Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

# INVITATION TO TENDER

**RETURN BIDS TO:**

**Bid Receiving / Agriculture and Agri-Food Canada**

Agriculture and Agri-Food Canada
Eastern Service Centre
Tender Receiving Unit
2001 Robert-Bourassa Blvd., Suite 671-TEN
Montréal, Quebec
H3A 3N2

**TENDER TO:**

**Agriculture and Agri-Food Canada**
We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the construction listed herein and on any attached sheets at the price(s) set out therefor.

Comments

DATE OF COMMENCEMENT OF WORK:
October 2, 2017

**ISSUING OFFICE**

Agriculture and Agri-Food Canada
Eastern Service Centre
Tender Receiving Unit
2001 Robert-Bourassa Blvd., Suite 671-TEN
Montréal, Quebec
H3A 3N2

| | |
|---|---|
| Title: Repair of the manchinery hangar shed - PAI3 | |
| Solicitation No.: 01B46-17-028 | Date: 2017-05-26 |
| Client Reference No. | |
| File No. | |
| Solicitation Closes: Friday, June 30, 2017, at 02:00 PM, EDT. | |
| F.O.B ◯ Plant ◉ Destination ◯ Other | |
| Address Enquiries to: Jean-François Lemay | |
| Title: Procurement officer | |
| Email: jean-francois.lemay@agr.gc.ca | |
| Telephone Number Ext.: 514 315-6196 | Fax Number: 514 283-1918 |
| Destination: Agriculture & Agri-Food Canada<br>Sainte-Clotilde Research Farm<br>1815, chemin de la Rivière<br>Ste-Clotilde (Québec), J0L 1WO | |

**Instructions: See Herein**

| | |
|---|---|
| Delivery Required: 31 Mars 2018 | Delivery Offered |
| Vendor / Firm Name and Address | |
| Telephone Number Ext. | Fax Number |
| Name and title of person authorized to sign on behalf of Vendor / Firm (type or print)<br>Signature _____ Date _____ | |



Canada

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Appendix "A"

# GENERAL INSTRUCTIONS TO BIDDERS

# GENERAL INSTRUCTIONS TO BIDDERS



## GI01 COMPLETION OF BID

1) The bid shall be:

   (a) submitted on the BID AND ACCEPTANCE FORM provided by AAFC with the bid package or on a clear and legible reproduced copy of such BID AND ACCEPTANCE FORM that must be identical in content and format to the BID AND ACCEPTANCE FORM provided by AAFC;

   (b) based on the Bid Documents listed in the Special Instructions to Bidders;

   (c) correctly completed in all respects;

   (d) signed, with an original signature, by a duly authorized representative of the Bidder; and

   (e) accompanied by

      (i) bid security as specified in GI07; and
      (ii) any other document or documents specified elsewhere in the solicitation where it is stipulated that said documents are to accompany the bid.

2) Subject to paragraph 6) of GI10, any alteration to the pre-printed or pre-typed sections of the Bid and Acceptance Form, or any condition or qualification placed upon the bid shall be cause for disqualification. Alterations, corrections, changes or erasures made to statements or figures entered on the Bid and Acceptance Form by the Bidder shall be initialed by the person or persons signing the bid. Alterations, corrections, changes or erasures that are not initialed shall be deemed void and without effect.

3) Unless otherwise noted elsewhere in the Bid Documents, facsimile copies of bids are not acceptable.

## GI02 IDENTITY OR LEGAL CAPACITY OF THE BIDDER

1) In order to confirm the authority of the person or persons signing the bid or to establish the legal capacity under which the Bidder proposes to enter into Contract, any Bidder who carries on business in other than its own personal name shall, if requested by Canada, provide satisfactory proof of

   (a) such signing authority; and

   (b) the legal capacity under which it carries on business;

   prior to contract award. Proof of signing authority may be in the form of a certified copy of a resolution naming the signatory(ies) that is (are) authorized to sign this bid on behalf of the corporation or partnership. Proof of legal capacity may be in the form of a copy of the articles of incorporation or the registration of the business name of a sole proprietor or partnership.

## GI03 APPLICABLE TAXES

1) "Applicable Taxes" means the Goods and Services Tax (GST), the Harmonized Sales Tax (HST), and any provincial tax, by law, payable by Canada such as, the Quebec Sales Tax (QST) as of April 1, 2013.

## GI04 CAPITAL DEVELOPMENT AND REDEVELOPMENT CHARGES

1) For the purposes of GC1.8 LAWS, PERMITS AND TAXES in the General Conditions of the Contract, only fees or charges directly related to the processing and issuing of building permits shall be included. The Bidder shall not include any monies in the bid amount for special municipal development, redevelopment or other fees or charges which a municipal authority may seek as a prerequisite to the issuance of building permits.

## GI05 REGISTRY AND PRE-QUALIFICATION OF FLOATING PLANT

1) Dredges or other floating plant to be used in the performance of the Work must be of Canadian registry. For dredges or other floating plant that are not of Canadian make or manufacture, the Bidder must obtain a certificate of qualification from Industry Canada and this certificate must accompany the bid. Plant so qualified by Industry Canada may be accepted on this project.

## GI06 LISTING OF SUBCONTRACTORS AND SUPPLIERS

1) Notwithstanding any list of Subcontractors that the Bidder may be required to submit as part of the bid, the Bidder shall, within 48 hours of receipt of a notice to do so, submit all information requested in the said notice including the names of Subcontractors and Suppliers for the part or parts of the Work listed. Failure to do so shall result in the disqualification of its bid.

## GI07 BID SECURITY REQUIREMENTS

1) The Bidder shall submit bid security with the bid in the form of a bid bond or a security deposit in an amount that is equal to not less than 10 percent of the bid amount. Applicable Taxes shall not be included when calculating the amount of any bid security that may be required. The maximum amount of bid security required with any bid is $2,000,000.00.

2) A bid bond shall be in an approved form http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494&section=text#appS, properly completed, with original signature(s) and issued by an approved company whose bonds are acceptable to Canada either at the time of solicitation closing or as identified in Treasury Board Appendix L: Acceptable Bonding Companies.

3) A security deposit shall be an original, properly completed, signed where required and be either:

   (a) a bill of exchange, bank draft or money order made payable to the Receiver General for Canada and certified by an approved financial institution or drawn by an approved financial institution on itself; or

   (b) bonds of, or unconditionally guaranteed as to principal and interest by, the Government of Canada;

4) For the purposes of subparagraph 3) (a) of GI07

   (a) a bill of exchange is an unconditional order in writing signed by the Bidder and addressed to an approved financial institution, requiring the said institution to pay, on demand, at a fixed or determinable future time a sum certain of money to, or to the order of, the Receiver General for Canada;

   (b) if a bill of exchange, bank draft or money order is certified by or drawn on an institution or corporation other than a chartered bank, it must be accompanied by proof that the said institution or corporation meets at least one of the criteria described in subparagraph 4.c. of GI07, either by letter or by a stamped certification on the bill of exchange, bank draft or money; and

   (c) An approved financial institution is:
      (i) a corporation or institution that is a member of the Canadian Payments Association as defined in the Canadian Payments Act;
      (ii) a corporation that accepts deposits that are insured, to the maximum permitted by law, by the Canada Deposit Insurance Corporation or the "Autorité des marchés financiers";
      (iii) a corporation that accepts deposits from the public if repayment of the deposit is guaranteed by Her Majesty the Queen in right of a province;
      (iv) a corporation, association or federation incorporated or organized as a credit union or co-operative credit society that conforms to the requirements of a credit union which are more particularly described in paragraph 137(6) of the Income Tax Act; or
      (v) Canada Post Corporation.

5) Bonds referred to in subparagraph 3)(b) of GI07 shall be provided on the basis of their market value current at the date of solicitation closing, and shall be:

   (a) payable to bearer;

   (b) accompanied by a duly executed instrument of transfer of the bonds to the Receiver General for Canada in the form prescribed by the Domestic Bonds of Canada Regulations; or

   (c) registered as to principal or as to principal and interest in the name of the Receiver General for Canada pursuant to the Domestic Bonds of Canada Regulations.

6) As an alternative to a security deposit an irrevocable standby letter of credit is acceptable to Canada and the amount shall be determined in the same manner as a security deposit referred to above.

7) An irrevocable standby letter of credit referred to in paragraph 6) of GI07 shall

(a) be an arrangement, however named or described, whereby a financial institution (the "Issuer") acting at the request and on the instructions of a customer (the "Applicant) or on its own behalf,

(i) is to make a payment to, or to the order of, the Receiver General for Canada as the beneficiary;

(ii) is to accept and pay bills of exchange drawn by the Receiver General for Canada;

(iii) authorizes another financial institution to effect such payment or accept and pay such bills of exchange; or

(iv) authorizes another financial institution to negotiate against written demand(s) for payment provided that the terms and conditions of the letter of credit are complied with;

(b) state the face amount which may be drawn against it;

(c) state its expiry date;

(d) provide for sight payment to the Receiver General for Canada by way of the financial institution's draft against presentation of a written demand for payment signed by the Departmental Representative identified in the letter of credit by his/her office;

(e) provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face value of the letter of credit;

(f) provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice (UCP) for Documentary Credits, 2007 Revision, ICC Publication No. 600; pursuant to the ICC UCP; a credit is irrevocable even if there is no indication to that effect; and

(g) be issued or confirmed, in either official language, by a financial institution which is a member of the Canadian Payments Association and is on the letterhead of the Issuer or Confirmer. The format is left to the discretion of the Issuer or Confirmer.

8) Bid security shall lapse or be returned as soon as practical following:

(a) the solicitation closing date, for those Bidders submitting non-compliant bids; and

(b) the administrative bid review, for those Bidders submitting compliant bids ranked fourth to last on the schedule of bids; and

(c) the award of contract, for those Bidders submitting the second and third ranked bids; and

(d) the receipt of contract security, for the successful Bidder; or

(e) the cancellation of the solicitation, for all Bidders.

9) Notwithstanding the provisions of paragraph 8) of GI07 and provided more than three compliant bids have been received, if one or more of the bids ranked third to first is withdrawn or rejected

for whatever reason then Canada reserves the right to hold the security of the next highest ranked compliant bid in order to retain the bid security of at least three valid and compliant bids.

**GI08 SUBMISSION OF BID**

1) The Bid and Acceptance Form, duly completed, and the bid security shall be enclosed and sealed in an envelope provided by the Bidder, and shall be addressed and submitted to the office designated on the INVITATION TO TENDER Form for the receipt of bids. The bid must be received on or before the date and time set for solicitation closing.

2) Unless otherwise specified in the Special Instructions to Bidders

   (a) the bid shall be in Canadian currency;

   (b) exchange rate fluctuation protection is not offered; and

   (c) any request for exchange rate fluctuation protection shall not be considered.

3) Prior to submitting the bid, the Bidder shall ensure that the following information is clearly printed or typed on the face of the bid envelope:

   (a) Solicitation Number;

   (b) Name of Bidder;

   (c) Return address; and

   (d) Closing Date and Time.

4) Timely and correct delivery of bids is the sole responsibility of the Bidder.

**GI09 REVISION OF BID**

1) A bid submitted in accordance with these instructions may be revised by letter or facsimile provided the revision is received at the office designated for the receipt of bids, on or before the date and time set for the closing of the solicitation. The letter or facsimile shall be on the Bidder's letterhead or bear a signature that identifies the Bidder;

2) A revision to a bid that includes unit prices must clearly identify the changes(s) in the unit price(s) and the specific item(s) to which each change applies.

3) A letter or facsimile submitted to confirm an earlier revision shall be clearly identified as a confirmation.

4) Failure to comply with any of the above provisions shall result in the rejection of the non-compliant revision(s) only. The bid shall be evaluated based on the original bid submitted and all other compliant revision(s).

**GI10 REJECTION OF BID**

1) Canada may accept any bid, whether it is the lowest or not, or may reject any or all bids.

2) Without limiting the generality of paragraph 1) of GI10, Canada may reject a bid if any of the following circumstances is present:

(a) the Bidder, or any employee or subcontractor included as part of the bid, has been convicted under Section 121 ("Frauds on the government" & "Contractor subscribing to election fund"), 124 "Selling or purchasing office"), 380 ("Fraud committed against Her Majesty") or 418 ("Selling defective stores to Her Majesty") of the Criminal Code of Canada, or under paragraph 80(1)(d) ("False entry, certificate or return"), subsection 80(2) ("Fraud against Her Majesty") or Section 154.01 ("Fraud against Her Majesty") of the *Financial Administration Act*;

(b) the Bidder's bidding privileges are suspended or are in the process of being suspended;

(c) the bidding privileges of any employee or subcontractor included as part of the bid are suspended or are in the process of being suspended, which suspension or pending suspension would render that employee or subcontractor ineligible to bid on the Work, or the portion of the Work the employee or subcontractor is to perform;

(d) the Bidder is bankrupt, or where for whatever reason, its activities are rendered inoperable for an extended period;

(e) evidence, satisfactory to Canada, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the Bidder, any of its employees or any subcontractor included as part of its bid;

(f) evidence satisfactory to Canada that based on past conduct or behavior, the Bidder, a sub-contractor or a person who is to perform the Work is unsuitable or has conducted himself/herself improperly;

(g) with respect to current or prior transactions with Canada
  (i) Canada has exercised, or intends to exercise, the contractual remedy of taking the work out of the contractor's hands with respect to a contract with the Bidder, any of its employees or any subcontractor included as part of its bid; or
  (ii) Canada determines that the Bidder's performance on other contracts is sufficiently poor to jeopardize the successful completion of the requirement being bid on.

3) In assessing the Bidder’s performance on other contracts pursuant to subparagraph 2)(g)(ii)of GI10, Canada may consider, but not be limited to, such matters as:

(a) the quality of workmanship in performing the Work;

(b) the timeliness of completion of the Work;

(c) the overall management of the Work and its effect on the level of effort demanded of the department and its representative; and

(d) the completeness and effectiveness of the Contractor’s safety program during the performance of the Work.

4) Without limiting the generality of paragraphs 1), 2) and 3) of GI10, Canada may reject any bid based on an unfavourable assessment of the:

(a) adequacy of the bid price to permit the work to be carried out and, in the case of a bid

providing prices per unit or a combination of lump sum and prices per unit, whether each such price reasonably reflects the cost of performing the part of the work to which that price applies;

(b) Bidder's ability to provide the necessary management structure, skilled personnel, experience and equipment to perform competently the work under the Contract; and

(c) Bidder's performance on other contracts.

5) Where Canada intends to reject a bid pursuant to a provision of paragraphs 1), 2), 3) or 4) of GI10, other than subparagraph 2)(g)of IT10, the contracting authority will inform the Bidder and provide the Bidder ten (10) days within which to make representations, before making a final decision on the bid rejection.

6) Canada may waive informalities and minor irregularities in bids received if Canada determines that the variation of the bid from the exact requirements set out in the Bid Documents can be corrected or waived without being prejudicial to other Bidders.

## GI11 BID COSTS

1) No payment will be made for costs incurred in the preparation and submission of a bid in response to the bid solicitation. Costs associated with preparing and submitting a bid, as well as any costs incurred by the Bidder associated with the evaluation of the bid, are the sole responsibility of the Bidder.

## GI12 COMPLIANCE WITH APPLICABLE LAWS

1) By submission of a bid, the Bidder certifies that the Bidder has the legal capacity to enter into a contract and is in possession of all valid licences, permits, registrations, certificates, declarations, filings, or other authorizations necessary to comply with all federal, provincial and municipal laws and regulations applicable to the submission of the bid and entry into any ensuing contract for the performance of the work.

2) For the purpose of validating the certification in paragraph 1) of GI12, a Bidder shall, if requested, provide a copy of every valid licence, permit, registration, certificate, declaration, filing or other authorization listed in the request, and shall provide such documentation within the time limit(s) set out in the said request.

3) Failure to comply with the requirements of paragraph 2) of GI12 shall result in disqualification of the bid.

## GI13 APPROVAL OF ALTERNATIVE MATERIALS

1) When materials are specified by trade names or trademarks, or by manufacturers' or suppliers' names, the bid shall be based on use of the named materials. During the solicitation period, alternative materials may be considered provided full technical data is received in writing by the Contracting Officer at least 10 calendar days prior to the solicitation closing date.

## GI14 CONFLICT OF INTEREST - UNFAIR ADVANTAGE

1) In order to protect the integrity of the procurement process, bidders are advised that Canada may reject a bid in the following circumstances:

(a) if the Bidder, any of its subcontractors, any of their respective employees or former employees was involved in any manner in the preparation of the bid solicitation or in any situation of conflict of interest or appearance of conflict of interest;

(b) if the Bidder, any of its subcontractors, any of their respective employees or former employees had access to information related to the bid solicitation that was not available to other bidders and that would, in Canada's opinion, give or appear to give the Bidder an unfair advantage.

2) The experience acquired by a bidder who is providing or has provided the goods and services described in the bid solicitation (or similar goods or services) will not, in itself, be considered by Canada as conferring an unfair advantage or creating a conflict of interest. This bidder remains however subject to the criteria established above.

3) Where Canada intends to reject a bid under this section, the Contracting Authority will inform the Bidder and provide the Bidder an opportunity to make representations before making a final decision. Bidders who are in doubt about a particular situation should contact the Contracting Authority before bid closing. By submitting a bid, the Bidder represents that it does not consider itself to be in conflict of interest nor to have an unfair advantage. The Bidder acknowledges that it is within Canada's sole discretion to determine whether a conflict of interest, unfair advantage or an appearance of conflict of interest or unfair advantage exists.

**GI15 INTEGRITY PROVISIONS - BID**

1) Ineligibility and Suspension Policy (the “Policy”), and all related Directives, are incorporated by reference into, and form a binding part of the procurement process. The Supplier must comply with the Policy and Directives, which can be found at *Ineligibility and Suspension Policy*.

2) Under the Policy, charges and convictions of certain offences against a Supplier, its affiliates or first tier subcontractors, and other circumstances, will or may result in a determination by Public Works and Government Services Canada (PWGSC) that the Supplier is ineligible to enter, or is suspended from entering into a contract with Canada. The list of ineligible and suspended Suppliers is contained in PWGSC’s Integrity Database. The Policy describes how enquiries can be made regarding the ineligibility or suspension of Suppliers.

3) In addition to all other information required in the procurement process, the Supplier must provide the following:

a. by the time stated in the Policy, all information required by the Policy described under the heading “Information to be Provided when Bidding, Contracting or Entering into a Real Property Agreement”; and

b. with its bid / quote / proposal, a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier subcontractors that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy. The list of foreign criminal charges and convictions must be submitted using an Integrity Declaration Form, which can be found at Declaration form for procurement.

4) Subject to subsection 5, by submitting a bid / quote / proposal in response a request by AAFC, the Supplier certifies that:

a. it has read and understands the *Ineligibility and Suspension Policy*;

b. it understands that certain domestic and foreign criminal charges and convictions, and other circumstances, as described in the Policy, will or may result in a determination of ineligibility or suspension under the Policy;

c. it is aware that Canada may request additional information, certifications, and validations from the Supplier or a third party for purposes of making a determination of ineligibility or suspension;

d. it has provided with its bid / quote / proposal a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier subcontractors that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy;

e. none of the domestic criminal offences, and other circumstances, described in the Policy that will or may result in a determination of ineligibility or suspension, apply to it, its affiliates and its proposed first tier subcontractors; and

f. it is not aware of a determination of ineligibility or suspension issued by PWGSC that applies to it.

5) Where a Supplier is unable to provide any of the certifications required by subsection 4, it must submit with its bid/ quote / proposal a completed Integrity Declaration Form, which can be found at Declaration form for procurement.

6) Canada will declare non-responsive any bid / quote / proposal in respect of which the information requested is incomplete or inaccurate, or in respect of which the information contained in a certification or declaration is found by Canada to be false or misleading in any respect. If Canada establishes after award of the Contract that the Supplier provided a false or misleading certification or declaration, Canada may terminate the Contract for default. Pursuant to the Policy, Canada may also determine the Supplier to be ineligible for award of a contract for providing a false or misleading certification or declaration.

Ineligibility and Suspension Policy - http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html

Declaration form for procurement - http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html

## GI16 CODE OF CONDUCT FOR PROCUREMENT - BID

1) The Code of Conduct for Procurement provides that Bidders must respond to bid solicitations in an honest, fair and comprehensive manner, accurately reflect their capacity to satisfy the requirements set out in the bid solicitation and resulting contract, submit bids and enter into contracts only if they will fulfill all obligations of the Contract. By submitting a bid, the Bidder is certifying that it is complying with the Code of Conduct for Procurement. Failure to comply with the Code of Conduct for Procurement may render the bid non-responsive.

Appendix "B"

# SPECIAL INSTRUCTIONS TO BIDDERS

# SPECIAL INSTRUCTIONS TO BIDDERS (SI)



## SI01 BID DOCUMENTS

1) The following are the bid documents:

(a) INVITATION TO TENDER - Page 1 form AAFC / AAC5323-E;
(b) SPECIAL INSTRUCTIONS TO BIDDERS form AAFC / AAC5301-E;
(c) GENERAL INSTRUCTIONS TO BIDDERS form AAFC / AAC5313-E;
(d) Clauses and Conditions identified in “CONTRACT DOCUMENTS”;
(e) Drawings and Specifications;
(f) BID AND ACCEPTANCE form AAFC / AAC5320-E and any Appendices attached thereto; and,
(g) Any amendment issued prior to solicitation closing.

Submission of a bid constitutes acknowledgement that the Bidder has read and agrees to be bound by these documents.

## SI02 ENQUIRIES DURING THE SOLICITATION PERIOD

1) Enquiries regarding this bid must be submitted in writing to the Contracting Officer named on the INVITATION TO TENDER - Page 1 as early as possible within the solicitation period. Except for the approval of alternative materials as described in GI13 of the GENERAL INSTRUCTIONS TO BIDDERS, enquiries should be received no later than five (5) calendar days prior to the date set for solicitation closing to allow sufficient time to provide a response. Enquiries received after that time may not result in an answer being provided.

2) To ensure consistency and quality of the information provided to Bidders, the Contracting Officer shall examine the content of the enquiry and shall decide whether or not to issue an amendment.

3) All enquiries and other communications related to this bid sent throughout the solicitation period are to be directed ONLY to the Contracting Officer named on the INVITATION TO TENDER - Page 1. Non-compliance with this requirement during the solicitation period can, for that reason alone, result in disqualification of a bid.

## SI03 NON-MANDATORY SITE VISIT

1) There will be a site visit on Tuesday, June, 13 , 2017 at 01:30 ○ AM ◉ PM EDT.

Interested bidders are to meet at:

Sainte-Clotilde Research Farm
1815, chemin de la Rivière
Ste-Clotilde (Québec), J0L 1W0

**SI04 REVISION OF BID**

1) A bid may be revised by letter or facsimile in accordance with GI09 of the GENERAL INSTRUCTIONS TO BIDDERS. The facsimile number for receipt of revisions is 514 283-1918 .

**SI05 BID RESULTS**

1) Following bid closing, bid results may be obtained from the bid receiving office by email at jean-francois.lemay@agr.gc.ca .

**SI06 INSUFFICIENT FUNDING**

1) In the event that the lowest compliant bid exceeds the amount of funding allocated for the Work, Canada in its sole discretion may:
   (a) cancel the solicitation; or
   (b) obtain additional funding and award the Contract to the Bidder submitting the lowest compliant bid; and/or
   (c) negotiate a reduction in the bid price and/or scope of work of not more than 15% with the Bidder submitting the lowest compliant bid. Should an agreement satisfactory to Canada not be reached, Canada shall exercise option (a) or (b).

**SI07 BID VALIDITY PERIOD**

1) Canada reserves the right to seek an extension to the bid validity period prescribed in Clause 4 of the BID AND ACCEPTANCE Form. Upon notification in writing from Canada, Bidders shall have the option to either accept or reject the proposed extension.

2) If the extension referred to in paragraph 1) of SI07 is accepted, in writing, by all those who submitted bids, then Canada shall continue immediately with the evaluation of the bids and its approvals processes.

3) If the extension referred to in paragraph 1) of SI07 is not accepted in writing by all those who submitted bids then Canada shall, at its sole discretion, either:
   (a) continue to evaluate the bids of those who have accepted the proposed extension and seek the necessary approvals; or
   (b) cancel the invitation to bid.

4) The provisions expressed herein do not in any manner limit Canada's rights in law or under GI10 of the GENERAL INSTRUCTIONS TO BIDDERS.

## SI08 CONSTRUCTION DOCUMENTS

1) The successful contractor will be provided with one paper copy of the sealed and signed plans, the specifications and the amendments upon acceptance of the offer. Additional copies, up to a maximum of zero ( 0 ), will be provided free of charge upon request by the Contractor. Obtaining more copies shall be the responsibility of the Contractor including costs.

## SI09 WEB SITES

The connection to some of the Web sites in the solicitation documents is established by the use of hyperlinks. The following is a list of the addresses of the Web sites:

Treasury Board Appendix L, Acceptable Bonding Companies
http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494&section=text#appL

Canadian economic sanctions
http://www.international.gc.ca/sanctions/index.aspx?lang=eng

## SI10 PERSONNEL SECURITY REQUIREMENTS

1) The successful Bidder's personnel, as well as any subcontractor and its personnel, who are required to perform any part of the work pursuant to the subsequent contract, must meet the following contract security requirements:

- Unscreened personnel may be used for the work. Unscreened personnel will require an escort provided by AAFC.

Appendix "C"

# BID AND ACCEPTANCE FORM

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

# BID AND ACCEPTANCE FORM

CONSTRUCTION CONTRACT - MAJOR WORKS

**BA01 IDENTIFICATION**

Description of the Work

The project involves the demolition of an existing appendage at the end of an agricultural building located at the Agriculture and Agri-Food Canada farm in Ste-Clotilde and rebuilding a larger one. This new addition will meet the current needs of the farm and the present machinery.

| Solicitation Number | File / Project Number |
|---|---|
| 01B46-17-028 | |

**BA02 BUSINESS NAME AND ADDRESS OF BIDDER**

Name

Address

| Unit/Suite/Apt. | Street number | Number suffix | Street name | Street type | Street direction |
|---|---|---|---|---|---|
| | | | | | |

| PO Box or Route Number | Municipality (City, Town, etc.) | Province | Postal code |
|---|---|---|---|
| | | | |

| Phone number | Fax number | Email address |
|---|---|---|
| | | |

**BA03 THE OFFER**

1) The Bidder offers to Canada as represented by the Minister of Agriculture and Agri-food Canada to perform and complete the Work for the above named project in accordance with the Bid Documents for the Total Bid Amount of:

$ _____ excluding Applicable Taxes (GST/HST/QST).

(to be expressed in numbers only)

**BA04 BID VALIDITY PERIOD**

1) The bid shall not be withdrawn for a period of 60 days following the date of solicitation closing.

**BA05 APPENDICES**

1) The following appendices are included in this Bid and Acceptance Form:

☒ Appendix 2

**BA06 ACCEPTANCE AND CONTRACT**

1) Upon acceptance of the Bidder's offer by Canada, a binding Contract shall be formed between Canada and the resulting Contractor. The documents forming the Contract shall be the contract documents referred to in SC01 CONTRACT DOCUMENTS.

**BA07 CONSTRUCTION TIME**

1) The Contractor shall perform and complete the Work on or before 2018-03-31

**BA08 BID SECURITY**

1) The Bidder shall enclose bid security with its bid in accordance with GI07 BID SECURITY REQUIREMENTS.

2) If a security deposit is furnished as bid security, it shall be forfeited in the event that the bid is accepted by Canada and the Contractor fails to provide Contract Security in accordance with GC9 CONTRACT SECURITY, provided that Canada may, if it is in the public interest, waive the right of Canada to forfeiture any or all of the security deposit.

| BA09 SIGNATURE | |
|---|---|
| Name and title of person authorized to sign on behalf of Bidder (type or print) | Name |
| | Title |
| | Signature / Date |
| | Name |
| | Title |
| | Signature / Date |

**BA10 INTEGRITY PROVISIONS - LIST OF NAMES**

If the required list of names has not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to provide the names within the time frame specified will render the bid non-responsive. Providing the required names is a mandatory requirement for contract award.

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

# BID AND ACCEPTANCE FORM

CONSTRUCTION CONTRACT - MAJOR WORKS

APPENDIX 2

**LIST OF SUBCONTRACTORS**

The Bidder will subcontract the parts of the work listed below to the subcontractor named for each part. The Bidder agrees not to make changes in the list of subcontractors without the written consent of the Departmental Representative. The Bidder understands that for each part of the work, if more than one subcontractor is named, or no subcontractor is named, or, the Bidder fails to state that the work will be done by its own forces where applicable, the bid will be subject to disqualification.

**LIST OF EQUIPMENT**

N/A

**LIST OF MATERIALS**

N/A

# Appendix "D"

# MAJOR WORKS - GENERAL CONDITIONS

**MAJOR WORKS GENERAL CONDITIONS FORM AAFC 5321**:

## GC1 GENERAL PROVISIONS



### GC1.1 (2016-05-01) INTERPRETATION

#### GC1.1.1 Headings and References

1) The headings in the contract documents, other than those in the drawings and specifications, form no part of the Contract but are inserted for convenience of reference only.

2) A reference made to a part of the Contract by means of numbers preceded by letters is a reference to the particular part of the Contract that is identified by that combination of letters and numbers and to any other part of the Contract referred to therein.

3) A reference to a paragraph or subparagraph followed by an identifying number, letter or combination thereof is, unless specifically stated otherwise, a reference to the paragraph or subparagraph that forms part of the clause within which the reference is made.

#### GC1.1.2 Terminology

In the Contract, unless the context otherwise requires:

"Administrative Agreement"

is a negotiated agreement with the Minister of AAFC as provided for in the Ineligibility and Suspension Policy.

“Affiliate”
is a person, including, but not limited to, organizations, bodies corporate, societies, companies, firms, partnerships, associations of persons, parent companies or subsidiaries, whether partly or wholly-owned, as well as individuals, directors, officers and key employees if:

(i) one controls or has the power to control the other, or
(ii) a third party has the power to control both.

"Applicable Taxes"
means the Goods and Services Tax (GST), the Harmonized Sales Tax (HST), and any provincial tax, by law, payable by Canada such as, the Quebec Sales Tax (QST) as of April 1, 2013;
"Canada", "Crown", "Her Majesty"
means Her Majesty the Queen in right of Canada;

"Contract"
means the contract documents referred to as such therein and every other document specified or referred to in any of them as forming part of the Contract, all as amended by agreement of the parties;

"Contract Amount"
means the amount set out in the Contract to be payable to the Contractor for the Work, subject to the terms and conditions of the Contract, exclusive of Applicable Taxes;

"Contract Security"
means any security given by the Contractor to Canada in accordance with the Contract;

"Contractor"
means the person contracting with Canada to provide or furnish all labour, Material and Plant for the execution of the Work under the Contract, and includes the Contractor's superintendent as designated in writing to Canada.

"Certificate of Completion"
means a certificate issued by Canada when the Work reaches Completion;
"Certificate of Measurement"
means a certificate issued by Canada certifying the correctness of the final quantities, prices per unit and values of labour, Plant and Material performed, used and supplied by the Contractor for the construction of the part of the Work to which a Unit Price Arrangement applies;

"Certificate of Substantial Performance"
means a certificate issued by Canada when the Work reaches Substantial Performance;

“Control”
means:

a) direct control, such as where:
    (i) a person controls a body corporate if securities of the body corporate to which are attached more than 50 percent of the votes that may be cast to elect directors of the body corporate are beneficially owned by the person and the votes attached to those securities are sufficient, if exercised, to elect a majority of the directors of the body corporate;

(ii) a person controls a corporation that is organized on a cooperative basis if the person and all of the entities controlled by the person have the right to exercise more than 50 percent of the votes that may be cast at an annual meeting or to elect the majority of the directors of the corporation;

(iii) a person controls an unincorporated entity, other than a limited partnership, if more than 50 percent of the ownership interests, however designated, into which the entity is divided are beneficially owned by that person and the person is able to direct the business and affairs of the entity;

(iv) the general partner of a limited partnership controls the limited partnership; and

(v) a person controls an entity if the person has any direct or indirect influence that, if exercised, would result in control in fact of the entity.

b) deemed control, such as where:
a person who controls an entity is deemed to control any entity that is controlled, or deemed to be controlled, by the entity

c) indirect control, such as where:
a person is deemed to control, within the meaning of paragraph (a) or (b), an entity where the aggregate of:
(i) any securities of the entity that are beneficially owned by that person, and

(ii) any securities of the entity that are beneficially owned by any entity controlled by that person

is such that, if that person and all of the entities referred to in paragraph (c)(ii) that beneficially own securities of the entity were one person, that person would control the entity.

"Departmental Representative"
means the person designated in the Contract, or by written notice to the Contractor, to act as the Departmental Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the Departmental Representative to the Contractor;

"herein", "hereby", "hereof", "hereunder"
and similar expressions refer to the Contract as a whole and not to any particular section or part thereof;

“Ineligibility”
means a person not eligible to contract with Canada;
"Lump Sum Arrangement"
means that part of the Contract that prescribes a lump sum as payment for performance of the Work to which it relates;

"Material"
includes all commodities, articles, machinery, equipment, fixtures and things required to be furnished in accordance with the Contract for incorporation into the Work;

"person"

also includes, unless there is an express stipulation in the Contract to the contrary, any partnership, proprietorship, firm, joint venture, consortium or corporation;

"Plant"
includes all tools, implements, machinery, vehicles, structures, equipment, articles and things that are necessary for the performance of the Contract, other than Material and those tools customarily provided by a tradesperson in practicing a trade;

"Subcontractor"
means a person having a direct contract with the Contractor, subject to GC3.6

"Subcontracting", to perform a part or parts of the Work, or to supply Material customized for the Work;

"Superintendent"
means the employee or representative of the Contractor designated by the Contractor to act pursuant to GC2.6, "Superintendent";

"Supplementary Conditions"
means the part of the Contract that amends or supplements the General Conditions;

"Supplier"
means a person having a direct contract with the Contractor to supply Plant or Material not customized for the Work;

“Suspension”
means a determination of temporary ineligibility by the Minister of AAFC;

“Total Estimated Cost”, “Revised Estimated Cost”, “Increase (Decrease)”
on Page 1 of the Contract or Contract Amendment means an amount used for internal administrative purposes only that comprises the Contract Amount, or the revised Contract Amount, or the amount that would increase or decrease the Contract Amount and the Applicable Taxes as evaluated by the Contracting Authority, and does not constitute tax advice on the part of Canada;

"Unit Price Arrangement"
means that part of the Contract that prescribes the product of a price per unit of measurement multiplied by a number of units of measurement for performance of the Work to which it relates;

"Unit Price Table"
means the table of prices per unit set out in the Contract;

"Work"
means, subject only to any express stipulation in the Contract to the contrary, everything that is necessary to be done, furnished or delivered by the Contractor to perform the Contract in accordance with the contract documents; and

"Working Day"
means a day other than a Saturday, Sunday, or a statutory holiday that is observed by the construction industry in the area of the place of the Work.

**GC1.1.3 Application of Certain Provisions**

1) Any provisions of the Contract that are expressly stipulated to be applicable only to a Unit Price Arrangement are not applicable to any part of the Work to which a Lump Sum Arrangement applies.

2) Any provisions of the Contract that are expressly stipulated to be applicable only to a Lump Sum Arrangement are not applicable to any part of the Work to which a Unit Price Arrangement applies.

**GC1.1.4 Substantial Performance**

1) The Work shall be considered to have reached Substantial Performance when
   a) the Work or a substantial part thereof has passed inspection and testing and is, in the opinion of Canada, ready for use by Canada or is being used for the intended purposes; and

   b) the Work is, in the opinion of Canada, capable of completion or correction at a cost of not more than

      (i) 3 percent of the first $500,000;
      (ii) 2 percent of the next $500,000; and
      (iii) 1 percent of the balance

      of the Contract Amount at the time this cost is calculated.

2) Where the Work or a substantial part thereof is ready for use or is being used for the purposes intended and
   a. the remainder of the Work or a part thereof cannot be completed by the time specified in the Contract, or as amended in accordance with GC6.5, "Delays and Extension of Time", for reasons beyond the control of the Contractor; or

   b. Canada and the Contractor agree not to complete a part of the Work within the specified time;

the cost of that part of the Work that was either beyond the control of the Contractor to complete or Canada and the Contractor have agreed not to complete by the time specified, shall be deducted from the value of the Contract referred to in subparagraph 1)(b) of GC1.1.4 and the said cost shall not form part of the cost of the Work remaining to be done in determining Substantial Performance.

**GC1.1.5 Completion**

The Work shall be deemed to have reached Completion when all labour, Plant and Material required have been performed, used or supplied, and the Contractor has complied with the Contract and all orders and directions made pursuant thereto, all to the satisfaction of Canada.

**GC1.2 (2016-05-01) CONTRACT DOCUMENTS**

The following discusses contract documents

**GC1.2.1 General**

1) The contract documents are complementary, and what is required by any one shall be as binding as if required by all.

2) References in the contract documents to the singular shall be considered to include the plural as the context requires.

3) Nothing contained in the contract documents shall create a contractual relationship between Canada and any Subcontractor or Supplier, their subcontractors or suppliers, or their agents or employees.

**GC1.2.2 Order of Precedence**

1) In the event of any discrepancy or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:

    a) any amendment or variation of the contract documents that is made in accordance with the General Conditions;

    b) any amendment issued prior to tender closing;

    c) Supplementary Conditions;

    d) General Conditions;

    e) the duly completed Bid and Acceptance Form when accepted;

    f) drawings and specifications.

    later dates shall govern within each of the above categories of documents.

2) In the event of any discrepancy or conflict in the information contained in the drawings and specifications, the following rules shall apply:

    a) specifications shall govern over drawings;

    b) dimensions shown in figures on a drawings shall govern where they differ from dimensions scaled from the same drawings; and

    c) drawings of larger scale govern over those of smaller scale.

**GC1.2.3 Security and Protection of Documents and Work**

1) The Contractor shall guard and protect contract documents, drawings, information, models and copies thereof, whether supplied by Canada or the Contractor, against loss or damage from any cause.

2) The Contractor shall keep confidential all information provided to the Contractor by or on behalf of Canada in connection with the Work, and all information developed by the Contractor as part of the Work, and shall not disclose any such information to any person without the written permission of Canada, except that the Contractor may disclose to a subcontractor, authorized in accordance with the Contract, information necessary to the performance of a subcontract. This section does not apply to any information that

    a) is publicly available from a source other than the Contractor; or

**b)** is or becomes known to the Contractor from a source other than Canada, except any source that is known to the Contractor to be under an obligation to Canada not to disclose the **information.**

3) When the Contract, the Work, or any information referred to in paragraph 2) is identified as top secret, secret, confidential, or protected by Canada, the Contractor shall, at all times, take all measures reasonably necessary for the safeguarding of the material so identified, including such measures as may be further specified elsewhere in the Contract or provided, in writing, from time to time by Canada.

4) Without limiting the generality of paragraphs 2) and 3) of GC1.2.3, when the Contract, the Work, or any information referred to in paragraph 2) is identified as top secret, secret, confidential, or protected by Canada, Canada shall be entitled to inspect the Contractor's premises and the premises of its subcontractors or suppliers and any other person at any tier, for security purposes at any time during the term of the Contract, and the Contractor shall comply with, and ensure that any such subcontractors or suppliers comply with all written instructions issued by Canada dealing with the material so identified, including any requirement that employees of the Contractor and its subcontractors and suppliers and any other person at any tier execute and deliver declarations relating to reliability screenings, security clearances and other procedures.

5) The Contractor shall safeguard the Work and the Contract, the specifications, drawings and any other information provided by Canada to the Contractor, and shall be liable to Canada for any loss or damage from any causes.

## GC1.3 STATUS OF THE CONTRACTOR

1) The Contractor is engaged under the Contract as an independent contractor.

2) The Contractor, its subcontractors and suppliers and any other person at any tier and their employees are not engaged by the Contract as employees, servants or agents of Canada.

3) For the purposes of the contract the Contractor shall be solely responsible for any and all payments and deductions required to be made by law including those required for Canada or Quebec Pension Plans, Employment Insurance, Worker's Compensation, provincial health or insurance plans, and Income Tax.

## GC1.4 (2016-05-01) RIGHTS AND REMEDIES

1) Except as expressly provided in the Contract, the duties and obligations imposed by the Contract and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

## GC1.5 (2016-05-01) TIME OF THE ESSENCE

1) Time is of the essence of the Contract.

## GC1.6 INDEMNIFICATION BY THE CONTRACTOR

1) The Contractor shall pay all royalties and patent fees required for the performance of the Contract and, at the Contractor's expense, shall defend all claims, actions or proceedings

against Canada charging or claiming that the Work or any part thereof provided or furnished by the Contractor to Canada infringes any patent, industrial design, copyright trademark, trade secret or other proprietary right enforceable in Canada.

2) The Contractor shall indemnify and save Canada harmless from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings by any third party, brought or prosecuted and in any manner based upon, arising out of, related to, occasioned by, or attributable to the activities of the Contractor, its subcontractors and suppliers and any other person at any tier, in performing the Work.

3) For the purposes of paragraph 2) of GC1.6, "activities" means any act improperly carried out, any omission to carry out an act and any delay in carrying out an act.

**GC1.7 (2016-05-01) INDEMNIFICATION BY CANADA**

1) Subject to the **Crown Liability and Proceedings Act, the Patent Act**, and any other law that affects Canada's rights, powers, privileges or obligations, Canada shall indemnify and save the Contractor harmless from and against all claims, demands, losses, costs, damage, actions, suits or proceedings arising out of the Contractor's activities under the Contract that are directly attributable to

   a) a lack of or a defect in Canada's title to the Work site if owned by Canada, whether real or alleged; or

   b) an infringement or an alleged infringement by the Contractor of any patent of invention or any other kind of intellectual property occurring while the Contractor was performing any act for the purposes of the Contract employing a model, plan or design or any other thing related to the Work that was supplied by Canada to the Contractor.

**GC1.8 (2016-05-01) LAWS, PERMITS AND TAXES**

1) The Contractor shall comply with all federal, provincial and municipal laws and regulations applicable to the performance of the Work or any part thereof including, without limitation, all laws concerning health and the protection of the environment, and shall require compliance therewith by all of its subcontractors and suppliers at any tier as if the Work were being performed for an owner other than Canada. The Contractor shall furnish evidence of compliance with such laws and regulations to Canada at such times as Canada may reasonably request.

2) Unless stipulated otherwise in the Contract, the Contractor shall obtain and maintain all permits, certificates, licences, registrations and authorizations required for the lawful performance of the Work.

3) Prior to the commencement of the Work at the site, the Contractor shall tender to a municipal authority an amount equal to all fees and charges that would be lawfully payable to that municipal authority in respect of building permits as if the Work were being performed for an owner other than Canada.

4) Within 10 days of making a tender pursuant to paragraph 3) of GC1.8, the Contractor shall notify Canada of the amount properly tendered and whether or not the municipal authority has accepted that amount.

5) If the municipal authority has not accepted the amount tendered, the Contractor shall pay that amount to Canada within 6 days after the time stipulated in paragraph 4) of GC1.8.

6) For the purposes of this clause, "municipal authority" means any authority that would have jurisdiction respecting permission to perform the Work if the owner were not Canada.

7) Notwithstanding the residency of the Contractor, the Contractor shall pay any applicable tax arising from or related to the performance of the Work under the Contract.

8) In accordance with the Statutory Declaration referred to in paragraph 4) of GC5.5, "Substantial Performance of the Work", a Contractor who has neither residence nor place of business in the province or territory in which work under the Contract is being performed shall provide Canada with proof of registration with the provincial sales tax authorities in the said province.

9) For the purpose of the payment of any Applicable Taxes or the furnishing of security for the payment of any Applicable Taxes arising from or related to the performance of the Work, and notwithstanding the provision that all Material, Plant and interest of the Contractor in all real property, licences, powers and privileges, become the property of Canada after the time of purchase in accordance with GC3.10, "Material Plant and Real Property Become Property of Canada", the Contractor shall be liable, as a user or consumer, for the payment or for the furnishing of security for the payment of any Applicable Taxes payable, at the time of the use or consumption of that Material, Plant or interest of the Contractor in accordance with the relevant legislation.

10) Federal government departments and agencies are required to pay Applicable Taxes.

11) Applicable Taxes will be paid by Canada as provided in the request for payment. It is the sole responsibility of the Contractor to charge Applicable Taxes at the correct rate in accordance with applicable legislation. The Contractor agrees to remit to appropriate tax authorities any amounts of Applicable Taxes paid or due.

12) The Contractor is not entitled to use Canada's exemptions from any tax, such as provincial sales taxes, unless otherwise specified by law. The Contractor must pay applicable provincial sales tax, ancillary taxes, and any commodity tax, on taxable goods or services used or consumed in the performance of the Contract (in accordance with applicable legislation), including for material incorporated into real property.

13) In those cases where Applicable Taxes, customs duties, and excise taxes are included in the Contract Amount, the Contract Amount will be adjusted to reflect any increase, or decrease, of Applicable Taxes, customs duties, and excise taxes that will have occurred between bid submission and contract award. However, there will be no adjustment for any change to increase the Contract Amount if public notice of the change was given before bid submission date in sufficient detail to have permitted the Contractor to calculate the effect of the change.

14) Tax Withholding of 15 Percent – Canada Revenue Agency
Pursuant to the *Income Tax Act*, 1985, c. 1 (5th Supp.) and the *Income Tax Regulations*, Canada must withhold 15 percent of the amount to be paid to the Contractor in respect of services provided in Canada if the Contractor is not a resident of Canada, unless the Contractor obtains a valid waiver from the Canada Revenue Agency. The amount withheld will be held on account for the Contractor in respect to any tax liability which may be owed to Canada.

**GC1.9 WORKERS' COMPENSATION**

1) Prior to commencement of Work, at the time of Substantial Performance of the Work, and prior to issuance of the Certificate of Completion, the Contractor shall provide evidence of compliance with workers' compensation legislation applicable to the place of the Work, including payments due thereunder.

2) At any time during the term of the Contract, when requested by Canada, the Contractor shall provide such evidence of compliance by the Contractor, its subcontractors and any other person at any tier and any other person performing part of the Work who is required to comply with such legislation.

**GC1.10 NATIONAL SECURITY**

1) If Canada determines that the Work is of a class or kind that involves national security, Canada may order the Contractor to

   (a) provide Canada with any information concerning persons employed or to be employed by the Contractor for purposes of the Contract; and

   (b) remove any person from the site of the Work if, in the opinion of Canada, that person may be a risk to the national security;

   and the Contractor shall comply with the order.

2) In all contracts with persons who are to be employed in the performance of the Contract, the Contractor shall make provision for the performance of any obligation that may be imposed upon the Contractor under paragraph 1) of GC1.10.

**GC1.11 (2016-05-01) UNSUITABLE WORKERS**

1) Canada shall instruct the Contractor to remove from the site of the Work any person employed by the Contractor for purposes of the Contract who, in the opinion of Canada, is incompetent or is guilty of improper conduct, and the Contractor shall not permit a person who has been removed to return to the site of the Work.

**GC1.12 PUBLIC CEREMONIES AND SIGNS**

1) The Contractor shall not permit any public ceremony in connection with the Work without the prior consent of Canada.

2) The Contractor shall not erect nor permit the erection of any sign or advertising on the Work or its site without the prior consent of Canada.

**GC1.13 (2016-05-01) CONFLICT OF INTEREST**

1) It is a term of the Contract that no individual, for whom the post-employment provisions of the Conflict of Interest and Post-Employment Code for Public Office Holders or the Values and Ethics Code for the Public Service apply, shall derive a direct benefit from the Contract unless that individual is in compliance with the applicable post-employment provisions.

**GC1.14 AGREEMENTS AND AMENDMENTS**

1) The Contract constitutes the entire and sole agreement between the parties with respect to the subject matter of the Contract and supersedes all previous negotiations, communications and other agreements, whether written or oral, relating to it, unless they are incorporated by reference in the Contract. There are no terms, covenants, representations, statements or conditions binding on the parties other than those contained in the Contract.

2) The failure of either party at any time to require performance by the other party of any provision hereof shall not affect the right thereafter to enforce such provision. Nor shall the waiver by either party of any breach of any covenant, term or condition hereof be taken to be held to be a waiver of any further breach of the same covenant, term or condition.

3) The Contract may be amended only as provided for in the Contract.

**GC1.15 (2016-05-01) SUCCESSION**

1) The Contract shall inure to the benefit of and be binding upon the parties hereto and their lawful heirs, executors, administrators, successors and, subject to GC1.16, "Assignment", permitted assigns.

**GC1.16 (2016-05-01) ASSIGNMENT**

1) The Contractor shall not make any assignment of the Contract, either in whole or in part, without the written consent of Canada.

**GC1.17 (2016-05-01) NO BRIBE**

1) The Contractor represents and covenants that no bribe, gift, benefit, nor other inducement has been nor shall be paid, given, promised or offered directly or indirectly to any official or employee of Canada or to a member of the family of such a person, with a view to influencing the entry into the Contract or the administration of the Contract.

**GC1.18 CERTIFICATION - CONTINGENCY FEES**

1) In this clause

   (a) "contingency fee" means any payment or other compensation that is contingent upon or is calculated upon the basis of a degree of success in soliciting or obtaining a Government contract or negotiating the whole or any part of its terms;

   (b) "employee" means a person with whom the Contractor has an employer/employee relationship; and

   (c) "person" includes an individual or a group of individuals, a corporation, a partnership, an organization and an association and, without restricting the generality of the foregoing, includes any individual who is required to file a return with the registrar pursuant to section 5 of the **Lobbying Act** R.S.C. 1985 c.44 (4th Supplement) as the same may be amended from time to time.

2) The Contractor certifies that it has not directly or indirectly paid nor agreed to pay and covenants that it shall not directly or indirectly pay nor agree to pay a contingency fee for the solicitation, negotiation or obtaining of the Contract to any person other than an employee acting in the normal course of the employee's duties.

3) All accounts and records pertaining to payments of fees or other compensation for the solicitation, obtaining or negotiation of the Contract shall be subject to the accounts and audit provisions of the Contract.

4) If the Contractor certifies falsely under this section or is in default of the obligations contained therein, Canada may either take the Work out of the Contractor's hands in accordance with the provisions of the Contract or recover from the Contractor by way of reduction to the Contract Amount or otherwise, the full amount of the contingency fee.

**GC1.19 INTERNATIONAL SANCTIONS**

1) Persons and companies in Canada, and Canadians outside of Canada are bound by economic sanctions imposed by Canada. As a result, the Government of Canada cannot accept delivery of goods or services that originate, either directly or indirectly, from the countries or persons subject to **economic sanctions** (http://www.international.gc.ca/sanctions/index.aspx?lang=eng)

2) It is a condition of the Contract that the Contractor not supply to the Government of Canada any goods or services which are subject to economic sanctions.

3) By law, the Contractor must comply with changes to the regulations imposed during the life of the Contract. During the performance of the Contract should the imposition of sanctions against a country or person or the addition of a good or service to the list of sanctioned goods or services cause an impossibility of performance for the Contractor, the Contractor may request that the Contract be terminated in accordance with GC7.3 TERMINATION OF CONTRACT.

**GC1.20 (2016-05-01) INTEGRITY PROVISIONS – CONTRACT**

1) The Ineligibility and Suspension Policy (the "Policy") and all related Directives are incorporated into, and form a binding part of the Contract. The Contractor must comply with the provisions of the Policy and Directives, which can be found on Public Works and Government Services Canada's website at Ineligibility and Suspension Policy. (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html).

**GC1.21 (2016-05-01) CODE OF CONDUCT FOR PROCUREMENT - CONTRACT**

1) The Contractor agrees to comply with the Code of Conduct (http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html) for Procurement and to be bound by its terms for the period of the Contract.

## GC2 ADMINISTRATION OF THE CONTRACT



### GC2.1 (2016-05-01) DEPARTMENTAL REPRESENTATIVE'S AUTHORITY

**"**Technical **Authority" shall be recognized as the Departmental representative and designated at time of award of contract and shall perform the following:**

**a) is** responsible **for all matters concerning the technical content of the work under the contract;**

**b) authorized to issue notices, instructions, and changes within the scope of the Work, relevant to the contract.**

**c) accept on behalf of Canada any notice, order or other communication from the contractor relating to the Work**

**d) within a reasonable time, review and respond to submissions made by the Contractor in accordance with the requirements of the Contract**

**The** technical authority has no authority to authorize changes to the Contract terms and conditions of the Contract.

"Contracting Authority" shall be recognized as the authority delegated by the Minister of AAFC to enter into contracts, amend the contracts and is responsible for all matters concerning and interpretation of the terms and conditions of the Contract.

The contracting authority is responsible for the management of the Contract and any changes to the Contract terms **and conditions must be authorized in writing by the Contracting Authority.**

### GC2.2 INTERPRETATION OF CONTRACT

1) If, at any time before Canada has issued a Certificate of Completion, any question arises between the parties about whether anything has been done as required by the Contract or about what the Contractor is required by the Contract to do, and in particular but without limiting the generality of the foregoing, about

   (a) the meaning of anything in the drawings and specifications;

   (b) the meaning to be given to the drawings and specifications in case of any error therein, omission therefrom, or obscurity or discrepancy in their wording or intention;

(c) whether or not the quality or quantity of any Material or workmanship supplied or proposed to be supplied by the Contractor meets the requirements of the Contract;

(d) whether or not the labour, Plant or Material performed, used and supplied by the Contractor for performing the Work and carrying out the Contract are adequate to ensure that the Work shall be performed in accordance with the Contract and that the Contract shall be carried out in accordance with its terms;

(e) what quantity of any of the Work has been completed by the Contractor; or

(f) the timing and scheduling of the various phases of the performance of the Work as specified in the Contract;

the question shall be decided, subject to the provisions of GC8 DISPUTE RESOLUTION, by Canada.

2) The Contractor shall perform the Work in accordance with any decisions of Canada that are made under paragraph 1) of GC2.2 and in accordance with any consequential directions given by Canada.

3) If the Contractor fails to comply with any instruction or direction issued by Canada pursuant to the Contract, Canada may employ such methods as Canada deems advisable to do what the Contractor failed to do, and the Contractor shall, on demand, pay Canada an amount that is equal to the aggregate of all costs, expenses and damages incurred or sustained by Canada by reason of the Contractor's failure to comply with such instruction or direction, including the cost of any methods employed by Canada in doing what the Contractor failed to do.

**GC2.3 NOTICES**

1) Subject to paragraph 3) of GC2.3, any notice, order or other communication may be given in any manner, and if required to be in writing, shall be addressed to the party to whom it is intended at the address in the Contract or at the last address of which the sender has received written notice in accordance with this section.

2) Any notice, order or other communication given in writing in accordance with paragraph 1) of GC2.3 shall be deemed to have been received by either party

(a) if delivered personally, on the day that it was delivered;

(b) if forwarded by mail, on the earlier of the day it was received or the sixth day after it was mailed; and

(c) if forwarded by facsimile or electronic mail, 24 hours after it was transmitted.

3) A notice given under GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS, GC7.2 SUSPENSION OF WORK, and GC7.3 TERMINATION OF CONTRACT shall be given in writing and, if delivered personally, shall be delivered, if the Contractor is a sole proprietor, to the Contractor or, if the Contractor is a partnership or corporation, to an officer thereof.

**GC2.4 (2016-05-01) SITE MEETINGS**

1) In consultation with Canada, the Contractor shall arrange site meetings at regular intervals, with all involved parties who are to attend, in order to ensure, among other things, the proper co-ordination of the Work.

## GC2.5 REVIEW AND INSPECTION OF WORK

1) Canada shall review the Work to determine if it is proceeding in conformity with the Contract and to record the necessary data to make an assessment of the value of Work completed. Canada shall measure and record the quantities of labour, Plant and Material performed, used or supplied by the Contractor in performing the Work or any part thereof that is subject to a Unit Price Arrangement and, on request, shall inform the Contractor of those measurements, and permit the Contractor to inspect any records pertaining thereto.

2) Canada shall reject Work or Material which in Canada's opinion does not conform to the requirements of the Contract, and shall require inspection or testing of Work, whether or not such Work is fabricated, installed, or completed. If such Work is not in accordance with the requirements of the Contract, the Contractor shall correct the Work and shall pay Canada, on demand, all reasonable costs and expenses that were incurred by Canada in having the examination performed.

3) The Contractor shall provide Canada with access to the Work and its site at all times, and at all times shall provide sufficient, safe, and proper facilities for the review and inspection of the Work by persons authorized by Canada and any representatives of those authorities having jurisdiction. If parts of the Work are in preparation at locations other than the site of the Work, Canada shall be given access to such Work whenever it is in progress.

4) The Contractor shall furnish Canada with such information respecting the performance of the Contract as Canada may require, and render every possible assistance to enable Canada to verify that the Work is performed in accordance with the Contract, carry out any other duties and exercise any powers in accordance with the Contract.

5) If Work is designated for tests, inspections, or approvals in the Contract or by Canada's instructions, or by laws or ordinances of the place of the Work, the Contractor shall give Canada reasonable notice of when such Work shall be ready for review and inspection. The Contractor shall arrange for and shall give Canada reasonable notice of the date and time of inspections, tests or approvals.

6) If the Contractor covers, or permits to be covered, Work that has been designated for tests, inspections or approvals before such tests, inspections or approvals are made, completed or given, the Contractor shall, if so directed by Canada, uncover such Work, have the inspections, tests or approvals satisfactorily made, completed or given and make good the covering of the Work at the Contractor's expense.

## GC2.6 SUPERINTENDENT

1) Prior to commencing the Work, the Contractor shall designate a Superintendent and shall notify Canada of the name, address and telephone number of the Superintendent. The Contractor shall keep the Superintendent at the Work site during working hours until the Work has reached completion.

2) The Superintendent shall be in full charge of the operations of the Contractor during the performance of the Work and shall be authorized to accept on behalf of the Contractor any notice, order or other communication given to the Superintendent or the Contractor relating to the Work.

3) Upon request of Canada, the Contractor shall remove any Superintendent who, in the opinion of Canada, is incompetent or has been guilty of improper conduct, and shall forthwith designate another Superintendent who is acceptable to Canada.

4) The Contractor shall not substitute a Superintendent without the written consent of Canada. If a Superintendent is substituted without such consent, Canada shall be entitled to refuse to issue any documentation or certification relating to progress payments, Substantial Performance or Completion of the Work until the Superintendent has returned to the Work site or another Superintendent who is acceptable to Canada has been substituted.

**GC2.7 (2016-05-01) NON-DISCRIMINATION IN HIRING AND EMPLOYMENT OF LABOUR**

1) For the purposes of this clause, "persons" include the Contractor, its subcontractors and suppliers at any tier and their respective employees, agents, licensees or invitees and any other individual involved in the performance of the Work or granted access to the Work site. A "person" includes any partnership, proprietorship, firm, joint venture, consortium and corporation.

2) Without restricting the provisions of paragraph 3) of GC2.6, "Superintendent", the Contractor shall not refuse to employ and shall not discriminate in any manner against any person because

   a) of that person's race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, disability, conviction for which a pardon has been granted, or family status;

   b) of the race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, disability, conviction for which a pardon has been granted, or family status of any person having a relationship or association with that person, or

   c) a complaint has been made or information has been given in respect of that person relating to an alleged failure by the Contractor to comply with subparagraph (a) or (b).

3) Within two working days immediately following receipt of a written complaint pursuant to paragraph 2) of GC2.7, the Contractor shall

   a) cause to have issued a written direction to the person or persons named by the complainant to cease all actions that form the basis of the complaint;

   b) forward a copy of the complaint to Canada by registered mail or courier service.

4) Within 24 hours immediately following receipt of a direction from Canada to do so, the Contractor shall cause to have removed from the site of the Work and from the performance of Work under the Contract, any person or persons whom Canada believes to be in breach of the provisions of paragraph 2) of GC2.7.

5) No later than 30 days after receipt of the direction referred to in paragraph 4) of GC2.7, the Contractor shall cause the necessary action to be commenced to remedy the breach described in the direction.

6) If a direction is issued pursuant to paragraph 4) of GC2.7, Canada may withhold from monies that are due and payable to the Contractor or setoff pursuant to GC5.9, "Right of Setoff", whichever is applicable, an amount representing the sum of the costs and payment referred to in paragraph 8) of GC2.7.

7) If the Contractor fails to proceed in accordance with paragraph 5) of GC2.7, Canada shall take the necessary action to have the breach remedied, and shall determine all supplementary costs incurred by Canada as a result.

8) Canada may make a payment directly to the complainant from monies that are due and payable to the Contractor upon receipt from the complainant of

   a) a written award issued pursuant to the federal **Commercial Arbitration Act**, R.S. 1985, c. 17 (2nd Supp.);
   b) a written award issued pursuant to the **Canadian Human Rights Act**, R.S. 1985, c. H-6;
   c) a written award issued pursuant to provincial or territorial human rights legislation; or
   d) a judgement issued by a court of competent jurisdiction.

9) If Canada is of the opinion that the Contractor has breached any of the provisions of this clause, Canada may take the Work out of the Contractor's hands pursuant to GC7.1, "Taking the Work out of the Contractor's Hands".

10) Subject to paragraph 7) of GC3.6, "Subcontracting", the Contractor shall ensure that the provisions of this clause are included in all agreements and contracts entered into as a consequence of the Work.

**GC2.8 (2016-05-01) ACCOUNTS AND AUDITS**

1) The Contractor shall, in addition to the requirements expressed in paragraph 6) of GC3.4, "Execution of the Work", maintain full records of the Contractor's estimated and actual cost of the Work together with all tender calls, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, and shall make them available on request to audit and inspection by Canada and the Deputy Receiver General for Canada or by persons designated to act on behalf of either or both of them.

2) The Contractor shall allow any of the persons referred to in paragraph 1) of GC2.8 to make copies of and take extracts from any of the records and material, and shall furnish such persons or entities with any information those persons or entities may require from time to time in connection with such records and material.

