



Request for Proposal (RFP): 01B46-17-049

FOR THE PROVISION OF

A FEASIBILITY STUDY

ON

THE CONVERSION OF THE CHEMICAL FUME HOODS TO VARIABLE AIR VOLUME HOODS

FOR

SHERBROOKE RESEARCH AND DEVELOPMENT CENTRE

2000 COLLEGE STREET, SHERBROOKE, QC, J1M 0C8

Tenders must be received by: 2:00 PM, Eastern Standard Time

on *September 14, 2017* at the following address:

Agriculture and Agri-Food Canada

Corporate Management Branch
Assets Team – Eastern Service Centre
TENDER RECEIVING UNIT
2001 Robert-Bourassa Blvd, Suite 671-TEN
Montreal, QC
H3A 3N2

Note: Tenders received at a location other than this one will be rejected.



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GENERAL INFORMATION

1.0 PROJECT SUMMARY

The Dairy and Swine Research and Development Centre (DSRDC) in Sherbrooke, located at 2000 College street, Sherbrooke, QC, J1M 0C8, wants to conduct a feasibility study to convert 12 existing fixed-rate chemical hoods into variable-capacity hoods.

The work is scheduled to start during the week of October 2nd, 2017.

2.0 SECURITY REQUIREMENTS

At the date of bid closing, the Security requirements must be met. The Bidder must submit evidence of security requirements with their bid submission. Refer to Part 2, Article 4.2 and Part 3, Article 3.0 for additional information.

Until the security screenings of the Contractor's personnel required by this Contract have been completed satisfactorily by Industrial Security Division (ISD), Contractor personnel **MAY NOT HAVE ACCESS** to sensitive (CLASSIFIED/DESIGNATED) information or assets, and **MAY NOT ENTER** sites where such information or assets are kept, without an escort provided by the department or agency for which the Work is being performed.

3.0 INTERPRETATION

- 3.1 In the Request for proposal "RFP", "Canada", "Crown", "Her Majesty", "the Government" or "Agriculture and Agri-Food Canada" or "AAFC" means Her Majesty the Queen in right of Canada, as represented by the Minister of Agriculture and Agri-Food;
- 3.2 "Contract" or "Resulting Contract" means the written agreement between Agriculture and Agri-Food Canada and a contractor, comprising the General Conditions (set out in Appendix A of this RFP) and any supplemental general conditions specified in this RFP 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 from time to time;
- 3.3 "Contracting Authority or authorized representative" means the AAFC official, identified in Part 3, Article 5.0 of this RFP, responsible for the management of the Contract. Any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor is not to perform Work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from any government personnel other than the aforementioned AAFC official;
- 3.4 "Contractor", means the person or entity whose name appears on the signature page of the Contract and who is to supply goods or services to Canada under the Contract;



- 3.5 “Minister” means the Minister of Agriculture and Agri-Food or anyone authorized to act on his/her behalf;
- 3.6 “Project Authority or authorized representative” means the AAFC official, identified in Part 3, Article 6.0 of this RFP, responsible for all matters concerning a) the technical content of the Work under the Contract; b) any proposed changes to the scope of the Work, but any resulting change can only be confirmed by a Contract amendment issued by the Contracting Authority; c) inspection and acceptance of all Work performed as detailed in the Statement of Work, and; review and inspection of all invoices submitted;
- 3.7 “Proposal” means an offer, submitted in response to a request from a Contracting Authority, that constitutes a solution to the problem, requirement or objective in the request;
- 3.8. “Bidder” means a person or entity submitting a Proposal in response to this RFP;
- 3.9 “Work” means the whole of the activities, services, materials, equipment, software, matters and things required to be done, delivered or performed by the Contractor in accordance with the terms of this RFP.



PART 1: BIDDER INSTRUCTIONS, INFORMATION AND CONDITIONS

1.0 CONTRACTUAL CAPACITY

- 1.1 The Bidder must have the legal capacity to enter into legally binding contracts. If the Bidder is a sole proprietorship, a partnership or a corporate body, the Bidder shall provide a statement indicating the laws under which it is registered or incorporated together with the registered or corporate name and place of business and the country where the controlling interest/ownership of the organization is located as per Appendix E of this RFP.

2.0 ACCEPTANCE OF TERMS AND CONDITIONS

- 2.1 Agriculture and Agri-Food Canada will only consider Proposals which accept Agriculture and Agri-Food Canada's terms and conditions.
- 2.2 The General Conditions attached in Appendix A and those set out in Part 3 of this RFP shall form part of any Resulting Contract.

3.0 INCURRING COST

- 3.1 The cost to prepare the Proposal will not be reimbursed by Agriculture and Agri-Food Canada.
- 3.2 No cost incurred before receipt of a signed Contract or specified written authorization from the Contracting Authority can be charged to any Resulting Contract.

4.0 ENQUIRIES - SOLICITATION STAGE

- 4.1 All enquiries or issues concerning this solicitation must be submitted in writing to the Contracting Authority named at Part 3, section 5 of the RFP. It is the responsibility of the Bidder to obtain clarification of the requirements contained herein, if necessary prior to submitting a proposal.
- 4.2 Enquiries and issues must be received by the Contracting Authority **no later than two(2) business days prior to the solicitation closing date** specified herein to allow sufficient time to provide a response. Enquiries or issues received after that time may not be able to be answered prior to the solicitation closing date.
- 4.3 To ensure consistency and quality of information provided to Bidders, the Contracting Authority will provide, simultaneously to all Bidders any information with respect to **significant** enquiries received and the replies to such enquiries without revealing the sources of the enquiries.
- 4.4 All enquiries and other communications with government officials throughout the solicitation period are to be directed **ONLY** to the Contracting Authority named at Part 3, section 5 of the RFP. Noncompliance with this condition during the proposal solicitation period may (for that reason alone) result in disqualification of a Proposal.



- 4.5 Meetings will not be held with individual bidders prior to the closing date/time of this RFP, unless otherwise specified.
- 4.6 Bidders shall not place any conditions or make any assumptions that attempt to limit or otherwise modify the scope of Work pursuant to the Statement of Work (Appendix B)

5.0 RIGHTS OF CANADA

- 5.1 Canada reserves the right to:
 - 1. Accept any Proposal in whole or in part, without prior negotiation;
 - 2. Reject any or all Proposals received in response to this RFP;
 - 3. Cancel and/or re-issue this RFP at any time;
 - 4. Ask the Bidder to substantiate any claim made in the Proposal;
 - 5. Enter into negotiations with one or more Bidders on any or all aspects of their Proposals;
 - 6. Award one or more Contracts;
 - 7. Retain all Proposals submitted in response to this RFP.

6.0 SUBSTANTIATION OF PROFESSIONAL SERVICES RATES

- 6.1 In Canada's experience, bidders will from time to time propose prices at the time of bidding that they later refuse to honour, on the basis that these prices do not allow them to recover their own costs and/or make a profit. When evaluating the prices for professional services bid, Canada may, but will have no obligation to, require price support for any prices proposed. Examples of price support that Canada would consider satisfactory include:
 - 1. documentation (such as billing records) that shows that the Bidder has recently provided and invoiced another customer (with whom the Bidder deals at arm's length) for services similar to the services that would be provided under a resulting contract, and the fees charged are equal to or less than the price offered to Canada (to protect the privacy of the customer, the Bidder may black out the customer's name and personal information on the invoice submitted to Canada);
 - 2. a signed contract between the Bidder and an individual qualified (based on the qualifications described in this bid solicitation) to provide services under a resulting contract where the amount payable under that contract by the Bidder to the resource is equal to or less than the price bid;
 - 3. a signed contract with a subcontractor who will perform the work under any resulting contract, which provides that the required services will be provided at a price that is equal to or less than the price bid; or
 - 4. details regarding the salary paid to and benefits provided to the individuals employed by the Bidder to provide services, where the amount of compensation, when converted to a per diem or hourly rate (as applicable), is equal to or less than the rate bid for that resource category.

Once Canada requests substantiation of the prices bid, it is the sole responsibility of the Bidder to submit information (either the information described in the



examples above, or other information that demonstrates that it will be able to recover its own costs based on the prices it has proposed) that will allow Canada to determine whether it can rely, with confidence, on the Bidder's ability to provide the required services at the prices bid, while, at a minimum, recovering its own costs. Where Canada determines that the information provided by the Bidder does not demonstrate the Bidder's ability to recover its own costs in providing the prices bid, Canada may, at their sole discretion declare the bid non-compliant.

7.0 MANDATORY CLAUSES

7.1 Where the words “**must**”, “**shall**” or “**will**” appear in this RFP, the clause is to be considered as a mandatory requirement.

8.0 DEBRIEFING

8.1 After contract award, bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority. The debriefing may be in writing, by telephone or in person at the discretion of the Contracting Authority.

9.0 OFFICE OF THE PROCUREMENT OMBUDSMAN

If you have issues or concerns regarding the solicitation, you have the option of raising them with the department or with the Office of the Procurement Ombudsman (OPO). The Office of the Procurement Ombudsman was established by the Government of Canada to provide an independent avenue for suppliers to raise complaints regarding the award of contracts under \$25,000 for goods and under \$100,000 for services. You have the option of raising issues or concerns regarding the solicitation, or the award resulting from it, with the OPO by contacting them by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa.opo.gc.ca. You can also obtain more information on the OPO services available to you at their website at www.opo-boa.gc.ca.

10.0 OPTIONAL SITE VISIT

It is recommended that the Bidder or a representative of the Bidder visit the work site. Arrangements have been made for a tour of the work site. The site visit will be held on Thursday, September 7th at 1:30PM EDT at the Sherbrooke Research and Development Centre located at 2000 College street, Sherbrooke, QC, J1M 0C8.

Bidders will be requested to sign an attendance form. Bidders who do not attend or send a representative will not be given an alternative appointment but they will not be precluded from submitting a bid. Any clarifications or changes to the bid solicitation resulting from the site visit will be included as an amendment to the bid solicitation.



PART 2: PROPOSAL PREPARATION INSTRUCTIONS & EVALUATION PROCEDURES

1.0 APPLICABLE LAWS

- 1.1 The Contract shall be interpreted and governed, and the relations between the parties, determined by the laws in force in the Province of Quebec.
- 1.2 In their bid submission, bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their proposal, by deleting the Canadian province specified in the previous paragraph and inserting the Canadian province or territory of their choice. If no change is made, the bidder acknowledges the applicable law specified is acceptable to the Bidder.

2.0 SUBMISSION OF PROPOSAL

- 2.1 Proposals must be submitted in hard copy as described in Article 3.0.

Due to the nature of this RFP electronic transmission of proposal by such means as electronic mail or facsimile to the Department of Agriculture and Agri-Food is not considered to be practical and therefore will not be accepted.
- 2.2 The proposal **MUST** be delivered to and received by the Contracting Unit no later than the **date indicated on the cover page of this RFP**. The outside of the envelope containing the proposal should include the RFP number found on the cover page of the RFP.
- 2.4 The onus for submitting proposals on time at the specified location rests with the Bidder. It is the Bidder's responsibility to ensure correct delivery of their proposal to the Contracting Authority.
- 2.5 The Bidders are advised that, due to security measures for building visitors, arrangements should be made in advance with the Contracting Authority for any planned in-person delivery of a proposal. Failure to do so may result in late receipt of a proposal.
- 2.6 Proposals submitted in response to this RFP will not be returned.

3.0 PROPOSAL PREPARATION INSTRUCTIONS

- 3.1 The proposal **must** be structured in **THREE SEPARATE ENVELOPES** as indicated below:

Envelope 1, Section 1	Technical Proposal (Mandatory Requirements) (with no reference to price)	1 original hard copy
Envelope 2, Section 2	Financial Proposal	1 original hard copy
Envelope 3, Section 3	Certifications	1 original hard copy



- 3.2 The Bidder may **submit a proposal in either official language**.
- 3.3 Each copy of the proposal is to include the Bidder's legal entity name, the name of the Bidder's contact, address, telephone number, facsimile number, email address and the RFP Number.

4.0 PREPARATION OF TECHNICAL PROPOSAL- MANDATORY REQUIREMENTS (Section 1)

- 4.1 In the Technical Proposal, the Bidder should demonstrate how the bidder will meet the mandatory requirements of section 2 of the **Evaluation Procedures and Criteria Appendix "D"**.

4.2 Security Requirements

4.2.1 Security Profile Verification

The issuance of a contract is subject to a successful security screening by the Government of Canada security services.

Because of legal and ethics issues, the Bidder is not obligated to complete the "Personnel Screening Consent and Authorization Form" (tbs/sct 330-23e), available at <http://www.tbs-sct.gc.ca/tbsf-fsct/330-23-eng.asp> for each proposed employee at this point in time of the RFP process.

However, once the technical evaluation team will have evaluated the received proposals and will have identified the acceptable proposal, this requirement will become a mandatory requirement. Successful clearance by AAFC's Security Services is a mandatory condition before AAFC can award the contract.

Beyond the above mentioned issues, The Bidder have however the option to complete the form at their sole discretion at this point and provide the forms with their proposal.

Should a Bidder decide to complete the required information, *the initiative will only accelerate the transmission of the required documents by 2 or 3 weeks*. Whichever option the Bidder chooses, the decision has no bearing or influence on the technical team evaluation.

5.0 PREPARATION OF FINANCIAL PROPOSAL (Section 2)

In the Financial Proposal, the Bidder shall provide a firm all-inclusive price to provide the services requested in accordance with the Statement of Work **Appendix B**.

The bidder must complete the **Appendix C, Basis of payment** which will form the financial proposal.



The price of the proposal will be assessed in CANADIAN DOLLARS excluding applicable taxes but including the FOB destination for goods and services, customs duties and excise tax.

Prices shall not appear in any area of the proposal except in the Financial Proposal.

- 5.1 The Bidder may revise his/her tender by facsimile, or email, provided it is received before the RFP Closing Time. Any change resulting in an increase in the RFP price must be supported by a suitable increase in the security deposit.

However, any indication of price modification shall not reveal the amount of the original or the revised total price. Price modifications should only include the amount of the increase or decrease of the bid. Any indication of the old or the new total price will get the Proposal discarded automatically.

6.0 CERTIFICATION REQUIREMENTS (Section 3)

In order to be awarded a contract, the certifications attached **in Appendix “E”** will be required. The certifications should be submitted with the proposal. Canada may declare a bid non-responsive if the certifications are not submitted or completed as required. Where Canada intends to reject a proposal pursuant to this paragraph, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time frame period will render the proposal non-responsive.

Compliance with the certifications the Bidder provides to Canada is subject to verification by Canada. The Contracting Authority shall have the right to ask for additional information to verify that the Bidder is compliant with the applicable certifications before and after award of a contract. Any certification made by the Bidder that is determined to be untrue, whether made knowingly or unknowingly, or any failure to comply with the certifications or comply with the request of the Contracting Authority for additional information, will render the bid non-responsive.

7.0 EVALUATION PROCEDURES

- 7.1 Proposals will be evaluated in accordance with the Evaluation Procedures and Criteria specified **in Appendix D**. Proposals received will be compared separately against the evaluation criteria identified therein for the total requirement described in this RFP and in conjunction with the accompanying Statement of Work **(Appendix B)**.
- 7.2 An evaluation team composed of representatives of the Department of Agriculture and Agri-Food Canada will evaluate the Proposals on behalf of Canada.
- 7.3 The evaluation team reserves the right, but is not obligated, to perform any of the following tasks:



- a) seek clarification or verification from bidders regarding any or all information provided by them with respect to the bid solicitation;
- b) contact any or all references supplied by bidders to verify and validate any information submitted by them;
- c) request, before award of any contract, specific information with respect to bidders' legal status;
- d) verify any information provided by bidders through independent research, use of any government resources or by contacting third parties;
- e) interview, at the sole costs of bidders, any bidder and/or any or all of the resources proposed by bidders to fulfill the requirement of the bid solicitation.

