

# INVITATION TO QUOTE CS-25-08

# ROBSON VALLEY RECREATION CENTRE ENTRANCE PIER FOUNDATION REPAIR

Date Issued: July 22, 2025

Closing Location: Regional District Office

3<sup>rd</sup> Floor, 155 George Street, Prince George, BC V2L 1P8

Closing Date/Time: August 5, 2025

2: 00 p.m. (Local time) No Public Opening

**Inquiries:** Deadline for all inquiries July 30, 2025, 2:00 p.m.

Blaine Harasimiuk, Manager of Inspection Services

bharasimiuk@rdffg.bc.ca



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### **INVITATION TO QUOTE**

The Regional District of Fraser-Fort George (the "Regional District") invites written Quotations from qualified Bidders to provide repairs to the concrete pier foundations and new timber supports on the two entrances at the Robson Valley Recreation Centre, 461 Columbia St, McBride BC.

Invitation to Quote (ITQ) documents may be obtained on or after Wednesday, <u>July 22, 2025</u>: in a PDF (public document format) file format from the Regional District's website <u>www.rdffg.ca</u>;

All subsequent information regarding this ITQ, including amendments, addenda and answers to questions will also be available as above.

It is the sole responsibility of the Bidder to ascertain that they have received a full set of the ITQ documents, amendments and/or addenda. Upon submission of their Quotation, the Bidder will be deemed conclusively to have been in possession of a full set of the ITQ documents.

#### 1. ITQ SCHEDULE:

Release Date: Wednesday, July 22, 2025
Deadline for Inquiries: 2:00pm PST: Wednesday, July 30, 2025
ITQ Closing: 2:00pm PST: Tuesday August 5, 2025

#### 2. QUOTE SUBMISSION PROCESS

The Regional District will accept Sealed Quotations either by direct delivery (hand delivery, courier or by post/mail) or electronically up to the closing date and time.

To be considered, the Quotation must contain the original signature of an authorized signatory of the Bidder. By signing the Quotation, the Bidder is bound to statements made in response to this. Any Quotation received by the Regional District that is unsigned will be rejected.

#### FOR QUOTES TO BE SUBMITTED BY HARD COPY DIRECT DELIVERY:

Two complete copies of your Quote must be submitted in a sealed envelope with the following information written on the outside of the envelope containing the Quote, as well as on the outside of the courier envelope/box (if sending by courier):

- Attention: General Manager of Financial Services Regional District of Fraser-Fort George 3<sup>rd</sup> Floor, 155 George Street Prince George, BC V2L 1P8
- 2. Invitation to Quote, CS-25-08 Robson Valley Recreation Centre Entrance Pier Foundation Repair
- 3. Responding Bidder's name and address

Each copy must be complete and unabridged and must not refer to any other copy for additional information, clarification, or details. One of the two (2) copies, the original (containing original signatures), is to be clearly identified as the original Quotation. In the event of discrepancy between the original submission and the remaining paper copy, the original document will prevail. Should it be in question which submitted



version is to be taken as the original, the Regional District's determination will be final and binding on all parties.

#### Facsimile Quotes will NOT be accepted.

#### FOR QUOTES TO BE SUBMITTED ELECTRONICALLY:

"Prince George Time" will be conclusively deemed to be the time indicated in the electronic timestamp the Quote receives upon delivery to the email address specified herein.

Bidders Must submit all portions of their **Quote** by email in accordance with the following:

Subject of the file to be: CS-25-08, Robson Valley Recreation Centre Entrance Pier Foundations – (Insert Responding Bidder's Name)

All emailed documents Must be in PDF format and should be in one combined file. Bidders should ensure that the files do not collectively exceed 30MB. Zip the files to reduce the size if needed. Submitting the files via Drop Box, FTP, or similar programs, is not acceptable.

Quotes must be submitted to <u>purchasing@rdffg.bc.ca</u>. DO NOT deliver a physical copy of the Quotation package to the Regional District of Fraser Fort George **if it has been, or will be submitted electronically**.

The Regional District does not assume any risk or responsibility or liability, including in contract or tort (including negligence), whatsoever to any Bidder:

- for ensuring that any electronic email system being operated by or for the Regional District is in good working order, able to receive transmissions, or not engaged in receiving other transmissions such that a Bidder's electronic transmission, including the transmission of an electronic copy of its Quote, cannot be received;
- for errors, problems or technical difficulties with respect to a Bidder's electronic transmission, including the transmission of an electronic copy of its Quote;
- that a Bidder's electronic transmission, including the transmission of an electronic copy of its Quote, is received by the Regional District of Fraser-Fort George in its entirety or within any time limit specified by this Quote.

The Regional District will not accept or consider Quotations delivered to an email address other than the address identified above. Please do not carbon copy any other Regional District emails.

Qualified Bidders must complete and submit pages 7 through 9, including the Schedule of Prices – Quoted Price, Goods and Services Tax Information, and Conflict of Interest Disclosure Statement. Submissions received after the stated closing date and time will be disqualified and not considered by the Regional District. Each amendment and addenda must be signed by the Bidder and be included with their quotation submission.

All applicable taxes will be shown separately on the Schedule of Prices. The successful Bidder will be required to itemize taxes on all invoices submitted to the Regional District.

Quotations not submitted in strict accordance with these instructions or not complying with the requirements in this ITQ may be rejected.



