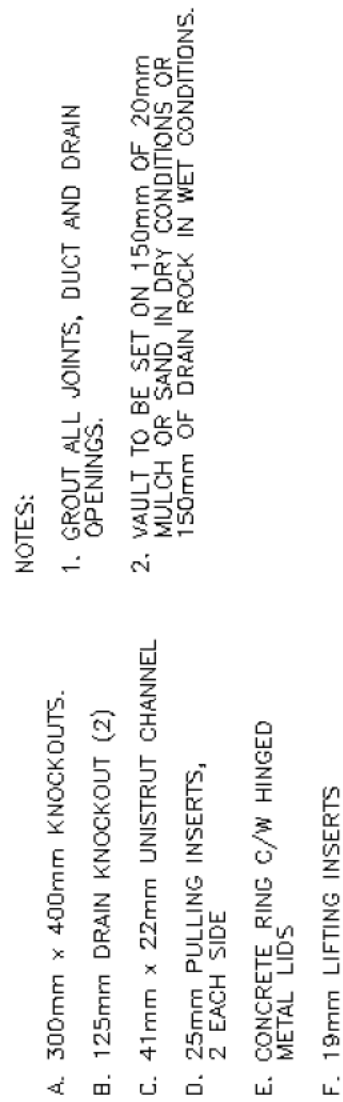
NOTES:



- 1.) LIDS & FRAME MUST NOT BE LIFTED BY LID HANDLES.
- 2.) GROUT ALL JOINTS, DUCT AND DRAIN ENTRANCES.
- 3.) SERVICE VAULT TO BE SET ON COMPACTED SAND EXCEPT WHERE DRAIN ROCK IS REQUIRED.
- 4.) FOUR (4) - 9mm EYE BOLTS ARE TO BE USED TO LIFT LID & BASE INTO PLACE.
- 5.) ALL DUCTS TO BE FISHED WITH 3mm BRAIDED NYLON ROPE.
- 6.) 19mm LIFTING INSERT (4) IN LID SECTION.



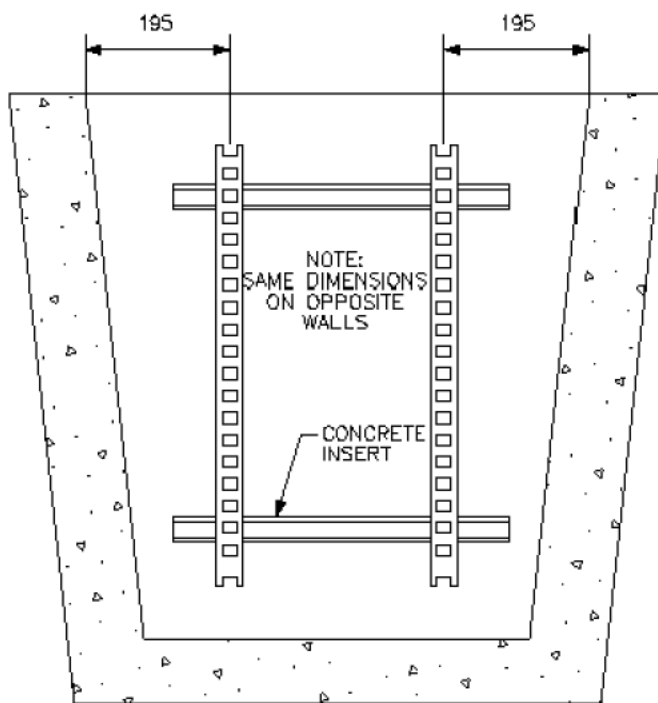
1.2 m x 1.2 m
SERVICE VAULT PLACEMENT

SA-100000
PAGE 3

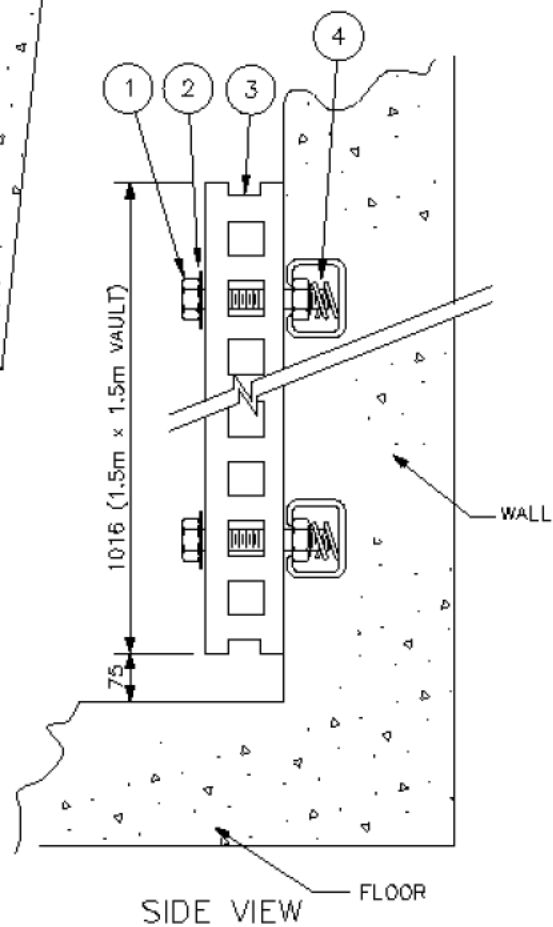


7	ENG. T. HORNER		DR. R.K.H.	PRECAST 1.5m X 1.5m SERVICE VAULT	SA-100001 PAGE 1 OF 4	SI metric 	A4C
	W.O.		CH. S.T.				
	SCALE	N.T.S.	DATE 91-09-12				
	ASSOC. RG						
REF.				TELUS- 	NETWORK ENGINEERING		

ITEM	QTY.	PART NO.	DESCRIPTION
1	8	—	HEX HEAD CAP SCREW 1/2" X 2 3/4"
2	8	P-1124	FLAT PLATE WASHER 9/16" HOLE
3	4	P-16F	VERTICAL CABLE SUPPORT
4	8	P-4010	SPRING NUT 1/2"

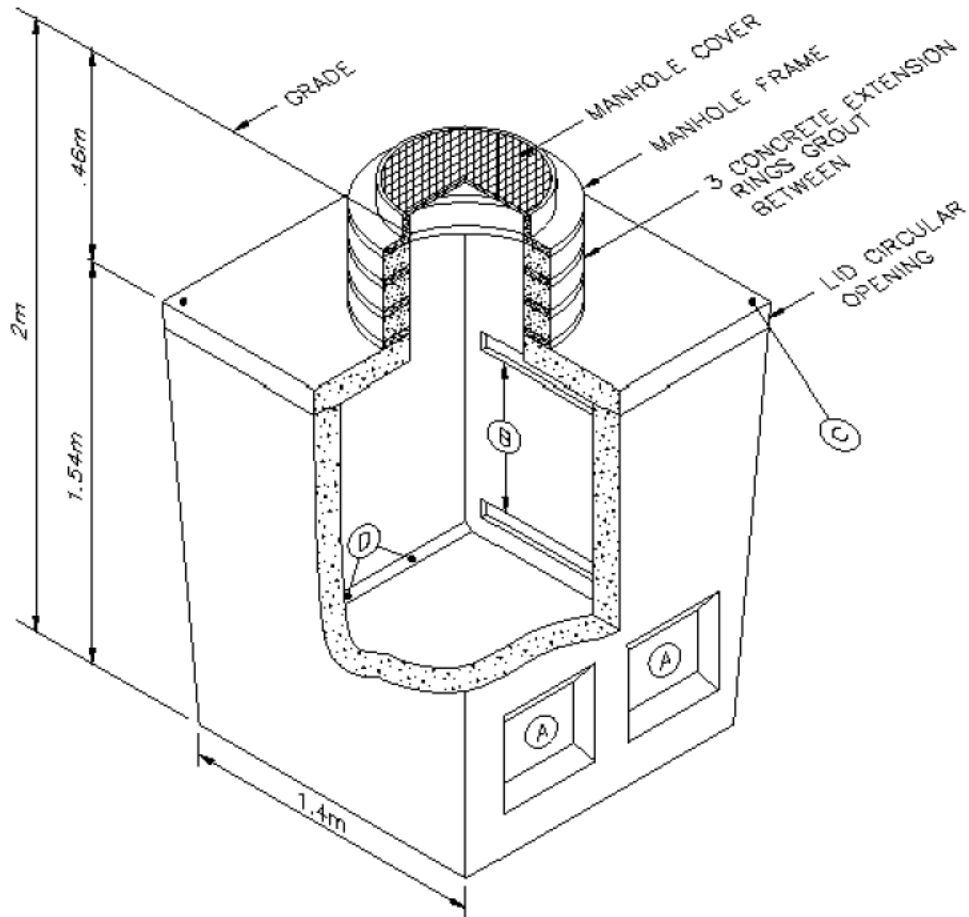


BASE UNIT



HARDWARE DETAIL 1.5m x 1.5m
SERVICE VAULT

SA-100001
PAGE 2



- A. 300mm x 400mm KNOCKOUTS.
- B. 41mm x 22mm UNISTRUT CHANNEL
- C. 19mm LIFTING INSERT (4)
- D. 25mm PULLING INSERTS
2 EACH SIDE

NOTES:

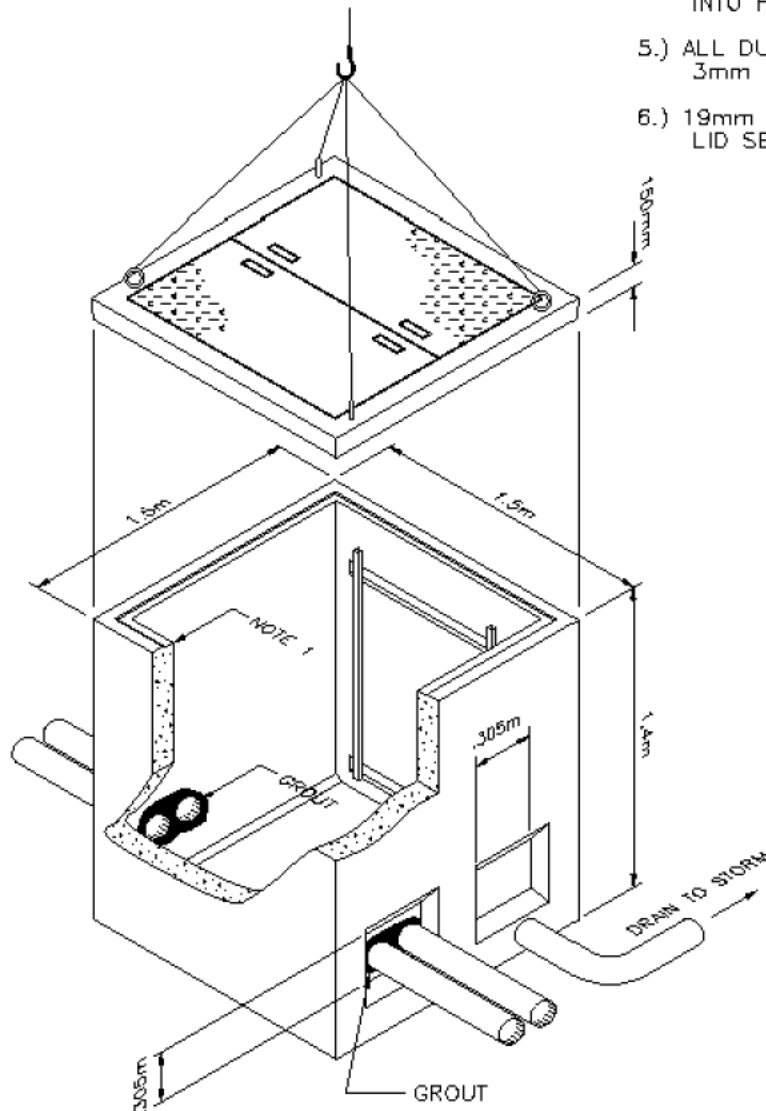
1. GROUT ALL JOINTS, DUCTS AND DRAIN ENTRANCES.
2. SERVICE VAULT TO BE SET ON 150mm OF 20mm MINUS MULCH OR SAND AND UNDER WET CONDITIONS, 150mm OF DRAIN ROCK.
3. C/W UNISTRUT INSTALLED.

PRECAST 1.5m x 1.5m SERVICE VAULT
WITH CIRCULAR LID OPTION

SA-100001
PAGE 3

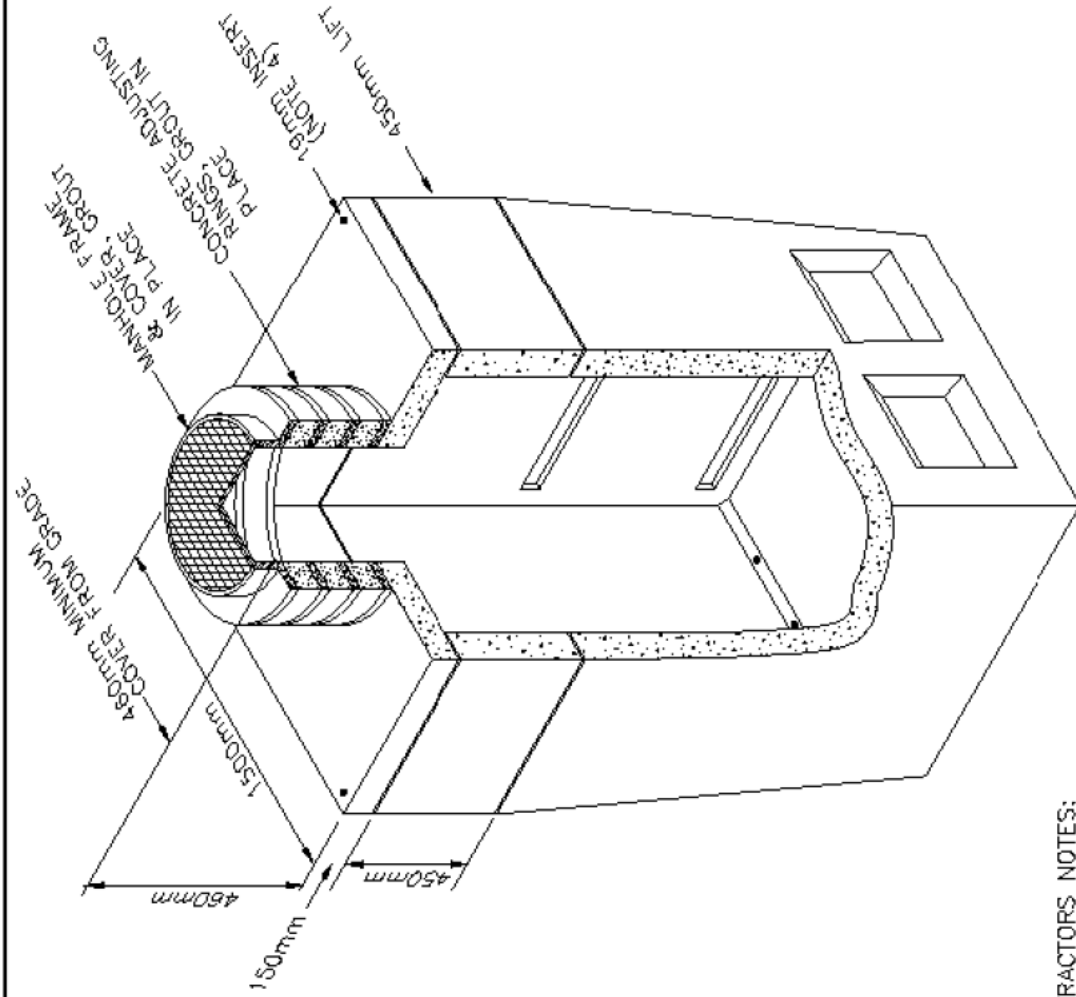
NOTES:

- 1.) LIDS & FRAME MUST NOT BE LIFTED BY LID HANDLES.
- 2.) GROUT ALL JOINTS, DUCT AND DRAIN ENTRANCES.
- 3.) SERVICE VAULT TO BE SET ON COMPACTED SAND EXCEPT WHERE DRAIN ROCK IS REQUIRED.
- 4.) FOUR (4) – 9mm EYE BOLTS ARE TO BE USED TO LIFT LID & BASE INTO PLACE.
- 5.) ALL DUCTS TO BE FISHED WITH 3mm BRAIDED NYLON ROPE.
- 6.) 19mm LIFTING INSERT (4) IN LID SECTION.



1.5 m X 1.5 m
SERVICE VAULT PLACEMENT

SA-100001
PAGE 4

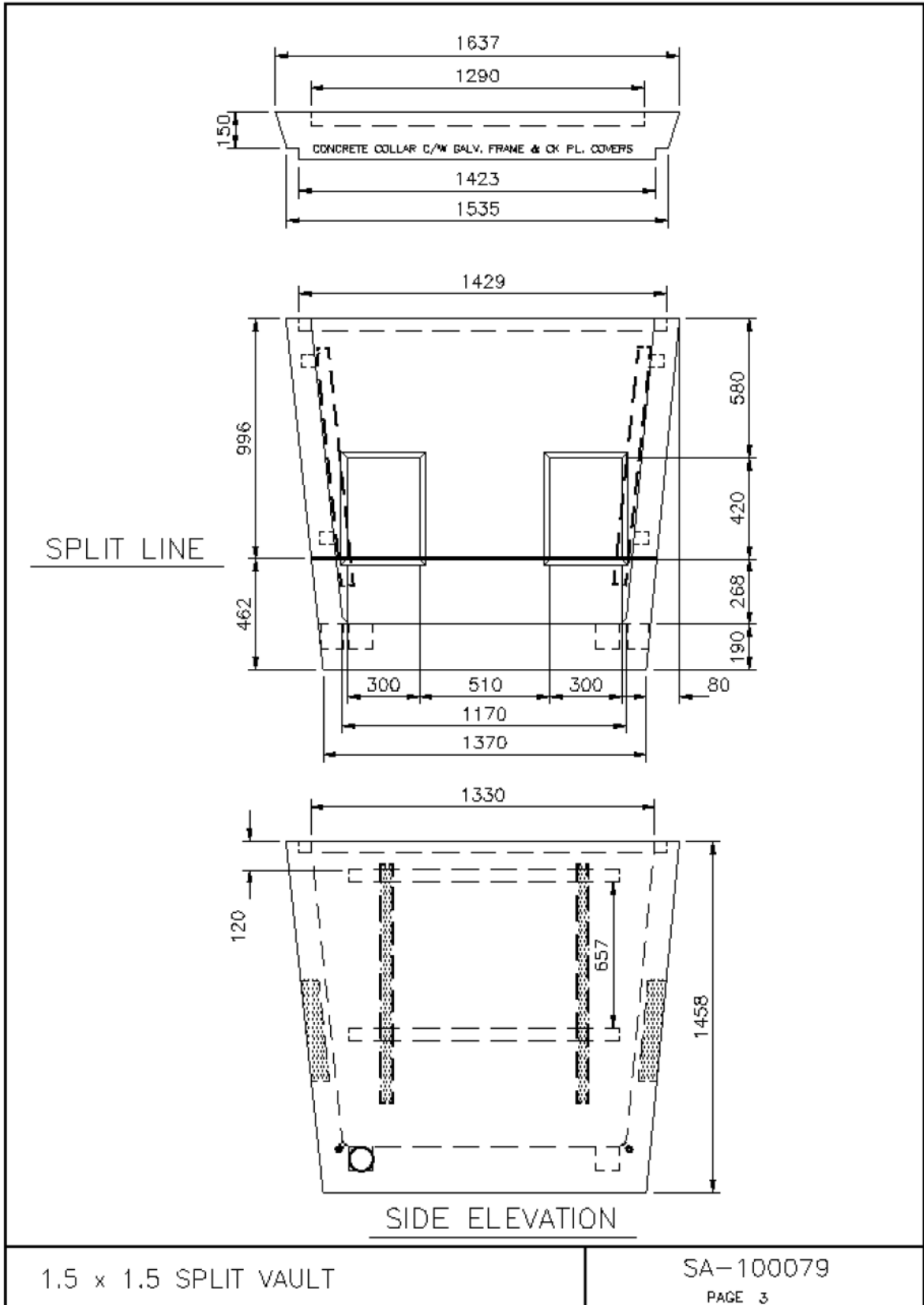


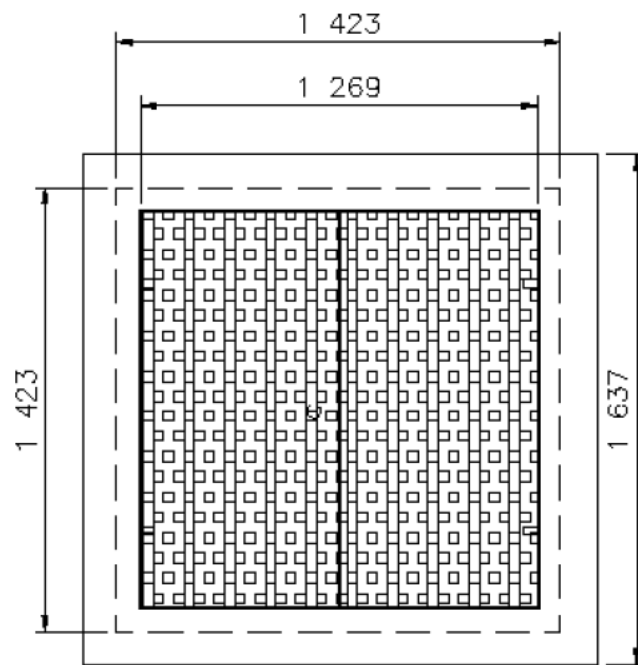
CONTRACTOR NOTES:

1. SERVICE VAULT TO BE SET ON 150mm OF 20mm MULCH OR SAND AND UNDER WET CONDITIONS, 150mm OF DRAIN ROCK.
2. INSTALL UNISTRUT RACKING.
3. ALL JOINTS TO BE GROUTED.
4. USE 19mm EYEBOLT IN EXISTING INSERTS FOR LIFTING.
5. CO-ORDINATE DRAIN WITH TELUS INSPECTOR.

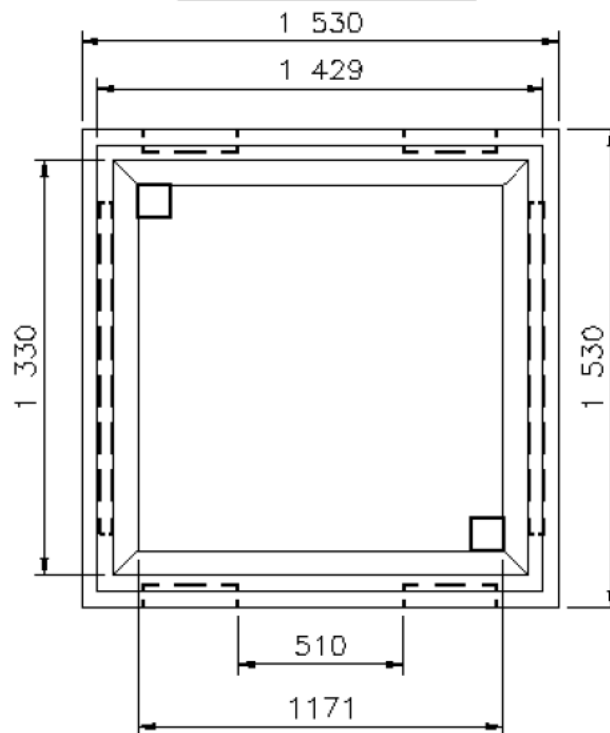
3	ENG. THORNER	DR. RH	1.5M X 1.5M SERVICE VAULT C/W 450mm LIFT & CIRCULAR LID	
	W.O.	CH. ST		
	SCALE	N.T.S.		
	DATE	91-11-28		
	ASSOC. DRG			
REF.			SA-100072	
			PAGE 1 OF 1	
			SL meir's	
			TELUS NETWORK ENGINEERING	
			A4C	

CHANGE PAGE		SA-100079 PAGE 2





PLAN VIEW COVER



PLAN VIEW VAULT

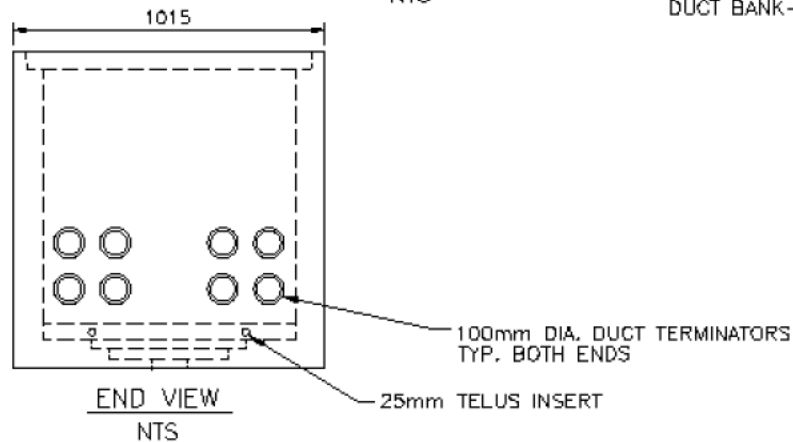
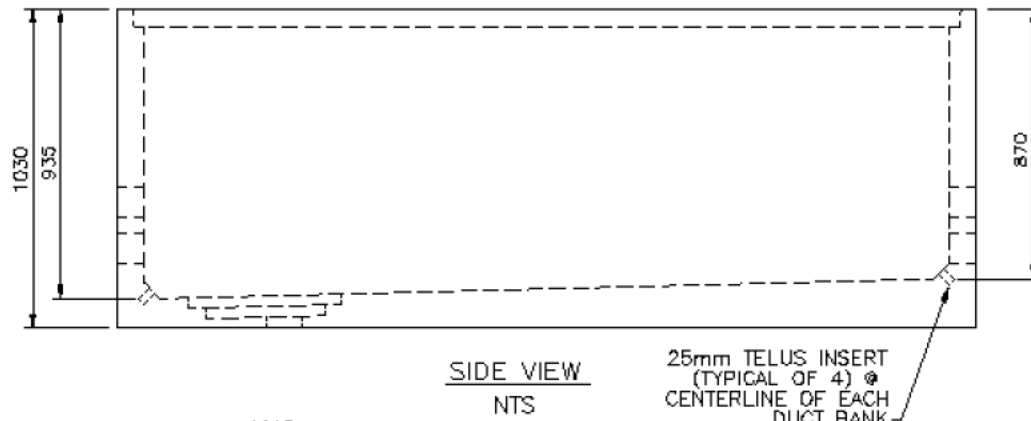
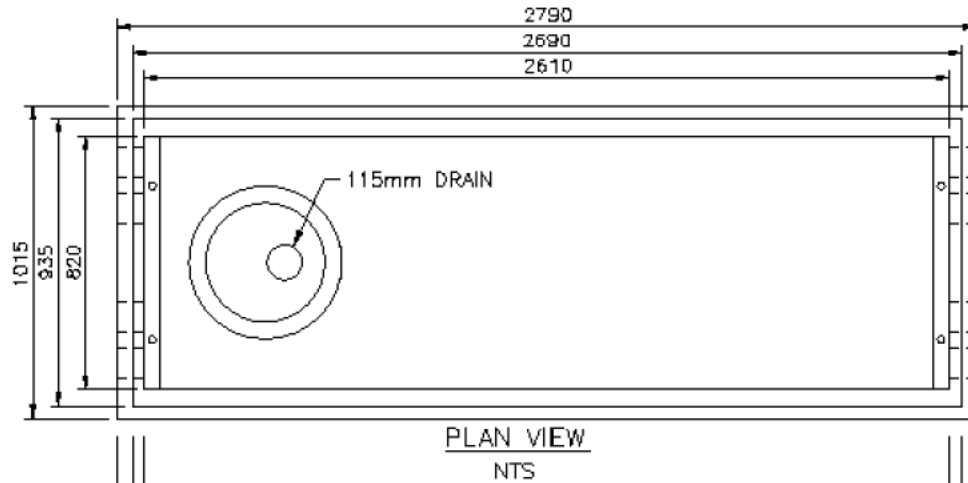
1.5 x 1.5 SPLIT VAULT

SA-100079

PAGE 4

1

SA-100094



1

ENG. DAVE VAN NES	DR. BN
W.O.	CH.
SCALE 1:20	DATE 00-03-17
ASSOC. DRG	
REF.	