3) The Contractor shall maintain and keep the records intact until the expiration of six (6) years after the date that a Certificate of Completion has been issued or until the expiration of such other period of time as Canada may direct.

4) The Contractor shall cause all subcontractors at any tier and all other persons directly or indirectly controlled by or affiliated with the Contractor and all persons directly or indirectly having control of the Contractor to comply with the requirements of this clause as if they were the Contractor.

## GC3 EXECUTION AND CONTROL OF THE WORK



### GC3.1 (2016-05-01) PROGRESS SCHEDULE

The Contractor shall

a) prepare and submit to Canada, prior to the submission of the Contractor's first progress claim, a progress schedule in accordance with the requirements set out in the Contract;

b) monitor the progress of the Work relative to the schedule and update the schedule as stipulated by the contract documents;

c) advise Canada of any revisions to the schedule required as the result of any extension of time for completion of the Contract that was approved by Canada; and

d) prepare and submit to Canada, at the time of issuance of a Certificate of Substantial Performance, an update of any schedule clearly showing a detailed timetable that is acceptable to Canada for the completion of any unfinished Work and the correction of all listed defects.

### GC3.2 (2016-05-01) ERRORS AND OMISSIONS

1) The Contractor shall report promptly to Canada any errors, discrepancies, or omissions the Contractor may discover when reviewing the contract documents. In making a review, the Contractor does not assume any responsibility to Canada for the accuracy of the review. The Contractor shall not be liable for damage or costs resulting from such errors, discrepancies, or omissions in the contract documents prepared by or on behalf of Canada that the Contractor did not discover.

### GC3.3 CONSTRUCTION SAFETY

1) Subject to GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS, the Contractor shall be solely responsible for construction safety at the place of the Work and for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Work. In any emergency, the Contractor shall either stop the Work,

make changes or order extra work to ensure the safety of life and the protection of the Work and neighbouring property.

2) Prior to commencing the Work, the Contractor shall notify the authorities having jurisdiction for construction safety at the site of the Work with respect to the intended commencement of the Work, and shall provide such authority with whatever additional information may be required by that authority.

**GC3.4 EXECUTION OF THE WORK**

1) The Contractor shall perform, use or supply and pay for, all labour, Plant, Material, tools, construction machinery and equipment, water, heat, light, power, transportation and other facilities and services necessary for the performance of the Work in accordance with the Contract.

2) The Contractor shall, at all times, perform the Work in a proper, diligent and expeditious manner as is consistent with construction industry standards and in accordance with the progress schedule prepared pursuant to GC3.1 PROGRESS SCHEDULE and shall provide sufficient personnel to fulfil the Contractor's obligations in accordance with that schedule.

3) Subject to paragraph 4) of GC3.4, the Contractor shall have complete care, custody and control of the Work and shall direct and supervise the Work so as to ensure compliance with the Contract. The Contractor shall be responsible for construction means, methods, techniques, sequences and procedures and for co-ordinating the various parts of the Work.

4) When requested in writing by Canada, the Contractor shall make appropriate alterations in the method, Plant or workforce at any time Canada considers the Contractor's actions to be unsafe or damaging to either the Work, existing facilities, persons at the site of the Work or the environment.

5) The Contractor shall have sole responsibility for the design, erection, operation, maintenance and removal of temporary structures and other temporary facilities and for the construction methods used in their erection, operation, maintenance and removal. The Contractor shall engage and pay for registered professional engineering personnel, skilled in the appropriate discipline to perform these functions if required by law or by the Contract, and in all cases when such temporary facilities and their methods of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.

6) The Contractor shall keep at least one copy of current contract documents, submittals, reports, and records of meetings at the site of the Work, in good order and available to Canada.

7) Except for any part of the Work that is necessarily performed away from or off the site of the Work, the Contractor shall confine Plant, storage of Material, and operations of employees to limits indicated by laws, ordinances, permits or the contract documents.

**GC3.5 MATERIAL**

1) Unless otherwise specified in the Contract, all Material incorporated in the Work shall be new.

2) Subject to paragraph 3) of GC3.5, if a specified reused, refurbished, or recycled item of Material is not available, the Contractor shall apply to Canada to substitute a similar item for the one specified.

3) If Canada agrees that the Contractor's application for substitution of a reused, refurbished or recycled item is warranted, and that the substitute item is of acceptable quality and value to that specified and is suitable for the intended purpose, Canada may approve the substitution, subject to the following:

   (a) the request for substitution shall be made in writing to Canada and shall be substantiated by information in the form of the manufacturer's literature, samples and other data that may be required by Canada;

   (b) the Contractor shall make the request for substitution in a manner that shall not negatively affect the progress schedule of the Contract and well in advance of the time the item of Material must be ordered;

   (c) substitution of Material shall be permitted only with the prior written approval of Canada, and any substituted items that are supplied or installed without such approval shall be removed from the site of the Work at the expense of the Contractor, and specified items installed at no additional cost to Canada; and

   (d) the Contractor shall be responsible for all additional expenses incurred by Canada, the Contractor, its subcontractors and suppliers at any tier due to the Contractor's use of the substitute.

**GC3.6 SUBCONTRACTING**

1) Subject to the provisions of this clause, the Contractor may subcontract any part of the Work but not the whole of the Work.

2) The Contractor shall notify Canada in writing of the Contractor's intention to subcontract.

3) A notification referred to in paragraph 2) of GC3.6 shall identify the part of the Work and the Subcontractor with whom the Contractor intends to subcontract.

4) Canada may for reasonable cause, object to the intended subcontracting by notifying the Contractor in writing within six (6) days of receipt by Canada of a notification referred to in paragraph 2) of GC3.6.

5) If Canada objects to a subcontracting, the Contractor shall not enter into the intended subcontract.

6) The Contractor shall not change, nor permit to be changed, a Subcontractor engaged by the Contractor, in accordance with this clause, without the written consent of Canada.

7) The Contractor shall ensure that all the terms and conditions of the Contract that are of general application shall be incorporated in every other contract issued as a consequence of the Contract, at whatever tier, except those contracts issued solely to suppliers at any tier for the supply of Plant or Material.

8) Neither a subcontracting nor Canada's consent to a subcontracting shall be construed to relieve the Contractor from any obligation under the Contract or to impose any liability upon Canada.

**GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS**

1) Canada reserves the right to send other contractors or workers, with or without Plant and Material, onto the site of the Work.

2) When other contractors or workers are sent on to the site of the Work, Canada shall

   (a) enter into separate contracts, to the extent it is possible, with the other contractors under conditions of contract that are compatible with the conditions of the Contract;

   (b) ensure that the insurance coverage provided by the other contractors is co-ordinated with the insurance coverage of the Contractor as it affects the Work; and

   (c) take all reasonable precautions to avoid labour disputes or other disputes arising from the work of the other contractors or workers.

3) When other contractors or workers are sent on to the site of the Work, the Contractor shall

   (a) co-operate with them in the carrying out of their duties and obligations;

   (b) co-ordinate and schedule the Work with the work of the other contractors and workers;

   (c) participate with other contractors and workers in reviewing their construction schedules when directed to do so;

   (d) where part of the Work is affected by or depends upon the work of other contractors or workers for its proper execution, promptly report to Canada in writing and prior to proceeding with that part of the Work, any apparent deficiencies in such work. Failure by the Contractor to so report shall invalidate any claims against Canada by reason of the deficiencies in the work of other contractors or workers except those deficiencies that are not then reasonably discoverable; and

   (e) when designated as being responsible for construction safety at the place of work in accordance with the applicable provincial or territorial laws, carry out its duties in that role and in accordance with those laws.

4) If, when entering into the Contract, the Contractor could not have reasonably foreseen nor anticipated the sending of other contractors or workers on to the site of the Work and provided the Contractor

   (a) incurs extra expense in complying with the requirements of paragraph 3) of GC3.7; and

   (b) gives Canada written notice of a claim for that extra expense within thirty (30) days of the date that the other contractors or workers were sent onto the Work or its site;

   Canada shall pay the Contractor the cost of the extra labour, Plant and Material that was necessarily incurred, calculated in accordance with GC6.4 DETERMINATION OF PRICE.

**GC3.8 LABOUR**

1) To the extent to which they are available, consistent with proper economy and the expeditious carrying out of the Work, the Contractor shall, in the performance of the Work, employ a reasonable number of persons who have been on active service with the Armed Forces of Canada and have been honourably discharged therefrom.

2) The Contractor shall maintain good order and discipline among the Contractor's employees and workers engaged in the Work and shall not employ on the site of the Work anyone not skilled in the tasks assigned.

## GC3.9 TRUCK HAULAGE RATES

CANCELLED

## GC3.10 MATERIAL, PLANT AND REAL PROPERTY BECOME PROPERTY OF CANADA

1) Subject to paragraph 9) of GC1.8 LAWS PERMITS AND TAXES, all Material and Plant and the interest of the Contractor in all real property, licences, powers and privileges purchased, used or consumed by the Contractor for the Work shall, immediately after the time of their purchase, use or consumption be the property of Canada for the purposes of the Work and they shall continue to be the property of Canada

   (a) in the case of Material, until Canada indicates that the Materials shall not be required for the Work; and

   (b) in the case of Plant, real property, licences, powers and privileges, until Canada indicates that the interest vested in Canada therein is no longer required for the purposes of the Work.

2) Material or Plant, that is the property of Canada by virtue of paragraph 1) of GC3.10, shall not be taken away from the site of the Work nor used nor disposed of except for the purposes of the Work without the written consent of Canada.

3) Canada is not liable for loss of nor damage from any cause to the Material or Plant referred to in paragraph 1) of GC3.10, and the Contractor is liable for such loss or damage notwithstanding that the Material or Plant is the property of Canada.

## GC3.11 DEFECTIVE WORK

1) The Contractor shall promptly remove from the site of the Work and replace or re-execute defective Work whether or not the defective Work has been incorporated in the Work and whether or not the defect is the result of poor workmanship, use of defective Material, or damage through carelessness or other act or omission of the Contractor.

2) The Contractor, at the Contractor's expense, shall promptly make good other work destroyed or damaged by such removals or replacements.

3) If, in the opinion of Canada, it is not expedient to correct defective Work or Work not performed as provided for in the Contract documents, Canada may deduct from the amount otherwise due to the Contractor the difference in value between the Work as performed and that called for by the contract documents.

4) The failure of Canada to reject any defective Work or Material shall not constitute acceptance of the defective Work or Material.

## GC3.12 CLEANUP OF SITE

1) The Contractor shall maintain the Work and its site in a tidy condition and free from an accumulation of waste material and debris.

2) Before the issue of a Certificate of Substantial Performance, the Contractor shall remove waste material and debris, and all Plant and Material not required for the performance of the remaining Work and, unless otherwise stipulated in the Contract Documents, shall cause the Work and its site to be clean and suitable for occupancy by Canada.

3) Before the issue of a Certificate of Completion, the Contractor shall remove all surplus Plant and Materials and any waste products and debris from the site of the Work.

4) The Contractor's obligations described in paragraphs 1) to 3) of GC3.12 do not extend to waste products and other debris caused by Canada's servants, or by other contractors and workers referred to in GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS.

## GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK

1) Without restricting any warranty or guarantee implied or imposed by law or contained in the Contract, the Contractor shall, at the Contractor's expense

   (a) rectify and make good any defect or fault that appears in the Work or comes to the attention of Canada with respect to those parts of the Work accepted in connection with the Certificate of Substantial Performance within 12 months from the date of Substantial Performance; and

   (b) rectify and make good any defect or fault that appears in or comes to the attention of Canada in connection with those parts of the Work described in the Certificate of Substantial Performance within 12 months from the date of the Certificate of Completion.

   (c) transfer and assign, to Canada, any subcontractor, manufacturer or supplier extended warranties or guarantees implied or imposed by law or contained in the Contract covering periods beyond the 12 months stipulated above. Extended warranties or guarantees referred to herein shall not extend the 12-month period whereby the Contractor, except as may be provided elsewhere in the Contract, must rectify and make good any defect or fault that appears in the Work or comes to the attention of Canada.

   (d) provide, to Canada prior to the issuance of the Certificate of Completion, a list of all extended warranties and guarantees referred to in paragraph (c) above.

2) Canada may direct the Contractor to rectify and make good any defect or fault referred to in paragraph 1) of GC3.13 or covered by any other expressed or implied warranty or guarantee and the Contractor shall rectify and make good such defect within the time stipulated in the direction.

3) A direction referred to in paragraph 2) GC3.13 shall be in writing and shall be given to the Contractor in accordance with GC2.3 NOTICES.

## GC4 PROTECTIVE MEASURES



### GC4.1 PROTECTION OF WORK AND PROPERTY

1) The Contractor shall protect the Work and its site against loss or damage from any cause and shall similarly protect all Material, Plant and real property under the Contractor's care, custody and control whether or not such Material, Plant and real property are supplied by Canada to the Contractor.

2) The Contractor shall provide all facilities necessary for the purpose of maintaining security, and shall assist any person authorized by Canada to inspect or to take security measures in respect of the Work and its site.

3) Canada may direct the Contractor to do such things and to perform such work as Canada considers reasonable and necessary to ensure compliance with or to remedy a breach of paragraphs 1) or 2) of GC4.1, and the Contractor, shall comply with such direction.

### GC4.2 PRECAUTIONS AGAINST DAMAGE, INFRINGEMENT OF RIGHTS, FIRE AND OTHER HAZARDS

1) The Contractor shall do whatever is necessary to ensure that

   (a) no person, property, right, easement nor privilege is injured, damaged or infringed upon by reasons of the Contractor's activities in performing the Work;

   (b) pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted nor endangered by the performance or existence of the Work, Material or Plant;

   (c) fire hazards in or about the site of the Work are eliminated and any fire is promptly extinguished;

   (d) the health and safety of all persons employed in the performance of the Work is not endangered by the methods nor means of their performance;

   (e) adequate medical services are available to all persons employed on the Work or its site at all times during the performance of the Work;

   (f) adequate sanitation measures are taken in respect of the Work and its site; and

   (g) all stakes, buoys and marks placed on the Work or its site by Canada are protected and are not removed, defaced, altered nor destroyed.

2) Canada may direct the Contractor to do such things and to perform such work as Canada considers reasonable and necessary to ensure compliance with or to remedy a breach of paragraph 1) of GC4.2, and the Contractor shall comply with the direction of Canada.

## GC4.3 MATERIAL, PLANT AND REAL PROPERTY SUPPLIED BY CANADA

1) Subject to paragraph 2) of GC4.3, the Contractor is liable to Canada for any loss of or damage to Material, Plant or real property that is supplied or placed in the care, custody and control of the Contractor by Canada for use in connection with the Contract, whether or not that loss or damage is attributable to causes beyond the Contractor's control.

2) The Contractor is not liable to Canada for any loss or damage to Material, Plant or real property referred to in paragraph 1) of GC4.3 if that loss or damage results from and is directly attributable to reasonable wear and tear.

3) The Contractor shall not use any Material, Plant or real property supplied by Canada except for the purpose of performing the Contract.

4) When the Contractor fails to make good any loss or damage for which the Contractor is liable under paragraph 1) within a reasonable time, Canada may cause the loss or damage to be made good at the Contractor's expense, and the Contractor shall thereupon be liable to Canada for the cost thereof and shall, on demand, pay to Canada an amount equal to that cost.

5) The Contractor shall keep records of all Material, Plant and real property supplied by Canada as Canada requires and shall satisfy Canada, when requested, that such Material, Plant and real property are at the place and in the condition in which they ought to be.

## GC4.4 CONTAMINATED SITE CONDITIONS

1) For the purposes of GC4.4, a contaminated site condition exists when a solid, liquid, gaseous, thermal or radioactive irritant or contaminant, or other hazardous or toxic substance or material, including moulds and other forms of fungi, is present at the site of the Work to an extent that constitutes a hazard, or potential hazard, to the environment, property, or the health or safety of any person.

2) If the Contractor encounters a contaminated site condition of which the Contractor is not aware or about which the Contractor has not been advised, or if the Contractor has reasonable grounds to believe that such a site condition exists at the site of the Work, the Contractor shall

   (a) take all reasonable steps, including stopping the Work, to ensure that no person suffers injury, sickness or death, and that neither property nor the environment is injured or destroyed as a result of the contaminated site condition;

   (b) immediately notify Canada of the circumstances in writing; and

   (c) take all reasonable steps to minimize additional costs that may accrue as a result of any work stoppage.

3) Upon receipt of a notification from the Contractor, Canada shall promptly determine whether a contaminated site condition exists, and shall notify the Contractor in writing of any action to be taken, or work to be performed, by the Contractor as a result of Canada's determination.

4) If the Contractor's services are required by Canada, the Contractor shall follow the direction of Canada with regard to any excavation, treatment, removal and disposal of any polluting substance or material.

5) Canada, at Canada's sole discretion, may enlist the services of experts and specialty contractors to assist in determining the existence of, and the extent and treatment of contaminated site conditions, and the Contractor shall allow them access and co-operate with them in the carrying out of their duties and obligations.

6) Except as may be otherwise provided for in the Contract, the provisions of GC6.4 DETERMINATION OF PRICE shall apply to any additional work made necessary because of a contaminated site condition.

## GC5 TERMS OF PAYMENT



### GC5.1 INTERPRETATION

In these Terms of Payment

1) The "payment period" means a period of 30 consecutive days or such other longer period as may be agreed between the Contractor and Canada.

2) An amount is "due and payable" when it is due and payable by Canada to the Contractor according to GC5.4 PROGRESS PAYMENT, GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK or GC5.6 FINAL COMPLETION.

3) An amount is “overdue” when it remains unpaid on the first day following the day upon which it is due and payable.

4) The "date of payment" means the date of the negotiable instrument of an amount due and payable by the Receiver General for Canada.

5) The "Bank Rate" means the rate of interest established by the Bank of Canada as the minimum rate at which it makes short term advances to members of the Canadian Payments Association.

6) The "Average Bank Rate" means the simple arithmetic mean of the Bank Rate in effect at 4:00 p.m. Eastern Time each day during the calendar month which immediately precedes the calendar month in which payment is made.

### GC5.2 AMOUNT PAYABLE

1) Subject to any other provisions of the Contract, Canada shall pay the Contractor, at the times and in the manner hereinafter set out, the amount by which the amounts payable by Canada to the Contractor in accordance with the Contract exceed the amounts payable by the Contractor to Canada, and the Contractor shall accept that amount as payment in full satisfaction for everything furnished and done by the Contractor in respect of the Work to which the payment relates.

2) When making any payment to the Contractor, the failure of Canada to deduct an amount payable to Canada by the Contractor shall not constitute a waiver of the right to do so, or an admission of lack of entitlement to do so in any subsequent payment to the Contractor.

3) Should any payment be made by Canada in excess of what is owed to the Contractor for the actual work performed, the Contractor will reimburse Canada the excess immediately, with or without demand, and any amounts outstanding shall bear simple interest at the Average Bank rate plus 3 percent per annum from the date of overpayment until the day prior to the date of repayment by the Contractor.

4) No payment other than a payment that is expressly stipulated in the Contract shall be made by Canada to the Contractor for any extra expense or any loss or damage incurred or sustained by the Contractor.

**GC5.3 (2016-05-01) INCREASED OR DECREASED COSTS**

1. The Contract Amount shall not be increased nor decreased by reason of any increase or decrease in the cost of the Work that is brought about by an increase or decrease in the cost of labour, Plant, Material or any wage adjustment.

2. Notwithstanding paragraph 1) of GC5.3, if any change, including a new imposition or repeal, of any tax, customs or other duty, charge, or any similar imposition that is imposed under sales, customs or excise tax legislation of the Government of Canada or any Provincial or Territorial legislation, affects the cost of the Work to the Contractor, and occurs

   a) after the date of submission by the Contractor of its bid; or

   b) after the date of submission of the last revision, if the Contractor's bid was revised;

   c) the Contract Amount shall be adjusted in the manner provided in paragraph 3) of GC5.3.

3. If a change referred to in paragraph 2) of GC5.3 occurs, the Contract Amount shall be increased or decreased by an amount established by an examination by Canada of the relevant records of the Contractor referred to in GC2.8, "Accounts and Audits", to be the increase or decrease in the cost incurred by the Contractor that is directly attributable to that change.

4. For the purpose of paragraph 2) of GC5.3, if a tax is changed after the tender closing, but public notice of the change has been given by the Minister of Finance or the corresponding Provincial or Territorial authority before that closing, the change shall be deemed to have occurred before the solicitation closing.

5. Notwithstanding paragraphs 2) to 4) of GC5.3, no adjustment to the Contract Amount in respect of the Work or a part thereof shall be made for a change in any imposition referred to in this section that occurs after the date required by the Contract for completion of the Work or that part of the Work.

**GC5.4 (2016-05-01) PROGRESS PAYMENT**

1) On the expiration of a payment period, the Contractor shall deliver to Canada

   a) a written progress claim in a form acceptable to Canada that fully describes any part of the Work that has been completed, and any Material that was delivered to the Work site but not incorporated into the Work, during that payment period, and

b) a completed and signed statutory declaration containing a declaration that, up to the date of the progress claim, the Contractor has complied with all lawful obligations and that, in respect of the Work, all lawful obligations of the Contractor to its Subcontractors and Suppliers, referred to collectively in the declaration as " subcontractors and suppliers", have been fully discharged.

2) Within 10 days of receipt of a progress claim and statutory declaration from the Contractor, Canada shall inspect, or cause to have inspected, the part of the Work and the Material described in the progress claim, and shall issue a progress report to the Contractor, that indicates the value of the part of the Work and the Material described in the progress claim that, in the opinion of Canada

a) is in accordance with the Contract; and

b) was not included in any other progress report relating to the Contract.

3) Subject to GC5.2, "Amount Payable", and paragraph 5) of GC5.4, Canada shall pay the Contractor an amount that is equal to

a) 95 percent of the value that is indicated in Canada's progress report if a labour and material payment bond has been furnished by the Contractor; or

b) 90 percent of the value that is indicated in Canada's progress report if a labour and material payment bond has not been furnished by the Contractor.

4) Canada shall pay the amount referred to in paragraph 3) of GC5.4 not later than

a) 30 days after receipt by Canada of both a progress claim and a statutory declaration referred to in paragraph 1) of GC5.4; or

b) 15 days after receipt by Canada of the Contractor's progress schedule or updated progress schedule, in accordance with GC3.1, "Progress Schedule",

whichever is later.

5) In the case of the Contractor's first progress claim, it is a condition precedent to Canada's obligation under paragraph 3) of GC5.4 that the Contractor has provided all necessary documentation required by the Contract for the first progress claim.

**GC5.5 (2016-05-01) SUBSTANTIAL PERFORMANCE OF THE WORK**

1. If, at any time before the issuance of a Certificate of Completion, Canada determines that the Work has reached Substantial Performance as described in subparagraph 1) (b) of GC1.1.4, "Substantial Performance", Canada shall issue a Certificate of Substantial Performance to the Contractor. The Certificate of Substantial Performance shall state or describe

a) the date of Substantial Performance;

b) the parts of the Work not completed to the satisfaction of Canada; and

c) all things that must be done by the Contractor before a Certificate of Completion is issued and before the 12-month warranty period referred to in GC3.13, "Warranty and Rectification of Defects in Work", commences for the said parts and all the said things.

2. The issuance of a Certificate of Substantial Performance does not relieve the Contractor from the Contractor's obligations under GC3.11, "Defective Work".

3. Subject to GC5.2, "Amount Payable", and paragraph 4) of GC5.5, Canada shall pay the Contractor the amount referred to in paragraph 1) of GC5.2, "Amount Payable", less the aggregate of

   a) the sum of all payments that were made pursuant to GC5.4, "Progress Payment";

   b) an amount that is equal to Canada's estimate of the cost to Canada of rectifying defects described in the Certificate of Substantial Performance; and

   c) an amount that is equal to Canada's estimate of the cost to Canada of completing the parts of the Work described in the Certificate of Substantial Performance other than defects listed therein.

4. Canada shall pay the amount referred to in paragraph 3) of GC5.5 not later than

   a) 30 days after the date of issue of a Certificate of Substantial Performance, or

   b) 15 days after the Contractor has delivered to Canada

      I. a statutory declaration containing a declaration by the Contractor that up to the date of the Certificate of Substantial Performance, the Contractor has complied with all lawful obligations, discharged all its lawful obligations to its Subcontractors and Suppliers in respect of the work under the Contract, and discharged its lawful obligations referred to in GC1.8, "Laws, Permits and Taxes";

      II. evidence of compliance with workers' compensation legislation in accordance with GC1.9, "Workers' Compensation"; and

      III. an update of the progress schedule in accordance with the requirements of GC3.1, "Progress Schedule"; whichever is later.

**GC5.6 FINAL COMPLETION**

1) When Canada is of the opinion that the Contractor has complied with the Contract and all orders and directions made pursuant thereto, and that the Work has been completed as described in GC1.1.5 COMPLETION, Canada shall issue a Certificate of Completion to the Contractor and, if the Work or a portion of the Work is subject to a Unit Price Arrangement, Canada shall issue a Certificate of Measurement that shall, subject to GC8, be binding upon and conclusive between Canada and the Contractor as to the quantities referred to therein.

2) Subject to GC5.2 AMOUNT PAYABLE and paragraph 3) of GC5.6, Canada shall pay the Contractor the amount referred to in GC5.2 AMOUNT PAYABLE, less the aggregate of the sum of all payments that were made pursuant to GC5.4 PROGRESS PAYMENT and GC5.5 SUBSTANTIAL PERFORMANCE OF WORK.

3) Canada shall pay the amount referred to in paragraph 2) of GC5.6 not later than

   (a) 60 days after the date of issue of a Certificate of Completion; or

   (b) 15 days after the Contractor has delivered to Canada

(i) a statutory declaration which contains a declaration by the Contractor that all of the Contractor's lawful obligations and any lawful claims against the Contractor that arose out of the performance of the Contract have been discharged and satisfied; and

(ii) evidence of compliance with workers' compensation legislation in accordance with GC1.9 WORKERS' COMPENSATION;

whichever is later.

**GC5.7 (2016-05-01) PAYMENT NOT BINDING ON CANADA**

1) Neither acceptance of a progress claim or progress report, nor any payment made by Canada under the Contract, nor partial or entire use or occupancy of the Work by Canada shall constitute an acceptance by Canada of any portion of the Work or Material that is not in accordance with the requirements of the Contract.

**GC5.8 CLAIMS AND OBLIGATIONS**

1) The Contractor shall discharge all the Contractor's lawful obligations and shall satisfy all lawful claims against the Contractor arising out of the performance of the Work at least as often as the Contract requires Canada to pay the Contractor.

2) Whenever requested to do so by Canada, the Contractor shall make a statutory declaration declaring to the existence and condition of any obligations and claims against the Contractor arising out of the performance of the Work.

3) In order to discharge lawful obligations of and satisfy lawful claims against the Contractor or its Subcontractors arising out of the performance of the Contract, Canada may pay an amount that is due and payable to the Contractor directly to the claimant. Such payment is, to the extent of the payment, a discharge of Canada’s liability to the Contractor under the Contract and may be deducted from any amount payable to the Contractor under the Contract.

4) For the purposes of paragraph 3) of GC5.8, and subject to paragraph 6) of GC5.8, a claim or obligation shall be considered lawful when it is so determined by

(a) a court of legal jurisdiction;

(b) an arbitrator duly appointed to arbitrate the claim; or

(c) the written consent of the Contractor authorizing payment of the claim or obligation.

5) If a claim or obligation would have been subject to the provisions of Provincial or Territorial lien legislation or, in the Province of Quebec, the law relating to legal hypothecs had the Contractor been performing the Work for an entity other than Canada

(a) such amount as may be paid by Canada pursuant to paragraphs 3) and 4) of GC5.8 shall not exceed the amount that the Contractor would have been obliged to pay had the provisions of such legislation or law been applicable to the Work;

(b) a claimant need not comply with the provisions of such legislation, setting out the steps by way of notice, registration or otherwise as might have been necessary to preserve or perfect any claim for lien or privilege which the claimant might have had; and

(c) for the purposes of determining the entitlement of a claimant, the notice required by paragraph 8) of GC5.8 shall be deemed to replace the registration or provision of notice after the performance of work as required by any applicable legislation and no claim shall be deemed to have expired, become void or unenforceable by reason of the claimant not commencing any action within the time prescribed by such legislation.

6) The Contractor shall, at the request of any claimant, submit to binding arbitration those questions that need to be answered to establish the entitlement of the claimant to payment. The arbitration shall have as parties to it any Subcontractor or Supplier to whom the claimant supplied Material, performed work or rented equipment should such Subcontractor or Supplier wish to be adjoined, and Canada shall not be a party to such arbitration. Subject to any agreement between the Contractor and the claimant, the arbitration shall be conducted in accordance with the governing Provincial or Territorial legislation applicable to the site of the Work.

7) Paragraph 3) of GC5.8 shall apply only to claims and obligations

(a) the notification of which has set forth the amount claimed to be owing and the person who by contract is primarily liable and has been received by Canada in writing before final payment is made to the Contractor pursuant to GC5.6 FINAL COMPLETION, and within 120 days of the date on which the claimant

(i) should have been paid in full under the claimant's contract with the Contractor, its Subcontractor or Supplier if the claim is for money that was lawfully required to be held back from the claimant; or

(ii) performed the last of the services, work or labour, or furnished the last of the Material pursuant to the claimant's contract with the Contractor or its Subcontractor or Supplier where the claim is for money not lawfully required to be held back from the claimant; and

(b) the proceedings to determine the right to payment of which, pursuant to paragraph 5) of GC5.8, shall have commenced within one year from the date that the notification required by subparagraph 7)(a) of GC5.8 was received by Canada.

8) Upon receipt of a notice of claim, Canada may withhold, from any amount that is due and payable to the Contractor pursuant to the Contract, the full amount of the claim or any portion thereof.

9) Canada shall notify the Contractor in writing in a timely manner of receipt of any claim and of the intention of Canada to withhold funds. At any time thereafter and until payment is made to the claimant, the Contractor may be entitled to post, with Canada, security in a form acceptable to Canada in an amount equal to the value of the claim, and upon receipt of such security Canada shall release to the Contractor any funds that would be otherwise payable to the Contractor, that were withheld pursuant to the provisions of this clause in respect of the claim of any claimant for whom the security stands.

**GC5.9 RIGHT OF SETOFF**

1) Without limiting any right of setoff or deduction given or implied by law or elsewhere in the Contract, Canada may set off any amount payable to Canada by the Contractor under the Contract, or under any current contract, against any amount payable to the Contractor under the Contract.

2) For the purposes of paragraph 1) of GC5.9, "current contract" means a contract between Canada and the Contractor

   (a) under which the Contractor has an undischarged obligation to perform or supply work, labour or material; or

   (b) in respect of which Canada has, since the date of the Contract, exercised any right to take the work that is the subject of that contract out of the Contractor's hands.

**GC5.10 ASSESSMENTS AND DAMAGES FOR LATE COMPLETION**

1) For the purposes of this clause

   (a) the Work shall be deemed to be completed on the date of the Certificate of Completion; and

   (b) the "period of delay" means the number of days commencing on the day fixed for completion of the Work and ending on the day immediately preceding the day on which the Work is completed but does not include any day within a period of extension granted pursuant to GC6.5 DELAYS AND EXTENSION OF TIME and any other day on which, in the opinion of Canada, completion of the Work was delayed for reasons beyond the control of the Contractor.

2) If the Contractor does not complete the Work by the day fixed for its completion but completes it thereafter, the Contractor shall pay Canada an amount equal to the aggregate of

   (a) all salaries, wages and travelling expenses incurred by Canada in respect of persons overseeing the performance of the Work during the period of delay;

   (b) the cost incurred by Canada as a result of the inability to use the completed Work for the period of delay; and

   (c) all other expenses and damages incurred or sustained by Canada during the period of delay as a result of the Work not being completed by the day fixed for its completion.

3) Canada may waive the right of Canada to the whole or any part of the amount payable by the Contractor pursuant to paragraph 2) of GC5.10 if, in the opinion of Canada, it is in the public interest to do so.

**GC5.11 DELAY IN MAKING PAYMENT**

1) Notwithstanding GC1.5 TIME OF THE ESSENCE, any delay by Canada in making any payment when it is due pursuant to GC5 TERMS OF PAYMENT, shall not be a breach of the Contract by Canada.

2) Subject to paragraph 3) of GC5.11, Canada shall pay to the Contractor simple interest at the Average Bank Rate plus 3 percent per annum on any amount that is overdue pursuant to paragraph 3) of GC5.1 INTERPRETATION, and the interest shall apply from and include the day such amount became overdue until the day prior to the date of payment.

3) Interest shall be paid without demand by the Contractor except that

(a) in respect of amounts that are less than 15 days overdue, no interest shall be paid in respect of payment made within such 15 days unless the Contractor so demands after such amounts have become due and payable; and

(b) interest shall not be payable or paid on overdue advance payments, if any.

### GC5.12 INTEREST ON SETTLED CLAIMS

1) For the purposes of this clause, a claim means a disputed amount subject to negotiation between Canada and the Contractor under the Contract.

2) A claim is deemed to have been settled when an agreement in writing is signed by Canada and the Contractor setting out the amount of the claim to be paid by Canada and the items of work for which the said amount is to be paid.

3) A settled claim is deemed to be outstanding from the day immediately following the date the said claim would have been due and payable under the Contract had it not been disputed.

4) Canada shall pay to the Contractor simple interest on the amount of a settled claim at the Average Bank Rate plus 3 percent per annum from the date the settled claim was deemed to be outstanding until the day prior to the date of payment.

### GC5.13 RETURN OF SECURITY DEPOSIT

1) After a Certificate of Substantial Performance has been issued, and if the Contractor is not in breach of nor in default under the Contract, Canada shall return to the Contractor all or any part of a Security Deposit that, in the opinion of Canada, is not required for the purposes of the Contract.

2) After a Certificate of Completion has been issued, Canada shall return to the Contractor the remainder of any security deposit unless the Contract stipulates otherwise.

3) If the security deposit was paid into the Consolidated Revenue Fund of Canada, Canada shall pay interest thereon to the Contractor at a rate established pursuant to section 21(2) of the *Financial Administration Act (FAA)*.

## GC6 DELAYS AND CHANGES IN THE WORK



### GC6.1 CHANGES IN THE WORK

1) At any time before issuance of a Certificate of Completion, Canada may issue orders for additions, deletions or other changes to the Work, or changes in the location or position of the whole or any part of the Work, if the addition, deletion, change or other revision is deemed by Canada to be consistent with the general intent of the Contract.

2) An order referred to in paragraph 1) of GC6.1 shall be in writing and given to the Contractor in accordance with GC2.3 NOTICES.

3) Upon receipt of an order, the Contractor shall promptly perform the work in accordance with the order as if the order had appeared in and been part of the original Contract.

4) If anything done or omitted by the Contractor pursuant to an order increases or decreases the cost of the Work to the Contractor, payment for the work shall be made in accordance with GC6.4 DETERMINATION OF PRICE.

### GC6.2 CHANGES IN SUBSURFACE CONDITIONS

1) If, during the performance of the Work, the Contractor encounters subsurface conditions that are substantially different from the subsurface conditions described in the tender documents supplied to the Contractor, or a reasonable assumption of fact based thereon, the Contractor shall give notice to Canada immediately upon becoming aware of the situation.

2) If the Contractor is of the opinion that the Contractor may incur or sustain any extra expense or any loss or damage that is directly attributable to the changed subsurface conditions, the Contractor shall within 10 days of the date the changed subsurface conditions were encountered, give Canada written notice of intention to claim for that extra expense, loss or damage.

3) If the Contractor has given a notice referred to in paragraph 2) of GC6.2, the Contractor shall give Canada a written claim for extra expense, loss or damage no later than 30 days after the date that a Certificate of Substantial Performance is issued.

4) A written claim referred to in paragraph 3) of GC6.2 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable Canada to determine whether or not the claim is justified, and the Contractor shall supply such further and other information for that purpose as Canada requires.

5) If Canada determines that a claim referred to in paragraph 3) of GC6.2 is justified, Canada shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC6.4 DETERMINATION OF PRICE.

6) If, in the opinion of Canada, the Contractor effects a saving of expenditure that is directly attributable to a substantial difference between the information relating to subsurface conditions at the site of the Work that is contained in the tender documents, or a reasonable assumption of fact based thereon, and the actual subsurface conditions encountered by the Contractor, the Contract Amount shall be reduced by the amount of the saving of expenditure determined in accordance with GC6.4 DETERMINATION OF PRICE.

7) If the Contractor fails to give a notice referred to in paragraph 2) of GC6.2 and a claim referred to in paragraph 3) of GC6.2 within the times stipulated, an extra payment shall not be made to the Contractor in respect of the occurrence.

8) Canada does not warrant the content expressed in any subsurface report available for the perusal of the Contractor that does not form part of the tender and contract documents.

## GC6.3 HUMAN REMAINS, ARCHAEOLOGICAL REMAINS AND ITEMS OF HISTORICAL OR SCIENTIFIC INTEREST

1) For the purposes of this clause

   (a) "human remains" means the whole or any part of a deceased human being, irrespective of the time of death;

   (b) "archaeological remains" are items, artefacts or things made, modified or used by human beings in antiquity and may include, but not be limited to, stone, wood or iron structures or monuments, dump deposits, bone artefacts, weapons, tools, coins, and pottery; and

   (c) "items of historical or scientific interest" are naturally occurring or manufactured objects or things of any age that are not archaeological remains but may be of interest to society because of their historical or scientific significance, value, rarity, natural beauty, or other quality.

2) If, during the course of the Work, the Contractor encounters any object, item or thing which is described in paragraph 1) of GC6.3 or which resembles any object, item or thing described in paragraph 1) of GC6.3, the Contractor shall

   (a) take all reasonable steps, including stopping work in the affected area, to protect and preserve the object, item or thing;

   (b) immediately notify Canada of the circumstances in writing; and

   (c) take all reasonable steps to minimize additional costs that may accrue as a result of any work stoppage.

3) Upon receipt of a notification in accordance with subparagraph 2)(b) of GC6.3, Canada shall promptly determine whether the object, item or thing is one described in, or contemplated by paragraph 1) of GC6.3, and shall notify the Contractor in writing of any action to be performed, or work to be carried out, by the Contractor as a result of Canada's determination.

4) Canada may, at any time, enlist the services of experts to assist in the investigation, examination, taking of measurements or other such recordings, placing of permanent protection around or removing of the object, item or thing encountered by the Contractor, and the Contractor shall, to the satisfaction of Canada, allow them access and co-operate with them in the carrying out of their duties and obligations.

5) Human remains, archaeological remains and items of historical or scientific interest encountered at the site of the Work shall be deemed to be the property of Canada.

6) Except as may be otherwise provided for in the Contract, the provisions of GC6.4 DETERMINATION OF PRICE and GC6.5 DELAYS AND EXTENSION OF TIME shall apply.

## GC6.4 DETERMINATION OF PRICE

### GC6.4.1 Price Determination Prior to Undertaking Changes

1) If a Lump Sum Arrangement applies to the Contract or a part thereof, the price of any change shall be the aggregate estimated cost of labour, Plant and Material that is required for the change as agreed upon in writing by the Contractor and Canada plus a negotiated allowance for supervision, co-ordination, administration, overhead, margin and the risk of undertaking the work within the stipulated amount.

2) If a Unit Price Arrangement applies to the Contract or a part thereof, the Contractor and Canada may, by agreement in writing, add items, units of measurement, estimated quantities and prices per unit to the Unit Price Table.

3) A price per unit referred to in paragraph 2) of GC6.4.1 shall be determined on the basis of the aggregate estimated cost of labour, Plant and Material that is required for the additional item as agreed upon by the Contractor and Canada, plus a negotiated allowance.

4) To facilitate approval of the price of the change or the additional price per unit as applicable, the Contractor shall submit a cost estimate breakdown identifying, as a minimum, the estimated cost of labour, Plant, Material, each subcontract amount, and the amount of the negotiated allowance.

5) If no agreement is reached as contemplated in paragraph 1) of GC6.4.1, the price shall be determined in accordance with GC6.4.2.

6) If no agreement is reached, as contemplated in paragraphs 2) and 3) of GC6.4.1, Canada shall determine the class and the unit of measurement of the item of labour, Plant or Material and the price per unit shall be determined in accordance with GC6.4.2.

### GC6.4.2 Price Determination Following Completion of Changes

1) If it is not possible to predetermine, or if there is failure to agree upon the price of a change in the Work, the price of the change shall be equal to the aggregate of

   (a) all reasonable and proper amounts actually expended or legally payable by the Contractor in respect of the labour, Plant and Material that fall within one of the classes of expenditure described in paragraph 2) of GC6.4.2, that are directly attributable to the performance of the Contract;

   (b) an allowance for profit and all other expenditures or costs, including overhead, general administration costs, financing and interest charges, in an amount that is equal to 10 percent of the sum of the expenses referred to in subparagraph 1)(a) of GC6.4.2; and

   (c) interest on the amounts determined under subparagraphs 1)(a) and 1)(b) of GC6.4.2 calculated in accordance with GC5.12 INTEREST ON SETTLED CLAIMS;

2) The cost of labour, Plant and Material referred to in subparagraph 1)(a) of GC6.4.2 shall be limited to the following categories of expenditure:
   (a) payments to Subcontractors and Suppliers;

   (b) wages, salaries, bonuses and, if applicable, travel and lodging expenses of employees of the Contractor located at the site of the Work and that portion of wages, salaries, bonuses and, if applicable, travel and lodging expenses of personnel of the Contractor generally employed at the head office or at a general office of the Contractor provided they are actually and properly engaged on the Work under the Contract;

   (c) assessments payable under any statutory authority relating to workers' compensation, employment insurance, pension plan or holidays with pay, provincial health or insurance plans, environmental reviews, and Applicable Taxes collection costs;

   (d) rent that is paid for Plant, or an amount equivalent to the said rent if the Plant is owned by the Contractor, that is necessary for and used in the performance of the Work, if the rent or the equivalent amount is reasonable and use of that Plant has been approved by Canada;

   (e) payments for maintaining and operating Plant necessary for and used in the performance of the Work, and payments for effecting repairs thereto that, in the opinion of Canada, are necessary for the proper performance of the Contract, other than payments for any repairs to the Plant arising out of defects existing before its allocation to the Work;

   (f) payments for Material that is necessary for and incorporated in the Work, or that is necessary for and consumed in the performance of the Contract;

   (g) payments for preparation, delivery, handling, erection, installation, inspection, protection and removal of the Plant and Material necessary for and used in the performance of the Contract; and

   (h) any other payments made by the Contractor with the approval Canada that are necessary for the performance of the Contract in accordance with the Contract Documents.

**GC6.4.3 Price Determination - Variations in Tendered Quantities**

1) Except as provided in paragraphs 2), 3), 4) and 5) of GC6.4.3, if it appears that the final quantity of labour, Plant and Material under a price per unit item shall exceed or be less than the estimated tendered quantity, the Contractor shall perform the Work or supply the Plant and Material required to complete the item and payment shall be made for the actual Work performed or Plant and Material supplied at the price per unit set out in the Contract.

2) If the final quantity of the price per unit item exceeds the estimated tendered quantity by more than 15 percent, either party to the Contract may make a written request to the other party to negotiate an amended price per unit for that portion of the item which exceeds 115 percent of the estimated tendered quantity, and to facilitate approval of any amended price per unit, the Contractor shall, on request, provide Canada with

   (a) detailed records of the actual cost to the Contractor of performing or supplying the tendered quantity for the price per unit item up to the time the negotiation was requested; and

(b) the estimated unit cost of labour, Plant and Material required for the portion of the item that is in excess of 115 percent of the tendered quantity.

3) If agreement is not reached as contemplated in paragraph 2) of GC6.4.3, the price per unit shall be determined in accordance with GC6.4.2.

4) If it appears that the final quantity of labour, Plant and Material under a price per unit item shall be less than 85 percent of the estimated tendered quantity, either party to the Contract may make a written request to the other party to negotiate a change to the price per unit for the item if

(a) there is a demonstrable difference between the unit cost to the Contractor of performing or supplying the estimated tendered quantity and the unit cost to the Contractor for performing or supplying the final quantity; and

(b) the difference in unit cost is due solely to the decrease in quantity and not to any other cause.

5) For the purposes of the negotiation referred to in paragraph 4) of GC6.4.3

(a) the onus of establishing, justifying and quantifying a proposed change lies with the party making the request for negotiation; and

(b) in no event shall the total price for an item that has been amended as a result of a reduction in quantity pursuant to paragraph 4) of GC6.4.3 exceed the amount that would have been payable to the Contractor had 85 percent of the tendered quantity actually been performed or supplied.

## GC6.5 DELAYS AND EXTENSION OF TIME

1) Upon application of the Contractor made before the date first fixed for completion of the Work or before any other date previously fixed under this clause, Canada may extend the time for completion of the Work by fixing a new date if Canada determines that causes beyond the control of the Contractor have delayed its completion.

2) The Contractor's application shall be accompanied by the written consent of the bonding company whose bond forms part of the Contract Security.

3) Subject to paragraph 4) of GC6.5, no payment, other than a payment that is expressly stipulated in the Contract, shall be made by Canada to the Contractor for any extra expense, loss or damage incurred or sustained by the Contractor due to delay, whether or not the delay is caused by circumstances beyond the control of the Contractor.

4) If the Contractor incurs or sustains any extra expense or any loss or damage that is directly attributable to any neglect or delay that occurs after the date of the Contract on the part of Canada in providing any information or in doing any act that the Contract either expressly requires Canada to do or that would ordinarily be done by an owner in accordance with the practice of the trade, the Contractor shall give Canada written notice of intention to claim for that extra expense or loss or damage within ten working days of the date the neglect or delay first occurred.

5) When the Contractor has given a notice referred to in paragraph 4) of GC6.5, the Contractor shall give Canada a written claim for the extra expense, loss or damage no later than 30 days after the date that a Certificate of Completion is issued and not afterwards.

6) A written claim referred to in paragraph 5) of GC6.5 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable Canada to determine whether or not the claim is justified and the Contractor shall supply such further and other information for that purpose as Canada may require.

7) If Canada determines that a claim referred to in paragraph 5) of GC6.5 is justified, Canada shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC6.4 DETERMINATION OF PRICE.

8) If the Contractor fails to give a notice referred to in paragraph 4) and a claim referred to in paragraph 5) of GC6.5 within the times stipulated, an extra payment shall not be made to the Contractor in respect of the occurrence.

## GC7 DEFAULT, SUSPENSION OR TERMINATION OF CONTRACT



### GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS

1) By giving notice in writing to the Contractor in accordance with GC2.3 NOTICES, Canada, without any other authorization, may take all or any part of the Work out of the Contractor's hands, and may employ such means as Canada sees fit to have the Work completed if the Contractor:

   (a) fails to remedy any delay in the commencement or default in the diligent performance of the Work to the satisfaction of Canada within six days of Canada giving notice to the Contractor in writing in accordance with GC2.3 NOTICES;

   (b) defaults in the completion of any part of the Work within the time fixed for its completion by the Contract;

   (c) becomes insolvent, or has committed an act of bankruptcy, and has neither made a proposal to its creditors nor filed a notice of intention to make such a proposal, pursuant to the *Bankruptcy and Insolvency Act*;

   (d) abandons the work;

   (e) makes an assignment of the Contract without the consent required by GC1.16 ASSIGNMENT; or

   (f) otherwise fails to observe or perform any of the provisions of the Contract.

2) If the whole or any part of the Work is taken out of the Contractor's hands, the Contractor's right to any further payment that is due or accruing due under the Contract is, subject only to paragraph 3) of GC7.1, extinguished, and the Contractor is liable to pay Canada, upon demand, an amount that is equal to the amount of all loss and damage incurred or sustained by Canada in respect of the Contractor's failure to complete the Work.

3) If the whole or any part of the Work that is taken out of the Contractor's hands is completed by Canada, Canada may pay the Contractor the amount, if any, of the holdback or a progress claim as determined by Canada that had accrued and was due prior to the date on which the Work was taken out of the Contractor's hands and that is not required for the purposes of having the Work performed or of compensating Canada for any other loss or damage incurred or sustained by reason of the Contractor's default.

4) The taking of the Work or any part thereof out of the Contractor's hands does not relieve the Contractor from any obligation under the Contract or imposed by law except the obligation to complete the performance of that part of the Work that was taken out of the Contractor's hands.

5) If the Work or any part thereof is taken out of the Contractor's hands, all Plant and Material and the interest of the Contractor, or its suppliers or subcontractors at any tier, in all real property, licences, powers and privileges acquired, used or provided by the Contractor, or its suppliers or subcontractors at any tier, under the Contract shall continue to be the property of Canada without compensation.

6) When Canada certifies that any Plant, Material, or any interest of the Contractor is no longer required for the purposes of the Work, or that it is not in the interests of Canada to retain that Plant, Material, or interest, it shall revert to the Contractor.

7) If the Contractor has become insolvent or has committed an act of bankruptcy, and has either made a proposal to its creditors or filed a notice of intention to make such a proposal, pursuant to the *Bankruptcy and Insolvency Act*, the Contractor shall immediately forward a copy of the proposal or the notice of intention to Canada.

**GC7.2 SUSPENSION OF WORK**

1) When, in Canada's opinion, it is in the public interest to do so, Canada may require the Contractor to suspend performance of the Work either for a specified or an unspecified period, by giving a notice of suspension in writing to the Contractor in accordance with GC2.3 NOTICES.

2) When a notice of suspension is received by the Contractor, the Contractor shall suspend all operations in respect of the Work except those that Canada determines are necessary for the care and preservation of the Work, Plant and Material.

3) During a period of suspension, the Contractor shall not remove any part of the Work, Plant or Material from its site without the consent of Canada.

4) If a period of suspension is 60 days or less, the Contractor shall resume the performance of the Work on the expiration of that period, and the Contractor is entitled to be paid the extra costs necessarily incurred by the Contractor as a result of the suspension, determined in accordance with GC6.4 DETERMINATION OF PRICE.

5) If a period of suspension is more than 60 days, Canada and the Contractor may agree that the performance of the Work shall be continued by the Contractor, and the Contractor shall resume performance of the Work subject to any terms and conditions agreed upon by Canada and the Contractor. If Canada and the Contractor do not agree that performance of the Work shall be continued by the Contractor, or upon the terms and conditions under which the Contractor shall continue the Work, the notice of suspension shall be deemed to be a notice of termination pursuant to GC7.3 TERMINATION OF CONTRACT.

**GC7.3 TERMINATION OF CONTRACT**

1) Canada may terminate the Contract at any time by giving a notice of termination in writing to the Contractor in accordance with GC2.3 NOTICES.

2) If the Contractor receives a notice of termination, the Contractor shall forthwith cease all operations in performance of the Contract, subject to any conditions stipulated in the notice.

3) Subject to paragraph 4) of GC7.3, if the Contract is terminated, Canada shall pay the Contractor an amount determined to be due to the Contractor pursuant to GC6.4 DETERMINATION OF PRICE less the aggregate of all amounts that were paid to the Contractor by Canada and all amounts that are due to Canada from the Contractor pursuant to the Contract.

4) In no event shall the total amount payable by Canada to the Contractor exceed the amount, calculated in accordance with GC5 TERMS OF PAYMENT, that would have been payable to the Contractor had the Contractor completed the Work.

5) Payment to the Contractor, if any, shall be made as soon as practicable under the circumstances.

**GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN**

1) If the Work is taken out of the Contractor's hands, or the Contractor is in breach of, or in default under, the Contract, Canada may convert a security deposit to Canada's own use.

2) If Canada converts a security deposit, the amount realized shall be deemed to be an amount due from Canada to the Contractor under the Contract.

3) Any balance of the amount realized that remains after payment of all losses, damage and claims of Canada and others shall be paid by Canada to the Contractor if, in the opinion of Canada, it is not required for the purposes of the Contract.

## GC8 DISPUTE RESOLUTION



### GC8.1 INTERPRETATION

1) "dispute" means any disagreement regarding any issue identified by the Contractor in the notice submitted to Canada in accordance with paragraph 2 of GC8.3 NOTICE OF DISPUTE, and includes any claim by the Contractor arising from such disagreement and any counterclaim by Canada, but does not include any claim by either party for punitive or exemplary damages, injury to persons, death, or any claim based on an allegation of libel or slander.

2) The alternative dispute resolution procedures set out in GC8, do not apply to any claim by Canada against the Contractor except any counterclaim in a dispute as defined in paragraph 1 of GC8.1, including, but not limited to, any claim of setoff regarding any amount due to Canada under GC5.10 ASSESSMENT AND DAMAGES FOR LATE COMPLETION.

### GC8.2 CONSULTATION AND CO-OPERATION

1) The parties agree to maintain open and honest communication throughout the performance of the Contract.

2) The parties agree to consult and co-operate with each other in the furtherance of the Work and the resolution of problems or differences that may arise.

### GC8.3 NOTICE OF DISPUTE

1) Any difference between the parties to the Contract of any nature arising out of or in connection with the Contract which could result in a claim by the Contractor against Canada, and which is not settled by consultation and co-operation as envisaged in GC8.2

CONSULTATION AND CO-OPERATION, shall be resolved in the first instance by Canada, whose written decision or direction shall be final and binding subject only to the provisions of GC8. Such written decision or direction includes, but is not limited to, any written decision or direction by Canada under any provision of the General Conditions.

2) The Contractor shall be deemed to have accepted the decision or direction of Canada referred to in paragraph 1) of GC8.3 and to have expressly waived and released Canada from any claim in respect of the particular matter dealt with in that decision or direction unless, within 15 working days after receipt of the decision or direction, the Contractor submits to Canada a written notice of dispute requesting formal negotiation under GC8.4 NEGOTIATION. Such notice shall refer specifically to GC8.4 NEGOTIATION, and shall specify the issues in contention and the relevant provisions of the Contract.

3) The giving of a written notice in accordance with paragraph 2) of GC8.3 shall not relieve the Contractor from complying with the decision or direction that is the subject of the dispute. Such compliance, however, shall not be construed as an admission by the Contractor of the correctness of such decision or direction.

4) If a dispute is not resolved promptly, Canada shall give such instructions as, in Canada's opinion, are necessary for the proper performance of the Work and to prevent delays pending a resolution of the matter. Unless Canada terminates the Contract, orders the Contractor to suspend the Work, or takes the Work out of the hands of the Contractor, the Contractor shall continue to perform the Work in accordance with the provisions and requirements of the Contract and the instructions of Canada. Such performance shall not prejudice any claim that the Contractor may have.

5) Nothing in GC8 relieves the Contractor from its obligation to provide any other notice required by the Contract within the time specified in the Contract, including but not limited to, any notice required under GC6.2 CHANGES IN SUBSURFACE CONDITIONS.

**GC8.4 NEGOTIATION**

1) Within 10 working days after receipt by Canada of a notice referred to in paragraph 2) of GC8.3 NOTICE OF DISPUTE, or within such other period of time as may be mutually agreed to, the parties shall commence formal negotiations in order to resolve the dispute. Negotiations shall occur initially between representatives of the Contractor and Canada who play a direct supervisory role in the performance, administration or management of the Contract.

2) If the representatives referred to in paragraph 1) of GC8.4 are unable to resolve some or all of the issues which are the subject of the negotiations within 10 working days, the parties shall refer the remaining issues which are in dispute to a second level of negotiation between a principal or principals of the Contractor and a senior level manager or senior level managers representing Canada.

3) If negotiations fail to resolve the dispute within 30 working days from the date of delivery of the notice referred to in paragraph 2) of GC8.3 NOTICE OF DISPUTE, or within such longer period as may have been agreed to by the parties, the Contractor may, by giving written notice to Canada, in accordance with GC2.3 NOTICES, within 10 working days from the end of such period, request that mediation be undertaken to assist the parties to reach agreement on the outstanding issues.

3) If the Contractor does not request mediation within the period permitted by paragraph 3) of GC8.4, the Contractor shall be deemed to have accepted the decision or direction of Canada under paragraph 1) of GC8.3 NOTICE OF DIPUTE and to have expressly waived and

released Canada from any claim in respect of the particular matter dealt with in that decision or direction.

### GC8.5 MEDIATION

1) If the Contractor has requested mediation in accordance with paragraph 3) of GC8.4 NEGOTIATION, mediation shall be conducted in accordance with GC8.8 RULES FOR MEDIATION OF DISPUTES.

2) If a Project Mediator has not previously been appointed for the purposes of the Contract, a Project Mediator shall be appointed in accordance with GC8.8 RULES FOR MEDIATION OF DISPUTES forthwith after delivery of a notice in accordance with paragraph 3) of GC8.4 NEGOTIATION, requesting mediation.

3) If the dispute has not been resolved within

   (a) Ten (10) working days following the appointment of a Project Mediator in accordance with paragraph 2) of GC8.5, if a Project Mediator was not previously appointed;

   (b) Ten (10) working days following receipt by Canada of a written notice in accordance with paragraph 3) of GC8.4 NEGOTIATION, if a Project Mediator was previously appointed; or

   (c) such other longer period as may have been agreed to by the parties;

   the Project Mediator shall terminate the mediation by giving written notice to the parties stating the effective date of termination.

### GC8.6 BINDING ARBITRATION

1) If mediation of the dispute is terminated pursuant to the provisions of GC8.5, "Mediation", and

   a) the termination of mediation occurs prior to the applicable date set out in paragraph 4) of GC8.6; and

   b) the disputed issues involve issues of fact or issues of arbitral questions of law or issues of mixed fact and arbitral questions of law;

   either party, by giving notice in writing to the other party in accordance with GC2.3, "Notices", may require that the dispute be resolved by binding arbitration pursuant to GC8.6.

2) A notice referred to in paragraph 1) of GC8.6 shall be given within 10 working days of the date of termination of mediation under GC8.5 Mediation and shall be in accordance with GC2.3, "Notices".

3) If no notice is given within the period set out in paragraph 2) of GC8.6, or if the conditions set out in subparagraphs 1)(a) and 1)(b) of GC8.6 are not met, the arbitration provisions set out in GC8.6 do not apply to the dispute.

4) Unless otherwise agreed, the arbitration of the dispute shall be held in abeyance until the earlier of

   a) the date of issuance of a Certificate of Substantial Performance under GC5.5, "Substantial Performance of the Work";

b) the date the Work is taken out of the Contractor's hands; and

c) the date of termination of the Contract;

and consolidated with all other such disputes into a single arbitration.

5) Arbitral proceedings under this GC8.6 shall be governed by and conducted in accordance with the **Commercial Arbitration Act**, R.S. 1985, c. 17 (2nd Supp.) and the provisions of GC8.11, "Rules for Arbitration of Disputes".

6) For the purposes of calculating time under the Rules for Arbitration referred to in paragraph 5) of GC8.6, arbitration proceedings shall commence on the applicable date set out in paragraph 4) of GC8.6.

7) Notwithstanding anything else contained in GC8.6, the arbitration provisions in GC8.6 do not apply if the aggregate amount of all claims by the Contractor required to be arbitrated on the applicable date set out in paragraph 4) of GC8.6 is less than $25,000.

**GC8.7 DISPUTES NOT SUBJECT TO ARBITRATION**

1) Where the arbitration provisions in GC8.6, "Binding Arbitration", do not apply to a dispute as a result of paragraphs 3) or 7) of GC8.6, "Binding Arbitration", either party may take such court action or proceedings as it considers appropriate, including, without limiting the foregoing, all suits that would otherwise have been immediately available to it but for the provisions of these Dispute Resolution Conditions. Subject to the provisions of paragraph 2) of GC8.7, the Contractor shall initiate any such action or proceeding no later than three calendar months after the date that a Certificate of Completion is issued under GC5.6, "Final Completion", and not afterwards, except where it is otherwise provided by law.

2) Any action or proceeding resulting from a direction under GC3.13, "Warranty and Rectification of Defects in Work", shall be initiated by the Contractor no later than three calendar months after the expiry of the warranty or guarantee period and not afterwards, except where it is otherwise provided by law.

**GC8.8 (2016-05-01) CONFIDENTIALITY**

All information exchanged during alternative dispute resolution procedures, by whatever means, shall be without prejudice and shall be treated as confidential by the parties and their representatives, unless otherwise required by law. However, evidence that is independently admissible or discoverable shall not be rendered inadmissible or non-discoverable by virtue of its use during an alternative dispute resolution process.

**GC8.9 (2016-05-01) SETTLEMENT**

Any agreement to settle all or any part of a dispute, by whatever means, shall be in writing and be signed by the parties or their authorized representatives.

**GC8.10 (2016-05-01) RULES FOR MEDIATION OF DISPUTES**

**GC8.10.1 Interpretation**

In these Rules

1) "Coordinator" means the person designated by Canada to act as the Dispute Resolution Coordinator.

**GC8.10.2 Application**

1) By mutual agreement, the parties may change or make additions to the Rules.

**GC8.10.3 Communication**

1) Written communications pursuant to these Rules shall be given in accordance with GC2.3 NOTICES.

**GC8.10.4 Appointment of Project Mediator**

1) The parties to the Contract may, by mutual consent, at any time after entry into the Contract, appoint a mediator (the "Project Mediator") to conduct mediation proceedings in accordance with these Rules for Mediation of Disputes, in regard to any dispute that may arise with regard to the interpretation, application or administration of the Contract. In this case, they shall jointly enter into a contract with the appointed Project Mediator, which contract shall be in a form drafted by the Coordinator and agreed to by the parties.

2) If the parties do not appoint a Project Mediator pursuant to paragraph 1) of GC8.8.4, the parties shall appoint a Project Mediator within 17 working days following receipt of a written notice from the Contractor, in accordance with GC2.3 NOTICES, requesting that mediated negotiations be undertaken in accordance with these Rules to assist the parties to reach agreement on any outstanding issues that may be in dispute. Any contract entered into with the appointed Project Mediator shall meet the requirements as set out for the contract described in paragraph 1) of GC8.8.4.