#### 3. ERRORS AND OMISSIONS

Bidders finding discrepancies or omissions in the specifications or other documents herein or having doubts on the meaning or intent of any part thereof, should immediately request in written form by email, clarification from Blaine Harasimiuk, Manager of Inspection Services, <a href="mailto:bharasimiuk@rdffg.bc.ca">bharasimiuk@rdffg.bc.ca</a>. Upon receipt of the written request for clarification, The Regional District may, at the Regional District's sole discretion, make amendments to this ITQ. No responsibility will be accepted for oral instructions. Requests for clarification must be received not later than 2 p.m. (local time), July 30, 2025.

It is the responsibility of each Bidder to thoroughly examine the ITQ documents and to satisfy itself with the full requirements of this ITQ and their acceptability to the Bidder.

The Regional District will not be responsible for any costs incurred by Bidders which result from the preparation or submission of documents pertaining to this ITQ. The accuracy and completeness of the Quotation is the Bidder's responsibility. Should errors be discovered they will be corrected by the Bidder at their expense.

Quoted prices must remain in effect for thirty (30) days after the closing date and time. Quotations will be evaluated on the Quoted price and Bidder's experience. The Regional District reserves the right to reject any and all Quotes; the lowest price will not necessarily be accepted.

#### 4. REGIONAL DISTRICT'S RIGHT TO REJECT QUOTE

The Regional District reserves the right, in its sole discretion, to waive informalities in quotes, reject any and all quotes, or accept the quote deemed most favourable in the interests of the Regional District. The lowest, or any quote, will not necessarily be awarded.

Quotes which contain qualifying conditions or otherwise fail to conform to the instructions contained in this ITQ may be disqualified or rejected. The Regional District may, however, in its sole discretion, reject or retain for its consideration quotes which are non-conforming because they do not contain the content or form required by the ITQ, or for failure to comply with the process for submission set out in this ITQ, whether or not such non-compliance is material.

The Regional District reserves the right to reject a quote based on potential or perceived conflict of interest on the part of a Bidder. Without limitation, the Regional District reserves the discretion to reject any quote where:

- a) one or more of the directors, officers, principals, partners, senior management employees, shareholders or owners of the Bidder, is an officer, employee or director of the Regional District, or is a member of the immediate family of an officer, employee or director of the Regional District; or
- b) in the case of a quote submitted by a Bidder who is an individual person, where that individual is an officer, employee or director of the Regional District, or is a member of the immediate family of an officer, employee or director of the Regional District.

When submitting a quote, the Bidder is required to complete, sign and include with their quote a Conflict of Interest Disclosure Statement.



The Regional District reserves the right to reject any quote submitted by a Bidder who is, or whose principals are, at the time of quote, engaged in a lawsuit against the Regional District in relation to work similar to that being proposed.

#### 5. QUOTE EVALUATION

Quote Evaluation will be based on the quoted price and the ability and experience of the Bidder to efficiently and cost effectively complete the work described in this ITQ.

#### 6. FREEDOM OF INFORMATION

Quotations will be received and held in confidence by the Regional District, subject to the provisions of the Freedom of Information and Protection of Privacy Act and this ITQ. In accordance with the Freedom of Information and Protection of Privacy Act, Bidders will treat as confidential and will not, without prior written consent of the Regional District, publish, release, or disclose, or permit to be published, released, or disclosed, any information supplied to, obtained by, or which comes to the knowledge of a Bidder as a result of this ITQ except insofar as such publication, release or disclosure is required by the laws of British Columbia.

#### 7. INSURANCE

The Contractor shall, without limiting its obligations or liabilities, and at its own expense, provide and maintain throughout the Contract term, the following insurance with insurers licensed in the Province of British Columbia, in forms acceptable to the Regional District. All required insurance (except automobile insurance on vehicles owned by the Contractor) shall be endorsed to show the Regional District as additional insured and to require that the Regional District be provided with 30 days' advance written notice of cancellation or material change. The Contractor will provide the Regional District with evidence of the required insurance, in a form acceptable to the Regional District, upon notification of award and prior to the provision of a purchase order from the Regional District to the Contractor authorizing the work.

- i. Commercial General Liability (CGL) in an amount not less than \$3,000,000 inclusive per occurrence insuring against bodily injury and property damage and including liability assumed under the Contract. Such CGL coverage shall include the following liability extensions: Contingent Employers Liability, Broad Form Products & Completed Operations, Personal Injury, Blanket Contractual, and Cross Liability. The Regional District is to be added as an additional insured.
- ii. Where the Contractor requires the use of Automobiles to undertake the Work of the Contract, the Contractor will have the following:
  - a. Automobile Liability on all vehicles owned, operated, or licensed in the name of the Contractor in an amount not less than \$2,000,000 per occurrence.
  - b. Non-owned Automobile Liability insurance in an amount not less than \$2,000,000 per occurrence.

#### 8. INDEMNITY AND RELEASE BY CONTRACTOR

Notwithstanding the compliance of the Contractor with all the clauses concerning insurance, the Contractor shall indemnify, protect, and save harmless the Regional District, its officials, officers, employees, volunteers, servants, and agents from and against any and all liabilities, damages, losses,



claims, costs, expenses of any kind whatsoever (including legal costs), and actions recoverable by any third party from the Regional District, arising from or caused by a negligent act or omission of, or breach of this Agreement on the part of, the Contractor, and shall be paid by the Contractor. If the Regional District pays, or is required to pay, any damages, costs, or fees on account of the actions, claims and demands herein recited, or if the property of the Regional District shall be charged in any way as a result of the aforesaid actions, causes of actions, and claims for demands, then the Regional District shall be entitled to recover from the Contractor all such damages, costs, fees or other charges together with any costs or expenses incurred in so doing. The Contractor covenants and agrees that this clause shall survive the termination of the Contract herein granted.