832 SIDEWALK VAULT

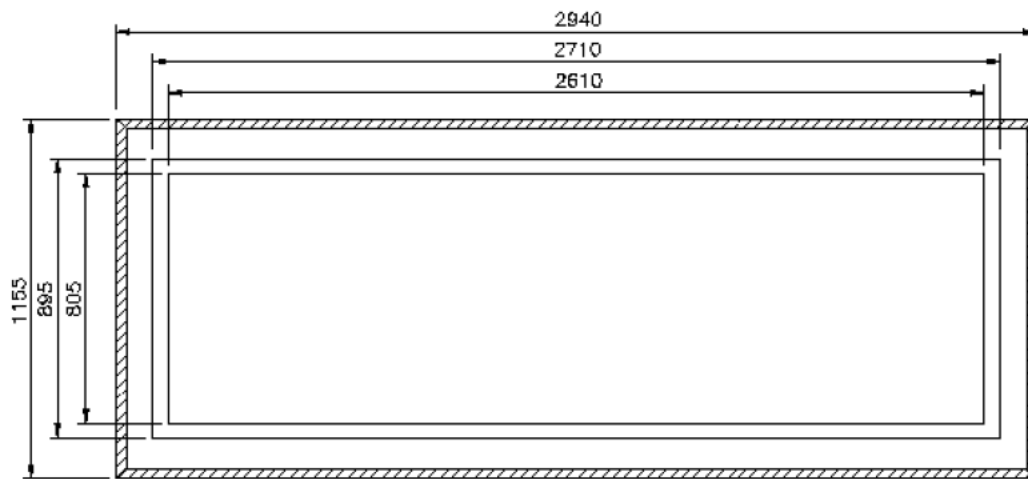
SA-100094

PAGE 1 OF 2

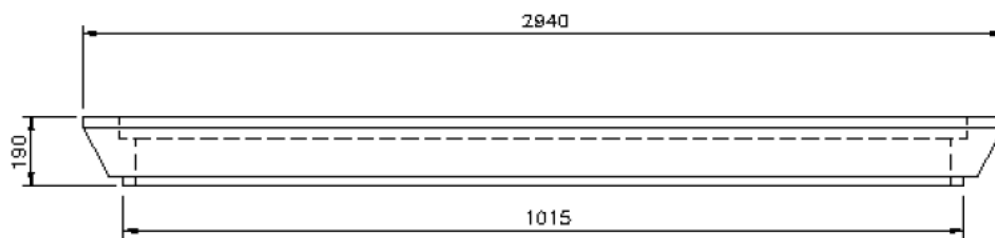


NETWORK ENGINEERING

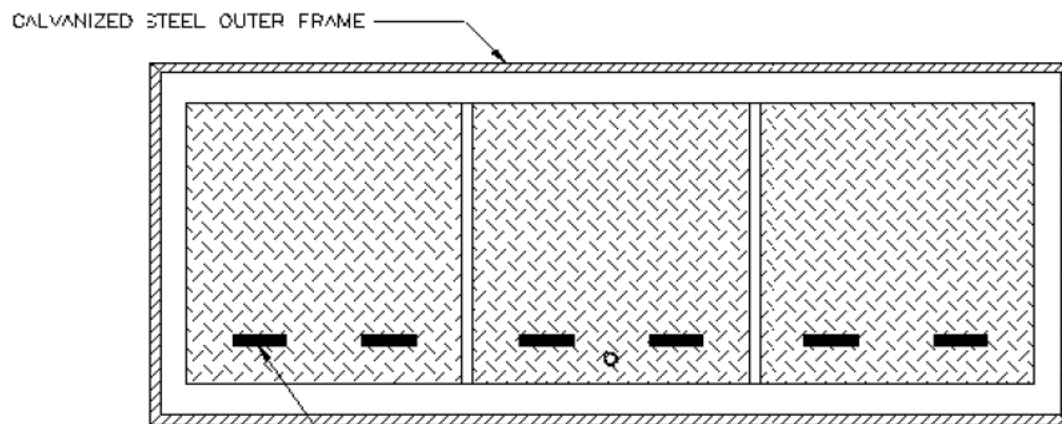
A4C



PLAN VIEW OF CONCRETE NECK AND COLLAR



SIDE ELEVATION OF CONCRETE NECK AND COLLAR



PLAN VIEW COLLAR WITH CHECKERPLATE STEEL LID

E124B (96-11)

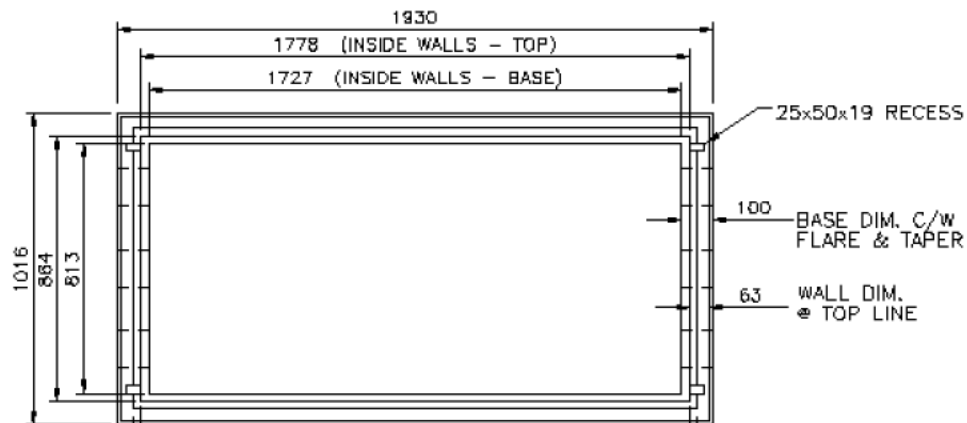
832 SIDEWALK VAULT — CONCRETE COLLAR

SA-100094

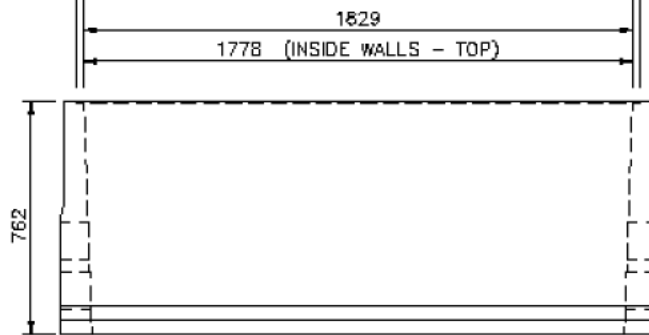
PAGE 2

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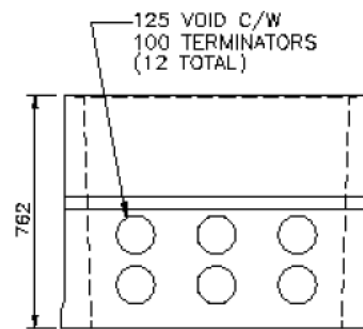
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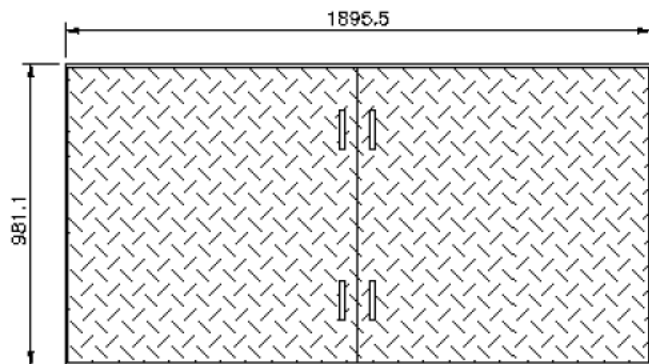
SPLICE BOX - PLAN VIEW



SPLICE BOX - SIDE ELEVATION



END ELEVATION



SPLICE BOX - LID (2 PIECE, HINGED)

1

ENG. DAVE VAN NES	DR. BN
W.O.	CH.
SCALE 1:20	DATE 00-03-24
ASSOC. DRG	
REF.	

1102 SPLICE BOX

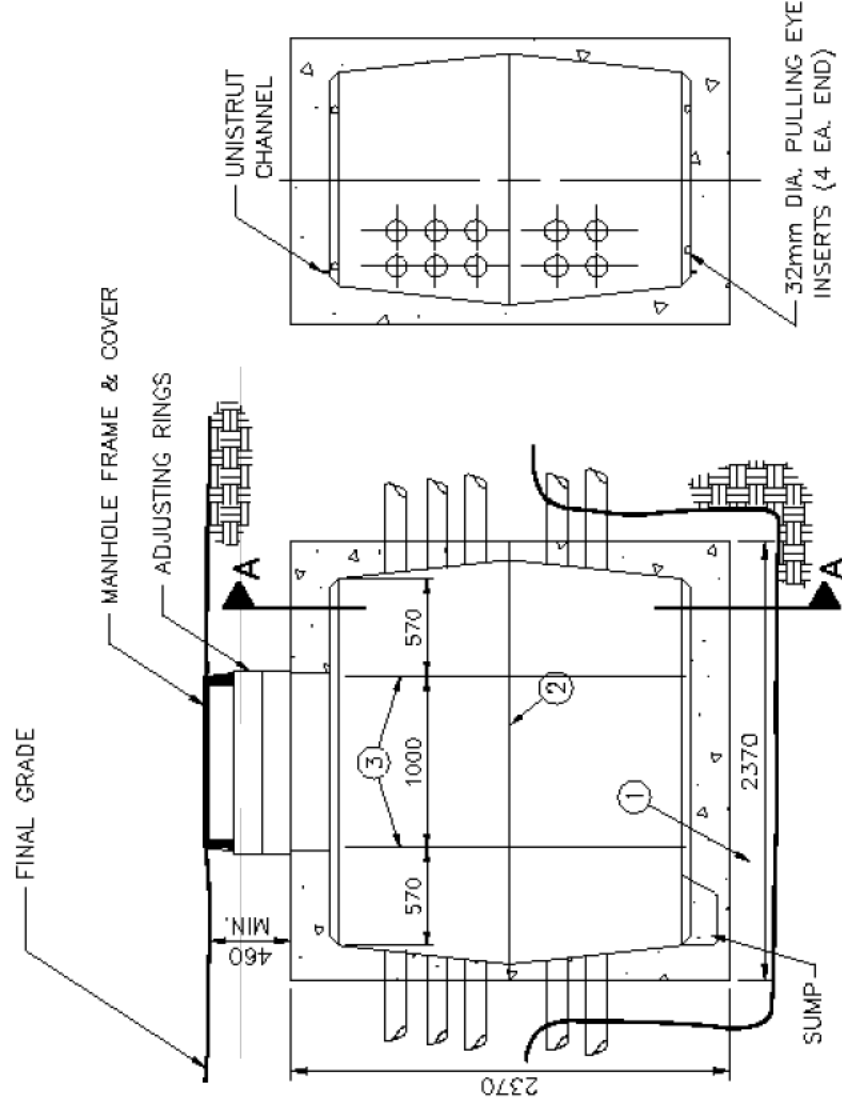
SA-100095

PAGE 1 OF 1



NETWORK ENGINEERING

A4C



MANHOLE SECTION

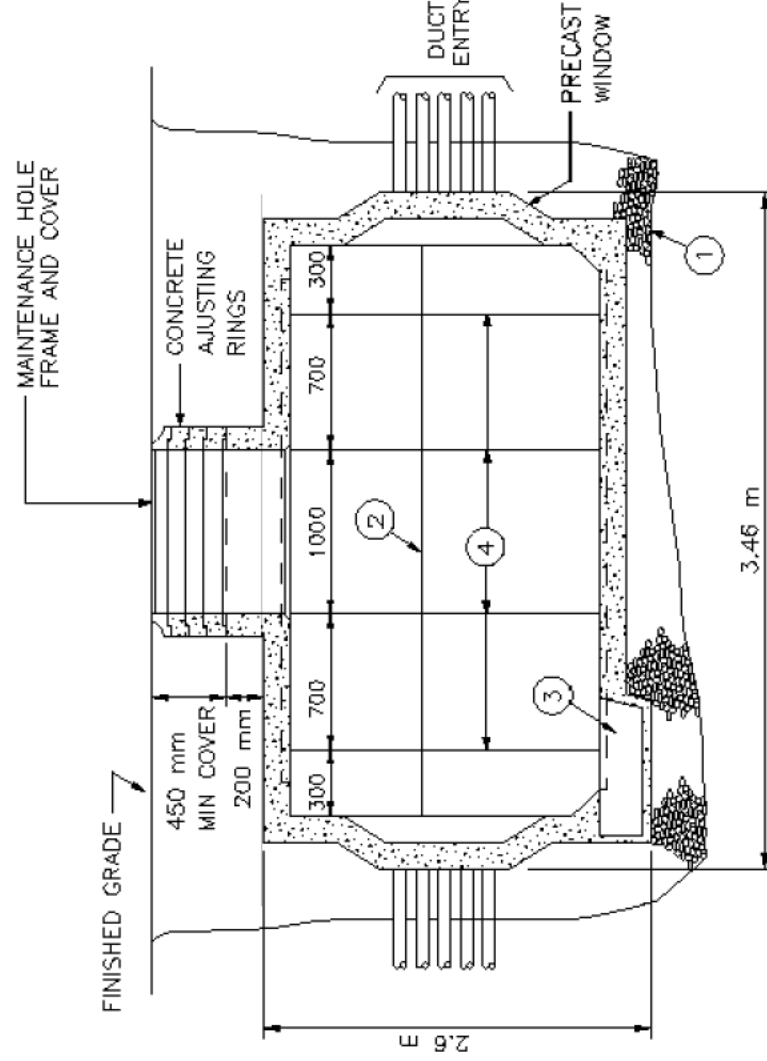
CONTRACTOR'S NOTES

1. MANHOLE TO BE SET ON 150mm OF 20mm MULCH OR 150mm DRAIN ROCK UNDER WET CONDITIONS.
2. PLACE GROUT BETWEEN MANHOLE TOP AND BOTTOM SECTIONS BEFORE JOINING.
3. UNISTRUT TO BE PLACED BY CONTRACTOR.
4. PAINT INSIDE WALLS AND CEILING USING TWO COATS OF WHITE WATERPROOF PAINT.
5. INSTALL 8 PULLING EYES.
6. WEIGHT: BASE 3062kg – TOP 3062kg.
7. ALL DIMENSIONS ARE EXPRESSED IN MILLIMETERS UNLESS OTHERWISE NOTED.

SECTION A-A

OTHER END MIRROR IMAGE.

3	ENG. -	DR. DH	PLMH 2102	
	W.O.	CH. -	INSTALLATION DETAILS	
	SCALE	N.T.S.	PAGE 1 OF 1	
	ASSOC. DRG	DATE 99-10-25	SA-100073	
			TELUS® NETWORK ENGINEERING	
REF.				A4C



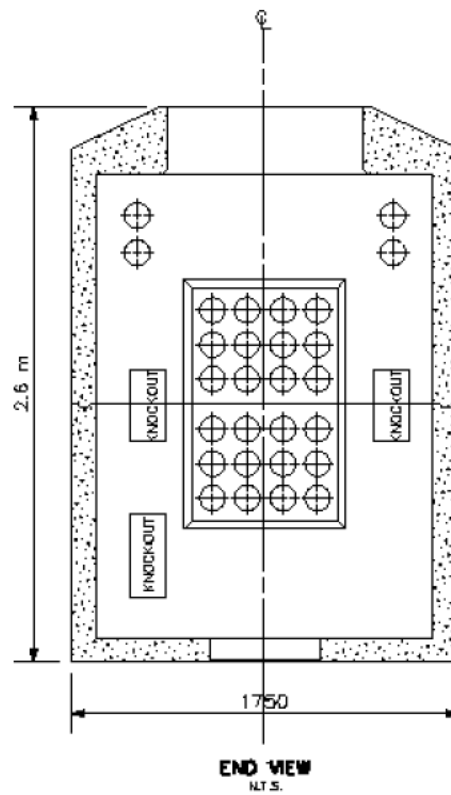
CONTRACTOR NOTES:

1. MANHOLE TO BE SET ON 150 mm OF 20 mm MULCH OR UNDER WET CONDITIONS, 150 mm OF DRAIN ROCK.
2. ALL JOINTS TO BE GROUTED.
3. SEE DRAWING SA100004 FOR SUMP DETAILS.
4. INSTALL UNISTRUT RACKING.
5. PAINT INSIDE WALLS & CEILING USING TWO COATS OF WHITE WATERPROOF PAINT.
6. INSTALL 8 PULLING EYES.
7. WEIGHT: BASE 4,231 Kg (9,325 lbs)
TOP 4,759 Kg (10,492 lbs)
8. MANHOLE DRAWING SA-100083.

4	ENG. T.HORNER	DR. RH	PLMH 3152 MANHOLE	
	W.O.	CH. ST		
	SCALE N.T.S.	DATE 91-12-02		
	ASSOC. DRG			
REF.			SA-100071	SI met's
			PAGE 1 OF 1	
			TELUS	A4C
			NETWORK ENGINEERING	

4

SA-100069

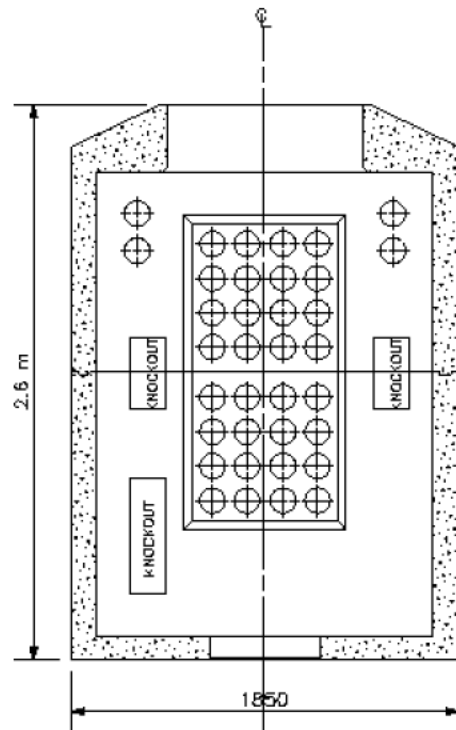


ALL DIMENSIONS IN MILLIMETERS

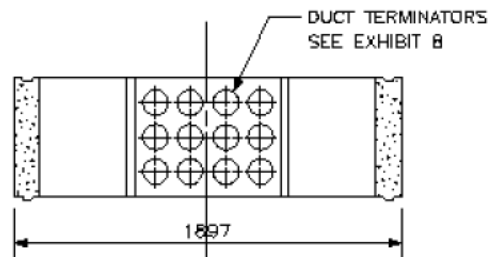
4	ENG. T.HORNER	DR. R.K.H.	TYPICAL ENTRY FOR 3152	
	W.O.	CH. S.T.		
	SCALE N.T.S.	DATE 91-09-17		
	ASSOC. RG			
			SA-100069	SI metric
			PAGE 1 OF 1	
	REF.		TELUS NETWORK ENGINEERING	A4C

3

SA-100070

**END VIEW**

N.T.S.

**OPTIONAL EXTENSION**

N.T.S.

ALL DIMENSIONS IN MILLIMETERS

3

ENG. T.HORNER	DR. R.K.H.
W.O.	CH. S.T.
SCALE N.T.S.	DATE 91-09-17
ASSOC. RG	
REF.	

TYPICAL ENTRY FOR 4162

SA-100070

PAGE 1 OF 1

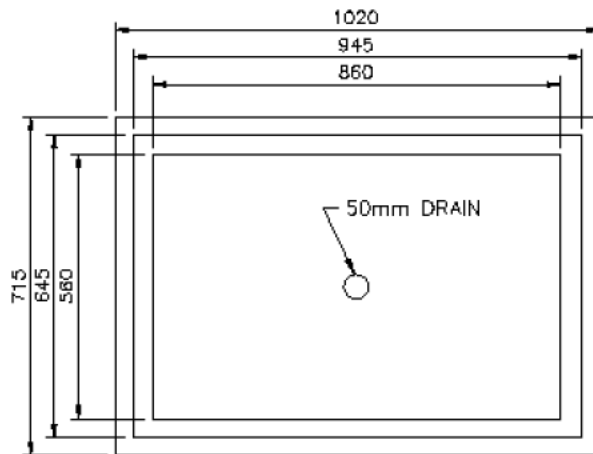


NETWORK ENGINEERING

A4C

1

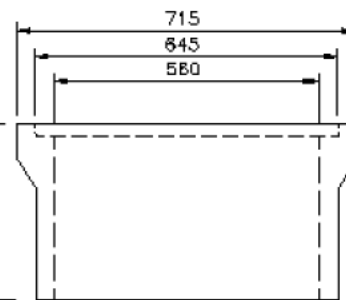
SA-100093



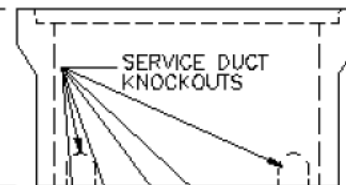
PLAN VIEW
NTS



TOP/RISER
2962113N



BOTTOM
2962112N



BASE
SIDE ELEVATION
2962111N NTS



END ELEVATION
NTS

1

ENG. DAVE VAN NES	DR. BN
W.O.	CH.
SCALE NTS	DATE 00-03-13
ASSOC. DRG	
REF.	

5686 SERVICE BOX

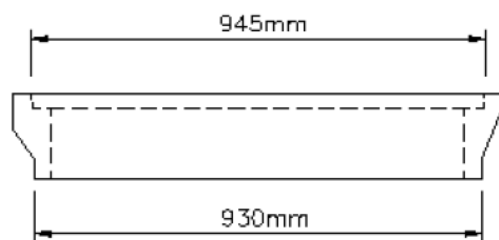
SA-100093

PAGE 1 OF 2



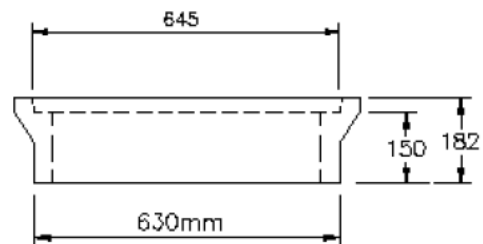
NETWORK ENGINEERING

A4C



SIDE ELEVATION

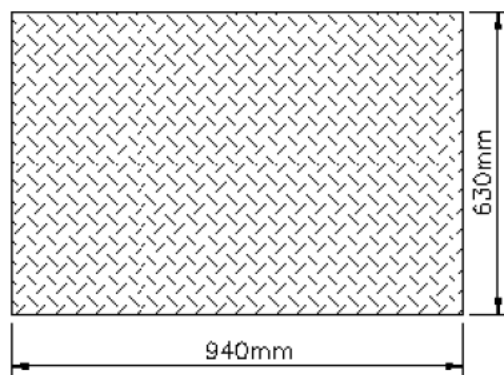
NTS
2962115N



END ELEVATION

NTS

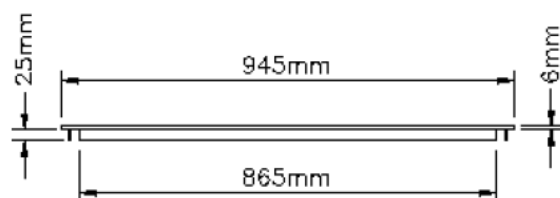
150mm EXTENSION



STEEL LID

PLAN VIEW

NTS
2962114N

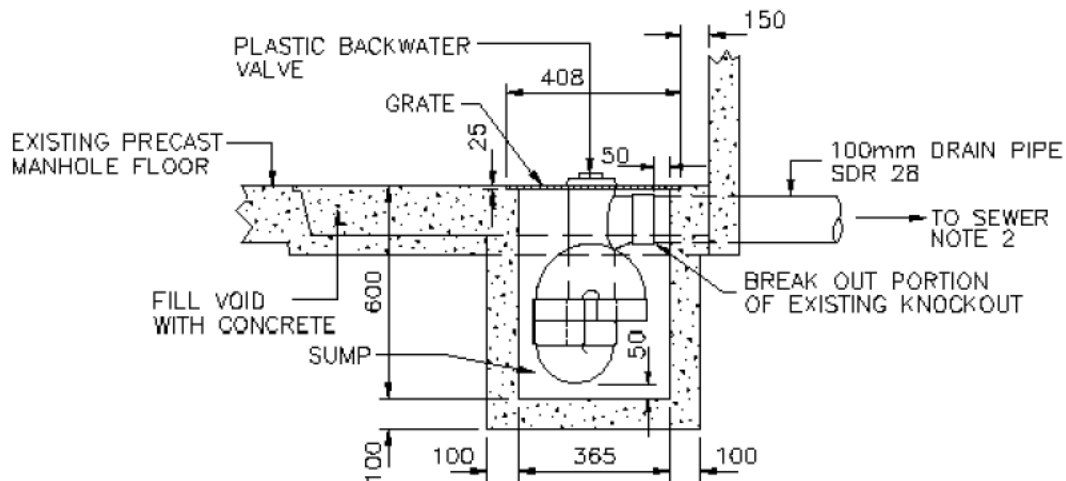


SIDE ELEVATION

NTS

8

SA-100004

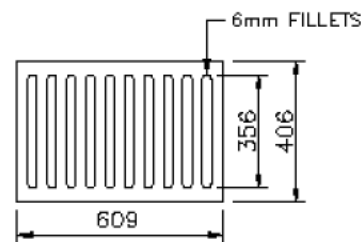


NOTES:

1. CONCRETE IS TO BE 30 MPa
28 DAY STRENGTH.

2. MINIMUM FALL OF 2%.

* ALL DIMENSIONS IN MILLIMETERS.



PLAN OF GRATE

8

ENG. A. FABER	DR. S.G.T.
W.O.	CH.
SCALE N.T.S.	DATE 89-02-24
ASSOC. DRG	
REF.	

STANDARD SUMP DETAIL PLMH 3152 & PLMH 4162

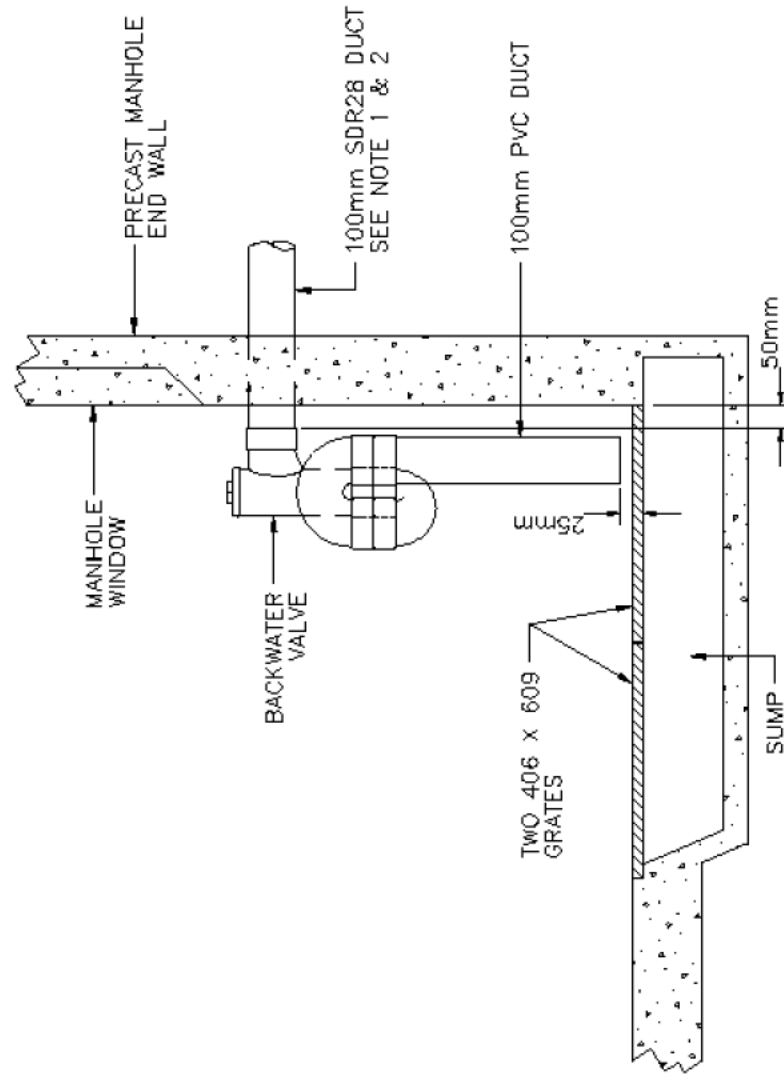
SA-100004

PAGE 1 OF 1



NETWORK ENGINEERING

A4C



NOTE:

1. HEIGHT OF DRAIN IN END WALL OF MANHOLE WILL DEPEND ON THE LOCATION OF THE HUB INTO THE STORM SEWER.

2. MINIMUM FALL OF 2%.

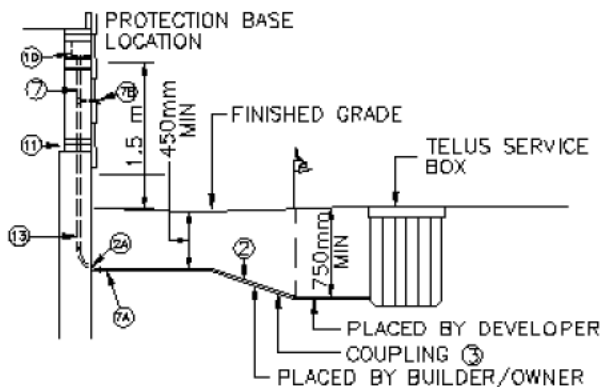
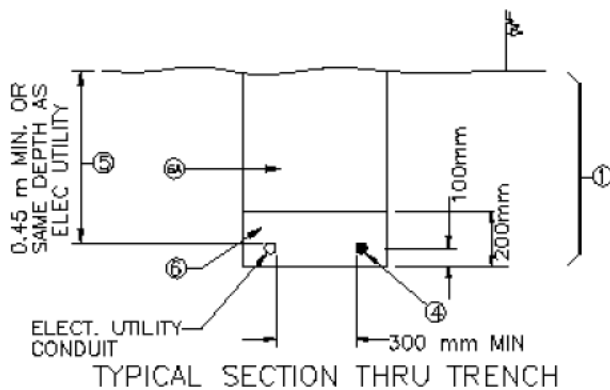
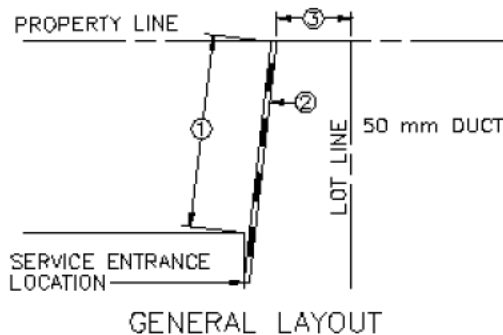
* ALL DIMENSIONS IN MILLIMETERS

7	ENG. A. FABER	DR. S.G.T.	DETAIL OF BACKWATER VALVE INSTALLED IN MANHOLE END WALL OF 3152 & 4162	
	W.O.	CH.	SA-100019	
	SCALE N.T.S.	DATE 89-03-16	PAGE 1 OF 1	SI met's
	ASSOC. DRG			
	REF.			
			TELUS	NETWORK ENGINEERING
				A4C

10

SA-100005

UNDERGROUND SERVICE



1. The Owner/Builder is responsible for supplying all material and civil work (to TELUS specifications) on private property.
2. All duct material will be ORANGE in colour.
*Material Required
 - 50 mm PVC-DB2 Conduit
 - 50 mm PVC-DB2 Coupler
- 2A. - 50 mm PVC-DB2 300 mm Radius bend or 90° 50 mm Schedule 40 rigid PVC J-Bend
3. The Owner/Builder is to make the physical connection at the TELUS specified point-of-connection.
4. TELUS conduit must be on the property line side of the trench with 300 mm separation from Elect. Utility conduit. No crossover of TELUS and Elect. Utility is permitted.
5. The minimum cover above conduit to be 0.45 m (1.5 ft) or the same depth as Elect. Utility.
6. All material used for back-filling must be select fill, clear of all rocks and sharp stones unless otherwise specified.
- 6A. Native fill free of rock larger than 150 mm.
7. Extend conduit 1.5 m (5ft) above the final grade into the Distribution Box. Fish line to be 3 mm braided nylon cord.
- 7A. Owner/Builder to provide drain in 90° bend into drain rock, by perforating the bend on the bottom side.
- 7B. Optional - Owner/Builder to provide and install 50 mm Tee and nipple to provide drainage.
8. No installation can have more than 2-90° or equivalent bends ($2 \times 45^\circ = 1 \times 90^\circ$) without the use of a pull box. Pull Boxes or L.B.'s must not used in place of a bend.
9. Maximum pulling length 60 m (200ft) through 2-90° (300 mm Rad) bends or 90 m (300ft) on a straight pull.
10. Owner/Builder to provide and install Distribution Box.
11. Owner/Builder to insure that TELUS and Elect. Utility conduit exit the concrete at min 400 mm separation.
12. Depending upon Foundation type, conduit can be attached to exterior. (All exposed PVC Conduit must have U.V. Inhibitors).
13. All above requirements are subject to local building Inspector's approval.

*Assumes TELUS placing both Telephone and C.A.T.V. cables. If C.A.T.V. cables will be placed separately, conduit and fittings will be 50mm minimum.

10

ENG. A. FABER	DR. S.G.T.
W.O.	CH.
SCALE N.T.S.	DATE 89-02-24
ASSOC. DRG	
REF.	