3) When mediation is requested by the Contractor pursuant to paragraph 3) of GC8.4 NEGOTIATION, if the parties have previously entered into a contract with a Project Mediator, the parties shall within 2 days send to both the Project Mediator and the Coordinator

   (a) a copy of the notice requesting negotiation under paragraph 2) of GC8.3 NOTICE OF DISPUTE;

   (b) a copy of Canada's written position in relation to the notice, the issues in contention and the relevant provisions of the contract; and

   (c) a copy of the Contractor's written request for mediation required under paragraph 3) of GC8.4 NEGOTIATION.

4) If the parties have not agreed on a Project Mediator, the parties shall forthwith provide the Coordinator with the written materials referred to in subparagraphs 3)(a), 3)(b) and 3)(c) of GC8.8.4 together with a request that the Coordinator assist in the appointment of a mutually acceptable Project Mediator in accordance with these Rules.

5) Within 5 working days following receipt of the request and materials referred to in paragraph 4) of GC8.8.4, the Coordinator shall provide the parties with a list of qualified private sector mediators obtained from an independent and impartial entity, together with instructions to

each party to individually and confidentially select and rank their preferred and fully acceptable choices of mediator in descending order. Each mediator listed shall be impartial and independent of the parties, and shall be an experienced and skilled commercial mediator, preferably with knowledge of the subject matter of the dispute.

6) Within 10 working days of receipt of the list referred to in paragraph 5) of GC8.8.4 each party shall comply with the instructions accompanying the list(s) and shall deliver the completed listing to the Coordinator.

7) Within 2 working days following receipt of the completed listings, the Coordinator shall select the highest common ranked mediator to act as Project Mediator for the purposes of the contract.

8) In the event of a tie, the Coordinator shall consult both parties to re-evaluate their rankings in order to assist the Coordinator in selecting a Project Mediator acceptable to both parties. If the parties cannot agree upon a Project Mediator, the Coordinator shall forthwith provide the parties with a second list of mediators and the procedure shall be repeated.

9) If the parties have not previously entered into a contract with a mutually acceptable Project Mediator, the Coordinator shall use reasonable efforts to negotiate a contract with a mutually acceptable Project Mediator on behalf of the parties, which contract shall incorporate or otherwise comply with the provisions of these Rules. If negotiations are unsuccessful, or if for other reason the individual is unwilling or unable to enter into a contract to act as Project Mediator, the Coordinator shall repeat the process with the second-highest common ranked mediator.

10) The parties agree that, upon successful completion of the negotiations referred to in paragraph 9) of GC8.8.4, they shall jointly enter into a contract with the selected Project Mediator, which contract shall be in a form drafted by the Coordinator and agreed to by the parties.

11) Upon execution of the contract with the Project Mediator referred to in paragraph 10) of GC8.8.4 the Coordinator shall provide the Project Mediator with copies of the documents referred to in paragraph 3) of GC8.8.4.

**GC8.10.5 Confidentiality**

1) Subject to paragraph 2) of GC8.8.5, and unless otherwise agreed in writing by the parties, the Project Mediator, the parties and their counsel or representatives shall keep confidential all matters and documents disclosed during mediation proceedings except where the disclosure is necessary for any implementation of any agreement reached or is required by law.

2) Evidence that is independently admissible or discoverable in any arbitral or judicial proceeding shall not be rendered inadmissible or non-discoverable by virtue of its use in mediation proceedings.

3) Neither party shall make transcripts, minutes or other records of a mediation conference.

4) The personal notes and written opinions of the Project Mediator made in relation to mediation are in the Project Mediator's sole possession and control, are confidential, and may not be used in any subsequent proceeding between the parties or where they are opposed in interest without the express written permission of the parties.

5) All information exchanged during mediation procedures, by whatever means, shall be without prejudice and shall be treated as confidential by the parties and their representatives, unless otherwise required by law.

**GC8.10.6 Time and Place of Mediation**

1) The Project Mediator, in consultation with the parties shall set the date, time and place of any mediation conference as soon as possible, bearing in mind that, subject to agreement to the contrary between the parties, only 10 working days are available within which to attempt to settle the dispute.

**GC8.10.7 Representation**

1) Representatives of the parties may be accompanied at the mediation conference by legal counsel or any other person.

2) If the Project Mediator is a lawyer, the Project Mediator shall not provide legal advice to a party during the course of the mediation conference, but may recommend that a party obtain independent legal advice before finalizing a settlement agreement.

**GC8.10.8 Procedure**

1) The parties agree to an exchange of all facts, information and documents upon which they intend to rely in any oral or written presentation during the mediation. This exchange shall be completed no later than 2 working days prior to the date set for a mediation conference.

2) The Project Mediator shall be free to meet with the parties individually during a mediation conference if the Project Mediator is of the opinion that this may improve the chances of a mediated settlement, and either party may request such an individual meeting at any time.

3) The parties may agree to extend the 10 working days available for settlement of the dispute through mediation, and the Project Mediator shall record that agreement in writing.

**GC8.10.9 Settlement Agreement**

1) The parties shall record in writing any settlement agreement reached, with sufficient detail to ensure a clear understanding of

   (a) the issues resolved;

   (b) any obligations assumed by each party including criteria to determine if and when these obligations have been met; and

   (c) the consequences of failure to comply with the agreement reached.

2) The parties agree to carry out the terms of a settlement agreement as soon as possible and, in any event, within any time periods specified in the agreement.

**GC8.10.10 Termination of Mediation**

1) Either party may withdraw from mediation at any time without reason and, in that event, the Project Mediator shall give each party a written notice terminating the mediation and establishing the effective date of termination.

2) If, in the opinion of the Project Mediator, either party fails to mediate in good faith or fails to comply with the terms of these Rules, or if the Project Mediator, at any time during mediation, is of the opinion that further negotiations will fail to resolve the issues outstanding, the Project Mediator may terminate the negotiations by providing the parties with a written notice of termination, stating therein the Project Mediator's reasons for the termination, and the effective date of termination.
3) If a dispute has not been resolved within 10 working days or such other longer period as may have been agreed to by the parties, the Project Mediator shall terminate the mediation by giving written notice to the parties stating the effective date of termination.

**GC8.10.11 Costs**

1) The parties agree that they will each be responsible for the costs of their own representatives and advisors and associated travel and living expenses. Fees and expenses of the Project Mediator and all administrative costs of mediation, such as the cost of the meeting room(s), if any, shall be borne equally by the parties.

**GC8.10.12 Subsequent Proceedings**

1) The parties shall not rely on or introduce as evidence in any arbitral or judicial proceeding, whether or not such proceeding relates to the subject matter of mediation,

   (a) any documents of other parties that are not otherwise producible in those proceedings;

   (b) any views expressed or suggestions made by any party in respect of a possible settlement of issues;

   (c) any admission made by any party in the course of mediation unless otherwise stipulated by the admitting party; and

   (d) the fact that any party has indicated a willingness to make or accept a proposal or recommendation for settlement.

2) The Project Mediator shall neither represent nor testify on behalf of either of the parties in any subsequent investigation, action or proceeding relating to the issues in mediation proceedings.

3) The Project Mediator shall not be subpoenaed to give evidence relating to

   (a) the Project Mediator's role in mediation; or

   **(b) the matters or issues in mediation;**

   **in any subsequent investigation, action or proceeding and the parties agree to vigorously oppose any effort to have the Mediator so subpoenaed.**

## GC9 CONTRACT SECURITY



### GC9.1 OBLIGATION TO PROVIDE CONTRACT SECURITY

1) The Contractor shall, at the Contractor's expense and within 14 days after the date that the Contractor receives notice that the Contractor's bid was accepted by Canada, obtain and deliver Contract Security to Canada in one of the forms prescribed in GC9.2 TYPES AND AMOUNTS OF CONTRACT SECURITY.

2) If the whole or a part of the Contract Security provided is in the form of a security deposit, it shall be held and disposed of in accordance with GC5.13 RETURN OF SECURITY DEPOSIT and GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN.

3) If a part of the Contract Security provided is in the form of a labour and material payment bond, the Contractor shall post a copy of that bond at the site of the Work.

4) It is a condition precedent to the release of the first progress payment that the Contractor has provided the Contract Security as specified herein.

### GC9.2 (2016-05-01) TYPES AND AMOUNTS OF CONTRACT SECURITY

1) The Contractor shall deliver to Canada either (a) or (b).

   a) A performance bond and a labour and material payment bond each in an amount that is equal to not less than 50 percent of the Contract Amount (excluding applicable tax(es)).

   b) A security deposit or an irrevocable standby letter of credit in an amount that is equal to not less than 20 percent of the Contract Amount (excluding applicable tax(es)).

2) A performance bond and a labour and material payment bond referred to in paragraph 1) of GC9.2 shall be in a form and be issued by a bonding or surety company that is approved by Canada.

   (a) The approved form for the performance bond is displayed at the following Website: http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494&section=text#appS

   (b) The approved form for the labour and material payment bond is displayed at the following website: http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494&section=text#appS ; and

   (c) The list of approved bonding or surety companies is displayed at the following Website: http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494&section=text#appL

3) A security deposit referred to in subparagraph 1)(b) of GC9.2 shall be in the form of

   a. a bill of exchange, bank draft or money order made payable to the Receiver General for Canada and certified by an approved financial institution or drawn by an approved financial institution on itself; or

b. bonds of, or unconditionally guaranteed as to principal and interest by, the Government of Canada.

4) For the purposes of subparagraph 3)(a) of GC9.2

a) a bill of exchange is an unconditional order in writing signed by the Contractor and addressed to an approved financial institution, requiring the said institution to pay, on demand, at a fixed or determinable future time a sum certain of money to, or to the order of, the Receiver General for Canada;

b) if a bill of exchange, bank draft or money order is certified by or drawn on an institution or corporation other than a chartered bank, it must be accompanied by proof that the said institution or corporation meets at least one of the criteria described in subparagraph 4)(c) of GC9.2, either by letter or by a stamped certification on the bill of exchange, bank draft or money; and

c) An approved financial institution is

I. a corporation or institution that is a member of the Canadian Payments Association as defined in the Canadian Payments Act;

II. a corporation that accepts deposits that are insured, to the maximum permitted by law, by the Canada Deposit Insurance Corporation or the "Autorité des marchés financiers";

III. a corporation that accepts deposits from the public if repayment of the deposit is guaranteed by Her Majesty the Queen in right of a province;

IV. a corporation, association or federation incorporated or organized as a credit union or co-operative credit society that conforms to the requirements of a credit union which are more particularly described in paragraph 137(6) of the Income Tax Act; or

V. Canada Post Corporation.

5) Bonds referred to in subparagraph 3)(b) of GC9.2 shall be provided on the basis of their market value current at the date of the Contract, and shall be

a) made payable to bearer; or

b) accompanied by a duly executed instrument of transfer of the bonds to the Receiver General for Canada in the form prescribed by the Domestic Bonds of Canada Regulations; or

c) registered as to principal, or as to principal and interest, in the name of the Receiver General for Canada pursuant to the Domestic Bonds of Canada Regulations.

6) An irrevocable standby letter of credit referred to in subparagraph 1)(b) of GC9.2 shall

a) be an arrangement, however named or described, whereby a financial institution (the "Issuer") acting at the request and on the instructions of a customer (the "Applicant") or on its own behalf,

I. is to make a payment to, or to the order of, Canada as the beneficiary;

II. is to accept and pay bills of exchange drawn by Canada;

III. authorizes another financial institution to effect such payment or accept and pay such bills of exchange; or

IV. authorizes another financial institution to negotiate against written demand(s) for payment provided that the terms and conditions of the letter of credit are complied with;

b) state the face amount that may be drawn against it;

c) state its expiry date;

d) provide for sight payment to the Receiver General for Canada by way of the financial institution's draft against presentation of a written demand for payment signed by Canada;

e) provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face value of the letter of credit;

f) provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice (UCP) for Documentary Credits, 2007 Revision, ICC Publication No. 600. Pursuant to the ICC UCP, a credit is irrevocable even if there is no indication to that effect; and

g) be issued or confirmed, in either official language in a format left to the discretion of the issuer or confirmer, by an approved financial institution on its letterhead.

## GC10 INSURANCE



### GC10.1 INSURANCE CONTRACTS

1) The contractor shall, at the contractor's expense, obtain and maintain insurance contracts in respect of the work and shall provide evidence thereof to Canada in accordance with the requirements of the INSURANCE TERMS.

2) The insurance contracts referred to in paragraph 1) of GC10.1 shall

   (a) be in a form, of the nature, in the amounts, for the periods and containing the terms and conditions specified in INSURANCE TERMS; and

   (b) provide for the payment of claims under such insurance contracts in accordance with GC10.2 INSURANCE PROCEEDS.

### GC10.2 INSURANCE PROCEEDS

1) In the case of a claim payable under a Builders Risk/Installation (All Risks) insurance contract maintained by the contractor pursuant to GC10.1 INSURANCE CONTRACTS, the proceeds of the claim shall be paid directly to Canada, and

   (a) the monies so paid shall be held by Canada for the purposes of the contract, or

   (b) if Canada elects, shall be retained by Canada, in which event they vest in Canada absolutely.

2) In the case of a claim payable under a General Liability insurance contract maintained by the contractor pursuant to GC10.1 INSURANCE CONTRACTS, the proceeds of the claim shall be paid by the insurer directly to the claimant.

3) If an election is made pursuant to paragraph 1) of GC10.2, Canada may cause an audit to be made of the accounts of the contractor and of Canada in respect of the part of the work that was lost, damaged or destroyed for the purpose of establishing the difference, if any, between

   (a) the aggregate of the amount of the loss or damage suffered or sustained by Canada, including any costs incurred in respect of the clearing and cleaning of the work and its site and any other amount that is payable by the contractor to Canada under the contract, minus any monies retained pursuant to subparagraph 1)(b) of GC10.2; and

   (b) the aggregate of the amounts payable by Canada to the contractor pursuant to the contract up to the date of the loss or damage.

4) A difference that is established pursuant to paragraph 3) of GC10.2 shall be paid forthwith by the party who is determined by the audit to be the debtor to the party who is determined by the audit to be the creditor.

5) When payment of a deficiency has been made pursuant to paragraph 4) of GC10.2, all rights and obligations of Canada and the contractor under the contract shall, with respect only to the part of the work that was the subject of the audit referred to in paragraph 3) of GC10.2, be deemed to have been expended and discharged.

6) If an election is not made pursuant to subparagraph 1)(b) of GC10.2, the contractor shall, subject to paragraph 7) of GC10.2, clear and clean the work and its site and restore and replace the part of the work that was lost, damaged or destroyed at the contractor's expense as if that part of the work had not yet been performed.

7) When the contractor clears and cleans the work and its site and restores and replaces the work referred to in paragraph 6) of GC10.2, Canada shall pay the contractor out of the monies referred to in paragraph 1) of GC10.2 so far as they will thereunto extend.

8) Subject to paragraph 7) of GC10.2, payment by Canada pursuant to paragraph 7) of GC10.2 shall be made in accordance with the contract but the amount of each payment shall be 100 percent of the amount claimed notwithstanding subparagraphs 3)(a) and 3)(b) of GC5.4 PROGRESS PAYMENT.

# Appendix "B"

# TECHNICAL SPECIFICATIONS & PLANS

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## Part 1 General

### 1.1 RELATED REQUIREMENTS

.1 Section 03 30 00

### 1.2 REFERENCE STANDARDS

.1 Canadian Standards Association (CSA International)

- .1 CSA-A23.1-04/A23.2-04, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
- .2 CSA-O86S1-05, Supplement No. 1 to CAN/CSA-O86-01, Engineering Design in Wood.
- .3 CSA O121-M1978(R2003), Douglas Fir Plywood.
- .4 CSA O151-04, Canadian Softwood Plywood.
- .5 CSA O153-M1980(R2003), Poplar Plywood.
- .6 CAN/CSA-O325.0-92(R2003), Construction Sheathing.
- .7 CSA O437 Series-93(R2006), Standards for OSB and Waferboard.
- .8 CSA S269.1-1975(R2003), Falsework for Construction Purposes.
- .9 CAN/CSA-S269.3-M92(R2003), Concrete Formwork, National Standard of Canada

.2 Underwriters' Laboratories of Canada (ULC)

- .1 CAN/ULC-S701-05, Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.

## Part 2 Products

### 2.1 MATERIALS

.1 Formwork materials:

- .1 For concrete without special architectural features, use wood and wood product formwork materials to CSA-O121 CAN/CSA-O86 CSA O437 Series CSA-O153.
- .2 For concrete with special architectural features, use formwork materials to CSA-A23.1/A23.2.
- .3 Rigid insulation board: to CAN/ULC-S701.

.2 Tubular column forms: round, spirally wound laminated fibre forms, internally treated with release material.

- .1 Spiral pattern not to show in hardened concrete.

.3 Form ties:

.1 For concrete not designated 'Architectural', use removable or snap-off metal ties, fixed or adjustable length, free of devices leaving holes larger than 25 mm diameter in concrete surface.

.2 For Architectural concrete, use snap ties complete with plastic cones and light grey concrete plugs.

.4 Form liner:

.1 Plywood: Douglas Fir to CSA O121A

.5 Form release agent: non-toxic.

.6 Form stripping agent: colourless mineral oil, [low VOC,] [biodegradable,] [non-toxic,]free of kerosene, with viscosity between [15 to 24 mm2/s] [70 and 110s Saybolt Universal]at 40 degrees C, flashpoint minimum 150 degrees C, open cup.

.7 Falsework materials: to CSA-S269.1.

.8 Sealant: to Section [07 92 00- Joint Sealants].

## Part 3 Execution

### 3.1 FABRICATION AND ERECTION

.1 Verify lines, levels and centres before proceeding with formwork/falsework and ensure dimensions agree with drawings.

.2 Obtain Consultant's approval for use of earth forms framing openings not indicated on drawings.

.3 Hand trim sides and bottoms and remove loose earth from earth forms before placing concrete.

.4 Fabricate and erect falsework in accordance with CSA S269.1.

.5 Refer to architectural drawings for concrete members requiring architectural exposed finishes.

.6 Do not place shores and mud sills on frozen ground.

.7 Provide site drainage to prevent washout of soil supporting mud sills and shores.

.8 Fabricate and erect formwork in accordance with CAN/CSA-S269.3 to produce finished concrete conforming to shape, dimensions, locations and levels indicated within tolerances required by CSA-A23.1/A23.2.

.9 Align form joints and make watertight.

.1 Keep form joints to minimum.

.10 Locate horizontal form joints for exposed columns 2400mm above finished floor elevation.

.11 Use [25]mm chamfer strips on external corners and/or 25mm fillets at interior corners, joints, unless specified otherwise.

.12 Form chases, slots, openings, drips, recesses, expansion and control joints as indicated.

.13 Construct forms for architectural concrete, and place ties as indicated.

.1 Joint pattern not necessarily based on using standard size panels or maximum permissible spacing of ties.

.14 Build in anchors, sleeves, and other inserts required to accommodate Work specified in other sections.

.1 Ensure that anchors and inserts will not protrude beyond surfaces designated to receive applied finishes, including painting.

.15 Line forms for following surfaces:

.1 Soffit of girders and underside of bridge decks if exposed.

.2 Pull down lining over edges of formwork panels.

.3 Ensure lining is new and not reused material.

.4 Ensure lining is dry and free of oil when concrete is poured.

.5 Application of form release agents on formwork surface is prohibited where drainage lining is used.

.6 If concrete surfaces require cleaning after form removal, use only pressurized water stream so as not to alter concrete's smooth finish.

.7 Cost of textile lining is included in price of concrete for corresponding portion of Work.

.16 Clean formwork in accordance with CSA-A23.1/A23.2, before placing concrete.

## 3.2 REMOVAL AND RESHORING

.1 Leave formwork in place for following minimum periods of time after placing concrete.

.2 Remove formwork when concrete has reached.

.3 Provide necessary reshoring of members where early removal of forms may be required or where members may be subjected to additional loads during construction as required.

.4 Space reshoring in each principal direction at not more than 3000 mm apart.

.5 Re-use formwork and falsework subject to requirements of CSA-A23.1/A23.2.

**END OF SECTION**

**CONCRETE REINFORCING**
**SECTION 03 20 00**

## Part 1 General

### 1.1 RELATED REQUIREMENTS

.1 Section 03 30 00

### 1.2 PRICE AND PAYMENT PROCEDURES

.1 Measurement and Payment:

.1 Measure reinforcing steel in kilograms of steel incorporated into Work, computed from theoretical unit mass specified in CSA-G30.18 for lengths and sizes of bars as indicated or authorized in writing by Consultant.

.2 No measurement will be made under this Section.

.1 Include reinforcement costs in items of concrete work in Section 03 30 00- Cast-In-Place Concrete.

### 1.3 REFERENCE STANDARDS

.1 American Concrete Institute (ACI)

.1 SP-66-04, ACI Detailing Manual 2004.

.2 ASTM International

.1 ASTM A82/A82M-07, Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.

.2 ASTM A143/A143M-07, Standard Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement.

.3 ASTM A185/A185M-07, Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.

.4 ASTM A775/A775M-07b, Standard Specification for Epoxy-Coated Reinforcing Steel Bars.

.3 CSA International

.1 CSA-A23.1-[09]/A23.2-09, Concrete Materials and Methods of Concrete Construction/Test Methods and Standard Practices for Concrete.

.2 CAN/CSA-A23.3-04(R2010), Design of Concrete Structures.

.3 CSA-G30.18-[09], Carbon Steel Bars for Concrete Reinforcement.

.4 CSA-G40.20/G40.21-04(R2009), General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.

.5 CAN/CSA-G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.

.6 CSA W186-M1990(R2007), Welding of Reinforcing Bars in Reinforced Concrete Construction.

.4 Reinforcing Steel Institute of Canada (RSIC)

.1 RSIC-2004, Reinforcing Steel Manual of Standard Practice.

## 1.4 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00- Submittal Procedures.

.2 Prepare reinforcement drawings in accordance with RSIC Manual of Standard Practice SP-66.

.3 Shop Drawings:

.1 Indicate placing of reinforcement and:

.1 Bar bending details.

.2 Lists.

.3 Quantities of reinforcement.

.4 Sizes, spacings, locations of reinforcement and mechanical splices if approved by Consultant, with identifying code marks to permit correct placement without reference to structural drawings.

.5 Indicate sizes, spacings and locations of chairs, spacers and hangers.

.2 Detail lap lengths and bar development lengths to CAN/CSA-A23.3, unless otherwise indicated.

## 1.5 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section with manufacturer's written instructions 01 61 00- Common Product Requirements.

.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.3 Storage and Handling Requirements:

.1 Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

.2 Replace defective or damaged materials with new.

# Part 2 Products

## 2.1 MATERIALS

.1 Substitute different size bars only if permitted in writing by Consultant.

.2 Reinforcing steel: billet steel, grade 400, deformed bars to CSA-G30.18, unless indicated otherwise.

.3 Reinforcing steel: weldable low alloy steel deformed bars to CSA-G30.18.

.4 Cold-drawn annealed steel wire ties: to ASTM A82/A82M.

.5 Deformed steel wire for concrete reinforcement: to ASTM A82/A82M.

.6 Welded steel wire fabric: to ASTM A185/A185M.

.1 Provide in flat sheets only.

.7 Welded deformed steel wire fabric: to ASTM A82/A82M.

.1 Provide in flat sheets only.

.8 Chairs, bolsters, bar supports, spacers: to CSA-A23.1/A23.2.

.9 Mechanical splices: subject to approval of Consultant.

.10 Plain round bars: to CSA-G40.20/G40.21.

**2.2 FABRICATION**

.1 Fabricate reinforcing steel in accordance with CSA-A23.1/A23.2 Reinforcing Steel Manual of Standard Practice by the Reinforcing Steel Institute of Canada SP-66.

.2 Obtain Consultant's written approval for locations of reinforcement splices other than those shown on placing drawings.

.3 Upon approval of Consultant , weld reinforcement in accordance with CSA W186.

.4 Ship bundles of bar reinforcement, clearly identified in accordance with bar bending details and lists.

**2.3 SOURCE QUALITY CONTROL**

.1 Upon request inform Consultant of proposed source of material to be supplied.

**Part 3 Execution**

**3.1 FIELD BENDING**

.1 Do not field bend or field weld reinforcement except where indicated or authorized by Consultant.

.2 When field bending is authorized, bend without heat, applying slow and steady pressure.

.3 Replace bars, which develop cracks or splits.

**3.2 PLACING REINFORCEMENT**

.1 Place reinforcing steel in accordance with CSA-A23.1/A23.2.

.2 Use plain round bars as slip dowels in concrete.

.1 Paint portion of dowel intended to move within hardened concrete with one coat of asphalt paint.

.2 When paint is dry, apply thick even film of mineral lubricating grease.

.3 Prior to placing concrete, obtain Consultant's approval of reinforcing material and placement.

.4 2-15mm rebar must be installed at the perimeter of all openings. They should exceed the opening by 600 mm (24 in.) In each direction.

.5 The reinforcing steel must be securely fastened together at every 300mm c/c (12 inches) in each direction with tie wire. Bar overlaps must be consistent with the plan and staggered from row to row.

.6 The concrete covering of the reinforcement steel shall comply with CSA Standard A23.1-14 without being less than the dimensions specified in the following drawings and specifications: 75mm (3 in.) for ground contact items, 50mm (2 in.) for foundation walls and columns and 38mm (1½ in.) for beams and structural slabs unless noted otherwise.

.7 The reinforcing steel installation (and detailing) drawings must be provided to the Engineer for approval at least 14 days before the work (in two copies).

.8 At installation, welded wire mesh must be attached every 300mm (12") with a 300mm (12") sheet overlap in each direction.

## 3.3 CLEANING

.1 Progress Cleaning: clean in accordance with Section 01 74 11- Cleaning.

.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11- Cleaning.

**END OF SECTION**

# CAST-IN-PLACE CONCRETE
# SECTION 03 30 00

## Part 1 General

### 1.1 RELATED REQUIREMENTS

.1 Section 03 10 00 and 03 20 00

### 1.2 PRICE AND PAYMENT PROCEDURES

.1 Measurement and Payment:

.1 Cast-in-place concrete in superstructure will not be measured but will paid for as fixed price item.

.2 Supply and installation of anchor bolts, nuts and washers and bolt grouting will not be measured but considered incidental to work.

### 1.3 REFERENCE STANDARDS

.1 ASTM International

.1 ASTM C260/C260M-10a, Standard Specification for Air-Entraining Admixtures for Concrete.

.2 ASTM C309-07, Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.

.3 ASTM C494/C494M-10a, Standard Specification for Chemical Admixtures for Concrete.

.4 ASTM C1017/C1017M-07, Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.

.5 ASTM D412-06ae2, Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.

.6 ASTM D624-00(2007), Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomer.

.7 ASTM D1751-04(2008), Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).

.8 ASTM D1752-04a(2008), Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.

.2 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-37.2-M88, Emulsified Asphalt, Mineral Colloid-Type, Unfilled, for Dampproofing and Waterproofing and for Roof Coatings.

.2 CAN/CGSB-51.34-M86(R1988), Vapour Barrier, Polyethylene Sheet for Use in Building Construction.

.3 CSA International

.1 CSA A23.1/A23.2-09, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.

.2 CSA A283-06, Qualification Code for Concrete Testing Laboratories.

.3 CSA A3000-08, Cementitious Materials Compendium (Consists of A3001, A3002, A3003, A3004 and A3005).

## 1.4 ABBREVIATIONS AND ACRONYMS

.1 Portland Cement: hydraulic cement, blended hydraulic cement (XXb - b denotes blended) and Portland-limestone cement.

.1 Type GU, GUb and GUL - General use cement.

.2 Type MS and MSb - Moderate sulphate-resistant cement.

.3 Type MH, MHb and MHL - Moderate heat of hydration cement.

.4 Type HE, HEb and HEL - High early-strength cement.

.5 Type LH, LHb and LHL - Low heat of hydration cement.

.6 Type HS and HSb - High sulphate-resistant cement.

.2 Fly ash:

.1 Type F - with CaO content less than 15%.

.2 Type CI - with CaO content ranging from 15 to 20%.

.3 Type CH - with CaO greater than 20%.

.3 GGBFS - Ground, granulated blast-furnace slag.

## 1.5 ACTION AND INFORMATIONAL SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00- Submittal Procedures.

.2 Concrete hauling time: provide for review by Consultant deviations exceeding maximum allowable time of 120 minutes for concrete to be delivered to site of Work and discharged after batching.

## 1.6 QUALITY ASSURANCE

.1 Quality Assurance: in accordance with Section 01 45 00- Quality Control.

## 1.7 DELIVERY, STORAGE AND HANDLING

.1 Delivery and Acceptance Requirements:

.1 Concrete hauling time: deliver to site of Work and discharged within 120 minutes maximum after batching.

.1 Do not modify maximum time limit without receipt of prior written agreement from Consultant, laboratory representative and concrete producer as described in CSA A23.1/A23.2.

.2 Deviations to be submitted for review by Consultant.

.2 Concrete delivery: ensure continuous concrete delivery from plant meets CSA A23.1/A23.2.

**Part 2 Products**

**2.1 DESIGN CRITERIA**

.1 To CSA A23.1/A23.2 and as described in MIXES of PART 2 - PRODUCTS.

**2.2 PERFORMANCE CRITERIA**

.1 Quality Control Plan: ensure concrete supplier meets performance criteria of concrete as established by Consultant and provide verification of compliance as described in PART 1 - QUALITY ASSURANCE.

**2.3 MATERIALS**

.1 Portland Cement: to CSA A3001, Type GU.

.2 Blended hydraulic cement: Type GUb to CSA A3001.

.3 Portland-limestone cement: Type GUL to CSA A23.1.

.4 Water: to CSA A23.1.

.5 Aggregates: to CSA A23.1/A23.2.

.6 Admixtures:

.1 Air entraining admixture: to ASTM C260.

.2 Chemical admixture: to ASTM C494 and ASTM C1017. Consultant to approve accelerating or set retarding admixtures during cold and hot weather placing.

.7 Polyethylene film: 0.15

**2.4 MIXES**

.1 Alternative 1 - Performance Method for specifying concrete: to meet Consultant performance criteria to CSA A23.1/A23.2.

.1 Ensure concrete supplier meets performance criteria as established below and provide verification of compliance as in Quality Control Plan.

.2 Provide concrete mix to meet following plastic state requirements:

.1 Workability: free of segregation, surface blemishes, colour variations and loss of mortar.

.2 Set time: 2 hrs

.3 Provide concrete mix to meet following hard state requirements:

.1 Compressive strength at 28 age: 30 Mpa minimum.

.2 Temps de prise : au plus 2 heures.

.3 For footings, foundation walls:

- Minimum compression resistance at 28 days: 30 Mpa.
- Aggregate: 20 mm (3/4 in.).
- Slump: 80 mm ± 20mm (3-1 / 2 "± 1").
- Air content: 5 to 7% (outside).

.4 For indoor slab-on-grade:
- Minimum compression resistance at 28 days: 30 Mpa.
- Aggregate: 20 mm (3/4 in.).
- Slump: 80 mm ± 20mm (3-1 / 2 "± 3/4").
- Without air content.

.5 For outdoor slabs:
- Minimum compression resistance at 28 days: 32 MPa.
- Aggregate: 20 mm (3/4 in.).
- Slump: 80 mm ± 20mm (3-1 / 2 "± 3/4").
- Air content: 5 to 7% (outside).

## Part 3 Execution

### 3.1 PREPARATION

.1 Obtain Consultant's written approval before placing concrete.

.1 Provide 48 hours minimum notice prior to placing of concrete.

.2 Place concrete reinforcing in accordance with Section 03 20 00- Concrete Reinforcing.

.3 During concreting operations:

.1 Development of cold joints not allowed.

.2 Ensure concrete delivery and handling facilitates placing with minimum of re-handling, and without damage to existing structure or Work.

.4 Pumping of concrete is permitted only after approval of equipment and mix.

.5 Ensure reinforcement and inserts are not disturbed during concrete placement.

.6 Prior to placing of concrete obtain Consultant's approval of proposed method for protection of concrete during placing and curing.

.7 Protect previous Work from staining.

.8 Clean and remove stains prior to application for concrete finishes.

.9 Maintain accurate records of poured concrete items to indicate date, location of pour, quality, air temperature and test samples taken.

.10 In locations where new concrete is dowelled to existing work, drill holes in existing concrete.

.1 Place steel dowels of deformed steel reinforcing bars and pack solidly with epoxy groutto anchor and hold dowels in positions as indicated.

.11 Do not place load upon new concrete until authorized by Consultant.

### 3.2 INSTALLATION/APPLICATION

.1 Do cast-in-place concrete work to CSA A23.1/A23.2.

.2 Sleeves and inserts:

.1 Do not permit penetrations, sleeves, ducts, pipes or other openings to pass through joists, beams, column capitals or columns, except where indicated or approved by Consultant.

.2 Where approved by Consultant, set sleeves, ties, pipe hangers and other inserts and openings as indicated or specified elsewhere.

.3 Sleeves and openings greater than 100 x 100 mm not indicated, must be reviewed by Consultant.

.4 Do not eliminate or displace reinforcement to accommodate hardware. If inserts cannot be located as specified, obtain written approval of modifications from Consultant before placing of concrete.

.5 Confirm locations and sizes of sleeves and openings shown on drawings.

.6 Set special inserts for strength testing as indicated and as required by non-destructive method of testing concrete.

.3 Anchor bolts:

.1 Set anchor bolts to templates in co-ordination with appropriate trade prior to placing concrete.

.2 Grout anchor bolts in preformed holes or holes drilled after concrete has set only after receipt of written approval from Consultant.

.1 Formed holes: 100 mm minimum diameter.

.2 Drilled holes: to manufacturers' recommendations.

.3 Protect anchor bolt holes from water accumulations, snow and ice build-ups.

.4 Set bolts and fill holes with epoxy grout.

.5 Locate anchor bolts used in connection with expansion shoes, rollers and rockers with due regard to ambient temperature at time of erection.

.4 Drainage holes and weep holes:

.1 Form weep holes and drainage holes in accordance with Section 03 10 00-Concrete Forming and Accessories. If wood forms are used, remove them after concrete has set.

.2 Install weep hole tubes and drains as indicated.

.5 Grout under base plates and machinery using procedures in accordance with manufacturer's recommendations which result in 100% contact over grouted area.

.6 Finishing and curing:

.1 Finish concrete to CSA A23.1/A23.2.

.2 Use procedures as reviewed Consultantor those noted in CSA A23.1/A23.2 to remove excess bleed water. Ensure surface is not damaged.

.3 Use curing compounds compatible with applied finish on concrete surfaces. Applied finish on concrete.

.4 Finish concrete floor to CSA A23.1/A23.2.

.5 Provide swirl-trowelled scratch finish where bonded topping is to be applied.

.6 Provide screed finish unless otherwise indicated].

.7 Other

1. Formwork shall ensure the safety of workers at all times during the work and comply with applicable safety standards.
2. The Contractor shall provide, supply and install all shoring (bracing, etc.) necessary to support formwork during pouring. The shoring must be in accordance with the CSST and signed by a member engineer of the OIQ, etc.
3. The contractor will have to coordinate with the plans of the other disciplines (architectural, mechanical, etc.) to introduce the particular details of each formwork (opening, textured finish, duct, etc.).
4. Anchoring: Unless noted otherwise, all new concrete surfaces will be anchored to existing concrete structures. Generally, 15M, 400mm (16") long anchors @ 400mm (16") c/c embedded (100mm deep) in Hilti HY-200, will be required.
5. The contractor shall provide and install support chairs to hold the wire mesh or rebar in the right place during concrete pouring.
6. The contractor must vibrate the fresh concrete during pouring.
7. An analysis and control laboratory should indicate the methods of placing and curing concrete in cold weather (<5 ° C) and in hot weather (> 30 ° C). These methods must be provided to the Engineer for approval.
8. The positioning and method of execution of the control joint in the slab are shown on the drawings. Saw cuts must be made between 6 hours and 24 hours after pouring. They must not be spaced more than 4.5m (15 feet) apart and a panel slab must not have a surface area greater than 20m² (225 square feet).

## 3.3 SURFACE TOLERANCE

.1 Concrete tolerance to CSA A23.1

## 3.4 FIELD QUALITY CONTROL

.1 Site tests: conduct tests as follows in accordance with Section 01 45 00- Quality Control and submit report as described in PART 1 - ACTION AND INFORMATIONAL SUBMITTALS.

- .1 Slump.
- .2 Air content.
- .3 Compressive strength at 7 and 28
- .4 Air and concrete temperature.

.2 Inspection and testing of concrete and concrete materials will be carried out by testing laboratory designated by the client, for review to CSA A23.1/A23.2.

- .1 Ensure testing laboratory is certified to CSA A283.

.3 Ensure test results are distributed for discussion at pre-pouring concrete meeting between and Consultant.

.4 The client pay for costs of tests as specified in Section 01 29 83- Payment Procedures for Testing Laboratory Services.

.5 Laboratory will take additional test cylinders during cold weather concreting. Cure cylinders on job site under same conditions as concrete which they represent.

.6 Non-Destructive Methods for Testing Concrete: to CSA A23.1/A23.2.

.7 Inspection or testing by Consultant will not augment or replace Contractor quality control nor relieve Contractor of his contractual responsibility.

**3.5 CLEANING**

.1 Clean in accordance with Section 01 74 11- Cleaning.

**END OF SECTION**

**ROUGH CARPENTRY**
**SECTION 06 10 00**

## Part 1 General

### 1.1 RELATED REQUIREMENTS

.1 Section 06 17 53

### 1.2 REFERENCE STANDARDS

.1 American National Standards Institute/National Particleboard Association (ANSI/NPA)

.1 ANSI/NPA A208.1-2009, Particleboard.

.2 ASTM International

.1 ASTM A123/A123M-09, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

.2 ASTM A653/A653M-11, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvanealled) by the Hot-Dip Process.

.3 ASTM C578-11a, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.

.4 ASTM C1289-11, Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.

.5 ASTM C1396/C1396M-11, Standard Specification for Gypsum Board.

.6 ASTM D1761-06, Standard Test Methods for Mechanical Fasteners in Wood.

.7 ASTM D5055-11, Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists.

.8 ASTM D5456-11, Standard Specification for Evaluation of Structural Composite Lumber Products.

.3 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-11.3-M87, Hardboard.

.2 CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type.

.3 CAN/CGSB-51.34-M86, Vapour Barrier, Polyethylene Sheet for Use in Building Construction and amendment (Minimum thickness of 0.15 mm)

.4 CAN/CGSB-71.26-M88, Adhesive for Field-Gluing Plywood to Lumber Framing for Floor Systems.

.4 CSA International

.1 CAN/CSA-A123.2-03(R2008), Asphalt Coated Roofing Sheets.

.2 CAN/CSA-A247-M86(R1996), Insulating Fiberboard.

.3 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.

.4 CSA O112.9-10, Evaluation of Adhesives for Structural Wood Products (Exterior Exposure).

.5 CSA O121-08, Douglas Fir Plywood.

.6 CAN/CSA O122-06(R2011), Structural Glued-Laminated Timber.

.7 CSA O141-05(R2009), Softwood Lumber.

.8 CSA O151-09, Canadian Softwood Plywood.

.9 CSA O153-M1980(R2008), Poplar Plywood.

.10 CSA O325-07, Construction Sheathing.

.11 CSA O437 Series-93(R2011), Standards on OSB and Waferboard.

.12 CAN/CSA-Z809-08, Sustainable Forest Management.

.5 Forest Stewardship Council (FSC)

.1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.

.6 National Lumber Grades Authority (NLGA)

.1 Standard Grading Rules for Canadian Lumber 2010.

.7 National Research Council Canada (NRC)

.1 National Building Code of Canada 2015(NBC).

.8 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards

.1 SCAQMD Rule 1113-A2011, Architectural Coatings.

.2 SCAQMD Rule 1168-A2005, Adhesives and Sealants Applications.

.9 Sustainable Forestry Initiative (SFI)

.1 SFI-2010-2014 Standard.

.10 The Truss Plate Institute of Canada

.1 Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses 2007.

.11 Underwriters' Laboratories of Canada (ULC)

.1 CAN/ULC-S706-09, Standard for Wood Fibre Insulating Boards for Buildings.

## 1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00- Submittal Procedures.

.2 Shop Drawings:

.1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Quebec, Canada.

## 1.4 QUALITY ASSURANCE

.1 Lumber by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.

.2 Plywood, particleboard, OSB and wood based composite panels in accordance with CSA and ANSI standards.

.3 Sustainable Standards Certification:

.1 Certified Wood: submit listing of wood products and materials used in accordance with CAN/CSA-Z809 or FSC or SFI.

## 1.5 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 61 00- Common Product Requirements and with manufacturer's written instructions.

.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.3 Storage and Handling Requirements:

.1 Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

.2 Store and protect wood from nicks, scratches, and blemishes.

.3 Replace defective or damaged materials with new.

# Part 2 Products

## 2.1 FRAMING STRUCTURAL AND PANEL MATERIALS

.1 Description:

.1 Sustainability Characteristics:

.1 SCL, Trusses, Lumber, Glulam, I-Joists,] [Finger Jointed Lumber, CAN/CSA-Z809 or FSC or SFI certified.

.2 Plywood. OSB Particleboard urea-formaldehyde free, CAN/CSA-Z809 or FSC or SFI certified.

.2 Lumber: softwood, S4S, moisture content 19% (S-dry) or less in accordance with following standards:

.1 CSA O141.

.2 NLGA Standard Grading Rules for Canadian Lumber.
Glulam in accordance with Structural Glued-Laminated Timber CAN/CSA-O122. and fabricated in accordance with CSA 0177

.3 Wood I-joists in accordance with Prefabricated Wood I-Joists ASTM D5055 and approved by CCMC.

.4 Light-frame trusses in accordance with "Truss Design and Procedures for Light Metal Connected Wood Trusses", The Truss Plate Institute of Canada ans CCMC report.

.5 Structural Composite Lumber (SCL) in accordance with ASTM D5456.

.6 Framing and board lumber: in accordance with National Building Code of Canada (NBC), except as follows:

.1 Light framing , joists, planks, post and studs wall: S-P-F Grad 1-2 stamped "dry".

.2 Studs non-bearing wall identification species Stud-class S-P-F, stamped "dry".

.3 Lintels and beams: identification species S-P-F grad 1-2, stamped "dry", all in the places and according to the dimensions indicated on the plans.

.7 Furring, blocking, nailing strips, grounds, rough bucks, cants, curbs, fascia backing and sleepers:

.1 Board sizes: "Standard" or better grade.

.2 Dimension sizes: "Standard" light framing or better grade.

.3 Post and timbers sizes: "Standard" or better grade.

.8 Plywood, OSB and wood based composite panels: to CSA O325.

.9 Douglas fir plywood (DFP): to CSA O121, standard construction.

.10 Canadian softwood plywood (CSP): to CSA O151, standard construction.

.11 Poplar plywood (PP): to CSA O153, standard construction.

.12 Interior mat-formed wood particleboard: to ANSI/NPA 208.1.

.13 Mat-formed structural panelboards (OSB wafer): to CAN O437.

.14 Gypsum sheathing: to ASTM C1396/C1396M.

**2.2 ACCESSORIES**

.1 Polyethylene film: to CAN/CGSB-51.34, Type 1, 0.15mm thick.

.2 Roll roofing: to CAN/CSA A123.2, Type S.

.3 Air seal: closed cell polyurethane or polyethylene.

.4 Subflooring adhesive: to CAN/CGSB-71.26, cartridge loaded.

.1 Adhesives: VOC limit 30 g/L

.5 General purpose adhesive: to CSA O112.9.

.1 VOC limit 70 g/L

.6 Nails, spikes and staples: to CSA B111.

.7 Bolts: 12.5 mm diameter unless indicated otherwise, complete with nuts and washers.

.8 Proprietary fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, explosive actuated fastening devices, recommended for purpose by manufacturer.

.9 Joist hangers: minimum 1 mm thick sheet steel, galvanized ZF001 coating designation.

.10 Nailing discs: flat caps, minimum 25 mm diameter, minimum 0.4mm thick, sheet metal, fibre, formed to prevent dishing. Bell or cup shapes not acceptable.

.11 Roof sheathing H-Clips: formed "H" shape, thickness to suit panel material, extruded 6063-T6 aluminum alloy type approved by Consultant.

.12 Fastener Finishes:

.1 Galvanizing: to ASTM A123/A123M - ASTM A653, use galvanized fasteners

**Part 3 Execution**

**3.1 EXAMINATION**

.1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's written instructions.

.1 Inform Consultant of unacceptable conditions immediately upon discovery.

.2 Proceed with installation only after unacceptable conditions have been remedied.

**3.2 MATERIAL USAGE**

.1 Roof sheathing:

.1 Plywood, DFP or CSP sheathing grade or PP standard sheathing grade, T&Gedge, 16 mm

.2 Panneaux de lamelles orientés (OSB), de 16 mm d'épaisseur, conformes à la norme CSA 0325.

.2 Exterior wall sheathing:

.1 Plywood, DFP or CSP sheathing grade or PP standard sheathing grade, square edge,12 mm

.2 OSB, 12 mm

.3 Subflooring:

.1 Plywood, DFP or CSP sheathing grade or PP standard sheathing grade, T&amp 16 mm thick.

.2 OSB, 16 mm

**3.3 INSTALLATION**

.1 Install members true to line, levels and elevations, square and plumb.

.2 Construct continuous members from pieces of longest practical length.

.3 Install spanning members with "crown-edge" up.

.4 Select exposed framing for appearance. Install panel materials so that grade-marks and other defacing marks are concealed or are removed by sanding where materials are left exposed.

.5 Install subflooring with panel end-joints located on solid bearing, staggered at least 800 mm.

.1 In addition to mechanical fasteners, floor panels secure floor subflooring to floor joists using glue. Place continuous adhesive bead in accordance with manufacturer's instructions, single-bead on each joist and double-bead on joists where panel ends butt.

.6 Install wall sheating in accordance with the manufacturer.

.7 Install roof sheating in accordance with NBC.

.8 Install furring and blocking as required to space-out and support casework, cabinets, wall and ceiling finishes, facings, fascia, soffit, siding and other work as required.

.9 Install furring to support siding applied vertically where there is no blocking and where sheathing is not suitable for direct nailing.

.1 Align and plumb faces of furring and blocking to tolerance of 1:600.

.10 Install rough bucks, nailers and linings to rough openings as required to provide backing for frames and other work.

.11 Install wood cants, fascia backing, nailers, curbs and other wood supports as required and secure using [steel] [galvanized]fasteners.

.12 Install sleepers as indicated.

.13 Use dust collectors and high quality respirator masks when cutting or sanding wood panels.

.14 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.

.15 Countersink bolts where necessary to provide clearance for other work.

.16 Use nailing disks for soft sheathing as recommended by sheathing manufacturer.

.17 The manufacturer of the floor joists shall provide calculations and shop drawings signed and sealed by an OIQ Member Engineer (5 copies) for each joists. The drawings must indicate all the necessary details (continuous linking or bracing, loads, deflections, spacings, etc.) for each of the project joists.

.18 The floor joists shall be designed according to the design loads and deflection of the table shown in the drawings. The weight of the sprinkler main pipes and the weight of the mechanical units shall be added to the design loads.

.19 The floor joists manufacturer shall provide all required edge panels and all necessary blockages for the transfer of floor-to-floor loads. The contractor shall provide and install all necessary blockages for the transfer of floor-to-floor loads. This verification shall be part of the engineer's joist calculations.

.20 The contractor will have to double all joists around the openings in the floors (unless noted otherwise).

.21 The floor joist manufacturer will be required to provide all mounting brackets for installation of joists or floor joists.

.22 All beams and columns of engineered wood or timber should be joined together using a simpson strong-tie column cap (metal connector) or equivalent. Provide the product description to the Engineer for approval.

.23 The manufacturer or supplier of wood or engineered wood beams and columns shall provide the contractor with all support brackets and/or metal connectors required for the complete and final construction of the project.

.24 All walls must be anchored to the foundations with anchor bolts (A307) 19mm (3/4")⌀ @ 1200mm (48") c/c max (unless noted otherwise).

.25 Wood blocking must be installed at 4'-0 "c/c max in all walls (bearing or non-bearing).

.26 The exact position and dimensions of openings, walls and partitions shall be made according to architectural plans.

.27 If prefabricated walls are used for the project, the contractor (or manufacturer) must submit wall shop drawings for approval. The contractor (or manufacturer) must also provide a certificate signed by a member engineer of the OIQ attesting that the walls have been built in accordance with the project's structural plans.

.28 The contractor must notify the Engineer at least 7 days prior to the site inspections of the wood structure and await its approval before installing the insulation or cladding.

.29 The wall cladding or sheating, at least on one side, of load-bearing walls shall be installed as soon as the structure is erected.

## 3.4 CLEANING

.1 Progress Cleaning: clean in accordance with Section 01 74 11- Cleaning.

.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11- Cleaning.

## 3.5 PROTECTION

.1 Protect installed products and components from damage during construction.

.2 Repair damage to adjacent materials caused by rough carpentry installation.

**END OF SECTION**

# SHOP-FABRICATED WOOD TRUSSES
# SECTION 06 17 53

## Part 1 General

### 1.1 RELATED REQUIREMENTS

.1 06 10 00

### 1.2 REFERENCE STANDARDS

.1 CSA International

- .1 CAN/CSA O80 Series-08, Wood Preservation.
- .2 CSA O86 Consolidation-09, Engineering Design in Wood.
- .3 CSA O141-05(R2009), Softwood Lumber.
- .4 CSA S307-M1980(R2001), Load Test Procedure for Wood Roof Trusses for Houses and Small Buildings.
- .5 CSA S347-99(R2009), Method of Test for Evaluation of Truss Plates Used in Lumber Joints.
- .6 CSA W47.1-09, Certification of Companies for Fusion Welding of Steel.
- .7 CAN/CSA-Z809-08, Sustainable Forest Management.

.2 Forest Stewardship Council (FSC)

- .1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.

.3 National Lumber Grades Authority (NLGA)

- .1 Standard Grading Rules for Canadian Lumber 2010.

.4 National Research Council Canada (NRC)

- .1 National Building Code of Canada 2015(NBC).
- .2 Canadian Construction Materials Centre (CCMC)-on-line edition, Registry of Product Evaluations.

.5 Truss Plate Institute of Canada (TPIC)

- .1 TPIC - 2007, Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses (Limit States Design).

.6 Sustainable Forestry Initiative (SFI)

- .1 SFI-2010-2014 Standard.

### 1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00- Submittal Procedures.

.2 Product Data:

- .1 Submit manufacturer's instructions, printed product literature and data sheets for wood trusses and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Shop Drawings:

.1 Submit drawings stamped and signed by professional engineer registered or licensed in the province of Quebec, Canada.

.2 Include on drawings:

.1 Each shop drawing submission showing connection details.

.2 Indicate special structural application and specification as according to local authorities having jurisdiction.

.3 Indicate TPIC Truss Design Procedure and CSA O86 Engineering Design in Wood and specific CCMC Product Registry number of the truss plates

.4 Indicate species, sizes, and stress grades of lumber used as truss members. Show pitch, span, camber, configuration and spacing of trusses. Indicate connector types, thicknesses, sizes, locations and design value. Show bearing details. Indicate design load for members.

.5 Submit stress diagram or print-out of computer design indicating design load for truss members. Indicate allowable load and stress increase.

.6 Indicate arrangement of webs or other members to accommodate ducts and other specialties.

.7 Show location of lateral bracing for compression members.

.8 Instructions: submit manufacturer's installation instructions.

## 1.4 QUALITY ASSURANCE

.1 Qualifications:

.1 Fabricator for trusses to show evidence of quality control program such as provided by regional wood truss associations, or equivalent.

.2 Fabricator for welded steel connections to be certified in accordance with CSA W47.1.

.2 Sustainable Standards Certification:

.1 Certified Wood: submit listing of wood products and materials used in accordance with CAN/CSA-Z809 or FSC or SFI.

## 1.5 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section with manufacturer's written instructions.

.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.3 Storage and Handling Requirements:

.1 Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

.2 Store and protect wood trusses from nicks, scratches, and blemishes.

.3 Replace defective or damaged materials with new.

.4 Provide bearing supports and bracings. Prevent bending, warping and overturning of trusses.

**Part 2 Products**

**2.1 DESIGN REQUIREMENTS**

.1 Design light metal plate connected wood trusses in accordance with TPIC truss design procedures for wood truss chords and webs in accordance with engineering properties in CSA O86.

.2 Design light metal plate connected wood trusses in accordance with TPIC truss design procedures for truss joint designs to test engineering properties in accordance with CSA S347 and listed in CCMC Registry of Product Evaluations.

.3 Design trusses, bracing bridging in accordance with CSA O86.1 and minimum uniform and minimum concentrated loadings stipulated in NBC commentary for building locality as ascertained by National Building Code of Canada (NBC), Climatic Information for Building Design in Canada for loads indicated.

.4 The deflection of the trusses must respect the value presented on the plan.

**2.2 MATERIALS**

.1 Materials and products in accordance with Section [01 47 15- Sustainable Requirements: Construction].

.2 Lumber: SPF No2 or better, with maximum moisture content of softwood 19% at time of fabrication and to following standards:S4S

.1 CSA O141.

.2 NLGA (National Lumber Grading Association), Standard Grading Rules for Canadian Lumber.

.3 CAN/CSA-Z809 or FSC or SFI certified.

.3 Fastenings: to CSA O86.

**2.3 FABRICATION**

.1 Fabricate wood trusses in accordance with approved shop drawings.

.2 Provide for design camber and roof slopes when positioning truss members.

.3 Connect members using metal connector plates.

**2.4 SOURCE QUALITY CONTROL**

.1 Identify lumber by grade stamp of an agency certified by Canadian Lumber Standards Administration Board.

.2 Certify by agency accredited by Standards Council of Canada that [fire retardant] [preservative]treated wood in accordance with CAN/CSA O80 Series.

**Part 3 Execution**

**3.1 EXAMINATION**

.1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's written instructions.

.1 Visually inspect substrate.

.2 Inform Consultant of unacceptable conditions immediately upon discovery.

.3 Proceed with installation only after unacceptable conditions have been remedied.

**3.2 MANUFACTURER'S INSTRUCTIONS**

.1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet.

**3.3 ERECTION**

.1 Erect wood trusses in accordance with approved shop drawings.

.2 Handling, installation, erection, bracing and lifting in accordance with manufacturers instructions.

.3 Make adequate provisions for handling and erection stresses.

.4 Exercise care to prevent out-of-plane bending of trusses.

.5 Install temporary horizontal and cross bracing to hold trusses plumb and in safe condition until permanent bracing and decking are installed.

.6 Install permanent bracing in accordance with approved shop drawings, prior to application of loads to trusses.

.7 Do not cut or remove any truss material without approval of Consultant.

.8 Remove chemical and other surface deposits on treated wood, in preparation for applied finishes.

.9 Les fermes de toit au-dessus des murs de refend devront être recouvert de revêtement (osb) du même typ (mr) que le mur.

.10 Le fabricant des fermes de toit devra prévoir une ferme au-dessus de chaque mur de refend.

.11 La géométrie des fermes de toit devra être ajustée pour respecter les pentes des plans de l'architecte.

.12 Les fermes devront être conçues selon les charges de calculs et la déflection du tableau présenté aux plans, aux charges d'accumulation de neige s'il y a lieu et selon la partie 4 de CNB-2010. Le poids des tuyaux principaux des gicleurs ainsi que le poids des unités mécaniques devront être ajoutés aux charges de calculs.

.13 Toutes les fermes de toit devront être fixées aux murs avec des étriers métalliques anti-soulèvement adéquats selon les calculs de conception du fabriquant.

.14 Le manufacturier de ferme de toit devra fournir tous les étriers anti-soulèvement nécessaires à l'installation des fermes de toit.

.15 L'entrepreneur devra fournir et installer des contreventements permanents de fermes de toit. Ils devront être constitués de « croix st-andré » fabriqués avec des pièces de bois de 38X89 (2"x4") SPF no 1 ou 2 et positionnées au-dessus des murs de refond (mur corridor, mur extérieur, etc.) ainsi qu'à un espacement maximum de 4.0m (13'-0") centre en centre.

## 3.4 FIELD QUALITY CONTROL

.1 Manufacturer's Field Services:

.1 Have manufacturer of products supplied under this Section review work involved in handling, installation/application, protection and cleaning of its products, and submit written reports, in acceptable format, to verify compliance of work with Contract.

.2 Manufacturer's field services: provide manufacturer's field services, consisting of product use recommendations and periodic site visits for inspection of product installation, in accordance with manufacturer's instructions.

.3 Schedule site visits to review work at stages listed:

.2 Upon completion of work, after cleaning is carried out.

## 3.5 CLEANING

.1 Progress Cleaning: clean in accordance with Section 01 74 11- Cleaning.

.1 Leave Work area clean at end of each day.

**END OF SECTION**

# MONOBLOCK EXTRACTION VENTILATORS, WALL AND ROOF TYPE
# SECTION 23 34 25

## Part 1 GENERAL

### 1.1 RELATED REQUIREMENTS

The contractor shall provide all materials, equipment and manpower for the realization of the work generally described on drawings #5425-M1/1, dated 01 December 2016, review February 15, 2017, including mainly:

1 - Installation of a nitrogen dioxide and carbon monoxide detection system.

2 - Installation of a wall exhausts fan as well as a motorized fresh air intake.

### 1.2 REFERENCE STANDARDS

.1 American National Standards Institute/Air Movement and Control Association (ANSI/AMCA)

- .1 ANSI/AMCA Standard 99-2010, Standards Handbook.
- .2 ANSI/AMCA Standard 210-2007/ANSI/ASHRAE 51-07, Laboratory Methods of Testing Fans for Aerodynamic Performance Rating.
- .3 ANSI/AMCA Standard 300-2008, Reverberant Room Method for Sound Testing of Fans.
- .4 ANSI/AMCA Standard 301-1990, Methods for Calculating Fan Sound Ratings from Laboratory Test Data.

### 1.3 DOCUMENTS / SAMPLES TO BE SUBMITTED FOR APPROVAL / INFORMATION.

.1 Technical data sheets

- .1 Submit the required technical data sheets and manufacturer's instructions and documentation for wall fan. The data sheets must indicate the characteristics of the products, the performance criteria, the dimensions, the limits and the finish.

.2 Shop drawings

- .1 Shop drawings shall include or indicate the following.
  - .1 The characteristic curves of the fans, with indication of the prescribed operating point.
  - .2 Sound levels

### 1.4 TRANSPORT, STORAGE AND HANDLING

.1 Transport, storage and handling of materials and equipment in accordance with manufacturer's recommendations.

.2 Delivery and acceptance: deliver materials and equipment to the site in their original packaging, which must bear a label indicating the name and address of the manufacturer.

.3 Storage and Handling

.1 Store materials and equipment in a clean, dry, well ventilated area, as recommended by the manufacturer.

.2 Store wall exhaust fans to protect them against marks and scratches.

.3 Replace damaged materials and equipment with new materials and equipment.

## Part 2 Product

### 2.1 SYSTEM DESCRIPTION

.1 Performance Requirements

.1 Technical data from the manufacturers' documentation must be reliable data, confirmed by tests carried out by the manufacturers themselves, or on their behalf by independent laboratories, and certifying the conformity of the elements with the requirements of the codes and standards in force.

.2 Characteristics of the equipment: flow, pressure, dimensions and design, bhp, W, mechanical and sound level.

.2 Fans: balanced statically and dynamically, and built according to ANSI / AMCA 99.

### 2.2 WALL EXHAUST FAN

.1 Axial monoblock fans with direct drive.

.1 Envelope made of embossed aluminum, housing a motor and a fan mounted on a resilient support.

.2 Aluminum avian wire mesh of 2.0 mm diameter, with mesh of 12 mm.

.3 Aluminum anti-backflow damper, automatic, with gasket.

.4 Switch mounted inside the casing.

.5 Screws and fixing bolts cadmium.

## Part 3 Execution

### 3.1 INSPECTION

.1 Verification of conditions: Before installing the wall exhaust fans, ensure that the condition of surfaces / supports previously implemented under other sections or contracts is acceptable and permits to carry out the work in accordance with the manufacturer's written instructions.

.1 Visually inspect surfaces / supports in the presence of Consultant.

.2 Immediately notify Consultant of any unacceptable condition identified.

.3 Begin installation work only after correcting unacceptable conditions and received written approval fromConsultant.

### 3.2 INSTALLATION

.1 Install the exhaust fans according to the manufacturer's instructions.

## 3.3 ANCHOR BOLTS AND ASSEMBLY TEMPLATES

.1 Use anchor bolts of appropriate size to resist seismic stress

## 3.4 CLEANING

.1 Clean at the end of each shift.

.2 Dispose of all surplus materials, waste, etc ... and perform a final cleaning of all equipment.

**END OF SECTION**

# ELECTRICITY – GENERAL REQUIREMENTS FOR THE COMPLETION OF THE WORK
# SECTION 26 05 00

## Partie 1 General

### 1.1 REFERENCE STANDARDS

.1 CSA Group

.1 Canadian Electrical Code, Part 1, 22nd Edition, Electrical Safety Standards.

### 1.2 SCOPE OF WORK

Provide all materials, equipment and labor for the work described in drawings # 5425-E1 / 2 and # 5425 E2 / 2, dated December 01, 2016, Revision February 15, 2017, :

.1 Demolition of existing penthouse including removal of electrical components, cameras, and communication line

.2 New lighting systems and electrical outlets

.3 Connection of the door opening system including the controls

.4 Connection of carbon monoxide and nitrogen dioxide detection system, as well as the wall vent and fresh air intake

.5 Connexion to outlet

.6 Relocation of cameras

### 1.3 DOCUMENTS / SAMPLES TO BE SUBMITTED FOR APPROVAL / INFORMATION

.1 Submit shop drawings of all electrical equipment in electronic form

.2 Submit the characteristics of all components of the electrical circuits (ducts, wiring, fitting box, etc.)