#### 9. WORKSAFEBC

The Contractor will use due care and take all necessary precautions to assure the protection of persons and property while undertaking the Work and will comply with the Workers Compensation Act of the Province of British Columbia.

Prior to undertaking any of the Work in this Service Agreement, the Contractor will provide the Regional District with a Clearance Letter confirming they are in good standing with WorkSafeBC and will pay and keep all the current assessments required by WorkSafeBC in relation to the Service Agreement amount.

#### 10. DAMAGE TO EXISTING PROPERTY

In the event of damage to the Regional District's property arising from the actions of the Contractor, the procedure will be as follows:

- 1. The Contractor will immediately advise the Regional District of any damage to the Regional District's property.
- 2. Upon investigation, the Regional District will notify the Contractor of damages to be repaired.
- 3. If the Contractor does not reply within 72 hours, the Regional District will repair to the appropriate specifications or regulations and deduct the cost of the repair from payment to the Contractor.



### **APPENDIX A- SCHEDULE OF PRICES – QUOTED PRICE**

To provide all demolition and cleanup, supply materials and labour to complete the foundation repair work and support of the two (2) existing entrance canopies as shown on the engineered drawings in <u>Appendix E</u>.

**Please note**, the Simpson Strong Tie anchors MCBS 9.5x9.5 are being supplied by the Regional District and should not be included in your price.

PRICE	\$
PST	\$
GST	\$
Total Quoted Price	\$
State expected start date of the works:	
WorkSafeBC Registration Number:	
Signature of Authorized Representative	
Name and Title (Please Print)	
Name of Company	
Date	
Email Contact	



# **APPENDIX B - GOODS AND SERVICES TAX INFORMATION**

Bidder:					
	Name				
	Address				
	City	Province			
	Postal Code	Phone Number			
Are you	u a GST Registrant? Yes No				
If YES, please indicate your GST Registration Number					
If NO, please fill in the following (check appropriate box):					
	Bidder qualifies as a small Bidder under Section 148 of the legislation				
	Other: Specify				



### **APPENDIX C - CONFLICT OF INTEREST DISCLOSURE STATEMENT**

### CS-25-08 ROBSON VALLEY RECREATION CENTRE ENTRANCE PIER FOUNDATION REPAIR

Bidder Name: _		_	
	cluding its officers, employees, and any h, the Bidder on this Procurement Proces	person or other entity working on behalf of or in s:	
	is free of any conflict of interest that could be perceived to improperly influence the outcome of this procurement process.		
	has not, and will not, participate in any improper procurement practices that can provide the Bidder with an unfair competitive advantage including obtaining and using insider type information to prepare a solicitation offer or participating in bid rigging.		
	has an actual, perceived or potential conflict of interest regarding this procurement process as a result of:		
State reason(s)	) for Conflict of Interest:		
By signing beloknowledge.	ow, I certify that all statements made on	this form are true and correct to the best of my	
Print Name of F	Person Signing Disclosure	Authorized Representative of:	
Signature of Pe	erson Making Disclosure	Date Signed	



# **APPENDIX D - REFERENCE PHOTOS**









# **APPENDIX E – ENGINEERED CONSTRUCTION DRAWINGS**

# APPENDIX E- ENGINEERED CONSTRUCTION DRAWINGS

CLIENT

RDFFG

ADDRESS / CONTACT INFO.

155 GEORGE STREET, PRINCE GEORGE, BC V2L 1P8

PROJECT NAME

ROBSON VALLEY REC CENTRE

**DESCRIPTION** 

CANOPY REPAIRS - STRUCTURAL

McELHANNEY PROJECT

2341-21215-03

OTHER REFERENCE

STATUS

ISSUED FOR TENDER



# McElhanney

12 - 556 North Nechako Road, Prince George BC V2K 1A1 Tel. 250 561 2229

DRAWING LIST				
SHEET#	SHEET TITLE	REVISIONS		
S000	SPECIFICATIONS & KEY PLAN	0		
S100	DETAILS	0		

2341-21215

BC BUILDING CODE 2024 & RDFFG BUILDING BYLAW 3239, 2021 LOADS: CONCRETE: CSA A23.3:19 STEEL: CSA S16:19 WOOD: CSA O86:19

3. CLIMATE & SEISMIC SITE DATA:

IMPORTANCE CATEGORY: NORMAL GROUND SNOW LOAD (1/50): 4.3 kPa (90 psf) ASSOCIATED RAIN LOAD (1/50): 0.2 kPa (4.2 psf)

HOURLY WIND PRESSURE (1/50): 0.37 kPa (7.7 psf)

SITE DESIGNATION: SITE CLASS E (ASSUMED)

SPECTRAL ACCELERATION (0.2 s): 0.415 SPECTRAL ACCELERATION (0.5 s): 0.397 SPECTRAL ACCELERATION (1.0 s): 0.235 PEAK GROUND ACCELERATION: 0.168

THE SPECTRAL AND PEAK GROUND ACCELERATIONS ARE ADJUSTED FOR THE SITE DESIGNATION.