8.0 REQUESTS FOR PROPOSAL AMENDMENT(S)

- 8.1 Any modifications to this RFP will be made through an amendment which will be posted publicly via Buyandsell.gc.ca.



PART 3: RESULTING CONTRACT TERMS AND CONDITIONS

Upon a Contract being awarded pursuant to RFP # 01B46-17-049, the following Terms and Conditions shall form part of the Resulting Contract:

1.0 GENERAL CONDITIONS

1.1 The General Conditions attached in **Appendix A** shall form part of any Resulting Contract.

2.0 REQUIREMENT

2.1 The contractor will provide the services identified in Appendix B, Statement of Work.

2.2 The Contractor shall maintain, for the duration of the Contract, a designated single point of contact, hereafter referred to as a Contractor Representative, dedicated to managing the Contract.

3.0 SECURITY REQUIREMENT

There is a security requirement associated with the work.

Personnel Clearance (Reliability) only

1. The Contractor/Offeror must, at all times during the performance of the Contract, hold a valid Designated Organization Screening (DOS), granted or approved by AAFC .
2. The Contractor/Offeror personnel requiring access to **PROTECTED** information, assets or sensitive work site(s) must EACH hold a valid **RELIABILITY STATUS**, granted or approved by AAFC .
3. The Contractor/Offeror **MUST NOT** remove any **PROTECTED** information or assets from the identified work site(s), and the Contractor/Offeror must ensure that its personnel are made aware of and comply with this restriction.
4. Subcontracts which contain security requirements are NOT to be awarded without the prior written consent of AAFC . As a security precaution, it is required that all employees engaged in work or business for the Contract is readily identifiable. To this end, all personnel are to wear, in a conspicuous place, the identification badge issued to them by AAFC.

4.0 CONTRACT PERIOD

4.1 The duration of the contract (phase 1) extends from the date of award to March 31st, 2018.



- 4.2 The Contractor grants to Canada the irrevocable option to extend the duration of the Contract for a maximum of 2 optional phases of additional work, under the same terms and conditions.
- 4.2.1 Canada may exercise this option at any time by sending a notice to the Contractor prior to the Contract expiry date.
- 4.2.2 The Contractor agrees that, during the extended period of the Contract resulting from Canada's exercise of its option, the cost will be in accordance with the provisions in Appendix C of the Contract.
- 4.2.3 The option may only be exercised by the Contracting Authority and will be evidenced for administration purposes only, through a written Contract amendment.

5.0 CONTRACTING AUTHORITY

- 5.1 The Contracting Authority is:

Beatriz Mora
Senior Contracting Officer
Agriculture and Agri-Food Canada
2001 Robert-Bourassa, Room 671-TEN,
Montréal, Qc H3A 3N2
Tel.: 514-315-6139
Fax: 514-283-1918
E-mail: beatriz.mora@canada.ca

- 5.2 The Contracting Authority (or authorized representative) is responsible for the management of the Contract. Any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor is not to perform Work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from any government personnel other than the aforementioned officer.

6.0 PROJECT AUTHORITY

- 6.1 The Project Authority for the Contract is:

The contact information for the Project Authority will be provided at time of contract award.

- 6.2 The Project Authority, or authorized representative, is responsible for:
1. All matters concerning the technical content of the Work under the Contract;
 2. Defining any proposed changes to the scope of the Work, but any resulting change can only be confirmed by a Contract amendment issued by the Contracting Authority;
 3. Inspection and acceptance of all Work performed as detailed in the Statement of Work and;
 4. Review and approve all invoices submitted.



7.0 CONTRACTOR REPRESENTATIVE

7.1 The Contractor Representative for the Contract is:

The contact information for the Contractor Representative will be provided at time of contract award.

7.2 The duties and responsibilities of the Contractor Representative shall include the following:

1. Responsible for the overall management of the Contract;
2. Ensure that the Contract is administered in accordance with the terms and conditions of the Contract;
3. Act as a single point of contact to resolve any contractual disputes that may arise. The Contract Representative must have direct access to the level of management within the Contractor's organization vested with the decision-making authority for contractual matters;
4. Shall be established as the only recognized individual from the Contractor's organization to speak on behalf of the Contractor for purposes of Contract management;
5. Monitor all resources that are providing services/deliverables in accordance with the Contract;
6. Liaise with the Project Authority on all matters concerning technical aspects of the Work and performance of its resources; and
7. Manage the transition of any potential resource(s) turnover during the period of the Work.

8.0 PRIORITY OF DOCUMENTS

8.1 The documents specified below form part of and are incorporated into the Contract. If there is a discrepancy between the wordings of any documents which appear on the list, the wording of the document which first appears on the list shall prevail over the wording of any document which subsequently appears on the list:

1. The article of agreement;
2. The Statement of Work, Appendix B hereof;
3. The General Conditions, Appendix A hereof;
4. Basis of Payment, Appendix C hereof;
5. Certification Requirements, Appendix E
6. Request for Proposal number **01B46-17-049**;
7. Contractor's Proposal dated *(to be inserted at contract award)*.

9.0 BASIS FOR CANADA'S OWNERSHIP OF INTELLECTUAL PROPERTY

In this section of the RFP,

9.1 "Material" means anything that is created or developed by the Contractor as part of the Work under the Contract, and in which copyright subsists, but does not include computer programs and related software documentation.



- 9.2 Agriculture and Agri-Food Canada has determined that any intellectual property arising from the performance of the Work under the Contract will vest in Canada, on the following grounds:

Pursuant to 6.5 of the Treasury Board Policy on Title to Intellectual Property Arising under Crown Procurement Contracts, Canada has opted to own the intellectual property rights in any Material subject to copyright that is created or developed as part of the Work, with the exception of computer software or any documentation pertaining to such software.

10.0 REPLACEMENT OF PERSONNEL

- 10.1. The Contractor will provide the services of the personnel named in the Contractor's Proposal to perform the Work, unless the Contractor is unable to do so for reasons which are beyond its control.
- 10.2 Should the Contractor at any time be unable to provide their services, the Contractor will contact the Project Authority immediately. In such case, the Contractor is responsible to provide replacement Contractor or personnel who shall be of similar skills and experience as stated in **the Appendix D, Evaluation Procedures and Criteria**.
- 10.3 The Contractor shall propose replacement personnel for the Project Authority's review within 5 working days (resume and references). The Contractor shall submit, in writing, to the Project Authority the reasons for the removal of personnel from the Work; the name of the proposed replacement person(s); and the qualifications and experience of the proposed replacement person(s). The Project Authority reserves the right to interview any personnel proposed to be assigned to the Work.
- 10.4 Personnel assigned pursuant to the requirements will be capable of performing the Work at a reasonable level of competence. Should any assigned personnel be deemed unsuitable by the Project Authority the Contractor shall provide an immediate replacement of suitable ability that is acceptable to the Project Authority.
- 10.5 The Contractor shall supply competent back-up personnel so that in the event of unforeseen sickness, accident, or any cause which renders a specific individual unavailable, such individuals can be replaced within five (5) working days by a person of like abilities and qualifications.
- 10.6 The resources assigned for the Contract will be measured regularly for quality of services rendered. The measurement will be based on the quality and timeliness of the deliverables specified in the Statement of Work. In the event that quality and deliverables are not produced as and when requested, in any given month, the Crown has the right to request that the Contractor replace the assigned resources immediately, in accordance with Contract clauses included in or referenced in the RFP.
- 10.7 In no event shall the Contractor allow performance of the Work by unauthorized and/or unqualified personnel, whether initially named resources or replacement



personnel. In addition, acceptance of any replacements by the Project Authority shall not relieve the Contractor from responsibility for failure to meet the requirements of the Contract.

11.0 ACCESS TO GOVERNMENT FACILITIES/EQUIPMENT

11.1 Access to the following Canada facilities, equipment, documentation and personnel may be required during the Contract period in order to perform the Work:

- (a) AAFC's premises;
- (b) Documentation;
- (c) Personnel for consultation;
- (d) Office space, telephones, desk space, manuals and terminals.

11.2 Subject to the approval of the Project Authority, arrangements will be made for the Contractor to access the required facilities, equipment, documentation and personnel.

11.3 There will be, however, no day-to-day supervision of the Contractor's activities or control of hours of work by the Project Authority.

12.0 DAMAGE TO OR LOSS OF CROWN PROPERTY

12.1 The Contractor shall reimburse Canada any cost or expenses due to the damage to or loss of Crown-owned property resulting from the Contract or the carrying out thereof, or shall, upon reasonable notice, promptly repair such damage or substitute such loss to Canada's satisfaction.

13.0 BASIS OF PAYMENT

13.1 For the services provided, Agriculture and Agri-Food Canada will pay the Contractor in accordance with the Basis of Payment, Appendix C (Financial proposal) for Work performed pursuant to the Contract.

14.0 METHOD OF PAYMENT

Phase I - Pre-Engineering Phase, Feasibility Study

A single payment will be made **in full at the end of Phase I**, upon presentation of all invoicing documents as specified in Article 15.0, in accordance with the terms and conditions set forth in this contract and acceptance by the Project Authority.

Phase II Optional - Detailed Engineering Phase, Plans and Specifications

A single payment will be made **in full at the end of Phase II** upon presentation of all invoicing documents as specified in Article 15.0 in accordance with the terms and conditions set forth in this contract and acceptance by the Project Authority



Phase III Optional - Construction phase, construction supervision

Progress payments will be paid **no more than once a month** upon presentation of all invoicing documents as specified in Article 15.0, in accordance with the progress of the construction work and acceptance of the project manager.

A 40-hour flat-rate block is required for Phase 3. If Phase 3 were to last more than 40 hours, overtime will be paid according to the hourly rate provided in Appendix C, Basis of Payment. If phase 3 has a duration of 40 hours or less, only the firm price indicated in the financial submission (Appendix C, Basis of Payment) for this phase will be paid.

15.0 DIRECT DEPOSIT

The Contractor agrees to receive payment through direct deposit to a financial institution.

Government of Canada considers privacy and security of utmost importance in the issuance of payments. Any information you provide to the Government of Canada in support of Direct Deposit is protected under the Government of Canada *Privacy Act and Access to Information Act (R.S.C., 1985, c. A-1)*.

Additional information is available at:

www.tpsgc-pwgsc.gc.ca/recgen/txt/depot-deposit-eng.html

16.0 INVOICING INSTRUCTIONS

16.1 Payment will only be made pursuant to the general conditions specified in the Appendix A and upon submission of a satisfactory invoice duly supported by specified release documents and other documents called for under the Contract.

16.2 One (1) original of the invoice together with attachments, shall be forwarded to the Project Authority at the address noted in Article 6.0 hereof.

17.0 MANDATORY CERTIFICATIONS

17.1 Compliance with the certifications the Contractor has provided Canada is a condition of the Contract and subject to verification by Canada during the entire period of the Contract. In the event that the Contractor does not comply with any certification or that it is determined that any certification made by the Contractor is untrue, whether made knowingly or unknowingly, the Minister shall have the right, pursuant to the default provisions of the Contract, to terminate the Contract for default.

18.0 NON-PERMANENT RESIDENT *(the non-applicable clause will be deleted at contract award)*



18.1 (CANADIAN CONTRACTOR)

The Contractor must comply with Canadian immigration requirements applicable to foreign nationals entering Canada to work temporarily in fulfillment of the Contract. If the Contractor wishes to hire a foreign national to work in Canada to fulfill the Contract, the Contractor should immediately contact the nearest Service Canada regional office to enquire about Citizenship and Immigration Canada's requirements to issue a temporary work permit to a foreign national. The Contractor is responsible for all costs incurred as a result of non-compliance with immigration requirements.

18.2 (FOREIGN CONTRACTOR)

The Contractor must comply with Canadian immigration legislation applicable to foreign nationals entering Canada to work temporarily in fulfillment of the Contract. If the Contractor wishes to hire a foreign national to work in Canada to fulfill the Contract, the Contractor should immediately contact the nearest Canadian Embassy, Consulate or High Commission in the Contractor's country to obtain instructions, information on Citizenship and Immigration Canada's requirements and any required documents. The Contractor is responsible to ensure that foreign nationals have the required information, documents and authorizations before performing any work under the Contract in Canada. The Contractor is responsible for all costs incurred as a result of non-compliance with immigration requirements.

19.0 INSURANCE REQUIREMENTS

19.1 The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

APPENDIX A

GENERAL CONDITIONS

GC1. INTERPRETATION

1.1 In the contract,

1.1 "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;

1.2 "Canada", "Crown", "Her Majesty" or "the Government" means Her Majesty the Queen in right of Canada; "Contractor" means the person, entity or entities named in the Contract to supply goods, services or both to Canada;

1.3 "Minister" means the Minister of Agriculture and Agri-Food Canada or anyone authorized;

1.4 "Party" means Canada, the Contractor, or any other signatory to the contract and "Parties" means all of them;

1.5 "Work" unless otherwise expressed in the Contract, means everything that is necessary to be done, furnished or delivered by the Contractor to perform the Contractor's obligations under the Contract.

GC2. Powers of Canada

All rights, remedies and discretions granted or acquired by Canada under the Contract or by law are cumulative, not exclusive.

GC3. General Conditions

The Contractor is an independent contractor engaged by Canada to perform the Work. Nothing in the Contract is intended to create a partnership, a joint venture or an agency between Canada and the other Party or Parties. The Contractor must not represent itself as an agent or representative of Canada to anyone. Neither the Contractor nor any of its personnel is engaged as an employee or agent of Canada. The Contractor is responsible for all deductions and remittances required by law in relation to its employees.

GC4. Conduct of the Work

4.1 The Contractor represents and warrants that:

- (a) It is competent to perform the Work;
- (b) It has the necessary qualifications, including knowledge, skill and experience, to perform the Work, together with the ability to use those qualifications effectively for that purpose; and
- (c) It has the necessary personnel and resources to perform the Work.

4.2 Except for government property specifically provided for in the Contract, the Contractor shall supply everything necessary for the performance of the Work, including all the resources, facilities, labor and supervision, management, services, equipment, materials, drawings, technical data, technical assistance, engineering services, inspection and quality assurance procedures, and planning necessary to perform the Work.

4.3 The Contractor shall:

- (a) Carry out the Work in a diligent and efficient manner;
- (b) Apply as a minimum, such quality assurance tests, inspections and controls consistent with those in general usage in the trade and that are reasonably calculated to ensure the degree of quality required by the Contract; and
- (c) Ensure that the Work:
 - (1) is of proper quality, material and workmanship;
 - (2) Is in full conformity with the Statement of Work; and
 - (3) Meets all other requirements of the Contract.

4.4 Notwithstanding acceptance of the Work or any part thereof, the Contractor warrants that the Work shall be of such quality as to clearly demonstrate that the Contractor has performed the Work in accordance with the undertaking in subsection 4.3.