### 1.4 DOCUMENTS / ELEMENTS TO BE COMPLETED AT THE COMPLETION OF THE WORK

.1 "As built" drawings

.2 Operating instructions for all electrical systems

### 1.5 TRANSPORT, STORAGE AND HANDLING

.1 During demolition, the contractor shall protect and then store all equipment to be relocated.

.2 All materials to be incorporated into this project shall be stored in a dry and vandal-free location.

.3 All unused material shall be disposed of from the site and shall be disposed of by the contractor in accordance with all applicable regulations.

**Partie 2 Products**

## 2.1 MATERIALS

.1 All products must be CSA approved.

## 2.2 IDENTIFICATION OF EQUIPMENT

.1 For the labeling of electrical appliances, use nameplates conforming to the following requirements

.1 Nameplates: 3 mm thick, laminate plastic plates with colored black, matte white and colored Inscriptions in correctly aligned letters, engraved to the core of the plate white, mechanically fastened with tapping screws black.

.2 Format as shown in the table below.

| INDICATOR PLATE FORMAT | | | |
|---|---|---|---|
| Format 1 | 10 mm x 50 mm | 1 line | Letters 3 mm high |
| Format 2 | 12 mm x 70 mm | 1 line | Letters 5 mm high |
| Format 3 | 12 mm x 70 mm | 2 lines | Letters 3 mm high |
| Format 4 | 20 mm x 90 mm | 1 line | Letters 8mm high |
| Format 5 | 20 mm x 90 mm | 2 lines | Letters 5 mm high |
| Format 6 | 25 mm x 100 mm | 1 line | Letters 12 mm high |
| Format 7 | 25 mm x 100 mm | 2 lines | Letters 6 mm high |

## 2.3 WIRING IDENTIFICATION

.1 Both ends of the phase conductors of each artery and branch circuit shall be permanently and indelibly marked with a plastic ribbon.

.2 Each output (sockets, lighting, etc ...) will have an identification of the circuit feeding it

## 2.4 IDENTIFICATION OF CONDUITS AND CABLES

.1 Use a color code to conduits, boxes and metal sheathed cables.

.2 Apply plastic tape or paint as a means of marking on cables or conduits every 15 m and through walls, ceilings and floors.

.3 Base color strips shall be 25 mm wide and complementary colors shall be 20 mm wide.

| Type | Basic color | Additional color |
|---|---|---|
| Up to 250 V | yellow | |
| Up to 600 V | yellow | green |
| Up to 5 kV | yellow | blue |
| Up to 15 kV | yellow | red |
| Phone | green | |
| Other communication networks | green | blue |
| Fire alarm | red | |
| Emergency communication | red | blue |
| Other safety systems | red | yellow |

**Partie 3 xecution**

## 3.1 INSPECTION

.1 Verification of conditions: before proceeding with installation

- .1 Prior to beginning of work engineer will conduct a survey to identify any unanticipated conditions that may affect the site
- .2 Work will not begin until all unacceptable conditions are accepted by all parties.

## 3.2 INSTALLATION

.1 Unless otherwise indicated, complete the entire installation in accordance with CSA C22.1.

.2 Unless otherwise specified, install overhead and underground systems in accordance with CAN / CSA-C22.3 No. 1.

## 3.3 LABELS, NAMEPLATES AND MATERIALS

.1 Ensure that CSA labels, nameplates and rating plates are visible and legible after installation.

## 3.4 INSTALLATION OF CONDUITS AND CABLES

.1 Install conduits and sleeves prior to pouring concrete.

- .1 Concrete Sleeves: Plastic pipe with a diameter to permit free passage of the conduit and exceeding the concrete surface by 50mm from each side.

.2 When using plastic sleeves for wall or floor crossings with a fire-resistance rating, remove them before installing the conduit.

.3 Install cables, conduits, and fittings to be embedded or plastered by carefully placing them against the building structure so as to minimize the thickness of the frame.

## 3.5 LOCATION OF OUTPUTS AND ELECTRICAL OUTLETS

.1 Place outputs and outlets in accordance with plans.

.2 Do not install outputs and power outlets back to back in a wall; Allow a horizontal clearance of at least 150 mm between the boxes.

.3 The location of the outputs and outlets may be changed at no additional charge or credit, provided that the movement does not exceed 3000 mm and notice is given prior to installation.

.4 Place light switches near doors on handle side.

## 3.6 MOUNTING HEIGHTS

.1 Unless otherwise specified or stated, measure the mounting height of the material from the surface of the sheathed floor to its axis.

.2 In cases where mounting height is not indicated, check with competent persons before starting installation.

.3 Unless otherwise specified, install equipment at height shown below.

- .1 Light switches: 1400mm.

.2 Wall outlets

.1 In general : 300mm.

.2 Above continuous baseboard heaters : 200mm.

.3 Above a worktop or its backsplash: 175 mm.

.4 In mechanical installations: 1400mm.

## 3.7 COORDINATION OF PROTECTIVE DEVICES

.1 Ensure that circuit protective devices such as overcurrent trip units, relays and fuses are installed, that they are of the required size and that they are set to the required values.

## 3.8 START-UP OF THE INSTALLATION

.1 Instruct Consultant of the operation and maintenance procedures of the installation, its equipment and components.

## 3.9 CLEANING

.1 Contractor must maintain site very clean at end of each shift.

.2 Upon completion of the work, the contractor shall clean all equipment and adjacent surfaces.

**END OF SECTION**

**CORRECTED MAXIMUM DRY DENSITY FOR FILL**
**SECTION 31 05 10**

## Part 1 General

### 1.1 RELATED REQUIREMENTS

.1 Section 31 23 33 01

### 1.2 REFERENCE STANDARDS

.1 American Society for Testing and Materials International (ASTM)

- .1 ASTM C127-04, Standard Test Method for Density, Relative Density (Specific Gravity) and Absorption of Coarse Aggregate.
- .2 ASTM D698-00ae1, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3(600 kN-m/m3)).
- .3 ASTM D1557-02e1, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3(2,700 kN-m/m3)).
- .4 ASTM D4253-00, Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.

### 1.3 DEFINITIONS

.1 Corrected maximum dry density is defined as:

- .1 D =
- .2 D = (F1 x D1) + (0.9 x D2 x F2)
- .3 Where: D = corrected maximum dry density kg/m3.
  - .1 F1 = fraction (decimal) of total field sample passing 19mm sieve
  - .2 F2 = fraction (decimal) of total field sample retained on 4.75mm sieve (equal to 1.00 - F1)
  - .3 D1 = maximum dry density, kg/m3of material passing 19 mm sieve determined in accordance with Method of .
  - .4 D2 = bulk density, kg/m3, of material retained on 4.75mm sieve, equal to 1000G where G is bulk specific gravity (dry basis) of material when tested to ASTM C127.
- .4 For free draining aggregates, determine D1 (maximum dry density) to ASTM D4253 wet method.

**Part 2 Products**

**2.1 NOT USED**

.1 Not Used.

**Part 3 Execution**

**3.1 NOT USED**

.1 Not Used.

**END OF SECTION**

# AGGREGATE MATERIALS
# SECTION 31 05 16

## Part 1 General

### 1.1 RELATED REQUIREMENTS

.1 Section 31 23 33 01

### 1.2 REFERENCE STANDARDS

.1 ASTM International

.1 ASTM D4791-[10], Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate.

.2 U.S. Environmental Protection Agency (EPA)/Office of Water

.1 EPA 832/R-92-005, Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices.

### 1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00- Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for aggregate materials and include product characteristics, performance criteria, physical size, finish and limitations.

### 1.4 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with manufacturer's written instructions.

.2 Transportation and Handling: handle and transport aggregates to avoid segregation, contamination and degradation.

.3 Storage: store washed materials or materials excavated from underwater 24 hours minimum to allow free water to drain and for materials to attain uniform water content.

## Part 2 Products

### 2.1 MATERIALS

Type 1 Backfill : crushed stone mg-20 (DB) / mg-112 (DB)

.1 Aggregate quality: sound, hard, durable material free from soft, thin, elongated or laminated particles, organic material, clay lumps or minerals, free from adherent coatings and injurious amounts of disintegrated pieces or other deleterious substances.

.2 Flat and elongated particles of coarse aggregate: to ASTM D4791.

.1 Greatest dimension to exceed 5 times least dimension.

.3 Fine aggregates satisfying requirements of applicable section to be one, or blend of following:

.1 Screenings produced in crushing of quarried rock, boulders, gravel or slag.

.2 Reclaimed asphalt pavement.

.3 Reclaimed concrete material.

.4 Coarse aggregates satisfying requirements of applicable section to be one of or blend of following:

.1 Crushed rock.

.2 Gravel and crushed gravel composed of naturally formed particles of stone.

.3 Light weight aggregate, including slag and expanded shale.

.4 Reclaimed asphalt pavement.

.5 Reclaimed concrete material.

## 2.2 SOURCE QUALITY CONTROL

.1 If materials from proposed source do not meet, or cannot reasonably be processed to meet, specified requirements, locate alternative source.

.2 Acceptance of material at source does not preclude future rejection if it fails to conform to requirements specified, lacks uniformity, or if its field performance is found to be unsatisfactory.

# Part 3 Execution

## 3.1 EXAMINATION

.1 Verification of Conditions: verify that conditions are acceptable for topsoil stripping.

.1 Visually inspect substrate.

.2 Inform Consultant of unacceptable conditions immediately upon discovery.

.3 Proceed with topsoil stripping. only after unacceptable conditions have been remedied.

## 3.2 PREPARATION

.1 Topsoil stripping:

.1 Do not handle topsoil while in wet or frozen condition or in any manner in which soil structure is adversely affected.

.2 Begin topsoil stripping of areas as indicated after area has been cleared of weeds grasses brush and removed from site.

.3 Strip topsoil to depths as indicated. Avoid mixing topsoil with subsoil.

.4 Stockpile in locations as indicated. Stockpile height not to exceed 2m.

.2 Aggregate source preparation:

.1 Prior to excavating materials for aggregate production, clear and grub area to be worked, and strip unsuitable surface materials. Dispose of cleared, grubbed and unsuitable materials.

.2 Where clearing is required, leave screen of trees between cleared area and roadways as directed.

.3 Clear, grub and strip area ahead of quarrying or excavating operation sufficient to prevent contamination of aggregate by deleterious materials.

.4 When excavation is completed dress sides of excavation to nominal 1.5:1 slope, and provide drains or ditches as required to prevent surface standing water.

.5 Trim off and dress slopes of waste material piles and leave site in neat condition.

.6 Provide silt fence or other means to prevent contamination of existing watercourse or natural wetland features.

.3 Processing:

.1 Process aggregate uniformly using methods that prevent contamination, segregation and degradation.

.4 When operating in stratified deposits use excavation equipment and methods that produce uniform, homogeneous aggregate gradation.

.5 Where necessary, screen, crush, wash, classify and process aggregates with suitable equipment to meet requirements.

.1 Use only equipment approved in writing by Consultant.

.6 Stockpiling:

.1 Stockpile aggregates on site in locations as indicated unless directed otherwise by Consultant. Do not stockpile on completed pavement surfaces.

.2 Stockpile aggregates in sufficient quantities to meet project schedules.

.3 Stockpiling sites to be level, well drained, and of adequate bearing capacity and stability to support stockpiled materials and handling equipment.

.4 Except where stockpiled on acceptably stabilized areas, provide compacted sand base not less than 300mm in depth to prevent contamination of aggregate. Stockpile aggregates on ground but do not incorporate bottom 300mm of pile into Work.

.5 Separate different aggregates by strong, full depth bulkheads, or stockpile far enough apart to prevent intermixing.

.6 Do not use intermixed or contaminated materials. Remove and dispose of rejected materials as directed within 48 hours of rejection.

.7 Stockpile materials in uniform layers of thickness as follows:

.1 Maximum [1.5]m for coarse aggregate and base course materials.

.2 Maximum [1.5]m for fine aggregate and sub-base materials.

.3 Maximum [1.5]m for other materials.

.8 Uniformly spot-dump aggregates delivered to stockpile in trucks and build up stockpile as specified.

.9 Do not cone piles or spill material over edges of piles.

.10 Do not use conveying stackers.

.11 During winter operations, prevent ice and snow from becoming mixed into stockpile or in material being removed from stockpile.

**3.3 CLEANING**

.1 Progress Cleaning: clean in accordance with Section 01 74 11- Cleaning.

.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11- Cleaning.

.3 Leave aggregate stockpile site in tidy, well drained condition, free of standing surface water.

**END OF SECTION**

# EXCAVATING, TRENCHING AND BACKFILLING
# SECTION 31 23 33.01

## Part 1 General

### 1.1 RELATED REQUIREMENTS

.1 Section 31 05 16

### 1.2 MEASUREMENT PROCEDURES

.1 Excavated materials will be measured in cubic metres in their original location.

.1 Common excavation quantities measured will be actual volume removed within following limits:

.1 Width for trench excavation as indicated.

.2 Width for excavation for structures as indicated.

.3 Depth from ground elevation immediately prior to excavation, to elevation as indicated.

.2 Backfilling to authorized excavation limits will be measured in cubic metres compacted in place for each type of material specified.

.3 Placing and spreading of topsoil will be measured for payment in cubic metres calculated from cross sections taken in area of excavation from original location.

### 1.3 REFERENCE STANDARDS

.1 American Society for Testing and Materials International (ASTM)

.1 ASTM C117-04, Standard Test Method for Material Finer than 0.075 mm (No.200) Sieve in Mineral Aggregates by Washing.

.2 ASTM C136-05, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.

.3 ASTM D422-63 2002, Standard Test Method for Particle-Size Analysis of Soils.

.4 ASTM D698-00ae1, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3) (600 kN-m/m3).

.5 ASTM D1557-02e1, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3) (2,700 kN-m/m3).

.6 ASTM D4318-05, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

.2 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-8.1-88, Sieves, Testing, Woven Wire, Inch Series.

.2 CAN/CGSB-8.2-M88, Sieves, Testing, Woven Wire, Metric.

.3 Canadian Standards Association (CSA International)

.1 CAN/CSA-A3000-03, Cementitious Materials Compendium (Consists of A3001, A3002, A3003, A3004 and A3005).

.1 CSA-A3001-03, Cementitious Materials for Use in Concrete.

.2 CSA-A23.1/A23.2-04, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.

.4 U.S. Environmental Protection Agency (EPA)/Office of Water

.1 EPA 832R92005, Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices.

## 1.4 DEFINITIONS

.1 Excavation classes: two classes of excavation will be recognized; common excavation and rock excavation.

.1 Rock: solid material in excess of 1.00 m3 and which cannot be removed by means of heavy duty mechanical excavating equipment with 0.95 to 1.15 m3bucket. Frozen material not classified as rock.

.2 Common excavation: excavation of materials of whatever nature, which are not included under definitions of rock excavation.

.2 Unclassified excavation: excavation of deposits of whatever character encountered in Work.

.3 Topsoil:

.1 Material capable of supporting good vegetative growth and suitable for use in top dressing, landscaping and seeding.

.2 Material reasonably free from subsoil, clay lumps, brush, objectionable weeds, and other litter, and free from cobbles, stumps, roots, and other objectionable material larger than 1 inch 25 millimeters in any dimension.

.4 Waste material: excavated material unsuitable for use in Work or surplus to requirements.

.5 Borrow material: material obtained from locations outside area to be graded, and required for construction of fill areas or for other portions of Work.

.6 Recycled fill material: material, considered inert, obtained from alternate sources and engineered to meet requirements of fill areas.

.7 Unsuitable materials:

.1 Weak, chemically unstable, and compressible materials.

.2 Frost susceptible materials:

.1 Fine grained soils with plasticity index less than 10 when tested to ASTM D4318, and gradation within limits specified when tested to ASTM C136 ASTM D422: Sieve sizes to CAN/CGSB-8.1 CAN/CGSB-8.2.

.2 Table:

| Sieve Designation | % Passing |
|---|---|
| 2.00 mm | [100] |
| 0.10 mm | [45 - 100] |
| 0.02 mm | [10 - 80] |
| 0.005 mm | [0 - 45] |

.3 Coarse grained soils containing more than 20% by mass passing 0.075 mm sieve.

.8 Unshrinkable fill: very weak mixture of cement, concrete aggregates and water that resists settlement when placed in utility trenches, and capable of being readily excavated.

## 1.5 ACTION AND INFORMATIONAL SUBMITTALS

.1 Make submittals in accordance with Section 01 33 00- Submittal Procedures.

.2 Quality Control: in accordance with Section 01 45 00- Quality Control:

## 1.6 EXISTING CONDITIONS

.1 Buried services:

.1 Before commencing work verify location of buried services on and adjacent to site.

.2 Arrange with appropriate authority for relocation of buried services that interfere with execution of work: pay costs of relocating services.

.3 Remove obsolete buried services within 2 m of foundations: cap cut-offs.

.4 Size, depth and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.

.5 Prior to beginning excavation Work, notify applicable Consultant authorities having jurisdiction establish location and state of use of buried utilities and structures.

.6 Confirm locations of buried utilities by careful test excavations.

.7 Maintain and protect from damage, water, sewer, gas, electric, telephone and other utilities and structures encountered.

.8 Where utility lines or structures exist in area of excavation, obtain direction of Consultant re-routing.

.9 Record location of maintained, re-routed and abandoned underground lines.

.10 Confirm locations of recent excavations adjacent to area of excavation.

.2 Existing buildings and surface features:

.1 Conduct, with Consultant, condition survey of existing buildings, trees and other plants, lawns, fencing, service poles, wires, rail tracks, pavement, survey bench marks and monuments which may be affected by Work.

.2 Protect existing buildings and surface features from damage while Work is in progress. In event of damage, immediately make repair as directed by Consultant.

.3 Where required for excavation, cut roots or branches in accordance with Consultant.

## Part 2 Products

### 2.1 MATERIALS

.1 Type 1 and Type 2 fill: properties to Section [31 05 16- Aggregate Materials]and the following requirements:

.1 Crushed, pit run or screened stone, gravel or sand.

.2 Gradations to be within limits specified when tested to ASTM C117 ASTM C136. Sieve sizes to CAN/CGSB-8.1 CAN/CGSB-8.2.

.3 Table:

| Sieve Designation | % Passing | |
|---|---|---|
| Type 1 | Type 2 | |
| 75 mm | - | [100] |
| 50 mm | - | - |
| 37.5 mm | - | - |
| 25 mm | [100] | - |
| 19 mm | [75-100] | - |
| 12.5 mm | - | - |
| 9.5 mm | [50-100] | - |
| 4.75 mm | [30-70] | [22-85] |
| 2.00 mm | [20-45] | - |
| 0.425 mm | [10-25] | [5-30] |
| 0.180 mm | - | - |
| 0.075 mm | [3-8] | [0-10] |

.2 Type 3 fill: selected material from excavation or other sources, approved by [DCC Representative] [Consultant] [Departmental Representative]for use intended, unfrozen and free from rocks larger than [75]mm, cinders, ashes, sods, refuse or other deleterious materials.

## Part 3 Execution

### 3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL

.1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

.2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.

.3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

### 3.2 SITE PREPARATION

.1 Remove obstructions, ice and snow, from surfaces to be excavated within limits indicated.

.2 Cut pavement or sidewalk neatly along limits of proposed excavation in order that surface may break evenly and cleanly.

## 3.3 PREPARATION/PROTECTION

.1 Protect existing features.

.2 Keep excavations clean, free of standing water, and loose soil.

.3 Where soil is subject to significant volume change due to change in moisture content, cover and protect to Consultant approval.

.4 Protect natural and man-made features required to remain undisturbed. Unless otherwise indicated or located in an area to be occupied by new construction, protect existing trees from damage.

.5 Protect buried services that are required to remain undisturbed.

## 3.4 STRIPPING OF TOPSOIL

.1 Begin topsoil stripping of areas as indicated after area has been cleared of weeds grasses brush and removed from site.

.2 Strip topsoil to depths as indicated.

.1 Do not mix topsoil with subsoil.

.3 Stockpile in locations as indicated.

.1 Stockpile height not to exceed 2 m and should be protected from erosion.

.4 Dispose of unused topsoil to location as indicated by Consultant.

## 3.5 STOCKPILING

.1 Stockpile fill materials in areas designated by Consultant.

.1 Stockpile granular materials in manner to prevent segregation.

.2 Protect fill materials from contamination.

.3 Implement sufficient erosion and sediment control measures to prevent sediment release off construction boundaries and into water bodies.

## 3.6 COFFERDAMS, SHORING, BRACING AND UNDERPINNING

.1 Maintain sides and slopes of excavations in safe condition by appropriate methods and in accordance with [Section [01 35 29.06- Health and Safety Requirements]] [Health and Safety Act for the Province of Quebec.

.1 Where conditions are unstable, Consultant to verify and advise methods.

## 3.7 DEWATERING AND HEAVE PREVENTION

.1 Keep excavations free of water while Work is in progress.

.2 Protect open excavations against flooding and damage due to surface run-off.

.3 Dispose of water in manner not detrimental to public and private property, or portion of Work completed or under construction.

.1 Provide and maintain temporary drainage ditches and other diversions outside of excavation limits.

.4 Provide flocculation tanks, settling basins, or other treatment facilities to remove suspended solids or other materials before discharging to storm sewers, watercourses or drainage areas.

## 3.8 EXCAVATION

.1 Advise Consultant at least 7 days in advance of excavation operations for initial cross sections to be taken.

.2 Excavate to lines, grades, elevations and dimensions as indicated Consultant.

.3 Remove [walks] [demolished foundations and rubble paving masonry concrete and other obstructions encountered during excavation.

.4 Excavation must not interfere with bearing capacity of adjacent foundations.

.5 Do not disturb soil within branch spread of trees or shrubs that are to remain.

.1 If excavating through roots, excavate by hand and cut roots with sharp axe or saw.

.6 Keep excavated and stockpiled materials safe distance away from edge of trench as directed by Consultant.

.7 Restrict vehicle operations directly adjacent to open trenches.

.8 Dispose of surplus and unsuitable excavated material in approved location on site.

.9 Do not obstruct flow of surface drainage or natural watercourses.

.10 Earth bottoms of excavations to be undisturbed soil, level, free from loose, soft or organic matter.

.11 Notify Consultant when bottom of excavation is reached.

.12 Obtain Consultant approval of completed excavation.

.13 Remove unsuitable material from trench bottom including those that extend below required elevations to extent and depth as directed by Consultant.

.14 Correct unauthorized over-excavation as follows:

.1 Fill under other areas with Type 2 fill compacted to not less than 95% of corrected Standard Proctor maximum dry density.

.15 Hand trim, make firm and remove loose material and debris from excavations.

.1 Where material at bottom of excavation is disturbed, compact foundation soil to density at least equal to undisturbed soil.

.2 Clean out rock seams and fill with concrete mortar or grout to approval of Consultant.

.16 Install geotextiles.

.17 The Contractor will be responsible for ensuring that future foundations are supported on undisturbed soil with a minimum net bearing capacity of 100 KPa. Otherwise, he must notify the Engineer as well as the author of the soil study to find a solution.

.18 The undisturbed soil under the new foundations must be inspected before any concrete pours by a soil-testing laboratory for approval. The laboratory must provide the report of their visit to the Engineer.

.19 Excavation work must be safe at all times. They should never have slopes that are unstable or inconsistent with the recommendations of the geotechnical study or the current standards in force. They must never jeopardize the stability or structural integrity of the neighbouring elements (foundation, building, paving, traffic lane, etc.) of this land or neighbouring land. The contractor must provide and install all necessary temporary supports (shoring in compliance with CSST and signed by an engineer member of the OIQ, etc.) to maintain the stability of the existing elements.

.20 Les fonds d'excavation devront être protégés du gel en tout temps durant les travaux.

.21 All backfilling work must be carried out in accordance with the recommendations of the geotechnical study and all applicable standards in force. They must be carried out under the supervision of a soil laboratory to check the quality of the materials, the compaction and the quality of the work. The laboratory must provide its report (following its analyzes) to the Engineer.

.22 Unless specified otherwise, all embankments shall be of the MG-20 type, non-gelif, with no swelling potential (DB certified), placed in successive layers up to 300 mm (12 inches) thick and compacted at 95 % Of Proctor Index Modified. The Contractor shall demonstrate the conformity of the embankment materials used to the Engineer prior to commencement of the work

.23 .Backfilling and compaction work must be carried out with care to maintain the stability and structural integrity of neighbouring elements (existing or new foundation, paving, etc.) of this land or neighbouring land.

## 3.9 FILL TYPES AND COMPACTION

.1 Use types of fill as indicated or specified below. Compaction densities are percentages of maximum densities obtained from ASTM D698 ASTM D1557 in accordance with Section 31 05 10- Corrected Maximum Dry Density for Fill.

.1 Exterior side of perimeter walls: use Type 3 fill to subgrade level. Compact to 95% of corrected maximum dry density.

.2 Within building area: use Type 2 to underside of base course for floor slabs. Compact to 95% of corrected maximum dry density.

.3 Under concrete slabs: provide 300mm compacted thickness base course of Type 1 fill to underside of slab. Compact base course to 95%.

## 3.10 BACKFILLING

.1 Do not proceed with backfilling operations until completion of following:

.1 Consultant has inspected and approved installations.

.2 Consultant has inspected and approved of construction below finish grade.

.3 Removal of concrete formwork.

.4 Removal of shoring and bracing; backfilling of voids with satisfactory soil material.

.2 Areas to be backfilled to be free from debris, snow, ice, water and frozen ground.

.3 Do not use backfill material which is frozen or contains ice, snow or debris.

.4 Place backfill material in uniform layers not exceeding 300 mm compacted thickness up to [grades indicated]. Compact each layer before placing succeeding layer.

.5 Backfilling around installations:

.1 Place bedding and surround material as specified elsewhere.

.2 Do not backfill around or over cast-in-place concrete within 72 hours after placing of concrete.

.3 Place layers simultaneously on both sides of installed Work to equalize loading. Difference not to exceed 0.6 m.

.4 Where temporary unbalanced earth pressures are liable to develop on walls or other structures:

.1 Permit concrete to cure for minimum 14 days or until it has sufficient strength to withstand earth and compaction pressure and approval obtained from Consultant.

## 3.11 RESTORATION

.1 Replace topsoil as indicated by Consultant.

.2 Reinstate lawns to elevation which existed before excavation.

.3 Clean and reinstate areas affected by Work as directed by Consultant.

.4 Protect newly graded areas from traffic and erosion and maintain free of trash or debris.

**END OF SECTION**

# BITUMINOUS PARKING SPECIFICATIONS (ABRIDGED VERSION)
# SECTION 32 12 16.01

## Part 1 General

### 1.1 RELATED REQUIREMENTS

The contractor shall provide all materials, equipment and labor for the completion of the work generally described in drawings # 5425-P1 / 1, dated December 01, 2016, revision February 15, 2017, and consisting primarily of:

1 - Cut existing paving ready for connection to the new paving.

2 - Excavate the new surface to be paved according to the final elevations

3 - Backfill and compact the surface under the new paving

4 - Apply the specified bituminous coatings as per drawings.

### 1.2 REFERENCE STANDARDS

.1 Government of Québec, Transport Québec

.1 Cahier des charges et devis généraux (CCDG) - Infrastructure routières - Construction et réparation, 2013 Edition.

### 1.3 DOCUMENTS TO BE SUBMITTED FOR APPROVAL

.1 Datasheets

.1 Submit required data sheets and manufacturer's instructions and documentation for bituminous mixtures and aggregates. The data sheets must indicate the characteristics of the products, the performance criteria, the dimensions, the limits and the finish.

### 1.4 TRANSPORT, STORAGE AND HANDLING

.1 Contractor shall evacuate and dispose of all excavation materials, etc.

.2 The backfills shall be composted according to the plans specifications and the contractor shall obtain compaction tests from an accredited laboratory at his own expense.

.3 Bituminous coatings shall be made in accordance with the recommendations of the competent authorities and certified by a certified laboratory at the expense of the contractor.

## Part 2 Execution

### 2.1 REVIEW

.1 Verification of conditions: prior to asphalt paving, ensure that the condition of surfaces / support previously implemented under other sections or contracts is acceptable and permits work to be carried out in accordance with written instructions of the manufacturer.

.1 Perform visual inspection of surfaces / supports in the presence of the Consultant.

.2 Immediately notify consultant of any unacceptable conditions identified.

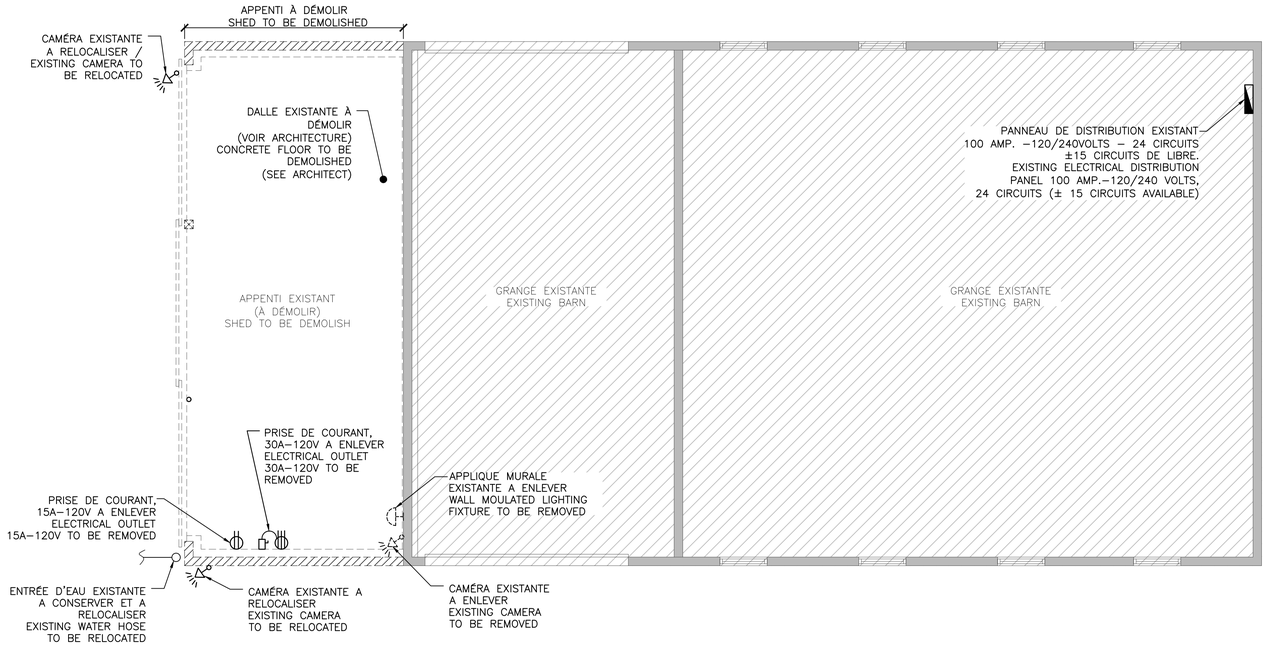
.3 Begin installation work only after correcting unacceptable conditions and received written approval from consultant.

**2.2 CLEANING**

.1 Clean at end of each shift.

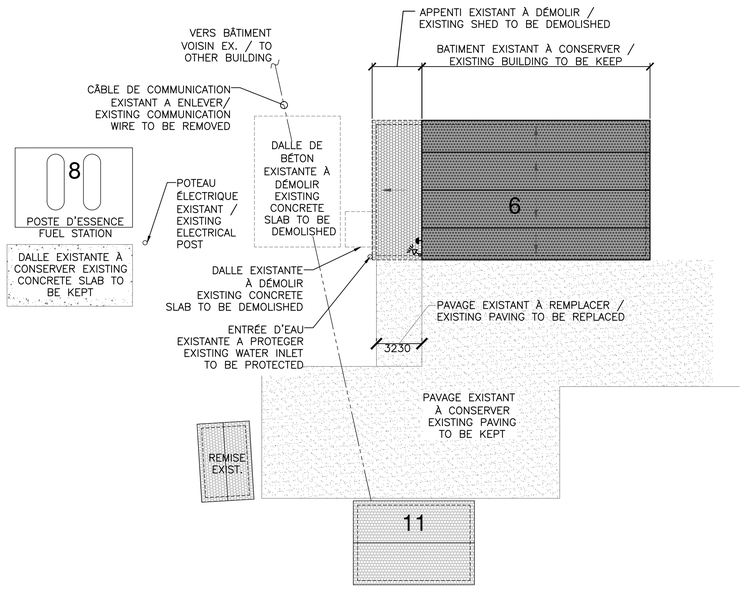
.2 Evacuate all surplus materials, waste, etc ... and perform final cleaning of all equipment.

**END OF SECTION**




## PLAN DÉMOLITION / DEMOLITION DRAWING

ÉCHELLE / SCALE: 1 : 50




## PLAN D'ENSEMBLE / GENERAL VIEW

ÉCHELLE / SCALE: 1 : 200

INGÉNIEUR - ENGINEER
ANDRE PILON
P. ING.

| | | | |
|---|---|---|---|
| 10–03–2017 | 02 | ÉMIS POUR SOUMISSION/ISSUE FOR QUOTATION | A.P. |
| 15–02–2017 | 01 | GÉNÉRALE / GENERAL | A.P. |
| DATE | NO | RÉVISION/REVISION | PAR/BY |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| | |
|---|---|
| # CLIENT : 2797 | # PROJET/PROJECT : 5425 |
| DESSINÉ/DRAWN : TROTTIER J. | VÉRIFIÉ PAR/VERIFIED BY : A. P. |
| ÉCHELLE/SCALE : TELLE QU'INDIQUÉE/AS SHOWN | DATE : 2016/12/01 |

PROJET/ PROJECT
FERME EXPÉRIMENTALE/
EXPERIMENTAL FARM
STE–CLOTILDE

1815 CH. DE LA RIVIÈRE,
STE–CLOTILDE–DE–CHÂTEAUGUAY (QC) J0L 1W0

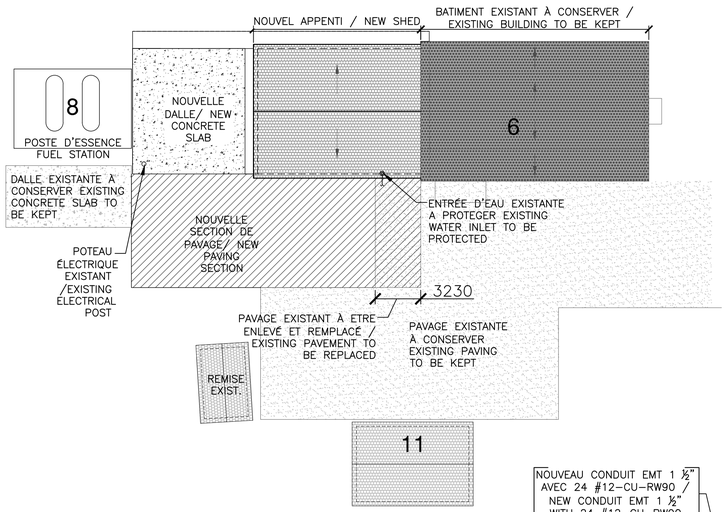
CLIENT.
SAVARD ARCHITECTE

731 BOUL. ST–JEAN–BAPTISTE, BUR 203,
MERCIER, (QC) J6R 1G2

TITRE DU DESSIN/DRAWING TITLE

PLAN DE DÉMOLITION DU R.D.C
/DEMOLITION PLAN FOR THE GROUND FLOOR

| | |
|---|---|
| ÉLECTRICITÉ/ELECTRICITY | 5425– E1/2 |




## PLAN D'ENSEMBLE PROJETÉ / PROJECT PLAN

ÉCHELLE / SCALE : 1 : 200

| LÉGENDE/LEGEND | |
|---|---|
| SYMBOLES | DESCRIPTIONS |
| PRISES DE COURANT/ELECTRICAL OUTLET : | |
| | PRISE DE COURANT DUPLEX, 20A, 125V, MARQUE: LEVITON SERIE DECORA COMMERCIAL MODÈLE: #16352-W, C/A: ELECTRICAL OUTLET DUPLEX, 20A, 125V, MARK: LEVITON SERIE DECORA COMMERCIAL MODEL: #16352-W, C/A: |
| WP | PRISE DE COURANT EXTÉRIEUR 15A-120V-DDFT/C.S EXTERIOR ELECTRICAL OUTLET 15A-120V-DDFT/C.S |
| | PRISE DE COURANT 30A-120/240V ELECTRICAL OUTLET 30A-120/240V |
| INTERRUPTEURS/LIGHT SWITCH : | |
| $ | INTERRUPTEUR UNIPOLAIRE - 15A - 125V, MARQUE: LEVITON SERIE DECORA COMMERCIAL MODÈLE: #5691-2W C/A SINGLE POLE SWITCH - 15A - 125V, MARK: LEVITON SERIE DECORA COMMERCIAL MODEL: #5691-2W C/A |
| L/L | CONTROLE LAT/LONG PARAGON ?? |

| APPAREILS D'ÉCLAIRAGE D'URGENCE & LUMINAIRE DE SORTIE | |
|---|---|
| | UNITÉ COMBINÉE EN ACIER: ÉCLAIRAGE D'URGENCE ET LUMINAIRE DE SORTIE À PICTOGRAMME, DEL MARQUE: LUMACELL MODÈLE: SÉRIE LSC #LSC44W2LD7 STEEL COMBINATION UNIT: EMERGENCY LIGHTING AND PICTOGRAM OUTLET LUMINAIRE, LED MARK: LUMACELL MODEL: LSC SERIES # LSC44W2LD7 |
| | SECTIONNEUR 30 AMP-120/240V SAFETY SWITCH 30 AMP-120-240V |
| APPAREILS D'ÉCLAIRAGES : | |
| | APPLIQUE MURALE AU DEL : MARQUE: H.E. WILLIAMS INC. MODÈLE: #WPTZ-L38-750-DRV-120Volts-42 WATTS WALL MOUNTED LIGHTING FIXTURE : MARK: H.E. WILLIAMS INC. MODEL: #WPTZ-L38-750-DRV-120Volts-42 WATTS |
| | DEL, DIMENSIONS: 200x1320mm, MARQUE: PACO LIGHTING MODÈLE: #PUAC-A-48-LED-70-40-68 WATTS, LAMPE: LED 25.5W 22" 72 LED linear, module 4000K (700mA) |
| A | DEL: LUMENTON LIGHTING MODÈLE: #FL1210-N421R-E-120Volts-AB - 225 WATTS |

| DIVERS : | |
|---|---|
| | PANNEAU DE DISTRIBUTION ÉLECTRIQUE EXISTANT EXISTING DISTRIBUTION PANEL |
| $CO$ $NO_2$ | SYSTÈME DE DÉTECTION $CO/NO_2$ COMBINÉ AVEC RELAIS D'ALARME INDICATEURS ET STROBOSCOPE. CONTROL SYSTEM $CO/NO_2$ COMBINED WITH ALARM RELAY, INDICATOR AND STROBOSCOP. |
| CPE | RACCORDER OUVRE PORTE AVEC MOTEUR ¼ HP.-120 VOLTS, CONTROLE PHOTO, ELECTRIQUE STATION, CONTROLE PANNEAU DE CONTROLE, ETC. (FOURNIS PAR ENTREPRENEUR) CONNECT MOTORISED DOOR OPENER, WITH PHOTO ELECTRIC CONTROL, ???? STATION, CONTROL PANEL, ETC. (SUPPLY BY GENRAL CONTRACTOR) |
| ÉQUIPEMENTS VENTILATION (VOIR PLAN DE VENTILATION) : | |
| | ÉVACUATEUR MURAL, MARQUE: COOK SÉRIE: ACE-B 135 MODÈLE: #135C2B, 425 L/S (900 PCM) 0.062 Kpa (1/4" P.S.) - 1/6 H.P. - 120VOLTS AVEC VOLET MOTORISÉ ET GRILLE INTÉRIEURE WALL ??? FAN, MARK: COOK SÉRIE: ACE-B 135 MODEL: #135C2B, 425 L/S (900 PCM) 0.062 Kpa (1/4" P.S.) - 1/6 H.P. - 120VOLTS COMPLETE WITH MOTORIZED DAMPER AND INTERIOR GRILL |
| M | PERSIENNE EN ACIER PRÉPEINT AVEC VOLET MOTORISÉ - 120V - 600mm x 600mm EXTERIOR LOUVER 600mm x 600mm WITH MOTORIZED - 120V |

## PANNEAU DE DISTRIBUTION EXISTANT "C"/ EXISTING DISTRIBUTION PANEL

100 AMP. - 120/240V - 1 P. - 3 F.

| CHARGES LOAD HP | CHARGES LOAD WATTS | AUTRES/OTHERS | CHAUFFAGE/HEATING | MOTEURS/MOTORS | ÉCLAIRAGE/LIGHTING | PRISES/OUTLETS | DISJONCTEUR/BREAKER | CIRCUITS | ✓ | CIRCUITS | DISJONCTEUR/BREAKER | PRISES/OUTLETS | ÉCLAIRAGE/LIGHTING | MOTEURS/MOTORS | CHAUFFAGE/HEATING | AUTRES/OTHERS | CHARGES LOAD WATTS | CHARGES LOAD HP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | X | 30A | 1 | | 2 | | | | | | | | |
| CIRCUITS EXISTANT EXISTING CIRCUITS | | | | | | | | 3 | | 4 | | | | | | | | |
| | 100 | | | | X | | 15A | 5 | | 6 | | | | | | | | |
| DISJ. VERR.-ÉCLAIRAGE D'URGENCE LOCKED BREAKER EMERGENCY LIGHTING | | | | | | | | 7 | | 8 | | | | | | | | |
| ⅛ | 150 | | | X | | | 15A | | | | | | | | | | | |
| ÉVACUATEUR MURAL/ EXAUST FAN | | | | | | | | 9 | | 10 | | | | | | | | |
| | 1600 | | | | | X | 20A | | | | | | | | | | | |
| PRISE/ OUTLET | | | | | | | | 11 | | 12 | | | | | | | | |
| | 650 | | | | X | | 15A | | | | | | | | | | | |
| ÉCLAIRAGES/ LIGHTING | | | | | | | | 13 | | 14 | | | | | | | | |
| ÉCLAIRAGES EXTÉRIEURS EXTERIOR LIGHTING LAT/LONG. | 550 | | | | X | | 15A | | | | | | | | | | | |
| | | | | | | | | 15 | | 16 | | | | | | | | |
| PORTE DE GARAGE/ OVERHEAD DOOR | ¼ 300 | | | | | X | 15A | | | | | | | | | | | |
| | | | | | | | | 17 | | 18 | | | | | | | | |
| DISJ. VERR.-PANNEAU $CO/NO_2$ LOCKED BREAKER $CO/NO_2$ CONTROL PANEL | 600 | X | | | | | 15A | | | | | | | | | | | |
| | | | | | | | | 19 | | 20 | | | | | | | | |
| PRISES DE COURANT/ ELECTRICAL OUTLETS | 1000 | | | | | X | 15A | | | | | | | | | | | |
| | | | | | | | | 21 | | 22 | | | | | | | | |
| | | | | | | | | 23 | | 24 | | | | | | | | |

CIRCUITS EXISTANTS / EXISTING CIRCUITS

NOUVEAU CONDUIT EMT 1 ½" AVEC 24 #12-CU-RW90 / NEW CONDUIT EMT 1 ½" WITH 24 #12-CU-RW90

B.J.

VERS NOUVELLE BOÎTE DE JONCTION (VOIR PLAN D'AMÉNAGEMENT PROJETÉ)

TO NEW JUNCTION BOX (SEE PROJECT DEVELOPMENT PLAN)

NOTES IMPORTANTES :

*TOUTES LES COMPOSANTES SERONT FOURNIES ET INSTALLÉES PAR L'ENTREPRENEUR EN VENTILATION. TOUTE LA FILERIE (MIN 12 G-RW90-CONDUIT EMT) SERA LA RESPONSABILITÉ DE L'ENTREPRENEUR EN ÉLECTRICITÉ.

*LORS D'UNE DÉTECTION DE GAZ, L'ÉVACUATEUR DÉMARRERA AUTOMATIQUEMENT ET LA PRISE D'AIR FRAIS S'OUVRIRA AUTOMATIQUEMENT.

*L'ENTREPRENEUR DEVRA VISITÉ LE SITE ET INCLURE DANS SA SOUMISSION LE DÉMANTÈLEMENT DE TOUS LES ÉQUIPEMENTS ÉLECTRIQUES EXISTANTS AINSI QUE LA FILERIE.

*LES NOUVELLES ALIMENTATIONS ÉLECTRIQUES SERONT EN CONDUIT RIGIDE EMT EN SURFACE AVEC ACCOUPLEMENT À L'ÉPREUVE DE LA POUSSIÈRE.

*TOUTES LES SORTIES ÉLECTRIQUES SERONT INSTALLÉES DANS DES BOITES DE TYPE FS AVEC COUVERCLE EN ACIER INOXYDABLE.

IMPORTANT NOTES :

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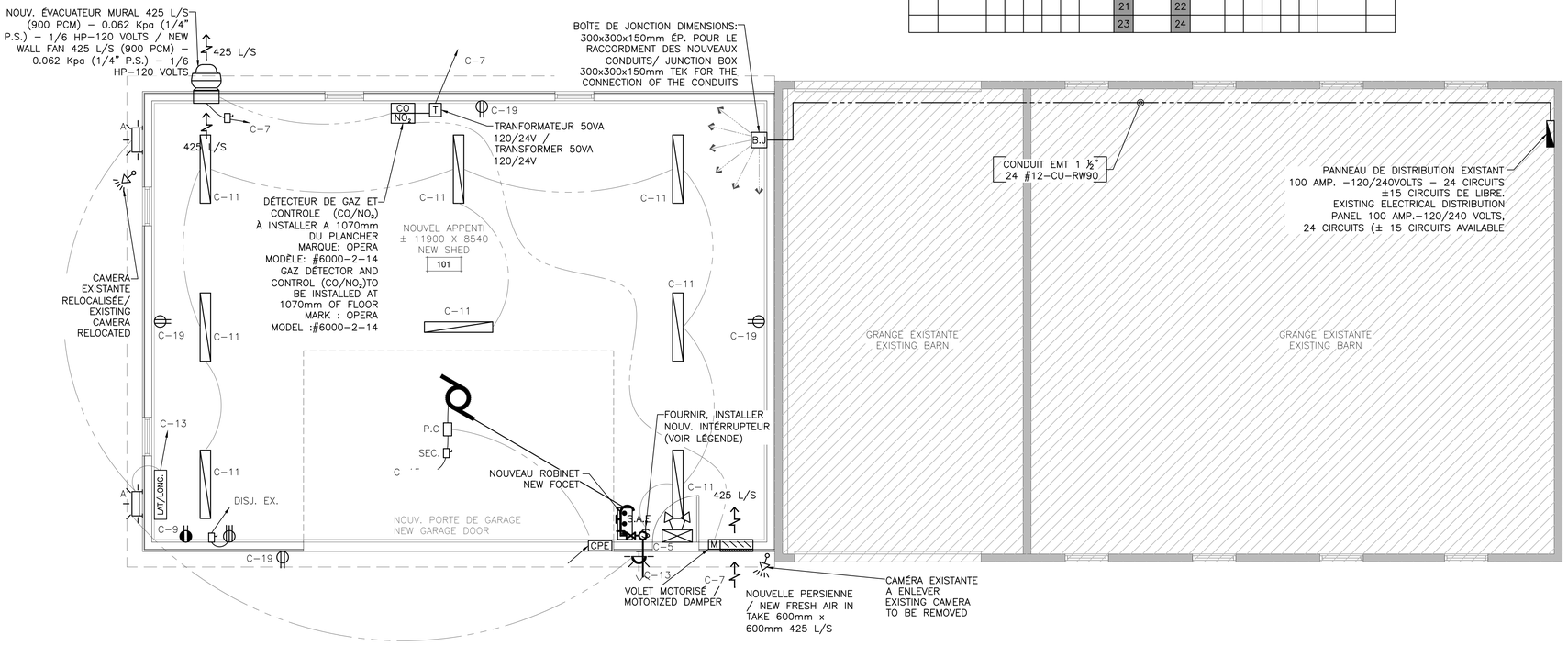
*ON GAZ DETECTION, THE ???? FAN WILL START AND THE FRESH AIR ??? WILL OPEN AUTOMATICALLY.

*EACH CONTRACTOR WILL VISIT THE SITE AND INCLUDE IN ITS SUBMISSION THE DISMANTLING COST OF OFF ELECTRICAL EQUIPMENT AND WIRING.

*ALL WIRING WILL BE DONE IN EMT RIGID CONDUIT WITH DUST PROOF COUPLINES.

*ALL ELECTRICAL OUTLETS WILL BE INSTALLED IN "FS" BOXES WITH A STAINLESS STEEL COVER.

CO/NO2




## PLAN D'AMÉNAGEMENT PROJETÉ DU REZ-DE-CHAUSSÉE / GROUND FLOOR PROJECTED PLANNING PLAN

ÉCHELLE / SCALE : 1 : 50

| | | | |
|---|---|---|---|
| 10-03-2017 | 02 | ÉMIS POUR SOUMISSION/ISSUE FOR QUOTATION | A.P. |
| 15-02-2017 | 01 | GÉNÉRALE / GENERAL | A.P. |
| DATE | NO | RÉVISION/REVISION | PAR/BY |

INGÉNIEUR - ENGINEER
ANDRE PILON
P. Eng.


**SERVICE DE CONSULTATION DE VALLEYFIELD INC.**

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338, RUE/STREET ST-RAPHAËL, VALLEYFIELD (QUÉBEC/QEBEC) J6T 3A6
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Courriel en Structure/Email for Structural : gp.scv@bellnet.ca
Courriel en Mécanique/Email for Mechanical : apilonjr.ing@cgocable.ca

ARCHITECTE/ARCHITECT

SAVARD ARCHITECTE.CA
731, BOUL. ST-JEAN-BAPTISTE, BUR. 203
MERCIER QC J6R 1G2

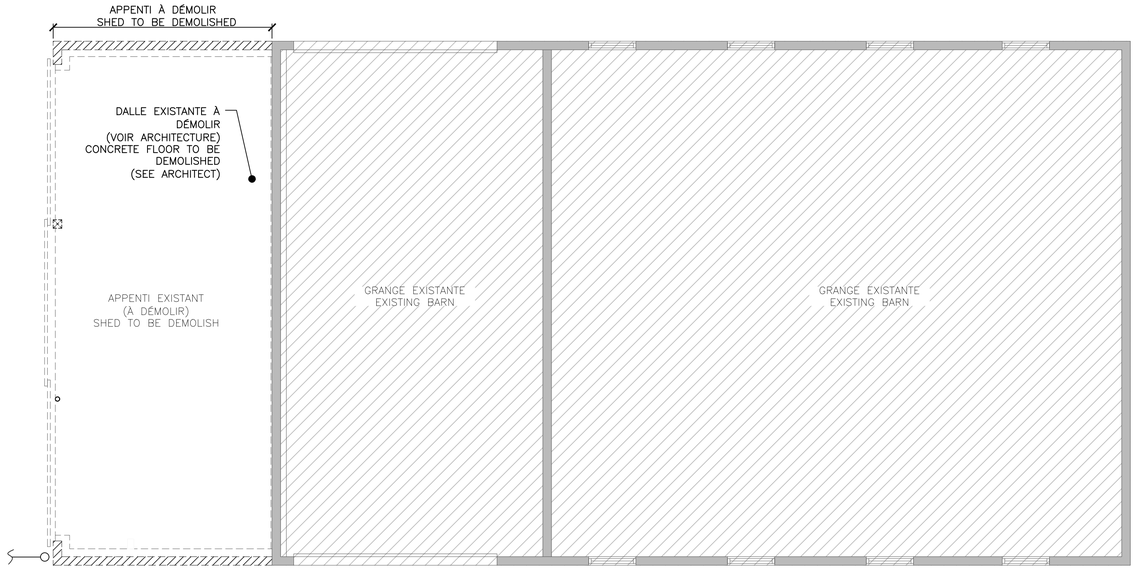

| | |
|---|---|
| # CLIENT : 2797 | # PROJET/PROJECT : 5425 |
| DESSINÉ/DRAWN : TROTTIER J. | VÉRIFIÉ PAR/VERIFIED BY : A. P. |
| ÉCHELLE/SCALE : TELLE QU'INDIQUÉE/AS SHOWN | DATE : 2016/12/01 |

PROJET/PROJECT
FERME EXPÉRIMENTALE/ EXPERIMENTAL FARM STE-CLOTILDE
1815 CH. DE LA RIVIÈRE, STE-CLOTILDE-DE-CHÂTEAUGUAY (QC) J0L 1W0

CLIENT.
SAVARD ARCHITECTE
731 BOUL. ST-JEAN-BAPTISTE, BUR 203, MERCIER, (QC) J6R 1G2

TITRE DU DESSIN/DRAWING TITLE
PLAN D'AMÉNAGEMENT PROJETÉ DU R.D.C /GROUND FLOOR PROJECTED PLANNING

ÉLECTRICITÉ/ELECTRICITY | 5425- E2/2




## PLAN DÉMOLITION DU REZ-DE-CHAUSSÉE / GROUND FLOOR DEMOLITION PLAN

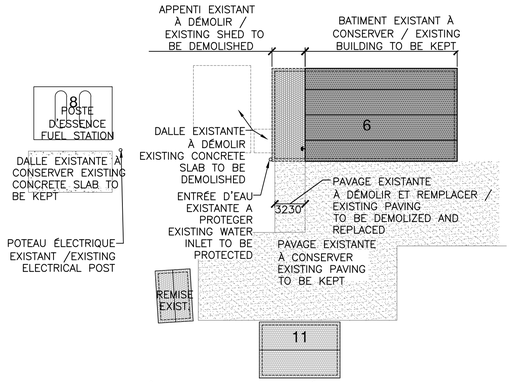
ÉCHELLE / SCALE: 1 : 50

| LÉGENDE | |
|---|---|
| SYMBOLES | DESCRIPTIONS |
| ÉQUIPEMENTS PLOMBERIE / PLUMBING EQUIPMENT : | |
| S.A.E. | ENTRÉE D'EAU EXISTANTE À RELOCALISER / EXISTING WATER INLOT TO BE RELOCATED |
| ÉQUIPEMENTS VENTILATION / VENTILATION EQUIPMENT : | |
| | ÉVACUATEUR MURAL, MARQUE: COOK SÉRIE: ACE-B 135 MODÈLE: #135C2B, 425 L/S (900 PCM) 0.062 Kpa (1/4'' P.S.) – 1/6 H.P. – 120VOLTS AVEC VOLET MOTORISÉ ET GRILLE INTÉRIEURE<br>WALL FAN, MARK: COOK SÉRIE: ACE-B 135 MODEL: #135C2B, 425 L/S (900 PCM) 0.062 Kpa (1/4'' P.S.) – 1/6 H.P. – 120VOLTS COMPLETE WITH MOTORIZED DAMPER AND INTERIOR GRILL |

| | |
|---|---|
| M | PERSIENNE EN ACIER PRÉPEINT AVEC VOLET MOTORISÉ – 120V – 600mm x 600mm<br>EXTERIOR LOUVER PREPAINT STEEL 600mm x 600mm WITH MOTORIZED DAMPER– 120V |

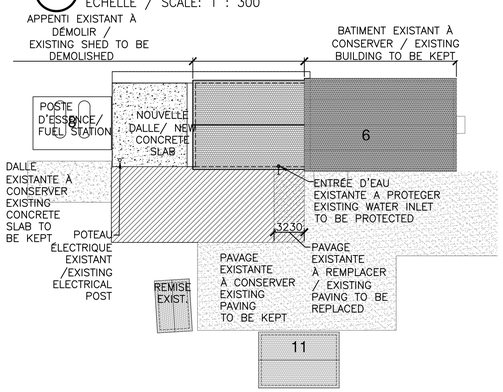
NOTE IMPORTANTE:
*L'ENTREPRENEUR DEVRA PRENDRE CONNAISSANCE DES PLANS D'ARCHITECTURE AINSI QUE DES AUTRES SPÉCIALITÉS ET INCLURE TOUS LES COÛTS DE RACCORDEMENTS DE TOUT LEURS ÉQUIPEMENTS.

IMPORTANT NOTE:
*THE CONTRACTOR SHALL TAKE KNOWLEDGE OF ARCHITECTURE PLANS AND OTHER SPECIALTIES AND INCLUDE ALL COST OF CONNECTIONS OF ANY EQUIPMENT.



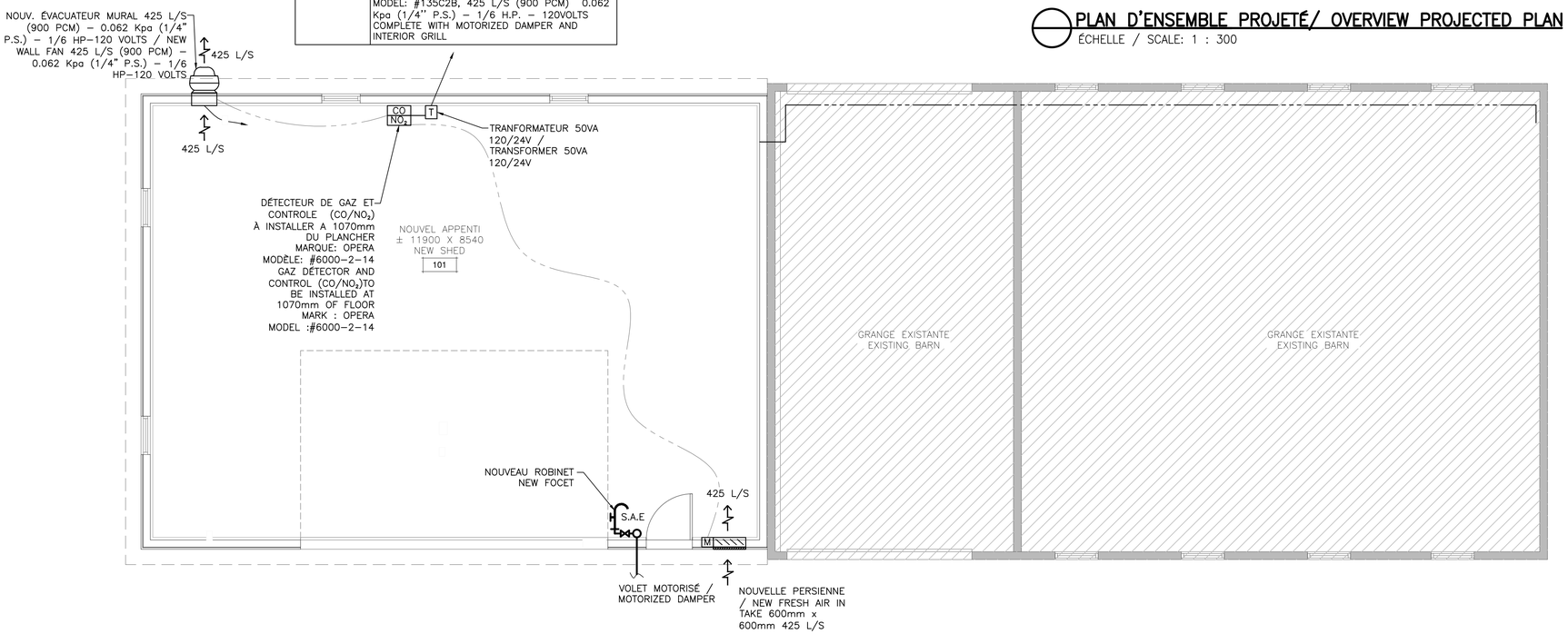

## PLAN D'ENSEMBLE DE DÉMOLITION
## OVERVIEW DEMOTION PLAN

ÉCHELLE / SCALE: 1 : 300



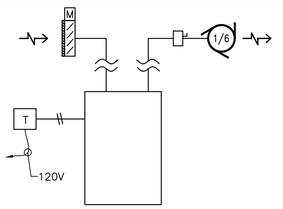

## PLAN D'ENSEMBLE PROJETÉ/ OVERVIEW PROJECTED PLAN

ÉCHELLE / SCALE: 1 : 300




## PLAN D'AMÉNAGEMENT PROJETÉ DU REZ-DE-CHAUSSÉE / GROUND FLOOR PROJECTED PLANNING PLAN

ÉCHELLE / SCALE: 1 : 50




NOTES IMPORTANTES :

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CO/NO2

INGÉNIEUR - ENGINEER
ANDRE PILON
2017-02-10

| DATE | NO | RÉVISION/REVISION | PAR/BY |
|---|---|---|---|
| 10–03–2017 | 02 | ÉMIS POUR SOUMISSION/ISSUE FOR QUOTATION | A.P. |
| 15–02–2017 | 01 | GÉNÉRALE / GENERAL | A.P. |


**SERVICE DE CONSULTATION DE VALLEYFIELD INC.**

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338, RUE/STREET ST–RAPHAËL, VALLEYFIELD (QUÉBEC/QEBEC) J6T 3A6
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Courriel en Structure/Email for Structural : gp.scv@bellnet.ca
Courriel en Mécanique/Email for Mechanical : apilonjr.ing@cgocable.ca

ARCHITECTE/ARCHITECT
SAVARD ARCHITECTE.CA
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MERCIER QC J6R 1G2

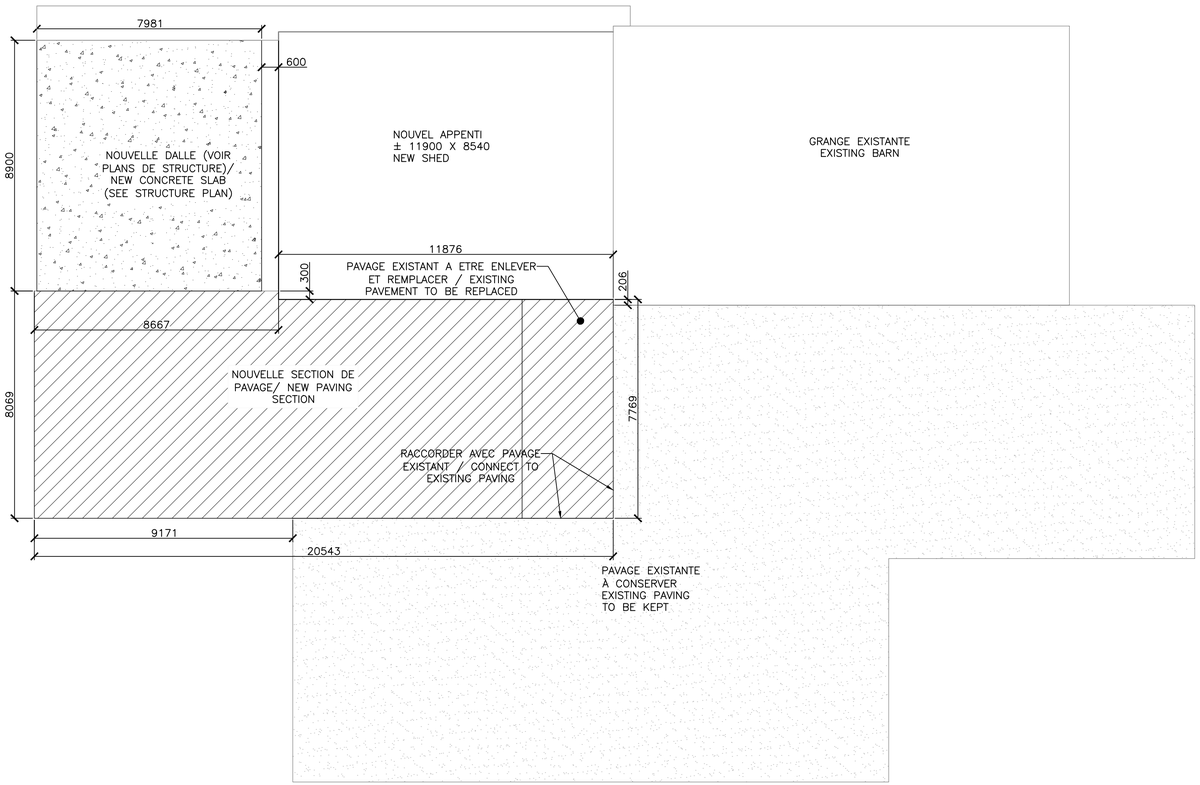

| | |
|---|---|
| # CLIENT : 2797 | # PROJET/PROJECT : 5425 |
| DESSINÉ/DRAWN : TROTTIER J. | VÉRIFIÉ PAR/VERIFIED BY : A. P. |
| ÉCHELLE/SCALE : TELLE QU'INDIQUÉE/AS SHOWN | DATE : 2016/12/01 |

PROJET/PROJECT
FERME EXPÉRIMENTALE/
EXPERIMENTAL FARM
STE–CLOTILDE
1815 CH. DE LA RIVIÈRE,
STE–CLOTILDE–DE–CHÂTEAUGUAY (QC) J0L 1W0

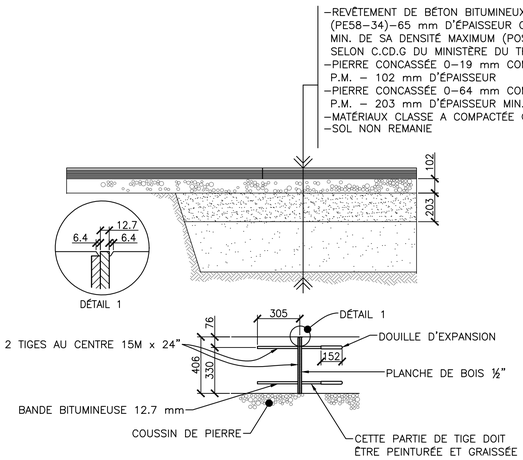
CLIENT.
SAVARD ARCHITECTE
731 BOUL. ST–JEAN–BAPTISTE, BUR 203,
MERCIER, (QC) J6R 1G2

TITRE DU DESSIN/DRAWING TITLE
PLAN OF DEVELOPMENT PROJECT OF THE GROUND FLOOR PROJECT OVERVIEW, DIAGRAM, GENERAL NOTES & LEGEND

MÉCANIQUE/MECHANICAL | 5425– M1/1




## PLAN DE PAVAGE / PAVING PLAN
ÉCHELLE / SCALE: 1 : 50




JOINT D'EXPANSION
POUR BORDURE DE BÉTON

NOTES GÉNÉRALES:

TOUS LES DIMENSIONS DEVRONT ÊTRE VÉRIFIÉES SUR PLACE PAR L'ENTREPRENEUR.