SC3

SEISMIC CATEGORY:

4. IMPORTANCE FACTORS: SNOW LOAD: 0.9 WIND LOAD: 1.0 0.75 EARTHQUAKE LOAD:

5. DESIGN LOADS:

ROOF DEAD LOAD: 0.5 kPa (10 psf) ROOF SNOW DRIFT LOAD: 15 kPa (313 psf)

THE DESIGN LOADS ONLY APPLY TO THE REPAIRS AND REPLACEMENTS. McELHANNEY HAS NOT CARRIED OUT A DETAILED STRUCTURAL ASSESSMENT OF ALL COMPONENTS OF THE EXISTING CANOPY STRUCTURE AND DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE STRUCTURAL STRENGTH AND STABILITY OF THE EXISTING CANOPY EXCEPT FOR THE PROPOSED COMPONENTS SHOWN ON THESE DRAWINGS.

6. THE CONTRACTOR SHALL ENSURE THAT CONSTRUCTION LOADS DO NOT EXCEED THE DESIGN LOADS LISTED ABOVE.

# **GENERAL:**

- 1. CODES AND STANDARDS REFERENCED ON THE DRAWINGS SHALL BE THE EDITIONS LISTED IN TABLE 1.3.1.2. OF DIVISION B OF THE CURRENT EDITION OF THE BUILDING CODE UNLESS NOTED OTHERWISE. CODES AND STANDARDS NOT LISTED IN THE BUILDING CODE SHALL BE THE LATEST EDITIONS UNLESS
- 2. CONSTRUCTION SHALL COMPLY WITH THE CODES AND STANDARDS LISTED ON THE DRAWINGS AS WELL AS ALL APPLICABLE FEDERAL, PROVINCIAL AND MUNICIPAL REGULATIONS AND BYLAWS. 3. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS BEFORE COMMENCING ANY WORK AND
- NOTIFY THE ENGINEER OF ANY ERRORS OR OMISSIONS. 4. THE CONTRACTOR SHALL COMPARE ALL RELATED DRAWINGS BEFORE COMMENCING ANY WORK AND
- NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES BETWEEN DRAWINGS.
- 5. DIMENSIONS ARE IN FEET AND INCHES UNLESS NOTED OTHERWISE ONLY USE WRITTEN DIMENSIONS. DO NOT SCALE OFF THE DRAWINGS
- 7. DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNLESS MARKED ISSUED FOR CONSTRUCTION (IFC) AND SEALED BY A PROFESSIONAL ENGINEER.
- 8. THESE NOTES SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS. THE MOST STRINGENT SPECIFICATIONS SHALL BE USED IF DISCREPANCIES OR INCONSISTENCIES ARE FOUND BETWEEN THE DRAWINGS AND OTHER CONTRACT DOCUMENTS, UNLESS APPROVED BY THE ENGINEER.
- 9. MATERIALS SHALL BE NEW AND BE PROTECTED FROM DAMAGE DURING SHIPPING, HANDLING, STORAGE AND INSTALLATION
- 10. MATERIALS SHALL BE ORDERED IN A TIMELY MANNER TO ENSURE PROCUREMENT TIMES DO NOT NEGATIVELY IMPACT THE PROJECT SCHEDULE.
- 11. THESE DRAWINGS ARE FOR THE COMPLETED STRUCTURE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION PROCEDURES, LIFT PLANS AND TEMPORARY SUPPORTS REQUIRED TO SUPPORT CONSTRUCTION LOADS AND TO KEEP THE STRUCTURE PLUMB AND LEVEL DURING CONSTRUCTION. THE CONTRACTOR'S RESPONSIBILITIES INCLUDE, BUT ARE NOT LIMITED TO THE DESIGN, INSTALLATION AND INSPECTION OF ALL TEMPORARY BRACING, FALSEWORK, FORMWORK, SHORING, AND RESHORING. DEMOLITION PROCEDURES, LIFT PLANS AND TEMPORARY SUPPORTS SHALL COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY REGULATION (OSHR)
- 12. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE CORRECTION OF DEFICIENCIES, AS DIRECTED BY THE ENGINEER.
- 13. DO NOT INSTALL OPENINGS, SET INSERTS, DRILL OR ATTACH TO STRUCTURAL ELEMENTS WITHOUT