GC5. Inspection and Acceptance

5.1 The Work will be subject to inspection by Canada. Should any part of the Work whether it be a report, document, good or service not be in accordance with the Contract or not be done to the satisfaction of the Canada, as submitted, Canada will have the right to reject it or require its correction at the sole expense of the Contractor before making payment.

5.2 The Contractor will be in default of the Contract if the Work is rejected by Canada or if he fails to correct the Work within a reasonable delay.

GC6. Amendments and Waivers

6.1 No design change, modification to the Work, or amendment to the Contract shall be binding unless it is incorporated into the Contract by written amendment or design change memorandum executed by the authorized representatives of Canada and of the Contractor.

6.2 While the Contractor may discuss any proposed changes or modifications to the scope of the Work with the representatives of Canada, Canada shall not be liable for the cost of any such change or modification until it has been incorporated into the Contract in accordance with subsection 6.1.

6.3 No waiver shall be valid, binding or affect the rights of the Parties unless it is made in writing by, in the case of a waiver by Canada, the Contracting Authority and, in the case of a waiver by the Contractor, the authorized representative of the Contractor.

6.4 The waiver by a Party of a breach of any term or condition of the Contract shall not prevent the enforcement of that term or condition by that Party in the case of a subsequent breach, and shall not be deemed or construed to be a waiver of any subsequent breach.

GC7. Time of the Essence

It is essential that the Work be performed within or at the time stated in the Contract.

GC8. Excusable delay

8.1 Any delay by the Contractor in performing the Contractor's obligations under the Contract which occurs without any fault or neglect on the part of the Contractor its subcontractors, agents or employees or is caused by an event beyond the control of the Contractor, and which could not have been avoided by the Contractor without incurring unreasonable cost through the use of work-around plans including alternative sources or other means, constitutes an excusable delay.

8.2 The Contractor shall give notice to the Minister immediately after the occurrence of the event that causes the excusable delay. The notice shall state the cause and circumstances of the delay and indicate the portion of the Work affected by the delay. When requested to do so by the Minister, the Contractor shall deliver a description, in a form satisfactory to the Minister, of work-around plans including alternative sources and any other means that the Contractor will utilize to overcome the delay and Endeavour to prevent any further delay. Upon approval in writing by the Minister of the work-around plans, the Contractor shall implement the work around plans and use all reasonable means to recover any time lost as a result of the excusable delay.

8.3 Unless the Contractor complies with the notice requirements set forth in the Contract, any delay that might have constituted an excusable delay shall be deemed not to be an excusable delay.

8.4 If an excusable delay has continued for thirty (30) days or more, Canada may, by giving notice in writing to the Contractor, terminate the Contract. In such a case, the Parties agree that neither will make any claim against the other for damages, costs, expected profits or any other loss arising out of the termination or the event that contributed to the excusable delay. The Contractor agrees to repay immediately to Canada the portion of any advance payment that is unliquidated at the date of the termination.

8.5 Unless Canada has caused the delay by failing to meet an obligation under the Contract, Canada will not be responsible for any cost incurred by the contractor or any subcontractors or agents as a result of an excusable delay.

8.6 If the Contract is terminated under this section, Canada may require the Contractor to deliver to Canada, in the manner and to the extent directed by Canada, any completed parts of the Work not delivered and accepted before the termination and anything that the Contractor has acquired or produced specifically to perform the Contract. Canada will pay the Contractor:

- (a) The value, of all completed parts of the Work delivered to and accepted by Canada, based on the Contract price, including the proportionate part of the Contractor's profit or fee included in the Contract price; and
- (b) The cost to the Contractor that Canada considers reasonable in respect of anything else delivered to and accepted by Canada.

8.7 The total amount paid by Canada under the Contract to the date of termination and any amounts payable under this subsection must not exceed the Contract price.

GC9. Termination of convenience

9.1 Notwithstanding anything in the Contract, the Minister may, by giving notice to the Contractor, terminate or suspend the Contract immediately with respect to all or any part or parts of the Work not completed.

9.2 All Work completed by the Contractor to the satisfaction of Canada before the giving of such notice shall be paid for by Canada in accordance with the provisions of the Contract and, for all Work not completed before the giving of such notice, Canada shall pay the Contractor's costs as determined under the provisions of the Contract in an amount representing a fair and reasonable fee in respect of such Work.

9.3 In addition to the amount which the Contractor shall be paid under section GC9.2, the Contractor shall be reimbursed for the Contractor's cost of and incidental to the cancellation of obligations incurred by the Contractor pursuant to such notice and obligations incurred by or to which the Contractor is subject with respect to the Work.

9.4 The Contractor shall have no claim for damages, compensation, loss of profit, allowance or otherwise by reason of or directly or indirectly arising out of any action taken or notice given by Canada under the provisions of section GC9 except as expressly provided therein.

9.5 Upon termination of the Contract under section GC9.1, Canada may require the Contractor to deliver and transfer title to Canada, in the manner and to the extent directed by Canada, any finished Work which has not been delivered prior to such termination and any material, goods or Work-in-progress which the Contractor specifically acquired or produced for the fulfillment of the Contract.

GC10. Termination due to Default of Contractor

10.1 Canada may by notice to the Contractor, terminate the whole or any part of the Contract:

- a) If the Contractor fails to perform any of the Contractor's obligations under the Contract or in Canada's view, so fails to make progress so as to endanger performance of the Contract in accordance with its terms;
- b) To the extent permitted under law, if the Contractor becomes bankrupt or insolvent, or a receiving order is made against the Contractor, or an assignment is made for the benefit of creditors, or if an order is made or resolution passed for the winding up of the Contractor, or if the Contractor takes the benefit of a statute relating to bankrupt or insolvent debtors.; or
- c) If the Contractor makes a false declaration under GC 37 or GC 38 or fails to comply with the terms set out in GC 16.3 or GC 39.

10.2 Upon termination of the Contract under section GC10, the Contractor shall deliver to Canada any finished Work which has not been delivered and accepted prior to such termination, together with materials and Work-in-progress relating specifically to the Contract and all materials, texts and other documents supplied to the Contractor in relation to the Contract.

10.3 Subject to the deduction of any claim which Canada may have against the Contractor arising under the Contract or out of termination, payment will be made by Canada to the Contractor for the value of all finished Work delivered and accepted by Canada, such value to be determined in accordance with the rate(s) specified in the Contract, or, where no rate is specified, on a proportional basis.

10.4 If the contract is terminated pursuant to GC 10.1(c), in addition to any other remedies that may be available against the Contractor, the Contractor will immediately return any advance payments.

GC11. Suspension of Work

11.1 The Minister may at any time, by written notice, order the Contractor to suspend or stop the Work or part of the Work under the Contract. The Contractor must immediately comply with any such order in a way that minimizes the cost of doing so.

GC12. Extension of Contract

- 12.1 Where the Minister determines that additional work of the same nature as the Work described in this Contract is required, the Contractor shall do such work and where required the term of the Contract shall be extended accordingly and confirmed in writing between the parties.
- 12.2 Payment for the work described in subsection 1 shall be calculated and paid on the same basis as in section GC12 and where required prorated.
- 12.3 Where the Minister has determined that the Contractor shall be paid expenses related to the Work described in section GC12.1, the type of expenses and amounts shall be confirmed in writing between the parties.

TERMS OF PAYMENT

GC13. Method of Payment

- 13.1 Payment in the case of progress payments:
- a) Payment by Canada to the Contractor for the Work shall be made within thirty (30) days following the date on which a claim for progress payment is received according to the terms of the Contract; and
 - b) If the Minister has any objection to the form of the claim for payment or the substantiating documentation, shall, within fifteen (15) days of its receipt, notify the Contractor in writing of the nature of the objection.
- 13.2 Payment in the case of payment on completion:
- a) Payment by Canada to the Contractor for the Work shall be made within thirty (30) days following the date on which the Work is completed or on which a claim for payment and substantiating documentation are received according to the terms of the Contract, whichever date is the later;
 - b) If the Minister has any objection to the form of the claim for payment or the substantiating documentation, shall, within fifteen (15) days of its receipt, notify the Contractor in writing of the nature of the objection.

GC14. Basis of Payment

- 14.1 A claim in the form of an itemized account certified by the Contractor with respect to the accuracy of its contents shall be submitted to the Minister.
- 14.2 Travel and other expenses, where allowed by the Contract, shall be paid in accordance with Treasury Board Guidelines and Directives, certified by the Contractor as to the accuracy of such claim.

GC15. Interest on Overdue Accounts

- 15.1 For the purposes of this clause:
- (a) "Average Rate" means the simple arithmetic mean of the bank rates in effect at 4:00 p.m. Eastern Standard Time each day during the calendar month which immediately precedes the calendar month in which payment is made;
 - (b) "Bank rate" means the rate of interest established from time to time by the Bank of Canada as the minimum rate at which the Bank of Canada makes short term advances to members of the Canadian Payments Association;
 - (c) "Date of payment" means the date of the negotiable instrument drawn by the Receiver General for Canada and given for payment of an amount due and payable;
 - (d) an amount is "due and payable" when it is due and payable by Canada to the Contractor in accordance with the terms of the Contract; and
 - (e) An amount becomes "overdue" when it is unpaid on the first day following the day upon which it is due and payable.
- 15.2 Canada shall be liable to pay to the Contractor simple interest at the Average Bank of Canada discount rate from the previous month plus 3 percent per annum on any amount that is overdue from the date such amount becomes overdue until the day prior to the date of payment, inclusive. The Contractor is not required to provide notice to Canada for interest to be payable.

15.3 Canada shall not be liable to pay interest in accordance with this clause if Canada is not responsible for the delay in paying the Contractor.

15.4 Canada shall not be liable to pay interest on overdue advance payments.

GC16. Records to be kept by Contractor

16.1 The Contractor must keep proper accounts and records of the cost of performing the Work and of all expenditures or commitments made by the Contractor in connection with the Work, including all invoices, receipts and vouchers. The Contractor must retain records, including bills of lading and other evidence of transportation or delivery, for all deliveries made under the Contract.

16.2 If the Contract includes payment for time spent by the Contractor, its employees, representatives, agents or subcontractors performing the Work, the Contractor must keep a record of the actual time spent each day by each individual performing any part of the Work.

16.3 Unless Canada has consented in writing to its disposal, the Contractor must retain all the information described in this section for six (6) years after it receives the final payment under the Contract, or until the settlement of all outstanding claims and disputes, whichever is later. During this time, the Contractor must make this information available for audit, inspection and examination by the representatives of Canada, who may make copies and take extracts. The Contractor must provide all reasonably required facilities for any audit and inspection and must furnish all the information as the representatives of Canada may from time to time require to perform a complete audit of the Contract.

16.4 The amount claimed under the Contract, calculated in accordance with the Basis of Payment provision in the Articles of Agreement, is subject to government audit both before and after payment is made. If an audit is performed after payment, the Contractor agrees to repay any overpayment immediately on demand by Canada. Canada may hold back, deduct and set off any credits owing and unpaid under this section from any money that Canada owes to the Contractor at any time (including under other Contracts). If Canada does not choose to exercise this right at any given time, Canada does not lose this right.

GC17. Invoice Submission

17.1 Invoices must be submitted in the Contractor's name. The Contractor must submit invoices for each delivery or shipment; invoices must only apply to the Contract. Each invoice must indicate whether it covers partial or final delivery.

17.2 Invoices must show:

- (a) the date, the name and address of the client department, item or reference numbers, deliverable and/or description of the Work, contract number, Client Reference Number (CRN), Procurement Business Number (PBN), and financial code(s);
- (b) details of expenditures (such as item, quantity, unit of issue, unit price, fixed time labour rates and level of effort, subcontracts, as applicable) in accordance with the Basis of Payment, exclusive of Applicable Taxes;
- (c) deduction for holdback, if applicable;
- (d) the extension of the totals, if applicable; and
- (e) if applicable, the method of shipment together with date, case numbers and part or reference numbers, shipment charges and any other additional charges.

17.3 Applicable Taxes must be specified on all invoices as a separate item along with corresponding registration numbers from the tax authorities. All items that are zero-rated, exempt or to which Applicable Taxes do not apply, must be identified as such on all invoices.

17.4 By submitting an invoice, the Contractor certifies that the invoice is consistent with the Work delivered and is in accordance with the Contract.

GC18. Right of Set off

Without restricting any right of set off given by law, the Minister may set off against any amount payable to the Contractor under the Contract, any amount payable to Canada by the Contractor under the Contract or under any other current contract. Canada may, when making a payment pursuant to the Contract, deduct from the amount payable to the Contractor any such amount payable to Canada by the Contractor which, by virtue of the right of set off, may be retained by Canada.

GC19. Assignment

19.1 The Contract shall not be assigned in whole or in part by the Contractor without the prior written consent of Canada and an assignment made without that consent is void and of no effect.

19.2 An assignment of the Contract does not relieve the Contractor from any obligation under the Contract or impose any liability upon Canada.

GC20. Subcontracting

20.1 The Contractor must obtain the consent in writing of the Minister before subcontracting.

20.2 Subcontracting does not relieve the Contractor from any of its obligations under the Contract or impose any liability upon Canada to a subcontractor.

20.3 In any subcontract, the Contractor will bind the subcontractor by the same conditions by which the contractor is bound under the Contract.

GC21. Indemnification

21.1 The Contractor shall indemnify and save harmless Canada from and against all claims, losses, damages, costs, expenses, actions and other proceedings, made, sustained, brought, prosecuted, threatened to be brought or prosecuted, in any manner based upon, occasioned by or attributable to any injury to or death of a person or damage to or loss of property arising from any willful or negligent act, omission or delay on the part of the Contractor, the Contractor's servants, subcontractors or agents in performing the Work or as a result of the Work.

21.2 The Contractor's liability to indemnify or reimburse Canada under the Contract shall not affect or prejudice Canada from exercising any other rights under law.

GC22. Confidentiality

The Contractor shall treat as confidential, during as well as after performance of the Work, any information to which the Contractor becomes privy as a result of acting under the Contract. The Contractor shall use its best efforts to ensure that its servants, employees, agents, subcontractors or assigned observe the same standards of confidentiality.

GC23. Indemnification - Copyright

The Contractor shall indemnify Canada from and against all costs, charges, expenses, claims, actions, suits and proceedings for the infringement or alleged infringement of any copyright resulting from the performance of the Contractor's obligations under the Contract, and in respect of the use of or disposal by Canada of anything furnished pursuant to the Contract.

GC24. Indemnification - Inventions, etc.

The Contractor shall indemnify Canada from and against all costs, charges, expenses, claims, actions, suits and proceedings for the use of the invention claimed in a patent, or infringement or alleged infringement of any patent or any registered industrial design resulting from the performance of the Contractor's obligations under the Contract, and in respect of the use of or disposal by Canada of anything furnished pursuant to the Contract.

GC25. Ownership of Copyright

25.1 Anything that is created or developed by the Contractor as part of the Work under the Contract in which copyright subsists belongs to Canada. The Contractor must incorporate the copyright symbol and either of the following notices, as appropriate:

© HER MAJESTY THE QUEEN IN RIGHT OF CANADA (year)

or

© SA MAJESTÉ LA REINE DU CHEF DU CANADA (année).

25.2 At the request of the Minister, the Contractor must provide to Canada, at the completion of the Work or at such other time as the Minister may require a written permanent waiver of Moral Rights, in a form acceptable to the Minister, from every author that contributed to the Work. If the Contractor is an author, the Contractor permanently waives the Contractor's Moral Rights.

GC26. Taxes

26.1 Municipal Taxes

Municipal Taxes do not apply.