## DÉTAIL DE PAVAGE / PAVING DETAIL
ÉCHELLE / SCALE: 1 : 200

INGÉNIEUR - ENGINEER
ANDRE PILON
2017-10

| DATE | NO | RÉVISION/REVISION | PAR/BY |
|---|---|---|---|
| 10–03–2017 | 02 | ÉMIS POUR SOUMISSION/ISSUE FOR QUOTATION | A.P. |
| 15–02–2017 | 01 | GÉNÉRALE / GENERAL | A.P. |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Courriel en Structure/Email for Structural : gp.scv@bellnet.ca
Courriel en Mécanique/Email for Mechanical : apilonjr.ing@cgocable.ca

ARCHITECTE/ARCHITECT
SAVARD ARCHITECTE.CA
731, BOUL. ST-JEAN-BAPTISTE, BUR. 203
MERCIER QC J6R 1G2


| | |
|---|---|
| # CLIENT : 2797 | # PROJET/PROJECT : 5425 |
| DESSINÉ/DRAWN : TROTTIER J. | VÉRIFIÉ PAR/VERIFIED BY : A. P. |
| ÉCHELLE/SCALE : TELLE QU'INDIQUÉE/AS SHOWN | DATE : 2016/12/01 |

PROJET/ PROJECT
FERME EXPÉRIMENTALE/ EXPERIMENTAL FARM STE–CLOTILDE
1815 CH. DE LA RIVIÈRE, STE–CLOTILDE–DE–CHÂTEAUGUAY (QC) J0L 1W0

CLIENT.
SAVARD ARCHITECTE
731 BOUL. ST–JEAN–BAPTISTE, BUR 203, MERCIER, (QC) J6R 1G2

TITRE DU DESSIN/DRAWING TITLE
PLAN DE PAVAGE / PAVING PLAN

| | |
|---|---|
| PAVAGE / PAVING | 5425– P1/1 |

## NOTES GÉNÉRALES

The Contractor shall maintain, at all times during the project, the stability and structural integrity of the new building and existing adjacent buildings. It shall supply and install all temporary supports (shoring, bracing, etc.) necessary to complete the work in order to maintain stability and structural integrity.

### Dimensions :

It is the responsibility of the contractor to verify all dimensions (and elevations) and to check their conformity with the other sectors of activity as well as with the existing installations. He must inform the engineer of any anomaly (error or omission) before any work or ordering materials.

The Contractor will be responsible for ensuring that future foundations are supported on undisturbed soil with a minimum net bearing capacity of 100 KPa. Otherwise, he must notify the Engineer as well as the author of the soil study to find a solution.

### CONCRETE AND FOUNDATION WORK

For footings, foundation walls:
- Minimum compression resistance at 28 days: 30 Mpa.
- Aggregate: 20 mm (3/4 in.).
- Slump: 80 mm ± 20mm (3–1 / 2 "± 1").
- Air content: 5 to 7% (outside).

For indoor slab–on–grade:
- Minimum compression resistance at 28 days: 30 Mpa.
- Aggregate: 20 mm (3/4 in.).
- Slump: 80 mm ± 20mm (3–1 / 2 "± 3/4").
- Without air content.

For outdoor slabs:
- Minimum compression resistance at 28 days: 32 MPa.
- Aggregate: 20 mm (3/4 in.).
- Slump: 80 mm ± 20mm (3–1 / 2 "± 3/4").
- Air content: 5 to 7% (outside).

### Delivery of concrete and pooring conditions

The reinforcing steel must be securely fastened together at every 300mm c/c (12 inches) in each direction with tie wire. Bar overlaps must be consistent with the plan and staggered from row to row.

The concrete covering of the reinforcement steel shall comply with CSA Standard A23.1–14 without being less than the dimensions specified in the following drawings and specifications: 75mm (3 in.) for ground contact items, 50mm (2 in.) for foundation walls and columns and 38mm (1½ in.) for beams and structural slabs unless noted otherwise.

Welded wire mesh:
At installation, welded wire mesh must be attached every 300mm (12") with a 300mm (12") sheet overlap in each direction.

### Concrete finish :

The positioning and method of execution of the control joint in the slab are shown on the drawings. Saw cuts must be made between 6 hours and 24 hours after pouring. They must not be spaced more than 4.5m (15 feet) apart and a panel slab must not have a surface area greater than 20m² (225 square feet).

## GENERAL NOTES

L'entrepreneur devra maintenir, en tout temps durant le projet, la stabilité et l'intégrité structurale du nouveau bâtiment ainsi que des bâtiments adjacents existants. Il devra fournir et installer tous les supports temporaires (étaiements, contreventement, etc.) nécessaires à la réalisation complète des travaux afin de maintenir la stabilité et l'intégrité structurale.

### Dimensions :

L'entrepreneur a la responsabilité de vérifier toutes les dimensions (et élévations) et de vérifier leurs concordances avec les autres secteurs d'activités ainsi qu'avec les installations existantes. Il doit informer l'Ingénieur de toute anomalie (erreur ou omission) avant tous travaux ou commande de matériaux.

L'entrepreneur devra s'assurer que les futures fondations seront appuyées sur un sol non remanié avec une capacité portante nette admissible minimum de 100 KPa. Dans le cas contraire, il devra aviser l'Ingénieur ainsi que l'auteur de l'étude de sol pour trouver une solution.

### TRAVAUX DE STRUCTURE DE BÉTON ET DE FONDATION :

Pour les empattements, les murs de fondations:
- Résistance en compression minimale à 28 jours : 30 Mpa.
- Agrégat : 20 mm (3/4 po.).
- Affaissement : 80 mm ± 20mm (3–1/2" ± 1").
- Air entraîné : 5 à 7% (extérieur).

Pour les dalles sur sol intérieures :
- Résistance en compression minimale à 28 jours : 30 Mpa.
- Agrégat : 20 mm (3/4 po.).
- Affaissement : 80 mm ± 20mm (3–1/2" ± 3/4").
- Sans ajout air entraîné.

Pour les dalles extérieures :
- Résistance en compression minimale à 28 jours : 32 Mpa.
- Agrégat : 20 mm (3/4 po.).
- Affaissement : 80 mm ± 20mm (3–1/2" ± 3/4").
- Air entraîné : 5 à 7% (extérieur).

### Livraison du béton et conditions de coulée :

Les armatures devront être attachées solidement ensemble à tous les 300mm c/c (12 po.) dans chaque direction avec du fil métallique (broche). Les chevauchements de barre devront être conformes au plan et décalés d'un rang à l'autre.

L'enrobage (recouvrement) de l'armature avec le béton devra respecter la norme CSA A23.1–14 sans être inférieure aux dimensions indiquées aux plans et aux spécifications suivantes : 75mm (3 po.) pour les éléments en contact avec le sol, 50 mm (2 po.) pour les murs de fondation et les colonnes et 38 mm (1½ po.) pour les poutres et les dalles structurales sauf indications contraire.

Treillis métallique :
Lors de son installation, il devra être attaché à tous les 300mm (12 po.) avec un chevauchement de feuille de 300mm (12 po.) dans chaque direction.

### Finition du béton :

La position ainsi que la méthode d'exécution des joints de contrôle sont indiquées aux plans. Les traits de scies devront être réalisés entre 6 heures et 24 heures après la coulée. Ils ne doivent pas être espacés de plus de 4.5m (15 pieds) et un panneau de dalle ne doit pas avoir une surface supérieure à 20 m² (225 pieds carrés).

List of mandatory inspections during construction:

Excavation:
- –Approval of excavation grounds by the soil–testing laboratory

Foundation:
- –Inspection of the reinforcement of the footings by the structural Engineer
- –Inspection of the reinforcement of the foundation walls by the structural Engineer
- –Approval of controlled landfills by the soil–testing laboratory
- –Inspection of the slab reinforcing steel by the structural Engineer

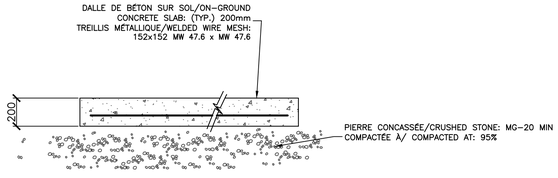
Wood structure:
- –Inspection of the wood structure by the Structural Engineer
- –Inspection of the wood structure anchors by the Structural Engineer
- –Inspection of bracing systems by structural engineer

Liste des visites d'inspections obligatoires durant les travaux:

Excavation:
- –Approbation des fonds d'excavation par le laboratoire de sol

Fondation:
- –Inspection de l'armature des semelles par l'Ingénieur en structure
- –Inspection de l'armature des murs de fondation par l'Ingénieur en structure
- –Approbation des remblais contrôlés par le laboratoire de sol
- –Inspection de l'armature de la dalle par l'Ingénieur en structure

Structure de bois:
- –Inspection de la structure de bois par l'Ingénieur en structure
- –Inspection des ancrages de la structure de bois par l'Ingénieur en structure
- –Inspection des systèmes de contreventement par l'Ingénieur en structure




**DALLE SUR SOL EXTÉRIEURE/OUTDOOR CONCRETE ONGROUND SLAB**
ÉCHELLE/SCALE: 1:20

INGÉNIEUR - ENGINEER
Bérard Yvon
123185
QUÉBEC

| | | | |
|---|---|---|---|
| 10–03–2017 | 04 | ÉMIS POUR SOUMISSION/ISSUE FOR QUOTATION | G.P. |
| 15–02–2017 | 03 | PLAN PRÉLIMINAIRE 99%/PRELIMINARY DRAWING 99% | G.P. |
| 02–12–2016 | 02 | PLAN PRÉLIMINAIRE/PRELIMINARY DRAWING | G.P. |
| 30–11–2016 | 01 | PLAN PRÉLIMINAIRE/PRELIMINARY DRAWING | G.P. |
| DATE | NO | RÉVISION/REVISION | PAR/BY |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ARCHITECTE/ARCHITECT
SAVARD ARCHITECTE.CA
731, BOUL. ST-JEAN-BAPTISTE, BUR. 203
MERCIER QC J6R 1G2


| | |
|---|---|
| # CLIENT : 2797 | # PROJET/PROJECT : 5425 |
| DESSINÉ/DRAWN : ARSENAULT C. | VÉRIFIÉ PAR/VERIFIED BY : G. P. |
| ÉCHELLE/SCALE : TELLE QU'INDIQUÉE/AS SHOWN | DATE : 2016/11/09 |

PROJET/PROJECT
FERME EXPÉRIMENTALE/
EXPERIMENTAL FARM
STE–CLOTILDE
1815 CH. DE LA RIVIÈRE,
STE–CLOTILDE–DE–CHÂTEAUGUAY (QC) J0L 1W0

CLIENT.
SAVARD ARCHITECTE
731 BOUL. ST–JEAN–BAPTISTE, BUR 203,
MERCIER, (QC) J6R 1G2

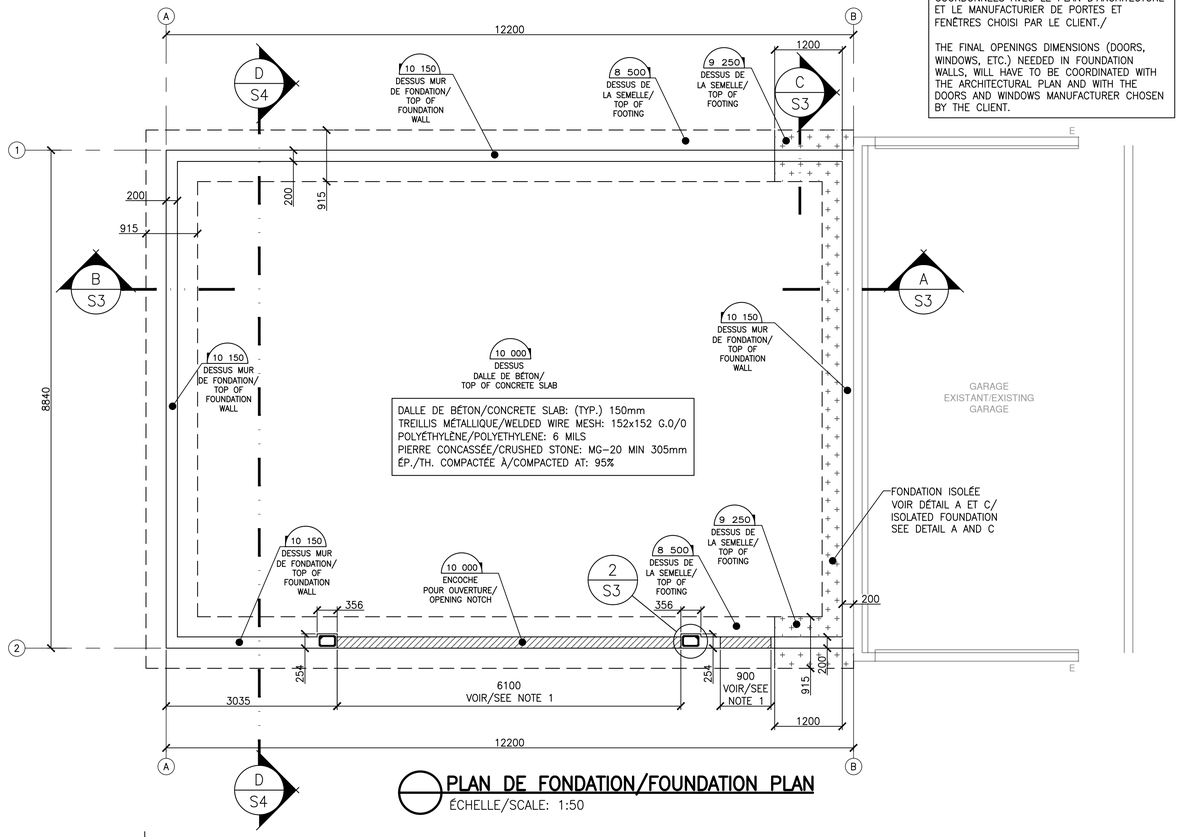
TITRE DU DESSIN/DRAWING TITLE
NOTES ET DÉTAILS/
NOTES AND DETAILS

| | |
|---|---|
| STRUCTURE | 5425– S1/4 |

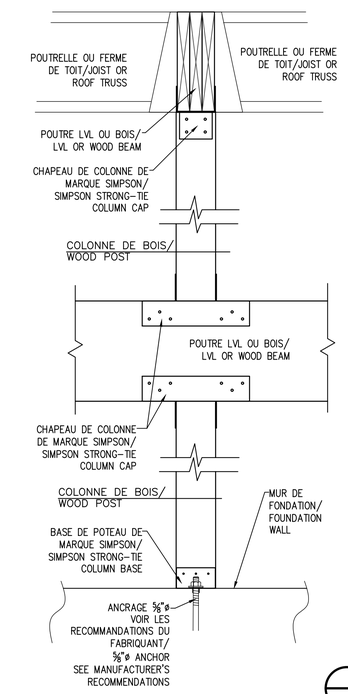
NOTE 1:

LES DIMENSIONS FINALES DES OUVERTURES (PORTES, FENÊTRES, ETC.) NÉCESSAIRES DANS LES MURS DE FONDATION DEVRONT ÊTRE COORDONNÉES AVEC LE PLAN D'ARCHITECTURE ET LE MANUFACTURIER DE PORTES ET FENÊTRES CHOISI PAR LE CLIENT./

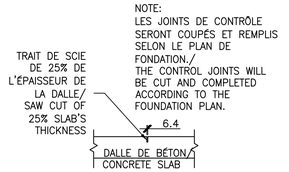
THE FINAL OPENINGS DIMENSIONS (DOORS, WINDOWS, ETC.) NEEDED IN FOUNDATION WALLS, WILL HAVE TO BE COORDINATED WITH THE ARCHITECTURAL PLAN AND WITH THE DOORS AND WINDOWS MANUFACTURER CHOSEN BY THE CLIENT.



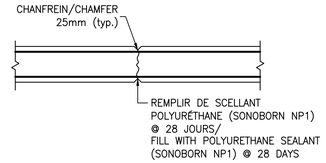

## PLAN DE FONDATION/FOUNDATION PLAN
ÉCHELLE/SCALE: 1:50



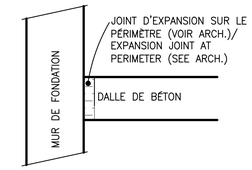

## DÉTAIL TYP./TYPICAL DETAIL CHAPEAU DE COLONNE/COLUMN CAP
ÉCHELLE: AUCUNE/SCALE: NONE



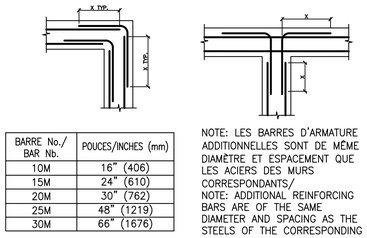

## JOINT DE CONTRÔLE – DALLE/ CONTROL JOINT – SLAB
ÉCHELLE: AUCUNE/SCALE: NONE




## JOINT DE CONTRÔLE – MUR/ CONTROL JOINT – WALL
ÉCHELLE: AUCUNE/SCALE: NONE




## JOINT D'EXPANSION AU PÉRIMÈTRE DALLE/ EXPANSION JOINT AT SLAB PERIMETER
ÉCHELLE: AUCUNE/SCALE: NONE




| BARRE No./ BAR Nb. | POUCES/INCHES (mm) |
|---|---|
| 10M | 16" (406) |
| 15M | 24" (610) |
| 20M | 30" (762) |
| 25M | 48" (1219) |
| 30M | 66" (1676) |

NOTE: LES BARRES D'ARMATURE ADDITIONNELLES SONT DE MÊME DIAMÈTRE ET ESPACEMENT QUE LES ACIERS DES MURS CORRESPONDANTS/ NOTE: ADDITIONAL REINFORCING BARS ARE OF THE SAME DIAMETER AND SPACING AS THE STEELS OF THE CORRESPONDING WALLS.

## CORNER REBAR/ ARMATURE DE COIN
ÉCHELLE: AUCUNE/SCALE: NONE


| | | | |
|---|---|---|---|
| 10-03-2017 | 04 | ÉMIS POUR SOUMISSION/ISSUE FOR QUOTATION | G.P. |
| 15-02-2017 | 03 | PLAN PRÉLIMINAIRE 99%/PRELIMINARY DRAWING 99% | G.P. |
| 02-12-2016 | 02 | PLAN PRÉLIMINAIRE/PRELIMINARY DRAWING | G.P. |
| 30-11-2016 | 01 | PLAN PRÉLIMINAIRE/PRELIMINARY DRAWING | G.P. |
| DATE | NO | RÉVISION/REVISION | PAR/BY |


**SERVICE DE CONSULTATION DE VALLEYFIELD INC.**

TÉL./TEL: (450) 373-9999 FAX: (450) 373-9991
338, RUE/STREET ST-RAPHAËL, VALLEYFIELD (QUÉBEC/QEBEC) J6T 3A6
Courriel en Électricité/Email for Electrical : ap.scv@bellnet.ca
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Courriel en Mécanique/Email for Mechanical : apilonjr.ing@cgocable.ca

ARCHITECTE/ARCHITECT
SAVARD ARCHITECTE.CA
731, BOUL. ST-JEAN-BAPTISTE, BUR. 203
MERCIER QC J6R 1G2


| | |
|---|---|
| # CLIENT : 2797 | # PROJET/PROJECT : 5425 |
| DESSINÉ/DRAWN : ARSENAULT C. | VÉRIFIÉ PAR/VERIFIED BY : G. P. |
| ÉCHELLE/SCALE : TELLE QU'INDIQUÉE/AS SHOWN | DATE : 2016/11/09 |

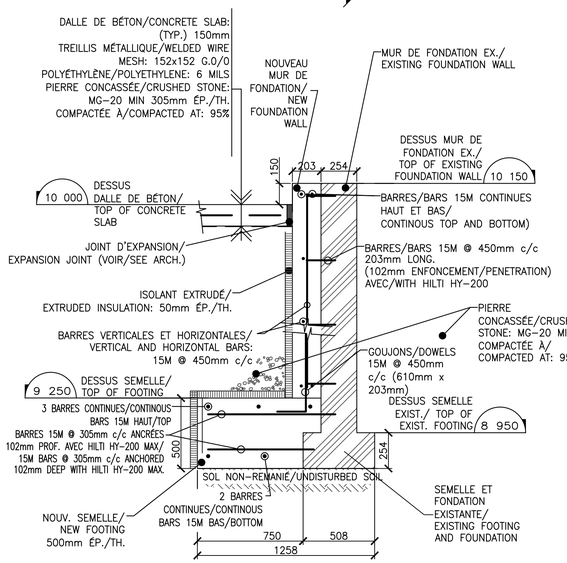
PROJET/ PROJECT: FERME EXPÉRIMENTALE/ EXPERIMENTAL FARM STE-CLOTILDE

1815 CH. DE LA RIVIÈRE, STE-CLOTILDE-DE-CHÂTEAUGUAY (QC) J0L 1W0

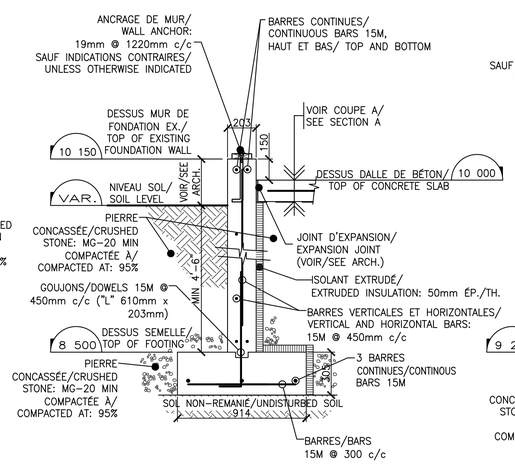
CLIENT.
SAVARD ARCHITECTE
731 BOUL. ST-JEAN-BAPTISTE, BUR 203, MERCIER, (QC) J6R 1G2

TITRE DU DESSIN/DRAWING TITLE
PLAN DE FONDATION & DÉTAILS/ FOUNDATION PLAN & DETAILS

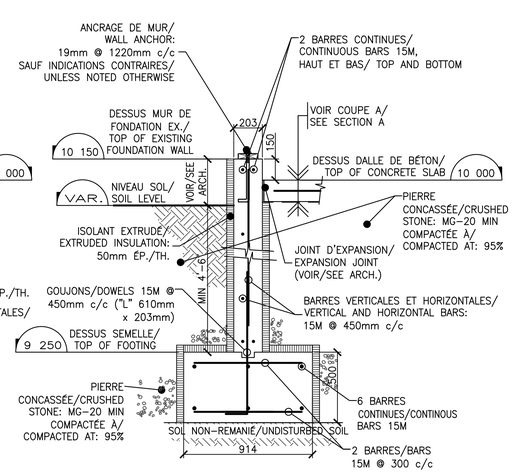
STRUCTURE | 5425- S2/4



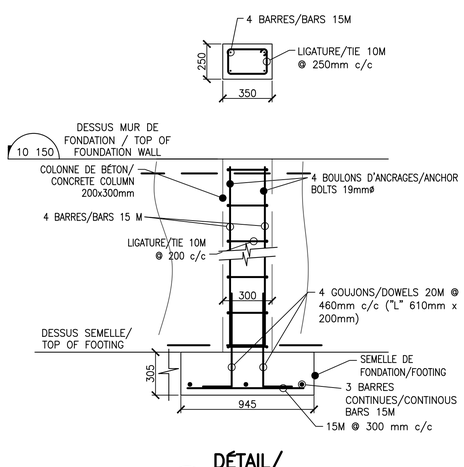

## COUPE/ SECTION A
A S3
ÉCHELLE/SCALE: 1 : 20



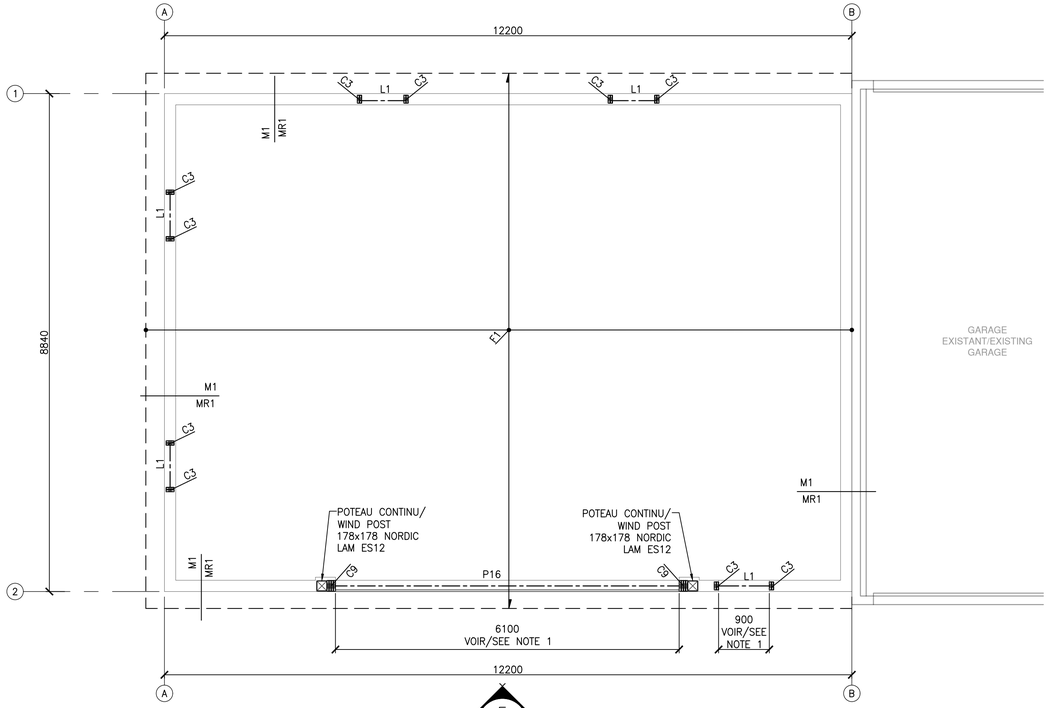

## COUPE/ SECTION B
B S3
ÉCHELLE/SCALE: 1 : 20




## COUPE/ SECTION C
C S3
ÉCHELLE/SCALE: 1 : 20




## DÉTAIL/ DETAIL 2
2 S3
ÉCHELLE/SCALE: 1 : 20




E
S5

## PLAN DE STRUCTURE/ STRUCTURAL PLAN

ÉCHELLE/SCALE : 1 : 50

| TABLEAU DES FERMES DE TOIT/ ROOF TRUSSES TABLE | |
|---|---|
| F1 | FERMES DE TOIT PRÉFABRIQUÉ EN BOIS. ESPACEMENT 600 mm c/c MAX OU MOINS SI NÉCESSAIRE. (VOIR ARCHITECTURE POUR GÉOMÉTRIE) / PREFABRICATED WOODEN ROOF TRUSSES SPACED AT 600 mm c/c MAX OR LESS IF NECESSARY. (SEE ARCHITECTURAL FOR GEOMETRY) |

| TABLEAU DE CALCUL DES CHARGES DE FERMES DE TOIT / ROOF TRUSSES LOADS CALCULATION TABLE |
|---|
| CHARGE PERMANENTE/DEAD LOAD..... : 0.72 KPa |
| SURCHARGE D'UTILISATION ENTRETOIT/ATTIC LIVE LOAD... : 1 KPa |
| SURCHARGE DE NEIGE/SNOW LOAD..... : 2,4 KPa |
| DÉFLECTION MAXIMUM DES FERMES DE TOIT/MAXIMUM ROOF TRUSSES DEFLECTION: |
| SOUS LA CHARGE DE NEIGE/SNOW LOAD..... : L/360 |
| SOUS LA CHARGE TOTALE/TOTAL LOAD..... : L/240 |

NOTE :

LES DIMENSIONS FINALES DES OUVERTURES (PORTES, FENÊTRES, ETC.) NÉCESSAIRES DANS LES MURS DEVRONT ÊTRE COORDONNÉES AVEC LE PLAN D'ARCHITECTURE ET LE MANUFACTURIER DE PORTES ET FENÊTRES CHOISI PAR LE CLIENT./
THE FINAL OPENINGS DIMENSIONS (DOORS, WINDOWS, ETC.) NEEDED IN THE WALLS WILL NEED TO BE COORDINATED WITH THE ARCHITECTURAL PLAN AND WITH THE DOORS AND WINDOWS MANUFACTURER CHOSEN BY THE CLIENT.

LE FABRICANT DES FERMES DE TOIT DEVRA PRÉVOIR UNE FERME AU–DESSUS DE CHAQUE MUR DE REFEND./
THE ROOF TRUSSES MANUFACTURER WILL HAVE TO PROVIDE A TRUSS ABOVE EVERY SHEAR WALL.

LES FERMES DE TOIT AU–DESSUS DES MURS DE REFEND DEVRONT ÊTRE RECOUVERT DE REVÊTEMENT (OSB) DU MÊME TYPE (MR) QUE LE MUR EN DESSOUS./
ROOF TRUSSES ABOVE SHEAR WALLS MUST BE BUILT WITH (OSB) PANELS OF THE SAME TYPE (MR) AS THE WALL BELOW.

LE FABRICANT DE FERME DE TOIT DEVRA PRÉVOIR UNE OUVERTURE DANS LA FERME DE TOIT POUR PERMETTRE L'INSTALLATION D'UNE TRAPPE D'ACCÈS À L'ENTRETOIT (VOIR ARCHITECTE POUR DIMENSIONS/
THE ROOF TRUSSES MANUFACTURER WILL HAVE TO PROVIDE AN OPENING IN THE ROOF TRUSS TO ALLOW THE INSTALLATION OF AN ACCESS HATCH FOR THE ATTIC (SEE ARCHITECTAL FOR DIMENSIONS)

| POTEAU CONTINU/WIND POST | LARGEUR DE L'OUVERTURE/ OPENING WIDTH |
|---|---|
| 1x 38 x 140 SPF No/Nb 2 OU MEILLEUR/OR BETTER. | 1m ET MOINS/OR LESS |
| 2x 38 x 140 SPF No/Nb 2 OU MEILLEUR/OR BETTER. | 1m @ 4m |
| 1X 178 X 178 NORDIC LAM ES12 | 4M @ 6.1m |

| TABLEAU DES POUTRES/BEAM TABLE | |
|---|---|
| P1 | 2 x 38 x 184 – SPF No./Nb. 2 ou MEILLEUR/or BETTER |
| P2 | 3 x 38 x 184 – SPF No./Nb. 2 ou MEILLEUR/or BETTER |
| P3 | 2 x 38 x 235 – SPF No./Nb. 2 ou MEILLEUR/or BETTER |
| P4 | 3 x 38 x 235 – SPF No./Nb. 2 ou MEILLEUR/or BETTER |
| P5 | 2 x 44 x 235 – LVL 2.0E 2850 fb |
| P6 | 3 x 44 x 235 – LVL 2.0E 2850 fb |
| P7 | 2 x 44 x 302 – LVL 2.0E 2850 fb |
| P8 | 3 x 44 x 302 – LVL 2.0E 2850 fb |
| P9 | 2 x 44 x 355 – LVL 2.0E 2850 fb |
| P10 | 3 x 44 x 355 – LVL 2.0E 2850 fb |
| P11 | 4 x 44 x 235 – LVL 2.0E 2850 fb |
| P12 | 3 x 44 x 406 – LVL 2.0E 2850 fb |
| P13 | 2 x 44 x 457 – LVL 2.0E 2850 fb |
| P14 | 3 x 44 x 457 – LVL 2.0E 2850 fb |
| P15 | 5 x 44 x 457 – LVL 2.0E 2850 fb |
| P16 | 4 x 44 x 610 – LVL 2.0E 2850 fb |
| P.R. | POUTRELLE RENFORCÉE/REINFORCED JOIST |

| TABLEAU DES REVÊTEMENTS DE PANNEAU DES MURS DE REFEND/ SHEAR WALLS SHEATHING PANELS TABLE | |
|---|---|
| MR1 | PANNEAU OSB 12 mm ÉP. – FIXÉ PAR DES CLOUS COMMUNS DE 76 mm de long.(3.25mmø) @150mm c/c SUR LES BORDS DU PANNEAU/ 12 mm TH. OSB PANEL – FIXED WITH 76 mm long (3.25 mmø) COMMON NAILS @ 150mm c/c ON THE EDGE OF THE PANEL |

| TABLEAU DES MURS/WALLS TABLE | |
|---|---|
| M1 | 38 x 140 @ 300 mm c/c – SPF No./Nb. 2 ou MEILLEUR/or BETTER |
| NOTE: TOUS LES MURS DEVRONT ÊTRE COMPOSÉS D'UNE SABLIÈRE DOUBLE ET D'UNE LISSE SIMPLE COMPOSÉE DE BOIS SEC (K–DRY)./ NOTE: ALL WALLS MUST BE BUILT WITH A DRY WOOD (K–DRY) SINGLE BOTTOM PLATE AND DOUBLE TOP PLATE. | |

| REVÊTEMENT DE CONTREPLAQUÉ/PLYWOOD SHEATHING |
|---|
| PLANCHER ÉPAISSEUR MIN./ FLOOR MINIMUM THICKNESS: 15.5 mm |
| TOIT ÉPAISSEUR MIN./ ROOF MINIMUM THICKNESS: 15.5 mm |

| TABLEAU DES COLONNES/POSTS TABLE | |
|---|---|
| C1 | 3 x 38 x 89 – SPF No. 2 ou MEILLEUR/or BETTER |
| C2 | 4 x 38 x 89 – SPF No. 2 ou MEILLEUR/or BETTER |
| C3 | 2 x 38 x 140 – SPF No. 2 ou MEILLEUR/or BETTER |
| C4 | 3 x 38 x 140 – SPF No. 2 ou MEILLEUR/or BETTER |
| C5 | 4 x 38 x 140 – SPF No. 2 ou MEILLEUR/or BETTER |
| C6 | 178 x 178 NORDIC LAM ES12 |
| C7 | 140 x 175 NORDIC LAM ES12 |
| C8 | 140 x 140 SPF No. 2 ou MEILLEUR/or BETTER |
| C9 | 4 x 38 x 184 – SPF No. 2 OU MEILLEUR/or BETTER |

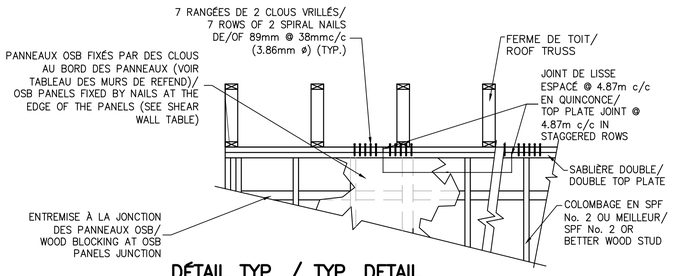
| TABLEAU DES LINTEAUX/LINTELS TABLE | |
|---|---|
| L1 | 2 x 38 x 235 – SPF No. 2 ou MEILLEUR/or BETTER |
| L2 | 3 x 38 x 235 – SPF No. 2 ou MEILLEUR/or BETTER |
| L3 | 3 x 38 x 286 – SPF No. 2 ou MEILLEUR/or BETTER |
| L4 | 2 x 44 x 235 – LVL 2.0E 2850 fb |
| L5 | 3 x 44 x 235 – LVL 2.0E 2850 fb |
| L6 | 2 x 44 x 302 – LVL 2.0E 2850 fb |
| L7 | 3 x 44 x 302 – LVL 2.0E 2850 fb |

L'ENTREPRENEUR DEVRA EFFECTUER LA COORDINATION ENTRE LES PLANS D'ARCHITECTURE ET D'INGÉNIERIE AVANT LES TRAVAUX POUR PRÉVENIR DES PROBLÈMES ÉVENTUELS./
THE CONTRACTOR MUST DO THE COORDINATION BETWEEN THE ARCHITECTURAL AND ENGINEERING PLANS BEFORE THE BEGINNING OF THE WORK TO PREVENT POSSIBLE PROBLEMS.

| | |
|---|---|
| PAF | PORTE À FAUX/ CANTILEVER |
| PD | POUTRELLE DOUBLE/ DOUBLED JOIST |
| F.M. | FERME MAITRESSE/ MAIN GIRDER |
| J.C. | JOINT DE CONTRÔLE/ CONTROL JOINT |

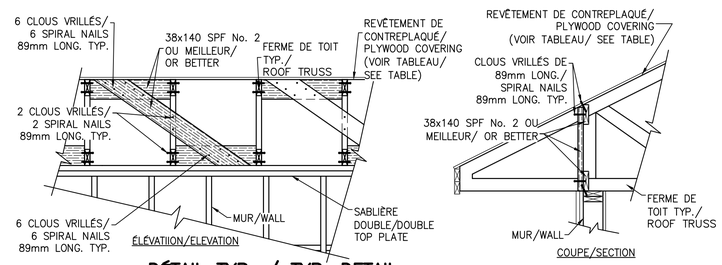
INGÉNIEUR - ENGINEER
Gérard Lafond
123185
QUÉBEC

| | | | |
|---|---|---|---|
| 10–03–2017 | 04 | ÉMIS POUR SOUMISSION/ISSUE FOR QUOTATION | G.P. |
| 15–02–2017 | 03 | PLAN PRÉLIMINAIRE 99%/PRELIMINARY DRAWING 99% | G.P. |
| 02–12–2016 | 02 | PLAN PRÉLIMINAIRE/PRELIMINARY DRAWING | G.P. |
| 30–11–2016 | 01 | PLAN PRÉLIMINAIRE/PRELIMINARY DRAWING | G.P. |
| DATE | NO | RÉVISION/REVISION | PAR/BY |



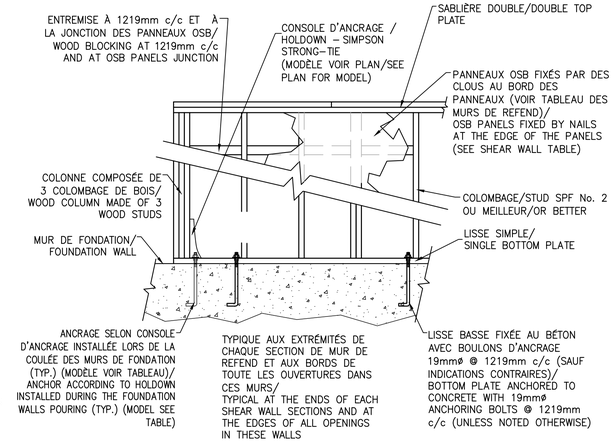

## DÉTAIL TYP. / TYP. DETAIL JOINT DES SABLIÈRES / TOP PLATE JUNCTION

ÉCHELLE / SCALE: AUCUNE



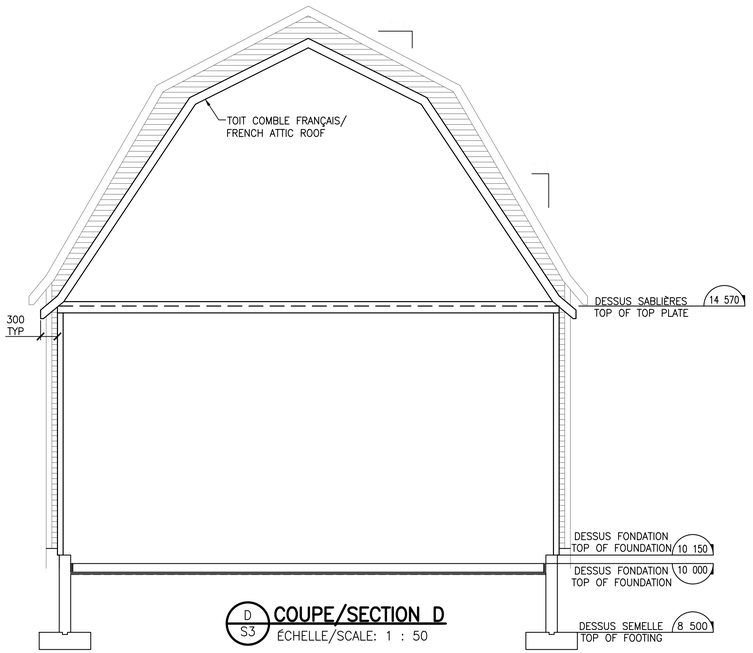

## DÉTAIL TYP. / TYP. DETAIL – CONTREVENTEMENT DES FERMES DE TOIT À L'APPUI/ ROOF TRUSSES BRACING AT SUPPORT

ÉCHELLE: AUCUNE / SCALE: NONE




## DÉTAIL/DETAIL TYP. – MUR DE REFEND/SHEAR WALL

ÉCHELLE: AUCUNE




D
S3

## COUPE/SECTION D

ÉCHELLE/SCALE: 1 : 50

## SERVICE DE CONSULTATION DE VALLEYFIELD INC.


TÉL./TEL: (450) 373–9999 FAX: (450) 373–9991
338, RUE/STREET ST–RAPHAËL, VALLEYFIELD (QUÉBEC/QEBEC) J6T 3A6
Courriel en Électricité/Email for Electrical : ap.scv@bellnet.ca
Courriel en Structure/Email for Structural : gp.scv@bellnet.ca
Courriel en Mécanique/Email for Mechanical : apilonjr.inq@cgocable.ca


ARCHITECTE/ARCHITECT

SAVARD ARCHITECTE.CA
731, BOUL. ST-JEAN-BAPTISTE, BUR. 203
MERCIER QC J6R 1G2

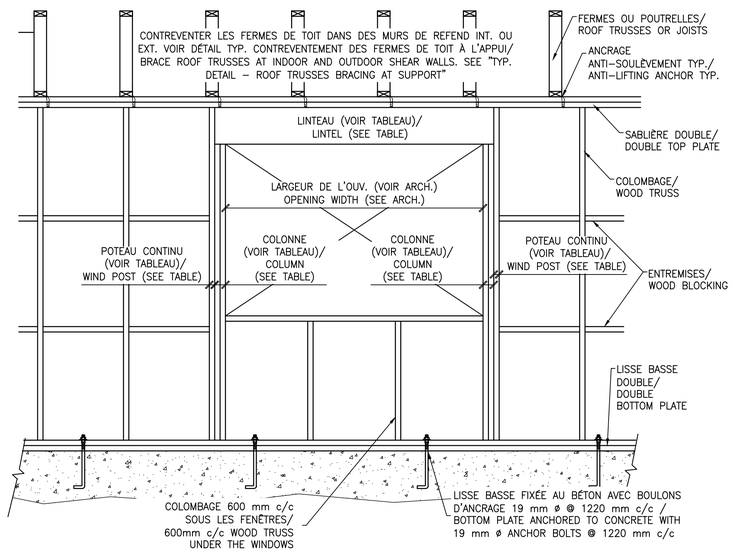
| | |
|---|---|
| # CLIENT : 2797 | # PROJET/PROJECT : 5425 |
| DESSINÉ/DRAWN : ARSENAULT C. | VÉRIFIÉ PAR/VERIFIED BY : G. P. |
| ÉCHELLE/SCALE :TELLE QU'INDIQUÉE/AS SHOWN | DATE : 2016/11/09 |

PROJET/ PROJECT
FERME EXPÉRIMENTALE/
EXPERIMENTAL FARM
STE–CLOTILDE
1815 CH. DE LA RIVIÈRE,
STE–CLOTILDE–DE–CHÂTEAUGUAY (QC) J0L 1W0

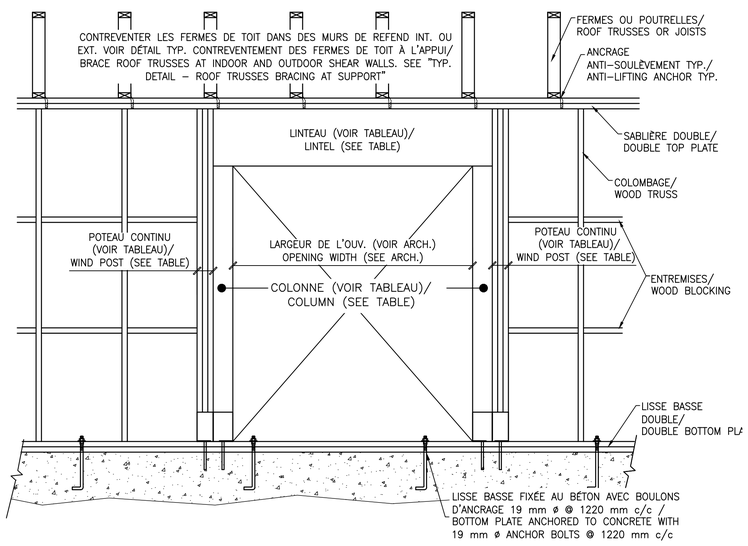
CLIENT.
SAVARD ARCHITECTE
731 BOUL. ST–JEAN–BAPTISTE, BUR 203,
MERCIER, (QC) J6R 1G2

TITRE DU DESSIN/DRAWING TITLE
PLAN DU REZ–DE–CHAUSSÉE ET DÉTAILS DE STRUCTURE/
GROUND FLOOR PLAN AND STRUCTURAL DETAILS

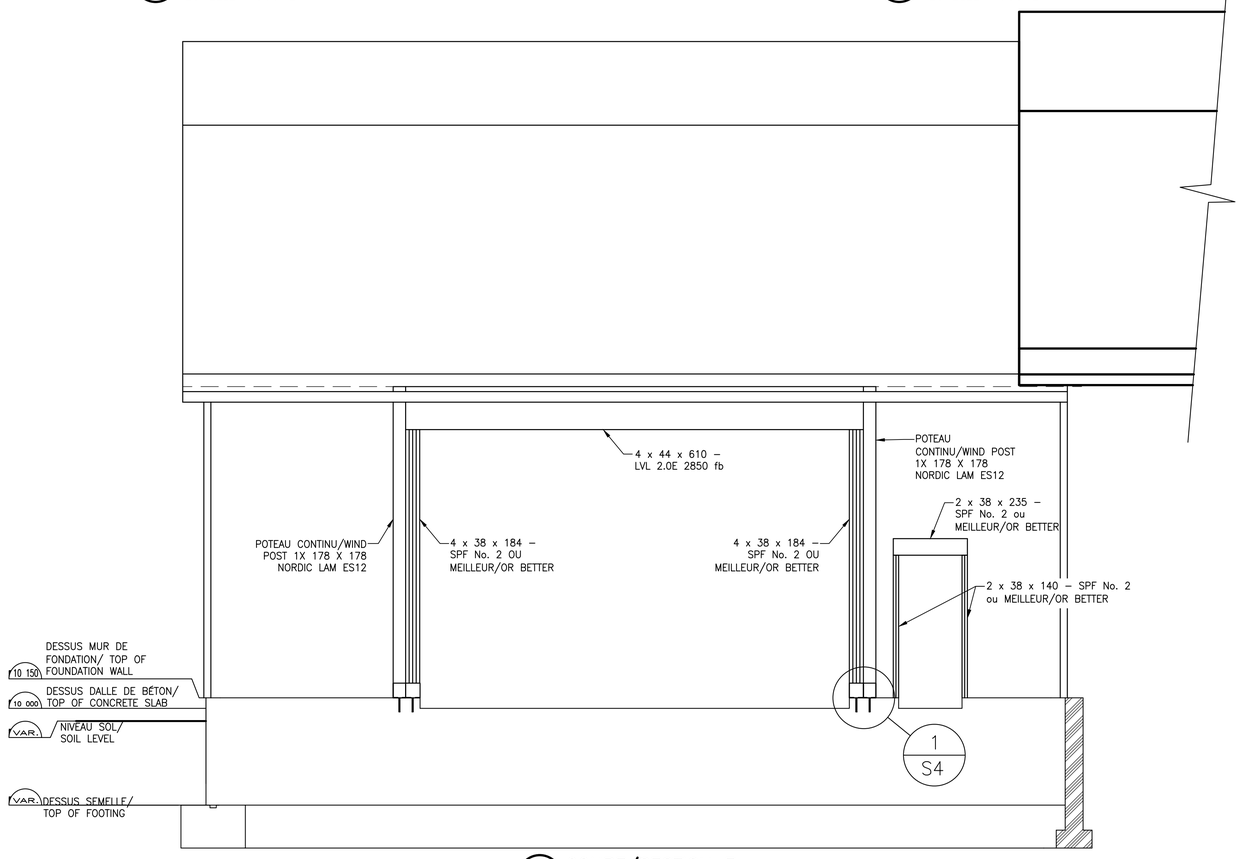
| | |
|---|---|
| STRUCTURE | 5425– S3/4 |




## LOAD–BEARING WALL WITH WINDOW
## DÉTAIL MUR PORTEUR AVEC FENÊTRE
ÉCHELLE: AUCUNE



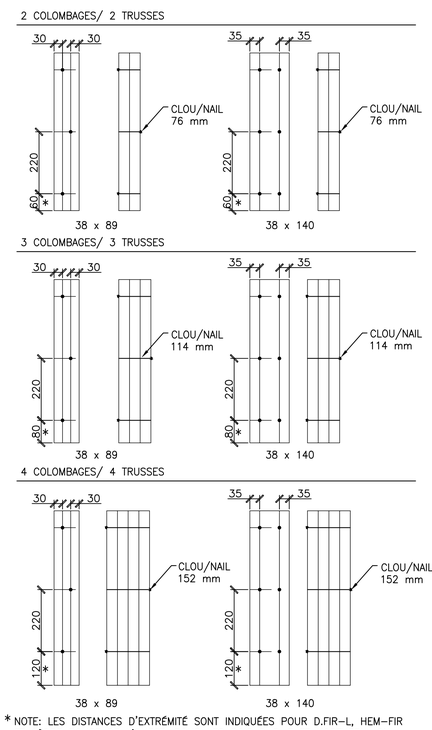

## LOAD–BEARING WALL WITH DOOR
## DÉTAIL MUR PORTEUR AVEC PORTE
ÉCHELLE: AUCUNE




## E/S4 COUPE/SECTION E
ÉCHELLE/SCALE: 1 : 40

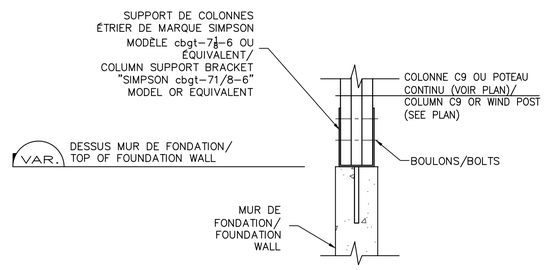
| REVÊTEMENT/SHEATHING | | | |
|---|---|---|---|
| TABLEAU DE SÉLECTION DES DIAPHRAGMES/ DIAPHRAGM SELECTION TABLE | | TABLES DE SÉLECTION DES MURS DE REFEND/ SHEAR WALLS SELECTION TABLE | |
| ÉPAISSEUR NOMINALE MINIMALE (EN MM)/ MINIMUM NOMINAL THICKNESS (MM) | MARQUAGE DE PANNEAU MINIMAL POUR OSB DE LA CSA O325/ CSA OSB MINIMUM PANEL MARKING O325 | ÉPAISSEUR NOMINALE MINIMALE (EN MM)/ MINIMUM NOMINAL THICKNESS (MM) | MARQUAGE DE PANNEAU MINIMAL POUR OSB DE LA CSA O325/ CSA OSB MINIMUM PANEL MARKING O325 |
| 7.5 | 2R20 | 7.5 | 2R20 |
| 9.5 | 2R24 | 9.5 | 2R24 |
| 11.0 | 1R24/2F16 | 11.0 | 1R24/2F16 |
| 12.5 | 2R32/2F16 | 12.5 | 2R32/2F16 OU 1F16 |
| 15.5 | 2R40/2F20 OU/OR 1F20 | 15.5 | 2R40/2F20 |
| 18.5 | 2R48/2F24 OU/OR 1F24 | 18.5 | |

## CLOUAGE DE COLONNES COMPOSÉES
## ASSEMBLED COLUMNS NAILING




* NOTE: LES DISTANCES D'EXTRÉMITÉ SONT INDIQUÉES POUR D.FIR–L, HEM–FIR ET CÈDRE ROUGE DE L'OUEST. POUR LES BOIS S–P–F ET NORTHERN, ON PEUT RÉDUIRE CES DISTANCES À 80% DES VALEURS DONNÉES./

* NOTE: THE EDGE DISTANCES ARE INDICATED FOR D.FIR–L, HEM–FIR AND WEST RED CEDAR. FOR S–P–F AND NORTHERN WOODS, DISTANCES CAN BE REDUCED BY 80% FROM THE DATA VALUES.




VUE EN ÉLÉVATION/ELEVATION VIEW

## 1/S3 DÉTAIL/DETAIL 1
ÉCHELLE/SCALE: 1 : 10

| | | | |
|---|---|---|---|
| 10–03–2017 | 04 | ÉMIS POUR SOUMISSION/ISSUE FOR QUOTATION | G.P. |
| 15–02–2017 | 03 | PLAN PRÉLIMINAIRE 99%/PRELIMINARY DRAWING 99% | G.P. |
| 02–12–2016 | 02 | PLAN PRÉLIMINAIRE/PRELIMINARY DRAWING | G.P. |
| 30–11–2016 | 01 | PLAN PRÉLIMINAIRE/PRELIMINARY DRAWING | G.P. |
| DATE | NO | RÉVISION/REVISION | PAR/BY |

INGÉNIEUR · ENGINEER Gérard Pion 123185 QUÉBEC


**SERVICE DE CONSULTATION DE VALLEYFIELD INC.**

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| | |
|---|---|
| # CLIENT : 2797 | # PROJET/PROJECT : 5425 |
| DESSINÉ/DRAWN : ARSENAULT C. | VÉRIFIÉ PAR/VERIFIED BY : G. P. |
| ÉCHELLE/SCALE : TELLE QU'INDIQUÉE/AS SHOWN | DATE : 2016/11/09 |

PROJET/ PROJECT: FERME EXPÉRIMENTALE/ EXPERIMENTAL FARM
STE–CLOTILDE
1815 CH. DE LA RIVIÈRE,
STE–CLOTILDE–DE–CHÂTEAUGUAY (QC) J0L 1W0

CLIENT.
SAVARD ARCHITECTE
731 BOUL. ST–JEAN–BAPTISTE, BUR 203,
MERCIER, (QC) J6R 1G2

TITRE DU DESSIN/DRAWING TITLE
DÉTAILS DE STRUCTURE/ STRUCTURAL DETAILS

STRUCTURE | 5425– S4/4

# AGRICULTURE & AGRI-FOOD CANADA

1815, ch. de la Rivière
Ste-Clotilde (Québec)

**ARCHITECTURAL SPECIFICATIONS**

**Project :**

## Expansion of building : Scientific preparation and storage capacity


SAVARD ARCHITECTE.CA

**Architectural Specifications**
**Issued : Tender**
Project No. : SA-16131
2017-03-10

# TOME 1 - GENERAL REQUIREMENTS AND ARCHITECTURE

**List of consultants:**

Project's name and address :
**Expansion of the building: Scientific preparation and storage capacity**
1815, ch. de la Rivière
Ste-Clotilde (QC)
J0L 1W0

Owner :
**Agriculture et agroalimentation Canada**
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**Agriculture et agroalimentation Canada**
1815, ch. de la Rivière
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michel.fortin@agr.gr.ca

Architect :
**Savard Architecte**
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Engineer :
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Representative : Mr. André Pilon, engineer
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## GENERAL

### 1.1 WORK COVERED BY CONTRACT DOCUMENTS

The work under this contract includes the expansion of the Scientific Preparation and Storage Capacity building (Building #6). The scope of the work includes, but is not limited to, the demolition of the existing shed, expansion of the building to serve as a garage for farm machinery, and landscaping works.

The Bidders are responsible for having in their possession the full set of documents in order to fully understand the scope of the work.

The requirements of the client shall prevail, if there is a contradiction with the present document of the architect.

### 1.2 WORK BY THE OTHERS

Co-operate with other Contractors in carrying out their respective works and carry out instructions from Consultant.

Co-ordinate work with that of other Contractors. If any part of work under this Contract depends for its proper execution or result upon work of another Contractor, report promptly to Consultant, in writing, any defects which may interfere with proper execution of Work.

### 1.3 WORK SEQUENCE

Construct Work in stages to accommodate Owner's intermittent continued use of premises during construction.

Co-ordinate Progress Schedule and co-ordinate with Owner Occupancy during construction.

Construct work in stages to provide for continuous public usage. Do not close off public usage of facilities until use of one stage of Work will provide alternate usage.

### 1.4 CONTRACTOR USE OF PREMISES

Co-ordinate use of premises under direction of Consultant.

Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

Remove or alter existing work to prevent injury or damage to portions of existing work which remain.

Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by Consultant.

At completion of operations condition of existing work: equal to or better than that which existed before new work started

### 1.5 OWNER OCCUPANCY

Owner will occupy premises during entire construction period for execution of normal operations.

Co-operate with Owner in scheduling operations to minimize conflict and to facilitate Owner usage.

### 1.6 EXISTING SERVICES

Notify, Consultant and utility companies of intended interruption of services and obtain required permission.

Where Work involves breaking into or connecting to existing services, give 48 Consultant hours notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry out work at times as directed by governing authorities with minimum disturbance to pedestrian vehicular traffic tenant operations.

Provide alternative routes for personnel pedestrian and vehicular traffic.

Establish location and extent of service lines in area of work before starting Work. Notify Consultant of findings.

Submit schedule to and obtain approval from Consultant for any shut-down or closure of active service or facility including power and communications services. Adhere to approved schedule and provide notice to affected parties.

Provide temporary services when directed by Consultant to maintain critical building and tenant systems.

Provide adequate bridging over trenches which cross sidewalks or roads to permit normal traffic.
Where unknown services are encountered, immediately advise Consultant and confirm findings in writing.

Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.

Record locations of maintained, re-routed and abandoned service lines.

## 1.7 SCHEDULE OF ACHIEVEMENT

Refer to tender document of the Owner.

## 1.8 DOCUMENTS REQUIRED

Maintain at job site, one copy each document as follows:

Contract Drawings.
Specifications.
Addenda.
Reviewed Shop Drawings.
List of Outstanding Shop Drawings.
Change Orders.
Other Modifications to Contract.
Field Test Reports.
Copy of Approved Work Schedule.
Health and Safety Plan and Other Safety Related Documents.
Other documents as specified.

## 1.9 CONSTRUCTION PERMIT

The costs and obtaining of the building permit from the municipality will be the responsibility of the general contractor.

**END OF SECTION**

## GENERAL

### 1.1 ADMINISTRATIVE

Schedule and administer project meetings throughout the progress of the work at the call of Consultant.

Prepare agenda for meetings.

Distribute written notice of each meeting four days in advance of meeting date to Consultant.

Provide physical space and make arrangements for meetings.

Preside at meetings.

Record the meeting minutes. Include significant proceedings and decisions. Identify actions by parties.

Reproduce and distribute copies of minutes within (3) days after meetings and transmit to meeting participants and, Consultant affected parties not in attendance.

Representative of Contractor, Subcontractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

### 1.2 PRECONSTRUCTION MEETING

Within 15 days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.

Consultant, Senior representatives of, Contractor, major Subcontractors, field inspectors and supervisors will be in attendance.

Establish time and location of meeting and notify parties concerned minimum 5 days before meeting.

Incorporate mutually agreed variations to Contract Documents into Agreement, prior to signing.

Agenda to include
.1 Appointment of official representative of participants in the Work.
.2 Schedule of Work.
.3 Schedule of submission of shop drawings, samples, colour chips. Submit submittals in accordance with Section 01 33 00- Submittal Procedures.
.4 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with Section 01 52 00- Construction Facilities.
.5 Delivery schedule of specified equipment in accordance with Section 01 78 00
.6 Site security in accordance with Section [01 56 00- Temporary Barriers and Enclosures].
.7 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.
.8 Owner provided products.
.9 Record drawings in accordance with Section 01 33 00- Submittal Procedures.
.10 Maintenance manuals in accordance with Section 01 78 00- Closeout Submittals.
.11 Take-over procedures, acceptance, warranties in accordance with Section 01 78 00- Closeout Submittals.
.12 Monthly progress claims, administrative procedures, photographs, hold backs.
.13 Appointment of inspection and testing agencies or firms.
.14 Insurances, transcript of policies.

**END OF SECTION**

## GENERAL

### 1.1 ADMINISTRATIVE

Submit to Consultant submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.

Do not proceed with Work affected by submittal until review is complete.

Present shop drawings, product data, samples and mock-ups in SI Metric units.

Where items or information is not produced in SI Metric units converted values are acceptable.

Review submittals prior to submission to Consultant. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.

Notify Consultant, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.

Verify field measurements and affected adjacent Work are co-ordinated.

Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's review of submittals.

Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant.

Keep one reviewed copy of each submission on site.

### 1.2 SHOP DRAWINGS AND PRODUCT DATA

The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.

Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.

Allow 5 days review of each submission. Consultant's

Adjustments made on shop drawings by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.

Make changes in shop drawings as Consultant may require, consistent with Contract Documents. When resubmitting, notify Consultant in writing of revisions other than those requested.

Accompany submissions with transmittal letter, in (2) duplicate, containing:

.1 Date.
.2 Project title and number.
.3 Contractor's name and address.
.4 Identification and quantity of each shop drawing, product data and sample.

.5 Other pertinent data.

Submissions include:

.1 Date and revision dates.
.2 Project title and number.
.3 Name and address of:
.1 Subcontractor.
.2 Supplier.
.3 Manufacturer.

.4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
.1 Details of appropriate portions of Work as applicable:
.1 Layout, showing dimensions, including identified field dimensions, and clearances.
.2 Setting or erection details.
.3 Standards.

Submit (1) electronic copy of shop drawings for each requirement requested in specification Sections and as Consultant may reasonably request.

.1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements.

.2 Certificates must be dated after award of project contract complete with project name.

Submit (1) electronic copies of manufacturers instructions for requirements requested in specification Sections and as requested by Consultant.

.1 Pre-printed material describing installation of product, system or material, including special notices and Material Safety Data Sheets concerning impedances, hazards and safety precautions.

The review of shop drawings by Public Works and Government Services Canada (PSPC) is for sole purpose of ascertaining conformance with general concept.

This review shall not mean that PSPC approves detail design inherent in shop drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or omissions in shop drawings or of responsibility for meeting requirements of construction and Contract Documents.

Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of sub-trades.

## 1.3 SAMPLES

Submit for review samples as requested in respective specification Sections. Label samples with origin and intended use.

Deliver samples prepaid to business address Consultant's in writing, at time of submission of deviations in samples from requirements of Contract Documents.

Where colour, pattern or texture is criterion, submit full range of samples.

Adjustments made on samples by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.

Make changes in samples which Consultant may require, consistent with Contract Documents.

Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

### 1.4 CERTIFICATES AND TRANSCRIPTS

Immediately after award of Contract, submit Workers' Compensation Board status.

Submit transcription of insurance immediately after award of Contract.

**END OF SECTION**

## GENERAL

### 1.1 REFERENCE STANDARDS

Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations

Province of Quebec

.1 An Act Respecting Occupational Health and Safety, R.S.Q. 1997

.2 An Act respecting industrial accidents and occupational diseases, R.S.Q. 1997

### 1.2 ACTION AND INFORMATIONAL SUBMITTALS

Submit in accordance with Section 01 33 00- Submittal Procedures.

Submit site-specific Health and Safety Plan: Within 7 days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:

.1 Results of site specific safety hazard assessment.
.2 Results of safety and health risk or hazard analysis for site tasks and operation found in work plan.

Submit weekly authority having jurisdiction, contractor, consultant and departmental representative.

Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.

Submit copies of incident and accident reports.

Submit WHMIS MSDS - Material Safety Data Sheets required.

The Consultant will review the Contractor's health and safety plan for the site and provide his / her observations within 7 days of receipt of the plan. If necessary, the Contractor shall revise his health and safety plan and submit it to the Consultant no later than seven days after the reception of the Consultant's comments.

Consultant's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety..

Medical Surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to consultant.

On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.

### 1.3 FILING OF NOTICE

File Notice of Project with Provincial authorities prior to beginning of Work. (CSST)

### 1.4 SAFETY ASSESSMENT

Conduct an assessment of the risks specific to the work site posed by the execution of the work.

## 1.5 MEETINGS

Schedule and administer Health and Safety meeting with consultant, prior to commencement of Work.

## 1.6 GENERAL REQUIREMENTS

Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.

Consultant may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

## 1.7 RESPONSIBILITY

Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.

Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

## 1.8 UNFORSEEN HAZARDS

When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of province having jurisdiction and advise consultant verbally and in writing.

## 1.9 POSTING OF DOCUMENTS

Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of province having jurisdiction, and in consultation with consultant.

## 1.10 CORRECTION OF NON-COMPLIANCE

Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by departmental Representative or consultant.

Provide Consultant with written report of action taken to correct non-compliance of health and safety issues identified.

Consultant may stop Work if non-compliance of health and safety regulations is not corrected.

## 1.11 WORK STOPPAGE

Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

**END OF SECTION**

## GENERAL

### 1.1 REFERENCE STANDARDS

Definitions

.1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humans; or degrade environment aesthetically, culturally and/or historically.

.2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Prevention of pollution and environmental damage covers protection of soils, water, air and biological and cultural resources. prevention include also visual esthetics, noise, solid, liquid, chemical and gaseous waste, the radiant energy, the radioactive materials and the other pollutants.

References

.1 Canada Green Building Council (CaGBC)
- .1 LEED Canada-NC, version 1.0-[2004], LEED (Leadership in Energy and Environmental Design) : Green Building Rating System Reference Package For New Construction and Major Renovations.
- .2 Rating system addenda for new construction and major renovations LEED Canada-NC Version 1.0 [Addendum 2007].
- .3 LEED Canada-CI Version 1.0 [2007], LEED (Leadership un Energy and Environmental Design): Green building rating system reference guide for commercial interiors.

.2 Canadian Construction Documents commitee (CCDC)
- .1 CCDC 2-2008 Stipulated Price Contract

.3 U.S. Environmental Protection Agency (EPA)/Office of Water
- .1 EPA 832/R-92-005-[92], Storm Water Management for Construction Activities, Chapter 3.

### 1.2 FIRES

Fires and burning of rubbish on site is not permitted.

### 1.3 WASTE DISPOSAL

It is forbidden to bury waste and waste materials on the site.

It is prohibited to dispose of waste materials or volatile materials such as mineral spirits, oils or paint thinners by pouring them into a watercourse, storm sewer or sanitary sewer.

### 1.4 DRAINAGE

Develop and submit erosion and Sediment Control Plan (ESC) identifying type and location of erosion and sediment controls provided. Plan to include monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations.

Storm Water Pollution Prevention Plan (SWPPP) to be substituted for erosion and sediment control plan.

Provide temporary drainage and pumping required to keep excavations and site free from water.

Ensure pumped water into waterways, sewer or drainage systems is free of suspended materials.

Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

## 1.5 POLLUTION CONTROL

Maintain temporary erosion and pollution control features installed under this Contract.

Control emissions from equipment and plant in accordance with local authorities' emission requirements.

Provide temporary enclosures and prevent sandblasting and other extraneous materials from contaminating air and waterways beyond application area.

Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

**END OF SECTION**

## GENERAL

### 1.1 REFERENCE STANDARDS

Canadian Construction Documents Committee (CCDC)
CCDC 2-[94], Stipulated Price Contract.

### 1.2 INSPECTION

Allow Consultant access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.

Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Consultant instructions, or law of Place of Work.

If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.

Consultant will order part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction.

### 1.3 INDEPENDENT INSPECTION AGENCIES

Independent Inspection/Testing Agencies will be engaged by Departmental Representative for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by Departmental Representative.

Provide equipment required for executing inspection and testing by appointed agencies.

Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.

If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Consultant at no cost to Consultant. Pay costs for retesting and reinspection.

### 1.4 ACCESS TO WORK

Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.

Co-operate to provide reasonable facilities for such access.

## 1.5 PROCEDURES

Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.

Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in Work.

Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

## 1.6 REJECTED WORK

Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Consultant as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.

Make good other Contractor's work damaged by such removals or replacements promptly.

If in opinion of Consultant it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner will deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which will be determined by Consultant.

## 1.7 REPORTS

Submit [4] copies of inspection and test reports to Consultant.

Provide copies to subcontractor of work being inspected or tested manufacturer or fabricator of material being inspected or tested.

## 1.8 TESTS AND MIX DESIGNS

Furnish test results and mix designs as requested.

Cost of tests and mix designs beyond those called for in Contract Documents or beyond those required by law of Place of Work will be appraised by Consultant and may be authorized as recoverable.

## 1.9 MILL TEST

Submit mill test certificates as requested.

## 1.9 EQUIPMENT AND SYSTEMS

Submit adjustment and balancing reports for mechanical, electrical and building equipment systems.

**END OF SECTION**

## GENERAL

### 1.1 INSTALLATION AND REMOVAL

Provide construction facilities in order to execute work expeditiously.

Remove from site all such work after use.

### 1.2 SCAFFOLDING

Provide and maintain scaffolding, ramps, ladders, platforms, temporary stairs and all

Provide scaffolding, access ramps, ladders, flying scaffolds, platforms, temporary staircases and other items necessary for the execution of the work and to maintain it.

### 1.3 SITE STORAGE/LOADING

Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.

Do not load or permit to load any part of Work with weight or force that will endanger Work.

Upon completion of the work, dismantle the storage areas and return the affected land surfaces to their original condition, to the satisfaction of the Departmental Representative

### 1.4 CONSTRUCTION PARKING

Parking will be permitted on site, provided it does not disrupt performance of Work.

Provide and maintain adequate access to project site..

Clean runways and taxi areas where used by Contractor's equipment.

### 1.5 EQUIPMENT, TOOL AND MATERIALS STORAGE

Provide and maintain, in clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.

Locate materials not required to be stored in weatherproof sheds on site in manner to cause least interference with work activities**.**

### 1.6 SANITARY FACILITIES

Provide sanitary facilities for work force in accordance with governing regulations and ordinances.

Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.

### 1.7 PROTECTION AND MAINTENANCE OF TRAFFIC

Provide access and temporary relocated roads as necessary to maintain traffic.

Maintain and protect traffic on affected roads during construction period except as otherwise specifically directed by Consultant

Provide necessary precautions to warn any movement or collapse of the existing works.

### 1.8 CLEAN-UP

Remove construction debris, waste materials, packaging material from work site daily.

Clean dirt or mud tracked onto paved or surfaced roadways.

Store materials resulting from demolition activities that are salvageable.

Stack stored new or salvaged material not in construction facilities.

**END OF SECTION**

## GENERAL

### 1.1 QUALITY

Products, materials, equipment and articles incorporated in Work shall be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve contractor responsibility, but is precaution against oversight or error.
Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
Should disputes arise as to quality or fitness of products, decision rests strictly with consultant based upon requirements of Contract Documents.

Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

Submissions must be based on materials specified in the specifications and drawings.

### 1.2 AVAILABILITY

Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for items. If delays in supply of products are foreseeable, notify consultant of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.
In event of failure to notify consultant at commencement of Work and should it subsequently appear that Work may be delayed for such reason, consultant reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

### 1.3 STORAGE, HANDLING AND PROTECTION

Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable
Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.

Store products subject to damage from weather in weatherproof enclosures.
Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.
Store and mix paints in heated and ventilated room. Remove oily rags and other combustible debris from site daily.
Take every precaution necessary to prevent spontaneous combustion.
Remove and replace damaged products at own expense and to satisfaction of consultant.

### 1.4 TRANSPORTATION

Pay costs of transportation of products required in performance of Work.

### 1.5 MANUFACTURER'S INSTRUCTIONS

Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.

Notify consultant in writing, of conflicts between specifications and manufacturer's instructions, so that Consultant establish course of action.

Improper installation or erection of products, due to failure in complying with these requirements, authorizes consultant to require removal and re-installation at no increase in Contract Price or Contract Time.

### 1.6 QUALITY OF WORK

Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Consultant if required Work is such as to make it impractical to produce required results.

Do not employ anyone unskilled in their required duties. Consultant reserves right to require dismissal from site, workers deemed incompetent or careless.

Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Consultant, whose decision is final.

### 1.7 CO-ORDINATION

Ensure co-operation of workers in laying out Work. Maintain efficient and continuous supervision.

Be responsible for coordination and placement of openings, sleeves and accessories.

### 1.8 CONCEALMENT

In finished areas conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.

Before installation inform Consultant if there is interference. Install as directed by Consultant.

### 1.9 REMEDIAL WORK

Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Co-ordinate adjacent affected Work as required.

Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

### 1.10 PROTECTION OF WORK IN PROGRESS

Prevent overloading of parts of building. Do not cut, drill or sleeve load bearing structural member, unless specifically indicated without written approval of Consultant.

### 1.11 EXISTING UTILITIES

When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work, and/or building occupants.

Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

## END OF SECTION

## GENERAL

### 1.1 ACTION AND INFORMATIONAL SUBMITTALS

Submittals: in accordance with Section 01 33 00- Submittal Procedures.

Submit written request in advance of cutting or alteration which affects:

.1 Structural integrity of elements of project.
.2 Integrity of weather-exposed or moisture-resistant elements.
.3 Efficiency, maintenance, or safety of operational elements.
.4 Visual qualities of sight-exposed elements.
.5 Work of Owner or separate contractor.

Include in request:

.1 Identification of project.
.2 Location and description of affected Work.
.3 Statement on necessity for cutting or alteration.
.4 Description of proposed Work, and products to be used.
.5 Alternatives to cutting and patching.
.6 Effect on Work of Owner or separate contractor.
.7 Written permission of affected separate contractor.
.8 Date and time work will be executed.

### 1.2 MATERIALS

Change in Materials: Submit request for substitution in accordance with Section [01 33 00- Submittal Procedures].

### 1.3 PREPARATION

Inspect existing conditions, including elements subject to damage or movement during cutting and patching.

After uncovering, inspect conditions affecting performance of Work.

Beginning of cutting or patching means acceptance of existing conditions.

Provide supports to assure structural integrity of surroundings; provide devices and methods to protect other portions of project from damage.

Provide protection from elements for areas which are to be exposed by uncovering work; maintain excavations free of water.

### 1.4 EXECUTION

Execute cutting, fitting, and patching [including excavation and fill,]to complete Work.

Fit several parts together, to integrate with other Work.

Uncover Work to install ill-timed Work.
Remove and replace defective and non-conforming Work.

Remove samples of installed Work for testing.

Provide openings in non-structural elements of Work for penetrations of mechanical and electrical Work.

Execute Work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.

Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.

Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed on masonry work without prior approval.

Restore work with new products in accordance with requirements of Contract Documents.

Fit Work [airtight] to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

At penetration of fire rated wall, ceiling, or floor construction, completely seal voids with [firestopping]material in accordance with Section [07 84 00- Firestopping], full thickness of the construction element.

Refinish surfaces to match adjacent finishes: Refinish continuous surfaces to nearest intersection. Refinish assemblies by refinishing entire unit.

Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise.

**END OF SECTION**

## GENERAL

### 1.1 PROJECT CLEANLINESS

Maintain Work in tidy condition, free from accumulation of waste products and debris, including other than that caused by Owner or other Contractors.

Remove waste materials from site at daily regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site, unless approved by Consultant.

Clear snow and ice from access to building, bank/pile snow in designated areas only.

Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.

The Contractor must plan to evacuate / replace the containers throughout the construction period. Location of the containers to be coordinated with the client and the architect.

Dispose of waste materials and debris off site.

Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.

Store volatile waste in covered metal containers, and remove from premises at end of each working day.
Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

### 1.2 FINAL CLEANING

When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.

Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.

Prior to final review remove surplus products, tools, construction machinery and equipment.

Remove waste products and debris other than that caused by Owner or other Contractors.

Remove waste materials from site at regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site, unless approved by the Consultant

Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.

Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.

Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, floors.

Clean lighting reflectors, lenses, and other lighting surfaces.

Vacuum clean and dust building interiors, behind grilles, louvres and screens.

Wax, seal, shampoo or prepare floor finishes, as recommended by manufacturer.

Inspect finishes, fitments and equipment and ensure specified workmanship and operation.

Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.

Remove dirt and other disfiguration from exterior surfaces.

Clean and sweep roofs, gutters, areaways, and sunken wells.

Sweep and wash clean paved areas.

Clean equipment and fixtures to sanitary condition; clean or replace filters of mechanical equipment.

Clean roofs, downspouts, and drainage systems.

Remove debris and surplus materials from crawl areas and other accessible concealed spaces.

Remove snow and ice from access to building.

**END OF SECTION**

## GENERAL

### 1.1 REFERENCE STANDARDS

LEED Canada-NC Version 1.0, December 2004. LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations (including Addendum [2007]).

### 1.2 DEFINITIONS

Construction, Renovation and/or Demolition (CRD) Waste: Class III solid, non-hazardous waste materials generated during construction, demolition, and/or renovation activities

Cost/Revenue Analysis Workplan (CRAW): based on information from Waste Reduction Workplan, and intended as financial tracking tool for determining economic status of waste management practices (Schedule E).

Inert Fill: inert waste - exclusively asphalt and concrete.

Waste Source Separation Program (WSSP): implementation and co-ordination of ongoing activities to ensure designated waste materials will be sorted into pre-defined categories and sent for recycling and reuse, maximizing diversion and potential to reduce disposal costs.

Recyclable: ability of product or material to be recovered at end of its life cycle and re-manufactured into new product for reuse.

Recycle: process by which waste and recyclable materials are transformed or collected for purpose of being transferred into new products.

Recycling: process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for purpose of using in altered form. Recycling does not include burning, incinerating, or thermally destroying waste.

. Reuse: repeated use of product in same form but not necessarily for same purpose. Reuse includes:

.1 Salvaging reusable materials from re-modelling projects, before demolition stage, for resale, reuse on current project or for storage for use on future projects.

.2 Returning reusable items including pallets or unused products to vendors.

Salvage: removal of structural and non-structural materials from deconstruction/disassembly projects for purpose of reuse or recycling.

Separate Condition: refers to waste sorted into individual types.

Source Separation: act of keeping different types of waste materials separate beginning from the point they became waste.

Waste Audit (WA): detailed inventory of estimated quantities of waste materials that will be generated during construction, demolition, deconstruction and/or renovation. Involves quantifying by volume/weight amounts of materials and wastes that will be reused, recycled or landfilled. Refer to Schedule A.

Waste Management Co-ordinator (WMC): contractor representative responsible for supervising waste management activities as well as co-ordinating required submittal and reporting requirements.

Waste Reduction Workplan (WRW): written report which addresses opportunities for reduction, reuse, or recycling of materials generated by project. Specifies diversion goals, implementation and reporting procedures, anticipated results and responsibilities. Waste Reduction Workplan (Schedule B) information acquired from Waste Audit.

## 1.3 ACTION AND INFORMATIONAL SUBMITTALS

Submit in accordance with Section 01 33 00- Submittal Procedures.

## 1.4 STORAGE, HANDLING AND PROTECTION

Store, materials to be reused, recycled and salvaged in locations as directed by Departmental Representative.

Unless specified otherwise, materials for removal do not become Contractor's property.

Protect, stockpile, store and catalogue salvaged items.

Separate non-salvageable materials from salvaged items. Transport and deliver non-salvageable items to licensed disposal facility.

Protect structural components not removed and salvaged materials from movement or damage.

Support affected structures. If safety of building is endangered, cease operations and immediately notify Consultant.

Protect surface drainage, mechanical and electrical from damage and blockage.

Separate and store materials produced during project in designated areas.

Prevent contamination of materials to be salvaged and recycled and handle materials in accordance with requirements for acceptance by designated processing facilities.

On-site source separation is recommended.

Remove co-mingled materials to off site processing facility for separation.

Obtain waybills, receipts and/or scale tickets for separated materials removed from site.

## 1.5 DISPOSAL OF WASTES

Do not bury rubbish or waste materials.

Do not dispose of [oil] [mineral spirits] [volatile materials] [waste] [paint thinner]into waterways, storm, or sanitary sewers.

Keep records of construction waste including:

1. Number and size of bins.
2. Waste type of each bin.
3. Total tonnage generated.
4. Tonnage reused or recycled.
5. Reused or recycled waste destination.

Remove materials on-site as Work progresses.

Prepare project summary to verify destination and quantities on a material-by-material basis as identified in the waste audit.

### 1.6 UTILIZATION OF PLACES AND FACILITIES

Carry out work with the least possible harm to the normal use of the premises.

Maintain established safety measures for existing facility. Implement interim security measures approved by the Departmental Representative.

### 1.7 SCHEDULING

Co-ordinate Work with other activities at site to ensure timely and orderly progress of Work.

## EXECUTION

### 1.8 APPLICATION

Handle waste materials not reused, salvaged, or recycled in accordance with appropriate regulations and codes.

### 1.9 CLEANING

Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.

Progress Cleaning: Leave Work area clean at end of each day.

Source separate materials to be reused/recycled into specified sort areas.

**END OF SECTION**

## GENERAL

### 1.1 ADMINISTRATIVE REQUIREMENTS

Contractor's Inspection: Contractor: conduct inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.

1. Notify Consultant in writing of satisfactory completion of Contractor's inspection and submit verification that corrections have been made.
2. Request Consultant's inspection.

Consultant's Inspection:

1. Consultant, Departmental Representative and Contractor to inspect Work and identify defects and deficiencies.
2. Contractor to correct Work as directed.

Completion Tasks: submit written certificates that tasks have been performed as follows:

1. Work: completed and inspected for compliance with Contract Documents.
2. Defects: corrected and deficiencies completed.
3. Equipment and systems: tested, balanced, adjusted and fully operational.
4. Certificates required by Utility companies: submitted.
5. Operation of systems: demonstrated to Owner's personnel.
6. Work: complete and ready for final inspection.

Final inspection :

.1 When completion tasks are done, request final inspection of Work by Consultant and Contractor.
.2 When Work incomplete according to Consultant, complete outstanding items and request re-inspection.

Declaration of Substantial Performance: when Consultant considers deficiencies and defects corrected and requirements of Contract substantially performed, make application for Certificate of Substantial Performance.

Commencement of Lien and Warranty Periods: date of Owner's acceptance of submitted declaration of Substantial Performance to be date for commencement for warranty period and commencement of lien period unless required otherwise by lien statute of Place of Work.

Final Payment :

.1 When Consultant considers final deficiencies and defects corrected and requirements of Contract met, make application for final payment.
.2 When Work deemed incomplete by Departmental Representative and Consultant, complete outstanding and request re-inspection.

Payment of Holdback: after issuance of Certificate of Substantial Performance of Work, submit application for payment of holdback amount in accordance with contractual agreement.

**END OF SECTION**

## GENERAL

### 1.1 ACTION AND INFORMATIONAL SUBMITTALS

The instructions must be prepared by qualified individuals, that have required knowledge for the operation and maintenance of the products.

The submitted copies will be returned after final inspection of the works, attached with the Consultant's comments.

If necessary, review the contents of the documents before resubmitting them.

Two weeks prior to Substantial Performance of the Work, submit to the Consultant, four final copies of operating and maintenance manuals in English and French.

Provide spare parts, maintenance materials and special tools of same quality and manufacture as products provided in Work.

Provide evidence, if requested, for type, source and quality of products supplied.

Defective products will be rejected, even if they have been previously inspected and will need to be replaced at no additional charge.

Assume the cost of transportation for these products.

### 1.2 FORMAT

Organize data as instructional manual.

Binders: vinyl, hard covered, 3 'D' ring, loose leaf 219 x 279mm with spine and face pockets.

When multiple binders are used correlate data into related consistent groupings.
Identify contents of each binder on spine.

Cover: identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.

Arrange content by process flow, under Section numbers and sequence of Table of Contents.

Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.

Text: manufacturer's printed data, or typewritten data.

Drawings: provide with reinforced punched binder tab.
Bind in with text; fold larger drawings to size of text pages.

## 1.3 CONTENTS - PROJECT RECORD DOCUMENTS

Table of Contents for Each Volume: provide title of project;

1. Date of submission; names.
2. Addresses, and telephone numbers of Consultant and Contractor with name of responsible parties.
3. Schedule of products and systems, indexed to content of volume.

For each product or system:

1. List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.

Product Data: mark each sheet to identify specific products and component parts, and data applicable to installation; delete inapplicable information.

Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.

Typewritten Text: as required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

Training: give the owner required training on the use and good function of new equipments.

## 1.4 AS-BUILT DOCUMENTS AND SAMPLES

Maintain, in addition to requirements in General Conditions, at site for Consultant one record copy of:

1. Contract Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other modifications to Contract.
5. Reviewed shop drawings, product data, and samples.
6. Field test records.
7. Inspection certificates.
8. Manufacturer's certificates.

Store record documents and samples in field office apart from documents used for construction.
Provide files, racks, and secure storage.

Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.

Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.

Keep record documents and samples available for inspection by Consultant.

## 1.5 RECORDING INFORMATION ON PROJECT RECORD DOCUMENTS

Record information on set of opaque drawings.

Use felt tip marking pens, maintaining separate colours for each major system, for recording information.

Record information concurrently with construction progress. Do not conceal Work until required information is recorded.

Contract Drawings and shop drawings: mark each item to record actual construction, including:

1. Measured depths of elements of foundation in relation to finish first floor datum.
2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
3. Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
4. Field changes of dimension and detail.
5. Changes made by change orders.
6. Details not on original Contract Drawings.
7. Referenced Standards to related shop drawings and modifications.

Specifications: mark each item to record actual construction, including:

1. Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
2. Changes made by Addenda and change orders.

Other Documents: maintain manufacturer's certifications, inspection certifications, field test records, required by individual specifications sections.

Provide digital photos, if requested, for site records.

## 1.6 EQUIPMENT AND SYSTEMS

For each item of equipment and each system include description of unit or system, and component parts.

1. Give function, normal operation characteristics and limiting conditions.
2. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.

Panel board circuit directories: provide electrical service characteristics, controls, and communications.

Include installed colour coded wiring diagrams.

Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences.

1. Include regulation, control, stopping, shut-down, and emergency instructions.
2. Include summer, winter, and any special operating instructions.

Maintenance Requirements: include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.

Provide servicing and lubrication schedule, and list of lubricants required.

Include manufacturer's printed operation and maintenance instructions.

Include sequence of operation by controls manufacturer.

Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.

Provide Contractor's co-ordination drawings, with installed colour coded piping diagrams.

Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.

Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.

Additional requirements: as specified in individual specification sections.

## 1.7 MATERIALS AND FINISHES

Building products, applied materials, and finishes: include product data, with catalogue number, size, composition, and colour and texture designations. Provide information for re-ordering custom manufactured products.

Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.

Moisture-protection and weather-exposed products: include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.

Additional requirements: as specified in individual specifications sections.

## 1.8 SPARE PARTS

Provide spare parts, in quantities specified in individual specification sections.

Provide items of same manufacture and quality as items in Work.

Deliver to location as directed; place and store.

Receive and catalogue items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual.

Obtain receipt for delivered products and submit prior to final payment.

## 1.9 EXTRA STOCK MATERIALS

Provide maintenance and extra materials, in quantities specified in individual specification sections.

Provide items of same manufacture and quality as items in Work.

Deliver to location as directed; place and store.

Receive and catalogue items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual. Obtain receipt for delivered products and submit prior to final payment.

## 1.10 SPECIAL TOOLS

Provide special tools, in quantities specified in individual specification section.

Provide items with tags identifying their associated function and equipment.

Deliver to location as directed; place and store.

Receive and catalogue items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual.

## 1.11 DELIVERY, STORAGE AND HANDLING

Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration.

Store in original and undamaged condition with manufacturer's seal and labels intact.

Store components subject to damage from weather in weatherproof enclosures.

Store paints and freezable materials in a heated and ventilated room.

Remove and replace damaged products at own expense and for review by Consultant.

## 1.12 WARRANTIES AND BONDS

Assemble approved information in binder, submit upon acceptance of work and organize binder as follows:

1. Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.

2. List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

3. Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.

4. Verify that documents are in proper form, contain full information, and are notarized.

5. Co-execute submittals when required.

6. Retain warranties and bonds until time specified for submittal.

7. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial Performance is determined.

**END OF SECTION**

## GENERAL

### 2.1 REFERENCE STANDARDS

CSA International
.1 CSA S350-[M1980(R2003)], Code of Practice for Safety in Demolition of Structures.

### 2.2 ACTION AND INFORMATIONAL SUBMITTALS

Submit in accordance with Section 01 33 00- Submittal Procedures, 01 74 21- Construction/Demolition Waste Management Disposal.

Submit for review and approval by Consultant shoring and underpinning drawings stamped and signed by professional engineer registered or licensed in the Province of Quebec, Canada, and showing proposed method.

### 2.3 WASTE MANAGEMENT AND DISPOSAL

Sort waste for recycling in accordance with Section 01 74 21 - Construction / Demolition Waste Management and Disposal and applicable standards.

### 2.4 SITE CONDITIONS

Review "Designated Substance Report" and take precautions to protect environment.

If material resembling spray or trowel-applied asbestos or other designated substance listed as hazardous be encountered, stop work, take preventative measures, and notify the Consultant immediately.
.1 Proceed only after receipt of written instructions have been received from [Consultant] [Departmental Representative] [DCC Representative].

Notify the Consultant before disrupting building access or services.

Refer to professional demolition drawings and specifications for scope of work. The general contractor will have to coordinate the interventions of the various specialized contractors in order to ensure complete coverage of the work to be carried out.

## EXECUTION

### 2.5 PREPARATION

Inspect building with Consultant and verify extent and location of items designated for removal, disposal, alternative disposal, recycling, salvage and items to remain.

Locate and protect utilities. Preserve active utilities traversing site in operating condition.

Notify and obtain approval of utility companies before starting demolition.

Disconnect, cap, plug or divert, as required, existing public utilities within the property where they interfere with the execution of the work, in conformity with the requirements of the authorities having jurisdiction. Mark the location of these and previously capped or plugged services on the site and indicate location (horizontal and vertical) on the record drawings. Support, shore up and maintain pipes and conduits encountered.

.1 Immediately notify Consultant and utility company concerned in case of damage to any utility or service, designated to remain in place.
.2 Immediately notify the Consultant]should uncharted utility or service be encountered, and await instruction in writing regarding remedial action.

## 2.6 PROTECTION

Prevent movement, settlement, or damage to adjacent, structures, utilities, parts of building and landscaping features to remain in place. Provide bracing and shoring required.

Keep noise, dust, and inconvenience to occupants to minimum.

Protect building systems, services and equipment.

Provide temporary dust screens, covers, railings, supports and other protection as required.

Do work in accordance with Section 01 35 29.06- Health and Safety Requirements.

Protect existing structures that must remain in place and those that are to be recovered. If they suffer damage, replace or repair immediately, to the satisfaction of the Consultant at no additional cost.

## 2.7 RECOVERY

Refer to demolition requirements and drawings for materials to be reused.

Remove the items to be reused and store them in accordance with the architect's instructions and replace them in accordance with the requirements of the relevant section of the specification.

## 2.8 REMOVAL

Remove items as indicated.

Removal of Pavements, Curbs and Gutters:
.1 Square up adjacent surfaces to remain in place by saw cutting or other method approved by Consultant.
.2 Protect adjacent joints and load transfer devices.

## 2.9 DEMOLITION

Remove parts of existing [building]to permit new construction.

Trim edges of partially demolished building elements to tolerances to suit future use.

Be responsible for any architectural, electrical or mechanical damage. Repair and restore them, as per their existing original condition or replace as needed.

Repair all damaged items according to the standards during demolition and disposal of materials.

Carefully dismantle and retain existing works to be relocated or modified. Repair or replace them at no cost with identical items if they have been damaged during the work.

## 2.10 CLEANING

Remove recycling containers and bins from site and dispose of materials at appropriate facility.

**END OF SECTION**

## GÉNÉRAL

### 7.1 REFERENCE STANDARDS

ASTM International

.1 ASTM C208-[12], Standard Specification for Cellulosic Fiber Insulating Board.
.2 ASTM C591-[13], Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation.
.3 ASTM C612-[14], Standard Specification for Mineral Fibre Block and Board Thermal Insulation.
.4 ASTM C726-[12], Standard Specification for Mineral Fiber Roof Insulation Board.
.5 ASTM C728-[13], Standard Specification for Perlite Thermal Insulation Board.
.6 ASTM C1126-[14], Standard Specification for Faced or Unfaced Rigid Cellular Phenolic Thermal Insulation.
.7 ASTM C1289-[14], Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
.8 ASTM E96/E96M-[13], Standard Test Methods for Water Vapour Transmission of Materials.

Canadian General Standards Board (CGSB)

.1 CGSB 71-GP-24M-AMEND-[77(R1983)], Adhesive, Flexible, for Bonding Cellular polystyrene Insulation.

### 7.2 ACTION AND INFORMATION SUBMITTALS

Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for board insulation and include product characteristics, performance criteria, physical size, finish and limitations in accordance with Section 01 33 00- Submittal Procedures.

## PRODUCTS

### 7.3 MATERIAL

Extruded polystyrene (XPS) to CAN/ULC-S701, Type 4.

.1 Board dimension : 610mm x , 2440mm 50 mm thickness, as indicated
.2 Compressive strenght : 210 kPa minimum
.3 Edges : vented

### 7.4 ACCESSORIES

Insulation clips: impale type, perforated 50 x 50 mm cold rolled carbon steel 0.8 mm thick, adhesive back, spindle of 2.5 mm diameter annealed steel, length to suit insulation, 25 mm diameter washers of self locking type.

## EXECUTION

### 7.5 MANUFACTURER'S INSTRUCTIONS

Compliance: Comply with the manufacturer's written requirements, recommendations and specifications, including technical bulletins and installation instructions specified in the product catalogs and cartons, as well as in the data sheets.

## 7.6 INSTALLATION

Install insulation after building substrate materials are dry.

Install insulation to maintain continuity of thermal protection to building elements and spaces.

Cut and trim insulation neatly to fit spaces. Butt joints tightly, offset vertical joints. Use only insulation boards free from chipped or broken edges. Use largest possible dimensions to reduce number of joints.

Offset both vertical and horizontal joints in multiple layer applications.

Leave insulation board joints unbonded over line of expansion and control joints. Bond a continuous [150]mm wide [0.15]mm modified bituminous membrane over expansion and control joints using compatible adhesive and primer before application of insulation.

Lay the boards vertically against the outer face of the peripheral foundation walls to the level indicated.

**END OF SECTION**

## GENERAL

### 7.1 REFERENCE STANDARDS

Canadian General Standards Board (CGSB)

.1 CAN/CGSB-51.33-[M89], Vapour Barrier Sheet, Excluding Polyethylene, for Use in Building Construction.

.2 CAN/CGSB-51.34-[M86], Vapour Barrier, Polyethylene Sheet, for Use in Building Construction.

### 7.2 ACTION AND INFORMATION SUBMITTALS

Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for [vapour retarders ]and include product characteristics, performance criteria, physical size, finish and limitations in accordance with Section 01 33 00- Submittal Procedures.

## PRODUCTS

### 7.3 MATERIALS

.1 Polyethylene film: to CAN/CGSB-51.34, 0.15mm thick.

.2 Air barrier membrane, weather protection, moisture management. Resistant to air, water resistant and water vapor permeable. Tyvek type. Follow directions to plans.

.3 Primer for self-adhesive connection membrane on masonry, concrete, wood, undercoating panels and metal surfaces:

.1 For temperatures above -4oC: Aquatac from Henry Canada Inc. (BAKOR)

.2 For temperatures above -12oC: Blueskin Primer, Blueskin Ultra Primer or Henry Canada Tactile Primer (BAKOR).

.4 Connection membrane and air barrier / vapor barrier membrane: self-adhesive, consisting of a SBS rubberized bitumen compound laminated to a cross-linked polyethylene film, and having the following physical properties:

.1 color: blue;

.2 thickness: 1.0mm;

.3 minimum application temperature: + 5 ° C;

.4 permeability to water vapor (ASTM E96): 1.6 ng / (Pa × m² × s) (0.03 perms);

.5 air permeability at 75 Pa (ASTM E283-91): 0.0003 l / s × m²;

.6 air permeability after test at 3000 Pa (ASTM E330-90): no change;

.7 product:

.1 for temperatures above 5oC: Blueskin SA of Henry Canada Inc. (BAKOR);

.2 for temperatures above -12oC: Blueskin SA LT from Henry Canada Inc. (BAKOR).

.5 Membrane for intramural flashing: self-adhesive, consisting of a bitumen compound rubberized SBS laminated to a cross-polyethylene film, and having the following physical properties:

.1 color: yellow;

.2 thickness: 1.0mm;

.3 minimum application temperature: -4 ° C;

.4 operating temperature: -40 ° C to 80 ° C;

.5 product: Blueskin TWF from Henry Canada Inc. (BAKOR).

### 7.4 ACCESSORIES

Joint sealing tape: air resistant pressure sensitive adhesive tape type recommended by vapour barrier manufacturer, 50 mm wide for lap joints and perimeter seals, 25 mm wide elsewhere.

## EXECUTION

### 7.5 INSTALLATION

Use sheets of largest practical size to minimize joints.

Inspect for continuity. Repair punctures and tears with sealing tape before work is concealed.

**END OF SECTION**

## GENERAL

### 7.1 REFERENCE STANDARDS

Canadian General Standards Board (CGSB)
.1 CAN/CGSB-37.4-[M89], Fibrated, Cutback Asphalt, Lap Cement for Asphalt Roofing.
.2 CAN/CGSB-37.5-[M89], Cutback Asphalt Plastic Cement.
.3 CAN/CGSB-51.32-[M77], Sheathing, Membrane, Breather Type.
.4 CAN/CGSB-51.34-[M86], Vapour Barrier Polyethylene Sheet, for Use in Building Construction.

Canadian Roofing Contractors' Association (CRCA)
.1 CRCA Roofing Specification Manual - 1997.

CSA International
.1 CSA A123.1/A123.5-[05(R2010)], Asphalt Shingles Made From Organic Felt and Surfaced With Mineral Granules/Asphalt Shingles Made From Glass Felt and Surfaced With Mineral Granules.
.2 CAN/CSA-A123.2-[03(R2008)], Asphalt-Coated Roofing Sheets.
.3 CSA A123.3-[05(2010)], Asphalt Saturated Organic Roofing Felt.
.4 CAN3-A123.51-[M85(R2006)], Asphalt Shingle Application on Roof Slopes 1:3 and Steeper.
.5 CAN3-A123.52-[M85(R2006)], Asphalt Shingle Application on Roof Slopes 1:6 to Less Than 1:3.
.6 CSA B111-[1974(R2003)], Wire Nails, Spikes and Staples.

Health Canada/Workplace Hazardous Materials Information System (WHMIS)
.1 Material Safety Data Sheets (MSDS).

National Research Council Canada (NRC) - Canadian Construction Materials Centre (CCMC)
.1 CCMC Registry of Product Evaluations.

### 7.2 ACTION AND INFORMATIONAL SUBMITTALS

Product Data:
.1 Submit manufacturer's instructions, printed product literature and data sheets for [asphalt shingles]and include product characteristics, performance criteria, physical size, finish and limitations.in accordance with Section 01 33 00 - Submittal procedures

Samples:
.1 Submit duplicate samples of full size specified shingles.
.2 Submit samples, for asphalt shingles and in accordance with Section 01 33 00 - Submittal procedures
.3 Submit the corresponding colors to fit the existing one, for customer approval.

Manufacturer's instructions
.1 Submit manufacturer's installation instructions.

### 7.3 EXTRA STOCK MATERIALS

Submit maintenance materials in accordance with Section 01 78 00- Closeout Submittals.

All unused shingles remain property of Departmental Representative.

### 7.4 WARRANTY

Provide a written document stating that the shingle is warranted against defects under normal use for a period of five (5) years from the date of substantial completion of the work.

This guarantee will be signed by the subcontractors and the Contractor. It shall bind them jointly for the period of the guarantee.

## PRODUCTS

### 7.5 MATERIALS

Asphalt shingles to : CSA A123.1/A123.5.

BP Everest laminate shingles: Color Boreal Green
Width of 42 ". fibreglass mat and surfaced with mineral granules

Roofing felt: to CSA A123.3 organic felt No. 15.

Asphaltic Cement:
.1 Plastic cement: to [CAN/CGSB-37.5].
.2 Lap cement: to [CAN/CGSB-37.4].

Nails: to CSA B111, of galvanized steel, sufficient length to penetrate 19 mm into deck.

Staples: chisel point galvanized steel 25 mm crown 1.5 mm thick, sufficient length to penetrate 20 mm into deck substrates.

Roof ventilator, Ventilation Maximum: Slope Roof Model VMAX-303-12. Color black. Quantity: 2.

## EXECUTION

### 7.6 INSTALLATION AND APPLICATION

Do asphalt shingle work to CAN3-A123.51, CRCA Specification, CAN3-A123.52 except where specified otherwise.

Install drip edge along eaves, overhanging 12 mm, with minimum 50 mm flange extending onto roof decking. Nail to deck at 400 mm on centre.

Install bottom step flashing (soaker base flashing) interleafed between shingles at vertical junctions.

Install asphalt shingles on roof slopes 1:3 and steeper in accordance with CAN3-A123.51 supplemented as follows:

Install asphalt shingles on roof slopes 1:6 to less than 1:3 to CAN3-A123.52 supplemented as follows:

Follow manufacturer's instructions and recommendations.

**END OF SECTION**

## GENERAL

### 7.1 REFERENCE STANDARDS

American Society for Testing and Materials International, (ASTM).
.1 ASTM D 5116-[97], Standard Guide For Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products.

Office des normes générales du Canada (CGSB).
.1 CAN/CGSB-11.3-[M87], Hardboard.
.2 CAN/CGSB-11.5-[M87], Hardboard, Precoated, Factory Finished, for Exterior Cladding
.3 CAN/CGSB-11.6-[M87], Installation of Exterior Hardboard Cladding
.4 CAN/CGSB-51.32-[M77], Sheathing, Membrane, Breather Type

CSA International
.1 CSA B111-[1974(R2003)], Wire Nails, Spikes and Staples.
.2 CSA O121-[08], Douglas Fir Plywood.
.3 CSA O151-[09], Canadian Softwood Plywood.
.4 CAN/CSA-Z809-[08], Sustainable Forest Management.

Programme Choix environnemental (PCE).
.1 DCC-045--[95], Sealants and Caulking Compounds.

National Lumber Grading Authority (NLGA).
.1 NLGA Standard Grading Rules for Canadian Lumber [2010].

### 7.2 ACTION AND INFORMATIONAL SUBMITTALS

Product Data:
.1 Submit manufacturer's instructions, printed product literature and data sheets for wood siding panels and include product characteristics, performance criteria, physical size, finish and limitations.

Samples:
.1 Submit samples of required products in accordance with Section 01 33 00 - Submittal procedures
.2 Submit two (2) samples of the panel elements in the prescribed form.
.3 Submit the corresponding colors to fit the existing one, for customer approval.

Manufacturer's instructions:
.1 Submit the installation instructions provided by the manufacturer.

### 7.3 DELIVERY, STORAGE AND HANDLING

.1 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.2 Store materials indoors, off ground, in dry location, and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

### 7.4 WARRANTY

Provide a written document stating that the wood panels is warranted against defects under normal use for a period of five (5) years from the date of substantial completion of the work.

## PRODUCTS

### 7.5 MATERIALS

Engineered wood panels, 4 'x 8' x 3/8 '', GoodFellow GoodStyle, with 8 '' groove, textured genuine cedar appearance and installed vertically.

The panels will be factory painted according to GoodFellow's standards and in white color, SICO Exterior Wood Stain 232-100.

The engineered soffits, 16 'long x 12' 'wide, GoodFellow GoodStyle, unvented.

The soffits will be painted in the factory according to GoodFellow standards and in white color, SICO Exterior Wood Stain 232-100.

The fascias and engineered wood moldings of 16 'x Length Suitable Dimensions, GoodStyle by GoodFellow.

The fascias and moldings will be factory painted according to GoodFellow standards and green color, SICO Exterior Wood Stain 232-503. Color code to match the existing 215-480.

Accessories and fasteners: visible fittings, closing parts, commonly manufactured caps and nails, conforming to the standards and according to the manufacturer's recommendations.

## EXECUTION

### 7.6 MANUFACTURER'S INSTRUCTIONS

Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

### 7.7 INSTALLATION

Install panels in accordance with CGSB 11-GP-6M and manufacturer's instructions.

Place a Bleuskin-type membrane at the perimeter of the expansion, at the base of the exterior wall and at a minimum height of 300 mm. Likewise around the opening. Ensure the watertight seal.

Install sill flashings, wood starter strips, inside corner flashings, edgings and flashings over openings.

The dimensions of moldings, fascias and soffits must be checked and adjusted on site.

**END OF SECTION**

## GENERAL

### 7.1 REFERENCE STANDARDS

American Society for Testing and Materials (ASTM)

.1 ASTM A 167-94a, Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
.2 ASTM A 591/A 591 M-89(1994), Specification for Steel Sheet, Electrolytic Zinc-Coated, for Light Coating Mass Applications.
.3 ASTM A 606-91a(1993), Specification for Steel, Sheet and Strip, High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, with Improved Atmospheric Corrosion Resistance.
.4 ASTM A 653/A 653 M-95, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
.5 ASTM A 792/A 792M-95, Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
.6 ASTM B 32-95b, Specification for Solder Metal.
.7 ASTM B 370-92, Specification for Copper Sheet and Strip for Building Construction.
.8 ASTM D 523-89(1994), Test Method for Specular Gloss.
.9 ASTM D 822-89, Practice for Conducting Tests on Paint and Related Coatings and Materials Using Filtered Open-Flame Carbon Arc Light and Water Exposure Apparatus.

## PRODUCTS

### 7.2 PREFINISHED STEEL SHEET

Sheet steel, 0.635 mm (thickness 24) thick, in accordance with ASTM A446-76, grade A, galvanized according to ASTM A525-78a, designation G90, factory coated with baked enamel, finished semi-gloss, color chosen by the Architect from the manufacturer's standard range, dry film thickness 0.0254 mm, in accordance with the tests described in ICTAB bulletin 5.

### 7.3 SHEET METAL MATERIALS

Roof flashings, and roof edges shall be made of galvanized steel sheet according to the prescribed profiles.

### 7.4 EAVES TROUGHS AND DOWNPIPES

Gutters and downspouts must be made of aluminum sheet.

Sizes and profiles as indicated.

Provide goosenecks, landfills, strainer baskets and necessary fasteners.

Form, 600 mm x 600 mm splash pans, must be made of aluminum sheet.

### 7.5 ACCESSOIRIES

Isolation coating: alkali resistant bituminous paint.

Plastic cement: to CAN/CGSB 37.5.

Cleats: of same material, and temper as sheet metal, minimum [50]mm wide. Thickness same as sheet metal being secured.

Fasteners: of same material as sheet metal, to CSA B111, [ring thread]flat head roofing nails of length and thickness suitable for [metal flashing]application.

Washers: of same material as sheet metal, 1 mm thick with rubber packings.

Touch-up paint: as recommended by prefinished material manufacturer.

Clip: same material as steel sheet, 22 gauge is required for these elements.

### 7.6 FABRICATION

Fabricate metal flashings and other sheet metal work [as indicated] [in accordance with applicable CRCA 'FL' series details].

Fabricate aluminum flashings and other sheet aluminum work in accordance with AAI-Aluminum Sheet Metal Work in Building Construction.

Form pieces in 2400 mm maximum lengths.
.1 Make allowance for expansion at joints.

Hem exposed edges on underside 12 mm.
.1 Mitre and seal corners with sealant.

Form sections square, true and accurate to size, free from distortion and other defects detrimental appearance or performance.

Apply isolation coating to metal surfaces to be embedded in concrete or mortar.

## EXECUTION

### 7.7 INSTALLATION

Install sheet metal work [CRCA FL series details, in accordance with AAI-Aluminum Sheet Metal Work in Building Construction as detailed.

Use concealed fastenings except where approved before installation.

Provide underlay under sheet metal.
.1 Secure in place and lap joints 100 mm.

Counterflash bituminous flashings at intersections of roof with vertical surfaces and curbs.
.1 Flash joints using [standing seams] [S-lock]forming tight fit over hook strips, [as detailed].

Lock end joints and caulk with sealant.

## 7.8 EAVES TROUGHS AND DOWNPIPES

Install eaves troughs and secure to building at [750]mm on centre with eaves trough spikes through spacer ferrules.

.1 Slope eaves troughs to downpipes as indicated.
.2 Seal joints watertight.

Install downpipes and provide goosenecks back to wall.

.1 Secure downpipes to wall with straps at [1800]mm on centre; minimum two straps per downpipe.
.2 [Connect downpipes to drainage system and seal joint with plastic cement].

Install splash pans as indicated.

**END OF SECTION**

## GENERAL

### 7.1 REFERENCE STANDARDS

Underwriter's Laboratories of Canada (ULC)
.1 ULC-S115-[1995], Fire Tests of Fire stop Systems.

### 7.2 DEFINITIONS

Fire Stop Material: device intended to close off opening or penetration during fire or materials that fill openings in wall or floor assembly where penetration is by cables, cable trays, conduits, ducts and pipes and poke-through termination devices, including electrical outlet boxes along with their means of support through wall or floor openings.

Single Component Fire Stop System: fire stop material that has Listed Systems Design and is used individually without use of high temperature insulation or other materials to create fire stop system.

Multiple Component Fire Stop System: exact group of fire stop materials that are identified within Listed Systems Design to create on site fire stop system.

Tightly Fitted; (ref: NBC Part 3.1.9.1(1) and 9.10.9.6(1)): penetrating items that are cast in place in buildings of noncombustible construction or have "0" annular space in buildings of combustible construction.
.1 Words "tightly fitted" should ensure that integrity of fire separation is such that it prevents passage of smoke and hot gases to unexposed side of fire separation.

### 7.3 ACTION AND INFORMATIONAL SUBMITTALS

Provide product Data in accordance with Section 01 33 00- Submittal Procedures.

## PRODUCTS

### 7.4 MATERIALS

Fire stopping and smoke seal systems: in accordance with CAN-ULC-S115.
.1 Asbestos-free materials and systems capable of maintaining effective barrier against flame, smoke and gases in compliance with requirements of CAN-ULC-S115 and not to exceed opening sizes for which they are intended [and conforming to specified special requirements described in PART 3].
Fire stop system rating: as indicated on the drawings.

Service penetration assemblies: systems tested to CAN-ULC-S115.

Service penetration fire stop components: certified by test laboratory to CAN-ULC-S115.

Fire-resistance rating of installed fire stopping assembly in accordance with NBC.

Fire stopping and smoke seals at openings intended for ease of re-entry such as cables: elastomeric seal.

Fire stopping and smoke seals at openings around penetrations for pipes, ductwork and other mechanical items requiring sound and vibration control: elastomeric seal.

Primers: to manufacturer's recommendation for specific material, substrate, and end use.

## EXECUTION

### 7.5 PREPARATION

Examine sizes and conditions of voids to be filled to establish correct thicknesses and installation of materials.
.1 Ensure that substrates and surfaces are clean, dry and frost free.

Prepare surfaces in contact with fire stopping materials and smoke seals to manufacturer's instructions.

Maintain insulation around pipes and ducts penetrating fire separation [without interruption to vapour barrier].

Mask where necessary to avoid spillage and over coating onto adjoining surfaces; remove stains on adjacent surfaces.

### 7.6 INSTALLATION

Install fire stopping and smoke seal material and components in accordance with manufacturer's certified tested system listing.

Seal holes or voids made by through penetrations, poke-through termination devices, and unpenetrated openings or joints to ensure continuity and integrity of fire separation are maintained.

Provide temporary forming as required and remove forming only after materials have gained sufficient strength and after initial curing.

Tool or trowel exposed surfaces to neat finish.

Remove excess compound promptly as work progresses and upon completion.

### 7.7 LOCATION OF THE FIRESTOP SYSTEMS

Masonry, concrete and gypsum wall and wall partitions and crossings for which fire resistance is specified.

Seals between floor tiles and curtain walls or prefabricated concrete panels.

Upper part of masonry or plasterboard partitions or walls, the fire resistance of which is specified.

Intersection of partitions or walls of masonry or plasterboard whose fire resistance is specified.

Shrinkage joints and reinforcement joints in masonry or plasterboard partitions or walls, the fire resistance of which is specified.

Slab, ceiling and roof slab crossings for which fire resistance is specified.

Access and through openings in fire-resistant partitions for later use.

Circumference of pipes and other mechanical and electrical equipment passing through firewalls.

Rigid ducts with a cross-section greater than 129 cm²: the fireguard shall consist of a cord of fire-resistant material placed between the retaining angle and the firewall, and between the retaining angle and the duct, on both sides. Of the firewall.

Floor or wall expansion joints with fire resistance specified.

## 7.7 CLEANING

On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

Remove temporary dams after initial set of fire stopping and smoke seal materials.

**END OF SECTION**

## GENERAL

### 7.1 REFERENCE STANDARDS

ASTM International
.1 ASTM C919-[08], Standard Practice for Use of Sealants in Acoustical Applications.

Canadian General Standards Board (CGSB)
.1 CGSB 19-GP-5M-[1984], Sealing Compound, One Component, Acrylic Base, Solvent Curing (Issue of 1976 reaffirmed, incorporating Amendment No. 1).
.2 CAN/CGSB-19.13-[M87], Sealing Compound, One-component, Elastomeric, Chemical Curing.
.3 CGSB 19-GP-14M-[1984], Sealing Compound, One Component, Butyl-Polyisobutylene Polymer Base, Solvent Curing (Reaffirmation of April 1976).
.4 CAN/CGSB-19.17-[M90], One-Component Acrylic Emulsion Base Sealing Compound.
.5 CAN/CGSB-19.24-[M90], Multi-component, Chemical Curing Sealing Compound.

Department of Justice Canada (Jus)
.1 Canadian Environmental Protection Act, 1999.

General Services Administration (GSA) - Federal Specifications (FS)
.1 FS-SS-S-200- [E (2) 1993], Sealants, Joint, Two-Component, Jet-Blast-Resistant, Cold Applied, for Portland Cement Concrete Pavement.

Health Canada / Workplace Hazardous Materials Information System (WHMIS)
.1 Material Safety Data Sheets (MSDS).

Transport Canada (TC)
.1 Transportation of Dangerous Goods Act, 1992.

### 7.2 ACTION AND INFORMATIONAL SUBMITTALS

Submit product data in accordance with Section 01 33 00- Submittal Procedures.

### 7.3 DELIVERY, STORAGE AND HANDLING

Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

Store materials in dry location, off ground, indoors and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

## PRODUCTS

### 7.4 SEALANT MATERIAL

The sealants and caulking used shall meet the following requirements.

They must comply with, or exceed, relevant industry and government safety and performance standards.

They must be manufactured and transported in such a way that all steps in the process, including the disposal of the generated waste, are in compliance with applicable laws, regulations and government regulations, including, for facilities located in Canada, The Fisheries Act and the Canadian Environmental Protection Act.

Sealants and caulking products must not contain or be manufactured with the following components: aromatic solvents, talc or asbestos fibers, formaldehyde, halogenated solvents, mercury, lead, cadmium, hexavalent chromium, barium and Derivatives, with the exception of barium sulphate.

The sealant and caulking products shall not contain more than 5% by weight (total) of volatile organic compounds (VOC), calculated from the consigned amounts of components used in the preparation of the product.

In order to minimize health risks and maximize product performance, it is important that these are accompanied by detailed instructions on the method of application and the necessary information on waste disposal methods.

Caulking products with strong odors that contain toxic chemicals or that are not certified to be of a mold-resistant type should not be used in air handling equipment.

### 7.5 SEALANT MATERIAL DESIGNATIONS

Single-component sealant, based on urethane
Non-collapsing product, conforming to CAN / CGSB-19.13, type 2, color of the choice of the architect.
Products: Dymonic FC from Tremco.

One-component sealant based on an acrylic resin emulsion
Complies with CAN / CGSB-19.17.
Products: Tremflex 834.

Sealant for sound insulation
Complies with CAN / CGSB-19.21.
Products: Tremco Acoustic Sealant.

Preformed compressible and non-compressible back-up materials:
.1 Polyethylene, urethane, neoprene or vinyl foam:
  .1 Extruded [closed] [open]cell foam backer rod.
  .2 Size: oversize [30 to 50 %].
.2 Bond breaker tape:
  .1 Polyethylene bond breaker tape which will not bond to sealant.

Water-based, one-component acrylic sealant based on a sealant in a fiber-insulated sealant.
Product conforming to CAN4-S-115-95M and meeting the ulcs115-95M, UL 2079 and ASTM E 814, E84 and E119 tests.

ULC seals to be made around electric cable trays through ULC bulkheads: H-type product.

### 7.6 JOINT CLEANER

Non-corrosive and non-staining type, compatible with joint forming materials and sealant in accordance with sealant manufacturer's written recommendations.

Primer: in accordance with sealant manufacturer's written recommendations.

## EXECUTION

### 7.7 SURFACE PREPARATION

Examine joint sizes and conditions to establish correct depth to width relationship for installation of backup materials and sealants.

Clean bonding joint surfaces of harmful matter substances including dust, rust, oil grease, and other matter which may impair Work.

Do not apply sealants to joint surfaces treated with sealer, curing compound, water repellent, or other coatings unless tests have been performed to ensure compatibility of materials. Remove coatings as required.

Ensure joint surfaces are dry and frost free.

Prepare surfaces in accordance with manufacturer's directions.

## 7.8 PRIMING

Where necessary to prevent staining, mask adjacent surfaces prior to priming and caulking.

Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to caulking.

## 7.9 BACKUP MATERIAL

Apply bond breaker tape where required to manufacturer's instructions.

Install joint filler to achieve correct joint depth and shape, with approximately 30% compression.

## 7.10 MIXING

Mix materials in strict accordance with sealant manufacturer's instructions.

## 7.11 APPLICATION

Sealant:
.1 Apply sealant in accordance with manufacturer's written instructions.
.2 Mask edges of joint where irregular surface or sensitive joint border exists to provide neat joint.
.3 Apply sealant in continuous beads.
.4 Apply sealant using gun with proper size nozzle.
.5 Use sufficient pressure to fill voids and joints solid.
.6 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.
.7 Tool exposed surfaces before skinning begins to give slightly concave shape.
.8 Remove excess compound promptly as work progresses and upon completion.

Curing:
.1 Cure sealants in accordance with sealant manufacturer's instructions.
.2 Do not cover up sealants until proper curing has taken place.

Cleaning
.1 Leave Work area clean at end of each day.
.2 Clean adjacent surfaces immediately.
.3 Remove excess and droppings, using recommended cleaners as work progresses.
.4 Remove masking tape after initial set of sealant.

**END OF SECTION**

## GENERAL

### 8.1 REFERENCE STANDARDS

American Society for Testing and Materials (ASTM)
ASTM A 653M-95, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
ASTM B 29-92, Specification for Pig Lead.
ASTM B 749-85(1991), Specification for Lead and Lead Alloy Strip, Sheet and Plate Products.

Canadian General Standards Board (CGSB)
CAN/CGSB-1.181-[99], Ready-Mixed Organic Zinc-Rich Coating.
CGSB 41-GP-19Ma-[84], Rigid Vinyl Extrusions for Windows and Doors.
CAN / CGSB-51.20-M87, Thermal insulation in polystyrene, panels and coatings.
CGSB 51-GP-21M-78, Thermal insulation in urethane and isocyanurate, uncoated.

Canadian Standards Association (CSA International)
CSA-G40.20-[04]/G40.21-[04], General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
CSA W59-[03], Welded Steel Construction (Metal Arc Welding).