TYPICAL - UNDERGROUND
RESIDENTIAL
ENTRANCE CONDUIT DETAIL

SA-100005

PAGE 1 OF 1

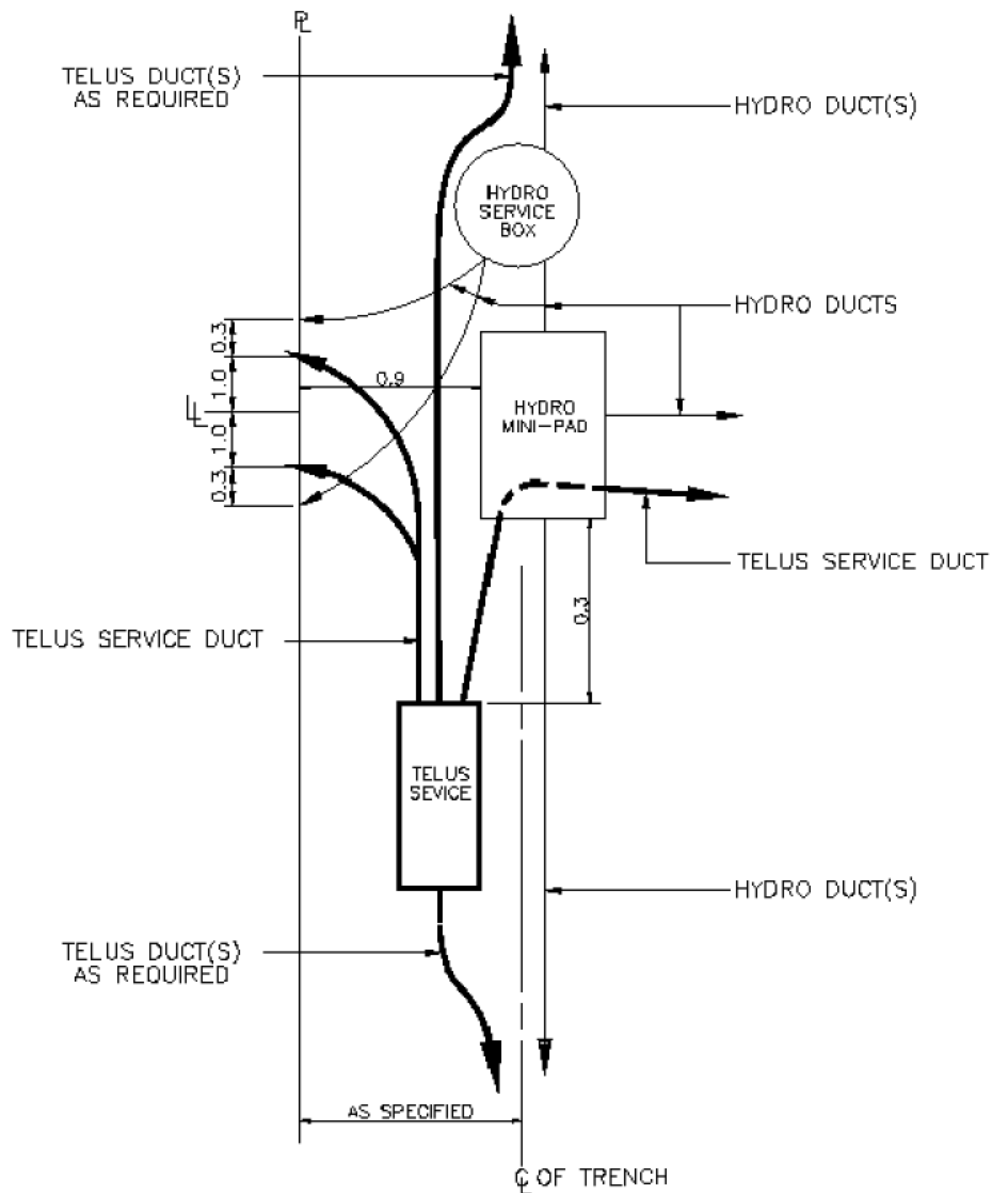


NETWORK ENGINEERING

A4C

6

SA-100006



* TYPICAL FOR RECTANGULAR AND CIRCULAR BOXES
ALL DIMENSIONS ARE EXPRESSED IN METERS UNLESS OTHERWISE NOTED.

6

ENG. A. FABER	DR. S.G.T.
W.O.	CH.
SCALE N.T.S.	DATE 89-03-01
ASSOC. DRG	
REF. HQM-A-1421-G	

TYPICAL SERVICE BOX DETAIL AT
HYDRO MINI PAD
AND SERVICE BOX

SA-100006

PAGE 1 OF 1

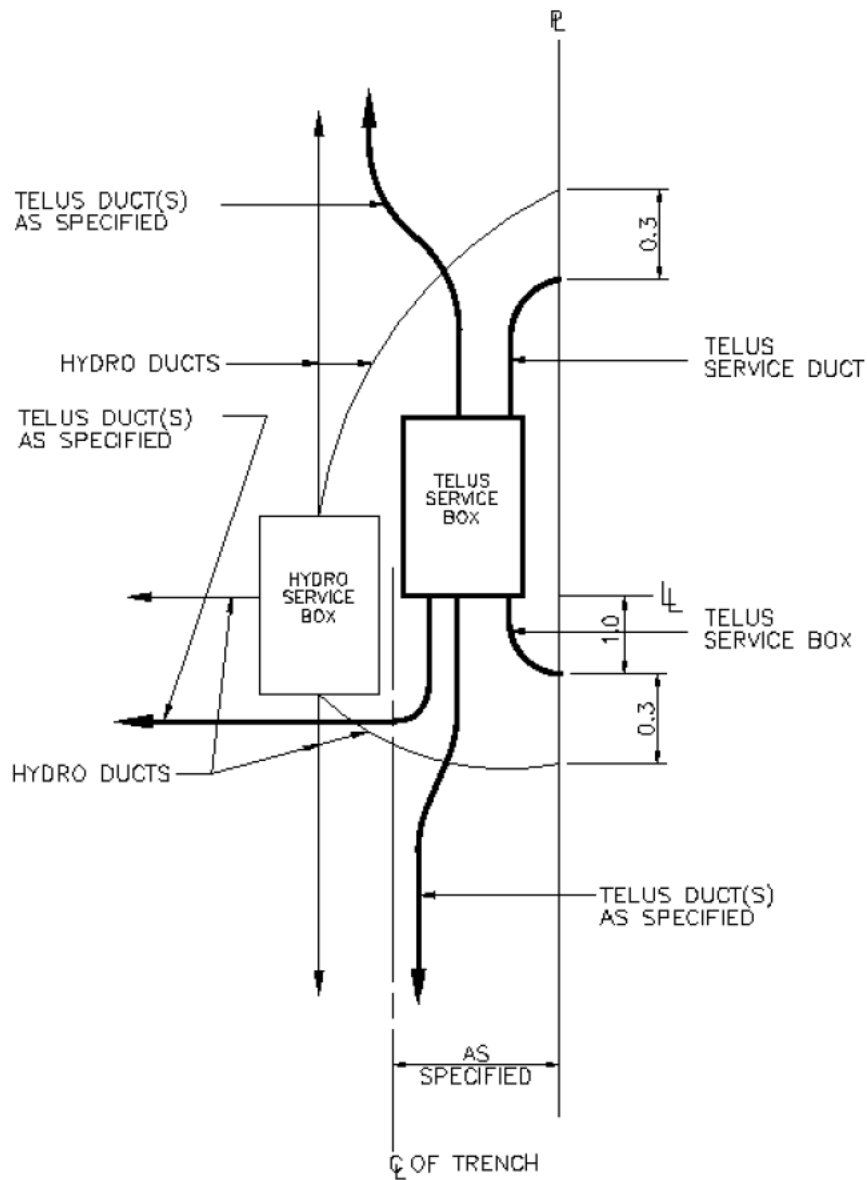


NETWORK ENGINEERING

A4C

7

SA-100007



* TYPICAL FOR RECTANGULAR AND CIRCULAR BOXES
ALL DIMENSIONS ARE EXPRESSED IN METERS UNLESS OTHERWISE NOTED.

7

ENG. A. FABER	DR. S.G.T.
W.O.	CH.
SCALE N.T.S.	DATE 89-03-03
ASSOC. DRG	
REF. HQM-A-1422-G	

TYPICAL TELUS SERVICE BOX
DETAIL
AT HYDRO SERVICE BOX
(RECTANGULAR)

SA-100007

PAGE 1 OF 1

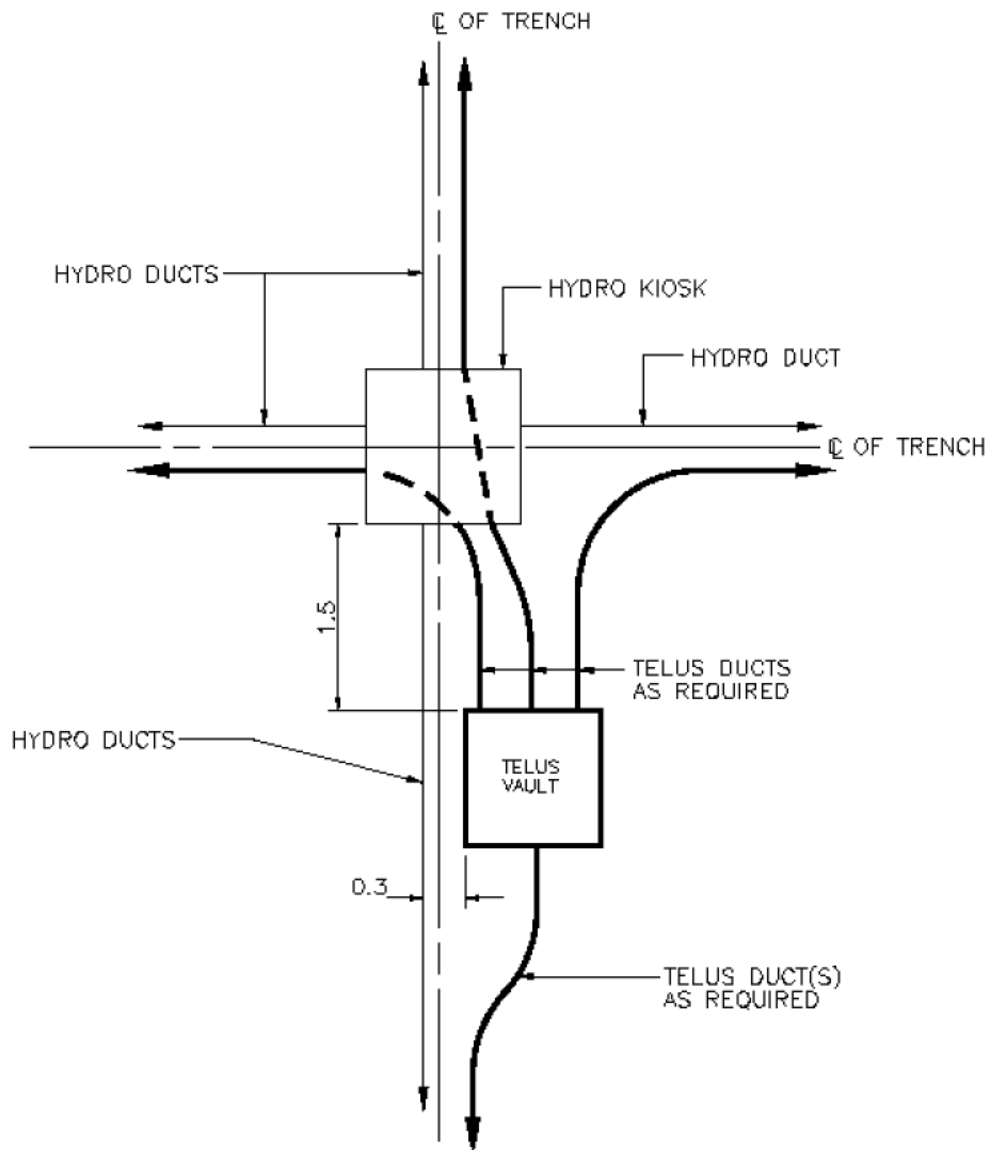


NETWORK ENGINEERING

A4C

5

SA-100009



ALL DIMENSIONS ARE EXPRESSED IN METERS UNLESS OTHERWISE NOTED.

5

ENG. A. FABER	DR. S.G.T.
W.O.	CH.
SCALE N.T.S.	DATE 89-03-03
ASSOC. DRG	
REF. HQM-A-1424-G	

TYPICAL VAULT DETAIL AT HYDRO KIOSK

SA-100009

PAGE 1 OF 1



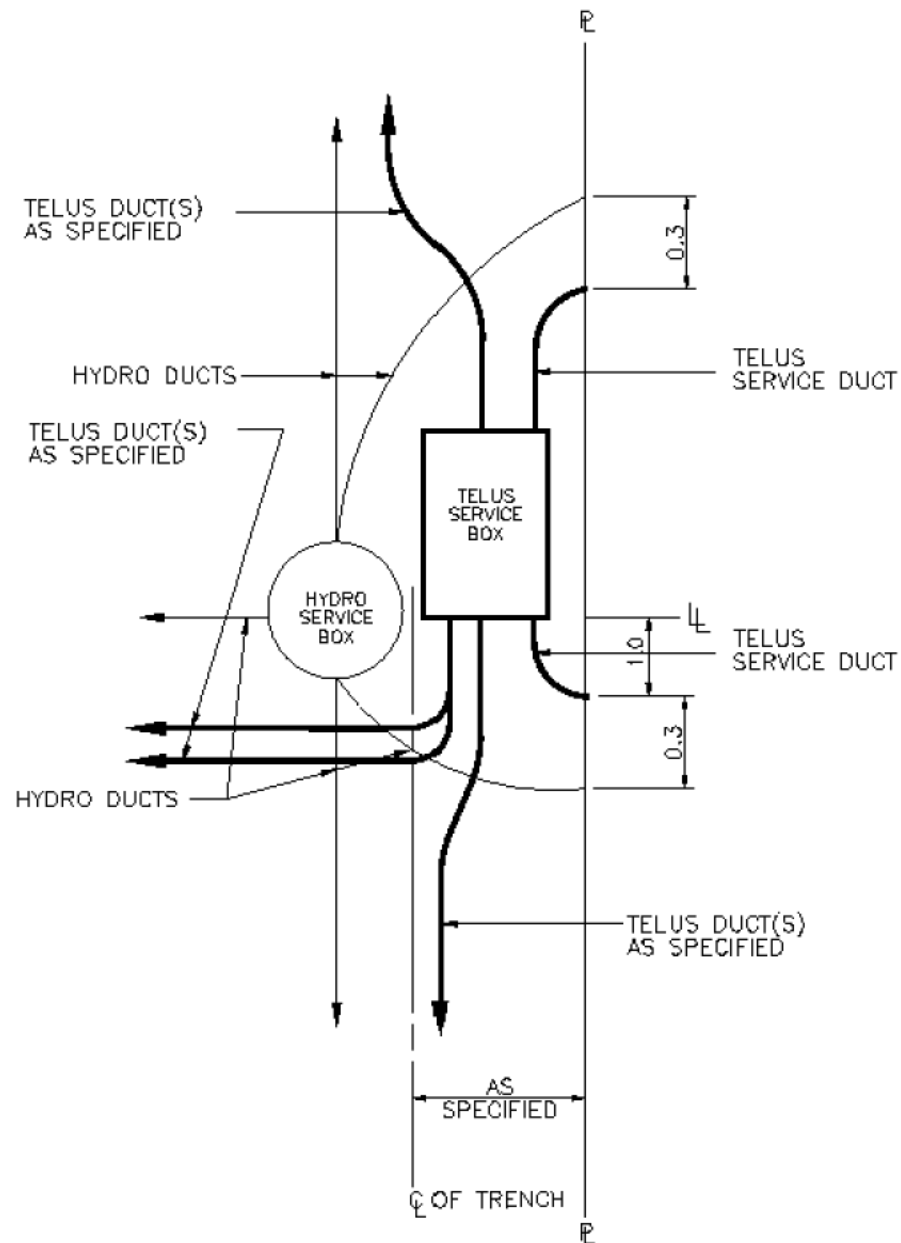
NETWORK ENGINEERING



A4C

7

SA-100010



* TYPICAL FOR RECTANGULAR AND CIRCULAR BOXES
ALL DIMENSIONS ARE EXPRESSED IN METERS UNLESS OTHERWISE NOTED.

7

ENG. A. FABER	DR. S.G.T.
W.O.	CH.
SCALE N.T.S.	DATE 89-03-03
ASSOC. DRG	
REF. HQM-A-1427-G	

TYPICAL TELUS SERVICE
BOX DETAIL AT
HYDRO SERVICE BOX
(CIRCULAR)

SA100010

PAGE 1 OF 1

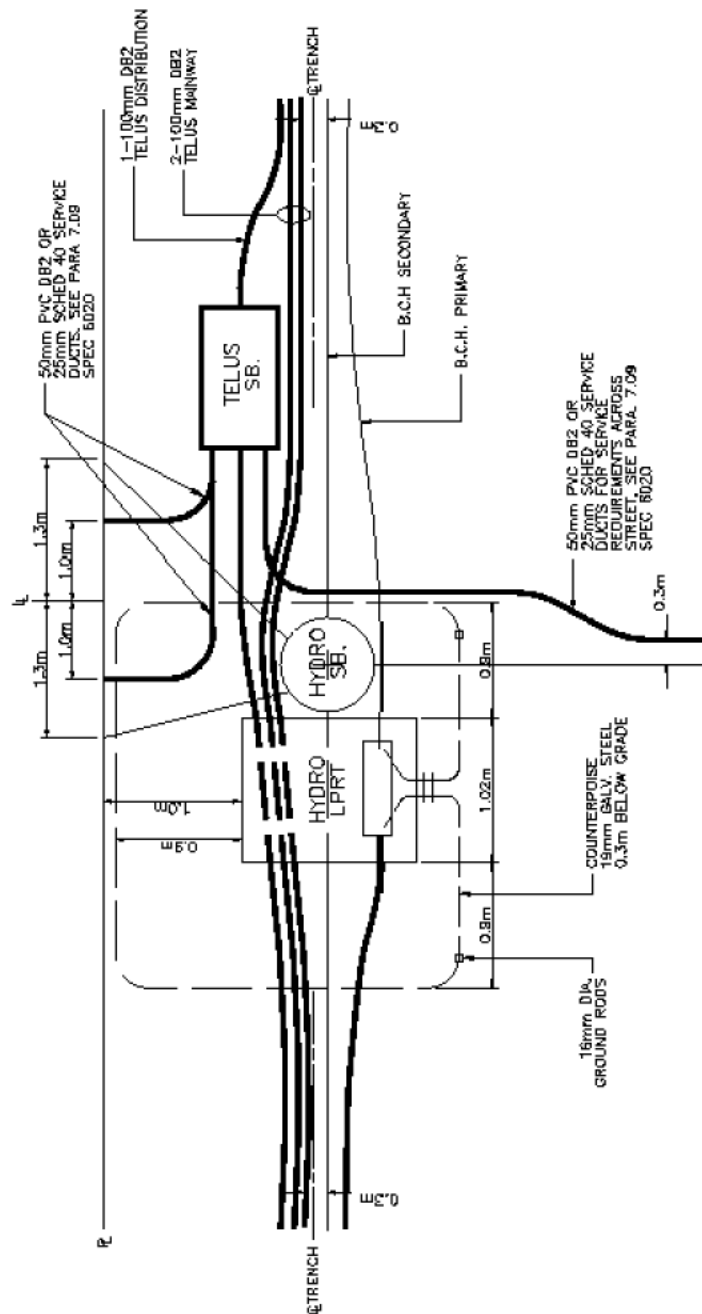


NETWORK ENGINEERING

A4C

SA-100059

4



TELUS SERVICE BOX AT B.C.H. LPRT AND SERVICE BOX

4

ENG. T.HORNER	DR. RH
W.O.	CH. ST
SCALE NTS	DATE 92-03-25
ASSOC. DRG	
REF.	

TYPICAL SERVICE BOX DETAIL
WHEN HYDRO USES COUNTERPOISE

SA-100059

PAGE 1 OF 1

TELUS

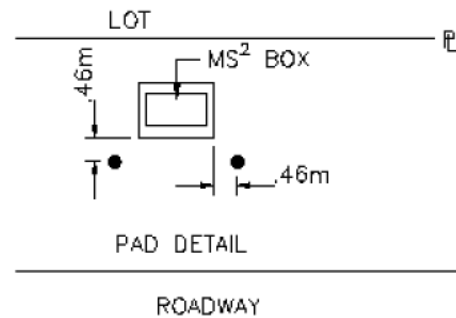
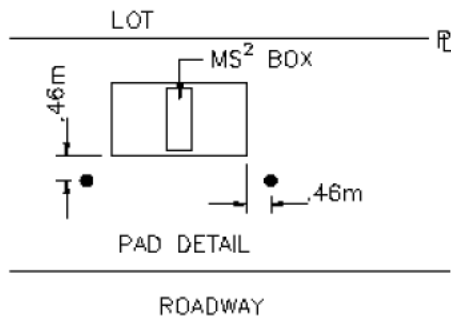
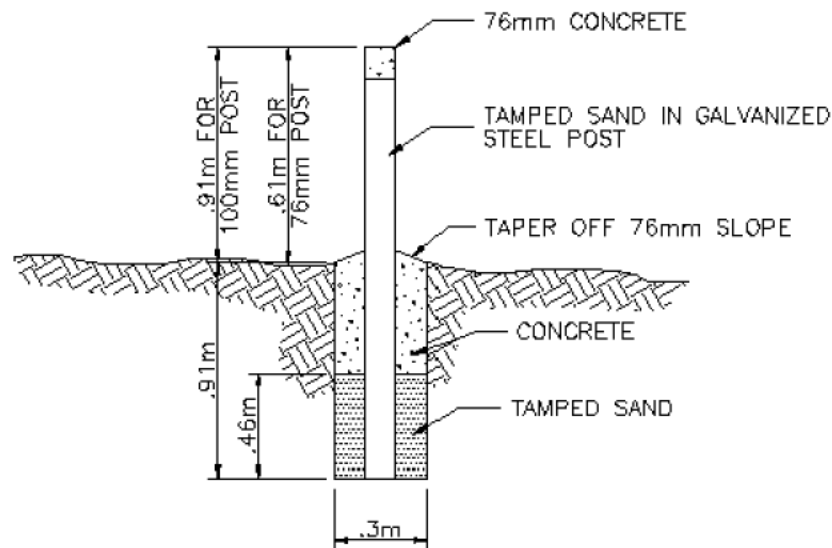
NETWORK ENGINEERING

SI metric

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SA-100011



TYPICAL PROTECTION ARRANGEMENT

5

ENG. A. FABER	DR. S.G.T.
W.O.	CH.
SCALE N.T.S.	DATE 89-03-03
ASSOC. DRG	
REF. HQM-A-1038-13	

MS² BOX PROTECTION POST

SA-100011

PAGE 1 OF 1



TELUS

NETWORK ENGINEERING

A4C

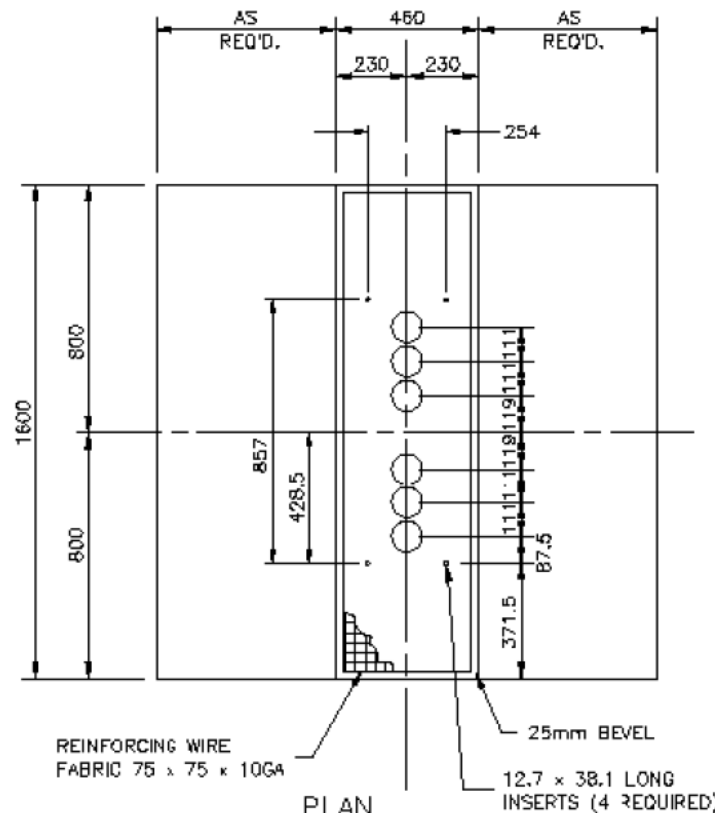
92-02-25 CORRECTED DIMENSIONS & ADDED NOTE PER MKD PRINT. C.T.			
T. HORNER	2		
92-03-25 REVISED PER ENG MARKED PRINT PER DCD29653. RH			
T.HORNER	3		
93-04-30 CORRECTED DIMENSIONS AS PER MARKED PRINTS DCD29663 SA			
T. HORNER	4		
97-04-22 CORRECTED DIMENSIONS AS PER MARKED PRINT PER DCD 60866. RL			
T. HORNER	5		
98-02-12 CORRECTED DIMENSIONS AS PER MARKED PRINT PER DCD66787 JH			
T. HORNER	6		
99-10-25 UPDATED FROM BCTEL TO TELUS PER DCD76016. DH			
	7		
CHANGE PAGE		SA-100074 PAGE 2	

CONTRACTOR'S NOTES

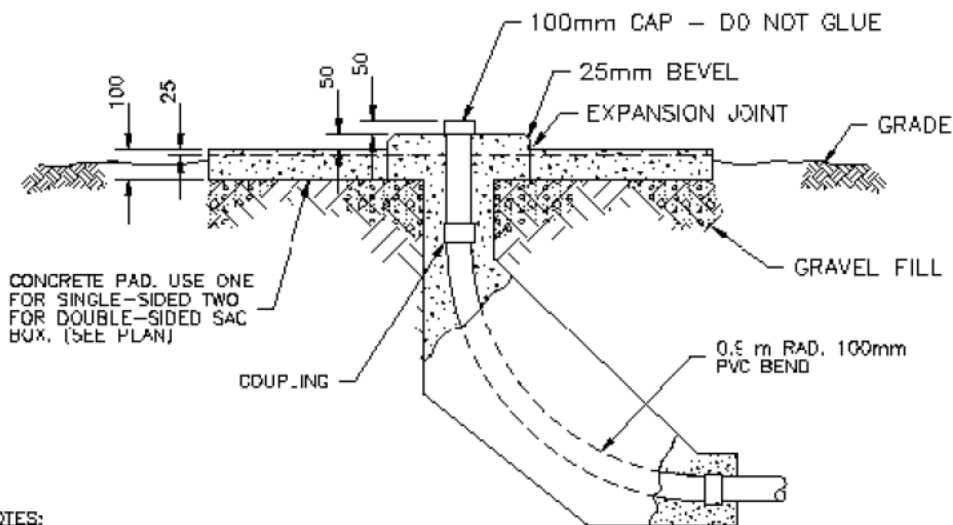
1. DIMENSIONS FOR PLACING OF DUCTS, SAC FRAME AND INSERTS ARE CRITICAL.
2. PROVIDE PLYWOOD PROTECTION BOX OVER DUCTS.
3. CONCRETE 17.24 MPa CAST IN PLACE
4. REFER TO SHEET 6 FOR SAC CABINET DIMENSIONS.
5. ALL DIMENSIONS ARE EXPRESSED IN MILLIMETERS UNLESS OTHERWISE NOTED.

NOTES PAGE

SA-100074
PAGE 3



PLAN
SCALE 1:20



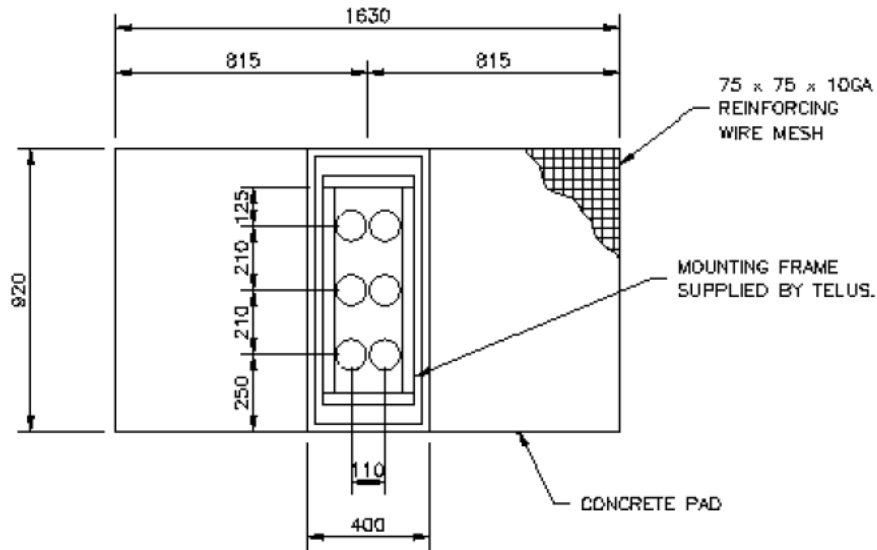
NOTES:

1. ALL DIMENSIONS ARE IN mm.
2. FOR CITY OF VANCOUVER, OMT PADS

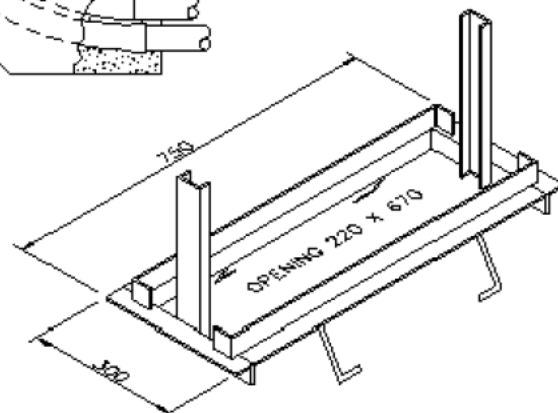
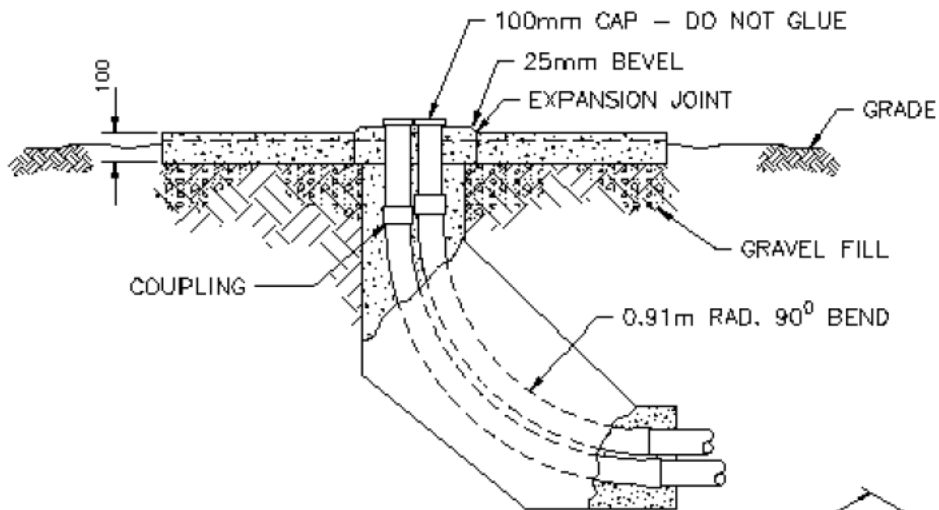
CONCRETE PAD FOR 2700X SINGLE SIDED
AND 5400X DOUBLE SIDED SAC BOXES

SA-100074

PAGE 4



PLAN
SCALE 1:20

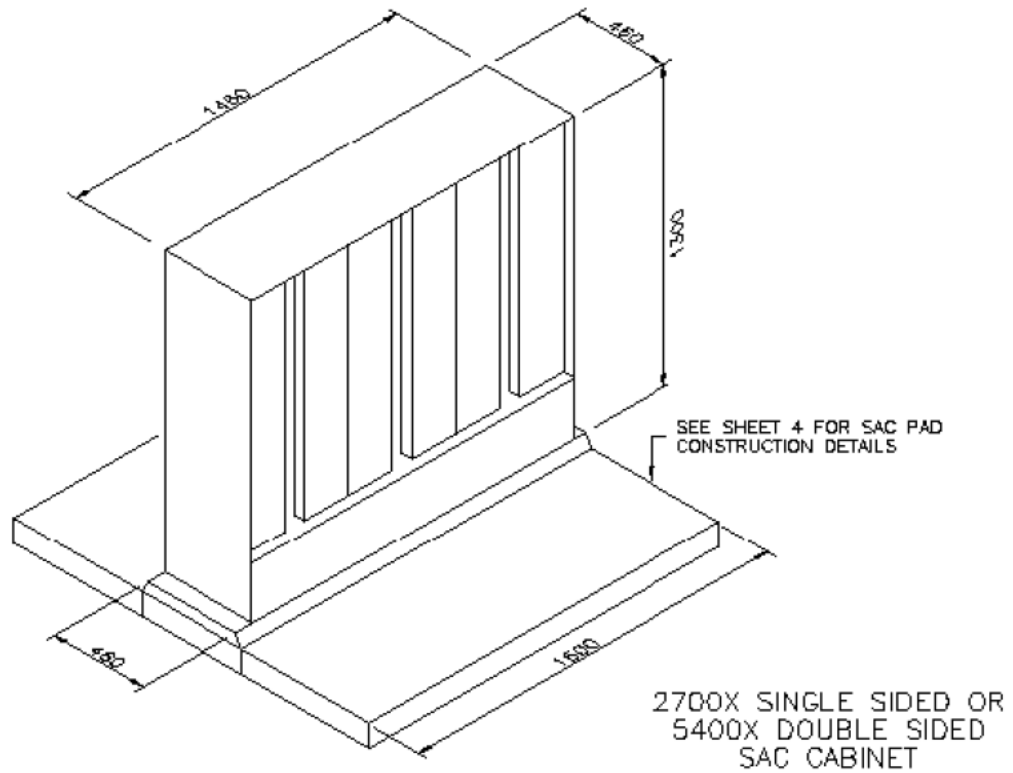
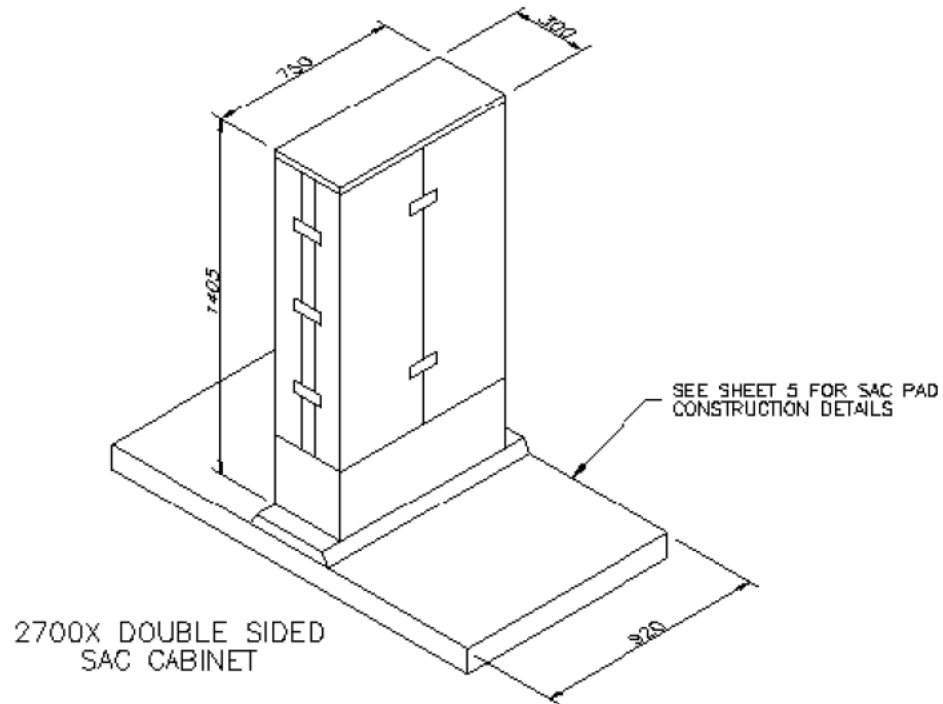


• ALL DIMENSIONS ARE IN mm.