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

26.3 Applicable Taxes will be paid by Canada as provided in the Invoice Submission section. 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.

26.4 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.

26.5 In those cases where Applicable Taxes, customs duties, and excise taxes are included in the Contract Price, the Contract Price 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 Price 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.

26.6 Tax Withholding of 15 Percent

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 a non-resident, unless the Contractor obtains a valid waiver. The amount withheld will be held on account for the Contractor in respect to any tax liability which may be owed to Canada.

GC27. International Sanctions

27.1 Persons 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.

Details on existing sanctions can be found at:
<http://www.international.gc.ca/sanctions/index.aspx?lang=eng>

27.2 The Contractor must not supply to the Government of Canada any goods or services which are subject to economic sanctions.

27.3 The Contractor must comply with changes to the regulations imposed during the period of the Contract. The Contractor must immediately advise Canada if it is unable to perform the Work as a result of the imposition of economic sanctions against a country or person or the addition of a good or service to the list of sanctioned goods or services. If the Parties cannot agree on a work around plan, the Contract will be terminated for convenience in accordance with section GC9.

GC28. T1204 Government Service Contract Payment

28.1 Pursuant to regulations made pursuant to paragraph 221 (1)(d) of the *Income Tax Act*, payments made by departments and agencies to Contractors under applicable services Contracts (including Contracts involving a mix of goods and services) must be reported on a T1204 Government Service Contract Payment. To enable client departments and agencies to comply with this requirement, Contractors are required to provide information as to their legal name and status, business number, and/or Social Insurance Number or other supplier information as applicable, along with a certification as to the completeness and accuracy of the information.

GC29. Successors and Assigns

The Contract shall enure to the benefit of and be binding upon the parties hereto and their lawful heirs, executors, administrators, successors and assigns as the case may be.

GC30. Conflict of Interest and Values and Ethics Codes for the Public Service

The Contractor acknowledges that individuals who are subject to the provisions of the *Conflict of Interest Act*, 2006, c. 9, s. 2, the Conflict of Interest Code for Members of the House of Commons, any applicable federal values and ethics code

or any applicable federal policy on conflict of interest and post-employment shall not derive any direct benefit resulting from the Contract unless the provision or receipt of such benefit is in compliance with such legislation and codes.

GC31. No Bribe

The Contractor declares that no bribe, gift, benefit, or other inducement has been or will 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 entering into the Contract or the administration of the Contract.

GC32. Errors

Notwithstanding any other provision contained in this Contract, no amount shall be paid to the Contractor based on the cost of Work incurred to remedy errors or omissions for which the Contractor or his servants, agents or subcontractors are responsible, and such errors or omissions shall be remedied at the Contractor's cost, or, at the option of Canada, the Contract may be terminated and in that event the Contractor shall receive payment only as determined under section GC10.

GC33. Performance

The failure of Canada to require performance by the Contractor of any provision of this Contract shall not affect the right of Canada thereafter to enforce such provision, nor shall the waiver by Canada of any breach of any term of the Contract be taken or held to be a waiver of any further breach of the same or any other term or condition.

GC34. Gender

Whenever the singular or masculine is used throughout this Contract, it shall be construed as including the plural, feminine, or both whenever the context and/or the parties hereto so require.

GC35. Survival

All the Parties' obligations of confidentiality, representations and warranties set out in the Contract as well as any other the provisions, which by the nature of the rights or obligations might reasonably be expected to survive, will survive the expiry or termination of the Contract.

GC36. Severability

If any provision of the Contract is declared by a court of competent jurisdiction to be invalid, illegal or unenforceable, that provision will be removed from the Contract without affecting any other provision of the Contract.

GC37. Contingency Fees

The Contractor certifies that it has not, directly or indirectly, paid or agreed to pay and agrees that it will not, directly or indirectly, pay a contingency fee for the solicitation, negotiation or obtaining of the Contract to any person, other than an employee of the Contractor acting in the normal course of the employee's duties. In this section, "contingency fee" means any payment or other compensation that depends or is calculated based on a degree of success in soliciting, negotiating or obtaining the Contract and "person" includes any individual who is required to file a return with the registrar pursuant to section 5 of the *Lobbying Act*, 1985, c. 44 (4th Supplement).

GC38. Integrity Provisions

The Ineligibility and Suspension Policy (the "Policy") and all related Directives (2016-04-04) 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](#).

GC39. Public Disclosure

39.1 The Contractor consents, in the case of a contract that has a value in excess of \$10,000, to the public disclosure of basic information - other than information described in any of paragraphs 20 (1)(a) to (d) of the *Access to Information Act* - relating to the contract.

39.2 The contractor consents, in the case of a contract with a former public servant in receipt of a Public Servant Superannuation (PSSA) pension, that the contractor's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports described in 39.1.

GC40. Notice

Any notice under the Contract must be in writing and may be delivered by hand, courier, mail, facsimile or other electronic method that provides a paper record of the text of the notice. It must be sent to the Party for whom it is intended at the address stated in the Contract. Any notice will be effective on the day it is received at that address. Any notice to Canada must be delivered to the Minister.

GC41. Accuracy

The Contractor represents and warrants that the information submitted with its bid is accurate and complete. The Contractor acknowledges that the Minister has relied upon such information in entering into this Contract. This information may be verified in such manner as the Minister may reasonably require.

GC42. Dispute Resolution Services

The parties understand that the Procurement Ombudsman appointed pursuant to subsection 22.1 (1) of the *Department of Public Works and Government Services Act* will, on request of a party, provide a proposal for an alternative dispute resolution process to resolve any dispute arising between the parties respecting the interpretation or application of a term or condition of this contract. The parties may consent to participate in the proposed alternative dispute resolution process and to bear the cost of such process. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by email at boa.opo@boa.opo.gc.ca

GC43. Contract Administration

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1 (1) of the *Department of Public Works and Government Services Act* will review a complaint filed by the contractor respecting administration of this contract if the requirements of Subsection 22.2 (1) of the *Department of Public Works and Government Services Act* and Section 15 and 16 of the *Procurement Ombudsman Regulations* have been met, and the interpretation and application of the terms and conditions and the scope of the work of this contract are not in dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by email at boa.opo@boa.opo.gc.ca

GC44. Entire Agreement

The Contract constitutes the entire agreement between the Parties relative to the subject procurement and supersedes all previous negotiations, communications and other agreements, whether written or oral, unless they are incorporated by reference in the Contract. There are no terms, covenants, representations, statements or conditions relative to the subject procurement binding on the Parties other than those contained in the Contract.



ANNEX B STATEMENT OF WORK

PART A – GENERAL REQUIREMENTS

1.0 BACKGROUND

The Dairy and Swine Research and Development Centre (DSRDC) in Sherbrooke was established in 1914 and specializes in innovative research primarily focused on the dairy and swine industries in Canada.

The DSRDC in Sherbrooke requires the services of a consultant to conduct a feasibility study on converting constant-air-volume chemical fume hoods to variable-air-volume chemical fume hoods.

2.0 PROJECT INFORMATION

The main building (Building 1) of the DSRDC is equipped with variable-air-volume ventilation systems U1 and U2. The systems are modulated by variable-frequency drives (VFDs) installed at the fan inlets. The ventilation units were installed in 1984 during construction of Building 1. Ventilation unit U1 ventilates the administrative areas, the offices, the corridors and other areas of the building where air can be recirculated. It has a heat wheel to provide cooling and fresh air. Ventilation unit U2 delivers fresh air to the laboratories to compensate for the air evacuated by the laboratory fume hoods.

Currently, the DSRDC has 13 chemical fume hoods and 16 canopy fume hoods. Air is evacuated from the hoods by individual exhaust fans. The exhaust airflow, which is currently controlled by a manual switch, runs at a constant volume (100% flow when the switch is on, or 0% flow when the switch is off). The flows cannot be modulated based on the sash position (to maintain face velocity) or on laboratory occupancy. When the hoods are on—i.e., running at full flow—ventilation unit U2 compensates for the air being evacuated. This means that, most of the time, the laboratory hoods are evacuating 100% of the air and unit U2 must compensate for that, which entails significant annual energy and operating costs for the DSRDC.

2.1 Contract objectives

2.1.1 Phase I – Pre-engineering phase – Feasibility study

Feasibility study

Conduct a feasibility study to determine the potential energy savings and reduction in greenhouse gas emissions from conversion of chemical fume hoods to variable-air-volume hoods.

Cost-effectiveness study

Evaluate the cost-effectiveness of the project by assessing the costs and the available incentives, as well as the project return on investment.



Submission of reports

After conducting the feasibility study and the cost-effectiveness evaluation, present the results and recommendations in the form of a written report.

Subject to funding, planning, and at the subsequent request of AAFC, there may be optional phases of additional work that could be requested.

2.1.2 Phase II – Detailed engineering phase

Production of plans and technical specifications

Produce the plans and technical specifications and a cost estimate, in accordance with the feasibility study recommendations.

2.1.3 Phase III – Construction phase

Monitoring of construction work

Subject to funding and in the event that AAFC decides to proceed with the construction project, the Consultant would be called upon to monitor the work.

3.0 SCOPE OF WORK AND CONSULTANT'S MANDATE

3.1 Phase I – Pre-engineering phase – Feasibility study

- 1) Review the project requirements with the AAFC representatives.
- 2) Review the documentation.
- 3) Gather and analyze the building energy and operational data related to the ventilation systems serving the laboratories.
- 4) Assess the energy consumption of the laboratory ventilation systems.
- 5) Assess the minimum and maximum exhaust airflow rates for each of the fume hoods being considered for conversion.
- 6) Conduct a complete on-site survey of the laboratory ventilation systems and initiate discussions with the building operations team.
- 7) Conduct an in-depth analysis of the laboratory ventilation systems and the existing equipment, operating procedures and conditions.
- 8) Provide a brief description of the laboratory ventilation systems, the system drawings, the operating sequences and the hours of operation.
- 9) Identify any deficiencies of the laboratory ventilation system, the control system or the operational practices. If any are found, report them.



- 10) Quantify the potential annual energy savings of converting the chemical fume hoods from constant air volume to variable air volume, and suggest minimum and maximum flow rates for each laboratory hood.
- 11) Quantify the annual reduction in greenhouse gas emissions that would be achieved by converting the fume hoods to variable air volume.
- 12) Prepare a Class D estimate of the cost of converting the fume hoods and calculate the simple rate of return on investment for the project.
- 13) Quantify the potential financial incentives available from energy distributors that could be applied to this project.
- 14) Submit to the AAFC representatives a report containing the results and recommendations of the fume hood conversion feasibility study.

3.2 Phase II option – Detailed engineering phase – Production of plans and specifications

- 1) Prepare the plans and technical specifications for implementing the recommendations of the feasibility study.
- 2) Include and list in the plans and specifications all work required (mechanical, electrical, controls and instrumentation, architectural work) for proper functioning of the system, and specify all the connections required.
 - Plans must be drafted to metric scale and in A-1 format.
 - Plans must be drafted using AutoCAD software.
 - Plans and specifications must be produced in both official languages.
 - Two separate versions of the plans must be produced (one in English and one in French).
 - Specifications must be prepared in accordance with the National Master Specification (NMS).
- 3) Submit, on behalf of AAFC, a subsidy application to the responsible authorities.
- 4) Submit, for the Departmental Project Authority's comments, a PDF copy of the plans and specifications 1) 50% completed and 2) 99% completed. After receiving the Departmental Project Authority's comments, the Consultant shall make any required corrections and modifications to the plans and specifications, then submit 3) the final version of the plans and specifications (100% completed).
- 5) Submit a Class A construction cost estimate broken down by component (including administration, the Contractor's profit and contingencies).



- 6) Once all the corrections have been made, send the sealed construction plans and specifications in hard copy (two copies) and as PDFs to the Departmental Project Authority.

3.3 Phase III option – Construction phase – Monitoring of work

Subject to funding and planning, and upon subsequent request by AAFC, a call for bids on the conversion of the chemical fume hoods may be issued. The Consultant's services would then be required during two periods: the call for bids and the construction phase.

3.3.1 During the call for bids period

- Take the potential bidders on a site visit, accompanied by the Departmental Project Authority.
- Answer the bidders' technical questions in writing (questions and answers in both official languages). Questions must be answered within 48 hours after they are received.
- Assess the bidders' requests for proposed equivalent products.
- Prepare the addenda, if needed, in both official languages (for distribution by AAFC). Addenda must be distributed within 48 hours after the questions are received.
- Participate in the bid evaluation process and make a recommendation as to which bidder should be awarded the construction contract.

Following the call for bids

- Prepare four sealed hard copies of the construction plans and specifications. The Consultant must also provide the Departmental Project Authority with the electronic files of the construction plans and specifications.

3.3.2 Once AAFC has awarded the construction contract, carry out partial monitoring of the work, including the following actions:

- Approve the shop drawings.
- Review the proposed prices for change requests (for final approval by AAFC) and issue site instructions to the Contractor.
- Answer the Contractor's technical questions and handle any problems that may arise during construction.
- Hold site meetings at the research farm, write up meeting minutes and distribute them.
- Conduct site visits to inspect the work (combined with site meetings).
- Issue deficiency lists.
- Issue the Certificate of Substantial Completion.
- Issue the Certificate of Final Completion.



- Check the end-of-project manuals submitted by the Contractor.
- Update “as-built” plans in AutoCAD based on the plans annotated by the Contractor in the course of the work. Provide “as built” plans in DWG, PDF and hard copy (two copies).

4.0 ESTIMATED DURATION OF THE WORK

Feasibility study

Total estimated duration of the feasibility study: 40 working days.

Activity	Estimated number of days
1. Validation of requirements with the client	2 working days
2. Review of documentation	5 working days
3. Survey of on-site mechanical systems	5 working days
4. Analysis of laboratory ventilation systems	5 working days
5. Calculation of energy savings, reductions in GHG emissions, and project return on investment (PRI)	10 working days
6. Presentation of feasibility study results in the form of a report	5 working days
7. Comments and validation by client	3 working days
8. Submission of final feasibility study report	5 working days

5.0 DELIVERABLES

Phase I – Pre-engineering – Feasibility study

The Consultant who is awarded the contract must deliver a final report in PDF format, in both official languages, including all the items listed above in the Consultant’s mandate, and give a presentation to the AAFC representatives on the results and recommendations.

Phase II – Detailed engineering – Production of plans and specifications (OPTIONAL)

Plans and specifications (50% completed)	PDF
Plans and specifications (99% completed)	PDF
Sealed construction plans and specifications (100% completed) (two copies, in both official languages)	PDF and paper
Cost estimates (Class A)	PDF



Phase III – Construction – Monitoring of work **(OPTIONAL)**

Minutes of site meetings	PDF
Report on site visits	PDF
Deficiency list	PDF
Certificate of Substantial Completion	PDF
Certificate of Final Completion	PDF
“As built” plans (two copies)	DWG, PDF and paper

6.0 APPLICABLE STANDARDS

- 1) *National Building Code of Canada*, current version
- 2) *Canadian Electrical Code*, current version
- 3) American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards
- 4) National Fire Protection Association (NFPA) codes and standards
- 5) MD15128 – 2013 Laboratory Fume Hood Guideline
- 6) ANSI/AIHA Z9.5 – 2012

7.0 RESOURCES

7.1 Documents provided to all bidders

- 1) “As built” plans (1983) for the ventilation systems in the main building.
- 2) Shop drawing of the fume hoods (1983).
- 3) Shop drawing of ventilators U1A, U1R and U2A “as built” (1983).