Canadian Steel Door Manufacturers' Association (CSDMA)
CSDMA, Recommended Specifications for Commercial Steel Doors and Frames, [2000].
CSDMA, Selection and Usage Guide for Commercial Steel Doors, [1990].

National Fire Protection Association (NFPA)
NFPA 80-[99], Standard for Fire Doors and Fire Windows.
NFPA 252-[03], Standard Methods of Fire Tests of Door Assemblies.

Underwriters' Laboratories of Canada (ULC)
CAN4-S105-[M85], Standard Specification for Fire Door Frames Meeting the Performance Required by CAN4-S104.

### 8.2 ACTION AND INFORMATIONAL SUBMITTALS

Provide submittals in accordance with Section [01 33 00- Submittal Procedures].

Provide product data: in accordance with Section [01 33 00- Submittal Procedures].

Provide shop drawings: in accordance with Section [01 33 00- Submittal Procedures].
.1 Submit drawings stamped and signed by professional engineer registered or licensed in [Province] [Territory], Canada.
.2 Indicate each type of door, material, steel core thicknesses, mortises, reinforcements, location of exposed fasteners, openings, [louvred] [glazed], arrangement of hardware [fire rating]and finishes.
.3 Indicate each type frame material, core thickness, reinforcements, glazing stops, location of anchors and exposed fastenings [reinforcing] [fire rating]finishes.
.4 Include schedule identifying each unit, with door marks and numbers relating to numbering on drawings and door schedule.
.5 Submit test and engineering data, and installation instructions.

Provide samples in accordance with Section [01 33 00- Submittal Procedures].

### 8.3 REGULATORY ORGANIZATION REQUIREMENTS

Fire rated steel doors and racks certified by an organization accredited by the Standards Council of Canada, in accordance with the requirements of CAN4-S104M and NFPA 252 with respect to the prescribed or indicated fire ratings and degrees of fire resistance , And bearing the label of the organism in question.

Fire-resistant frames shall be provided in the case of openings to be closed by elements rated for fire resistance, in accordance with the list or nomenclature established. The products must be tested in accordance with CAN4-S104,

ASTM E 152 or NFPA 252, be certified by a nationally recognized organization and provide factory inspection service, and be manufactured in accordance with the specifications outlined in the factory inspection and inspection procedures published by Approval body and provided to the various manufacturers

### 8.4 DESCRIPTION OF THE WORKS

Design Requirements

.1 Racks installed in exterior walls shall be so designed that the elements (doors and racks) can expand and contract freely when the surface is subjected to temperatures ranging from -35 degrees Celsius to 35 degrees Celsius.

### 8.5 WARRANTY

Provide a written document stating that steel doors and frames are warranted against defects under normal use for a period of three (3) years from the date of receipt with reservation.

This guarantee will be signed by the subcontractors and the Contractor. This guarantee will bind them jointly and jointly for the guarantee period.

Any repair or replacement, as well as any damage done to work of other trades by defective work of this section during the warranty period, will be resumed at the expense of the warranty signatories.

## PRODUCTS

### 8.6 MATERIALS

Hot dipped galvanized steel sheet: to ASTM A653M, [ZF75], minimum base steel thickness in accordance with CSDMA Table 1 - Thickness for Component Parts.

Reinforcement [channel]: to CSA G40.20/G40.21, Type 44W, coating designation to ASTM A653M, [ZF75].

Composites: balance of core materials used in conjunction with lead: in accordance with manufacturers' proprietary design.

### 8.7 DOOR CORE MATERIALS

Honeycomb construction:

.1 Structural small cell, 24.5 mm maximum kraft paper 'honeycomb', weight: 36.3 kg per ream minimum, density: 16.5 kg/m3minimum sanded to required thickness.

Fire classification (thermal protection index): the material of the core of a door shall be such as to limit the heating obtained on the unexposed side of the door to 250 ° C for 60 minutes. The core shall be tested as an integral part of the door in accordance with CAN4-S104, ASTM E 152 or NFPA 252 for fire behavior testing of doors and shall be certified by a recognized testing organization At the national level and providing a factory inspection service.

Thermal insulation shall meet the following requirements:
.1 Insulating materials used must not be classified as toxic, corrosive, flammable or explosive and labeled as such under the Consumer Chemicals and Containers Regulations, made under the Hazardous Products Act.
.2 Chemicals used in the manufacture of insulators must have the lowest ozone depletion potential (ODP).

## 8.8 ADHESIVES

The chosen adhesives must have the following characteristics.
.1 Adhesives shall not contain more than 5% by weight of volatile organic compounds, as determined by reference to the quantities of components used in the manufacture of the product.
.2 To minimize health hazards and optimize product performance, it is important that they are accompanied by relevant instructions on the methods of implementation.
.3 It is also important that the products are accompanied by appropriate instructions for appropriate disposal methods for containers.

Honeycomb cores and steel components: heat resistant, spray grade, resin reinforced neoprene/rubber (polychloroprene) based, low viscosity, contact cement.

Polystyrene and polyurethane cores: heat resistant, epoxy resin based, low viscosity, contact cement.

Lock-seam doors: fire resistant, resin reinforced polychloroprene, high viscosity, sealant/adhesive.

## 8.9 PRIMER

Touch up prime norme CAN/CGSB-1.181.

## 8.10 ACCESSOIRIES

. Door silencers: single stud rubber/neoprene type.

[top] [interior] [Exterior] [bottom]caps: [steel] [rigid polyvinylchloride extrusion conforming to CGSB 41-GP-19Ma].

Fabricate glazing stops as formed channel, minimum 16 mm height, accurately fitted, butted at corners and fastened to frame sections with counter-sunk oval head sheet metal screws.

Metallic paste filler: to manufacturer's standard.

Fire labels: [metal rivited].

Sealant: see section 07 92 10 –joint sealants.

Make provisions for [glazing]as indicated and provide necessary glazing stops.
.1 Provide removable stainless steel glazing beads for [dry glazing of snap-on type] [use with glazing tapes and compounds and secured with countersunk stainless steel screws].
.2 Design exterior glazing stops to be tamperproof.

Glazing: glass thermos, one of the two armed glass.

## 8.11 PAINT

Field paint steel doors and frames in accordance with the drawings: color white.
Provide paint for metal and slip to specified color code.
Protect weatherstrips from paint. Provide final finish free of scratches or other blemishes.

### 8.12 FRAMES FABRICATION GENERAL

Fabricate frames in accordance with CSDMA specifications.

Fabricate frames to profiles and maximum face sizes as indicated.

Exterior frames: [1.6] [1.2]mm [welded] [thermally broken]type construction.

Interior frames: [1.6] [1.2]mm [welded] [slip-on] [knocked-down]type construction.

Blank, reinforce, drill and tap frames for mortised, templated hardware, [electronic hardware]using templates provided by finish hardware supplier. Reinforce frames for surface mounted hardware.

Securely attach lead to inside of frame profile from return to jamb soffit (inclusive) on door side of frame only.

Fabricate frame products for openings

### 8.13 FRAME ANCHORAGE

Provide appropriate anchorage to floor and wall construction.

Locate each wall anchor immediately above or below each hinge reinforcement on hinge jamb and directly opposite on strike jamb.

Provide 2 anchors for rebate opening heights up to 1520 mm and 1 additional anchor for each additional 760 mm of height or fraction thereof.

Locate anchors for frames in existing openings not more than 150 mm from top and bottom of each jambs and intermediate at 660 mm on centre maximum.

## EXECUTION

### 8.14 INSTALLATION GENERAL

Install labelled steel fire rated doors and frames to NFPA 80 except where specified otherwise.

Install doors and frames to CSDMA Installation Guide.

### 8.15 FRAME INSTALLATION

Set frames plumb, square, level and at correct elevation.

Secure anchorages and connections to adjacent construction.

Brace frames rigidly in position while building-in. Install temporary horizontal wood spreader at third points of door opening to maintain frame width. Provide vertical support at centre of head for openings over 1200 mm wide.

Remove temporary spreaders after frames are built-in.

Make allowances for deflection of structure to ensure structural loads are not transmitted to frames.

Caulk perimeter of frames [between frame and adjacent material].

## 8.16 DOOR INSTALLATION

Install doors and hardware in accordance with hardware templates and manufacturer's instructions.

Provide even margins between doors and jambs and doors and finished floor[and thresholds]as follows.
.1 Hinge side: 1.0 mm.
.2 Latchside and head: 1.5 mm.
.3 Finished floor, [and thresholds] [top of carpet] [noncombustible sill]: 13 mm.

Adjust operable parts for correct function.

**END OF SECTION**

## GENERAL

### 8.1 REFERENCE STANDARDS

Aluminum Association (AA)
.1 AA DAF 45-[03(R2009)], Designation System for Aluminum Finishes.

ASTM International
.1 ASTM A1008/A1008M-[10], Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
.2 ASTM D523-[08], Standard Test Method for Specular Gloss.
.3 ASTM D822-[01(2006)], Standard Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings.

Canadian General Standards Board (CGSB)
.1 CAN/CGSB-1.105-[M91], Quick-Drying Primer.
.2 CAN/CGSB-1.213-[04], Etch Primer (Pretreatment Coating or Tie Coat) for Steel and Aluminum.
.3 CAN/CGSB-1.181-[99], Ready-Mixed, Organic Zinc-Rich Coatings.

CSA International
.1 CAN/CSA-G164-[M92(R2003)], Hot Dip Galvanizing of Irregularly Shaped Articles.

### 8.2 ACTION AND INFORMATIONAL SUBMITTALS

Submit in accordance with Section [01 33 00- Submittal Procedures].

Product Data:
.1 Submit manufacturer's instructions, printed product literature and data sheets for [doors, hardware, and accessories]and include product characteristics, performance criteria, physical size, finish and limitations.

Shop Drawings:
.1 Submit drawings stamped and signed by professional engineer registered or licensed in [Territory] [Province], Canada.
.2 Indicate sizes, service rating, types, materials, operating mechanisms, glazing locations and details, hardware and accessories, required clearances [and electrical connections].

. Manufacturer's instructions
.1 Submit manufacturer's installation instructions.

Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.

### 8.3 CLOSEOUT SUBMITTALS

Submit in accordance with Section [01 78 00- Closeout Submittals].
Operation and Maintenance Data: submit operation and maintenance data for [sectional metal doors]for incorporation into manual.

### 8.4 DESCRIPTION OF THE WORKS

Design Requirements

.1 Exterior doors and their rails shall be designed to withstand wind loads.
.2 Sectional doors must have an RSI 2.82 (R16) thermal resistance value.

### 8.5 WARRANTY

Provide a written document stating that the windows are warranted against defects under normal use for a period of five (5) years from the date of receipt with reservation.

This guarantee will be signed by the subcontractors and the Contractor. This guarantee will bind them jointly and jointly for the guarantee period.

## PRODUCTS

### 8.6 MATERIALS

Galvanized steel sheet: commercial quality [Z275]zinc coating.

Steel sheet: commercial quality to ASTM A1008/A1008M unexposed (U), and exposed (E)

Commercial grade garage door, model G-5000, grooved from Garaga, without glazing.
Dimensions as shown on plans. Follow all manufacturer's recommendations.

Sectional doors made of 1 3/4 "thick steel panels, High-pressure injected polyurethane foam insulation.

Commercial framing (CF # 101).

### 8.7 COMMERCIAL DUTY HARDWARE

Track: [lift] [low headroom] [vertical] [standard] [high]hardware with [50]mm size minimum [1.9]mm core thickness [galvanized steel]track.

Track Supports: [2.3]mm core thickness continuous galvanized steel angle track supports.

Spring counter balance: heavy duty oil tempered torsion spring with manufacturers standard brackets.
.1 Drum: [100]mm diameter [die cast aluminum].
.2 Shaft: [25]mm diameter galvanized steel.

Top roller carrier: galvanized steel minimum [2.28]mm thick [adjustable].

Hinges: commercial duty minimum [1.9]mm thick [as recommended by manufacturer] [[stainless] [galvanized]].

Cable: minimum [3]mm diameter galvanized steel aircraft cable.

### 8.8 ACCESSOIRIES

Overhead horizontal track and operator supports: galvanized steel, type and size to suit installation.
Track guards: [5]mm thick formed sheet [1500]mm high track guards.

Pusher springs.

Locking and maneuvering devices.

Weatherstripping:

Sills: [double contact] [bulb type ]full width extruded neoprene weatherstrip.

Jambs and head: extruded aluminum and arctic grade vinyl weatherstrip to manufacturer's standard.

Finish ferrous hardware items with minimum zinc coating of 300 g/m2to CAN/CSA-G164.

### 8.10 ELECTRICAL OPERATOR

Electrical [trolley] [jack shaft [centre] [side] mounted]type operator.

Electrical motors, controller units, remote pushbutton stations, relays and other electrical components: to CSA approval with CSA enclosure.
Provide three (3) remote controls.

### 8.11 TYPES OF MANEUVERS

Doors must be equipped with the following accessories, depending on the type of maneuver.
.1 Manual operation: one handle inside.
.2 Mechanical operation: hoist with galvanized steel chain.

Security
.1 Safety device for securing the door when a cable break occurs when the cable is closed; Maximum load of 250 kg.

## EXECUTION

### 8.12 MANUFACTURER'S INSTRUCTIONS

Compliance: Comply with the manufacturer's written requirements, recommendations and specifications, including technical bulletins and installation instructions specified in the product catalogs and cartons, as well as in the data sheets.

### 8.13 INSTALLATION

Install doors and hardware in accordance with manufacturer's instructions.

Rigidly support rail and operator and secure to supporting structure.

Touch-up steel doors with primer where galvanized finish damaged during fabrication.

Install operator including electrical motors, controller units, pushbutton stations, relays and other electrical equipment required for door operation.

Lubricate and adjust door operating components to ensure smooth opening and closing of doors.

Adjust weatherstripping to form a weather tight seal.

Adjust doors for smooth operation.

**END OF SECTION**

## GENERAL

### 8.1 REFERENCE STANDARDS

ASTM International
.1 ASTM A123/A123M-[12], Standard Specification for Zinc (Hot-Dip galvanized) Coatings on Iron and Steel Products.
.2 ASTM E1748-[95(2009)], Standard Test Method for Evaluating the Engagement Between Windows and Insect Screens as an Integral System.

CSA Group
.1 AAMA/WDMA/CSA 101/I.S.2/A440-[11], NAFS - North American Fenestration Standard for Windows, Doors, and Skylights.
.2 CSA A440S1-[09], Canadian Supplement to AAMA/WDMA/CSA 101/1.S.2/A440, NAFS - North American Fenestration Standard for Windows, Doors, and Skylights.
.3 CAN/CSA-A440.4-[07(R2012)], Window, Door, and Skylight Installation
.4 CAN/CSA-A440.2/A440.3-[09], Fenestration energy performance/User guide to CSA A440.2, Fenestration energy performance.
.5 CAN/CSA-Z91-[02(R2013)], Health and Safety Code for Suspended Equipment Operations.
.6 CAN/CSA-Z809-[08(R2013)], Sustainable Forest Management.

### 8.2 ACTION AND INFORMATIONAL SUBMITTALS

Submit in accordance with Section [01 33 00- Submittal Procedures].

Provide product date and shop drawings.

Workshop drawings must clearly indicate the nature of the materials, include full-size details of the upper cross member, studs and window sill, as well as the profiles of the components, show interior and exterior trim, indicate the dimensions of the structure and the details of the anchors, show where the protective coating is applied, and include a description of the related Caulking as well as apparent finishes and fasteners. The shop drawings must also indicate the location of the manufacturer's nameplate.

### 8.3 CLOSEOUT SUBMITTALS

Submit in accordance with Section [01 78 00- Closeout Submittals].

### 8.4 DESCRIPTION OF THE WORKS

Design Requirements
.1 Racks installed in exterior walls shall be so designed that the elements (doors and racks) can expand and contract freely when the surface is subjected to temperatures ranging from -35 degrees Celsius to 35 degrees Celsius.

### 8.5 WARRANTY

Provide a written document stating that the windows are warranted against defects under normal use for a period of five (5) years from the date of receipt with reservation.

This guarantee will be signed by the subcontractors and the Contractor. This guarantee will bind them jointly and jointly for the guarantee period.

Any repair or replacement, as well as any damage done to work of other trades by defective work of this section during the warranty period, will be resumed at the expense of the warranty signatories.

## PRODUCTS

### 8.6 MATERIALS

Materials: to [AAMA/WDMA/CSA 101/I.S.2/A440]supplemented as follows:

All windows by same manufacturer.
Sash: vinyl
Main frame: vinyl

Screens: comply with CAN / CGSB-79.1. Color vinyl identical to window frame. Frame designed for indoor mounting.

### 8.7 FABRICATION

Fabricate in accordance with [AAMA/WDMA/CSA 101/I.S.2/A440]supplemented as follows:

Fabricate units square and true with maximum tolerance of plus or minus 1.5 mm for units with a diagonal measurement of 1800 mm or less and plus or minus 3 mm for units with a diagonal measurement over 1800 mm.

Face dimensions detailed are maximum permissible sizes.

Brace frames to maintain squareness and rigidity during shipment and installation.

### 8.8 VINYL FINISHES

Vinyl finishes: in accordance with [AAMA/WDMA/CSA 101/I.S.2/A440], including appendices, supplemented as follows:
.1 Color white

### 8.9 GLAZING

Glaze windows in accordance with [AAMA/WDMA/CSA 101/I.S.2/A440].
Glass thermos clear, 1/4 " thick, total 1 " thickness. With argon gas.

### 8.10 HARDWARE

Hardware: stainless steel or white bronze sash locks and aluminum handles to provide security and permit easy operation of units.

Locks: provide operating sash with spring loading locking device, to provide automatic locking in closed position.

Include special keyed opening device for windows normally locked.

Where windows latching devices are located in excess of [1900]mm above floor level:
.1 Equip casement units with roto operators with locking handle underscreen stay bar assembly.

### 8.11 AIR BARRIER AND VAPOUR RETARDERS

Equip window frames with [site] [factory]installed [air barrier] [vapour retarder]material for sealing to building [air barrier] [vapour retarder]as follows:

.1 Material: identical to, or compatible with, building air barrier and vapour retarder materials to provide required air tightness and vapour diffusion control throughout exterior envelope assembly.

.2 Material width: adequate to provide required air tightness and vapour diffusion control to building [vapour retarder] [air barrier]from interior.

## EXECUTION

### 8.12 WINDOW INSTALLATION

Install in accordance with [AAMA/WDMA/CSA 101/I.S.2/A440].

Arrange components to prevent abrupt variation in colour.

### 8.13 SILL INSTALLATION

Install metal sills with uniform wash to exterior, level in length, straight in alignment with plumb upstands and faces. Use [one piece]mm lengths at each location.

Cut sills to fit window opening.

Secure sills in place with anchoring devices located at ends [joints of continuous sills]and evenly spaced [600]mm on centre in between.

Fasten [drip deflectors] [expansion joint cover plates] [and ]with self tapping stainless steel screws.

Maintain [6]to [9]mm space between butt ends of continuous sills. For sills over 1200 mm in length, maintain 3 to 6 mm space at each end.

### 8.14 CAULKING

Seal joints between windows and window sills with sealant. Bed sill expansion joint cover plates and drip deflectors in bedding compound. Caulk between sill upstand and window-frame. Caulk butt joints in continuous sills.

Apply sealant in accordance with Section [07 92 00- Joint Sealants]. Conceal sealant within window units except where exposed use is permitted by [DCC Representative] [Consultant] [Departmental Representative].

**END OF SECTION**

## GENERAL

### 9.1 REFERENCE STANDARDS

Aluminum Association
.1 Designation for Aluminum Finishes-1997.

American Society for Testing and Materials (ASTM)
.1 ASTM C 36-95, Specification for Gypsum Wallboard.
.2 ASTM C 79-94, Specification for Gypsum Sheathing Board.
.3 ASTM C 442-92, Specification for Gypsum Backing Board and Coreboard.
.4 ASTM C 475-94, Specification for Joint Compound and Joint Tape for Finishing

Gypsum Board.
.1 ASTM C 514-94, Specification for Nails for the Application of Gypsum Board.
.2 ASTM C 557-93a, Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing.
.3 ASTM C 630-93, Specification for Water-Resistant Gypsum Backing Board.
.4 ASTM C 840-95, Specification for Application and Finishing of Gypsum Board.
.5 ASTM C 931/931M-95, Specification for Exterior Gypsum Soffit Board.
.6 ASTM C 954-93, Specification for Steel Drill Screws for the Application of

Gypsum Board.
.1 ASTM C 960-91, Specification for Predecorated Gypsum Board.
.2 ASTM C 1002-93, Specification for Steel Drill Screws for the Application of

Gypsum Board or Metal Plaster Bases.
.1 ASTM C 1047-94, Specification for Accessories for Gypsum Wallboard and

Gypsum Veneer Base.
.1 ASTM C 1280-94, Specification for Application of Gypsum Sheathing Board.
.2 ASTM C 1177-91, Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
.3 ASTM C 1178-93, Specification for Glass Mat Water-Resistant Gypsum Backing Board.

Underwritters' Laboratories of Canada (ULC)
.1 CAN/ULC-S102-1988, Standard Method of Test of Surface Burning Characteristics of Building Materials and Assemblies.

### 9.2 AMBIENT CONDITIONS

Maintain temperature 10 degrees C minimum, 21 degrees C maximum for 48 hours prior to and during application of gypsum boards and joint treatment, and for 48 hours minimumafter completion of joint treatment.

Apply board and joint treatment to dry, frost free surfaces.

## PRODUCTS

### 9.3 MATERIALS

Exterior high-performance drywall plate with non-combustible core type X: 12.7 mm thick, 1,200mm width and 3,050mm of the maximum working length:
Product: CGC SECUROCK panel with fire resistance and water resistant or equivalent approved.

Unifix PermaBase Plus lightweight concrete board, fire resistant and resistant to prolonged exposure to moisture: 12.7mm thick, 1,200mm wide and 2,800mm long.

Wood forence for drywall and lightweight concrete: made of wood, 19mm x 64mm or 19mm x 89mm, according to the drawings, allowing the fixing of gypsum boards by means of screws.

Resilient clips: 0.5mm base steel thickness galvanized steel for resilient attachment of gypsum board.

Nails: to ASTM C514.

Steel drill screws: to ASTM C1002.

Stud adhesive: to ASTM C 557.

Laminating coumpound: as recommended by manufacturer, asbestos-free.

Casing beads, corner beads, control joints and edge trim: to ASTM C1047, Zinc, zinc-coated by electrolytic process, 0.5mm base thickness, perforated flanges, one piece length per location.

Sealants: in accordance with Section 07 92 00- Joint Sealants.

Insulating strip: rubberized, moisture resistant, 3mm thick, 12mm wide, with self sticking permanent adhesive on one face, lengths as required.

Joint compound: to ASTM C475, asbestos-free.

## EXECUTION

### 9.4 ERECTION

Do application and finishing of gypsum board to ASTM C840 except where specified otherwise.

Do application of gypsum sheathing to ASTM C1280.

Install work level to tolerance of 1:1200.

Frame with furring channels, perimeter of openings for access panels, light fixtures, diffusers, grilles.

Furr duct shafts, beams, columns, pipes and exposed services where indicated.

### 9.5 APPLICATION

Apply gypsum board after bucks, anchors, blocking, sound attenuation, electrical and mechanical work have been approved.

Apply double layer gypsum board to wood furring or framing using screw fasteners, for second layer screw fasteners. Maximum spacing of screws 300 mm on centre.

Apply 12mm diameter bead of acoustic sealant continuously around periphery of each face of partitioning to seal gypsum board/structure junction where partitions abut fixed building components. Seal full perimeter of cut-outs around electrical boxes.

## 9.6 INSTALLATION

Erect accessories straight, plumb or level, rigid and at proper plane. Use full length pieces where practical. Make joints tight, accurately aligned and rigidly secured. Mitre and fit corners accurately, free from rough edges. Secure at 150 mm on centre.

Install insulating strips continuously at edges of gypsum board and casing beads abutting metal window and exterior door frames, to provide thermal break.

Install control joints straight and true.

Install cornice cap where gypsum board partitions do not extend to ceiling.

Fit cornice cap over partition, secure to partition track with two rows of sheet metal screws staggered at 300mm on centre.

Splice corners and intersections together and secure to each member with 3 screws.

Install access doors to electrical and mechanical fixtures specified in respective sections.
Rigidly secure frames to furring or framing systems.

Completed installation to be smooth, level or plumb, free from waves and other defects and ready for surface finish.

**END OF SECTION**

## GENERAL

### 9.1 MEASUREMENT PROCEDURES

Preparation of sub-grade for placing of topsoil will not be measured for payment.

### 9.2 REFERENCE STANDARDS

Agriculture and Agri-Food Canada
.1 The Canadian System of Soil Classification, Third Edition, 1998.

Canadian Council of Ministers of the Environment
.1 PN1340-[2005], Guidelines for Compost Quality.

U.S. Environmental Protection Agency (EPA)/Office of Water
.1 EPA 832R92005, Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices.

### 9.3 DEFINITIONS

Compost
.1 Mixture of soil and decomposing organic matter used as fertilizer, mulch, or soil conditioner.
.2 Compost is processed organic matter containing 40% or more organic matter as determined by Walkley-Black or Loss On Ignition (LOI) test.
.3 Product must be sufficiently decomposed (i.e. stable) so that any further decomposition does not adversely affect plant growth (C:N ratio below (25) (50)), and contain no toxic or growth inhibiting contaminates.
.4 Composed bio-solids to: CCME Guidelines for Compost Quality, Category (A) (B).

### 9.4 ACTION AND INFORMATIONAL SUBMITTALS

Provide submittals in accordance with Section [01 33 00- Submittal Procedures].

Quality control submittals:
.1 Soil testing: submit certified test reports showing compliance with specified performance characteristics and physical properties as described in PART 2 - SOURCE QUALITY CONTROL.
.2 Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

## PRODUCTS

### 9.5 TOPSOIL

Topsoil for [planting beds] [seeded areas]: mixture of particulates, micro organisms and organic matter which provides suitable medium for supporting intended plant growth.
.1 Soil texture based on The Canadian System of Soil Classification, to consist of [20]to [70]% sand, minimum [7]% clay, and contain [2]to [10]% organic matter by weight.
.2 Contain no toxic elements or growth inhibiting materials.
.3 Finished surface free from:
.1 Debris and stones over 50 mm diameter.
.2 Course vegetative material, 10 mm diameter and 100 mm length, occupying more than 2% of soil volume.
.4 Consistence: friable when moist.

### 9.6 SOIL AMENDMENTS

Fertilizer:
.1 Fertility: major soil nutrients present in following amounts:
.2 Nitrogen (N): [20]to [40]micrograms of available N per gram of topsoil.
.3 Phosphorus (P): [40]to [50]micrograms of phosphate per gram of topsoil.
.4 Potassium (K): [75]to [110]micrograms of potassium per gram of topsoil.
.5 Calcium, magnesium, sulphur and micro-nutrients present in balanced ratios to support germination and/or establishment of intended vegetation.
.6 Ph value: [6.5 to 8.0].

Peatmoss:
.1 Derived from partially decomposed species of Sphagnum Mosses.
.2 Elastic and homogeneous, brown in colour.
.3 Free of wood and deleterious material which could prohibit growth.
.4 Shredded particle minimum size: [5]mm.

Sand: washed coarse silica sand, medium to course textured.

Use composts meeting Category B requirements for land fill reclamation and large scale industrial applications.

### 9.7 SOURCE QUALITY CONTROL

Advise Consultant of sources of topsoil to be utilized with sufficient lead time for testing.

Contractor is responsible for amendments to supply topsoil as specified.

Soil testing by recognized testing facility for PH, P and K, and organic matter.

Testing of topsoil will be carried out by independant testing laboratory.
.1 Soil sampling, testing and analysis to be in accordance with Provincial standards.

## EXECUTION

### 9.8 TEMPORARY EROSION AND SEDIMENTATION CONTROL

Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to [sediment and erosion control plan, specific to site, that complies with EPA 832/R-92-005 or requirements of authorities having jurisdiction, whichever is more stringent] [sediment and erosion control drawings] [requirements of authorities having jurisdiction].

Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.

Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

### 9.9 STRIPPING OF TOPSOIL

Begin topsoil stripping of areas as indicated on the drawings and removed from site.

Strip topsoil to depths as required after the work.
.1 Avoid mixing topsoil with subsoil where textural quality will be moved outside acceptable range of intended application.

Disposal of unused topsoil is to be in an environmentally responsible manner but not used as landfill.

## 9.10 PLACNIG AND SPREADING OF TOPSOIL/PLANTING SOIL

Place topsoil after [Consultant] [DCC Representative] [Departmental Representative]has accepted subgrade.

Spread topsoil in uniform layers not exceeding 150 mm.

For sodded areas keep topsoil [15]mm below finished grade.

Spread topsoil [as indicated]to following minimum depths after settlement.
.1 [150]mm for seeded areas.
.2 [135]mm for sodded areas.
.3 [300]mm for flower beds.
.4 [500]mm for shrub beds.

Manually spread topsoil/planting soil around trees, shrubs and obstacles.

## 9.11 FINISH GRADING

Grade to eliminate rough spots and low areas and ensure positive drainage.
.1 Prepare loose friable bed by means of cultivation and subsequent raking.

Consolidate topsoil to required bulk density using equipment approved by [Departmental Representative] [DCC Representative] [Consultant].
.1 Leave surfaces smooth, uniform and firm against deep footprinting.

## 9.12 ACCEPTANCE

The Consultant will inspect and determine acceptance of material, depth of topsoil and finish grading.

## 9.13 SURPLUS MATERIAL

Dispose of materials except topsoil not required off site.

## 9.14 CLEANING

Proceed in accordance with Section [01 74 11- Cleaning].

Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

**END OF SECTION**

**ÉTUDE DE CODE (CCQ) 2010**

AAC – Ferme expérimentale agrandissement
Ste-Clothide-De-Châteauguay (Qc)
Agrandissement de la ferme

| | |
|---|---|
| Aire de l'agrandissement | 108m² |
| Aire de l'existant | 141m² |
| Aire total du bâtiment au sol | 249m² |
| Nombre d'étage: | 1 étage |
| Usage principal : | F3 - Établissement industriels à risques faibles. |
| Type de construction : | Combustible |
| Protection incendie : | Non giclé |
| Nombre de rue : | 1 rues |

**DESCRIPTION SOMMAIRE DU PROJET**
Agrandissement de la bâtisse industriel existante

**PARTIE 9**

**A – NOMBRE DE PERSONNES**

Tab. 3.1.17.1. Pour industrie F3 = 43m² / occupant

Total de 6 personnes

**B – CLASSIFICATION**
Usage principal
Art. 3.2.2.83 1)Un bâtiment du groupe F3, au plus 2 étages, peut-être de construit conformément au paragraphe 2
2) Le bâtiment décrit au paragraphe 1) peut être de construction combustible et :
a) ses planchers doivent former une séparation coupe-feu et s'ils sont de construction combustible, ils doivent avoir un degré de résistance au feu d'au moins 45 min. :et
b) ses murs, poteaux et arc porteurs qui supportent doivent avoir une résistance au feu de 45min.

**C – NOMBRE ET EMPLACEMENT DES ISSUES**

Nombre minimal
Art. 3.4.2.1. 2) Toute aire de plancher ou partie de plancher située à au plus 1 étage au-dessus ou au-dessous du premier étage peut être desservie par une seule issue, aux conditions suivantes :
a) Le nombre de personne qui ont accès à cette issue est d'au plus 60 :
b) Cette issue conduit directement à l'extérieur et est distincte de toute autre issue qui dessert les autres étages :
c) Si l'aire de plancher n'est pas entièrement protégée par gicleurs, cette aire de plancher ou cette partie d'aire de plancher ainsi que la distance de parcours ne sont pas supérieures aux valeurs indiquées au tableau 3.4.2.1. -A :


Ordre des architectes du Québec
A 4551
STÉPHANIE SAVARD
ARCHITECTE

SAVARD ARCHITECTE.CA


# AGRICULTURE AGROALIMENTAIRE CANADA (AAC)/ AGRICULTURE AND AGRI-FOOD CANADA (AAC)
# AGRANDISSEMENT DU BÂTIMENT DE PRÉPARATION ET D'ENTREPOSAGES SCIENTIFIQUES / EXPANSION OF THE BUILDING : SCIENTIFIC PREPARATION AND STORAGE CAPACITY

SA-16131
2017-03-10
SOUMISSION/TENDER

FERME EXPÉRIMENTALE STE-CLOTILDE / STE-CLOTILDE EXPERIMENTAL FARM
1815 CH DE LA RIVIERE, STE-CLOTILDE (QUÉBEC)

| ARCHITECTURE<br>LISTE DES PLANS / PLANS LIST | PAGES | ÉMISSIONS<br>2016-12-02 PRELIMINAIRE 50%<br>2017-02-13 APPROBATION 99% / APPROBATION 99%<br>2017-03-10 SOUMISSION TENDER |
|---|---|---|
| PAGE COUVERTURE / COVER PAGE | A000 | |
| IMPLANTATION SOMMAIRE - DÉMOLITION / SITE PLAN - DEMOLITION | D001 | |
| PLAN & ÉLÉVATION GAUCHE - DÉMOLITION / PLAN AND LEFT ELEVATION - DEMOLITION | D101 | |
| ÉLÉVATIONS ARRIÈRE & DROITE - DÉMOLITION / REAR AND RIGHT ELEVATIONS - DEMOLITION | D501 | |
| IMPLANTATION SOMMAIRE / SUMMARY SITE PLAN - CONSTRUCTION | A001 | |
| PLAN - CONSTRUCTION | A101 | |
| PLAN DE TOITURE / ROOF PLAN - CONSTRUCTION | A102 | |
| ÉLÉVATIONS / ELEVATIONS - CONSTRUCTION | A501 | |
| COUPES DE MUR & ÉLÉVATIONS PORTES ET CADRES / WALL SECTIONS & DOOR AND FRAME ELEVATIONS | A601 | |

NOTES GÉNÉRALES POUR LE PROJET / PROJECT GENERAL NOTES:

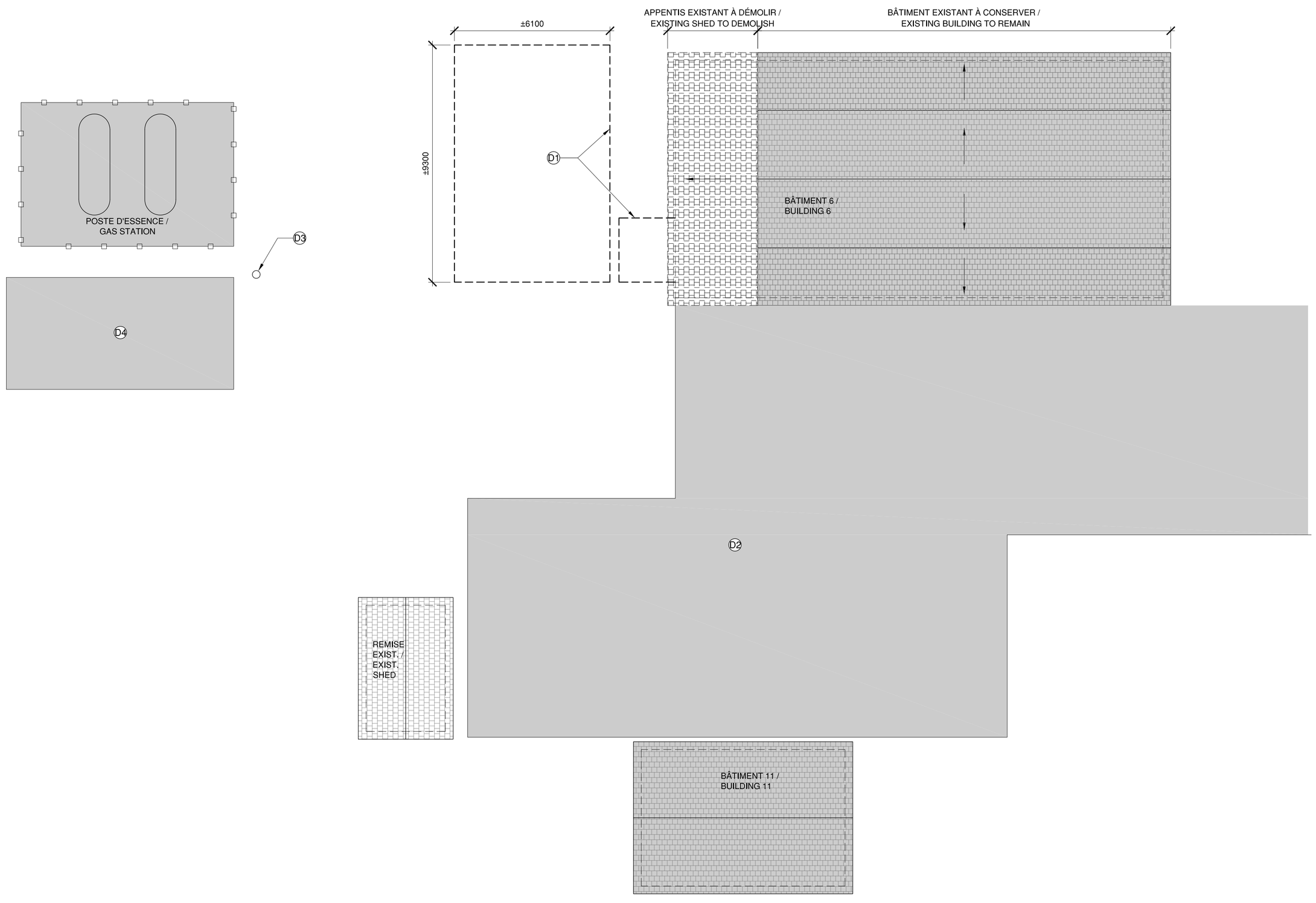
1. TOUS LES CALCULS DE STRUCTURE ET LA STRUCTURE AINSI QUE LA MÉCANIQUE/ÉLECTRIQUE (INCLUANT L'ARMATURE, L'ACIER, LE BOIS, ETC.) SONT À VÉRIFIER ET À VALIDER PAR UN INGÉNIEUR MEMBRE DE L'OIQ. / ALL STRUCTURAL STRUCTURE CALCULATIONS (INCLUDING FRAMEWORK, STEEL, WOOD, ETC.) HAVE TO BE VERIFIED BY AN ENGINEER MEMBER OF THE OIQ, IDEM FOR ALL THE ELECTRICAL AND MECANICAL ITEMS

2. IL EST IMPORTANT DE VÉRIFIER TOUTES LES DIMENSIONS DE MATÉRIAUX ET ÉQUIPEMENTS AVANT LE DÉBUT DES TRAVAUX.
SAVARD ARCHITECTE SE DÉGAGE DE TOUTE RESPONSABILITÉ SI DES IMPRÉVUES SURVIENNENT LORS DE LA DÉMOLITION. / VERIFY ALL DIMENSIONS OF MATERIALS AND EQUIPMENTS PRIOR TO THE BEGINNING OF THE WORK.
SAVARD ARCHITECTE IS NOT RESPONSIBLE IF UNFORESEEN SITUATIONS OCCURS DURING DEMOLITION.

3. FOURNIR FERMES DE TOIT PRÉFABRIQUÉES. SUIVRE DÉTAILS ET RECOMMANDATIONS DU FABRICANT ET DE L'INGÉNIEUR, / PROVIDE PREFABRICATED WOODEN ROOF TRUSSES, FOLLOW INSTRUCTIONS AND RECOMMENDATIONS OF THE MANUFACTURER.

4. LE PROJET DOIT ÊTRE CONFORME AUX NORMES ET CODES EN VIGUEUR AINSI QU'AU CODE DE CONSTRUCTION DU QUÉBEC (CCQ). / THE PROJECT MUST COMPLY WITH STANDARDS, APPLICABLE CODES AND QUEBEC'S CONSTRUCTION CODE (CCQ).

5. LE REVÊTEMENT HORIZONTAL À ENLEVER SERA PRIS EN CHARGE PAR LE CLIENT AAC AVANT LE DÉBUT DES TRAVAUX, AUX ENDROITS INDIQUÉS. / REMOVAL OF THE EXISTING SIDING WILL BE TAKEN OVER BY THE OWNER AAC. PRIOR TO THE BEGINNING OF WORK.




NOTES SPÉCIFIQUES - IMPLANTATION SOMMAIRE / SPECIFIC NOTES - SUMMARY SITE PLAN (D001) :

D1 DALLE DE BÉTON À DÉMOLIR, VOIR ING. / DEMOLISH CONCRETE SLAB, SEE ENG.

D2 ZONE ASPHALTÉE EXISTANTE À CONSERVER. / EXISTING ASPHALT AREA TO REMAIN.

D3 POTEAU ÉLECTRIQUE EXISTANT À CONSERVER. / ELECTRICAL POST TO REMAIN.

D4 DALLE DE BÉTON EXISTANTE À CONSERVER. / EXISTING CONCRETE SLAB TO BE REMAIN.

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ARCHITECTE / ARCHITECT



L' ENTREPRENEUR DOIT EXAMINER ET VÉRIFIER TOUTES LES DIMENSIONS SUR LES LIEUX MÊMES DES TRAVAUX AVANT LE DÉBUT DES TRAVAUX.
L'ENTREPRENEUR DOIT ÉGALEMENT SIGNALER TOUTES ERREURS ET/OU OMISSIONS À L'ARCHITECTE AVANT LE DÉBUT DES TRAVAUX.
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NOTES GÉNÉRALES / GENERAL NOTES

LE SCEAU DOIT PORTER LA SIGNATURE MANUSCRITE ORIGINALE DE L'ARCHITECTE POUR ÊTRE VALIDE.

Ordre des architectes du Québec
A 4551
STÉPHANIE SAVARD
ARCHITECTE

SCEAU / SEAL

**SERVICE DE CONSULTATION DE VALLEYFIELD INC.**

INGÉNIEUR STRUCTURE / STRUCTURAL ENGINEER

| | | |
|---|---|---|
| | SOUMISSION/TENDER | 2017-03-10 |
| | 99% APPROBATION | 2017-02-13 |
| | 50% PRÉLIMINAIRE | 2016-12-02 |

ÉMISSIONS ET RÉVISIONS / ISSUED AND REVISIONS

# AAC - FERME EXPÉRIMENTALE AGRANDISSEMENT / EXPANSION

1815 CH. DE LA RIVIÈRE
STE-CLOTILDE-DE-CHÂTEAUGUAY (Qc)

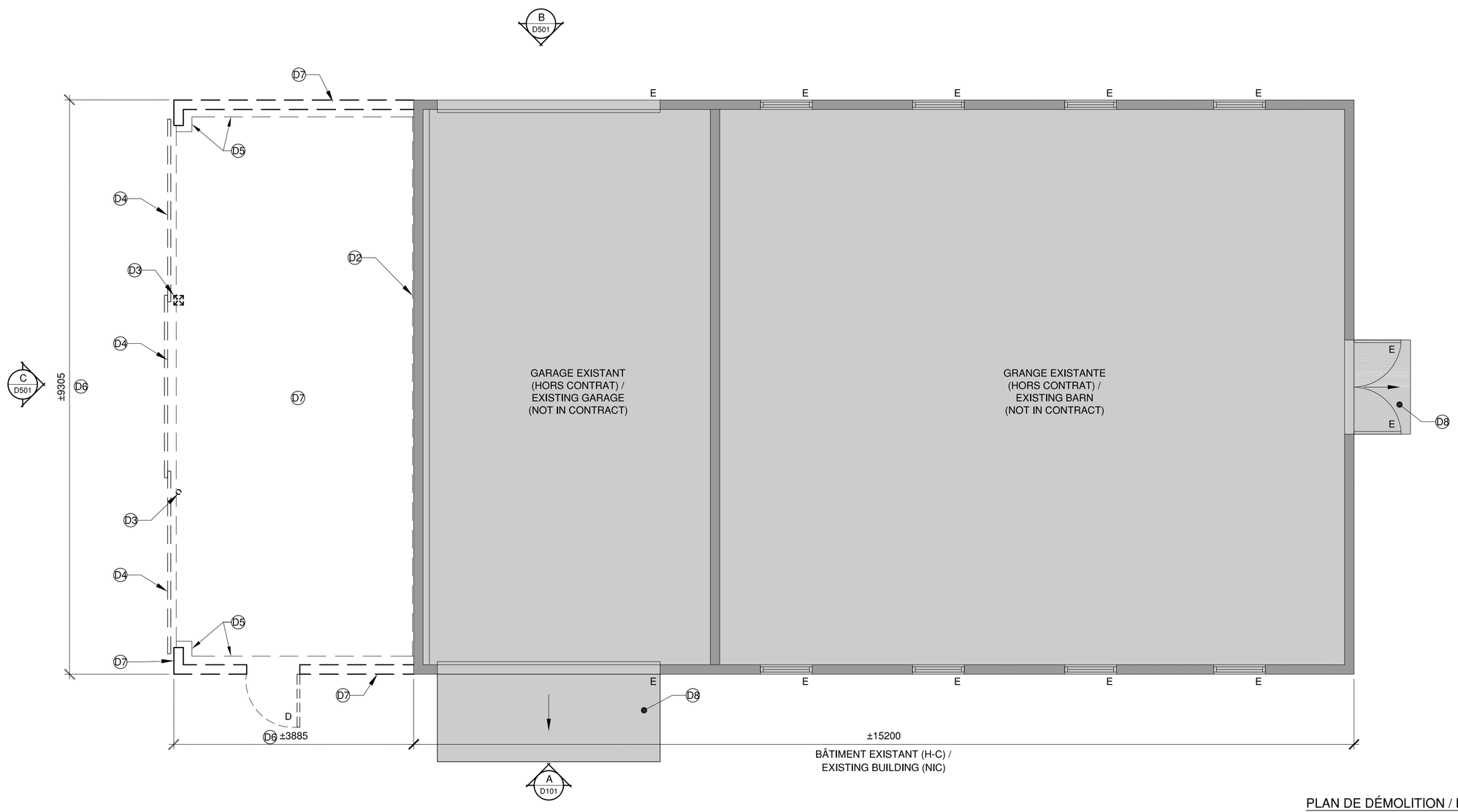
PROJET / PROJECT

## IMPLANTATION SOMMAIRE - DÉMOLITION
## SUMMARY SITE PLAN- DEMOLITION

DESSIN / DRAWING

| | |
|---|---|
| SA-16131 | 16131_A101 |
| NO. PROJET / PROJECT NO. | NOM DU FICHIER / FILE NAME |
| 1:100 | OCT - 2016 |
| ÉCHELLE / SCALE | DATE D'OUVERTURE / OPENING DATE |

D001




PLAN DE DÉMOLITION / DEMOLITION PLAN — 1 D101

ÉCHELLE / SCALE: 1:50


ÉLÉVATION GAUCHE - DÉMOLITION / LEFT ELEVATION - DEMOLITION — A D101

ÉCHELLE / SCALE: 1:50

NOTES GÉNÉRALES / GENERAL NOTES - DEMOLITION :

1. ENLEVER TOUS LES ÉQUIPEMENTS ET/OU ACCESSOIRES SUR LES MURS À DÉMOLIR (À L'INTÉRIEUR ET À L'EXTÉRIEUR). / REMOVE ALL EQUIPMENTS AND/OR ACCESSORIES ON THE WALLS TO BE DEMOLISHED (INSIDE AND OUTSIDE).

2. DANS LE CAS OÙ IL Y AURAIT DES ÉQUIPEMENTS EXTÉRIEURS À CONSERVER, FOURNIR ET INSTALLER DES FIXATIONS TEMPORAIRES LORS DE LA DÉMOLITION, COORDONNER AVEC LES PLANS DE L'INGÉNIEUR./ INSTALL AND PROVIDE TEMPORARY FITTING DURING DEMOLITION, WHERE THERE WILL BE EXTERIOR EQUIPMENTS TO REMAIN, COORDINATE WITH ENGINEER'S DRAWING.

NOTES SPÉCIFIQUES / SPECIFIC NOTES - DEMOLITION :

D1 DALLE DE BÉTON EXISTANTE À DÉMOLIR, VOIR ING. / DEMOLISH EXISTING CONCRETE SLAB, SEE ENG.

D2 LES PLANCHES SUR LE MUR EXISTANT SONT À ENLEVER. ÉGALEMENT, ENLEVER TOUTE AUTRE SECTION POURRIE OU ENDOMMAGÉE SUR CE MUR, FOURNIR SUPPORT TEMPORAIRE SI REQUIS. / REMOVE ALL EXISTING WOOD PLANKS AND ANY OTHER DAMAGED SECTIONS ON THIS WALL, PROVIDE TEMPORARY SUPPORT IF REQUIRED.

D3 COLONNE EXISTANTE À ENLEVER. / REMOVE EXISTING COLUMN

D4 PORTES DE GRANGE COULISSANTE EXISTANTES À ENLEVER. / REMOVE EXISTING SLIDING BARN DOORS.

D5 FONDATIONS EXISTANTES À DÉMOLIR, VOIR ING. / DEMOLISH FOUNDATION WALLS, SEE ENG.

D6 DÉMOLIR LES MURS (3) DE L'APPENTIS EXISTANT, AINSI QUE LA TOITURE, VOIR ÉLÉVATIONS. / DEMOLISH THE WALLS (3) AND THE ROOF OF THE EXISTING SHED, SEE ELEVATIONS.

D7 LES PLANCHES DU REVÊTEMENT EXTÉRIEUR SERONT ENLEVÉES PAR LE PROPRIÉTAIRE POUR RECUPERATION. / EXISTING SIDING WILL BE REMOVE BY THE OWNER FOR FURTHER RELOCATION.

D8 RAMPE EN BÉTON EXISTANTE À CONSERVER. / EXISTING CONCRETE RAMP TO REMAIN.

D9 PORTE EXISTANTE À ENLEVER. / REMOVE EXISTING DOOR

D10 CAMÉRA EXISTANTE À ENLEVER POUR RELOCALISATION, VOIR ING. / REMOVE EXISTING CAMERA FOR FURTHER RELOCATION, SEE ING.

D11 FENÊTRE À ENLEVER ET REMETTRE AU CLIENT. / REMOVE WINDOW AND RETURN TO OWNER.

D12 PROFIL DE L'AGRANDISSEMENT. / EXPANSION PROFIL.

LÉGENDE DÉMOLITION / DÉMOLITION LEGEND:

E — PORTE ET CADRE EXISTANTS À CONSERVER / EXISTING DOOR AND FRAME TO REMAIN

D — PORTE ET CADRE À ENLEVER ET REMETTRE AU CLIENT. / REMOVE DOOR AND FRAME AND RETURN TO OWNER.

ITEMS À DÉMOLIR / ITEMS TO BE DEMOLISHED

ITEMS À CONSERVER / ITEMS TO REMAIN

HORS-CONTRAT (H-C) / NOT IN CONTRACT (NIC)

E. EXISTANT / EXISTING

D. À DÉMOLIR / DEMOLISH

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ARCHITECTE / ARCHITECT



NOTES GÉNÉRALES / GENERAL NOTES

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INGÉNIEUR STRUCTURE / STRUCTURAL ENGINEER

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ÉMISSIONS ET RÉVISIONS / ISSUED AND REVISIONS

# AAC - FERME EXPÉRIMENTALE AGRANDISSEMENT / EXPANSION

1815 CH. DE LA RIVIÈRE
STE-CLOTILDE-DE-CHÂTEAUGUAY (Qc)

PROJET / PROJECT

## PLAN & ÉLÉVATION GAUCHE - DÉMOLITION
## PLAN AND LEFT ELEVATION - DEMOLITION

DESSIN / DRAWING

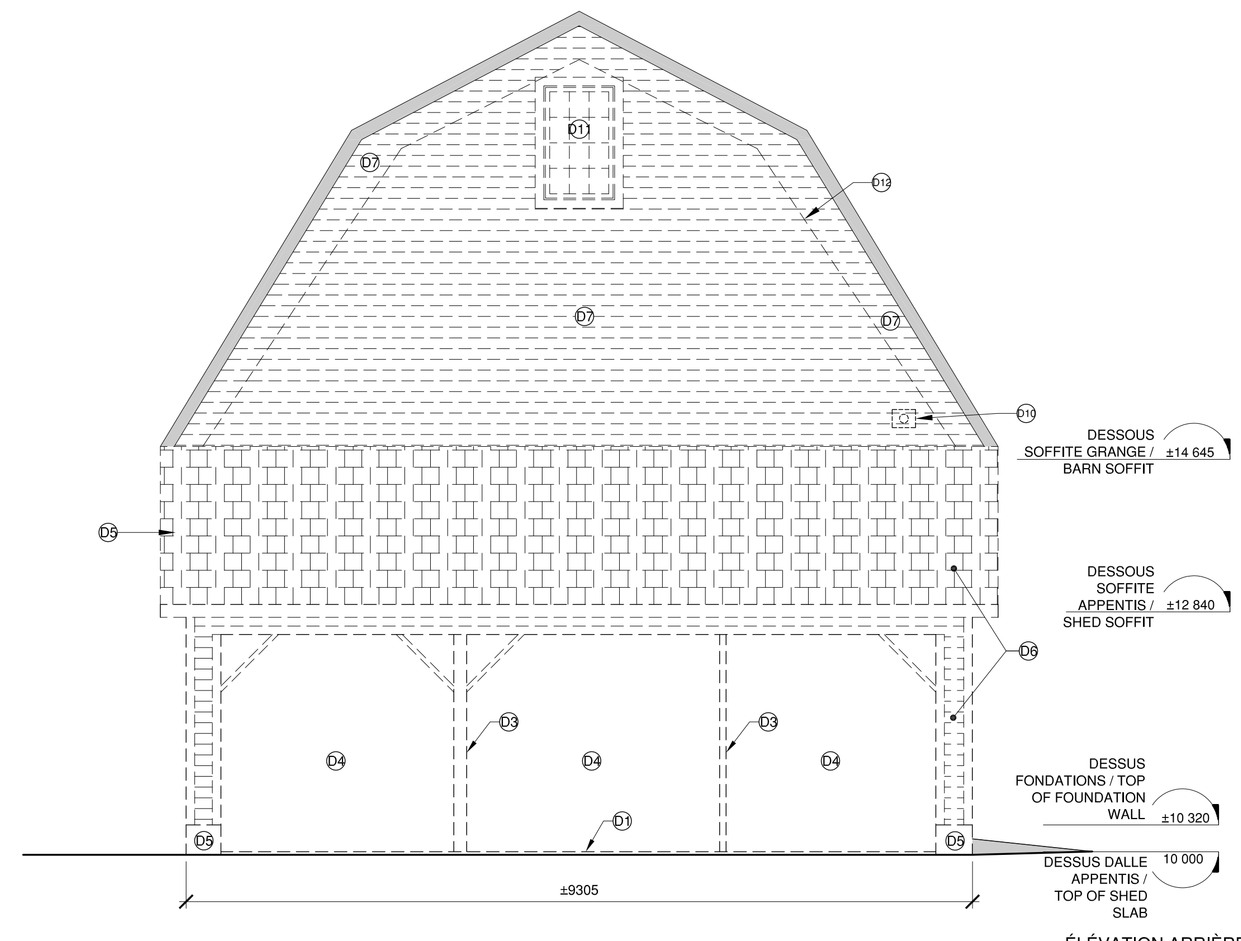
| | |
|---|---|
| SA-16131 | 16131_A101 |
| NO. PROJET / PROJECT NO. | NOM DU FICHIER / FILE NAME |
| INDIQUÉE/AS SHOWN | OCT - 2016 |
| ÉCHELLE / SCALE | DATE D'OUVERTURE / OPENING DATE |

D101


ÉLÉVATION DROITE - DÉMOLITION / RIGHT ELEVATION DEMOLITION

ÉCHELLE / SCALE:1:50

B D501




ÉLÉVATION ARRIÈRE - DÉMOLITION / REAR ELEVATION - DEMOLITION

ÉCHELLE / SCALE:1:50

C D501

NOTES SPÉCIFIQUES / SPECIFIC NOTES - DEMOLITION :

D1 DALLE DE BÉTON EXISTANTE À DÉMOLIR, VOIR ING. / DEMOLISH EXISTING CONCRETE SLAB, SEE ENG.

D2 LES PLANCHES SUR LE MUR EXISTANT SONT À ENLEVER. ÉGALEMENT, ENLEVER TOUTE AUTRE SECTION POURRIE OU ENDOMMAGÉE SUR CE MUR, FOURNIR SUPPORT TEMPORAIRE SI REQUIS. / REMOVE ALL EXISTING WOOD PLANKS AND ANY OTHER DAMAGED SECTIONS ON THIS WALL, PROVIDE TEMPORARY SUPPORT IF REQUIRED.

D3 COLONNE EXISTANTE À ENLEVER. / REMOVE EXISTING COLUMN

D4 PORTES DE GRANGE COULISSANTE EXISTANTES À ENLEVER. / REMOVE EXISTING SLIDING BARN DOORS.

D5 FONDATIONS EXISTANTES À DÉMOLIR, VOIR ING. / DEMOLISH FOUNDATION WALLS, SEE ENG.

D6 DÉMOLIR LES MURS (3) DE L'APPENTIS EXISTANT, AINSI QUE LA TOITURE, VOIR ÉLÉVATIONS. / DEMOLISH THE WALLS (3) AND THE ROOF OF THE EXISTING SHED, SEE ELEVATIONS.

D7 LES PLANCHES DU REVÊTEMENT EXTÉRIEUR SERONT ENLEVÉES PAR LE PROPRIÉTAIRE POUR RECUPERATION. / EXISTING SIDING WILL BE REMOVE BY THE OWNER FOR FURTHER RELOCATION.

D8 RAMPE EN BÉTON EXISTANTE À CONSERVER. / EXISTING CONCRETE RAMP TO REMAIN.

D9 PORTE EXISTANTE À ENLEVER. / REMOVE EXISTING DOOR

D10 CAMÉRA EXISTANTE À ENLEVER POUR RELOCALISATION, VOIR ING. / REMOVE EXISTING CAMERA FOR FURTHER RELOCATION, SEE ING.

D11 FENÊTRE À ENLEVER ET REMETTRE AU CLIENT. / REMOVE WINDOW AND RETURN TO OWNER.

D12 PROFIL DE L'AGRANDISSEMENT. / EXPANSION PROFIL.

LÉGENDE DÉMOLITION / DÉMOLITION LEGEND:

E — PORTE ET CADRE EXISTANTS À CONSERVER / EXISTING DOOR AND FRAME TO REMAIN

D — PORTE ET CADRE À ENLEVER ET REMETTRE AU CLIENT. / REMOVE DOOR AND FRAME AND RETURN TO OWNER.

ITEMS À DÉMOLIR / ITEMS TO BE DEMOLISHED

ITEMS À CONSERVER / ITEMS TO REMAIN

HORS-CONTRAT (H-C) / NOT IN CONTRACT (NIC)

E. EXISTANT / EXISTING

D. À DÉMOLIR / DEMOLISH

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ARCHITECTE / ARCHITECT



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NOTES GÉNÉRALES / GENERAL NOTES

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Ordre des architectes du Québec
A 4551
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ARCHITECTE

SCEAU / SEAL

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INGÉNIEUR STRUCTURE / STRUCTURAL ENGINEER

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ÉMISSIONS ET RÉVISIONS / ISSUED AND REVISIONS

# AAC - FERME EXPÉRIMENTALE AGRANDISSEMENT / EXPANSION

1815 CH. DE LA RIVIÈRE
STE-CLOTILDE-DE-CHÂTEAUGUAY (Qc)

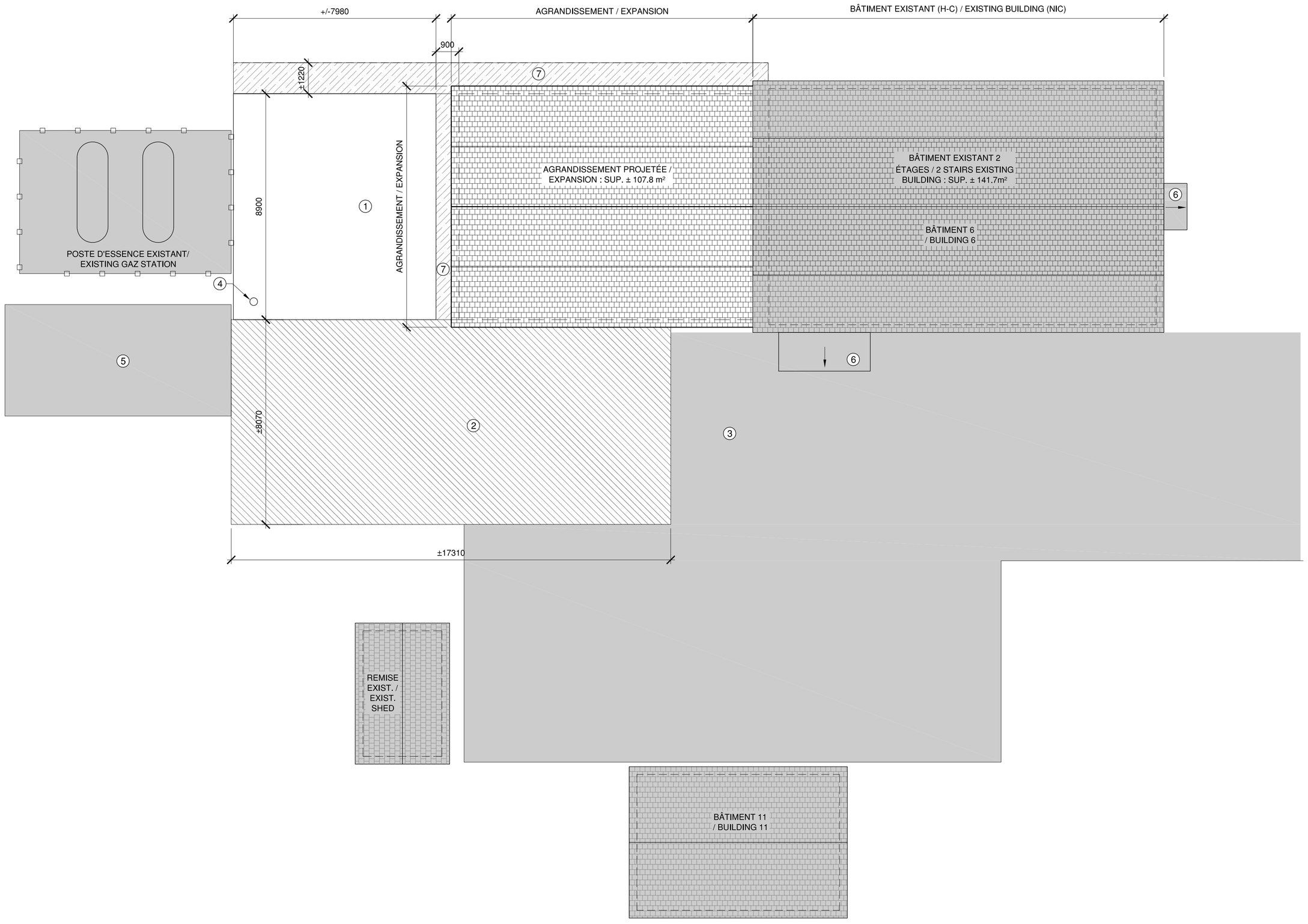
PROJET / PROJECT

## ÉLÉVATIONS ARRIÈRE & DROITE - DÉMOLITION
## REAR AND RIGHT ELEVATIONS - DEMOLITION

DESSIN / DRAWING

| | |
|---|---|
| SA-16131 | 16131_A101 |
| NO. PROJET / PROJECT NO. | NOM DU FICHIER / FILE NAME |
| INDIQUÉE / AS SHOWN | OCT - 2016 |
| ÉCHELLE / SCALE | DATE D'OUVERTURE / OPENING DATE |

# D501




NOTES SPÉCIFIQUES - IMPLANTATION SOMMAIRE / SPECIFIC NOTES - SUMMARY SITE PLAN- CONSTRUCTION:

1. NOUVELLE DALLE DE BÉTON, VOIR ING. / NEW CONCRETE SLAB, SEE ING.
2. NOUVELLE SECTION D'ASPHALTE, VOIR ING. ET DEVIS / NEW ASPHALT AREA, SEE ING. AND SPECIFICATIONS
3. ZONE ASPHALTÉE EXISTANTE. / EXISTING ASPHALT AREA TO REMAIN
4. POTEAU ÉLECTRIQUE EXISTANT / ELECTRICAL POST TO REMAIN
5. DALLE DE BÉTON EXISTANTE / EXISTING CONCRETE SLAB TO BE REMAIN
6. RAMPE EN BÉTON EXISTANTE. / EXISTING CONCRETE RAMP TO REMAIN.
7. ZONE DE TERRASSEMENT AU PÉRIMÈTRE DE L'AGRANDISSEMENT À RÉPARER ET RENDRE PRÊT À RECEVOIR LE NOUVEAU GAZON, GAZON PAR AAC. / REPAIR ALL DAMAGED LANDSCAPE SURROUNDING THE EXPANSION AND PREPARE THE GROUND FOR NEW GRASS, PROVIDED BY AAC

NOTES GÉNÉRALES / GENERAL NOTES- CONSTRUCTION:

1. LES CÔTES INDIQUÉES AUX PLANS SONT POSITIONNÉES SELON LA FACE EXTÉRIEUR DU MUR DE BÉTON ET/OU CENTRE DE STRUCTURE. / ALL DIMENSIONS ARE MESURED FROM THE OUTSIDE OF THE FONDATION WALLS OR THE CENTER OF THE STRUCTURE.