# AUTHORIZATION FROM THE ENGINEER, UNLESS NOTED ON DRAWINGS.

# <u>FIELD REVIEWS:</u>

0 | 2025-07-18 | ISSUED FOR TENDER

Description

Date

- 1. THE ENGINEER SHALL BE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN ORDER TO SCHEDULE FIELD REVIEWS. IF THE ENGINEER IS NOT AFFORDED THE OPPORTUNITY TO REVIEW THE STRUCTURAL WORKS PRIOR TO CONCEALMENT, THEN FINAL CERTIFICATION OF THE PROJECT WILL NOT BE ISSUED.
- 2. THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE FOR FIELD REVIEWS OF THE FOLLOWING:
- REINFORCING STEEL & ANCHOR BOLTS, BEFORE CONCRETING/GROUTING WOOD FRAMING, BEFORE CONCEALMENT
- 3. ALL WORK SHALL BE MADE ACCESSIBLE FOR FIELD REVIEWS. FAILURE TO GIVE THE REQUIRED NOTIFICATION AND ACCESSIBILITY MAY RESULT IN THE ENGINEER REQUIRING THE REMOVAL AND REPLACEMENT OF THE WORK AT THE CONTRACTOR'S EXPENSE.
- 4. THE CONTRACTOR SHALL REVIEW SUB-CONTRACTORS' WORK PRIOR TO THE ENGINEER'S FIELD
- 5. FIELD REVIEWS ARE PROVIDED ONLY FOR THE WORK SHOWN ON THE STRUCTURAL DRAWINGS PREPARED BY THE ENGINEER. REVIEWS ARE PERIODIC, AND AT THE PROFESSIONAL JUDGEMENT OF THE ENGINEER TO DETERMINE THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE DRAWINGS AND CONTRACT DOCUMENTS, AND TO FACILITATE COMPLETION OF THE LETTERS OF ASSURANCE REQUIRED BY THE AUTHORITY HAVING JURISDISCTION (AHJ).
- 6. FIELD REVIEWS SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY AND OBLIGATION TO COMPLY WITH DRAWINGS AND CONTRACT DOCUMENTS. QUALITY CONTROL REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

- 7. MANUFACTURERS OF ELEMENTS DESIGNED BY THEIR ENGINEER. FOR EXAMPLE TRUSSES. SHALL PROVIDE SEALED CERTIFICATION FOR THEIR MANUFACTURE AND INSTALLATION PRIOR TO
- 8. ADDITIONAL FIELD REVIEWS THAT ARE REQUIRED DUE TO DEFICIENT OR INCOMPLETE WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

# REINFORCING STEEL:

- 1. REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH CSA-A23.1 AND THE RISC MANUAL OF STANDARD PRACTICE.
- 2. REINFORCING STEEL SHALL CONFORM TO CSA-G30.18 GRADE 400 UNLESS NOTED OTHERWISE.
- 3. REINFORCING STEEL SHALL BE CLEAN AND FREE OF MUD, OIL, EXCESSIVE RUST, MILL SCALE OR
- 4. REINFORCING STEEL SHALL BE ACCURATELY PLACED, SECURED, AND SUPPORTED TO ENSURE PROPER CONCRETE COVER AND SPACING WITHIN ALLOWABLE TOLERANCES BEFORE AND DURING CONCRETING. TIE WIRES SHALL BE 1.3 mm DIAMETER (16 ga) BLACK ANNEALED WIRE.
- 5. PROVIDE CLEAR CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE CONCRETE AS FOLLOWS, UNLESS NOTED OTHERWISE:

**EXPOSED TO CHLORIDES:** 60 mm (2 3/8")

6. REINFORCING STEEL SHALL BE PLACED WITHIN THE FOLLOWING TOLERANCES:

± 30 mm (1 1/8") LOCATION OF BAR ENDS & BENDS: ± 50 mm (2") ± 20 mm (3/4") AT DISCONTINUED BARS

CONCRETE COVER: ± 12 mm (1/2")

7. REINFORCING STEEL SHALL BE BENT WITH THE FOLLOWING DIAMETERS UNLESS NOTED OTHERWISE:

CONCRETE COVER SHALL NOT BE REDUCED BY MORE THAN 1/3 OF THE SPECIFIED COVER.

70 mm (2 3/4")

- 8. HOOKS SHALL BE 90° BENDS WITH AN EXTENSION OF AT LEAST 12 BAR DIAMETERS, OR 180° BENDS WITH AN EXTENSION OF AT LEAST 4 BAR DIAMETERS, BUT NO LESS THAN 60 mm (2 3/8"). HOOKS FOR STIRRUPS AND TIES SHALL BE 135° BENDS WITH AN EXTENSION OF AT LEAST 4 BAR DIAMETERS, BUT NO LESS THAN 60 mm (2 3/8").
- 9. CONCRETE OR GROUT SHALL NOT BE POURED UNTIL REINFORCING STEEL HAS BEEN REVIEWED BY THE ENGINEER AND FOUND TO BE IN GENERAL CONFORMANCE WITH THE DRAWINGS AND CONTRACT
- 10. REINFORCING STEEL DOWELS SHALL NOT BE WET SET UNLESS AUTHORIZED BY THE ENGINEER.

### **CAST-IN-PLACE CONCRETE:**

- 1. CONCRETE SHALL BE MIXED, PLACED, FINISHED AND CURED IN ACCORDANCE WITH CSA-A23.1. 2. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE, CONTAIN MAXIMUM 20 mm (3/4") AGGREGATE, EXCEPT CONCRETE SLABS ON STEEL DECKING SHALL CONTAIN MAXIMUM 12 mm (1/2") AGGREGATE,
- AND CONFORM TO THE FOLLOWING SPECIFICATIONS UNLESS NOTED OTHERWISE EXPOSURE STRENGTH MAX W/C SLUMP\* AIR 35 MPa 0.45 25 – 75 mm 5 – 8%
- \* SUPERPLASTICIZER SHALL BE ADDED AFTER SLUMP HAS BEEN MEASURED.
- 3. THE CONTRACTOR SHALL SUBMIT MIX DESIGNS TO THE ENGINEER FOR REVIEW AT LEAST TWO WEEKS PRIOR TO PLACING.
- 4. THE USE OF ADMIXTURES OTHER THAN AIR ENTRAINMENT, STANDARD WATER REDUCERS, OR SUPER PLASTICIZERS IS NOT PERMITTED UNLESS SPECIFIED OR AUTHORIZED BY THE ENGINEER.
- 5. WATER SHALL NOT BE ADDED TO THE CONCRETE AFTER LEAVING THE BATCH PLANT. CONCRETE SHALL BE COMPLETELY DISCHARGED WITHIN 120 MINUTES OF INITIAL MIXING. CONCRETE
- SHALL BE REJECTED IF THIS TIME LIMIT CANNOT BE MET. 7. FORMWORK AND FALSEWORK SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH PART
- 20 OF THE OSH REGULATION AND CSA-S269.1. 8. VERTICAL AND HORIZONTAL CONCRETE ELEMENTS SHALL BE PLUMB AND LEVEL WITH A TOLERANCE OF 1:400, BUT NO MORE THAN 40 mm (1 1/2") OVER THE TOTAL HEIGHT OR LENGTH OF THE STRUCTURE. CROSS-SECTIONAL DIMENSIONS OF CONCRETE ELEMENTS OTHER THAN SLABS ON