7.2 Documents provided to the successful bidder when the contract is awarded

- 1) Energy data on gas for the main building and energy data on hydro for the site as a whole.
- 2) “As built” plans (1983 and 2017) of the ventilation systems in the main building.
- 3) Balancing report for each of the chemical fume hoods and for ventilation systems U1 and U2.
- 4) Shop drawing of the fume hoods (1983).
- 5) Shop drawing of ventilators U1A, U1R and U2A “as built” (1983).



PLANS AND SPECIFICATIONS

Trane Canada Inc.
895, Rue Des Rocailles,
Quebec, P.Q. G2J 1A2
TEL 418 622 5300



EQUIPEMENT - BASE
D'APPROBATION SEULEMENT

CES DESSINS SONT SUR UNE
BASE D'APPROBATION. LA PRO-
DUCTION DEBUTERA LORSQUE
CES DESSINS SERONT APPROUVÉS

NUMERO DE COMMANDE DE TRANE 20-4083-A-54
NUMERO DE COMMANDE DU CLIENT MI65/28543

VENDU A:
Somec Inc
220, rue Lachance
Québec, P.Q.

EXPEDIE A:
Projet

PROJET
Centre de Recherche, Lennoxville

ITEM	QUANTITE	DESCRIPTION
1a	c/a	<u>Système #U-1R</u> Ventilateur Centrifuge modèle "33AFDW", classe 1, arrangement 3 Débit: 10,900 l/s P.S.: 400 Pa R.P.M.: 740 → 861 Roue: 838 mm, AF
1b	c/a	Moteur 15 H.P., type ouvert-protégé, 600/3/60 Jeu de poulies et courroies à pas variables
1c	c/a	Garde courroie
1d	c/a	Base coulissante pour moteur
1e	c/a	Ensemble de vanes d'entrée modulante

- CONTRÔLE DE DESSINS D'ATELIER**
Revision visant à assurer la conformité
générale avec le contrat.
Aucune responsabilité à l'égard de l'exac-
titude des dimensions ou des détails.
- FOURNIR TEL QUE PROPOSÉ.
 - FAIRE LES CORRECTIONS INDICUÉES.
 - MODIFIER ET PRÉSENTER DE NOUVEAU.
 - REFUSÉ.
 - VOIR REMARQUES.

HAMEL, BEAULIEU
& ASSOCIÉS
150 MARCHAND, SUITE 600
DRUMMONDVILLE J2C 4N1
TÉL. 819-478-8191
Date: 15/2/85 Par: *CE*

(1R)

MOTOR: 15 HP 60 CYC. 3 PH. 600 V 1800 RPM, FR. 2547

SPECIFIED FAN R.P.M. 740 SPEED RATIO 2.36 SERVICE FACTOR 1.4

CONSTANT SPEED DRIVE CONSISTING OF:

1-MOTOR SHEAVE PD _____ SECT _____ GR _____ BORE _____

1-FAN SHEAVE PD _____ SECT _____ GR _____ BORE _____

-V-BELTS R. _____ CTRS. _____ CAT.NO. _____

ACTUAL DRIVE RPM. _____ DRIVE HP _____

VARIABLE SPEED DRIVE CONSISTING OF:

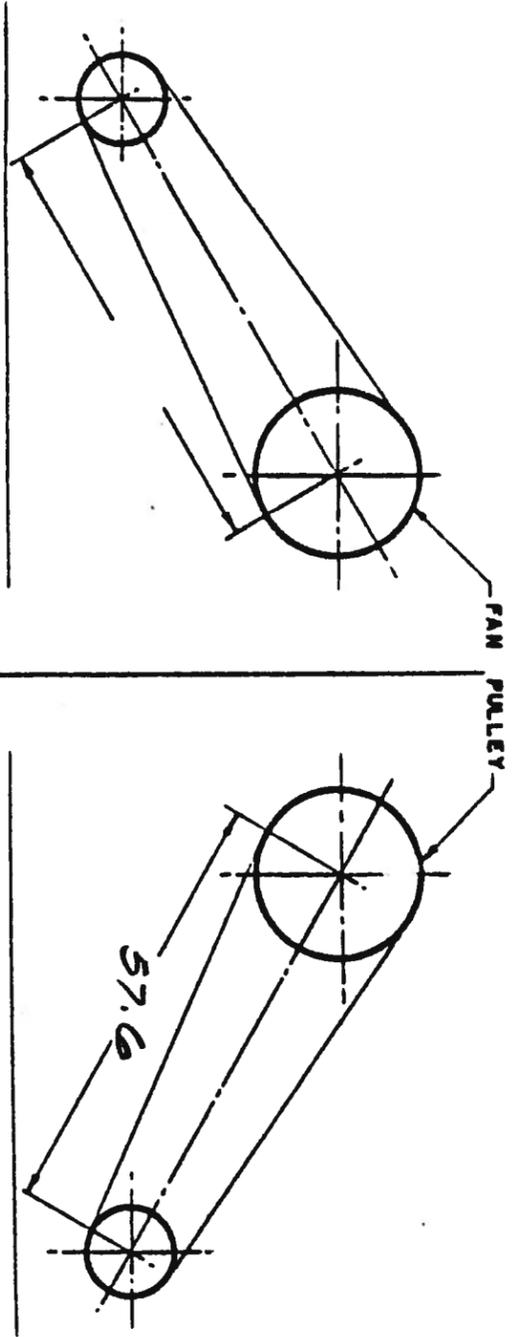
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1-FAN SHEAVE 13.6 PD 3 SECT 2 GR 2 1/4 BORE

2-V-BELTS 145.8 PL. CTRS. 57.1 TO 58.1 CAT NO 3X144

SPEED RANGE 643 TO 824 DRIVE HP 20.8

Boasny's Seal Motor NP-271 1 X 2 1/2 MSBD-47



MOTOR POS: _____

MOTOR POS: W

TRANE CO. OF CANADA LIMITED

V-BELT DRIVE DATA

DATE: 2/20/85 SO. NO 20 - 4083-54-2

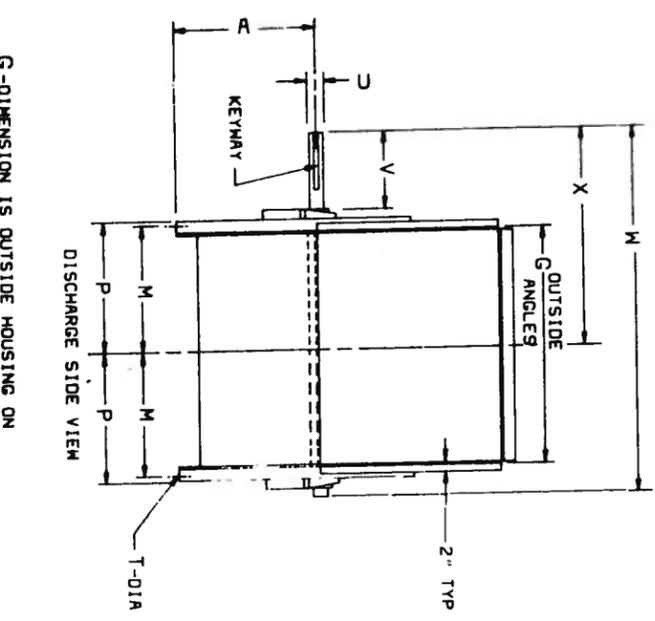
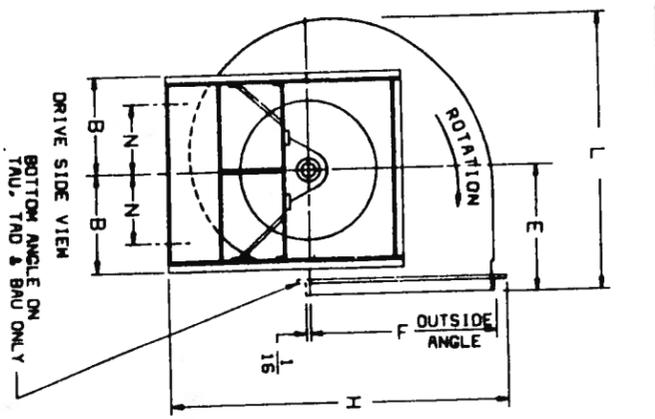
BY: HL ITEM NO _____

SERIAL NO 744871



CENTRIFUGAL FANS
AIRFOIL-ARR 3 DOUBLE WIDTH CLASS 1 AND 2
SIZES 24, 27, 30, 33 AND 36

FAN-S-53
DATE 9-23-01
SUPERSEDES 11-10-80
SUBMITTAL



FAN SIZE	CLASS 1	CLASS 2
24	<input checked="" type="checkbox"/>	<input type="checkbox"/>
27	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	<input checked="" type="checkbox"/>	<input type="checkbox"/>
33	<input checked="" type="checkbox"/>	<input type="checkbox"/>
36	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CLASS 1
 CLASS 2

G-DIMENSION IS OUTSIDE HOUSING ON DB & BAD ONLY (IND SIDE ANGLES)

FAN SIZE	A		B		E	
	TH DB	UB DB	BH BAU	TH UB DB	TH UB DB	TAU TAD
24	2'-1 3/4"	2'-9 1/2"	1'-4 3/8"	1'-7 1/2"	1'-7 1/2"	2'-2 7/8"
27	2'-4 1/4"	3'-0 1/2"	1'-5 5/8"	1'-9"	1'-9"	2'-4 5/8"
30	2'-7 1/4"	3'-4 1/4"	1'-7 3/4"	1'-11"	1'-11"	2'-7 5/8"
33	2'-10 1/4"	3'-8"	1'-9 1/4"	2'-0 3/4"	2'-0 3/4"	2'-9 7/8"
36	3'-1 3/4"	4'-0 1/4"	1'-11"	2'-3"	2'-3"	3'-0 1/4"

FAN SIZE	UNIT WEIGHT (LBS) & MOMENT OF INERTIA-MK2	
	CLASS-1	CLASS-2
24	500	540
27	600	765
30	740	815
33	880	1000
36	1060	1200

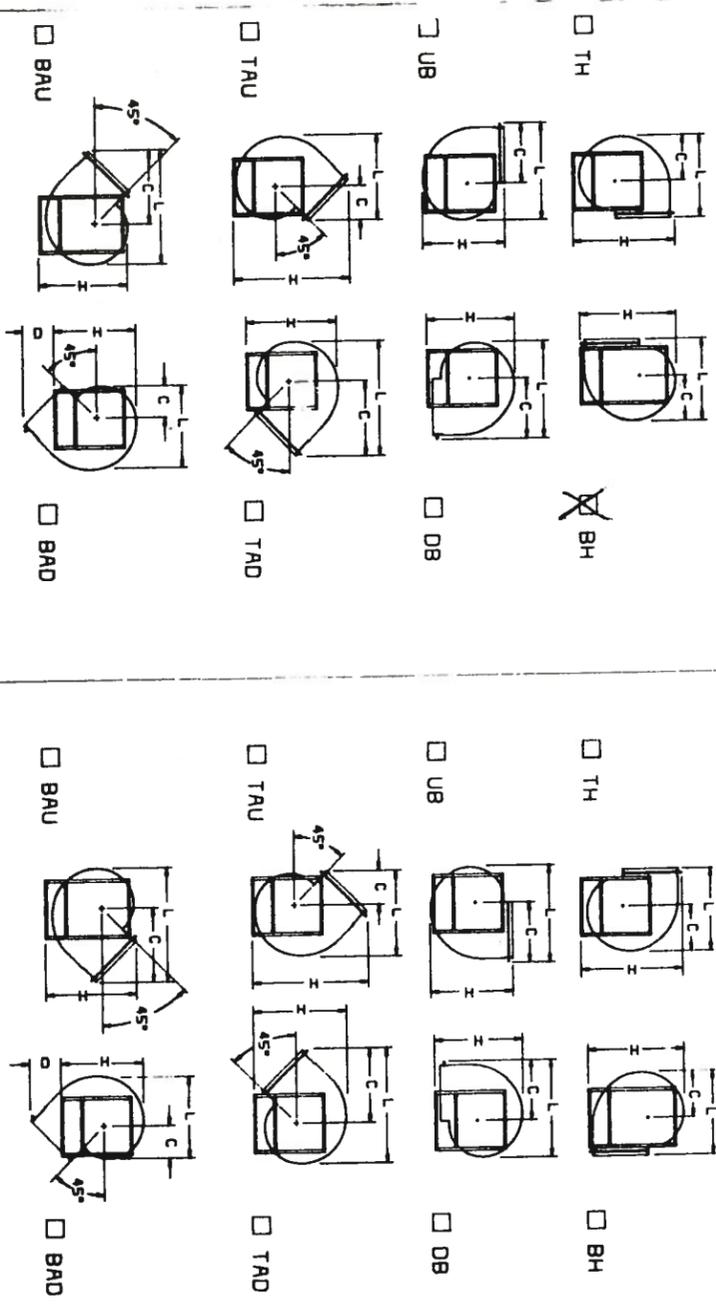
FAN SIZE	F		G		M	N	P	T
	TH DB	TAU TAD	TH UB DB	TAU TAD				
24	2'-6 3/8"	2'-11 1/4"	2'-11 1/4"	1'-7"	11 7/8"	1'-8 1/8"	3/4"	
27	2'-9 1/2"	3'-2 3/4"	3'-2 3/4"	1'-8 3/4"	1'-1 1/8"	1'-9 7/8"	3/4"	
30	3'-1 3/4"	3'-7"	3'-6 7/8"	1'-10 7/8"	1'-2 3/4"	2'-0"	3/4"	
33	3'-4 15/16"	3'-5"	3'-11 1/4"	2'-1"	1'-4 1/4"	2'-2 1/4"	3/4"	
36	3'-9 1/4"	3'-9 5/8"	4'-4 1/4"	2'-3 1/2"	1'-6"	2'-4 5/8"	3/4"	

FAN SIZE	CLASS-1				CLASS-2			
	KEYWAY	U	V	M	KEYWAY	U	V	M
24	1/2" x 1/4" x 5 1/4"	2 3/16"	6 7/8"	4'-3 3/4"	2'-5 1/4"	5/8" x 5/16" x 6 1/4"	2 7/16"	8 1/8"
27	1/2" x 1/4" x 5 1/4"	2 3/16"	6 7/8"	4'-7 1/4"	2'-7"	5/8" x 5/16" x 6 1/4"	2 7/16"	8 1/8"
30	5/8" x 3/16" x 6 1/4"	2 7/16"	7 7/8"	5'-1 1/4"	2'-10 3/4"	3/4" x 3/8" x 7 1/4"	2 15/16"	9 3/8"
33	5/8" x 3/16" x 6 1/4"	2 7/16"	8 1/8"	5'-6"	3'-1 1/8"	3/4" x 3/8" x 7 1/4"	2 15/16"	9 1/8"
36	3/4" x 3/8" x 6 1/4"	2 15/16"	8 1/8"	5'-11"	3'-3 3/8"	3/4" x 3/8" x 7 1/4"	2 15/16"	9 1/8"