2. RAGRÉER TOUS LES MURS, PLANCHERS ET PLAFONDS EXISTANTS AFFECTÉS PAR LA DÉMOLITION ET LES TRAVAUX. / REPAIR ALL DAMAGED WALLS, FLOORS AND CELLINGS AFTERWARD DEMOLITION OR WORKS.

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ARCHITECTE / ARCHITECT



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INGÉNIEUR STRUCTURE / STRUCTURAL ENGINEER

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# AAC - FERME EXPÉRIMENTALE AGRANDISSEMENT / EXPANSION

1815 CH. DE LA RIVIÈRE
STE-CLOTILDE-DE-CHÂTEAUGUAY (Qc)

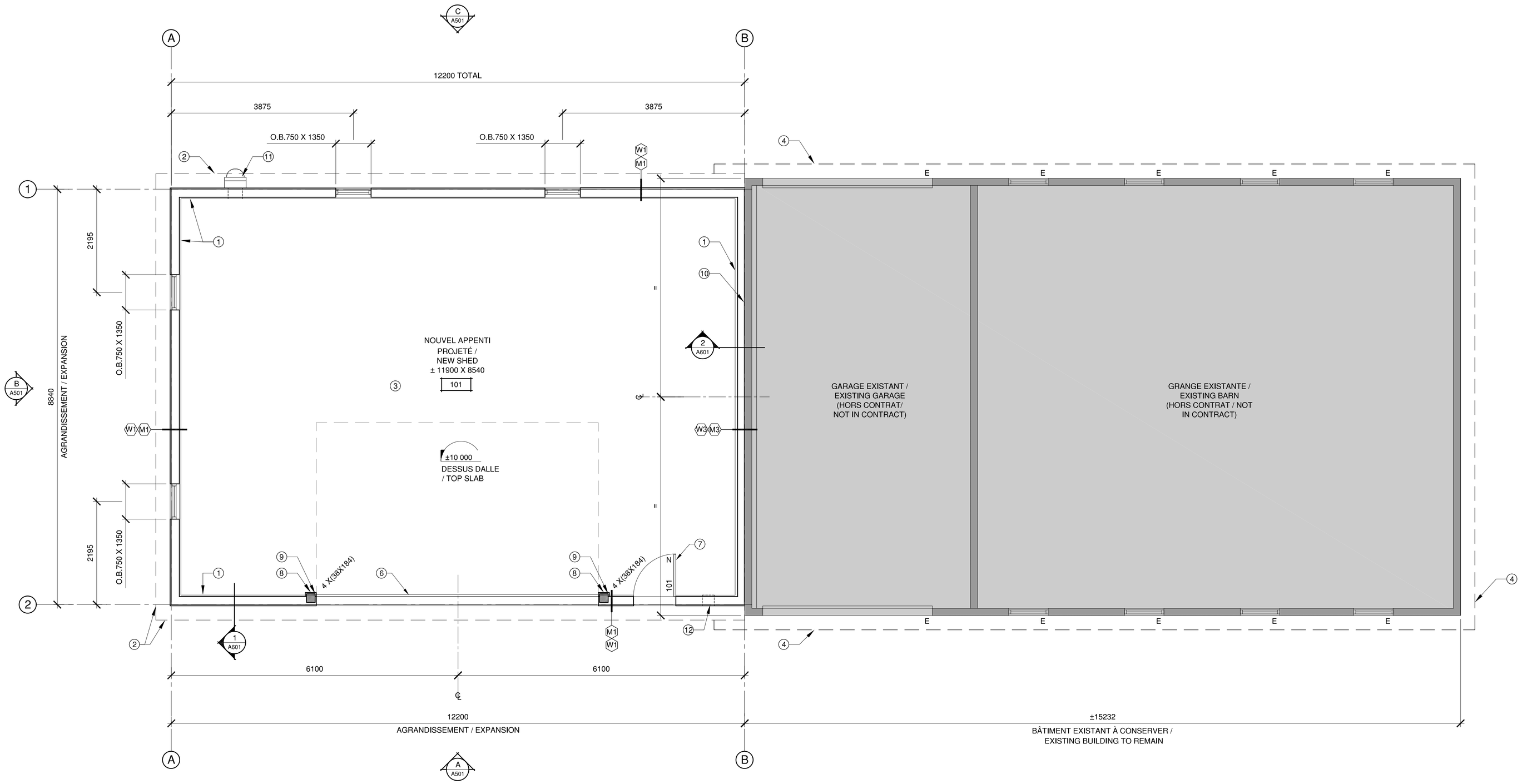
PROJET / PROJECT

## IMPLANTATION SOMMAIRE-CONSTRUCTION
## SUMMARY SITE PLAN - CONSTRUCTION

DESSIN / DRAWING

| | |
|---|---|
| SA-16131 | 16131_A101 |
| NO. PROJET / PROJECT NO. | NOM DU FICHIER / FILE NAME |
| 1:100 | OCT - 2016 |
| ÉCHELLE / SCALE | DATE D'OUVERTURE / OPENING DATE |

# A001




NOTES SPÉCIFIQUES / SPECIFIC NOTES - PLANS (A101)

1. PROFIL DE LA NOUVELLE FONDATION, VOIR ING. / NEW FOUNDATION WALLS OUTLINE, SEE ENG.
2. PROFIL DE LA NOUVELLE TOITURE. / NEW ROOF OUTLINE.
3. NOUVELLE DALLE DE BÉTON, VOIR ING. / NEW CONCRETE SLAB, SEE ENG.
4. PROFIL DE LA TOITURE EXISTANTE. / EXISTING ROOF OUTLINE.
5. NOUVELLE FENÊTRE, VOIR DEVIS / NEW WINDOW, SEE SPECIFICATIONS.
6. OUVERTURE POUR NOUVELLE PORTE DE GARAGE, 6100L x 3650H, VOIR DEVIS. / OPENING FOR NEW GARAGE DOOR, 6100W x 3650H, SEE SPECIFICATIONS.
7. OUVERTURE POUR NOUVELLE PORTE PIÉTON 915L x 2032H, VOIR DEVIS / OPENING FOR NEW DOOR, 915W x 2032H, SEE SPECIFICATIONS.
8. RECOUVRIR TOUTES LES COLONNES DE FOURRURES ET 2 PANNEAUX DE CIMENT LÉGER / PROTECT ALL COLUMNS WITH FORRENCE AND 2 CIMENT BOARD,
9. POUR TOUTES LES COLONNES, VOIR ING. / FOR COLUMNS, SEE ENG.
10. REMPLACER TOUT ÉLÉMENT DE BOIS POURRIT ET ENDOMMAGÉ ENLEVÉ LORS DE LA DÉMOLITION ET ASSURER L'INTÉGRITÉ DU MUR PORTEUR EXISTANT / REPLACE ALL DAMAGEDWOOD REMOVED DURING DEMOLITION AND MAINTAIN THE INTEGRITY OF THE EXISTING STRUCTURAL WALL.
11. NOUVEL ÉVACUATEUR MURAL, ASSURER L'ÉTANCHÉITÉ, VOIR ING. / NEW POWER VENTER, ENSURE WATERPROOFING, SEE ENG.
12. NOUVELLE GRILLE DE VENTILATION, ASSURER L'ÉTANCHÉTITÉ, VOIR ING. / NEW VENTILATION GRID, ENSURE WATERPROOFING, SEE ENG.

NOTES GÉNÉRALES / GENERAL NOTES - CONSTRUCTION

1. LES CÔTES INDIQUÉES AUX PLANS SONT POSITIONNÉES SELON LA FACE EXTÉRIEURE DU MUR DE BÉTON. / DIMENSIONS ARE MESURED FROM THE OUTSIDE OF THE FOUNDATION WALLS.

2. TOUT LE VITRAGE DES FENÊTRES SONT DES THERMOS. / ALL THE WINDOWS ARE INSULATED.
3. POUR LES PORTES, CADRES ET QUINCAILLERIE, VOIR A601, AINSI QUE LE DEVIS. / FOR DOORS, FRAMES AND HARDWARE, SEE A601 AND SPECIFICATIONS.

4. RÉPARER TOUS LES MURS, PLANCHERS ET PLAFONDS EXISTANTS AFFECTÉS PAR LA DÉMOLITION ET LES TRAVAUX. / ALL DAMAGE EXISTING WALLS, FLOORS AND CELLINGS MUST BE REPAIRED FOLLOWING THE CONSTRUCTION WORK.

5. LA PROTECTION AU FEU AYANT UNE RÉSISTANCE AU FEU DE 45 MIN. EST REQUISE POUR TOUT ÉLÉMENTPORTEUR AUX MURS. / THE FIRE RESISTANCE OF 45 MIN. IS REQUIRED TO PROTECT ALL STRUCTURAL ELEMENTS OF THE WALLS

LÉGENDE / LEGEND:

E — PORTE ET CADRE EXISTANT À CONSERVER. / EXISTING DOOR AND FRAME TO REMAIN.

N — NOUVELLE PORTE ET CADRE. / NEW DOOR AND FRAME.

ITEM EXISTANT À CONSERVER. / EXISTING ITEM TO REMAIN.

HORS-CONTRAT (H-C) / NOT IN CONTRACT (NIC)

E. EXISTANT / EXISTING
D. DÉMOLIR / DEMOLISH
O. B. OUVERTURE BRUTE / ROUGH OPENING

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ARCHITECTE / ARCHITECT



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NOTES GÉNÉRALES / GENERAL NOTES

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# AAC - FERME EXPÉRIMENTALE AGRANDISSEMENT / EXPANSION

1815 CH. DE LA RIVIÈRE
STE-CLOTILDE-DE-CHÂTEAUGUAY (Qc)

PROJET / PROJECT

## PLAN - CONSTRUCTION CONSTRUCTION - PLAN

DESSIN / DRAWING

| | |
|---|---|
| SA-16131 | 16131_A101 |
| NO. PROJET / PROJECT NO. | NOM DU FICHIER / FILE NAME |
| 1:50 | OCT - 2016 |
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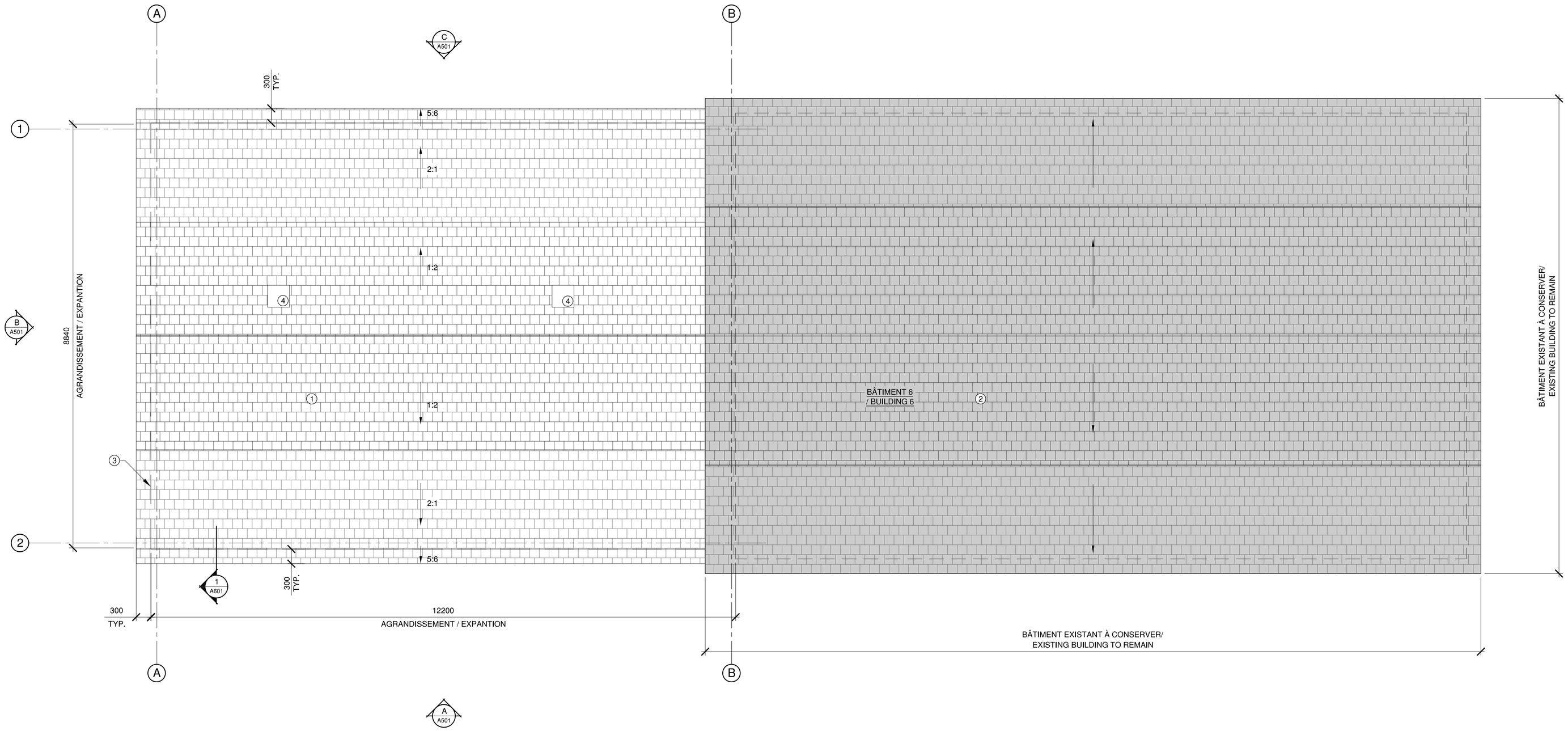
# A101




NOTES SPÉCIFIQUES - TOITURE / SPECIFIC NOTES - ROOF

1. NOUVELLE TOITURE À COMBLE FRANÇAIS EN BARDEAU, MODÈLE ET COULEUR TEL QUE L'EXISTANT, VOIR DEVIS / NEW MANSARD ROOF (FRENCH ROOF) WITH LAMINATED SHINGLE, COLOR AND MODEL TO MATCH EXISTING, SEE SPECIFICATIONS
2. TOITURE DE BARDEAU EXISTANTE À CONSERVER. / EXISTING SHINGLE ROOF TO REMAIN.
3. PROFIL DU MUR EXTÉRIEUR. / EXTERIOR WALL OUTLINE.
4. VENTILATEUR MAXIMUM, VOIR DEVIS / VENTILATEUR MAXIMUM ROOF, SEE SPECIFICATIONS.

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L'ENTREPRENEUR ET LES SOUS-TRAITANTS SONT TENUS DE RESPECTER LES CODES ET NORMES EN VIGUEUR LORS DE L'EXÉCUTION DES TRAVAUX.

NOTES GÉNÉRALES / GENERAL NOTES

LE SCEAU DOIT PORTER LA SIGNATURE MANUSCRITE ORIGINALE DE L'ARCHITECTE POUR ÊTRE VALIDE.

Ordre des architectes du Québec
A 4551
STÉPHANIE SAVARD
ARCHITECTE

SCEAU / SEAL

**SERVICE DE CONSULTATION DE VALLEYFIELD INC.**

INGÉNIEUR STRUCTURE / STRUCTURAL ENGINEER

| | |
|---|---|
| SOUMISSION/TENDER | 2017-03-10 |
| 99% APPROBATION | 2017-02-13 |
| 50% PRÉLIMINAIRE | 2016-12-02 |

ÉMISSIONS ET RÉVISIONS / ISSUED AND REVISIONS

# AAC - FERME EXPÉRIMENTALE AGRANDISSEMENT / EXPANSION

1815 CH. DE LA RIVIÈRE
STE-CLOTILDE-DE-CHÂTEAUGUAY (Qc)

PROJET / PROJECT

## PLAN DE TOITURE - CONSTRUCTION
## CONSTRUCTION - ROOF PLAN

DESSIN / DRAWING

| | |
|---|---|
| SA-16131 | 16131_A101 |
| NO. PROJET / PROJECT NO. | NOM DU FICHIER / FILE NAME |
| 1:50 | OCT - 2016 |
| ÉCHELLE / SCALE | DATE D'OUVERTURE / OPENING DATE |

A102

NOTES SPÉCIFIQUES / SPECIFIC NOTES (A501)

1. NOUVELLE FONDATION, VOIR ING. / NEW FOUNDATION WALLS, SEE ENG.
2. NOUVELLE TOITURE À COMBLE FRANÇAIS EN BARDEAU, MODÈLE ET COULEUR TEL QUE L'EXISTANT / NEW MANSARD ROOF (FRENCH ROOF) WITH LAMINATED SHINGLE, COLOR AND MODEL TO MATCH EXISTING.
3. NOUVELLE FENÊTRE EN PVC, COULEUR BLANCHE. / NEW PVC WINDOW, WHITE
4. NOUVELLE PORTE DE GARAGE, VOIR DEVIS. / NEW GARAGE DOOR, SEE SPECIFICATIONS.
5. NOUVELLE PORTE, VOIR DEVIS / NEW DOOR, SEE SPECIFICATIONS.
6. NOUVELLE GRILLE DE VENTILATION, ASSURER L'ÉTANCHÉITÉ, VOIR ING. / NEW VENTILATION GRID, ENSURE WATERPROOFING, SEE ENG.
7. GOUTTIÈRE ET DESCENTE, VOIR NOTES GÉNÉRALES 3. / GUTTER AND DOWNSPOUT, SEE GENERAL NOTES
8. LOUVRE DE VENTILATION RECTANGULAIRE FONCTIONNELLE, 457mm x 812mm, CAMEMAT, LORT 1632 / FONCTIONNAL RECTANGULAR LOUVER, CAMEMAT, LORT 1632.
9. NOUVEL ÉVACUATEUR MURAL, ASSURER L'ÉTANCHÉITÉ, VOIR ING. / NEW POWER VENTER, ENSURE WATERPROOFING, SEE ENG.
10. VENTILATEUR MAXIMUM, VOIR DEVIS / VENTILATEUR MAXIMUM ROOF, SEE SPECIFICATIONS.

LÉGENDE DES FINIS EXTÉRIEURS / EXTERIOR FINISHES LEGEND

1. REVÊTEMENT VERTICAL / VERTICAL SIDING:
PANNEAU GOODSTYLE DE GOODFELLOW, AVEC RAINURES VERTICALES 200mm, VOIR DEVIS. / GOODFELLOW'S GOODSTYLE PANEL, VERTICAL GROOVES, SEE SPECIFICATIONS.

2. REVÊTEMENT DE TOITURE / ROOF COVERING:
BARDEAU DE TOITURE, BP, COULEUR ET MODÈLE À APPAREILLER AVEC LE BARDEAU EXISTANT, VOIR DEVIS. / BP'S LAMINATE ROOF SHINGLE, MODEL AND COLOR TO MATCH WITH THE EXISTING ROOF SHINGLE, SEE SPECIFICATIONS.

3. REVÊTEMENT HORIZONTAL / HORIZONTAL SIDING:
REVÊTEMENT HORIZONTALE RECUPÉRÉ DE LA DÉMOLITION, FOURNI PAR AAC ET INSTALLÉ PAR L'ENTREPRENEUR / HORIZONTAL SIDING RECOVERED FROM DEMOLITION, SUPPLIED BY AAC AND INSTALLED BY THE CONTRACTOR.

4. MOULURE / MOULDING
MOULURE LATÉRALE EN BOIS D'INGÉNIERIE, COULEUR VERTE OUVERTURE100mm, VOIR DEVIS / GREEN ENGINEERED WOOD MOULDING, OPPENING 100mm, SEE SPECIFICATIONS

MOULURE TÊTE DES OUVERTURES, 150mm / HEAD OPENINGS MOULDING, 150mm

MOULURE AU COIN DE BÂTIMENT, 100mm, MOULDING CORNER OF THE BUILDING, 100mm

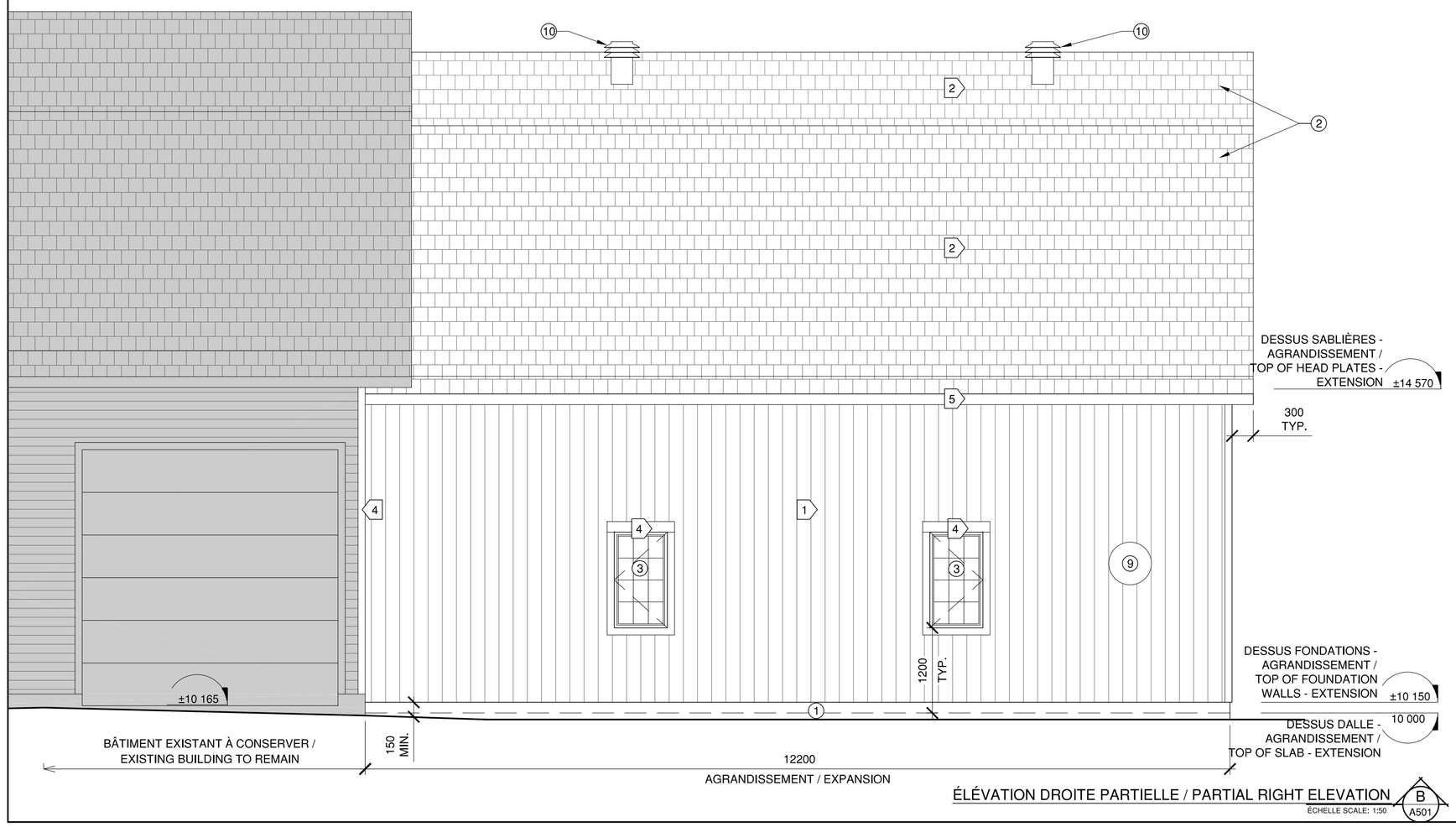
5. SOFFITE ET FASCIA / FASCIA AND SOFFIT
MOULURE EN BOIS D'INGÉNIERIE, SOFFITE COULEUR BLANC TEL QUE L'EXISTANT ET FASCIA COULEUR VERT TEL QUE L'EXISTANT. / ENGINEERED WOOD MOULDING, WHITE SOFFIT COORDINATE WITH EXISTING AND GREEN FASCIA COORDINATE WITH EXISTING.

6. MOULURE / MOULDING
MOULURE EN BOIS D'INGÉNIERIE 200mm COULEUR VERT TEL QU'EXISTANT, ENGINEERED WOOD MOULDING 200mm , GREEN COORDINATE WITH EXISTING.

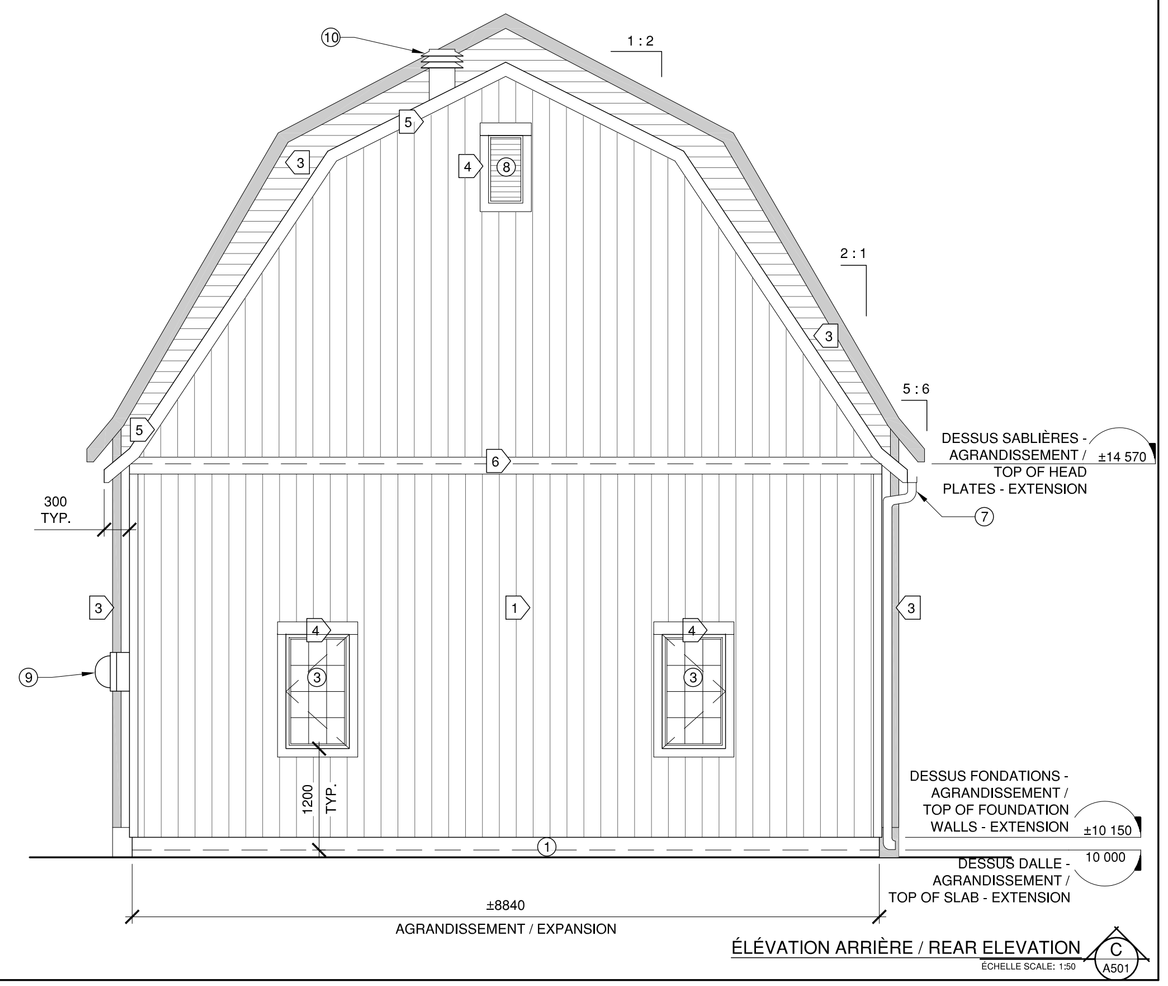
NOTES GÉNÉRALES / GENERAL NOTES - (A501):

1. GOUTTIÈRES EN ALUMINIUM COULEUR TEL QUE FASCIA ET DESCENTES DE GOUTTIÈRES EN ALUMINIUM COULEUR TEL QUE REVÊTEMENT MURAL, EMPLACEMENT À COORDONNER SUR PLACE. / ALUMINIUM GUTTER, FASCIA AND DOWNSPOUT COLOR MUST MATCH THE EXTERIOR WALL MATERIAL.


ÉLÉVATION GAUCHE / LEFT ELEVATION (A A501)
ÉCHELLE SCALE: 1:50




ÉLÉVATION DROITE PARTIELLE / PARTIAL RIGHT ELEVATION (B A501)
ÉCHELLE SCALE: 1:50




ÉLÉVATION ARRIÈRE / REAR ELEVATION (C A501)
ÉCHELLE SCALE: 1:50


SAVARD ARCHITECTE.CA
731, BOUL. ST-JEAN-BAPTISTE, BUR. 203
MERCIER QC J6R 1G2
450 507 1120
INFO@SAVARDARCHITECTE.CA


ARCHITECTE / ARCHITECT



NOTES GÉNÉRALES / GENERAL NOTES

LE SCEAU DOIT PORTER LA SIGNATURE MANUSCRITE ORIGINALE DE L'ARCHITECTE POUR ÊTRE VALIDE.

Ordre des architectes du Québec
A 4551
STÉPHANIE SAVARD
ARCHITECTE

SCEAU / SEAL

## SERVICE DE CONSULTATION DE VALLEYFIELD INC.

INGÉNIEUR STRUCTURE / STRUCTURAL ENGINEER

| | | |
|---|---|---|
| | SOUMISSION/TENDER | 2017-03-10 |
| | 99% APPROBATION | 2017-02-13 |
| | 50% PRÉLIMINAIRE | 2016-12-02 |

ÉMISSIONS ET RÉVISIONS / ISSUED AND REVISIONS

## AAC - FERME EXPÉRIMENTALE AGRANDISSEMENT / EXPANSION

1815 CH. DE LA RIVIÈRE
STE-CLOTILDE-DE-CHÂTEAUGUAY (Qc)

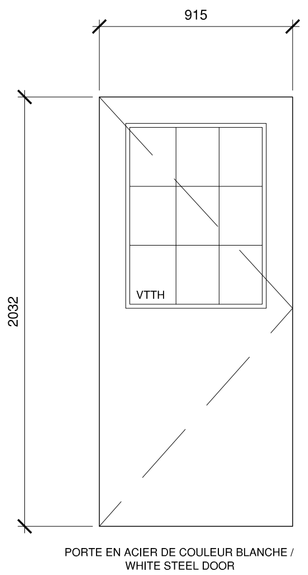
PROJET / PROJECT

## ÉLÉVATIONS / ELEVATIONS

DESSIN / DRAWING

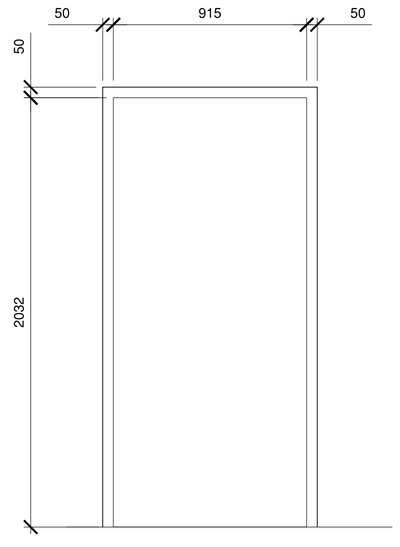
| | |
|---|---|
| SA-16131 | 16131_A101 |
| NO. PROJET / PROJECT NO. | NOM DU FICHIER / FILE NAME |
| INDIQUÉE/AS SHOWN | OCT - 2016 |
| ÉCHELLE / SCALE | DATE D'OUVERTURE / OPENING DATE |

# A501

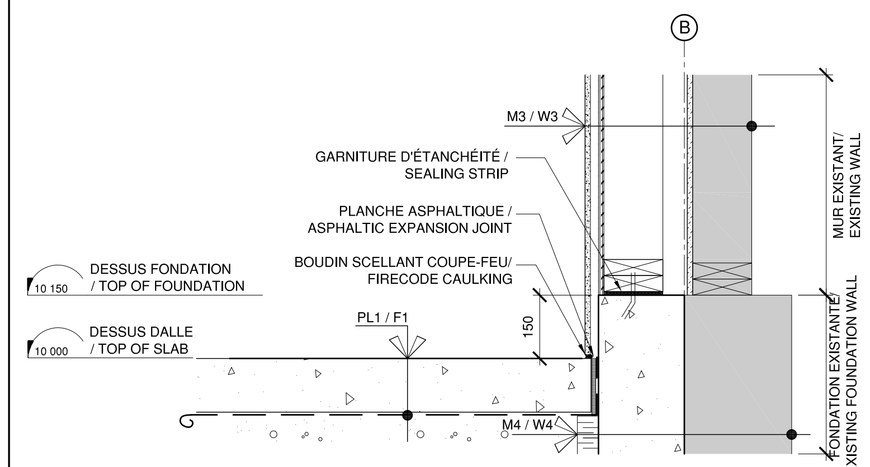



PORTE EN ACIER DE COULEUR BLANCHE / WHITE STEEL DOOR

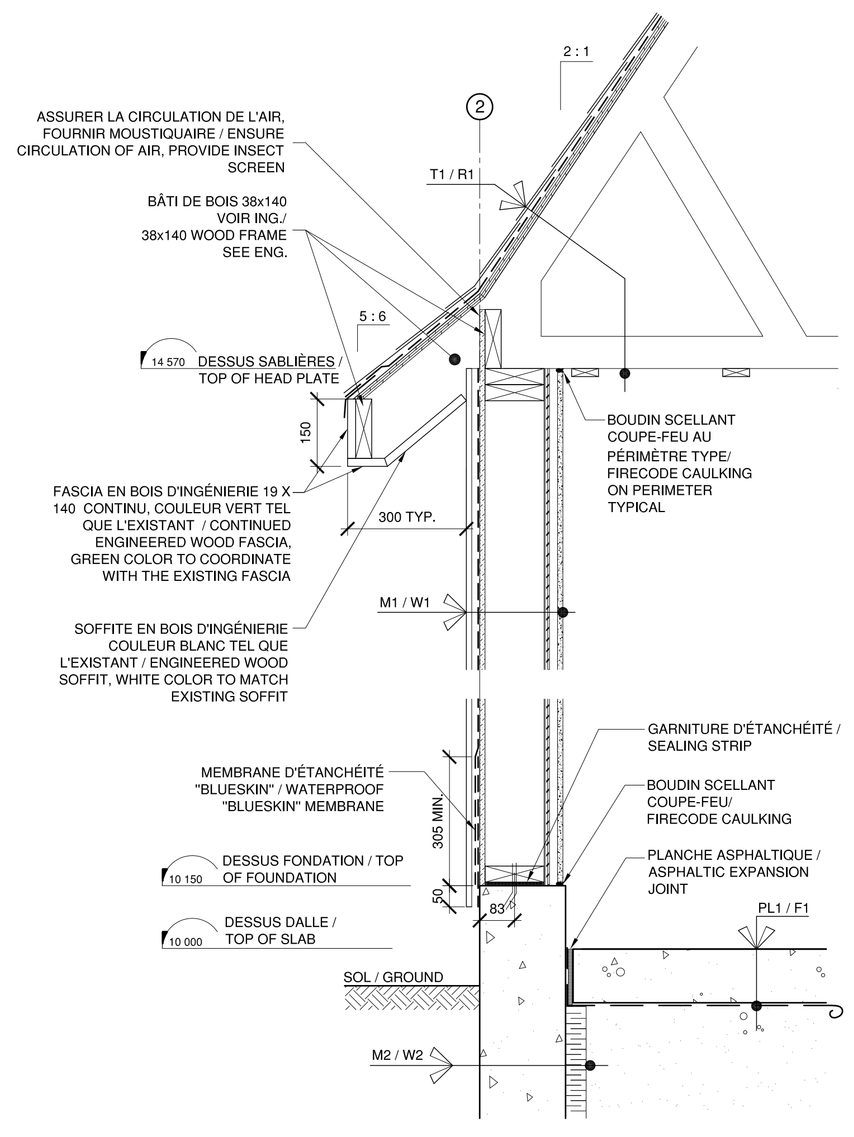
ÉLÉVATION PORTE / DOOR ELEVATION 4 A601
ÉCHELLE / SCALE=1/20




ÉLÉVATION CADRE / DOOR FRAME ELEVATION 3 A601
ÉCHELLE / SCALE=1/20




COUPE DE MUR MITOYENNE / ADJOINING WALL SECTION 2 A601
ÉCHELLE / SCALE=1/10




COUPE DE MUR - TYPE / WALL SECTION TYPICAL 1 A601
ÉCHELLE / SCALE=1/5

LÉGENDE TYPE - TOITURE, MURS ET PLANCHERS / TYPICAL ROOF, WALL AND FLOOR LEGEND :

M1 - MUR EXTÉRIEUR / W1 - EXTERIOR WALL
- REVÊTEMENT DE PANNEAU VERTICAL (VOIR ÉLÉVATION) / VERTICAL PANEL (SEE ELEVATION)
- FOURRURE VERTICALE EN BOIS 19mm X 64mm / VERTICAL WOOD FORENCE, 19mm X 64mm
- PARE-AIR / AIR BARRIER
- GYPSE SECUROCK 12,7mm / SECUROCK GYPSUM
- COLOMBAGE DE BOIS, 38mm X 140mm, VOIR ING. / WOOD STUD, SEE ENG.
- PANNEAU OSB, VOIR ING. / OSB PANEL SEE ENG.
- FOURRURE DE BOIS VERTICALE 19mm X 64mm. / VERTICAL WOOD FORENCE
- PANNEAU BÉTON LÉGER 12,7mm / CIMENT BOARD

M2 - MUR FONDATION / W2 - FOUNDATION WALL
- MUR DE FONDATION, VOIR ING. / FOUNDATION WALL, SEE ENG.
- POLYSTYRÈNE EXTRUDÉ, JUSQU'À LA SEMELLE / EXTRUDED POLYSTYRENE UP TO THE FOOTING, 50mm

M3 - MUR MITOYEN / W3 - COMMON WALL
- PANNEAU BÉTON LÉGER 12,7mm / CIMENT BOARD
- FOURRURE EN BOIS VERTICALE 19mm X 64mm. / VERTICAL WOOD FORENCE
- PANNEAU OSB, VOIR ING. / OSB PANEL, SEE ENG.
- COLOMBAGE DE BOIS/ WOOD STUD 38mm X 140mm
- ESPACE D'AIR / AIR SPACE
- GYPSE SECUROCK 12,7mm À INSTALLER SUR COLOMBAGE EXISTANT/ SECUROCK GYPSUM TO INSTALL ON EXISTING STUD
- MUR EXISTANT / EXISTING WALL

M4 - MUR DE FONDATION / W4 - COMMON WALL
- POLYSTYRÈNE EXTRUDÉ, JUSQU'À LA SEMELLE. / EXTRUDED POLYSTYRENE UP TO THE FOOTING, 50mm.
- NOUVELLE FONDATION, VOIR ING. / NEW FOUNDATION WALL, SEE ENG.
- FONDATION EXISTANTE, VOIR ING. / EXISTING FOUNDATION WALL, SEE ENG.

PL1 - PLANCHER / F1 - FLOOR
- DALLE DE BÉTON, VOIR ING. / CONCRETE SLAB, SEE ENG.
- PARE-VAPEUR / VAPOUR BARRIER
- PIERRE CONCASSÉE, VOIR ING. / CRUSHED STONE, SEE ENG.

T1 - TOITURE / R1 - ROOF:
- BARDEAU DE TOITURE / ROOF SHINGLE
- PAPIER NOIR ASPHALTIQUE #15 / #15 PLAIN ROOF FELT
- CONTREPLAQUÉ / PLYWOOD 15,9mm
- FERMES DE TOIT PRÉFABRIQUÉES, VOIR ING. / PREFABRICTED WOODEN ROOF TRUSSES, SEE ENG.
- FOURRURE DE BOIS / WOOD FORENCE

SAVARD ARCHITECTE.CA
731, BOUL. ST-JEAN-BAPTISTE, BUR. 203
MERCIER QC J6R 1G2
450 507 1120
INFO@SAVARDARCHITECTE.CA

ARCHITECTE / ARCHITECT



L' ENTREPRENEUR DOIT EXAMINER ET VÉRIFIER TOUTES LES DIMENSIONS SUR LES LIEUX MÊMES DES TRAVAUX AVANT LE DÉBUT DES TRAVAUX.
L'ENTREPRENEUR DOIT ÉGALEMENT SIGNALER TOUTES ERREURS ET/OU OMISSIONS À L'ARCHITECTE AVANT LE DÉBUT DES TRAVAUX.
L'ENTREPRENEUR ET LES SOUS-TRAITANTS SONT TENUS DE RESPECTER LES CODES ET NORMES EN VIGUEUR LORS DE L'EXÉCUTION DES TRAVAUX.

NOTES GÉNÉRALES / GENERAL NOTES

LE SCEAU DOIT PORTER LA SIGNATURE MANUSCRITE ORIGINALE DE L'ARCHITECTE POUR ÊTRE VALIDE.


SCEAU / SEAL

## SERVICE DE CONSULTATION DE VALLEYFIELD INC.

INGÉNIEUR STRUCTURE / STRUCTURAL ENGINEER

| | |
|---|---|
| SOUMISSION/TENDER | 2017-03-10 |
| 99% APPROBATION | 2017-02-13 |
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ÉMISSIONS ET RÉVISIONS / ISSUED AND REVISIONS

# AAC - FERME EXPÉRIMENTALE AGRANDISSEMENT / EXPANSION

1815 CH. DE LA RIVIÈRE
STE-CLOTILDE-DE-CHÂTEAUGUAY (Qc)

PROJET / PROJECT

## COUPES DE MUR, ÉLÉVATIONS DE PORTE ET CADRE / WALL SECTIONS AND DOOR AND FRAME ELEVATIONS

DESSIN / DRAWING

| | |
|---|---|
| SA-16131 (NO. PROJET / PROJECT NO.) | 16131_A601 (NOM DU FICHIER / FILE NAME) |
| INDIQUÉE/AS SHOWN (ÉCHELLE / SCALE) | OCT - 2016 (DATE D'OUVERTURE / OPENING DATE) |

# A601

# Appendix "F"

# INSURANCE TERMS

# INSURANCE TERMS



## IN1 GENERAL

### IN1.1 Worker's Compensation

1) The Contractor shall provide and maintain Worker's Compensation Insurance in accordance with the legal requirements of the Province or Territory where the work is being carried out.

### IN1.2 Indemnification

1) The insurance required by the provisions of these Insurance Terms shall in no way limit the Contractor's responsibility under the Indemnification clause of the General Conditions of the contract. Any additional coverage the Contractor may deem necessary to fulfill his obligations under the aforesaid clause shall be at his own discretion and expense.

### IN1.3 Proof of Insurance

1) Before commencement of the Work, and within thirty (30) days after acceptance of its bid, the Contactor shall deposit with Canada a CERTIFICATE OF INSURANCE (form AAFC / AAC5314) available upon request.

2) Upon request by Canada, the Contractor shall provide originals or certified true copies of all contracts of insurance maintained by the Contractor pursuant to the provisions contained herein.

### IN1.4 Insured

1) Each policy shall insure the Contractor and shall include Her Majesty the Queen in right of Canada, represented by the Minister of Agriculture & Agri-Food Canada as an additional Insured, with respect to liability arising out of the operations of the contractor with regard to the work.

### IN1.5 Payment of Deductible

1) The payment of monies up to the deductible amount made in satisfaction of a claim shall be borne by the Contractor.

## IN2 COMMERCIAL GENERAL LIABILITY

### IN2.1 Scope of Policy

1) The insurance coverage provided shall not be less than that provided by IBC Form 2100, as amended from time to time, and shall have:

   (a) an Each Occurrence Limit of not less than $5,000,000.00 ;

   (b) a Products/Completed Operations Aggregate Limit of not less than $5,000,000.00 ; and

   (c) a General Aggregate Limit of not less than $10,000,000.00 per policy year, if the policy is subject to such a limit.

2) The policy shall either include or be endorsed to include coverage for the following exposures or hazards if the Work is subject thereto:

   (a) Blasting.

   (b) Pile driving and caisson work.

   (c) Underpinning.

   (d) Removal or weakening of support of any building or land whether such support be natural or otherwise if the work is performed by the insured contractor.

   (e) Asbestos.

   (f) Non-owed Automobile Policy.

### IN2.2 Period of Insurance

1) Unless otherwise directed in writing by Canada, or, otherwise stipulated elsewhere herein, the policy required herein shall be in force and be maintained from the date of contract award until the day of issue of the Certificate of Completion except that the coverage for Completed Operations Liability shall, in any event, be maintained for a period of at least six (6) years beyond the date of the CERTIFICATE OF SUBSTANTIAL PERFORMANCE.

## IN3 AUTOMOBILE INSURANCE

### IN3.1 Scope of Policy

1) Automobile Liability Insurance in respect of licensed vehicles shall have limits of not less than one million dollars inclusive per occurrence for bodily injury, death, and damage to property.

# Appendix "G"

# CONTRACT DOCUMENTS

# MAJOR WORKS - CONTRACT DOCUMENTS

## SC01 CONTRACT DOCUMENTS

1) The following are the contract documents:

   (a) Contract page when signed by Canada;

   (b) Duly completed Bid and Acceptance Form and any Appendices attached thereto;

   (c) Drawings and Specifications;

   (d) AAFC General Conditions form AAFC / AAC5321-E:

   (i) GC1 General Provisions
   (ii) GC2 Administration of the Contract
   (iii) GC3 Execution and Control of the Work
   (iv) GC4 Protective Measures
   (v) GC5 Terms of Payment
   (vi) GC6 Delays and Changes in the Work
   (vii) GC7 Default, Suspension or Termination of Contract
   (viii) GC8 Dispute Resolution
   (ix) GC9 Contract Security
   (x) GC10 Insurance

   (e) Supplementary Conditions, if any;

   (f) Insurance Terms form AAFC / AAC5315-E;

   (g) Any amendment issued or any allowable bid revision received before the date and time set for solicitation closing;

   (h) Any amendment incorporated by mutual agreement between Canada and the Contractor before acceptance of the bid; and

   (i) Any amendment or variation of the contract documents that is made in accordance with the General Conditions.

2) The language of the contract documents shall be the language of the Bid and Acceptance Form submitted.

## SC02 ACCEPTANCE AND CONTRACT

1) Upon acceptance of the Contractor's offer by Canada, a binding Contract shall be formed between Canada and the Contractor. The documents forming the Contract shall be the contract documents referred to in SC01 CONTRACT DOCUMENTS.

# Appendix "H"

# CONTRACT

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

# CONTRACT

**PURCHASING OFFICE**

Agriculture and Agri-Food Canada
Eastern Service Centre
Tender Receiving Unit
2001 Robert-Bourassa Boulevard, Suite 671-TEN
Montréal, Quebec
H3A 3N2

**Your tender is accepted** to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the construction listed herein and on any attached sheets at the price or prices set out therefor.

Comments

Vendor / Firm Name and Address

Title
Repair of the manchinery hangar shed - PAI3

Solicitation / Contract No.
01B46-17-028

Date

Client Reference No.

File No.

Financial Code(s)

GST HST
QST

F.O.B
Destination

Applicable Taxes
Included

Destination

Invoices - Original and two copies to be sent to :

Address Enquiries to:

Telephone No. Ext.

Fax No.

Total Estimated Cost

Currency Type
CAD

For the Minister

Signature

Date



Canada

# FORMS

- Bid Bond
- Certificate of Insurance
- Labour and Material Payment Bond
- Performance Bond
- T4-A Certification

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

# BID BOND

**BOND NUMBER:** _____ **AMOUNT:** _____

KNOW ALL PERSONS BY THESE PRESENTS, that _____ as Principal,

hereinafter called the Principal, and _____ as Surety,

hereinafter called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto Her Majesty the Queen in right of Canada as represented by the Minister of Agriculture and Agri-Food, as Obligee, hereinafter called the Crown, 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, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, 20__.

WHEREAS, the Principal has submitted a written tender to the Crown, dated the _____ day of _____, 20__,

for _____

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that if:

(a) the Principal, should his tender be accepted within the period specified by the Crown, or, if no period be specified, within sixty (60) days after closing date of the tender, does execute within a period specified by the Crown, or, if no period be specified therein, within fourteen (14) days after the prescribed forms are presented to him for signature, execute such further contractual documents, if any, as may be required by the terms of the tender as accepted, and does furnish a Performance Bond and a Labour and Material Payment Bond, each in the amount of 50% of the Contract price and satisfactory to the Crown, or other security acceptable to the Crown, or

(b) the Principal does pay to the Crown the difference between the amount of the Principal's tender and the amount of the Contract entered into by the Crown for the work, supplies and services which were specified in the said tender, if the latter amount be in excess of the former,

then this obligation shall be void; otherwise it shall remain in full force and effect.

PROVIDED, HOWEVER, that the Surety and the Principal shall not be liable to the Crown for an amount greater than the amount specified in this bond.

PROVIDED FURTHER that the Surety shall not be subject to any suit or action unless such suit or action is instituted and process therefore served upon the Surety at its Head Office in Canada, within twelve (12) months from the date of this bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its authorized signing authority, the day and year first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

_____
Principal

_____
Witness

_____
Surety

Note: Affix Corporate seal if applicable.



Canada

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

# CERTIFICATE OF INSURANCE

To be completed by the Insurer

| CONTRACT | | | | | |
|---|---|---|---|---|---|
| Description and location of work | | | | Contract No. | |
| | | | | Project No. | |

| INSURER | | | BROKER | | |
|---|---|---|---|---|---|
| Company name | | | Company name | | |
| Unit/Suite/Apt. | Street number | Number suffix | Unit/Suite/Apt. | Street number | Number suffix |
| Street name | | | Street name | | |
| Street type | Street direction | PO Box or Route Number | Street type | Street direction | PO Box or Route Number |
| Municipality (City, Town, etc.) | | | Municipality (City, Town, etc.) | | |
| Province/State | Postal/ZIP code | | Province/State | Postal/ZIP code | |

| INSURED | | | ADDITIONAL INSURED |
|---|---|---|---|
| Contractor name | | | Her Majesty the Queen in right of Canada as represented by the Minister of Agriculture and Agri-Food Canada. |
| Unit/Suite/Apt. | Street number | Number suffix | |
| Street name | | | |
| Street type | Street direction | PO Box or Route Number | |
| Municipality (City, Town, etc.) | | | |
| Province/State | Postal/ZIP code | | |

**This insurer certifies that the following policies of insurance are at present in force covering all operations of the Insured, in connection with the contract made between the named insured and Her Majesty the Queen in right of Canada, represented by the Minister of Agriculture and Agri-Food Canada.**

**POLICY**

| Type | Number | Inception date | Expiry date | Limit of liability ($) |
|---|---|---|---|---|
| Commercial General Liability | | | | |
| Builder's Risk "All Risks" | | | | |
| Installation Floater "All Risks" | | | | |
| Other (list) | | | | |

Each of these policies includes the coverages and provisions as specified in Insurance Terms and each policy has been endorsed to cover Her Majesty as an Additional Insured. The Insurer agrees to notify Her Majesty and the Named insured in writing thirty (30) days prior to any material change in, or cancellation of any policy or coverage.

Name of Insurer's Officer or Authorized Employee | Telephone number | Ext.

Signature | Date



Canada

# LABOUR AND MATERIAL PAYMENT BOND

**BOND NUMBER:** _____ **AMOUNT:** _____

KNOW ALL PERSONS BY THESE PRESENTS, that _____ as Principal,

hereinafter called the Principal, and _____ as Surety,

hereinafter called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto Her Majesty the Queen in right of Canada as represented by the Minister of Agriculture and Agri-Food, as Obligee, hereinafter called the Crown, 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, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, 20__

WHEREAS, the Principal has entered into a Contract with the Crown dated the _____ day of _____ , 20__,

for _____

which contract is 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 payment is promptly made to all Claimants who have performed labour or services or supplied material in connection with the Contract and any and all duly authorized modifications and extensions of the Contract that may hereafter be made, notice of which modifications and extensions to the Surety being hereby waived, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. For the purpose of this bond, a Claimant is defined as one having a direct contract with the Principal or any Sub-Contractor of 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 services or rental of equipment (but excluding rental of equipment where the rent pursuant to an agreement is to be applied towards the purchase price thereof) directly applicable to the Contract.

2. For the purpose of this Bond, no payment is required to be made in respect of a claim for payment for labour or services performed or material supplied in connection with the Contract that represents a capital expenditure, overhead or general administration costs incurred by the Principal during the currency or in respect of the Contract.

3. The Principal and the Surety hereby jointly and severally agree with the Crown that if any Claimant has not been paid as provided for under the terms of his contract with the Principal or a Sub-Contractor of the Principal before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's labour or service was done or performed or materials were supplied by such Claimant, the Crown may sue on this bond, have the right to prosecute the suit to final judgment for such sum or sums as may be due and have execution thereon; and such right of the Crown is assigned by virtue of Part VIII of the *Financial Administration Ac*t to such Claimant.

4. For the purpose of this bond the liability of the Surety and the Principal to make payment to any claimant not having a contract directly with the Principal shall be limited to that amount which the Principal would have been obliged to pay to such claimant had the provisions of the applicable provincial or territorial legislation on lien or privileges been applicable to the work. A claimant need not comply with provisions of such legislation setting out steps by way of notice, registration or otherwise as might have been necessary to preserve or perfect any claim for lien or privilege which the claimant might have had. Any such claimant shall be entitled to pursue a claim and to recover judgment hereunder subject to the terms and notification provisions of the Bond.

5. Any material change in the Contract between the Principal and the Crown shall not prejudice the rights or interest of any Claimant under this Bond who is not instrumental in bringing about or has not caused such change.

6. 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 the Principal and the Surety above named, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal and the Surety 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

      (i) in respect of any claim for the amount or any portion thereof required to be held back from the Claimant by the Principal or by the Sub-Contractor of the Principal under either the terms of the Claimant's Contract with the Principal or the Claimant's Contract with the Sub-Contractor of the Principal within one hundred and twenty (120) days after such Claimant should have been paid in full under this Contract;

      (ii) 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 service, work or labour or furnished the last of the materials for which such claim is made under the Claimant's Contract with the Principal or a Sub-Contractor of the Principal;

   (b) After the expiration of one (1) year following the date on which the Principal ceased work on the said Contract, including work performed under the guarantees provided in the Contract;

   (c) Other than in a court of competent jurisdiction in the province or district of Canada in which the subject matter of the Contract or any part thereof is situated and not elsewhere, and the parties hereto hereby agree to submit to the jurisdiction of such court.

7. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.

8. The Surety shall not be entitled to claim any moneys relating to the Contract and the liability of the Surety under this Bond shall remain unchanged and, without restricting the generality of the foregoing, the Surety shall pay all valid claims of Claimants under this Bond before any moneys relating to the Contract held by the Crown are paid to the Surety by the Crown.

9. The Surety shall not be liable for a greater sum that the amount specified in this bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its authorized signing authority, the day and year first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

_____
Principal

_____
Witness

_____
Surety

Note: Affix Corporate seal if applicable.

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# PERFORMANCE BOND

**BOND NUMBER:** _____ **AMOUNT:** _____

KNOW ALL PERSONS BY THESE PRESENTS, that _____ as Principal,

hereinafter called the Principal, and _____ as Surety,

hereinafter called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto Her Majesty the Queen in right of Canada as represented by the Minister of Agriculture and Agri-Food, as Obligee, hereinafter called the Crown, 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, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, 20__.

WHEREAS, the Principal entered into a Contract with the Crown dated the _____ day of _____, 20__,

for _____

which Contract is 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 Crown to be, in default under the Contract, the Surety 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 Crown directs the Surety to undertake the completion of the work, complete the work in accordance with the Contract provided that if a contract is entered into for the completion of the work,
      (i) it shall be between the Surety and the completing contractor, and
      (ii) the selection of such completing contractor shall be subject to the approval of the Crown,
   (c) if the work is taken out of the Principal's hands and the Crown, after reasonable notice to the Surety, does not direct the Surety to undertake the completion of the work, assume the financial responsibility for the cost of completion in excess of the moneys available to the Crown 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 his default on the Contract and any holdbacks relating to such earned Contract moneys held by the Crown, and the liability of the Surety 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 Crown, any Contract moneys earned by the Principal or holdbacks related thereto held by the Crown may be paid to the Surety by the Crown.
2. The Surety 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 Crown herein against the Surety pursuant to these presents after the expiration of two (2) years from the date on which final payment under the Contract is payable.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its authorized signing authority, the day and year first above written.

SIGNED, SEALED AND DELIVERED in the presence of:

Note: Affix Corporate seal if applicable.

_____
Principal

_____
Witness

_____
Surety



Canada

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## T4-A CERTIFICATION

The Contractor shall complete and submit this T4-A Certification within fourteen (14) calendar days of Notification of Contract award and within fourteen (14) calendar days immediately following any change to the information already provided under the Contract. Failure to provide this information or failure to provide the correct information shall result in a fundamental breach of the Contract.

1. **The Contractor shall enter a [ x ] in one of the boxes below opposite the description that best describes its status.**

[ ] A business incorporated either federally or provincially;
[ ] An unincorporated business, either as a sole proprietor or a partnership; or
[ ] An individual.

**Note: The information provided in Section 2 must correspond with that provided in Section 1.**

**Corporate or unincorporated business or individual's name:** _____

Street Name or Box #: _____

City, Town or Village: _____

Province: _____

Postal Code: _____

**2. Contractor shall complete Section 2(a) or 2(b) or 2(c), whichever is applicable to its situation.**

(a) If incorporated:

Business Number (BN): _____, or
GST / HST Number: _____, or
T2 Corporation Tax Number (T2N): _____, whichever is applicable

(b) If unincorporated:

Social Insurance Number (SIN): _____, and
Business Number (BN): _____, or
GST / HST Number: _____, whichever is applicable

**Note: The Unincorporated Business Name must be the same as the name associated with the Revenue Canada Business Number or the GST Number.**

(c) If individual:

Social Insurance Number (SIN): _____, and
Business Number (BN): _____, or
GST / HST Number: _____, whichever is applicable

**Note: The Individual's Name must be the same as the name associated with the Social Insurance Number.**

**3. WE HEREBY CERTIFY that I/We have examined the information provided above, including the legal name, address and Revenue Canada identifier (SIN, BN, GST / HST No., T2N), as applicable, and that it is correct and complete, and fully discloses my/our identification.**

| _____ | _____ | _____ |
|---|---|---|
| Contractor's signature | Title of Signatory | Date |