MOUNTING FRAME 4053 HD (3M LTD)
N.T.S.

CONCRETE PAD FOR 2700X SAC BOX

SA-100074
PAGE 5



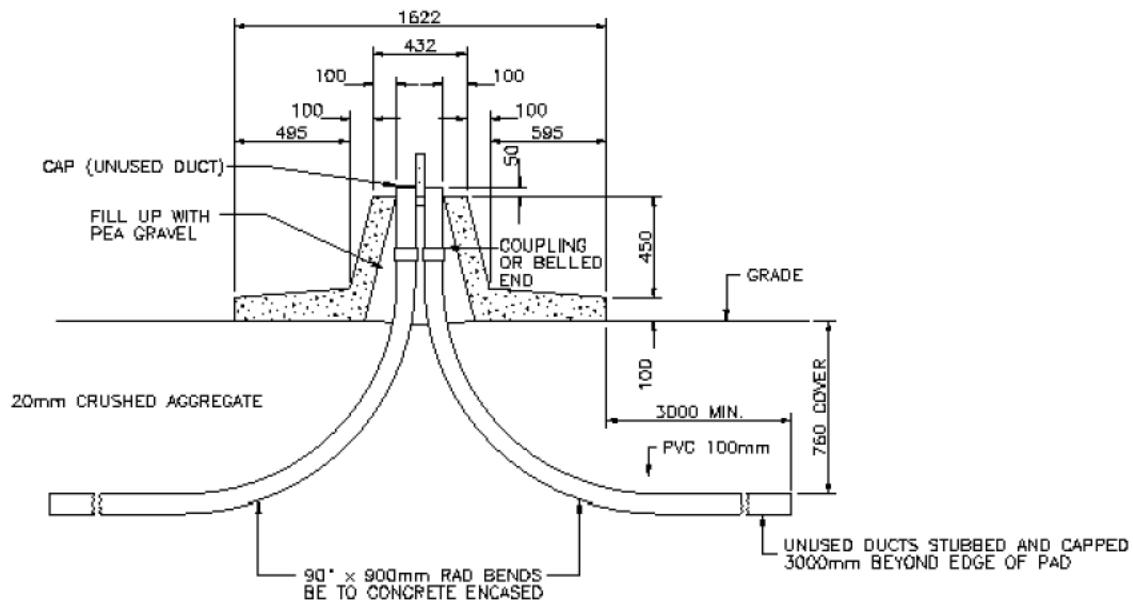
SAC BOX DIMENSIONS

SA-100074

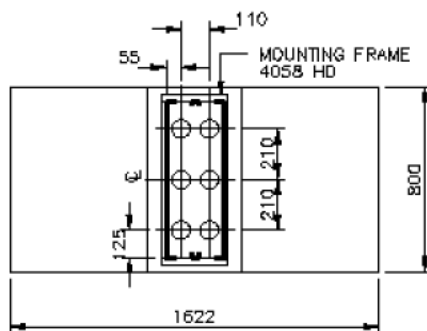
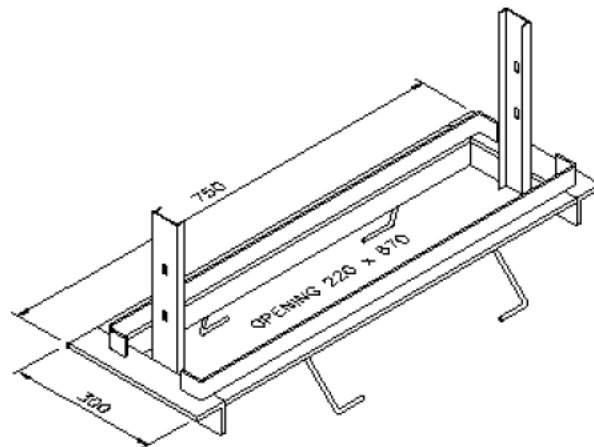
PAGE 6

7

SA-100015



TYPICAL INSTALLATION CROSS SECTION

DUCT ROUTE SCHEMATIC
TOP VIEW OF SAC PAD

MOUNTING FRAME 4053 HD (3M LTD)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL DUCTS TO HAVE PLUGS UNTIL INSTALLATION OF BOX.

7

ENG. T. HORNER	DR. RH
W.O.	CH. ST
SCALE NTS	DATE 92-03-25
ASSOC. DRG	
REF.	

CONCRETE PAD FOR SERVING
AREA CONNECTOR
(MACKENZIE DISTRICT ONLY)

SA-100015

PAGE 1 OF 1



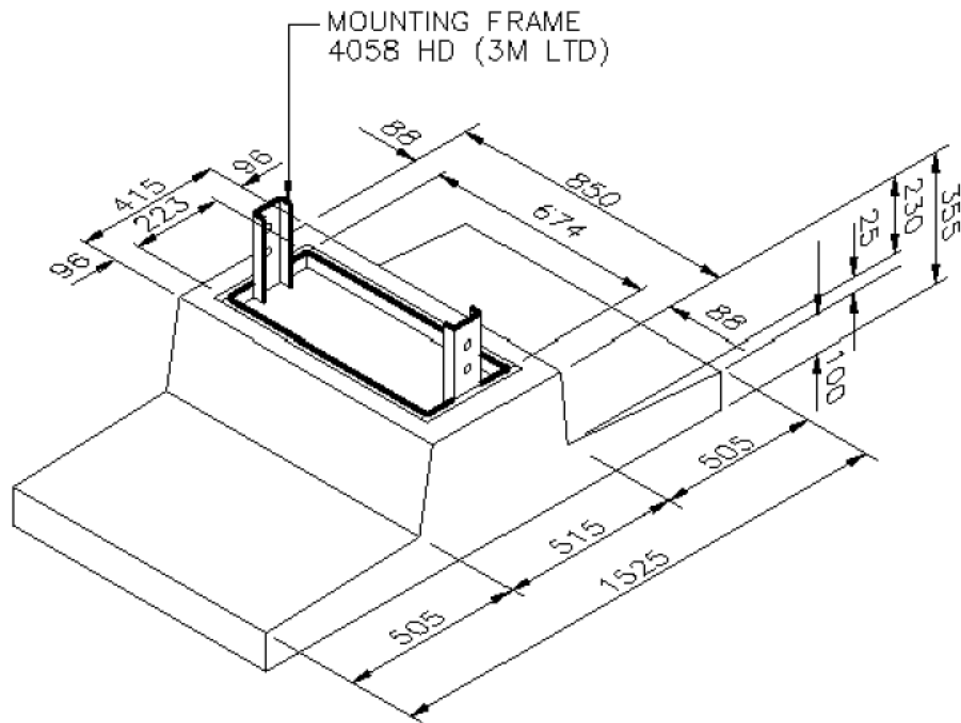
TELUS

NETWORK ENGINEERING

A4C

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SA-100021



ALL DIMENSIONS ARE EXPRESSED IN MILLIMETERS UNLESS OTHERWISE NOTED.

5

ENG. A. FABER	DR. S.G.T.
W.O.	CH.
SCALE N.T.S.	DATE 89-03-18
ASSOC. DRG	
REF.	

CONCRETE PAD – FOR SAC
SOUTHERN INTERIOR
(2700X)

SA-100021

PAGE 1 OF 1

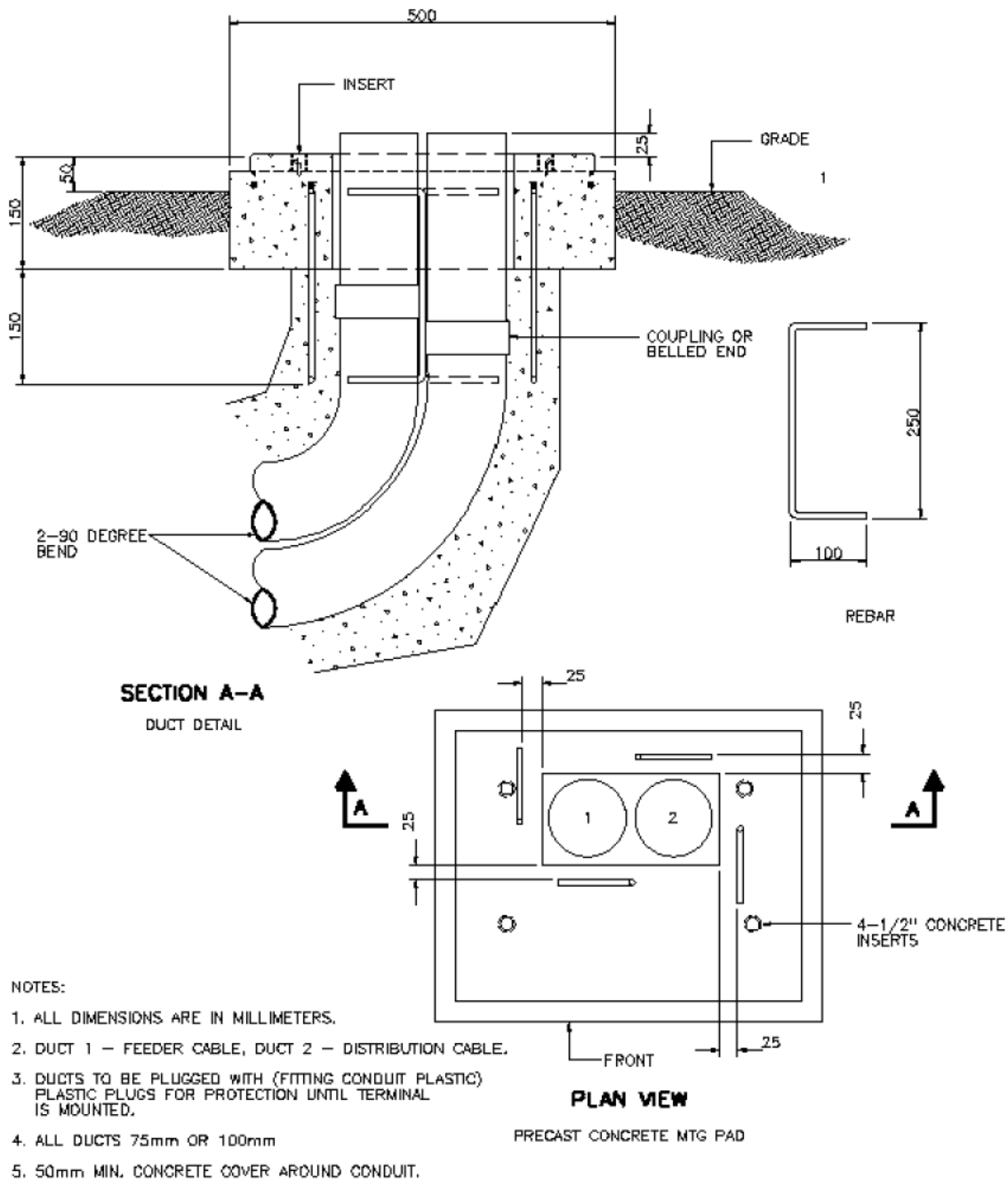


NETWORK ENGINEERING

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SA-100058



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ENG. T. HORNER	DR. RH
W.O.	CH. ST
SCALE NTS	DATE 92-03-25
ASSOC. DRG	
REF.	

PRECAST CONCRETE MTG PAD
CROSS-CONNECT TERMINAL
900 X 600 X 150 AND 600 X 600 X 150

SA-100058

PAGE 1 OF 1

TELUS

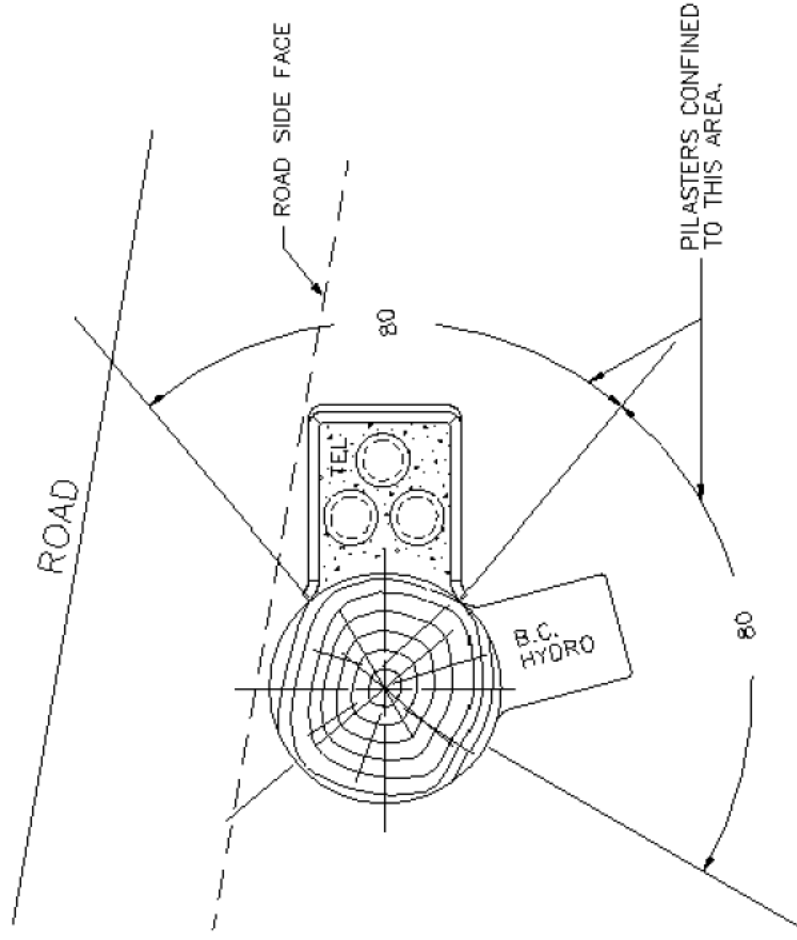
NETWORK ENGINEERING

SI metric

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SA-100067



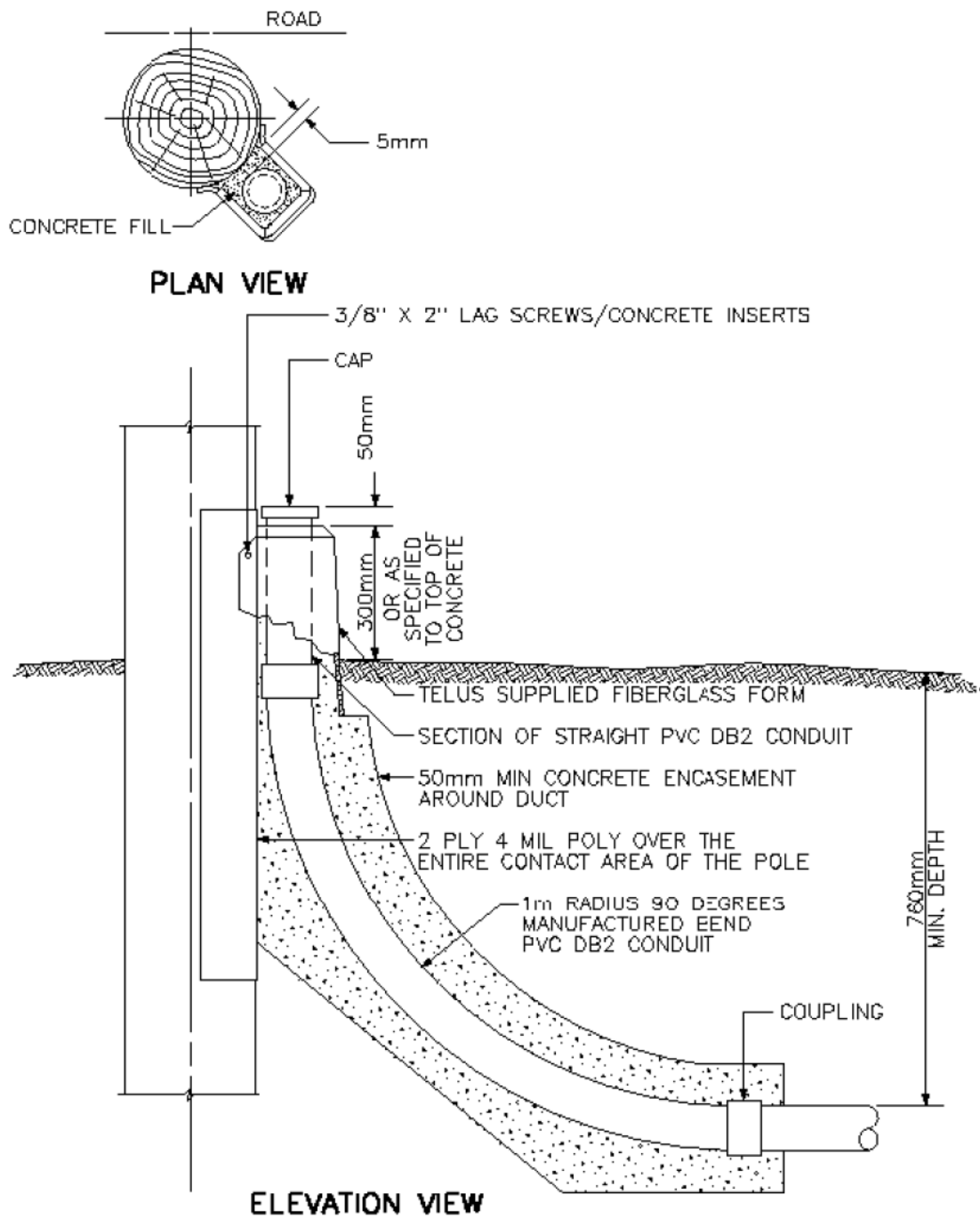
NOTES:

1. TELEPHONE PILASTER NOT TO PROTRUDE PAST THE ROAD SIDE FACE OF THE POLE.
2. MAXIMUM NUMBER OF TEL DUCTS TERMINATED IN THE PILASTER IS THREE.
3. FIBERGLASS FORMS ARE AVAILABLE IN TWO SIZES, 1 WAY AND 2/3 WAY.

3	ENG. T.HORNER	DR. R.K.H.	PREFERRED PILASTER LOCATION	
	W.O.	CH. S.T.		
	SCALE N.T.S.	DATE 91-09-16		
	ASSOC. RG			
			SA-100067	SI 
			PAGE 1 OF 1	
			 TELUS	NETWORK ENGINEERING
	REF.			A4C

11

SA-100030



11

ENG. A. FABER	DR. S.G.T.
W.O.	CH.
SCALE N.T.S.	DATE 88-09-22
ASSOC. DRG	
REF.	

WOOD OR CONCRETE POLE
ONE WAY PILASTER

SA-100030

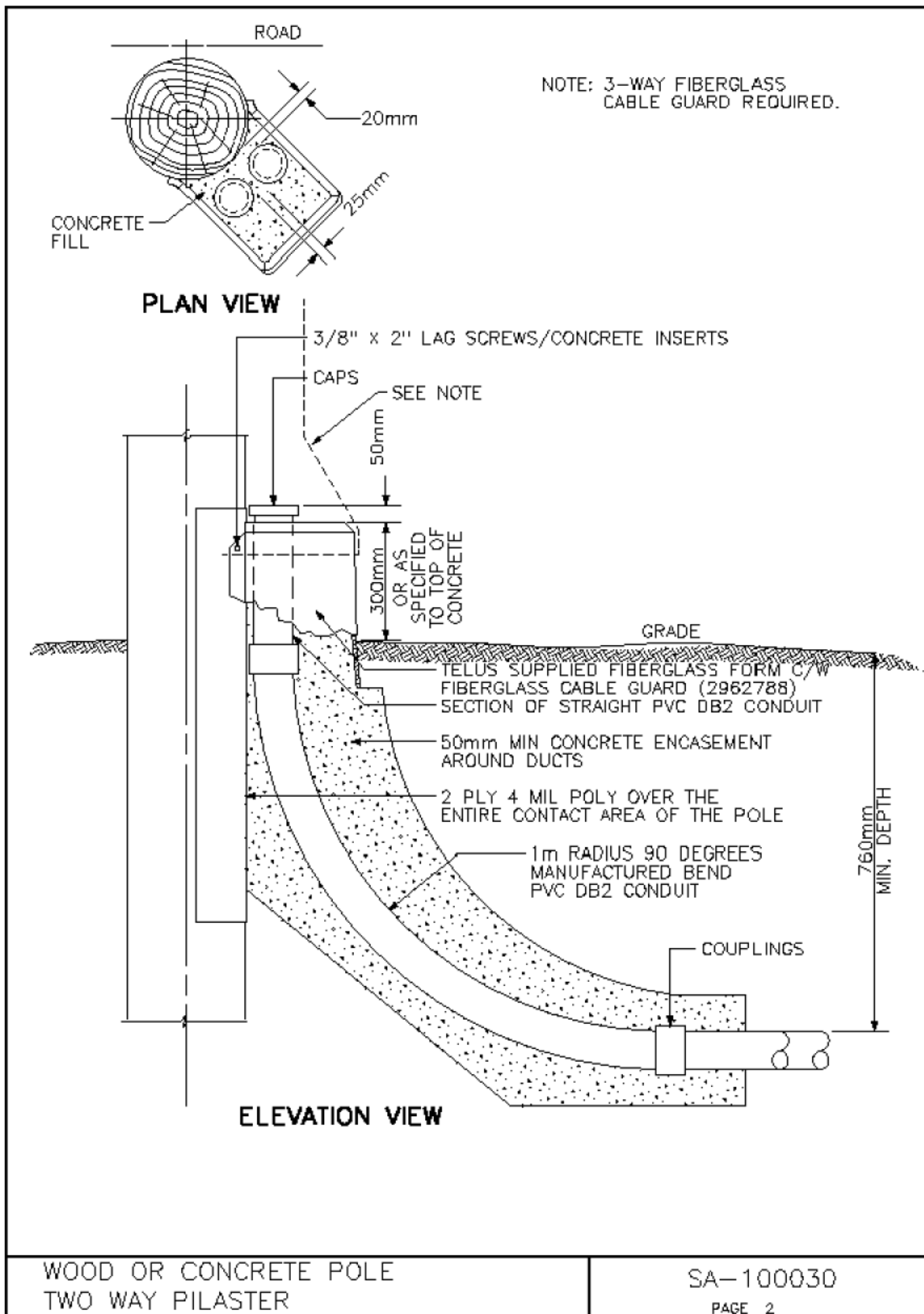
PAGE 1 OF 3

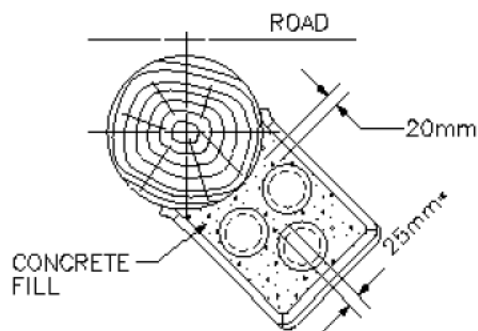


NETWORK ENGINEERING



A4C

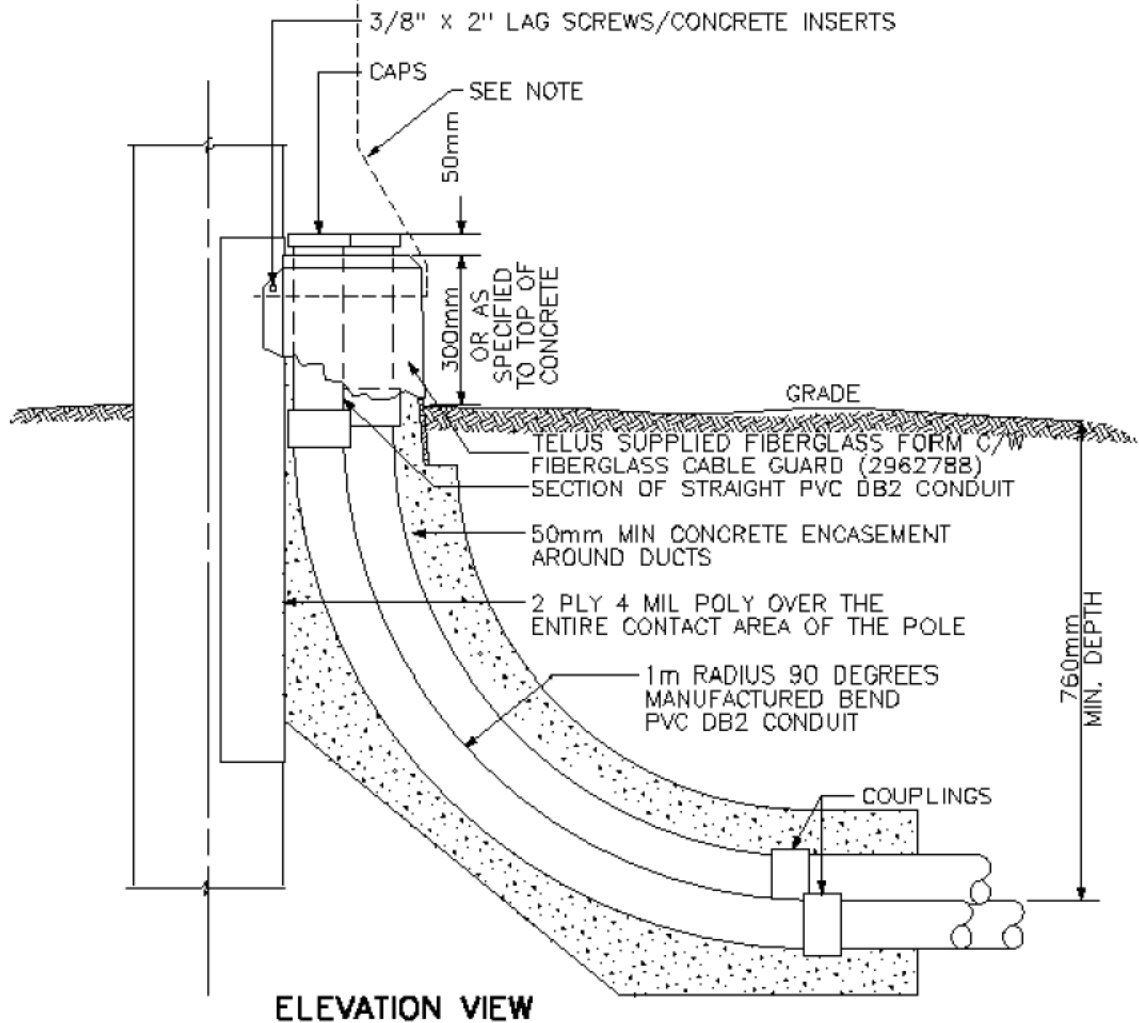




* MIN 25mm BETWEEN ANY TWO DUCTS

NOTE: 3-WAY FIBERGLASS
CABLE GUARD REQUIRED.

PLAN VIEW



ELEVATION VIEW

WOOD OR CONCRETE POLE
THREE WAY PILASTER

SA-100030

PAGE 3

SCHEDULE 4

DRAWINGS

SCHEDULE 4 - DRAWINGS

PROJECT NO. 23697-0001
WESTSIDE ROAD IMPROVEMENTS
WATERFRONT FARM TO BLUE GROUSE
GRADING AND PAVING CONSTRUCTION

The following Drawings form part of the Tender Document Package/Contract Document Package and apply to this Contract:

Drawing Number	Drawing Title
R2-909-001	Key Plan
R2-909-002	Legend
R2-909-101 to 103	Plans
R2-909-201 to 202	Profiles
R2-909-301	Typical Sections
R2-909-401 to 403	Geometrics, Laning, Signing and Pavement Markings
R2-909-501 to 503	Drainage Plans
R2-909-551	Drainage Details
R2-909-651 to 653	Utility Conduit Plans
R2-909-654	Utility Conduit Profile

SCHEDULE 5

TIME SCHEDULE

Schedule 5 – Time Schedule

PROJECT NO. 23697-0001

WESTSIDE ROAD IMPROVEMENTS WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

Completion Date:

The Contractor will complete construction of the Work to the satisfaction of the Ministry Representative on or before the Completion Date of **October 31, 2015**, as may be extended from time to time in accordance with the Contract.