CCW ROTATION

DISCHARGE ARRANGEMENT
 DRIVE SIDE VIEW

CCM ROTATION



CUSTOMER NOTE:
 DIMENSIONS "C" & "L" ARE TO FARTHEST POINT ON HOUSING USE "E" DIMENSION TO LOCATE FAN DISCHARGE

FAN SIZE	C						D
	TH	BH	UB	DB	TAU	TAO	
24	2'-0 3/4"	2'-0 3/4"	2'-8 3/8"	2'-8 3/8"	1'-7 1/4"	3'-4 1/2"	1'-2 3/16"
27	2'-3 1/4"	2'-3 1/4"	2'-11 1/2"	2'-11 1/2"	1'-8 1/4"	3'-7 15/16"	1'-3 3/16"
30	2'-6 1/4"	2'-6 1/4"	3'-3 3/8"	3'-3 3/8"	1'-10 3/4"	4'-0 11/16"	1'-5 5/16"
33	2'-9 3/16"	2'-9 3/16"	3'-6 15/16"	3'-6 15/16"	1'-10 3/4"	4'-4 7/8"	1'-6 1/2"
36	3'-0 11/16"	3'-0 11/16"	3'-11 1/4"	3'-11 1/4"	2'-2"	4'-9 1/2"	1'-7 11/16"

FAN SIZE	H					
	TH	BH	UB	DB	TAU	TAD
24	4'-10 1/16"	4'-5 3/8"	3'-9 1/4"	4'-2 1/2"	5'-6 1/4"	4'-4 1/2"
27	5'-3 11/16"	4'-10 3/8"	4'-1 1/4"	4'-7 1/2"	6'-0 3/4"	4'-10 1/4"
30	5'-10 3/8"	5'-4 3/8"	4'-6 1/4"	5'-1 1/2"	6'-7 15/16"	5'-4 3/8"
33	6'-5 1/8"	5'-10 5/8"	4'-11"	5'-7 7/16"	7'-3 1/4"	5'-10 7/8"
36	7'-0 15/16"	6'-5 5/8"	5'-4 3/4"	6'-2 7/16"	7'-11 1/4"	6'-6 3/4"

FAN SIZE	L					
	TH	BH	UB	DB	TAU	TAD
24	3'-8 1/4"	3'-8 1/4"	4'-4 1/4"	4'-4 1/4"	3'-10 3/8"	5'-2 3/8"
27	4'-0 1/4"	4'-0 1/4"	4'-9 3/8"	4'-9 3/8"	4'-2 1/4"	5'-8"
30	4'-5 1/4"	4'-5 1/4"	5'-3 3/16"	5'-3 3/16"	4'-7 11/16"	6'-3 3/8"
33	4'-9 15/16"	4'-9 15/16"	5'-9 3/16"	5'-9 3/16"	5'-0 5/8"	6'-10 3/16"
36	5'-3 11/16"	5'-3 11/16"	6'-4 5/8"	6'-4 5/8"	5'-6 7/16"	7'-5 7/8"

Trane Canada Inc.
 895, Rue Des Rocailles,
 Québec, P.Q. G2J 1A2
 TEL 418 622 5300



EQUIPEMENT - BASE
 D'APPROBATION SEULEMENT

CES DESSINS SONT SUR UNE
 BASE D'APPROBATION. LA PRO-
 Duction DÉBUTERA LORSQUE
 CES DESSINS SERONT APPROUVÉS

NUMERO DE COMMANDE DE TRANE: 20-4083-54
 NUMERO DE COMMANDE DU CLIENT: M165/28543

VENDU A: Somec Inc
 220, rue Lachance
 Québec, P.Q.

EXPEDIE A: Projet

PROJET: Centre de Recherche, Lennoxville

ITEM	QUANTITE	DESCRIPTION
1	1	<p align="center"><u>Système #U-1A</u></p> <p>Ventilateur Centrifuge modèle "33AFDW", classe 1, arrangement 3</p> <p>Débit: 14,300 l/s → 30296CFM P.S.: 900 Pa → 3,61 kg. R.P.M.: 1115</p> <p>Roue: 838 mm, AF</p> <p>Moteur 30 H.P., type ouvert-protégé, 600/3/60</p> <p>Jeu de poulies et courroies à pas variables</p> <p>Garde courroie</p> <p>Base coulissante pour moteur</p> <p>Ensemble de vannes d'entrée modulante</p>
1a	c/a	
1b	c/a	
1c	c/a	
1d	c/a	
1e	c/a	

CONTRÔLE DE DEBIBNS D'ATELIER
 Revision visant à assurer la conformité
 générale avec le contrat.
 Aucune responsabilité à l'égard de l'exécution
 des dimensions ou des détails.

FOURNIR TEL QUE PROPOSÉ.
 FAIRE LES CORRECTIONS INDICUÉES.
 MODIFIER ET PRÉSENTER DE NOUVEAU
 REFUSÉ.
 VOIR REMARQUES.

HAMEL, BEAULIEU
 & ASSOCIÉS
 150 MARCHAND, SUITE 600
 DRUMMONDVILLE J2C 4N1
 TÉL. 819-478-8191
 Date: 15/2/85 Par: CE

MOTOR: 30 HP 60 CVC 3 PH 600 V 1800 RPM FR. 286 T

(614)

SPECIFIED FAN R.P.M. 1115 SPEED RATIO 1.57 SERVICE FACTOR 1.4

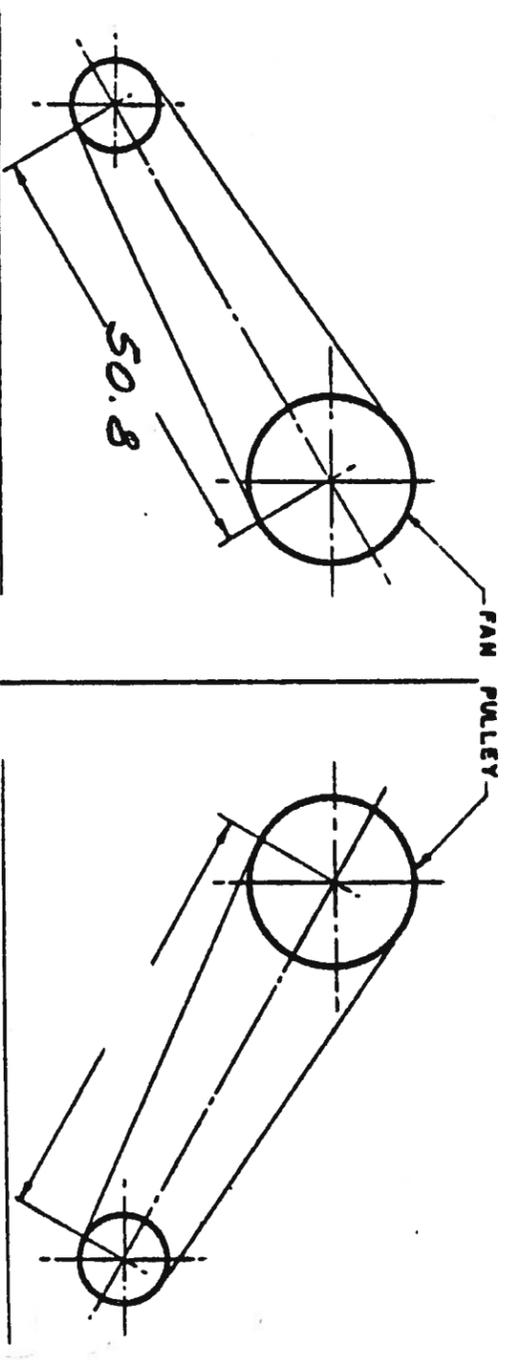
CONSTANT SPEED DRIVE CONSISTING OF:

I-MOTOR SHEAVE PD SECT GR BORE
I-FAN SHEAVE PD SECT GR BORE
-V-BELTS R. CTRS. CAT.NO.
ACTUAL DRIVE R.P.M. DRIVE HP

VARIABLE SPEED DRIVE CONSISTING OF:

I-MOTOR SHEAVE 6.0 - 7.4 PD 8 SECT 4 GR 1 7/8 BORE
I-FAN SHEAVE 11.0 PD 8 SECT 4 GR 2 1/16 BORE
4-V-BELTS 129.8 PL CTRS. 50.5 TO 51.5 CAT NO 8X 128
SPEED RANGE 956 TO 1174 DRIVE HP 50.37

Bearing 1x 1 1/16 NPS 271 of 1x 2 1/16 NIS PD-47



TRANE CO. OF CANADA LIMITED

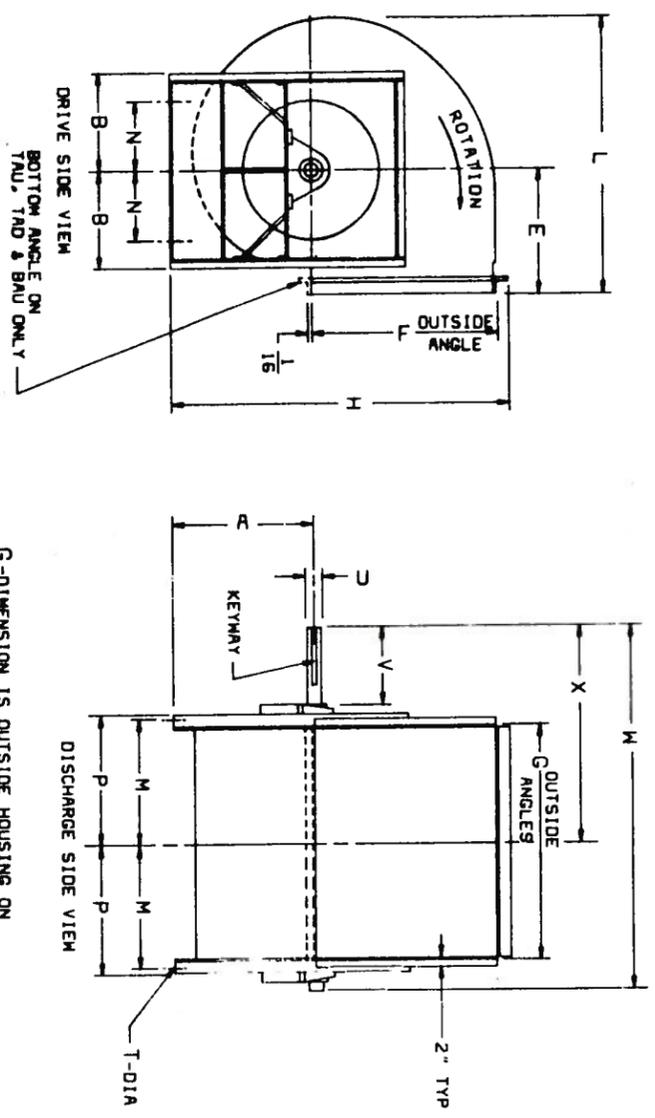
V-BELT DRIVE DATA

DATE: 3/20/85 SO. NO 20-4083-54-2
BY: AT ITEM NO
SERIAL NO 744 870



CENTRIFUGAL FANS
AIRFOIL-PRR 3 DOUBLE WIDTH CLASS 1 AND 2
SIZES 24, 27, 30, 33 AND 36

FRM-9-53
 DATE 9-23-01
 SUPERSEDES 11-10-80
 SUBMITTAL



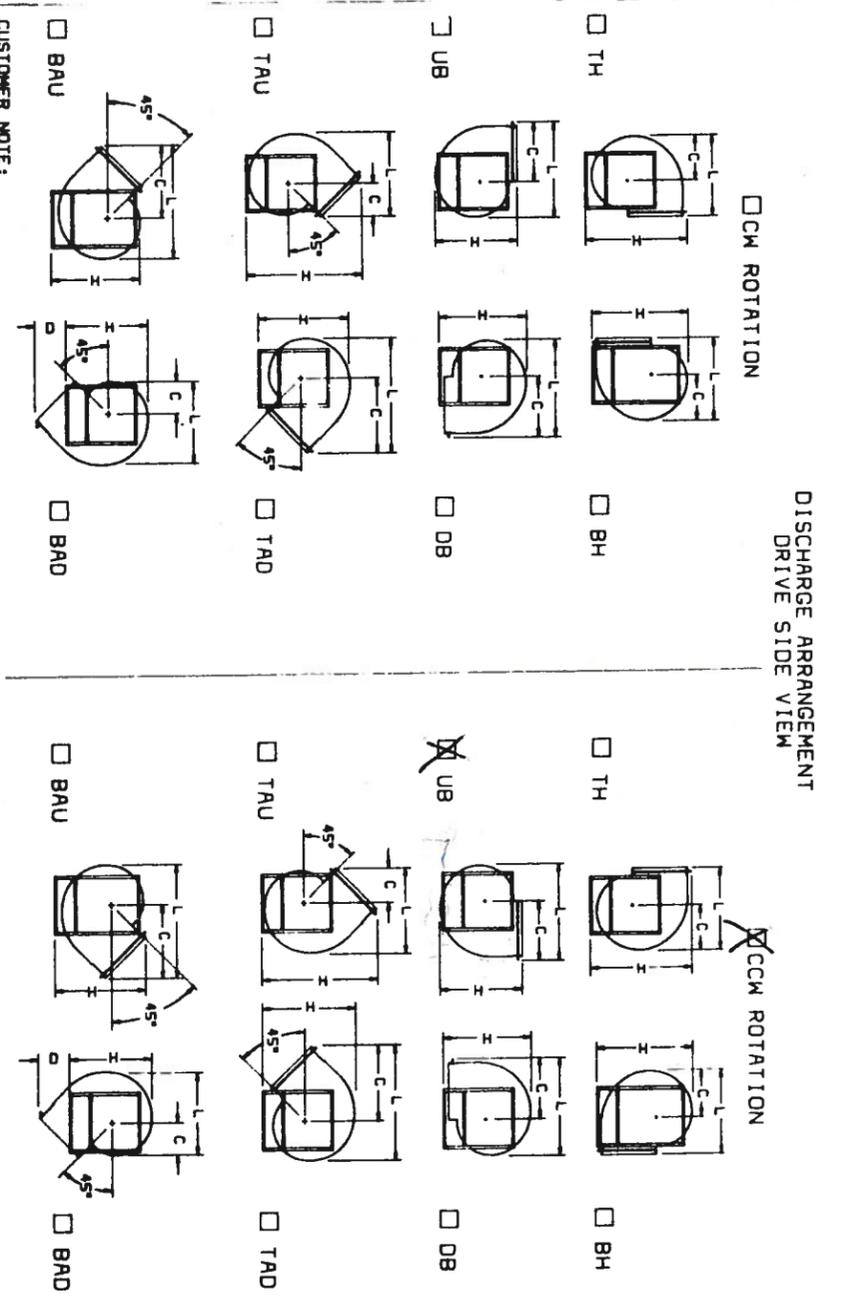
FAN SIZE	24	27	30	33	36
<input checked="" type="checkbox"/> CLASS 1					
<input type="checkbox"/> CLASS 2					

FAN SIZE	A			B			E		
	TH DB	UB DB	BAU DB	TH DB	UB DB	BAU DB	TH DB	UB DB	BAU DB
24	2'-1 3/4"	2'-9 1/2"	2'-11 1/2"	1'-4 3/8"	1'-7 1/2"	2'-2 7/8"	2'-1 1/2"	2'-5 1/2"	2'-4 5/8"
27	2'-4 1/4"	3'-0 1/2"	3'-2 3/4"	1'-5 5/8"	1'-9"	2'-4 5/8"	1'-9"	2'-7 5/8"	2'-7 5/8"
30	2'-7 1/4"	3'-4 1/4"	3'-7"	1'-7 3/4"	1'-11"	2'-7 5/8"	1'-11"	2'-9 7/8"	2'-9 7/8"
33	2'-10 1/4"	3'-8"	3'-11 1/4"	1'-9 1/4"	2'-0 3/4"	2'-9 7/8"	2'-0 3/4"	2'-9 7/8"	2'-9 7/8"
36	3'-1 3/4"	4'-0 1/4"	4'-4 1/4"	1'-11"	2'-3"	3'-0 1/4"	2'-3"	3'-0 1/4"	3'-0 1/4"