LESS THAN 0.3 m (12") THICK: ± 8 mm (5/16") 0.3 m (12") TO 1 m (39") THICK: ± 12 mm (1/2") MORE THAN 1 m (39") THICK: ± 20 mm (3/4")

FORMS IN CONTACT WITH CONCRETE SURFACE

GRADE SHALL BE WITHIN THE FOLLOWING:

- 9. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 20 mm (3/4") CHAMFER UNLESS NOTED OTHERWISE.
- 10. CONCRETE SHALL BE CONSOLIDATED USING MECHANICAL VIBRATORS. 11. OPENINGS, BLOCKOUTS, OR EMBEDDED HARDWARE SHALL NOT BE INSTALLED UNLESS SPECIFIED OR AUTHORIZED BY THE ENGINEER.
- 12. AIR-ENTRAINED CONCRETE SHALL BE FINISHED WITH A FLOAT. AIR-ENTRAINED CONCRETE SHALL NOT BE FINISHED WITH A STEEL TROWEL.
- 13. FORMWORK SHALL BE LEFT IN PLACE UNTIL THE CONCRETE HAS ATTAINED SUFFICIENT STRENGTH TO SUPPORT ITS OWN WEIGHT AND CONSTRUCTION LOADS.
- 14. CONCRETE CURING TYPE 1 SHALL BE CURED FOR A MINIMUM OF 3 DAYS OR UNTIL THE CONCRETE HAS REACHED 40% OF ITS DESIGN STRENGTH. CONCRETE CURING TYPE 2 SHALL BE CURED FOR A MINIMUM OF 7 DAYS OR UNTIL THE CONCRETE HAS REACHED 70% OF ITS DESIGN STRENGTH. REFER TO THE CONCRETE SPECIFICATION TABLE ON THIS DRAWING FOR SPECIFIED CURING TYPES.
- 15. CONCRETE CURING SHALL COMMENCE USING ONE OF THE FOLLOWING METHODS AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY:

CURING COMPOUNDS

- PONDING OR CONTINUOUS SPRINKLING WITH WATER APPLYING WATER AND COVERING WITH LAPPED POLYETHYLENE SHEETS APPLYING WATER AND COVERING WITH ABSORPTIVE BURLAP FABRIC
- 16. SURFACE VOIDS LARGER THAN 12 mm (1/2") IN DIAMETER IN FORMED CONCRETE SHALL BE PATCHED.

HIS DRAWING AND DESIGN IS THE PROPERTY OF MCELHANNEY AND SHALL NOT BE USED, REUS

OR REPRODUCED WITHOUT THE CONSENT OF MCELHANNEY. MCELHANNEY WILL NOT BE HELD

ESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

HIS DRAWING AND DESIGN HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE TANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF

REPARATION. McELHANNEY, ITS EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE

ONTRACTORS, SUPPLIERS, CONSULTANTS AND STAKEHOLDERS, OR THEIR EMPLOYEES OR

INFORMATION ON EXISTING UNDERGROUND FACILITIES MAY NOT BE COMPLETE OR ACCURATE MCELHANNEY, ITS EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE

LOCATION OF ANY UNDERGROUND CONDUITS. PIPES. CABLES OR OTHER FACILITIES WHETHER

OCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE

HOWN OR OMITTED FROM THIS PLAN. PRIOR TO CONSTRUCTION CONTRACTOR SHALL EXPOS

UPON, OR ANY CHANGES MADE TO, THIS DRAWING, BY ANY THIRD PARTY, INCLUDING

AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT

LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE

- 1. COLD WEATHER CONCRETING, I.E. WHEN THERE IS A PROBABILITY OF THE AIR TEMPERATURE FALLING BELOW 5 °C WITHIN 24 HOURS OF PLACING, SHALL BE CARRIED OUT IN ACCORDANCE WITH CSA-A23.1, ACI 306R AND THE SPECIFICATIONS LISTED BELOW.
- 2. SNOW AND ICE SHALL BE REMOVED FROM ALL SURFACES THAT CONCRETE WILL BE PLACED AGAINST DE-ICING SALTS SHALL NOT BE USED. 3. CONCRETE SHALL HAVE A MINIMUM TEMPERATURE OF 10°C, WHICH SHALL BE MAINTAINED FOR THE
- DURATION OF THE REQUIRED CURING PERIOD. AGGREGATE AND MIXING WATER SHALL BE HEATED AS REQUIRED. THE CONTRACTOR SHALL COVER, INSULATE AND HEAT THE CONCRETE AS REQUIRED. 4. CONCRETE SHALL NOT BE PLACED AGAINST SURFACES OR REINFORCING STEEL WITH A

TEMPERATURE OF LESS THAN 5 °C. SLABS THINNER THAN 1 m (40") SHALL NOT BE PLACED AGAINST

SURFACES OR REINFORCING STEEL WITH A TEMPERATURE OF LESS THAN 10 °C. 5. COVERS SHALL NOT BE REMOVED AFTER THE HEATING IS SHUT OFF UNTIL THE CONCRETE HAS COOLED DOWN TO NO MORE THAN 12 °C ABOVE AIR TEMPERATURE.