SCHEDULE 6

INSURANCE



NOTICE TO CONTRACTORS ENSURING COMPLIANCE WITH INSURANCE, BONDS and WCB REQUIREMENTS

Major Works, Minor Works, Operational Services, Design Build Minor and Consulting Services Contracts General Information:

- Ensure the limits of your insurance are compliant with those noted in the RFP/Tender documentation.
- The **ONLY** acceptable Certificate of Insurance is a Ministry of Transportation and Infrastructure **Certificate of Insurance (H0111)**.
- **BOTH** pages of the **Ministry Certificate of Insurance** must be submitted and the form conditions on page one and two must **NOT** be altered or added to.
- Ensure that the effective award date of the Certificate of Insurance is the earlier of the date of contract award or contract start date.
- **DO NOT** add the Ministry of Transportation and Infrastructure as an Additional Insured on page 1 of the Certificate of Insurance, as the Ministry of Transportation and Infrastructure is an Additional Named Insured (as per the insurance specifications and page 2 of the Certificate of Insurance).
- Always examine your Ministry Certificate of Insurance for policy effective dates and expiry dates and renewal dates in relation to your contract.
- Ensure that the Certificate of Insurance includes all required information (name of Insurer, policy numbers, policy effective dates, expiry dates, policy limits, deductibles and aggregates).
- Double check all documentation to ensure that the project number and description are correct.
- Always give the sample Ministry of Transportation and Infrastructure **Certificate of Insurance**—again **BOTH** pages—the **Insurance Specifications, the Special Provisions and the Bond Specimens** in your tender document to your Insurance Broker as it enables him/her to produce documentation and pricing in accordance with the contract requirements.
- Ensure that Ministry Certificate is duly signed and are originals or certified copies.
- If Automobile Liability insurance is required in the Ministry Agreement one of the following must be provided:
 - duly completed H0111 form AND/OR
 - a completed APV47 (ICBC Form) OR
 - a completed APV250L (ICBC Form)

*Note: Combination of Primary ICBC insurance and other Excess insurance is acceptable but must be clearly evidenced. If the Certificate **ONLY** evidences private insurance coverage, evidence of mandatory ICBC coverage is required.

Major Works, Minor Works, Operational Service and Design Build Minor Contracts Only:

- Insurance requirements are found in **BOTH** Schedule 3- Special Provisions and Schedule 6- Insurance Specifications.
- Specimen Bonds are found in Schedule T2 Tender Securities Documents (INS261, INS262 or INS263) and Schedule 2 Contract Securities INS265. Please ensure the bonds provided match the specimen.

Please direct questions during an open competitive process to the Ministry contact noted in the RFP/Tender documents.
IF awarded the contract direct questions to the Corporate Insurance and Bonds Manager – (250) 387-7580

WCB

Workers' Compensation Board (WorkSafeBC) coverage is required.

- The general WCB of BC information site is <http://www.worksafebc.com/>
- Registration and insurance coverage can be completed online with details found at http://www.worksafebc.com/insurance/registering_for_coverage/register_with_worksafebc/default.asp. To report applicable payroll online, use http://www.worksafebc.com/online_services/reporting_and_remitting/default.asp
- Ensure that your premiums are paid so a clearance letter will be obtainable by the Ministry. For estimating your WorkSafe insurance costs, you may wish to consult the rate guide at http://www.worksafebc.com/insurance/premiums/rate_setting/default.asp.



PART 1

It is a condition of this contract that the Contractor shall, at the Contractor's expense, obtain and maintain insurance coverage in wording and in amounts as hereinafter specified. Such insurance shall remain in full force and effect until all conditions of the contract have been fully complied with and until acceptance by the Ministry of all works and appurtenances pertaining to the contract, of which these insurance specifications are a part. The wording, including the named insureds, under the insurance coverage may be modified to reflect the structure of the Contractor as a limited company, an individual, partnership, other entity or joint venture comprising the Contractor.

1. ISSUANCE OF INSURANCE

All insurance coverage shall be issued with insurers acceptable to the Ministry, and issued by companies licensed to transact business in the Province of British Columbia and Canada.

2. EVIDENCE OF COVERAGE

The Contractor shall file evidence of insurance issued to comply with the requirements outlined in these insurance specifications prior to starting work on the contract and before any payments are made under the contract.

Evidence shall be as follows:

- a) For all policies, except Automobile Liability, by way of a duly completed Ministry Certificate of Insurance (H0111), which will be considered to be part of this Schedule.
- b) For Automobile Liability insurance, either a duly executed I.C.B.C. APV47 or APV250L form, or a Ministry Certificate of Insurance.

The Contractor shall, upon request by the Ministry, file originals or signed, certified copies of all current policies and any endorsements necessary to comply with these insurance specifications and any other requirements outlined elsewhere in the contract. Failure to provide the required insurance may result in payments to the Contractor being withheld.

All documentation shall be filed with:

The Corporate Insurance and Bonds Manager, Ministry of Transportation and Infrastructure, PO Box 9850, Stn Prov Govt, 940 Blanshard Street, Victoria, BC V8W 9T5.

**NO OTHER CERTIFICATES OF INSURANCE
ARE ACCEPTABLE.**

Payments to the Contractor may be withheld and/or all work on the site of the contract may be ordered to cease if the Contractor fails to obtain or maintain insurance as required herein, or if the Ministry does not approve any insurance policy or policies submitted to them and the Contractor does not comply with the insurance requirements of the contract and, the Ministry shall also have the right, but not the obligation, to place and maintain such insurance in the name of the Contractor and the Ministry. The cost thereof shall be payable by the Contractor to the Ministry on demand, and the Ministry may deduct the cost thereof from any monies which are due, or may become due to the Contractor.

3. THIRD PARTY LIABILITY INSURANCE

Commercial General Liability insurance including non-owned automobile and contractual liability insurance shall be arranged with inclusive limits of not less than **\$2,000,000.00 and \$2,000,000.00 IN THE ANNUAL AGGREGATE** for bodily injury, death, and property damage arising from any one accident or occurrence. The insurance policy shall indemnify the named insureds under the policy for any sum or sums which the insured may become liable to pay or shall pay for bodily injury, death or property damage or for loss of use thereof, arising out of or resulting from the work of the Contractor or the Ministry under this contract, anywhere within Canada and the United States of America. In addition to the above limits, such liability insurance shall also pay all costs, charges, and expenses in connection with any claims that may require to be contested by the insureds anywhere within Canada and the United States of America.

EXTENSION OF COVERAGE

Such liability insurance shall also include all liability arising out of completed operations, blanket written contractual, contingent employers liability, non-owned automobile liability and liability assumed by the Contractor in connection with and applicable to the contract.

EXCLUSIONS NOT PERMITTED

Claims arising out of the legal liability imposed upon the insured at common law and extended by Statute for bodily injury or death to employees of the Insured. However, exclusions applicable to liability imposed upon or assumed by the Insured under any Workers' Compensation Statutes of for assessment by any Workers' Compensation Board will be allowed.

Liability assumed by the insured under contract with railroad companies for the use and operation of railway sidings or crossings.

Hazardous operations such as excavation, pile driving, shoring, blasting, under-pinning, or demolition work or any other operation or work to be performed by the Ministry or the Contractor shall not be excluded from insurance coverage, where such type of work or operation is to be performed by either party under the contract.

DEDUCTIBLES

A property damage deductible will be allowed for any one accident or per occurrence for up to **\$5,000.00** or **ONE PERCENT (1%)** of the contract amount, whichever is greater. Payment of any deductible shall be the responsibility of the Contractor.

A BODILY INJURY OR DEATH DEDUCTIBLE IS NOT ALLOWED

ADDITIONAL CONDITIONS

Each policy (except Automobile Liability Insurance) shall be endorsed as follows:

Notwithstanding any other terms, conditions, or exclusions elsewhere in this policy, it is understood and agreed that this policy is extended to include insurance coverages and clauses as follows:

Her Majesty the Queen in Right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure, together with the employees, agents, and servants of the Minister, hereinafter referred to as the Additional Named Insured, is added as an Additional Named Insured, in respect of liability arising from the work or operations of the Insured and the Additional Named Insured, in connection with contracts entered into between the Insured and the Additional Named Insured.

The insurance as is afforded by this policy shall apply in the same manner and to the same extent as though a separate policy had been issued to each insured. Any breach of a condition of the policy by any Insured shall not affect the protection given by this policy to any other insured. The inclusion herein of more than one Insured shall not operate to increase the limit of liability under this policy.

Products and Completed Operations Hazard coverage shall be provided and such coverage shall remain in full force and effect for a period of **twelve (12)** months after the work has been completed, irrespective of the expiry date of the policy.

- 4. AUTOMOBILE LIABILITY INSURANCE**
IF any licensed vehicles are owned, leased, rented or used in the performance of this contract, then Automobile Liability coverage with inclusive limits of not less than **\$2,000,000.00** providing third party liability and accident benefits insurance must be provided for all these vehicles.
- 5. PROTECTION AND INDEMNITY INSURANCE**
IF vessels are operated in the course of the contract and are not covered under the general liability policy, then the Contractor shall provide Protection and Indemnity insurance applying to all vessels operated in the course of the contract with limits of not less than **\$2,000,000.00** for such vessels. Such Protection and Indemnity insurance shall include four-fourths collision liability insurance.
- 6. AIRCRAFT INSURANCE**
IF aircraft (including helicopters) are owned, leased, rented or used in the performance of this contract, then third party liability coverage with inclusive limits of not less than **\$5,000,000.00** must be provided.
- 7. EVIDENCE OF RENEWAL**
The Contractor shall furnish evidence of the renewal or extension of the required policy(s) by certified copy of a renewal certificate(s) or by endorsement(s) to the policy(s) which is to be received by The Corporate Insurance and Bonds Manager at least **thirty (30)** days prior to the expiry date of the policy.
- 8. NOTICE OF CANCELLATION, ETC.**
The required insurance shall not be cancelled, removed, reduced, materially changed or altered without thirty (30) days prior notice in writing by Registered Mail to: **The Corporate Insurance and Bonds Manager, Ministry of Transportation and Infrastructure, PO Box 9850, Stn Prov Govt, 940 Blanshard Street, Victoria, BC V8W 9T5.**
- 9. USE AND OCCUPANCY**
Use and occupancy of the work or any part thereof prior to the date of completion shall not be cause for any termination of insurance coverage shown in the applicable sections.

THE PROVINCE ASSUMES NO RESPONSIBILITY FOR THE ADEQUACY OF THE INSURANCE EFFECTED IN FAVOUR OF THE CONTRACTOR OR THE MINISTRY UNDER THIS AGREEMENT.



INSURED Name _____
 Business Address _____

BROKER Name _____
 Business Address _____

The undersigned certifies the undersigned has reviewed the policies of insurance described above and Page 2 of this certificate and further certify that those policies have been issued to the insured named above and are in full force and effect and comply with the insurance requirements set out in the agreement / contract / lease / permit identified above, including the requirements set out on Page 2 of this certificate.

Date (yyyy/mm/dd)

Page 1 of 2

Notwithstanding any other terms, conditions or exclusions elsewhere in the insurance policy(s), it is understood and agreed that the insurance policy(s) are extended to include insurance conditions as follows:

**CONDITIONS APPLICABLE TO:
COMMERCIAL GENERAL LIABILITY**

1. Additional Named Insured Clause for Ministry Contracts

Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure, together with the employees, agents, and servants of the Minister, hereinafter referred to as the Additional Named Insured, is added as an Additional Named Insured, in respect of liability arising from the work or operations of the Insured and the Additional Named Insured, in connection with contracts, entered into between the Insured and the Additional Named Insured.

2. Extension of Coverage

Such liability insurance shall also include all liability arising out of completed operations, blanket written contractual, contingent employers liability, non-owned automobile liability, and liability assumed by the Contractor in connection with and applicable to the contract.

3. Cross Liability

The insurance as is afforded by this policy shall apply in the same manner and to the same extent as though a separate policy had been issued to each Insured. Any breach of a condition of the policy by any Insured shall not affect the protection given by this policy to any other Insured. The inclusion herein of more than one Insured shall not operate to increase the limit of liability under this policy.

4. Exclusions Not Permitted

If hazardous operations such as excavation, pile driving, shoring, blasting, underpinning, or demolition work or any other operation or work is to be performed by the Ministry or the Contractor, then this type of work or operation shall not be excluded from insurance coverage where such type of work or operation is to be performed by either party under the contract, subject to prior notification to the insurer by the Contractor.

Claims arising out of the legal liability imposed upon the Insured at common law and extended by Statute for bodily injury or death to employees of the Insured. However, exclusions applicable to liability imposed upon or assumed by the Insured under any Workers' Compensation Statutes or for assessment by any Workers' Compensation Board will be allowed.

Liability assumed by the Insured under contract with railroad companies for the use and operation of railway sidings or crossings.

5. Products and Completed Operations Hazard

Products and Completed Operations Hazard coverage shall be provided and such coverage shall remain in full force and effect for a period of twelve (12) months after the contracted work has been completed (twenty four (24) months for Design Build Minor Contracts), irrespective of the expiry date of the policy.

**CONDITIONS APPLICABLE TO:
PROPERTY TYPE OF INSURANCE POLICIES
(WHERE IT IS A REQUIREMENT OF THE CONTRACT,
AGREEMENT, LEASE OR PERMIT)**

1. Additional Named Insured Clause

Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure, is added as an Additional Named Insured.

2. Loss Payable Clause

Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure.

3. Waiver of Subrogation

In the event of any physical loss or damage to the work or Contractor's equipment, the settlement or payment of the subsequent claim shall be made without the right of subrogation against Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure or any of the employees, servants or agents of the Minister.

**CONDITIONS APPLICABLE TO:
ALL POLICIES EXCEPT AUTOMOBILE LIABILITY INSURANCE
ISSUED BY I.C.B.C. AND PROFESSIONAL LIABILITY (E&O)
INSURANCE**

1. Cancellation

This policy shall not be cancelled, removed, reduced, materially changed or altered without thirty (30) days prior notice in writing by Registered Mail to:

**CORPORATE INSURANCE AND BONDS MANAGER
MINISTRY OF TRANSPORTATION & INFRASTRUCTURE
PO BOX 9850 STN PROV GOVT
VICTORIA BC V8W 9T5**

or

Ministry Representative, as noted in the contract.

**CONDITION APPLICABLE TO:
PROFESSIONAL LIABILITY / ERRORS AND OMISSIONS
INSURANCE**

1. Cancellation

The required insurance shall not be cancelled, or endorsed to reduce limits of liability, without thirty (30) days notice in writing by Registered Mail to: The Corporate Insurance and Bonds Manager, Ministry of Transportation and Infrastructure, PO Box 9850, Stn Prov Govt, 940 Blanshard Street, Victoria, B.C. V8W 9T5. Notification of the policy being endorsed to restrict coverage mid-term, must be provided in writing by Registered Mail to the same address, no later than the effective date of such change.

Issuance of this certificate shall not limit or restrict the right of the Ministry of Transportation and Infrastructure to request any time certified copies of any insurance policy(s).

SCHEDULE 7

APPROXIMATE QUANTITIES AND UNIT PRICES

AWARD SCHEDULE**SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES**

Project No.: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE
GRADING AND PAVING CONSTRUCTION

Contract Awarded To: Emil Anderson Construction (EAC) Inc

Item No.	Description of Work	Unit of Measure	Approx. Qty	Unit Price	Extended Amount
01	<u>SECTION 1 - GENERAL</u>				
01.01	Mobilization	L.S.	100%	L.S.	
01.02	Traffic Management	L.S.	100%	L.S.	s21
01.03	Quality Management	L.S.	100%	L.S.	
01.04	Site Modifications (SP 1.34)	P.S.	\$250,000.00	P.S.	\$250,000.00
02	<u>SECTION 2 - GRADING</u>				
02.01	Clearing and Grubbing				
02.01.01	Clearing and Grubbing	Hectare	5		
02.02	Removal of Existing Works				
02.02.01	Pavement Removal	Square Metre	5150		
02.02.02	Cold Milling	Square Metre	170		
02.02.03	Pavement Cutting	Metre	80		
02.03	Utility Conduit and Manhole Installation				
02.03.01	2-Conduit Installation in Type D	Metre	930	s21	s21
02.03.02	2-Conduit Installation in Type A (CONDITIONAL ITEM)	Metre	50		
02.03.03	Concrete Encasement (CONDITIONAL ITEM)	Metre	30		
02.03.04	TELUS Manhole Installation	Each	6		
02.03.05	100 mm Steel Casing Pipe	Metre	16.500		
02.03.06	150 mm Steel Casing Pipe	Metre	16.500		

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Item No.	Description of Work	Unit of Measure	Approx. Qty	Unit Price	Extended Amount
02.04	Roadway & Drainage Excavation				
02.04.01	Organic Stripping and Disposal	Cubic Metre	7000		
02.04.02	Type D Excavation and Disposal	Cubic Metre	22550		
02.04.03	Type A Excavation to Embankment and Disposal	Cubic Metre	60370	s21	s21
02.04.04	Item Deleted				
02.04.05	Steel Slope Mesh on Type A Excavation	Square Metre	5500		
02.04.06	Steel Slope Mesh on Type D Excavation	Square Metre	3520		
02.04.07	Rock Bolts (SP 2.09.03)	P.S.	\$50,000.00	P.S.	\$50,000.00
02.04.08	Trim Blasting (SP 2.10)	P.S.	\$50,000.00	P.S.	\$50,000.00
02.04.09	Designated Areas Scaling (CONDITIONAL ITEM)	Square Metre	500		
02.05	Granular Materials: Production & Placement				
02.05.01	25 mm High Fines Surfacing Aggregate	Cubic Metre	125		
02.05.02	25 mm Well Graded Base Course	Cubic Metre	3190		
02.05.03	Select Graded Granular Sub Base	Cubic Metre	3260		
02.06	Revegetation Seeding				
02.06.01	Revegetation Seeding	Hectare	2	s21	
03	<u>SECTION 3 - DRAINAGE</u>				
03.01	Supply and Install Culverts				
03.01.01	800mm CSP 2.0 WT	Metre	16.500		
03.01.02	1000mm CSP 2.0 WT	Metre	21.500		
03.02	Riprap				
03.02.01	Riprap - Class 10	Cubic Metre	460		
03.02.02	Slope Erosion Protection (CONDITIONAL ITEM)	Cubic Metre	50		
04	<u>SECTION 4 - PAVING</u>				
04.01	Emulsified Tack Coat and Primer				

Item No.	Description of Work	Unit of Measure	Approx. Qty	Unit Price	Extended Amount
04.01.01	Supply Emulsified Primer and Tack Coat	Litre	36320		
04.01.02	Apply Emulsified Primer and Tack Coat	Litre	36320		
04.02	Supply Asphalt Mix Aggregate in Stockpile				
04.02.01	Asphalt Medium Mix Aggregate in Stockpile	Tonne	2250		
04.03	Asphalt Pavement				
04.03.01	Class 1, Asphalt Medium Mix, Bottom Lift	Tonne	1120		
04.03.02	Class 1, Asphalt Medium Mix, Top Lift	Tonne	1130		
04.04	Shouldering				
04.04.01	Shouldering Aggregate (Supply, Haul, Place and Compact)	Cubic Metre	13		
04.05	Asphalt Spillways				
04.05.01	Asphalt Spillway	Each	14		s21
04.06	Precast Concrete Barriers				
04.06.01	CBN-H (SP941-01.01.01)	Each	6		
04.06.02	CTB-1E (SP941-03.01.01)	Each	6		
04.06.03	CDB-E (SP941-01.02.05)	Each	26		
04.06.04	CRB-H (SP941-01.02.01)	Each	287		
04.06.05	CRB-E (SP941-01.02.02)	Each	258		
05	<u>SECTION 5 - SIGNING AND PAVEMENT MARKING</u>				
05.01	Signing				
05.01.01	Install One Post Sign	Each	4		
05.01.02	Install Barrier Mounted Sign	Each	3		
05.02	Pavement Markings				
05.02.01	Pavement Marking Layout	L.S.	100%		

Item No.	Description of Work	Unit of Measure	Approx. Qty	Unit Price	Extended Amount
	TENDER PRICE:				\$4,371,423.06

All dollar amounts are to be in Canadian Dollars. Do not include GST in any Unit Prices or Extended Amounts, or in the Tender Price. The Ministry will pay any applicable GST under the Contract. Invoices / progress estimates under the Contract must show the calculation of any applicable GST as a separate line item.

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SCHEDULE 8

CONTRACT ADDENDA

PROJECT NO. 23697-0001
WESTSIDE ROAD IMPROVEMENTS
WATERFRONT FARM TO BLUE GROUSE
GRADING AND PAVING CONSTRUCTION

ADDENDUM NO. 1

1. SCHEDULE T3 – SPECIFIC REFERENCE DOCUMENTS

Delete the following:

Document Number	Document Description	Check (✓) the Appropriate Column(s)	
		Electronic Copy	Hardcopy Only
5	Summit Environmental Consultants Inc. Westside Rd Improvements. Waterfront Farm to Blue Grouse. ENVIRONMENTAL IMPACT ASSESSMENT.	✓	

PROJECT NO. 23697-0001

WESTSIDE ROAD IMPROVEMENTS

WATERFRONT FARM TO BLUE GROUSE

GRADING AND PAVING CONSTRUCTION

ADDENDUM NO. 2

NOTICE TO BIDDERS

1. TENDER ADVERTISING INSERTION ORDER

INVITATION TO TENDER – SUPPLEMENTAL CONDITIONS OF TENDER

SCT2.2 Tender **Closing/Opening Date Extended** to August 28, 2014.
Time and place remain unchanged.

2. SCHEDULE T3 – SPECIFIC REFERENCE DOCUMENTS

The following have been updated:

Document Number	Document Description	Check (✓) the Appropriate Column(s)	
		Electronic Copy	Hardcopy only
1	L10 Cross Sections WSR-Waterfront-Bluegrouse R2-909-XS-L10	✓	
2	L100 Cross Sections WSR-Waterfront-Bluegrouse R2-909-XS-L100	✓	
4	Tetra Tech EBA, 704-K13103081-05 Westside Rd Improvements Waterfront Farm to Blue Grouse GEOTECHNICAL ENGINEERING DESIGN REPORT July 17, 2014	✓	

Add the following:

Document Number	Document Description	Check (✓) the Appropriate Column(s)	
		Electronic Copy	Hardcopy only
5	Summit Environmental Consultants Inc. Westside Rd Improvements. Waterfront Farm to Blue Grouse. ENVIRONMENTAL IMPACT ASSESSMENT.	✓	
6	R2-909-XS-552 REFERENCE DOCUMENT , Drainage Details	✓	

3. **SCHEDULE 3 - SPECIAL PROVISIONS AND APPENDICES**

SECTION 1 – GENERAL

1.15 Work by Others in Project Area

Add the following:

- f) Prime Contractor(s) of another Westside Road Improvement Project(s), likely to be south of the project limits and starting 2015. The Contractor will be responsible for coordinating his work with other Westside Road Improvement projects.

1.18 Traffic Management

PART C – TRAFFIC MANAGEMENT OPERATIONAL DETAILS

3. Road Closures, Lane Closures and Delays

a) Road Closures, Lane Closures and Delays

Add the following bullet to the fifth paragraph:

- Between July 1, 2015 and August 31, 2015, blasting closures after 12:30 p.m. on Fridays will not be permitted.

4. Long Weekend/Special Event Table

Add the following to the table:

Events	Times
Christmas Day	Starting from noon of the weekday prior to the statutory holiday until noon of the following weekday
Boxing Day	
New Year's Day	

1.22 Protection of the Environment

c) Designated Environmentally Sensitive Areas

Replace: “North American Racer hibernacula site”
With “Wildlife Special Conditions Site”

Add the following to the end of the paragraph:

The Ministry may provide additional vibration monitoring at the Wildlife Special Conditions Site, and other sites within the project area. The Contractor shall provide the Ministry Representative with a minimum of fourteen (14) days notice prior to initiating works within the 200 m radius of the Wildlife Special Conditions Site.

d) Contractor's Environmental Monitor

Add the following to the end of third paragraph:

The Environmental Monitor will conduct a reconnaissance of areas of High and Moderate value reptile habitat, as identified in the Environmental Impact Assessment included as a reference document, within the right-of-way limits prior to clearing and grubbing to ensure that reptiles are not present in these areas.

SECTION 2 - GRADING

2.05 Utility Conduit and Manhole Installation

Delete the clauses in their entirety and replace with the following:

2.05.01 TELUS Installations

The Contractor shall supply and install two underground conduits in a single trench as shown on the Drawings in accordance with TELUS specifications in the Appendices and as follows:

- a) Supply work necessary to dig trench for underground conduit.
- b) Supply and install conduit in trench as shown on the Drawings. Backfill trench and finish top of trench to match existing surroundings and restore the surface to as good as or better than original condition.
- c) Supply and install manholes as shown on the Drawings. Backfill around and finish top of excavation to match existing surroundings and restore the surface to as good as or better than original condition.
- d) Where a minimum 750 mm cover cannot be achieved, the Contractor is to concrete encase the conduit.

Payment for 2-PVC Conduit Installation in Type D will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for 2-PVC Conduit Installation in Type A (Conditional Item) will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for Concrete Encasement (Conditional Item) will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

Payment for TELUS Manhole Installation will be made at the Unit Price bid in Schedule 7, and shall be accepted as full compensation for everything furnished and done in connection therewith.

2.05.02 Steel Casing Pipe

The Contractor shall supply and install 100mm diameter and 150 mm diameter steel casing pipe for future water and sewage crossings of Westside Road, complete with trenching, imported backfill, supply and installation of pipe, all fittings and connections, welding, installation of bedding and backfill, trench shoring as required, and the haul and disposal excavated material at the locations shown on the Drawings and in accordance with SS 303.

Steel casing pipe shall be smooth wall steel pipe (S.W.S.P.) and shall be a minimum 9.5 mm thick, meeting ASTM A252 Grade 2.

The two casing pipes shall be installed 3 meters apart. The casing ends shall be buried and plugged with sand bags. A 50 x 100 mm Fir stake shall be placed down to casing end and sticking 300mm out of the ground. The exposed stake for water casing (100mm) shall be painted blue and the stake for sewage casing (150mm) shall be painted green.

Payment for Steel Casing Pipe will be made at the Unit Prices bid for each pipe size in Schedule 7, and shall be accepted as full compensation for everything furnished and done.

2.07 Type D Excavation and Disposal

Delete “as determined by the Ministry representative” *from the 5th paragraph, 2nd bullet.*

2.08 Type A Excavation

2.08.02 Drilling

Delete in its entirety and replace with the following:

The spacing of backline drill holes shall not exceed 0.75 m.

Production holes shall be drilled at a spacing and in a manner to optimize the production of rock fill.

2.08.03 Blasting

Add the following:

The Contractor shall plan the size of the blast to the limit of the Contractor's ability to re-open the road within the road closure period defined in the approved Traffic Management Plan.

2.09 Excavation Backslope Stabilization

Add the following:

2.09.04 Designated Areas Scaling (Conditional Item)

Designated areas for scaling are those areas, outside of the design template as slope staked in the field, that in the opinion of the Ministry's Geotechnical Engineer require scaling prior to commencement of work beneath.

Designated Areas Scaling shall consist of the removal from the slope of all loose rock, brush and debris by rock scaling personnel using appropriate tools in the designated scaling areas. Removal of soil and overburden from the crest of the slope and benches on the slope shall be included as scaling. Drilling and "splitting" of larger rock boulders, with wedges, hydraulic splitters or "Boulder Busters", into smaller manageable sized pieces shall also be included as scaling. Felling and removal of trees in Designated Areas shall be included as scaling. Removal of scaled debris to temporary stockpiles and permanent disposal sites shall be incidental to scaling.

Any rock and debris deposited on any adjacent areas of the slope, outside the designated scaling zone, as a result of the Designated Areas Scaling operations, shall be removed to road level and the stock pile. There shall be no separate payment for removal of deposited material and this will be considered incidental to the Unit Price for Designated Areas Scaling.

Any access construction on the slope including but not limited to: trail building, installing access ropes, ladders, and tree and brush removal, to facilitate access to the designated scaling areas shall be considered incidental to scaling.

The Contractor shall repair or replace anything damaged by its scaling operations. Areas disturbed by the Contractor's work or activities that require scaling will not be considered Designated Areas Scaling. Scaling of areas disturbed by the Contractor and the subsequent disposal of resulting material will be considered incidental to the contract work and no separate or additional payment will be made.

The Unit of Measurement for Designated Areas Scaling shall be by the square metre of slope scaled. The final measurement of the Scaling quantity shall be as determined by the Ministry Representative.

Payment for Designated Areas Scaling will be at the Unit Price bid in Schedule 7 and shall be accepted as full compensation for all things furnished and done.

2.10 Trim Blasting (Provisional Sum)

2.10.01 General

Delete the 2nd paragraph in its entirety and replace with the following:

Trim blasting shall include removal of all excavated material to highway level, loading, hauling and disposal.

4. SCHEDULE 4 – DRAWINGS

Replace the following with Rev. A drawings:

Drawing Number	Drawing Title
R2-909-101 to 103	Plans
R2-909-201 to 202	Profiles
R2-909-301	Typical Sections
R2-909-402	Geometrics, Laning, Signing and Pavement Markings
R2-909-501 to 503	Drainage Plans
R2-909-651 to 653	Utility Conduit Plans
R2-909-654	Utility Conduit Profile

5. SCHEDULE 7 – SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

The following items are amended:

Item No.	Revision
01.04	Revised Quantity
02.03.05	New Item Added
02.03.06	New Item Added
02.04.01	Revised Quantity
02.04.02	Revised Quantity
02.04.03	Revised Quantity
02.04.04	Revised Quantity
02.04.09	New Item Added
02.05.01	Revised Quantity
02.05.03	Revised Quantity
04.05.01	Revised Quantity

A REPLACEMENT SCHEDULE 7, DATED AUGUST 14, 2014, AND MARKED AS ‘REPLACEMENT A’ IS ATTACHED AND MUST BE USED FOR TENDER PURPOSES.