FAN SIZE	CLASS-1		CLASS-2	
	HEIGHT	WK2	HEIGHT	WK2
24	500	70.5	540	77.2
27	600	97.7	765	106.0
30	740	158.0	815	205.0
33	880	243.0	1000	313.0
36	1060	349.0	1200	455.0

FAN SIZE	F			G			M	N	P	T
	TH DB	UB DB	BAU DB	TH DB	UB DB	BAU DB				
24	2'-6 3/8"	2'-6 7/8"	2'-11 1/4"	2'-11 1/4"	1'-7"	11 7/8"	1'-8 1/4"	3/4"	3/4"	
27	2'-9 1/2"	2'-9 5/8"	3'-2 3/4"	3'-2 3/4"	1'-8 3/4"	1'-1 1/8"	1'-9 7/8"	3/4"	3/4"	
30	3'-1 3/8"	3'-1 1/4"	3'-7"	3'-6 7/8"	1'-10 7/8"	1'-2 3/4"	2'-0"	3/4"	3/4"	
33	3'-4 15/16"	3'-5"	3'-11 1/4"	3'-11 1/4"	2'-1"	1'-4 1/4"	2'-2 1/8"	3/4"	3/4"	
36	3'-9 1/4"	3'-9 5/8"	4'-4 1/4"	4'-4 1/4"	2'-3 1/2"	1'-6"	2'-4 5/8"	3/4"	3/4"	

FAN SIZE	CLASS-1						CLASS-2								
	KEYWAY	U	V	M	X	KEYWAY	U	V	M	X	KEYWAY	U	V	M	X
24	1/2" x 1/4" x 5 1/4"	2 3/16"	6 7/8"	4'-3 3/4"	2'-5 1/4"	5/8" x 5/16" x 6 1/4"	2 7/16"	8 1/4"	4'-5 3/4"	2'-6 15/16"	2 7/16"	8 1/4"	4'-5 3/4"	2'-6 15/16"	2 7/16"
27	1/2" x 1/4" x 5 1/4"	2 3/16"	6 7/8"	4'-7 1/4"	2'-7"	5/8" x 5/16" x 6 1/4"	2 7/16"	8 1/4"	4'-9 1/4"	2'-8 11/16"	2 7/16"	8 1/4"	4'-9 1/4"	2'-8 11/16"	2 7/16"
30	5/8" x 5/16" x 6 1/4"	2 7/16"	7 3/8"	5'-1 1/4"	2'-10 3/4"	3/4" x 3/8" x 7 1/4"	2 15/16"	9 3/8"	5'-3"	3'-0 3/8"	2 15/16"	9 3/8"	5'-3"	3'-0 3/8"	2 15/16"
33	5/8" x 5/16" x 6 1/4"	2 7/16"	8 1/8"	5'-6"	3'-1 1/8"	3/4" x 3/8" x 7 1/4"	2 15/16"	9 1/8"	5'-7"	3'-2 1/16"	2 15/16"	9 1/8"	5'-7"	3'-2 1/16"	2 15/16"
36	3/4" x 3/8" x 6 1/4"	2 15/16"	8 1/8"	5'-11"	3'-3 3/8"	3/4" x 3/8" x 7 1/4"	2 15/16"	9 1/8"	6'-0"	3'-4 3/16"	2 15/16"	9 1/8"	6'-0"	3'-4 3/16"	2 15/16"



CUSTOMER NOTE:
 DIMENSIONS "C" & "L" ARE TO FARTHEST POINT ON HOUSING USE "E" DIMENSION TO LOCATE FAN DISCHARGE

FAN SIZE	C								D
	TH	BH	UB	DB	TAU	TAD	BAU	BAD	
24	2'-0 3/4"	2'-0 3/4"	2'-8 3/8"	2'-8 3/8"	1'-7 1/4"	3'-4 1/2"	3'-4 1/2"	1'-5 3/8"	
27	2'-3 1/4"	2'-3 1/4"	2'-11 1/2"	2'-11 1/2"	1'-8 1/4"	3'-7 15/16"	3'-7 15/16"	1'-7 3/8"	
30	2'-6 1/4"	2'-6 1/4"	3'-3 3/4"	3'-3 3/4"	1'-10 3/8"	4'-0 11/16"	4'-0 11/16"	1'-9 3/8"	
33	2'-9 3/4"	2'-9 3/4"	3'-6 15/16"	3'-6 15/16"	2'-0"	4'-4 7/8"	4'-4 7/8"	1'-11 1/2"	
36	3'-0 11/16"	3'-0 11/16"	3'-11 1/4"	3'-11 1/4"	2'-2"	4'-9 1/2"	4'-9 1/2"	2'-2"	

FAN SIZE	H									
	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH
24	4'-10 1/4"	4'-5 3/8"	3'-9 1/4"	4'-2 1/2"	5'-6 1/4"	4'-5 1/8"	4'-4 1/2"	3'-11 5/8"	4'-10 1/4"	4'-5 3/8"
27	5'-3 11/16"	4'-10 3/8"	4'-1 1/4"	4'-7 1/2"	6'-0 3/8"	4'-10 1/4"	4'-8 3/4"	4'-4 5/8"	5'-3 11/16"	4'-10 3/8"
30	5'-10 3/8"	5'-4 3/8"	4'-6 1/4"	5'-1 1/2"	6'-7 15/16"	5'-4 3/8"	5'-2 5/8"	4'-9 15/16"	5'-10 3/8"	5'-4 3/8"
33	6'-5 1/8"	5'-10 5/8"	4'-11"	5'-7 7/16"	7'-3 1/8"	5'-10 7/8"	5'-7 15/16"	5'-3 3/8"	6'-5 1/8"	5'-10 5/8"
36	7'-0 15/16"	6'-5 5/8"	5'-4 3/4"	6'-2 7/16"	7'-11 1/4"	6'-6 3/8"	6'-2 1/4"	5'-10 1/8"	7'-0 15/16"	6'-5 5/8"

FAN SIZE	L									
	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH
24	3'-8 1/4"	3'-8 1/4"	4'-4 1/4"	4'-4 1/4"	3'-10 3/8"	5'-2 3/8"	5'-2 3/8"	3'-8 7/8"	3'-8 1/4"	3'-8 1/4"
27	4'-0 1/4"	4'-0 1/4"	4'-9 3/8"	4'-9 3/8"	4'-2 1/4"	5'-8"	5'-8"	4'-1 5/8"	4'-0 1/4"	4'-0 1/4"
30	4'-5 1/4"	4'-5 1/4"	5'-3 5/16"	5'-3 5/16"	4'-7 11/16"	6'-3 3/8"	6'-3 3/8"	4'-6 11/16"	4'-5 1/4"	4'-5 1/4"
33	4'-9 15/16"	4'-9 15/16"	5'-9 9/16"	5'-9 9/16"	5'-0 5/8"	6'-10 3/16"	6'-10 3/16"	5'-0 1/8"	4'-9 15/16"	4'-9 15/16"
36	5'-3 11/16"	5'-3 11/16"	6'-4 5/8"	6'-4 5/8"	5'-6 7/16"	7'-5 7/8"	7'-5 7/8"	5'-6 7/16"	5'-3 11/16"	5'-3 11/16"

Trane Canada Inc.
895, Rue Des Rocailles,
Quebec, P.Q. G2J 1A2
TEL 418 622 5300

Steve Grand



EQUIPEMENT - BASE
D'APPROBATION SEULEMENT

CES DESSINS SONT SUR UNE
BASE D'APPROBATION. LA PRO-
DUCTION DÉBUTERA LORSQUÉ
CES DESSINS SERONT APPROUVÉS

NUMERO DE COMMANDE DE TRANE 20-4083-B-54
NUMERO DE COMMANDE DU CLIENT M165/28543

VENDU A: Somec Inc
220, rue Lachance
Québec, P.Q.

EXPEDIE A: Projet

PROJET: Centre de Recherche, Lennoxville

ITEM	QUANTITE	DESCRIPTION
1	1	<p align="center"><u>Système #U-2A</u></p> <p>Ventilateur Centrifuge modèle "33AFDW", classe 1, arrangement 3</p> <p>Débit: 9270 l/s ^{191'40'Pa}</p> <p>P.S.: 500 Pa</p> <p>R.P.M.: 791 ^{-1033 RPM}</p> <p>Roue: 838 mm, AF</p> <p>Moteur 15 H.P., type ouvert-protégé, 600/3/60</p> <p>Jeu de poulies et courroies à pas variables</p> <p>Garde courroie</p> <p>Base coulissante pour moteur</p> <p>Ensemble de vannes d'entrée modulante</p>
1a	c/a	
1b	c/a	
1c	c/a	
1d	c/a	
1e	c/a	

CONTRÔLE DE DESSIN D'ATELIER
Revision visant à assurer la conformité
générale avec le contrat.
Aucune responsabilité à l'égard de l'exactitude
des dimensions ou des détails.

FOURNIR TEL QUE PROPOSÉ.

FAIRE LES CORRECTIONS INDICUÉES.

MODIFIER ET PRÉSENTER DE NOUVEAU.

REFUSÉ.

VOIR REMARQUÉ.

**HAMEL, BEAULIEU
& ASSOCIÉS**
150 MARCHAND, SUITE 600
DRUMMONDVILLE J2C 4N1
TEL. 319-478-8191

Date: 15/2/05 Par: LC

30 HP.

2A

MOTOR: 15 HP 60 CYC. 3 PH. 600 V 1800 RPM, FR. 254T

SPECIFIED FAN R.P.M. 791 SPEED RATIO 2.21 SERVICE FACTOR 1.4

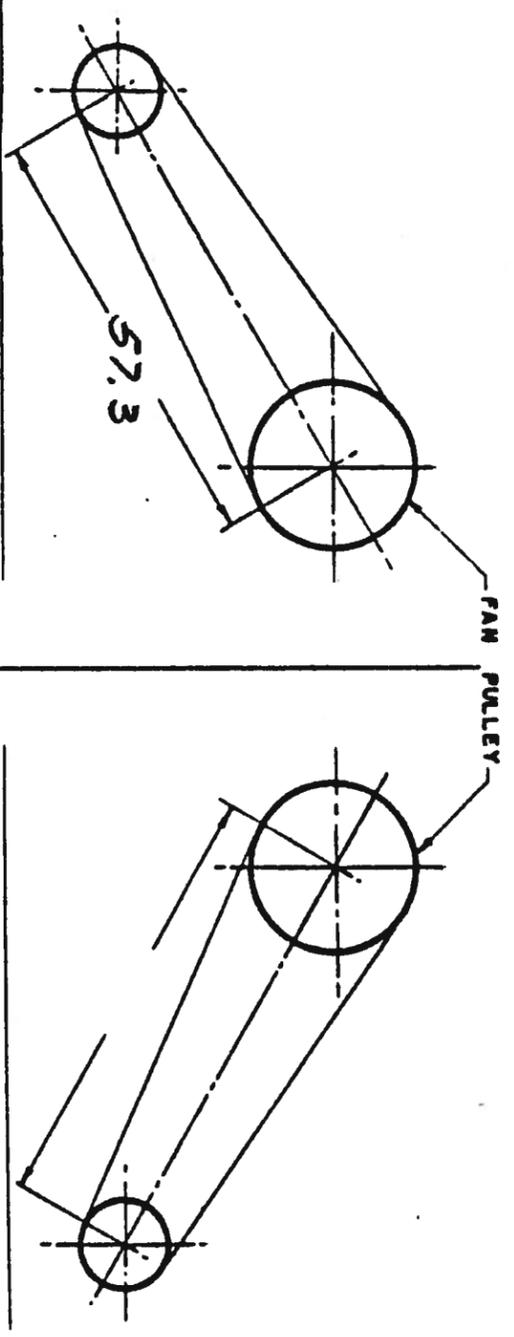
CONSTANT SPEED DRIVE CONSISTING OF:

1-MOTOR SHEAVE PD SECT GR BORE
 1-FAN SHEAVE PD SECT GR BORE
 -V-BELTS RL CTRS. CAT.NO.
 ACTUAL DRIVE RPM. DRIVE HP.

VARIABLE SPEED DRIVE CONSISTING OF:

1-MOTOR SHEAVE 5.5-6.9 PD 3 SECT 2 GR 1 5/8 BORE
 1-FAN SHEAVE 13.6 PD 3 SECT 2 GR 2 1/4 BORE
 2-V-BELTS 145.8 PL CTRS. TO CAT NO 3X 144
 SPEED RANGE 708 TO 888 → DRIVE HP 22.2

Seal motor bearing 1 x 1 1/16 NIP-271 of 1 x 2 1/16 MS PD-47



MOTOR POS: Z

MOTOR POS: Z

TRANE CO. OF CANADA LIMITED

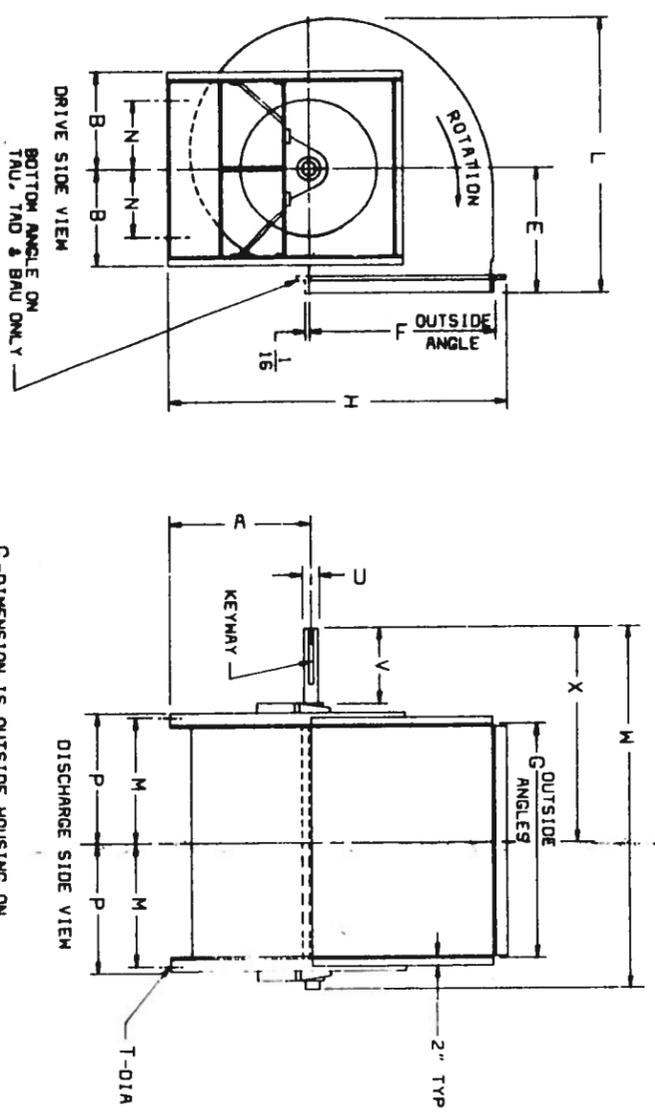
V-BELT DRIVE DATA

DATE: 3/20/85 SO. NO 20-4083-54-2
 BY: H.C. ITEM NO SERIAL NO 744872



CENTRIFUGAL FANS
AIRFOIL-FRR 3 DOUBLE WIDTH CLASS 1 AND 2
SIZES 24, 27, 30, 33 AND 36

FRN-S-53
 DATE 9-23-81
 SUPERSEDES 11-10-80
 SUBMITTAL



FAN SIZE	CLASS 1	CLASS 2
24	<input checked="" type="checkbox"/>	<input type="checkbox"/>
27	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	<input checked="" type="checkbox"/>	<input type="checkbox"/>
33	<input checked="" type="checkbox"/>	<input type="checkbox"/>
36	<input checked="" type="checkbox"/>	<input type="checkbox"/>