# **HOT WEATHER CONCRETING:**

- 1. HOT WEATHER CONCRETING, I.E. WHEN THERE IS A PROBABILITY OF THE AIR TEMPERATURE RISING ABOVE 27 °C DURING THE PLACING, SHALL BE CARRIED OUT IN ACCORDANCE WITH CSA-A23.1, ACI 305 AND THE SPECIFICATIONS LISTED BELOW.
- 2. THE CONCRETE TEMPERATURE SHALL KEPT AS CLOSE AS POSSIBLE TO THE MINIMUM TEMPERATURE OF 10°C AND SHALL NOT EXCEED THE FOLLOWING MAXIMUM TEMPERATURES DURING THE PLACING. IN NO CASE SHALL THE TEMPERATURE OF HIGH-PERFORMANCE CONCRETE EXCEED 25 °C.

THICKNESS OF CONCRETE SECTION MAXIMUM TEMPERATURE

30 °C  $\geq$  0.3 m (1') & < 1.0 m (3'-3") 25 °C ≥ 1.0 m (3'-3") & < 2.0 m (6'-6") 20 °C ≥ 2.0 m (6'-6")

- 3. ALL MATERIALS AND EQUIPMENT NEEDED FOR ADEQUATE PROTECTION SHALL BE ON HAND AND READY FOR USE BEFORE COMMENDING PLACEMENT.
- 4. FRESHLY PLACED CONCRETE SHALL BE PROTECTED AGAINST HIGH TEMPERATURES USING ONE OR MORE OF THE FOLLOWING MEASURES:

LOWERING THE CONCRETE TEMPERATURE PLACING AND FINISHING CONCRETE AT NIGHT OR EARLY IN THE MORNING MODIFYING THE CONCRETE MIX TO IMPROVE SURFACE BLEEDING

REDUCING EXPOSURE OF FRESH CONCRETE TO DIRECT SUNLIGHT AND/OR WIND

APPLYING FINE MIST WATER FOG SPRAY IMMEDIATELY AFTER PLACEMENT AND BETWEEN FINISHING **OPERATIONS** BEGINNING CURING IMMEDIATELY AFTER FINAL FINISHING

### **CONCRETE TESTING:**

- 1. CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CSA-A23.2 BY A TESTING AGENCY CERTIFIED IN ACCORDANCE WITH CSA-A283.
- 2. THE CONTRACTOR SHALL COOPERATE WITH, AND PROVIDE CONCRETE FOR, THE CONCRETE TESTING. 3. SLUMP SHALL BE TESTED BEFORE SUPER PLASTICIZER IS ADDED ON SITE.
- 4. A MINIMUM OF 1 SET OF 3 TEST CYLINDERS SHALL BE CAST FOR EVERY 100 m<sup>3</sup> (130 yd<sup>3</sup>) OF EACH TYPE OF CAST-IN-PLACE CONCRETE, PER SUPPLIER, PER DAY. 1 CYLINDER SHALL BE TESTED AT 7 DAYS, AND 2 SHALL BE TESTED AT 28 DAYS. COPIES OF THE TEST REPORTS SHALL BE SUBMITTED TO THE

ENGINEER AND SHALL IDENTIFY THE LOCATION WITHIN THE STRUCTURE WHERE THE CONCRETE WAS

5. CONCRETE TESTING, INCLUDING SUBSEQUENT TESTING REQUIRED BECAUSE OF SUBSTANDARD CONCRETE, SHALL BE CARRIED OUT AT THE CONTRACTOR'S EXPENSE.

# STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS NOTED OTHERWISE:

ASTM F1554 GRADE 36 ANCHOR BOLTS: **HEAVY HEX NUTS:** ASTM A563 GRADE A STANDARD WASHERS: ASTM F844

EXTERIOR FASTENERS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153. 3. DAMAGED GALVANIZING SHALL BE TOUCHED UP WITH TWO COATS OF LANCO GALVACON GC-243 COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

WOOD CONSTRUCTION SHALL CONFORM TO CSA-O86. 2. SAWN LUMBER SHALL CONFORM TO CSA-O141 AND BE OF THE FOLLOWING SPECIES AND GRADES OR BETTER UNLESS NOTED OTHERWISE:

#### TIMBER: D.FIR No. 1

3. FASTENERS FOR WOOD CONNECTION SHALL CONFORM TO THE FOLLOWING:

NAILS, SPIKES & STAPLES: CSA-B111 **ASME B18.6.1** SCREWS:

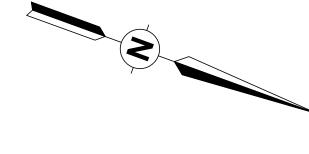
LAG BOLTS: ASME B18.2.1 & SAE J429 GRADE 1 ASTM A307 BOLTS:

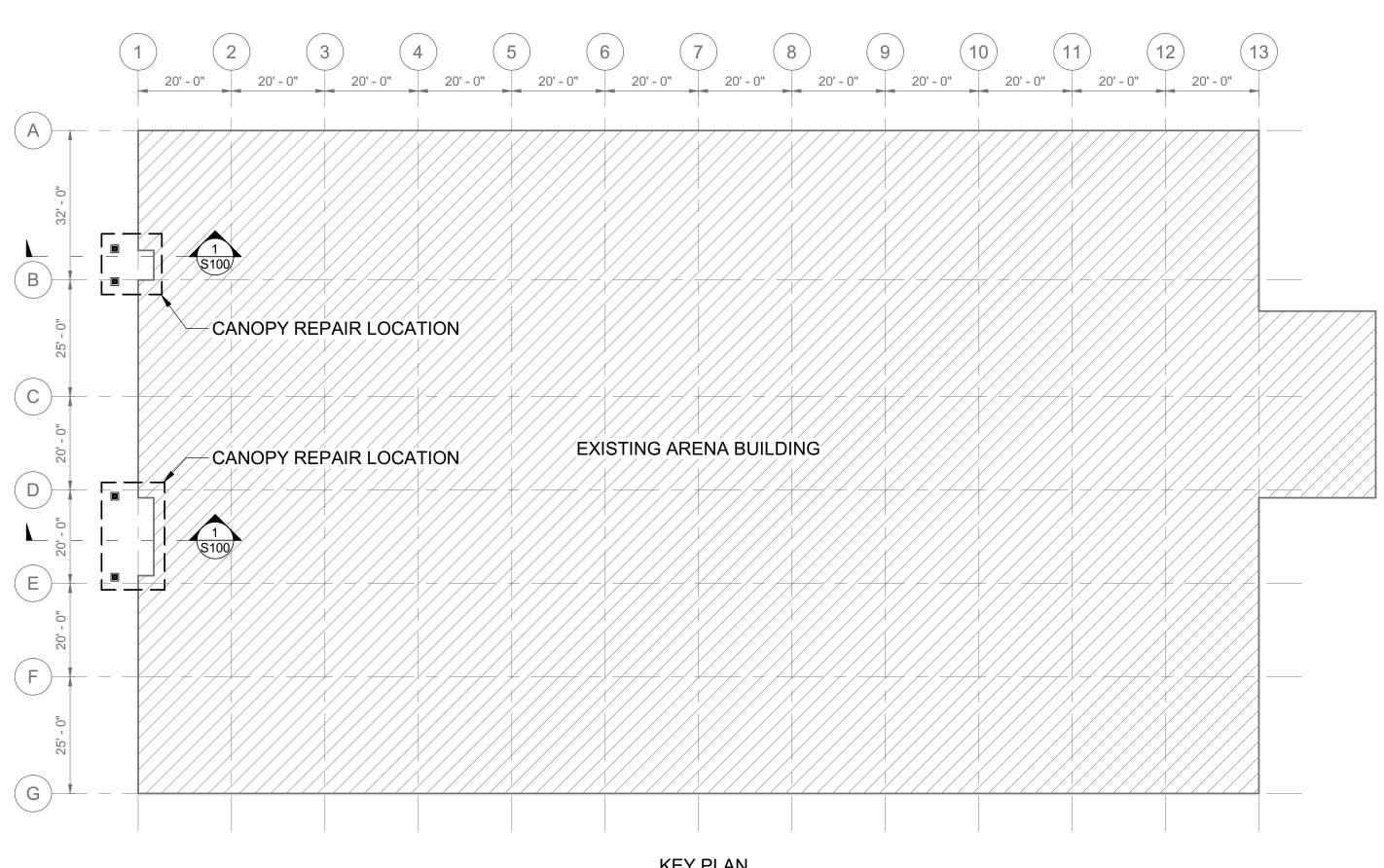
- CONNECTORS AND FASTENERS FOR EXTERIOR SHALL BE ZINC COATED OR HOT-DIP GALVANIZED.
- LAG BOLTS SHALL BE INSTALLED IN APPROPRIATELY SIZED PILOT HOLES.

#### BOLTS IN TIMBER CONNECTIONS SHALL BE INSTALLED WITH MALLEABLE CAST IRON WASHERS. 4. EXTERIOR WOOD SHALL BE COATED IN ACCORDANCE WITH THE OWNER'S SPECIFICATIONS.

# **POST-INSTALLED ANCHORS:**

- 1. POST-INSTALLED ANCHORS SHALL BE BY HILTI, SIKA, SIMPSON STRONG-TIE OR APPROVED
- EQUIVALENT. 2. POST-INSTALLED ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.





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PERMIT TO PRACTICE

McElhanney Ltd.

PERMIT NUMBER: 1003299

Engineers and Geoscientists of

British Columbia



Approved Sealed

155 GEORGE STREET, PRINCE GEORGE, BC V2L 1P8 ROBSON VALLEY REC CENTRE **CANOPY REPAIRS - STRUCTURAL** 

RDFFG

**SPECIFICATIONS & KEY PLAN** McBRIDE, BC

roject Number

Drawing No.

2341-21215-03