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
01	SECTION 1 - GENERAL				
01.01	Mobilization	L.S.	100%	L.S.	\$ _____
01.02	Traffic Management	L.S.	100%	L.S.	\$ _____
01.03	Quality Management	L.S.	100%	L.S.	\$ _____
01.04	Site Modifications (SP 1.34)	P.S.	\$250,000.00	P.S.	\$250,000.00
02	SECTION 2 - GRADING				
02.01	Clearing and Grubbing				
02.01.01	Clearing and Grubbing	Hectare	5	\$ _____	\$ _____
02.02	Removal of Existing Works				
02.02.01	Pavement Removal	Square Metre	5,150	\$ _____	\$ _____
02.02.02	Cold Milling	Square Metre	170	\$ _____	\$ _____
02.02.03	Pavement Cutting	Metre	80	\$ _____	\$ _____
02.03	Utility Conduit and Manhole Installation				
02.03.01	2-Conduit Installation in Type D	Metre	930	\$ _____	\$ _____
02.03.02	2-Conduit Installation in Type A (CONDITIONAL ITEM)	Metre	50	\$ _____	\$ _____
02.03.03	Concrete Encasement (CONDITIONAL ITEM)	Metre	30	\$ _____	\$ _____
02.03.04	TELUS Manhole Installation	Each	6	\$ _____	\$ _____
02.03.05	100 mm Steel Casing Pipe	Metre	16.50	\$ _____	\$ _____
02.03.06	150 mm Steel Casing Pipe	Metre	16.50	\$ _____	\$ _____

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
02.04	Roadway & Drainage Excavation				
02.04.01	Organic Stripping	Cubic Metre	7,000	\$ _____	\$ _____
02.04.02	Type D Excavation and Disposal	Cubic Metre	22,550	\$ _____	\$ _____
02.04.03	Type A Excavation to Embankment	Cubic Metre	12,970	\$ _____	\$ _____
02.04.04	Type A Excavation and Disposal	Cubic Metre	47,400	\$ _____	\$ _____
02.04.05	Steel Slope Mesh on Type A Excavation	Square Metre	5,500	\$ _____	\$ _____
02.04.06	Steel Slope Mesh on Type D Excavation	Square Metre	3,520	\$ _____	\$ _____
02.04.07	Rock Bolts (SP 2.09.03)	P.S.	\$50,000.00	P.S.	\$50,000.00
02.04.08	Trim Blasting (SP 2.10)	P.S.	\$50,000.00	P.S.	\$50,000.00
02.04.09	Designated Areas Scaling (CONDITIONAL ITEM)	Square Metre	500	\$ _____	\$ _____
02.05	Granular Materials: Production & Placement				
02.05.01	25 mm High Fines Surfacing Aggregate	Cubic Metre	125	\$ _____	\$ _____
02.05.02	25 mm Well Graded Base Course	Cubic Metre	3,190	\$ _____	\$ _____
02.05.03	Select Graded Granular Sub Base	Cubic Metre	3,260	\$ _____	\$ _____
02.06	Revegetation Seeding				
02.06.01	Revegetation Seeding	Hectare	2	\$ _____	\$ _____
03	SECTION 3 - DRAINAGE				

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
03.01	Supply and Install Culverts				
03.01.01	800mm CSP 2.0 WT	Metre	16.50	\$ _____	\$ _____
03.01.02	1000mm CSP 2.0 WT	Metre	21.50	\$ _____	\$ _____
03.02	Riprap				
03.02.01	Riprap - Class 10	Cubic Metre	460	\$ _____	\$ _____
03.02.02	Slope Erosion Protection (CONDITIONAL ITEM)	Cubic Metre	50	\$ _____	\$ _____
04	SECTION 4 - PAVING				
04.01	Emulsified Tack Coat and Primer				
04.01.01	Supply Emulsified Primer and Tack Coat	Litre	36,320	\$ _____	\$ _____
04.01.02	Apply Emulsified Primer and Tack Coat	Litre	36,320	\$ _____	\$ _____
04.02	Supply Asphalt Mix Aggregate in Stockpile				
04.02.01	Asphalt Medium Mix Aggregate in Stockpile	Tonne	2,060	\$ _____	\$ _____
04.03	Asphalt Pavement				
04.03.01	Class 1, Asphalt Medium Mix, Bottom Lift	Tonne	1,120	\$ _____	\$ _____
04.03.02	Class 1, Asphalt Medium Mix, Top Lift	Tonne	1,130	\$ _____	\$ _____
04.04	Shouldering				
04.04.01	Shouldering Aggregate (Supply, Haul, Place and Compact)	Cubic Metre	13	\$ _____	\$ _____

Replacement: A Replacement Date: 2014/08/14

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
04.05	Asphalt Spillways				
04.05.01	Asphalt Spillway	Each	14	\$ _____	\$ _____
04.06	Precast Concrete Barriers				
04.06.01	CBN-H (SP941-01.01.01)	Each	6	\$ _____	\$ _____
04.06.02	CTB-1E (SP941-03.01.01)	Each	6	\$ _____	\$ _____
04.06.03	CDB-E (SP941-01.02.05)	Each	26	\$ _____	\$ _____
04.06.04	CRB-H (SP941-01.02.01)	Each	287	\$ _____	\$ _____
04.06.05	CRB-E (SP941-01.02.02)	Each	258	\$ _____	\$ _____
05	SECTION 5 - SIGNING AND PAVEMENT MARKING				
05.01	Signing				
05.01.01	Install One Post Sign	Each	4	\$ _____	\$ _____
05.01.02	Install Barrier Mounted Sign	Each	3	\$ _____	\$ _____
05.02	Pavement Markings				
05.02.01	Pavement Marking Layout	L.S.	100%	L.S.	\$ _____
	TENDER PRICE				\$ _____

All dollar amounts are to be in Canadian Dollars. Do not include GST in any Unit Prices or Extended Amounts, or in the Tender Price. The Ministry will pay any applicable GST under the Contract. Invoices / progress estimates under the Contract must show the calculation of any applicable GST as a separate line item.

Contractor's Name: _____

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND
PAVING CONSTRUCTION

Address: _____

City: _____

Postal Code: _____

Phone: _____

Fax: _____

Date: _____

PROJECT NO. 23697-0001
WESTSIDE ROAD IMPROVEMENTS
WATERFRONT FARM TO BLUE GROUSE
GRADING AND PAVING CONSTRUCTION

ADDENDUM NO. 3

1. SCHEDULE 3 - SPECIAL PROVISIONS AND APPENDICES

SECTION 1 – GENERAL

1.18 Traffic Management

PART C – TRAFFIC MANAGEMENT OPERATIONAL DETAILS

3. Road Closures, Lane Closures and Delays

b) Single Lane Alternating Traffic

Delete in its entirety and replace with the following:

Single lane alternating traffic will only be permitted, Monday to Saturday, except for the days when no work is permitted, provided that:

- the distance between opposing stopped traffic does not exceed 500 m
- the queue lengths in any one direction do not exceed 200 m while stopping sight distance, based on posted speed, to the back of the queue is always available
- the accumulative delays for traffic through the project does not exceed permitted delays
- The Contractor must ensure that traffic delays do not exceed ten (10) minutes and that the total delay and travel time does not exceed fifteen (15) minutes throughout the Project operations. Should either of the above limits be exceeded the Contractor must immediately cease operations and restore the road conditions for safe passage of traffic.

5. Requirements for Westside Road:

Add the following sentence to the end of the 4th bullet:

The Contractor shall provide a paved travelled surface prior to seasonal shutdown.

1.22 Protection of the Environment

c) Designated Environmentally Sensitive Areas

Add the following before the 1st paragraph:

The following areas are classified as 'designated environmentally sensitive areas' in accordance with SS 165.01.04 and are subject to all restrictions set out in SS 165 except as modified herein:

- Wildlife Special Conditions Site +200m radius buffer: Station 114+60 to 118+40.

SECTION 2 - GRADING

2.06 Organic Stripping

Delete the 1st paragraph in its entirety and replace with the following:

All organic stripping material will become the property of the Contractor and will be removed from the site to a Contractor supplied disposal site.

In the second paragraph:

Replace: "Organic Stripping"

With: "Organic Stripping and Disposal"

2.07 Type D Excavation and Disposal

Delete the 1st paragraph in its entirety and replace with the following:

Type D Excavation and Disposal, inclusive of drainage ditching and subexcavation as approved by the Ministry Representative, shall be carried out in accordance with SS 201, SS 204 and SS 145.27.02, except as modified herein.

2.08 Type A Excavation

2.08.01 General

Add the following phrase to the beginning of the first sentence in the 5th paragraph:

Contrary to SS 201.14,

Add the following sentence to the end of the 5th paragraph:

Disposal shall be carried out in accordance with SS 145.27.02.

2.08.07 Payment

Delete in its entirety and replace with the following:

Payment for Type A Excavation to Embankment and Disposal will be made at the Unit Price bid in the Schedule 7, and shall accepted as full compensation for everything furnished and done in connection.

2.11 Type A Embankments

Replace: "Type A Excavation to Embankment"

With: "Type A Excavation to Embankment and Disposal"

Add the following before the last paragraph:

Contrary to SS 201.36, all of the material excavated to form the benched excavations shall be disposed of off-site, not spread and compacted into the adjoining embankment.

2. **SCHEDULE 7 – SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES**

The following items are amended:

Item No.	Revision
02.04.01	Revised Item description
02.04.03	Revised Item description and quantity
02.04.04	Item Deleted
04.02.01	Revised Quantity

A REVISED SCHEDULE 7, REPLACEMENT DATE AUGUST 21, 2014, AND MARKED 'REPLACEMENT B' IS ATTACHED AND MUST BE USED FOR TENDER PURPOSES.

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
01	SECTION 1 - GENERAL				
01.01	Mobilization	L.S.	100%	L.S.	\$ _____
01.02	Traffic Management	L.S.	100%	L.S.	\$ _____
01.03	Quality Management	L.S.	100%	L.S.	\$ _____
01.04	Site Modifications (SP 1.34)	P.S.	\$250,000.00	P.S.	\$250,000.00
02	SECTION 2 - GRADING				
02.01	Clearing and Grubbing				
02.01.01	Clearing and Grubbing	Hectare	5	\$ _____	\$ _____
02.02	Removal of Existing Works				
02.02.01	Pavement Removal	Square Metre	5,150	\$ _____	\$ _____
02.02.02	Cold Milling	Square Metre	170	\$ _____	\$ _____
02.02.03	Pavement Cutting	Metre	80	\$ _____	\$ _____
02.03	Utility Conduit and Manhole Installation				
02.03.01	2-Conduit Installation in Type D	Metre	930	\$ _____	\$ _____
02.03.02	2-Conduit Installation in Type A (CONDITIONAL ITEM)	Metre	50	\$ _____	\$ _____
02.03.03	Concrete Encasement (CONDITIONAL ITEM)	Metre	30	\$ _____	\$ _____
02.03.04	TELUS Manhole Installation	Each	6	\$ _____	\$ _____
02.03.05	100 mm Steel Casing Pipe	Metre	16.50	\$ _____	\$ _____
02.03.06	150 mm Steel Casing Pipe	Metre	16.50	\$ _____	\$ _____

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
02.04	Roadway & Drainage Excavation				
02.04.01	Organic Stripping and Disposal	Cubic Metre	7,000	\$ _____	\$ _____
02.04.02	Type D Excavation and Disposal	Cubic Metre	22,550	\$ _____	\$ _____
02.04.03	Type A Excavation to Embankment and Disposal	Cubic Metre	60,370	\$ _____	\$ _____
02.04.04	Item Deleted				
02.04.05	Steel Slope Mesh on Type A Excavation	Square Metre	5,500	\$ _____	\$ _____
02.04.06	Steel Slope Mesh on Type D Excavation	Square Metre	3,520	\$ _____	\$ _____
02.04.07	Rock Bolts (SP 2.09.03)	P.S.	\$50,000.00	P.S.	\$50,000.00
02.04.08	Trim Blasting (SP 2.10)	P.S.	\$50,000.00	P.S.	\$50,000.00
02.04.09	Designated Areas Scaling (CONDITIONAL ITEM)	Square Metre	500	\$ _____	\$ _____
02.05	Granular Materials: Production & Placement				
02.05.01	25 mm High Fines Surfacing Aggregate	Cubic Metre	125	\$ _____	\$ _____
02.05.02	25 mm Well Graded Base Course	Cubic Metre	3,190	\$ _____	\$ _____
02.05.03	Select Graded Granular Sub Base	Cubic Metre	3,260	\$ _____	\$ _____
02.06	Revegetation Seeding				
02.06.01	Revegetation Seeding	Hectare	2	\$ _____	\$ _____
03	SECTION 3 - DRAINAGE				

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
03.01	Supply and Install Culverts				
03.01.01	800mm CSP 2.0 WT	Metre	16.50	\$ _____	\$ _____
03.01.02	1000mm CSP 2.0 WT	Metre	21.50	\$ _____	\$ _____
03.02	Riprap				
03.02.01	Riprap - Class 10	Cubic Metre	460	\$ _____	\$ _____
03.02.02	Slope Erosion Protection (CONDITIONAL ITEM)	Cubic Metre	50	\$ _____	\$ _____
04	SECTION 4 - PAVING				
04.01	Emulsified Tack Coat and Primer				
04.01.01	Supply Emulsified Primer and Tack Coat	Litre	36,320	\$ _____	\$ _____
04.01.02	Apply Emulsified Primer and Tack Coat	Litre	36,320	\$ _____	\$ _____
04.02	Supply Asphalt Mix Aggregate in Stockpile				
04.02.01	Asphalt Medium Mix Aggregate in Stockpile	Tonne	2,250	\$ _____	\$ _____
04.03	Asphalt Pavement				
04.03.01	Class 1, Asphalt Medium Mix, Bottom Lift	Tonne	1,120	\$ _____	\$ _____
04.03.02	Class 1, Asphalt Medium Mix, Top Lift	Tonne	1,130	\$ _____	\$ _____
04.04	Shouldering				
04.04.01	Shouldering Aggregate (Supply, Haul, Place and Compact)	Cubic Metre	13	\$ _____	\$ _____

Replacement: B Replacement Date: 2014/08/21

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
04.05	Asphalt Spillways				
04.05.01	Asphalt Spillway	Each	14	\$ _____	\$ _____
04.06	Precast Concrete Barriers				
04.06.01	CBN-H (SP941-01.01.01)	Each	6	\$ _____	\$ _____
04.06.02	CTB-1E (SP941-03.01.01)	Each	6	\$ _____	\$ _____
04.06.03	CDB-E (SP941-01.02.05)	Each	26	\$ _____	\$ _____
04.06.04	CRB-H (SP941-01.02.01)	Each	287	\$ _____	\$ _____
04.06.05	CRB-E (SP941-01.02.02)	Each	258	\$ _____	\$ _____
05	SECTION 5 - SIGNING AND PAVEMENT MARKING				
05.01	Signing				
05.01.01	Install One Post Sign	Each	4	\$ _____	\$ _____
05.01.02	Install Barrier Mounted Sign	Each	3	\$ _____	\$ _____
05.02	Pavement Markings				
05.02.01	Pavement Marking Layout	L.S.	100%	L.S.	\$ _____
	TENDER PRICE				\$ _____

All dollar amounts are to be in Canadian Dollars. Do not include GST in any Unit Prices or Extended Amounts, or in the Tender Price. The Ministry will pay any applicable GST under the Contract. Invoices / progress estimates under the Contract must show the calculation of any applicable GST as a separate line item.

Contractor's Name: _____

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS - WATERFRONT FARM TO BLUE GROUSE GRADING AND
PAVING CONSTRUCTION

Address: _____

City: _____

Postal Code: _____

Phone: _____

Fax: _____

Date: _____



Ministry of Transportation and Infrastructure

Major Works TENDER DOCUMENT PACKAGE

PROJECT No. 23697-0001

**WESTSIDE ROAD IMPROVEMENTS
WATERFRONT FARM TO BLUE GROUSE
GRADING AND PAVING CONSTRUCTION**

This Tender Closes At:
Ministry of Transportation
and Infrastructure
South Coast Regional Office
Contract Administration – 3rd floor
Suite 310 – 1500 Woolridge Street
COQUITLAM, BC V3K 0B8

MAJOR WORKS
ORDER OF CONTENTS
TENDER DOCUMENT PACKAGE

PROJECT NO. 23697-0001
WESTSIDE ROAD IMPROVEMENTS
WATERFRONT FARM TO BLUE GROUSE
GRADING AND PAVING CONSTRUCTION

The Tender: Cover Page - Tender Document Package
Order of Contents – Tender Document Package
Notice to Bidders
Invitation to Tender – Supplemental Conditions of Tender
Tender Form
Specimen Joint Venture Confirmation Agreement
Schedule T1 – Conditions of Tender
Schedule T2 – Tender Securities
 INS-261 Tender Securities Requirements and Bond Specimen
 Specimen Bid Bond
Schedule T3 – Specific Reference Documents
Tender Envelope

Attachments, only to hard copies of the Tender Document Package purchased through the Queen's Printer, are:

Tender Envelope
Tender Form
Schedule 7 - Approximate Quantities and Unit Prices

The Contract: Cover Page - Contract Document Package
Order of Contents – Contract Document Package
Contract Cover Page
 Major Works General Conditions
Schedule 1 – Supplemental General Conditions/Glossary of Terms
 Supplemental General Conditions
 Glossary of Terms
Schedule 2 – Contract Securities
 INS-265 Contract Securities Requirements and Bond Specimens
 Specimen Performance Bond

Specimen Labour and Material Payment Bond
Schedule 3 – Special Provisions and Appendices
Schedule 4 – Drawings
Schedule 5 – Time Schedule
Schedule 6 – Insurance
 INS-NOTICE - Notice to Contractors
 INS-152 – Insurance Specifications Major Works
 H0111 - Certificate of Insurance
Schedule 7 – Approximate Quantities and Unit Prices
Schedule 8 – Contract Addenda

NOTE

It is the Planholder's responsibility to ensure that the Tender Document Package is complete in accordance with the above Order of Contents – Tender Document Package, including any and all Addenda issued prior to Closing Time.

NOTICE TO BIDDERS

Effective April 1, 2013, Provincial Sales Tax (PST) and the Goods and Services Tax (GST) have been reinstated in the Province of British Columbia.

As a result, revisions were made to a number of core documents in the Tender Document Package to reflect this change, including without limitation:

- Invitation to Tender – Supplemental Conditions of Tender;
- Tender Form;
- Conditions of Tender;
- Glossary of Terms;
- Major Works General Conditions;
- Minor Works General Conditions;
- Design Build Minor General Conditions;
- Operational Services Contract; and
- Schedule of Approximate Quantities and Unit Prices.

Bidders are advised to read the entire Tender Document Package and all associated documents carefully to ensure they have a full understanding of the current conditions.

TENDER ADVERTISING INSERTION ORDER

Project No.: 23697-0001

Do Not publish before: July 29, 2014

1. Internet site - <http://www.bcbid.ca>

Please invoice with the Tear Sheet to:

Ministry of Transportation and Infrastructure - Construction
310 – 1500 Woolridge St
Coquitlam, British Columbia
V3K 0B8
Canada

Invitation to Tender - Supplemental Conditions of Tender
Ministry of Transportation and Infrastructure - Construction
Roads and Bridges
Construction

SCT1. ELIGIBILITY TO SUBMIT TENDER

2.2

- 1.1 This Tender Call is open to all Bidders capable of performing the Work and the Contract, and if a mandatory pre-Tender meeting is specified in these Invitation to Tender - Supplemental Conditions of Tender then this Tender Call is open to all Bidders capable of performing the Work and the Contract who have attended the mandatory pre-Tender meeting as indicated in the Ministry pre-Tender meeting attendance record.

SCT2. KEY TENDER INFORMATION

- 2.1 Project No: 23697-0001

Project Name: WESTSIDE ROAD IMPROVEMENTS
- WATERFRONT FARM TO BLUE GROUSE GRADING
AND PAVING CONSTRUCTION

Solicitation Number
23697MJ0001

Close Date & Time
2014/08/20 14:00

Time Zone
Pacific Time

Open Date & Time
2014/08/20 14:30

Time Zone
Pacific Time

SCT3. GENERAL

- 3.1 The following summary information designated "Location" and "Description" are provided for convenience only and do not form a part of these Invitation to Tender - Supplemental Conditions of Tender or the Contract, and in no way define limit, alter or enlarge the scope or meaning of any provision of these Invitation to Tender - Supplemental Conditions of Tender or the Contract.

Location: Westside Road, between Kelowna and Vernon. Approximately 13km north of the H97 Intersection near Kelowna.

Description: Waterfront Farm to Blue Grouse, an 800 metre section of Westside Road, will be widened to provide a standard two lane highway with paved shoulders and rock catchment ditches in rock areas. The project scope also includes the construction of a private driveway, rock fall protection, concrete roadside barrier, drainage improvements and underground utility conduit.

SCT4. INVITATION TO TENDER - SUPPLEMENTAL CONDITIONS OF TENDER

4.1 These Invitation to Tender - Supplemental Conditions of Tender are incorporated into and form a part of the Conditions of Tender contained in the Tender Document Package, which package may be obtained by:

- (a) click on the Attachments link below for a no charge download of the Tender Document Package:**
- (b) For Hardcopy Tender Document Packages:**
 - (i) click here to order online** <http://www.crownpub.bc.ca>
 - (ii) click here for a Tender Document Package requisition form to order the Tender Document Package** <http://www.crownpub.bc.ca/content/documents/bcbid/mot.pdf>
 - (iii) Tender Document Packages are priced as follows:**

- 1) Book \$55.00
- 2) Full Size Drawings \$26.00
plus applicable taxes and shipping costs.

4.2 In these Invitation to Tender - Supplemental Conditions of Tender, unless otherwise expressly set out, a capitalized word shall have the meaning given to it in the Glossary of Terms in this Tender Document Package which is incorporated by reference into and forms a part of these Supplemental Conditions of Tender.

4.3 Additional Terms
Not Applicable

SCT5. HARD COPY DELIVERY METHOD

5.1 Closing Location MUST be addressed to:
ATTN: RECEPTION DESK
TENDER DOCUMENTS
MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE - CONSTRUCTION
310 – 1500 Woolridge St
Coquitlam, British Columbia
V3K 0B8
Canada

REVISIONS AND WITHDRAWALS FAX NUMBER: (604) 527-2151

SCT6. CONTACT PERSON AND ADMINISTRATIVE CONTACT OFFICE

6.1 Contact Person: Spencer King

Email: Spencer.King@gov.bc.ca
Fax: (250) 828-4229

6.2 Admin Contact Address: Ministry of Transportation and Infrastructure - Construction
310 – 1500 Woolridge St
Coquitlam, British Columbia
V3K 0B8
Canada

Admin Contact Phone: (604) 527-2153

Admin Contact Fax: (604) 527-2151

SCT7. SPECIFIC REFERENCE DOCUMENTS

7.1 Specific Reference Documents are:
Available electronically at:
www.th.gov.bc.ca/bchighways/contracts/suppdoc.htm

SCT8. PRE-TENDER MEETING AND SITE INVESTIGATIONS

8.1 A Pre-Tender Meeting: Will not be held.

8.2 Where a Pre-Tender meeting is scheduled, each Bidder should confirm its intention to attend the Pre-Tender meeting in writing to the Contact Person not less than 48 hours in advance of the scheduled Pre-Tender meeting time.

8.3 Subject to the express terms of the Special Provisions, all persons, including prospective Bidders, must obtain the consent of the Contact Person specified in SCT6.1 before carrying out any investigations on the Site.



TENDER FORM

PROJECT NUMBER: 23697- 0001

TENDER FOR PROJECT: WESTSIDE ROAD IMPROVEMENTS WATERFRONT FARM TO
TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

The Bidder hereby represents and warrants to the Ministry, with the knowledge that the Ministry will rely upon these representations and warranties in regard to the Bidder's Tender, that the Bidder has received, ensured the completeness of, read, understood and accepted the Tender Document Package, including for greater clarity, the Conditions of Tender, the Invitation to Tender - Supplemental Conditions of Tender, any and all Addenda, and any documents incorporated by reference into the Tender Document Package; and

The Bidder hereby agrees that:

- (a) if the Bidder uses the BC Bid eService Delivery Method to deliver its Tender to the Ministry rather than delivering it by hand or by courier, then the e-Bidding Key used by the Bidder for the submission of this Tender to the Ministry, is the electronic equivalent of the Bidder's authorized signature;
- (b) the Bidder is bound by all statements and representations in its Tender, including, without limitation, this Tender Form, the Unit Prices, Lump Sum Prices and Extended Amounts for each Tender Item stated on the Bidder's Schedule of Approximate Quantities and Unit Prices, as may be adjusted by any revision(s) to same, and as calculated by the Ministry, in accordance with the Conditions of Tender;
- (c) the Bidder is bound by the terms of the Conditions of Tender, including for greater clarity, the Invitation to Tender - Supplemental Conditions of Tender and any and all Addenda, and the terms set out in the Tender Document Package;
- (d) the Bid Security shall be forfeited in whole or in part to the Ministry, in the sole discretion of the Ministry, if the Bidder fails to comply with the Conditions of Tender or with the terms set out in this Tender Form; and
- (e) the Bidder's Tender is irrevocable for sixty (60) days from the Closing Time.

The Bidder hereby offers to the Ministry that if the Ministry Awards the Contract to the Bidder, the Bidder shall:

- (a) execute the Contract in the form specified in the Tender Document Package, as any one or more of the terms and documentation of that specimen form of contract may be amended, deleted, changed or supplemented in accordance with the Conditions of Tender and deliver the executed Contract to the Ministry on the earlier of, 14 days from the date shown on the Ministry cover letter delivering the Contract to the Bidder, and 3 days before commencement of Work on the Site;
- (b) supply all labour, tools, equipment, materials, and other resources necessary to complete and perform the Work and the Contract;
- (c) complete all Work in strict accordance with the Drawings, specifications, standards, terms and conditions contained in the Contract to the satisfaction of the Ministry;
- (d) if the Bidder is not registered and in good standing with the Workers' Compensation Board ("WCB"), register with the WCB in regard to the Contract, and advise the Ministry Representative of the WCB registration number allotted to the Bidder in regard to the Contract on the earlier of, 14 days from the date shown on the Ministry Award letter to the Bidder, and 3 days before commencement of Work on the Site; and
- (e) obtain, and deliver to the Ministry the Contract Security, and evidence of compliance with the insurance coverage required by the Contract, on the earlier of, 14 days from the date shown on the Ministry Award letter to the Bidder, and 3 days before commencement of Work on the Site,

for the Tender Price (as defined below), as calculated by the Ministry in accordance with the Conditions of Tender on the basis of the Bidder's Schedule of Approximate Quantities and Unit Prices, after making adjustments for any revision(s) to same not disqualified by the Ministry pursuant to the terms of the Conditions of Tender.

TENDER PRICE \$ _____ **(CDN)**, as this amount may be adjusted by the Ministry pursuant to the Conditions of Tender and for greater clarity the Tender Price is exclusive of GST.

If the Bidder is a joint venture, then each of the Bidder's venturers agrees by the submission of this Tender Form that it shall be jointly and severally responsible for the obligations of the Bidder and the covenants, representations, warranties, debts and liabilities of the Bidder made, given or incurred under, in connection with or pursuant to the Bidder's Tender, the Conditions of Tender, the Tender Document Package, or any of them.

Unless otherwise expressly set out, the capitalized terms in this Tender Form have the meanings given to them in the Glossary of Terms that form part of the Conditions of Tender.

DATE: _____

This Tender Form is hereby executed by or on behalf of the Bidder as follows:

This Tender Form was signed in the presence of: _____

)

Name of Bidder (print name of entity in full)

)

)

Witness Signature

)

Name of Bidder (cont'd if necessary) (print name of entity in full)

)

Name of Bidder (cont'd if necessary) (print name of entity in full)

Witness Name (please print)

Name of Bidder (cont'd if necessary) (print name of entity in full)

Bidder Business Address:

Name of Bidder (cont'd if necessary) (print name of entity in full)

Doing Business As Name (if applicable) (please print)

Bidder Phone Number: _____

Bidder Facsimile Number: _____

Bidder email address: _____

Signature of Authorized Representative of the Bidder

Name and Title of Authorized Representative of the Bidder (please print)

IF THE BIDDER IS A JOINT VENTURE THEN:

- A. THE NAME OF THE JOINT VENTURE MUST BE INSERTED ON THE "NAME OF BIDDER" LINE, AND THE NAMES OF EACH OF THE VENTURERS IN THE JOINT VENTURE MUST ALSO BE INSERTED IF NOT ALREADY INCLUDED IN THE JOINT VENTURE'S NAME;
- B. THE "DOING BUSINESS AS NAME" LINE SHOULD BE LEFT BLANK; AND
- C. AN AUTHORIZED REPRESENTATIVE OF THE JOINT VENTURE'S "AUTHORIZED VENTURER" MUST SIGN ON THE LINE FOR THE "SIGNATURE OF AUTHORIZED REPRESENTATIVE OF THE BIDDER", WITH THE NAME AND TITLE OF THE AUTHORIZED REPRESENTATIVE OF THE AUTHORIZED VENTURER INSERTED ON THE LINE FOR THE "NAME AND TITLE OF AUTHORIZED REPRESENTATIVE OF THE BIDDER".

SPECIMEN

JOINT VENTURE CONFIRMATION AGREEMENT

Whereas:

A.

(Insert name of joint venture, which must match the name of the Bidder as set out on the "Name of Bidder" line on the Tender Form, and which may or may not include the name of each of the venturers in the joint venture)

(the "**Joint Venture**") is a joint venture consisting of:

1. _____, and
(Full name of venturer in the Joint Venture – must match the name of each venturer as set out in the Tender Form)

2. _____, and
(Full name of venturer in the Joint Venture – must match the name of each venturer as set out in the Tender Form)

3. _____, and
(Full name of each venturer in the Joint Venture – must match the name of each venturer as set out in the Tender Form)

4. _____; and
(Full name of each venturer in the Joint Venture – must match the name of each venturer as set out in the Tender Form)

[additional lines may be added as required to match the number of venturers in the Joint Venture]

B.

(insert name of Authorized Venturer)

(the "**Authorized Venturer**"), has or will be executing the Tender Form with respect to the Tender Call by the Ministry of Transportation and Infrastructure (the "**Ministry**") for Project Number _____

(Enter Project Number and Name from the Invitation to Tender – Supplemental Conditions of Tender)

with respect to the project, as the "Bidder" on behalf of the Joint Venture and each of the venturers.

Now therefore each of the foregoing venturers hereby represents, warrants and covenants, with the knowledge and intent that each of the said representations, warranties and covenants will be relied upon by the Ministry in its evaluation of the Tender delivered by the Joint Venture to the Ministry in response to the Tender Call and in the possible Award of a Contract to the Joint Venture as a result thereof, that:

1. It is a member of the Joint Venture.
2. The Authorized Venturer is or has been authorized on behalf of itself, each of the other venturers and the Joint Venture, to:
 - (a) execute the said Tender Form and deliver same to the Ministry;

- (b) complete all other documents forming part of the Joint Venture's Tender, including a Schedule of Approximate Quantities and Unit Prices, execute them if required under the Conditions of Tender pertaining to the Tender Call, and deliver them to the Ministry;
- (c) execute and deliver any and all revisions, including a notice of withdrawal, to the Joint Venturer's Tender that the Joint Venture may subsequently deliver to the Ministry; and,
- (d) if the Bid Security delivered by the Bidder is a Bid Bond, then execute the Bid Bond and deliver same to the Ministry once signed and sealed by the Surety; and,
- (e) deliver to the Ministry any documentation that may be required under the Conditions of Tender, including, in the event of an Award of a Contract to the Joint Venture, acting as the agent and representative of the Joint Venture with respect to any and all dealings between the Joint Venture and the Ministry between an Award of a Contract to the Joint Venture and the execution of a Contract including under CT 17 and CT 20.

3. Notwithstanding the nature of the legal relationship between the venturers, it shall be jointly and severally liable with the other venturers for the covenants made, given or incurred under, pursuant to, or as a result of or arising from: the Joint Venture's submission of the Tender Form and its Tender to the Ministry, and any and all revisions to same subsequently delivered to the Ministry; the Conditions of Tender pertaining to the Tender Call; the Bid Security; the Tender Document Package; and, any Contract that may be awarded to the Joint Venture as a result of its Tender.

4. It and each of the other venturers shall be signatories to any Contract awarded to the Joint Venture as a result of the submission of the Tender Form and pursuant to the Conditions of Tender, and shall execute same in their joint and several capacities.

5. It acknowledges the authority of an Authorized Representative of the Authorized Venturer to sign the documents referred to in Section 2 (a) to (d) inclusive above on behalf of itself, the Authorized Venturer, each of the venturers, and the Joint Venture.

6. This Joint Venture Confirmation Agreement may be executed in several counterparts. The executed counterparts shall together constitute one Joint Venture Confirmation Agreement, with the terms thereof jointly and severally binding upon each of the venturers within the Joint Venture, and facsimile copies or pdf copies of signed counterparts shall be deemed to be originals of the signed counterparts.

DATE: _____ (month), _____ (day), 20__ (year)

Signed in the presence of:

_____)	_____
Witness Signature)	Full Name of venturer #1. <i>(please print)</i>
_____)	_____
Witness Name <i>(please print)</i>)	Doing Business As Name (if applicable) <i>(please print)</i>
_____)	_____
venturer #1. Business Address:)	Authorized Signature of venturer #1.
_____)	_____
_____)	_____
_____)	Name and Title of Authorized Signature of venture #1.
_____)	<i>(please print)</i>

Signed in the presence of:

_____)	_____
Witness Signature)	Full Name of venturer #2. <i>(please print)</i>
_____)	_____
Witness Name <i>(please print)</i>)	Doing Business As Name (if applicable) <i>(please print)</i>
_____)	_____
venturer #2. Business Address:)	Authorized Signature of venturer #2.
_____)	_____
_____)	_____
_____)	Name and Title of Authorized Signature of venturer #2.
_____)	<i>(please print)</i>

Signed in the presence of:

_____)	_____
Witness Signature)	Full Name of venturer #3. <i>(please print)</i>
_____)	_____
Witness Name <i>(please print)</i>)	Doing Business As Name (if applicable) <i>(please print)</i>
_____)	_____
venturer #3. Business Address:)	Authorized Signature of venturer #3.
_____)	_____
_____)	_____
_____)	Name and Title of Authorized Signature of venturer #3.
_____)	<i>(please print)</i>

)

Signed in the presence of:

_____)	_____
Witness Signature)	Full Name of venturer #4. <i>(please print)</i>
_____)	_____
Witness Name <i>(please print)</i>)	Doing Business As Name (if applicable) <i>(please print)</i>
_____)	_____
venturer #4. Business Address:)	Authorized Signature of venture #4.
_____)	_____
_____)	_____
)	Name and Title of Authorized Signature of venturer #4.
)	<i>(please print)</i>

[COMPLETE AND SIGN ADDITIONAL SIGNING LINES AS MAY BE REQUIRED TO MATCH
THE NUMBER OF VENTURERS IN THE JOINT VENTURE]

SCHEDULE T1

CONDITIONS OF TENDER

Conditions of Tender

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CT1. APPLICATION AND INCORPORATION

- 1.1** All of the terms in these Conditions of Tender apply to all Bidders.
- 1.2** In these Conditions of Tender, unless otherwise expressly set out, a capitalized word shall have the meaning given to it in the Glossary of Terms set out in the Tender Document Package.
- 1.3** The Glossary of Terms is incorporated by reference into and forms a part of these Conditions of Tender.
- 1.4** The terms of the Invitation to Tender – Supplemental Conditions of Tender contained in the Tender Document Package are incorporated by reference into and form part of these Conditions of Tender. The terms of the Invitation to Tender – Supplemental Conditions of Tender supplement rather than replace the terms in the Conditions of Tender, and in the event of any conflict between a term in the Invitation to Tender – Supplemental Conditions of Tender and a term in the Conditions of Tender then the term set out in the Conditions of Tender shall prevail.
- 1.5** The BC Bid Terms and Conditions are incorporated by reference into and form part of these Conditions of Tender, and:
- (a)** these Conditions of Tender are not in any way intended to, and do not in any way, limit or narrow the application, interpretation or operation of the BC Bid Terms and Conditions; and
 - (b)** the BC Bid Terms and Conditions are not in any way intended to, and do not in any way, limit or narrow the application, interpretation or operation of these Conditions of Tender.

Notwithstanding CT1.5(a) and (b), in the event of a conflict between any term in these Conditions of Tender and a term in the BC Bid Terms and Conditions, the term in these Conditions of Tender shall prevail.

- 1.6** The terms in these Conditions of Tender are to be read in harmony and as supplementing rather than replacing one another, including the terms of CT14 which supplement rather than replace the application of the other terms in these Conditions of Tender to a Joint Venture Bidder.

CT2. BASIS OF TENDERS

- 2.1** The Bidder, by delivering a Tender, agrees that:
- (a)** the Bidder has received, read, examined and understood the entire Tender Document Package, including all the terms of these Conditions of Tender and any and all Addenda;
 - (b)** the Bidder is irrevocably bound by the terms set out in the Tender Document Package, including these Conditions of Tender and any and all Addenda, and in the documents comprising its Tender;
 - (c)** the Bidder waives any right to clarification of any aspect of any information in the Tender Document Package, including these Conditions of Tender and any and all Addenda;
 - (d)** its Tender may only be withdrawn, by delivering a Notice of Withdrawal in accordance with these Conditions of Tender before the Closing Time; and

CONDITIONS OF TENDER

- (e) unless withdrawn by the delivery of a Notice of Withdrawal in accordance with these Conditions of Tender before the Closing Time, the Bidder's Tender is irrevocable and shall remain irrevocable as at the Closing Time for sixty (60) days from the Closing Date.

2.2 The Bidder, by delivering a Tender, represents and warrants that:

- (a) the Bidder has received, ensured the completeness of, read, understood and accepted the Tender Document Package, including for greater certainty, any documents incorporated by reference into the Tender Document Package, and any and all Addenda;
- (b) except as set out in CT2.5 and CT2.6 and only to the extent expressly set out therein, the Bidder has not relied upon any representation or warranty by the Ministry including its officers, employees, servants, agents, representatives and consultants, including any person retained by or on behalf of the Ministry to advise or assist the Ministry with respect to any matter in connection with or in any way related to the Tender Call, with respect to the completeness, reliability, sufficiency, accuracy or relevance of any information, or any interpretation derived from any such information, set out in or otherwise provided in the Tender Document Package, the General Reference Documents, the Specific Reference Documents, or any analysis or interpretation thereof, and any reliance thereon or use made thereof by the Bidder shall be at the sole risk of the Bidder;
- (c) the Bidder has had sufficient opportunity to investigate, has made all such investigations as the Bidder, in its sole discretion, has determined are necessary, and has fully investigated and satisfied itself of every condition relating to or affecting the Work, including but not limited to any design requirements, the Site conditions, or the labour, equipment, material and any other resources to be provided to perform the Work and the Contract, and the Bidder assumes any and all risks relating to or regarding all such conditions, whether or not any such conditions are revealed by any information available to, or investigations undertaken by, the Bidder;
- (d) the Bidder's investigations have been based on its independent examination, experience, knowledge, information, and judgment, and not upon any statement, representation or, save and except for the specific information provided by the Ministry referred to in CT2.5 and CT2.6, information made or given by or on behalf of the Ministry;
- (e) the Tender, including for greater certainty any part of the Tender Price, is not based upon the anticipated approval of any Value Engineering Proposal;
- (f) the Bidder has the experience, knowledge, equipment, skills and resources necessary to perform and complete the Work and the Contract; and
- (g) the Bidder meets the definition of a Bidder in the Glossary of Terms and has the requisite power, authority and capacity to execute and deliver the Tender.

2.3 Any and all investigations made by or on behalf of the Bidder in connection with its Tender, the Contract, the Work or any of them, shall be made at the Bidder's own risk and the Bidder shall indemnify and save harmless the Ministry and its officers, employees, servants, agents, representatives and consultants, including any person retained by or on behalf of the Ministry to advise or assist the Ministry with respect to any matter in connection with or in any way related to this Tender Call, and each of them, even where the Ministry and/or its officers, employees, servants, agents, representatives and consultants have been negligent, for any loss, damage, cost, expense (including without limitation, legal defence costs and expenses), claim, liability, demand, fine, penalty, assessment, or levy suffered or incurred by the Bidder, the Ministry, or any third party arising, either directly or indirectly, from such investigation, including from any acts or omissions, negligent or otherwise, of the Ministry and/or its officers, employees, servants, agents,

CONDITIONS OF TENDER

representatives and consultants, which indemnity shall survive the Award of the Contract, or any cancellation or termination of this Tender Call.

- 2.4** The Bidder shall be responsible for examining and inspecting the General Reference Documents and the Specific Reference Documents, and for ensuring that all documents and materials listed are complete, available and present at the location or locations specified in the Invitation to Tender – Supplemental Conditions of Tender.
- 2.5** Any geotechnical investigation datum and test results, but not any interpretations and analyses thereof, provided in the borehole and test pit logs contained within the Tender Document Package and the Specific Reference Documents are a reasonable representation of the conditions encountered at the specific locations investigated on the dates of the investigations, and may be relied upon by the Bidder solely to that extent and solely in that manner.
- 2.6** Any survey point datum, but not information derived or interpolated therefrom such as digital terrain models, contours and cross-sections, contained within the Tender Document Package and the Specific Reference Documents are a reasonable representation of the individual points surveyed at the time of such survey, and may be relied upon by the Bidder solely to that extent and solely in that manner.
- 2.7** Except as set out in CT2.5 and CT2.6 and only to the extent expressly set out therein, the Ministry including its officers, employees, servants, agents, representatives and consultants, including any person retained by or on behalf of the Ministry to advise or assist the Ministry with respect to any matter in connection with or in any way related to this Tender Call, makes no representation or warranty with respect to the completeness, reliability, sufficiency, accuracy or relevance of any information, or any interpretation derived from any such information, set out or otherwise provided in the Tender Document Package, the Specific Reference Documents or the General Reference Documents, including any information accessed via the URL's or web sites set out in any of those documents, or any analysis or interpretation derived from such information. Any reliance by the Bidder on such information or use made of such information by the Bidder shall be at the Bidder's own risk.
- 2.8** Unless otherwise specified in the Tender Document Package, the General Reference Documents and the Specific Reference Documents are available in the manner and at the locations described in the definitions of General Reference Documents and the Specific Reference Documents set out in the Glossary of Terms. The Ministry will not provide copies of any General Reference Documents to any Bidders. The Ministry will provide copies for viewing by Bidders, of only those Specific Reference Documents that the Tender Document Package expressly states will be provided by the Ministry.
- 2.9** Subject to the express terms of the Special Provisions, the Standard Specifications shall apply to the Contract, including to the performance of the Contract and to the performance of and the measurement of the Work.
- 2.10** The Approximate Quantities stated in the Schedule of Approximate Quantities and Unit Prices for Tender Items are estimates only and are prepared for use by the Ministry to calculate and adjust, as the case may be, the Tender Price of each Tender and for the purpose of comparing Tenders. The actual quantities and values of Tender Items may increase or decrease. The elimination of Tender Items, or an increase or decrease in quantities or values for any Tender Item, shall not invalidate the Tender, the Tender Price, any Unit Price, Lump Sum Price or Provisional Sum Item, or the Contract.

CONDITIONS OF TENDER

CT3. CLARIFICATION

- 3.1 Any requests by the Bidder for clarification of any part of the Tender Document Package shall be delivered in writing by courier, fax, or electronic mail, not less than seven (7) days before the Closing Date, in accordance with the following:
- (a) with respect to the Work, to the Contact Person identified in the Invitation to Tender – Supplemental Conditions of Tender; and
 - (b) with respect to the Tender Call, to the Administrative Contact Office identified in the Invitation to Tender – Supplemental Conditions of Tender.
- 3.2 The Ministry may in its sole discretion respond to any such requests for clarification. If the Ministry elects to respond to any such requests for clarification, it will do so by Addenda. Any such Addenda may, at the Ministry's sole discretion, set out the request for clarification to which the Ministry is responding and the response to such request in a "Question and Answer" format without setting out the name of the person who delivered the request.
- 3.3 Responses to requests for clarification made in any manner other than as described in CT3.2, including without limitation, verbally, in person, via mail, via fax, or electronic mail, by any person including officers, employees, servants, agents, representatives or consultants of the Ministry or from any source including the Contact Person or the Administrative Contact Office, shall not constitute an official response by the Ministry and shall not be relied on in any way by any person for any purpose whatsoever and shall not be binding upon the Ministry in any way whatsoever.

CT4. ADDENDA

- 4.1 The Ministry may, in its sole discretion, at any time and from time to time, amend any part or parts of the Tender Document Package by means of Addenda. Other than by Addenda, no part of the Tender Document Package may be amended in any other way by any other person including any officer, employee, servant, agent, representative or consultant of the Ministry.
- 4.2 Other than as set out in an Addendum, any information pertaining to the Tender Document Package or this Tender Call, including to the Work or to the Contract, that is offered or obtained from any source, including from the Contact Person or from the Administrative Contact Office, is not official and shall not be relied on or otherwise used in any way by any person including by or on behalf of the Bidder for any purpose whatsoever and shall not be binding upon the Ministry in any way whatsoever.
- 4.3 Addenda will be directed to Planholders by email, including via email notification through the BC Bid eService, fax or courier.
- 4.4 Notwithstanding any other term of these Conditions of Tender, the Bidder shall be solely responsible to monitor the BC Bid Website, the BC Bid eService email notifications, and the BC Bid eService on an ongoing basis to keep itself informed of any and all Addenda.

CT5. DELIVERY AND RECEIPT OF ADDENDA, DOCUMENTS/FUNCTIONING OF FAX AND ELECTRONIC SYSTEMS

- 5.1 Any and all Addenda, and any other notices including BC Bid eService email notifications, information or documentation to be delivered by or on behalf of the Ministry in connection with this Tender Call shall be conclusively deemed to have been validly delivered to and received by the intended recipient including any Bidder or Planholder at the time that such Addenda, notices, information or documentation as the case may be are issued to the facsimile number or email

CONDITIONS OF TENDER

address designated by the Bidder or Planholder as the facsimile number or email address for the receipt of such Addenda, notices, information or documentation.

CT6. USE OF BC BID ESERVICE DELIVERY METHOD AND HARD COPY DELIVERY METHOD

- 6.1** The Bidder must deliver its Tender, including for greater certainty any and all Revisions, any and Notice of Withdrawal by using one of the following two delivery methods which the Bidder may, subject to CT6.2 – CT6.5, choose at its option:
- (a) the BC Bid eService Delivery Method; or
 - (b) the Hard Copy Delivery Method.
- 6.2** If a delivery method is expressly specified in the Invitation to Tender – Supplemental Conditions of Tender as being the sole designated delivery method for the applicable Tender Call, then the Bidder must use such designated delivery method for the delivery of its Tender.
- 6.3** If the Bidder chooses to deliver its Tender using the BC Bid eService Delivery Method, the Bidder may subsequently elect to use the Hard Copy Delivery Method for the delivery of any Revisions or a Notice of Withdrawal, provided that the Bidder must not revert back to the use of the BC Bid eService Delivery Method once it has used the Hard Copy Delivery Method for the delivery of any such documents.
- 6.4** Regardless of whether the Bidder uses the BC Bid eService Delivery Method for the delivery of its Tender, the Bidder's Bid Security, including any Revision(s) to its Bid Security, must be delivered using the Hard Copy Delivery Method in accordance with these Conditions of Tender, including CT13.
- 6.5** Despite any other term of these Conditions of Tender, a Joint Venture Bidder must deliver its Tender, including any and all Revisions, and any Notice of Withdrawal by the Hard Copy Delivery Method.

CT7. DELIVERY OF TENDERS, CLOSING DATE AND CLOSING TIME

- 7.1** The Bidder must deliver its Tender, including its Bid Security and any Revision(s), and any Notice of Withdrawal on or before the Closing Date and before the Closing Time. Subject to these Conditions of Tender, Tenders and Revisions delivered on or after the Closing Time shall not be evaluated or considered.
- 7.2** If the transmission of the Bidder's Tender, any Revision or a Notice of Withdrawal using the BC Bid eService Delivery Method, or the transmission of any Revision or a Notice of Withdrawal by facsimile using the Hard Copy Delivery Method, begins before the Closing Time but is completed on or after the Closing Time then the Tender, Revision or Notice of Withdrawal, as the case may be, shall be considered to have been delivered on or after the Closing Time.
- 7.3** If the Bidder delivers more than one Tender, each Tender delivered in accordance with these Conditions of Tender and received by the BC Bid eService or at the Closing Location, as the case may be, before the Closing Time shall be deemed to have been delivered in the chronological order in which each such Tender was received and each such Tender delivered by the same Bidder shall be considered to supersede and replace in its entirety any and all prior Tenders delivered by the same Bidder.

CONDITIONS OF TENDER

- 7.4** The Ministry may in its sole discretion, from time to time and at any time on or before the Closing Date and before the Closing Time, change, including by extending, either by both of the Closing Date and Closing Time.
- 7.5** The clock showing on the BC Bid Website whether accurate or not governs whether a Tender, Revision, Notice of Withdrawal, or any of them, delivered using the BC Bid eService Delivery Method has been delivered before the Closing Time, subject to CT7.6 with respect to the delivery of Bid Security or a Revision to Bid Security by a Bidder that has used the BC Bid eService Delivery Method for the delivery of its Tender or any other Revision to its Tender.
- 7.6** The clock at the Closing Location whether accurate or not governs whether a Tender, Bid Security, Revision, Notice of Withdrawal, or any of them, delivered to the Closing Location has been delivered before the Closing Time.
- 7.7** The Ministry's record of the time of the delivery under CT7.6 of any documents at the Closing Location, whether accurate or not, shall be deemed to be the delivery time of such documents.

CT8. CONTENT OF TENDERS AND USE OF FORMS PROVIDED BY THE MINISTRY

- 8.1** The Bidder's Tender must include a Tender Envelope, a Tender Form, a Schedule of Approximate Quantities and Unit Prices, Bid Security and all other documentation that may be required by these Conditions of Tender including in respect of a Joint Venture Bidder, the Joint Venture Confirmation Agreement.
- 8.2** The Bidder must deliver its Tender on original or unaltered copies of the forms specified by the Ministry in the Tender Document Package, including the forms used in the BC Bid eService if the Bidder uses the BC Bid eService Delivery Method. The Bidder must complete all such forms in full, and enter on such forms all the information required to complete them. The forms must not be altered in any other respect, including by adding any additional information to them, by the Bidder or any other person during the completion of the forms.
- 8.3** If the Bidder delivers its Tender using the Hard Copy Delivery Method, then the Bidder should complete all forms comprising its Tender in type or in legible ink print, and any adjustments, changes or corrections to the information provided by the Bidder on any such forms must be initialed by the Bidder or by an Authorized Representative of the Bidder on behalf of the Bidder.
- 8.4** If the Ministry amends the Tender Document Package by replacing any form or forms including the Schedule of Approximate Quantities and Unit Prices, the Bidder must deliver the replacement form or forms, as the case may be:
- (a) as part of its Tender if the Ministry replaces the form(s) before the delivery of its Tender; or
 - (b) as a Revision if the Ministry replaces the form(s) after the delivery of the Bidder's Tender.

CT9. BC BID ESERVICE DELIVERY METHOD

- 9.1** If the Bidder chooses to deliver its Tender using the BC Bid eService Delivery Method, then the Bidder:
- (a) must deliver its Tender, and may deliver any and all Revisions to its Tender, and any Notice of Withdrawal using the BC Bid eService Delivery Method; and
 - (b) must deliver the original of its Bid Security and any and all Revision(s) to its Bid Security using the Hard Copy Delivery Method in accordance with CT13.

CONDITIONS OF TENDER

For greater certainty, a Joint Venture Bidder must not deliver its Tender, any Revisions, or any Notice of Withdrawal using the BC Bid eService Delivery Method.

- 9.2 The Bidder is solely responsible for reviewing the BC Bid Terms and Conditions and any guidelines issued by the BC Bid eService applying to and governing the use of the BC Bid eService.
- 9.3 Without in any way whatsoever limiting the application of the BC Bid Terms and Conditions, if the Bidder chooses to deliver its Tender using the BC Bid eService Delivery Method, then the Bidder must have an "e-Bidding Key" as defined in the BC Bid Terms and Conditions. The use of the e-Bidding Key is the legal equivalent of its authorized signature and constitutes the Bidder's authorized signature confirming the Bidder's agreement to be bound by the terms and conditions of this Tender Call, including for greater certainty, these Conditions of Tender, and by the statements and representations to which the e-Bidding Key is affixed, including for greater certainty, the Bidder's Tender.

BC Bid eService Delivery Method – Tender Envelope, Tender Form, Schedule of Approximate Quantities and Unit Prices

- 9.4 If the Bidder delivers its Tender using the BC Bid eService Delivery Method, then the Bidder must fully complete a Tender Envelope, Tender Form and Schedule of Approximate Quantities and Unit Prices as required by the forms for such documents on the BC Bid eService, including inserting all the necessary information required to complete the forms for such documents, and complete all other steps required by the BC Bid eService for the submission of a Tender using that system.

BC Bid eService Delivery Method – Revisions

- 9.5 For the Bidder to deliver a Revision using the BC Bid eService Delivery Method, the Bidder must complete all the steps required by the BC Bid eService for the submission of a Revision under that system.

BC Bid eService Delivery Method – Notice of Withdrawal

- 9.6 For the Bidder to deliver a Notice of Withdrawal using the BC Bid eService Delivery Method, the Bidder must complete all the steps required by the BC Bid eService for the withdrawal of a Tender under that system.

CT10. HARD COPY DELIVERY METHOD

- 10.1 If the Bidder delivers its Tender using the Hard Copy Delivery Method, then the Bidder must deliver the Bidder's Tender by hand or by courier to the Closing Location specified in the Invitation to Tender – Supplemental Conditions of Tender.

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Hard Copy Delivery Method – Tender Envelope (e.g., courier envelope, etc.)

10.2 If the Bidder delivers its Tender using the Hard Copy Delivery Method, then the Bidder must complete the outside of its Tender Envelope in accordance with the form for the Tender Envelope set out in the Tender Document Package, including:

- (a) addressing its Tender Envelope “Attn: Reception Desk – Tender Documents”; and
- (b) setting out on the Tender Envelope:
 - (i) the full name of the Bidder; and
 - (ii) the Project Number and the Project Name as specified in the Invitation to Tender – Supplemental Conditions of Tender.

Without limiting any other provision of these Conditions of Tender, if the Bidder uses a Tender Envelope other than the envelope entitled “Tender Envelope” contained in the Tender Document Package to deliver its Tender to the Closing Location, e.g. the Bidder uses a courier envelope for this purpose, the Bidder must ensure that the outside of such envelope is addressed and completed in accordance with CT10.2(a)-(b).

10.3 If the Bidder delivers its Tender using the Hard Copy Delivery Method, then the Bidder’s Tender Envelope must contain the following documents completed in accordance with these Conditions of Tender including the CT’s specifically referenced below as corresponding to each document:

- (a) the original of the Bidder’s signed Tender Form completed in accordance with CT10.4;
- (b) the original of the Bidder’s Schedule of Approximate Quantities and Unit Prices completed in accordance with CT10.5;
- (c) the original of the Bidder’s Bid Security completed in accordance with CT13; and
- (d) in the case of a Joint Venture Bidder, the original of the Bidder’s signed Joint Venture Confirmation Agreement completed in accordance with CT14.2.

Hard Copy Delivery Method – Tender Form

10.4 If the Bidder delivers its Tender using the Hard Copy Delivery Method, then:

- (a) the Bidder must set out on the Tender Form:
 - (i) the Bidder’s Tender Price;
 - (ii) the date of the Tender Form;
 - (iii) the full name of the Bidder; and
 - (iv) the name and title of an Authorized Representative of the Bidder;
- (b) the Bidder should include the complete mailing address, phone number, fax number and email address of the Bidder, on the Tender Form; and
- (c) the Tender Form must be fully completed as required by these Conditions of Tender, and bear the original signature of the Bidder or of the Authorized Representative of the Bidder identified on the Tender Form on behalf of the Bidder.

Hard Copy Delivery Method – Schedule of Approximate Quantities and Unit Prices

10.5 If the Bidder delivers its Tender using the Hard Copy Delivery Method, then the Bidder on its Schedule of Approximate Quantities and Unit Prices:

- (a) must complete all blank spaces in the columns under the headings "Unit Price" and "Extended Amount" for each Unit Price Item;
- (b) must complete all blank spaces in the column under the heading "Extended Amount" for each Lump Sum Item; and
- (c) should include its full name as corresponding to the name of the Bidder as set out on the Tender Form, complete mailing address, phone number and fax number.

Hard Copy Delivery Method – Form and Content of Revisions

10.6 A Revision delivered using the Hard Copy Delivery Method:

- (a) must be in writing;
- (b) must be clearly identified with:
 - (i) the heading "Revision to Tender";
 - (ii) the full name of the Bidder; and
 - (iii) the Project Number and the Project Name as specified in the Invitation to Tender – Supplemental Conditions of Tender;
- (c) must clearly identify each form that the Bidder desires to amend;
- (d) must clearly identify each Tender Item that the Bidder desires to amend;
- (e) must:
 - (i) if the Tender Item that the Bidder desires to amend is a Unit Price Item, then describe the amendment as the amount by which the Unit Price and the corresponding Extended Amount, including as they may have been revised by a preceding Revision, are to be increased or decreased; and
 - (ii) if the Tender Item that the Bidder desires to amend is a Lump Sum Item, then describe the amendment as the amount by which the corresponding Extended Amount, including as it may have been revised by a preceding Revision, is to be increased or decreased;
- (f) should state the total amount by which the Tender Price should be increased or decreased by the Revision;

- (g) should be signed by the Bidder or by an Authorized Representative of the Bidder on behalf of the Bidder; and
- (h) must satisfy the terms of CT13 in the case of a Revision to the Bidder's Bid Security.

Hard Copy Delivery Method – Delivery of Revisions

- 10.7** A Revision, including a Revision containing a replacement Schedule of Approximate Quantities and Unit Prices, delivered using the Hard Copy Delivery Method must be delivered to the Closing Location by hand, courier or facsimile and:
- (a) if delivered by hand or courier each Revision must be enclosed in an envelope, that clearly and legibly on its face:
 - (i) is addressed "Attn: Reception Desk – Tender Documents";
 - (ii) has the heading "Revision to Tender";
 - (iii) has the full name of the Bidder; and
 - (iv) has the Project Number and the Project Name as specified in the Invitation to Tender – Supplemental Conditions of Tender.
 - (b) if delivered by facsimile each Revision must be delivered to the facsimile number specified in the Invitation to Tender – Supplemental Conditions of Tender as the facsimile number for the delivery of Revisions to the Ministry, and must have clearly and legibly on the first page of the facsimile:
 - (i) the heading "Revision to Tender";
 - (ii) the full name of the Bidder; and
 - (iii) the Project Number and the Project Name as specified in the Invitation to Tender – Supplemental Conditions of Tender.
- 10.8** Notwithstanding CT28.2, the Ministry does not in any way whatsoever guarantee and makes no representation or warranty whatsoever to the Bidder as to the confidentiality of any Revision delivered by facsimile, including any Revision containing a replacement Schedule of Approximate Quantities and Unit Prices.

Hard Copy Delivery Method – Multiple Revisions

- 10.9** The Bidder should sequentially number each Revision delivered in accordance with these Conditions of Tender. Unless the Bidder clearly and legibly specifies to the contrary on the face of each Revision, each Revision shall be deemed to have been delivered by the Bidder in the chronological order received by the Ministry.

Hard Copy Delivery Method – Form and Content of Notices of Withdrawals

10.10 A Notice of Withdrawal delivered using the Hard Copy Delivery Method must:

- (a) be in writing;
- (b) be clearly identified with:
 - (i) the heading "Withdrawal of Tender";
 - (ii) the full name of the Bidder; and
 - (iii) the Project Number and the Project Name as specified in the Invitation to Tender – Supplemental Conditions of Tender;
- (c) contain a clear statement that the Tender is withdrawn; and
- (d) be signed by the Bidder or by an Authorized Representative of the Bidder on behalf of the Bidder.

Hard Copy Delivery Method – Delivery of Notices of Withdrawals

10.11 A Notice of Withdrawal delivered using the Hard Copy Delivery Method must be delivered to the Closing Location by hand, courier or facsimile and:

- (a) if delivered by hand or courier each Notice of Withdrawal must be enclosed in an envelope, that clearly and legibly on its face:
 - (i) is addressed "Attn: Reception Desk – Tender Documents";
 - (ii) has the heading "Notice of Withdrawal";
 - (iii) has the full name of the Bidder; and
 - (iv) has the Project Number and the Project Name as specified in the Invitation to Tender – Supplemental Conditions of Tender.
- (b) if delivered by facsimile each Notice of Withdrawal must be delivered to the facsimile number specified in the Invitation to Tender – Supplemental Conditions of Tender as the facsimile number for the delivery of a Notice of Withdrawal to the Ministry, and must have clearly and legibly on the first page of the facsimile:
 - (i) the heading "Notice of Withdrawal";
 - (ii) the full name of the Bidder; and
 - (iii) the Project Number and the Project Name as specified in the Invitation to Tender – Supplemental Conditions of Tender.

10.12 Notwithstanding CT28.2, the Ministry does not in any way whatsoever guarantee and makes no representation or warranty whatsoever to the Bidder as to the confidentiality of any Notice of Withdrawal delivered by facsimile.

CT11. PRICES, QUANTITIES, AND MEASUREMENTS

- 11.1** All prices provided by the Bidder or set out in the Bidder's Tender Form and its Schedule of Approximate Quantities and Unit Prices, including its Tender Price, Unit Prices and Lump Sums:
- (a) must be inclusive of all applicable costs, including any and all license costs, fees, duties, cash allowances, contingencies and taxes, but not including GST, in effect at the Closing Time; and
 - (b) must be stated in the lawful money of Canada.
- 11.2** Any price provided by the Ministry on the Schedule of Approximate Quantities and Unit Prices form in the Tender Document Package for a Provisional Sum Item including as shown as an "Extended Amount" on the form for that Provisional Sum Item:
- (a) is inclusive of all applicable costs, including any and all license costs, fees, duties, cash allowances, contingencies and taxes, but not including GST, in effect at the Closing Time; and
 - (b) is stated in the lawful money of Canada.
- 11.3** The Bidder must not convert the quantities or measurements listed in the Schedule of Approximate Quantities and Unit Prices included in the Tender Document Package or in any replacement Schedule of Approximate Quantities and Unit Prices including by converting a "price per litre" item to a "price per kilolitre" item or by converting metric units to imperial units or vice versa.

CT12. TREATMENT OF GST AND OTHER TAXES IN TENDER

- 12.1** The Bidder must not include GST in its Tender Price or in any of its Unit Prices or Extended Amounts in the Schedule of Approximate Quantities and Unit Prices. Any reference to GST or any other tax in the Tender Form, the Tender Price or the Schedule of Approximate Quantities and Unit Prices shall be treated as though the words or numbers that reference GST or the other tax do not appear.

CT13. BID SECURITY – VALUE AND FORM, DELIVERY AND REVISIONS

Value and Form of Bid Security

- 13.1** The Bid Security must have a value and be in a form that complies with the terms of the Schedule entitled "Tender Securities" as set out in the Tender Document Package.
- 13.2** In the event of a change in the Bidder's Tender Price including as a result of a Revision to its Tender or in the event of an Addenda to the Tender Document Package, the value and the form of the Bidder's Bid Security, including the Bidder's Bid Bond or any bank drafts, certified cheques or money orders delivered by the Bidder as its Bid Security, must continue to comply with the requirements of the Schedule entitled "Tender Securities" as set out in the Tender Document Package.
- 13.3** If the Bid Security delivered by the Bidder is a Bid Bond, the Bid Bond must bear the original signature of the Bidder or an Authorized Representative of the Bidder on behalf of the Bidder, and the original signature and original seal of the Surety or of each of the Sureties in the case of a Bid Bond issued by co-sureties.

Delivery of Bid Security

CONDITIONS OF TENDER

13.4 The Bidder must deliver the original of its Bid Security to the Closing Location by hand or by courier and:

- (a) if the Bidder delivers its Tender using the BC Bid eService Delivery Method, then the original of the Bidder's Bid Security must be delivered in a sealed envelope that clearly and legibly on its face:
 - (i) is addressed "Attn: Reception Desk – Tender Documents";
 - (ii) has the heading "Bid Security";
 - (iii) has the full name of the Bidder; and
 - (iv) has the Project Number and the Project Name as specified in the Invitation to Tender – Supplemental Conditions of Tender; and
- (b) if the Bidder delivers its Tender using the Hard Copy Delivery Method, then the original of the Bidder's Bid Security must be delivered either in the Bidder's Tender Envelope or in a separate sealed envelope that is addressed and labeled in accordance with CT13.4(a).

Revisions to Bid Security

13.5 If the Bidder delivers a Revision to its Bid Security, the revised Bid Security, including the Bidder's replacement Bid Bond or any replacement or additional bank drafts, certified cheques or money orders delivered by the Bidder as its revised Bid Security, must comply with these Conditions of Tender, including the requirements of the Schedule entitled "Tender Securities", and the original(s) of the revised Bid Security must be delivered to the Closing Location by hand or by courier in an envelope that clearly and legibly on its face:

- (a) is addressed "Attn: Reception Desk – Tender Documents";
- (b) has the heading "Revised Bid Security";
- (c) has the full name of the Bidder; and
- (d) has the Project Number and the Project Name as specified in the Invitation to Tender – Supplemental Conditions of Tender.

CT14. JOINT VENTURE BIDDERS

14.1 A Joint Venture Bidder must complete its Tender Form as follows:

- (a) the name of the joint venture must be inserted on the "Name of Bidder" line on the Tender Form, and the names of each of the venturers in the joint venture must also be inserted on the "Name of Bidder" line if not already included in the joint venture's name;
- (b) the "Doing Business as Name" line on the Tender Form should be left blank; and

CONDITIONS OF TENDER

- (c) the Authorized Representative of the Authorized Venturer identified on the Tender Form must sign on the line for the "Signature of Authorized Representative of the Bidder", with the name and title of such Authorized Representative inserted on the line for the "Name and Title of Authorized Representative of the Bidder".
- 14.2** A Joint Venture Bidder must deliver the "Joint Venture Confirmation Agreement" in the form and containing the terms set out in the form of Joint Venture Confirmation Agreement contained in the Tender Document Package, and executed on behalf of each venturer in accordance with the terms of the Joint Venture Confirmation Agreement.
- 14.3** If the Joint Venture Bidder delivers a Bid Bond as its Bid Security, or as a Revision to its Bid Security, then the Bid Bond must:
- (a) set out on the Bid Bond's "BIDDER NAME" line the name of the joint venture in the same way that the joint venture's name is set out on the Joint Venture Bidder's Tender Form, except that the names of each of the venturers in the joint venture may also be included in the "BIDDER NAME" line if not already included in the joint venture's name;
 - (b) show the Authorized Venturer of the Joint Venture Bidder as the "Principal/Bidder" in the signature block of the Bid Bond; and
 - (c) bear the original signature of an Authorized Representative of the Authorized Venturer.
- 14.4** The terms set out in the Joint Venture Confirmation Agreement shall be deemed to be incorporated into and form part of these Conditions of Tender with respect to the Tender delivered by a Joint Venture Bidder.
- 14.5** By the delivery of a Tender, including the Joint Venture Confirmation Agreement, each venturer in the Joint Venture Bidder attests and agrees that the Authorized Venturer is authorized to sign the Bid Bond on behalf of itself, the Joint Venture Bidder and each of the other venturers, jointly and severally.
- 14.6** The obligations of the Joint Venture Bidder, and the covenants, representations, warranties, debts and liabilities of the Joint Venture Bidder made, given or incurred under, in connection with or pursuant to the Joint Venture Bidder's Tender, the Conditions of Tender, the Tender Document Package, the Bid Security, or any of them shall be the joint and several obligations, covenants, representations, warranties, debts and liabilities of each of the venturers comprising the Joint Venture Bidder, notwithstanding the nature of the legal relationship between the venturers.
- 14.7** The complement of the venturers comprising the Joint Venture Bidder as set out on the "Name of Bidder" line on the Tender Form, must not change at any time between the delivery of the Bidder's Tender to the Ministry in accordance with these Conditions of Tender and in the event of an Award to the Joint Venture Bidder, the execution of the Contract with the Joint Venture Bidder.

CT15. OPENING OF TENDERS

- 15.1** At the Tender Opening, the Ministry shall read out the names of the Bidders who delivered Tenders before the Closing Time, the amount set out on each such Bidder's Tender Form, and in any and all Revisions, as the case may be, as such Bidder's Tender Price, and the names of the Bidders who submitted Notices of Withdrawal before the Closing Time.
- 15.2** Following the Tender Opening, the names of the Bidders who delivered Tenders before the Closing Time, each such Bidder's unverified Tender Price, and the names of the Bidders who submitted Notices of Withdrawal, shall be posted on the BC Bid Website.

CONDITIONS OF TENDER

- 15.3** The amount read out at the Tender Opening and posted on the BC Bid Website as the Bidder's unverified Tender Price is unverified and shall not constitute the Bidder's Tender Price but is subject to review, verification, calculation and adjustment by the Ministry in accordance with these Conditions of Tender.

CT16. EVALUATION OF TENDERS

- 16.1** Except as expressly set out in these Conditions of Tender, after the Closing Time the Bidder shall not be permitted to supplement or clarify any information provided in or omitted from its Tender.

Disqualification

- 16.2** Any Tender or any Revision which in the sole discretion of the Ministry:

- (a) is ambiguous or unclear as to meaning or intent;
- (b) is incomplete, conditional, or is qualified;
- (c) fails to comply with any of the mandatory requirements of the Condition of Tender;
- (d) contains any alteration to the information provided by the Ministry; or
- (e) otherwise fails to comply sufficiently with the Conditions of Tender to be considered a valid Tender,

is subject to Disqualification and may be Disqualified by the Ministry, in its sole discretion, at any time.

If a Tender or Revision is subject to Disqualification due to any one or more of the foregoing defects, including a failure to comply with a mandatory requirement of the Conditions of Tender, which, in the sole discretion of the Ministry, is not material, then the Ministry may, in its sole discretion, waive the defect or defects, as the case may be, and not Disqualify the Tender or Revision.

- 16.3** Without limiting the generality of CT16.2, if a Revision is Disqualified then the Ministry may, in its sole discretion and subject to CT16.2, either continue with the evaluation of or Disqualify the Tender or any other Revision(s) in connection with which the Disqualified Revision was delivered.

Review, Verification, Calculation and Adjustment

- 16.4** The Ministry may in its sole discretion review, verify, calculate and adjust the Bidder's Tender Price, Unit Prices, Lump Sum Prices, Extended Amounts, and Provisional Sum Items in accordance with these Conditions of Tender if the Bidder's Tender has not already been Disqualified. In carrying out such reviews, verifications, calculations and adjustments, the Ministry may apply any one, more or all of the following provisions:

- (a) If a Unit Price provided by the Bidder and its corresponding Extended Amount are at variance, the Unit Price shall be considered correct and the Ministry shall calculate the Extended Amount by multiplying the corresponding Approximate Quantity by the Unit Price provided by the Bidder and the resulting product as calculated by the Ministry shall be substituted as and be deemed to be the Extended Amount corresponding to that Unit Price Item.
- (b) If a Unit Price provided by the Bidder has been left blank and its corresponding Extended Amount has been completed by the Bidder, the Ministry shall calculate that Unit Price by

CONDITIONS OF TENDER

dividing the Extended Amount by the corresponding Approximate Quantity and the resulting quotient as calculated by the Ministry shall be substituted as and deemed to be the Bidder's Unit Price for that Unit Price Item.

- (c) The Unit Prices, Lump Sum Prices and Extended Amounts as shown on the Bidder's Schedule of Approximate Quantities and Unit Prices shall be adjusted by the Ministry in accordance with any Revision(s) that have not been Disqualified.
- (d) If an Extended Amount for a Lump Sum Item or if the Unit Price and corresponding Extended Amount for a Unit Price Item has been left blank, the Ministry may designate a value of zero (i.e. the number "0"), to constitute that Extended Amount, or that Unit Price and corresponding Extended Amount, as the case may be, and the number "0" shall be incorporated in and deemed to be the Bidder's Extended Amount for that Lump Sum Item, or for the Bidder's Unit Price and corresponding Extended Amount for that Unit Price Item, as the case may be.

- 16.5 The Ministry shall calculate the Bidder's Tender Price based on the sum of all Extended Amounts, including such Extended Amounts, as adjusted by the Ministry in accordance with these Conditions of Tender, on the Bidder's Schedule of Approximate Quantities and Unit Prices, and if the sum of all Extended Amounts including such Extended Amounts as adjusted by the Ministry in accordance with these Conditions of Tender and the amount stated as the Tender Price on the Tender Form are at variance, then the amount stated as the Tender Price on the Tender Form shall be adjusted to be the sum of such Extended Amounts as calculated by the Ministry.
- 16.6 The Bidder's Tender Price, Unit Prices, Lump Sum Prices, Extended Amounts, and Provisional Sum Items as set out in its Tender or any Revision shall not be changed or adjusted in any way, except as a result of any review, verification, calculations or adjustments, as the case may be, carried out by the Ministry in accordance with these Conditions of Tender.
- 16.7 The Bidder's Tender Price, Unit Prices, Lump Sum Prices, Extended Amounts, and Provisional Sum Items as reviewed, verified, calculated and adjusted, as the case may be, by the Ministry in accordance with these Conditions of Tender shall be binding on the Bidder.
- 16.8 The Tenders which have not been Disqualified by the Ministry in accordance with these Conditions of Tender shall be evaluated on the basis of their respective Tender Prices as reviewed, verified, calculated or adjusted, as the case may be, by the Ministry.
- 16.9 If the Tender Price of each of two or more Tenders, as calculated and adjusted by the Ministry, is the same figure then the Ministry may, in its sole discretion, select from among the Bidders who delivered the Tenders having the same Tender Price by applying a random method chosen in the Ministry's sole discretion, which may consist of, without limitation, a coin toss or the drawing of one of the Bidders' names out of a box, and deliver an Award letter to the selected Bidder.

CT17. BIDDER'S CAPACITY TO PERFORM, AND CLARIFICATION OF INFORMATION IN TENDER

- 17.1 The Ministry may, at any time and from time to time, after Closing Time require the Bidder to satisfy the Ministry, in its sole discretion, that the Bidder has the necessary qualifications, equipment, material, and resources available to carry out the Work in a safe, competent manner, by the required date for the completion of the Work under the Contract and by any other time limit set out in the Tender Document Package, and in compliance with any other requirements specified in the Tender Document Package, including by delivering information to the Ministry in writing which information may include any or all of the following:

CONDITIONS OF TENDER

- (a) evidence that the Bidder is financially, or otherwise capable of performing and completing the Work or the Contract, including an agreement to bond, consent of surety, or undertaking to provide requisite insurance;
- (b) evidence that the Bidder has successfully carried out and completed works of a similar nature or is otherwise fully capable of performing the Work;
- (c) a list of equipment, and its mechanical condition, that the Bidder will be using to perform the Work;
- (d) evidence that the personnel available to the Bidder and which the Bidder will be using to perform the Work, have the professional standing, and the technical and trade qualifications and licenses necessary to perform the Work; and
- (e) a detailed Project or Construction Schedule meeting all the requirements for such a schedule in the Contract.

17.2 The Ministry may, at any time and from time to time, after Closing Time, in its sole discretion, clarify or supplement any information entered by the Bidder on, or omitted by the Bidder from, the Bidder's Tender Form and any other forms in the Bidder's Tender by the Ministry's own investigation(s) and/or by requesting clarification or supplementation of such information from the Bidder. The Ministry may in its sole discretion rely on, consider or disregard the results of any such clarification or supplementation in evaluating any Tender or any Revision under these Conditions of Tender.

17.3 If the Bidder is requested by the Ministry to provide information to the Ministry under CT17.1 or CT17.2, the Bidder shall comply with the request by not later than ten (10) days of the date on which the request was made or within such earlier or other time period as specified by the Ministry.

17.4 Without limiting CT16, CT17 or CT29, the Ministry may in its sole discretion Disqualify the Bidder's Tender and/or any Revision:

- (a) if the Bidder does not comply with a request from the Ministry under CT17.1 or CT17.2 within the time limit specified under CT17.3; or
- (b) if the Bidder's response to a request from the Ministry under CT17.1 or CT17.2 is determined by the Ministry in its sole discretion to be insufficient to enable the Ministry to make an assessment under CT17.1 or to have been unsatisfactory.

CT18. RIGHT NOT TO AWARD

18.1 The Ministry reserves the right, in its sole discretion, to Disqualify any or all Tenders, to cancel this Tender Call, to reject any or all Tenders, and to re-tender the same or similar Work at any time either before or after Closing Time. The lowest or any Tender shall not necessarily be accepted.

CT19. ACCEPTANCE

19.1 An Award letter is the only form of acceptance of the Bidder's Tender under these Conditions of Tender.

CT20. AWARD OF CONTRACT

20.1 If the Ministry delivers an Award letter to the Bidder:

(a) the Bidder shall on the earlier of:

- (i) fourteen (14) days from the date of the Award letter; and
- (ii) three (3) days before commencement of the Work on the Site,

obtain and deliver to the Ministry, the Contract Security(ies), evidence of compliance with the Schedule of the Contract entitled "Insurance", a valid Worker's Compensation Board registration number for the Bidder, and if requested by the Ministry, evidence demonstrating that the Bidder has been duly registered, including extra-provincially registered, with the British Columbia Corporate Registry, and

(b) the Bidder shall on the earlier of:

- (i) fourteen (14) days from the date shown on the Ministry cover letter delivering the Contract to the Bidder; and
- (ii) three (3) days before commencement of the Work on the Site,

deliver to the Ministry the Contract executed on behalf of the Bidder, and commence to diligently and promptly fulfill its obligations under the Contract.

20.2 The Ministry may, in its sole discretion, publish the name of the Bidder to whom an Award letter has been delivered and the Tender Price on which the Award is based.

CT21. DEFAULT

21.1 Without limiting any and all rights and remedies of the Ministry under or in connection with this Tender Call, including to make demand or draw on the Bid Security, or otherwise at law or in equity, if the Ministry has delivered an Award letter to the Bidder and the Bidder does not comply with any part of CT20.1 then the Ministry may make demand on the Bidder's Bid Security.

21.2 The rights and remedies of the Ministry under or in connection with this Tender Call, or otherwise at law or in equity, are not limited to the Ministry's right to make demand on the Bidder's Bid Security, and the right to make such demand is cumulative and in addition to every other right and remedy available to the Ministry under or in connection with this Tender Call, or otherwise at law or in equity. The exercise by the Ministry of any such right or remedy shall not preclude the simultaneous or later exercise of any other such right or remedy.

Demand on Bid Security

21.3 A demand on the Bid Security shall be the lesser of:

- (a) the difference between the Tender Price of the Bidder that has been awarded the Contract by the Ministry, as calculated and adjusted by the Ministry, and the amount for which the Ministry contracts with another party to perform the Work or substantially the same Work; and
- (b) the full amount of the Bid Security.

CT22. DISPUTE RESOLUTION

22.1 In the event of a dispute arising under or in connection with this Tender Call:

- (a) the Bidder shall, within fourteen (14) days of any issue in such dispute first coming to the attention of the Bidder, deliver written notice to the Contact Person of such dispute; and
- (b) all such disputes not resolved through negotiation between the parties to the dispute within thirty (30) days of the dispute being presented in writing to the Contact Person may by agreement of the Ministry and the Bidder be referred to and finally resolved by binding arbitration in accordance with the *Arbitration Act*.

22.2 Notwithstanding any notice delivered under CT22.1, the Ministry may, but in no event will be obligated to, proceed with this Tender Call, including an Award and the execution of a Contract, without prejudice to any ongoing dispute resolution proceedings or discussions including any negotiations or binding arbitration as contemplated in CT22.1.

CT23. TIME LIMITATION ON CLAIMS

23.1 Any claim or cause of action the Bidder may have against the Ministry arising under or in connection with this Tender Call shall be absolutely barred after the expiration of one (1) year commencing from the Closing Time. The term "Ministry" includes for this purpose the Ministry, its officers, employees, servants, agents, representatives and consultants, including any person retained by or on behalf of the Ministry to advise or assist the Ministry with respect to any matter in connection with or in any way related to this Tender Call, and each of them.

CT24. LIMITATION OF DAMAGES AND EXCLUSIONS OF LIABILITY

24.1 If the Ministry cancels this Tender Call, Disqualifies all Tenders, rejects all Tenders, or does not Award the Contract to any Bidder, then:

- (a) the Bidder shall not claim against the Ministry; and
- (b) the Ministry shall not be liable to the Bidder or to any person,

in contract, in tort, or otherwise at law or in equity, for any losses, costs, damages, legal fees or expenses or anything whatsoever in connection with or in any way related to this Tender Call, including without limitation, for loss of revenue, opportunity, or anticipated profit, or for the costs of the preparation of the Bidder's Tender.

24.2 In circumstances not described in CT24.1, then:

- (a) the Bidder shall not claim against the Ministry; and
- (b) the Ministry shall not be liable to the Bidder or to any person,

in contract, in tort, or otherwise at law or in equity, for any losses, costs, damages, legal fees or expenses or anything whatsoever in connection with or in any way related to this Tender Call, including without limitation, for loss of revenue, opportunity, or anticipated profit, in excess of an amount equivalent to the actual and reasonable costs directly incurred by the Bidder to prepare the Bidder's Tender.

24.3 Without limiting or otherwise restricting the application of CT24.1 or CT24.2, the Ministry shall have no responsibility to or bear any liability to the Bidder or to any person whatsoever in connection with or in any way related to the following matters or in the following circumstances:

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- (a) the completeness, reliability, sufficiency, accuracy or relevance of any information, or any interpretation derived from any such information, set out or otherwise provided in the Tender Document Package, the Specific Reference Documents or the General Reference Documents, including any information accessed via the URL's or web sites set out in any of those documents, or any analysis or interpretation derived from such information;
- (b) any decision by the Ministry to respond or not to respond to requests for clarification under these Conditions of Tender, the timing of issuing any Addenda setting out the responses to any such requests or the quality or the content of any such responses;
- (c) the timely delivery or otherwise of any information or documentation, including these Conditions of Tender, or any and all Addenda, whether by BC Bid eService, by mail, by courier, by hand, by facsimile, or otherwise, in connection with this Tender Call, including any failure by or on behalf of the Ministry to deliver to the Bidder any Addenda or by the Bidder to receive or to keep itself informed of any Addenda, at all or in a timely manner;
- (d) any mistakes, errors, omissions, oversights, statements, representations, or warranties including in any notice, guideline, guidance or information, written or oral, given to the Bidder or Bidders by or on behalf of the Ministry regarding or in connection with the BC Bid eService, including the use of the BC Bid eService and including where such mistakes, errors, omissions, oversights, statements, representations, or warranties, lead or contribute, directly or indirectly, to the Bidder making mistakes, errors, omissions or oversights in the preparation, submission or transmission of its Tender, or to the Bidder's Tender or any part of its Tender not being accepted or being Disqualified or rejected;
- (e) the timely receipt by or on behalf of the Ministry of any Tenders, Notice of Withdrawal, or any other information or documentation from the Bidder, any Bidder or any person;
- (f) the working order, functioning or malfunctioning of facsimile transmission equipment or electronic information systems including such equipment or systems of the Bidder or of the Ministry, or of the BC Bid eService; and
- (g) any decision, determination, interpretation or action including consideration, calculation, adjustment, Disqualification, rejection, acceptance or selection by or on behalf of the Ministry pursuant to or in connection with terms of these Conditions of Tender which are referenced as being "in its sole discretion", "at the discretion", "in its discretion", "at its discretion", "in the opinion", "in its opinion" and "to the satisfaction of" or similar words or phrases in relation to the Ministry.

24.4 The Bidder shall not claim or proceed with any claim(s) in connection with or in any way related to this Tender Call in contract, in tort, or otherwise at law or in equity, for any losses, costs, damages, legal fees or expenses or anything whatsoever, including without limitation, for loss of revenue, opportunity, or anticipated profit, or for the costs of the preparation of the Bidder's Tender, against any person who might claim against, or seek contribution or indemnity from, the Ministry as a result of such claim(s).

24.5 The term "Ministry" includes for the purpose of CT24.1 – 24.4, the Ministry, its officers, employees, servants, agents, representatives and consultants, including any person retained by or on behalf of the Ministry to advise or assist the Ministry with respect to any matter in connection with or in any way related to the Tender Call, and each of them.

CT25. JURISDICTION OF COURTS AND GOVERNING LAW

CONDITIONS OF TENDER

- 25.1** Subject to the potential arbitration of disputes in accordance with CT22.1, the Bidder shall be deemed to have attorned to the exclusive jurisdiction of the Courts of British Columbia with respect to any disputes and claims arising under or in connection with this Tender Call including any disputes and claims arising in any way out of the use of the BC Bid eService. Any such disputes and claims and the terms of this Tender Document Package are to be governed by, construed and interpreted in accordance with the laws of British Columbia, without regard to choice of law principles.

CT26. NO IMPLIED DUTIES

- 26.1** Except to the extent identified and set out in the express terms of these Conditions of Tender, the Ministry has no legal obligations or duties whether in contract, tort, statute or common law including any actual or implied duties of fairness or good faith to the Bidder, any Bidder or Bidders or any person under or in connection with this Tender Call.
- 26.2** Without limiting the scope of CT26.1, the Ministry shall not be bound by industry custom or practice, if any, under or in connection with this Tender Call including the application or interpretation of these Conditions of Tender, the exercise of its discretion, or with respect to any other matter.

CT27. APPROPRIATION

- 27.1** Notwithstanding any other term of these Conditions of Tender, any Award of the Contract, and any financial obligations of the Ministry pursuant to these Conditions of Tender or the Contract shall be subject to:
- (a) there being sufficient monies available in an Appropriation to enable the Ministry in any fiscal year or part thereof when any payment of money by the Ministry would have fallen due under the Contract, if the Contract had been awarded by the Ministry, to make that payment; and
 - (b) the Treasury Board, as defined in the *Financial Administration Act*, having not controlled or limited expenditure under any Appropriation contemplated or referred to in the Contract.

CT28. USE OF INFORMATION, AND CONFIDENTIALITY

- 28.1** All documents and records in the custody or under the control of the Ministry, including the Tender, any Notice of Withdrawal, and all other information delivered by the Bidder pursuant to these Conditions of Tender shall become the property of the Ministry, and the Ministry may use any such information, including pricing information provided by the Bidder for the purpose of or in connection with preparing analyses of the Work and for the purpose of or in connection with cost estimating for other projects, and for such purposes, the Ministry may disclose such information to consultants retained by the Ministry.
- 28.2** Except as otherwise provided or otherwise contemplated in these Conditions of Tender, the Ministry shall treat as confidential and shall not, without the prior written consent of the Bidder, publish, or disclose, or permit to be published or disclosed, the Tender, any Notice of Withdrawal, and any other documents, records or other information delivered by the Bidder pursuant to these Conditions of Tender, except insofar as such publication or disclosure is required by law, including the *Freedom of Information and Protection of Privacy Act*, or is necessary to enable the Ministry to fulfill any obligations that the Ministry may have under or in connection with this Tender Call.

CT29. INDEPENDENT TENDER DECLARATION

- 29.1** By submitting a Tender, the Bidder attests that:

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- (a) the contents of its Tender, its Tender Price, Unit Prices and any other figures set out in the Schedule of Approximate Quantities and Unit Prices in its Tender have been arrived at without collusion with any other Bidder or potential Bidder; and
- (b) no attempt has been made, nor will be made, by the Bidder to induce any other person to submit, or not to submit, a Tender in response to this Tender Call for the purpose of restricting competition.

29.2 Without limiting any rights or remedies the Ministry may otherwise have against the Bidder as a result of non-compliance with the requirements of CT29.1 under or in connection with these Conditions of Tender or this Tender Call, or otherwise at law or in equity, such non-compliance may result in the Disqualification of the Bidder's Tender at the Ministry's sole discretion.

CT30. GENERAL

- 30.1** The headings and captions in these Conditions of Tender are inserted for convenience only and do not form part of these Conditions of Tender and in no way define, limit, alter or enlarge the scope or meaning of any term of these Conditions of Tender.
- 30.2** If any provision of these Conditions of Tender or the application thereof to any person or circumstance is invalid or unenforceable to any extent, the remainder of these Conditions of Tender and the application of such provision to any other person or circumstance will not be affected or impaired thereby and shall be valid and enforceable to the extent permitted by law.
- 30.3** The Bidder is not permitted to assign, either directly or indirectly, in whole or in part, its Tender.
- 30.4** Nothing contained in these Conditions of Tender shall derogate from, fetter or conflict with or shall be interpreted in a manner as to result in any derogation, fetter or conflict with the rights, powers and authorities of the Ministry, the Minister of Transportation and Infrastructure or the Lieutenant Governor in Council under or pursuant to law including the *Transportation Act*.

SCHEDULE T2

TENDER SECURITIES



**TENDER SECURITIES
REQUIREMENTS AND BOND
SPECIMEN
INS-261**

FOR MAJOR WORKS CONTRACTS AND DESIGN BUILD CONTRACTS

1. GENERAL INFORMATION ON TENDER SECURITIES

Any and all costs related to or for any and all Bid Securities and Contract Securities must be included in the Tender Price and the Ministry will not be responsible for or pay for any such costs as separate or as extra items.

deliver to the Ministry at the address set out in the Award letter a Performance Bond and Labour and Material Payment Bond, each:

2. TENDER REQUIREMENTS

The Bidder will deliver Bid Security in the form of a **Bid Bond** for a value of not less than ten percent (10%) of the Tender Price, in the format and containing the terms and conditions set out in the Specimen form of Bid Bond set out in this Schedule, and duly executed on behalf of the Surety and the Bidder.

- (iii) in the format and containing the terms and conditions set out in the Specimen form of Performance Bond and Labour and Material Payment Bond attached in the Schedule entitled "Contract Securities" to the Contract, and
- (iv) in the amount of **fifty percent (50%)** of the Tender Price.

3. CONTRACT REQUIREMENTS

If the Bidder is awarded the Contract the Bidder will, on the earlier of:

- (i) fourteen (14) days from the date shown on the Award letter; and
- (ii) three (3) days before commencement of the Work on the Site,

SPECIMEN - BID BOND

KNOW ALL PERSONS BY THESE PRESENTS THAT

(BIDDER NAME)

as Principal, hereinafter called the Principal, and

(SURETY/INSURANCE COMPANY'S OR COMPANIES' NAME(S) AND ADDRESS(ES))

, a corporation or corporations created and existing under the laws of Canada and duly authorized to transact the business of Suretyship in Canada as Surety, hereinafter called the Surety if one Surety is named in this Bond and the Co-Sureties if more than one, is/are held and firmly bound, jointly and severally in the case of Co-Sureties, unto HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA AS REPRESENTED BY THE MINISTER OF TRANSPORTATION AND INFRASTRUCTURE, as Obligor, hereinafter called the Obligor, in the amount of ten percent (10%) of tender price in lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety or Co-Sureties as the case may be, bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a written tender to the Obligor in response to a tender call issued by the Obligor for

(PROJECT NUMBER AND PROJECT NAME)

which tender call has a closing date of the _____ day of _____ 20____ (as this closing date may be amended from time to time by the Obligor by addenda).

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the aforesaid Principal shall have the tender accepted within sixty (60) days from the closing date of tender and the said Principal will within the time required, enter into a formal contract and give the specified security to secure the performance of the terms and conditions of the contract, then this obligation shall be null and void; otherwise the Principal and the Surety or the Co-Sureties as the case may be, will pay unto the Obligor the difference in money between the amount of the bid of the said Principal and the amount for which the Obligor legally contracts with another party to perform the work if the latter amount be in excess of the former.

The Principal and Surety or Co-Sureties as the case may be shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of six months from the date of this Bond.

If this Bond is issued by Co-Sureties, then the Co-Surety that signs the first signature block on this Bond shall be designated as the "Lead Surety" for the purposes of this Bond and the Co-Sureties hereby jointly and severally irrevocably: appoint and authorize the Lead Surety to act as the sole representative of and agent for the Co-Sureties, and with authority to bind the Co-Sureties, in all dealings and matters between the Co-Sureties and the Obligor arising from or relating to this Bond, including without limitation the receipt on behalf of the Co-Sureties of any demand or draw on this Bond issued by the Obligor and in the investigation, payment, compromise, settlement and defence of any claims, demands and draws on, arising from or related to this Bond; and, agree and acknowledge that the Obligor shall be entitled to assume that any act done, document executed or entered into or waiver given by the Lead Surety to the Obligor arising from or related to this Bond has been duly authorized by each Co-Surety and is binding upon each Co-Surety without the Obligor being under any obligation to enquire into the authority of the Lead Surety in such matters.

IN WITNESS WHEREOF, the Principal and the Surety or Co-Sureties as the case may be have signed and sealed this Bond this _____ day of _____ 20____

SIGNED and SEALED
In the presence of:

For the Principal/Bidder

SEAL

For the Surety Attorney-in-fact

SEAL

**[IF MORE THAN ONE SURETY ADD
SIGNATURE BLOCKS AS APPROPRIATE
FOR EACH AND EVERY CO-SURETY
OBLIGATED UNDER THIS BOND. THE
FIRST SURETY SIGNATURE BLOCK IS
FOR THE LEAD SURETY]**

SCHEDULE T3

SPECIFIC REFERENCE DOCUMENTS

Schedule T3 – Specific Reference Documents

PROJECT NO. 23697-0001

WESTSIDE ROAD IMPROVEMENTS WATERFRONT FARM TO BLUE GROUSE GRADING AND PAVING CONSTRUCTION

The documents described and numbered in the following list comprise the Specific Reference Documents for this Tender Document Package.

Where the list indicates that a document is an electronic copy, the document can be downloaded at:

www.th.gov.bc.ca/bchighways/contracts/suppdoc.htm

Document Number	Document Description	Check (✓) the Appropriate Column(s)	
		Electronic Copy	Hardcopy only
1	L10 Cross Sections WSR-Waterfront-Bluegrouse R2-909-XS-L10	✓	
2	L100 Cross Sections WSR-Waterfront-Bluegrouse R2-909-XS-L100	✓	
3	Tetra Tech EBA, K13103081-05 Westside Rd Improvements 4 Mile Creek to Blue Grouse GEOTECHNICAL DATA REPORT July 17, 2014	✓	
4	Tetra Tech EBA, 704-K13103081-05 Westside Rd Improvements Waterfront Farm to Blue Grouse GEOTECHNICAL ENGINEERING DESIGN REPORT July 17, 2014	✓	
5	Summit Environmental Consultants Inc. Westside Rd Improvements. Waterfront Farm to Blue Grouse. ENVIRONMENTAL IMPACT ASSESSMENT.	✓	

RETURN ADDRESS:

Bidder's Name: _____

Address: _____

DO NOT OPEN

ATTN: RECEPTION DESK
TENDER DOCUMENTS

**MINISTRY OF TRANSPORTATION
AND INFRASTRUCTURE**

TENDER FOR:

Project #: _____

Project Name: _____