G-DIMENSION IS OUTSIDE HOUSING ON DB & BAD ONLY (NO SIDE ANGLES)

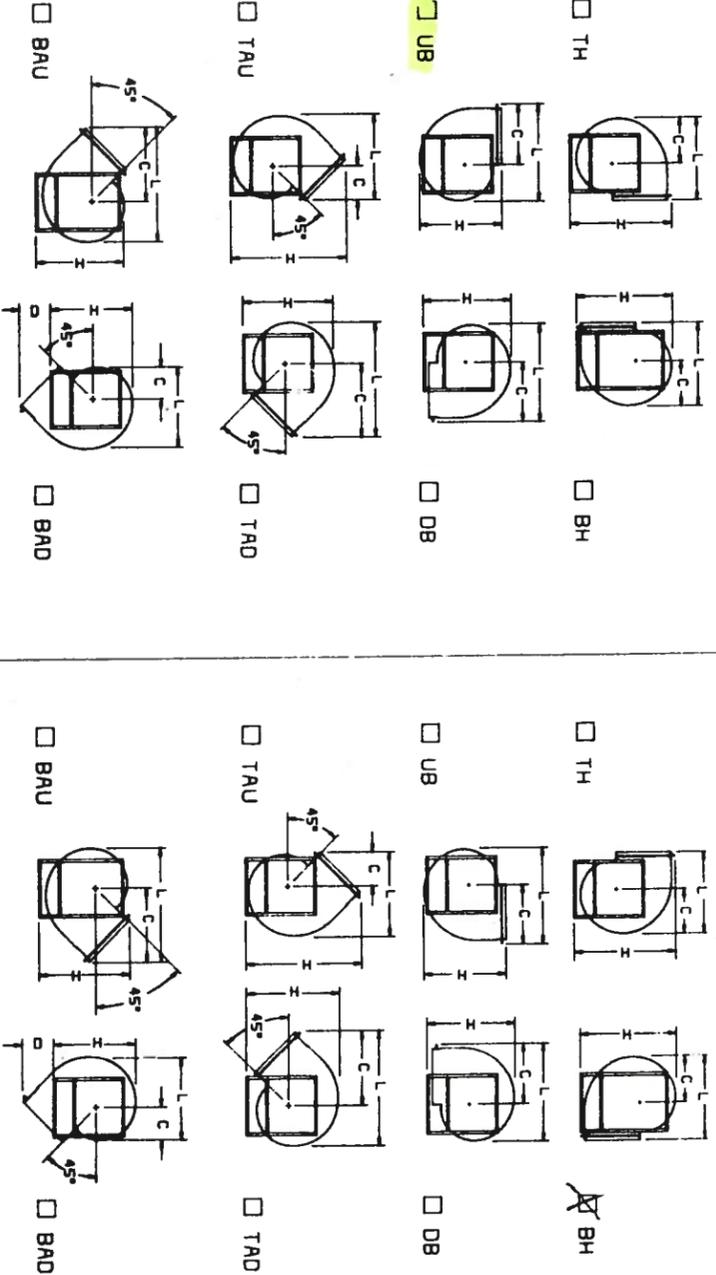
FAN SIZE	A			B			E		
	TH	UB	DB	BH	UB	DB	TH	BH	UB
24	2'-1 3/4"	2'-9 1/2"	2'-4 3/8"	3'-0 1/2"	1'-7 1/2"	1'-7 1/2"	2'-2 7/8"	2'-4 5/8"	1'-9"
27	2'-4 1/4"	2'-9 1/2"	3'-0 1/2"	3'-0 1/2"	1'-5 5/8"	1'-9"	2'-4 5/8"	1'-9"	1'-9"
30	2'-7 1/4"	3'-4 1/4"	3'-4 1/4"	3'-4 1/4"	1'-7 3/4"	1'-11"	2'-7 3/8"	2'-7 3/8"	1'-11"
33	2'-10 1/4"	3'-8"	3'-8"	3'-8"	1'-9 1/4"	2'-0 3/4"	2'-9 1/8"	2'-9 1/8"	1'-11"
36	3'-1 3/4"	4'-0 1/4"	4'-0 1/4"	4'-0 1/4"	1'-11"	2'-3"	3'-0 1/8"	3'-0 1/8"	2'-3"

FAN SIZE	CLASS-1		CLASS-2	
	WEIGHT	MK2	WEIGHT	MK2
24	500	70.5	540	77.2
27	600	97.7	765	106.0
30	740	158.0	815	205.0
33	880	243.0	1000	313.0
36	1060	349.0	1200	455.0

FAN SIZE	F			G			M	N	P	T
	TH	BH	UB	TH	BH	UB				
24	2'-6 3/8"	2'-6 7/8"	2'-11 1/4"	2'-11 1/4"	1'-7"	1'-7"	11 7/8"	1'-8 1/8"	3/4"	3/4"
27	2'-9 1/2"	2'-9 3/8"	3'-2 3/4"	3'-2 3/4"	1'-8 3/4"	1'-8 3/4"	1'-1 1/8"	1'-9 7/8"	3/4"	3/4"
30	3'-1 3/8"	3'-1 1/4"	3'-6 7/8"	3'-6 7/8"	1'-10 7/8"	1'-10 7/8"	1'-2 3/4"	2'-0"	3/4"	3/4"
33	3'-4 15/16"	3'-5"	3'-11 1/4"	3'-11 1/4"	2'-1"	2'-1"	1'-4 1/4"	2'-2 1/8"	3/4"	3/4"
36	3'-9 1/4"	3'-9 3/8"	4'-4 1/4"	4'-4 1/4"	2'-3 1/2"	2'-3 1/2"	1'-6"	2'-4 5/8"	3/4"	3/4"

FAN SIZE	CLASS-1				CLASS-2					
	KEYWAY	U	V	M	KEYWAY	U	V	M	X	
24	1/2" x 1/4" x 5 1/4"	2 3/16"	6 7/8"	4'-3 3/4"	2'-5 1/4"	5/8" x 5/16" x 6 1/4"	2 7/16"	8 1/8"	4'-5 3/4"	2'-6 15/16"
27	1/2" x 1/4" x 5 1/4"	2 3/16"	6 7/8"	4'-7 1/4"	2'-7"	5/8" x 5/16" x 6 1/4"	2 7/16"	8 1/8"	4'-9 1/4"	2'-8 11/16"
30	5/8" x 5/16" x 6 1/4"	2 7/16"	7 7/8"	5'-1 1/4"	2'-10 3/4"	3/4" x 3/8" x 7 1/4"	2 15/16"	9 3/8"	5'-3"	3'-0 3/16"
33	5/8" x 5/16" x 6 1/4"	2 7/16"	8 1/8"	5'-6"	3'-1 1/16"	3/4" x 3/8" x 7 1/4"	2 15/16"	9 1/8"	5'-7"	3'-2 1/16"
36	3/4" x 3/8" x 6 1/4"	2 15/16"	8 1/8"	5'-11"	3'-3 3/8"	3/4" x 3/8" x 7 1/4"	2 15/16"	9 1/8"	6'-0"	3'-4 3/16"

DISCHARGE ARRANGEMENT
DRIVE SIDE VIEW

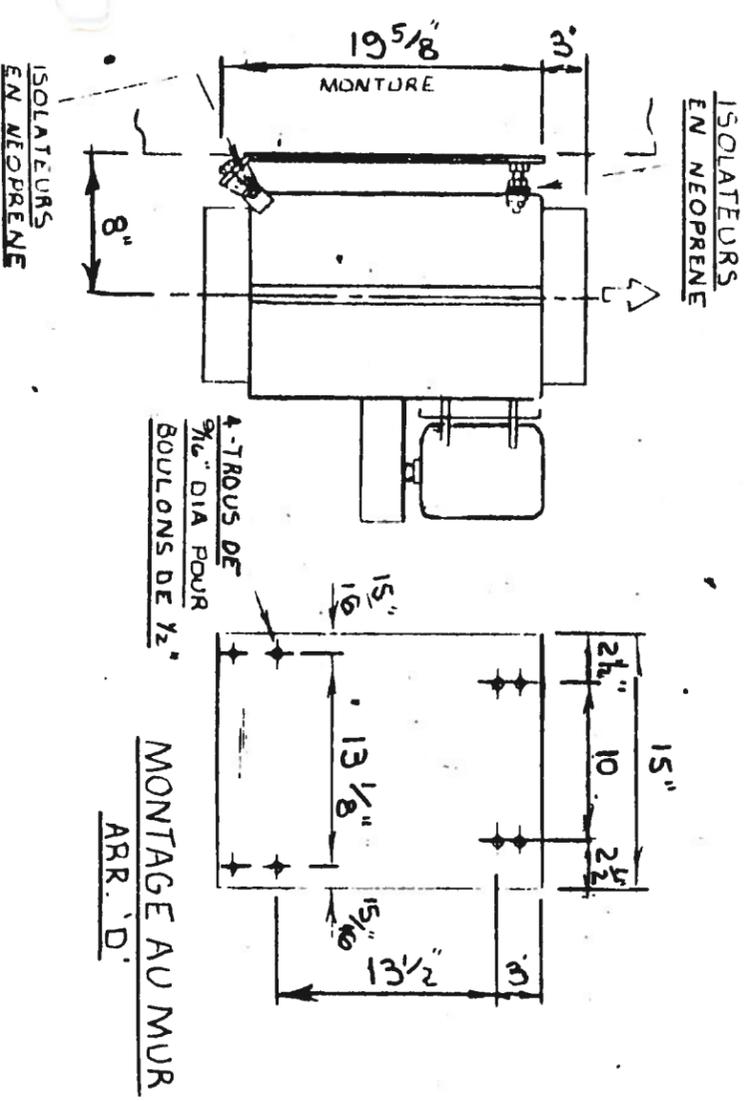
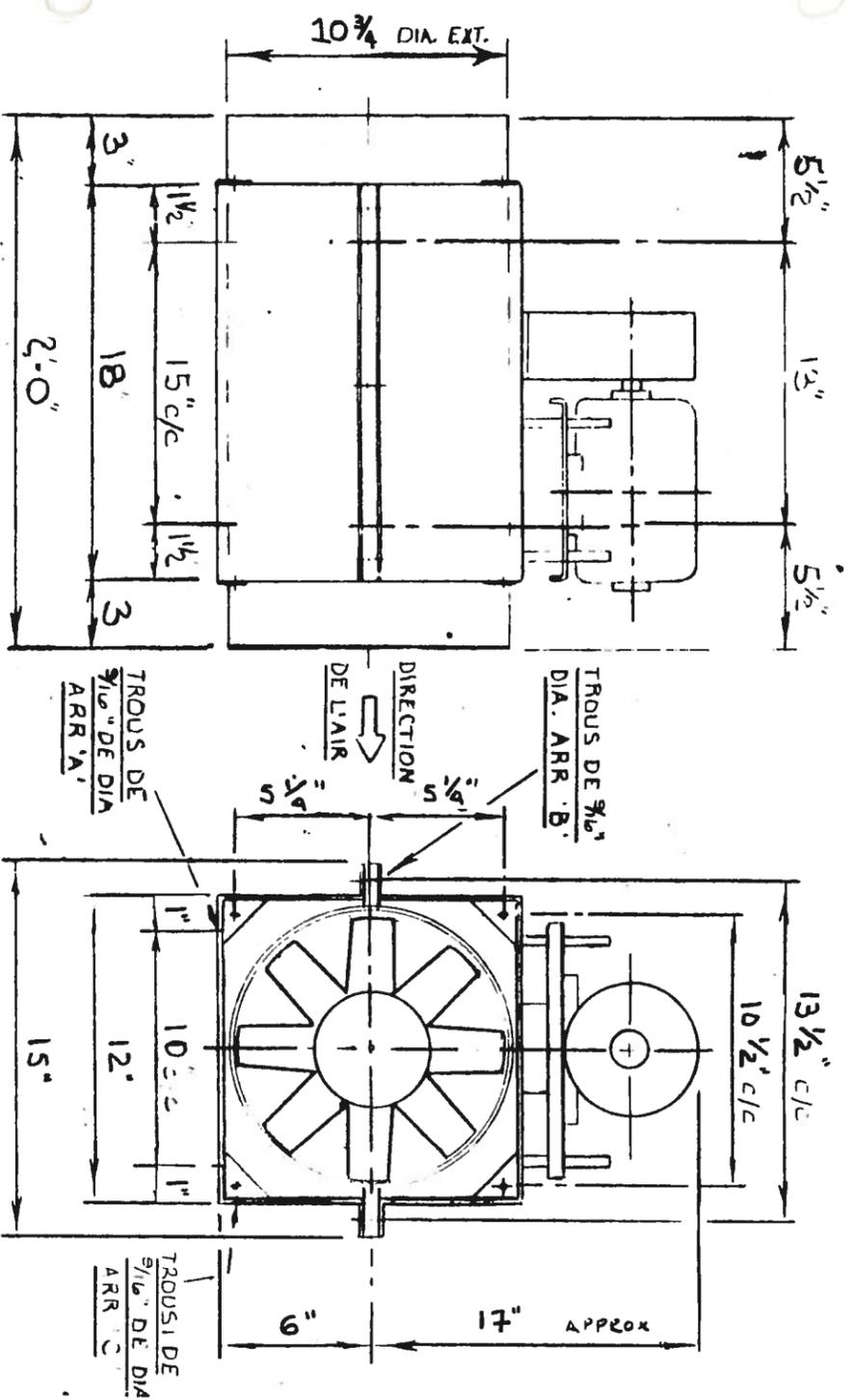


CUSTOMER NOTE:
 DIMENSIONS "C" & "L" ARE TO FARTHEST POINT ON HOUSING USE "E" DIMENSION TO LOCATE FAN DISCHARGE

FAN SIZE	C								D	
	TH	BH	UB	DB	TAU	TAD	BAU	BAD	BAU	BAD
24	2'-0 3/4"	2'-0 3/4"	2'-8 3/8"	2'-8 3/8"	1'-7 1/4"	3'-4 1/2"	3'-4 1/2"	1'-5 3/16"	1'-2 3/16"	1'-2 3/16"
27	2'-3 1/4"	2'-3 1/4"	2'-11 1/2"	2'-11 1/2"	1'-8 1/4"	3'-7 15/16"	3'-7 15/16"	1'-7 5/16"	1'-3 3/16"	1'-3 3/16"
30	2'-6 1/4"	2'-6 1/4"	3'-3 3/8"	3'-3 3/8"	1'-10 3/8"	4'-0 1 1/16"	4'-0 1 1/16"	1'-9 3/8"	1'-5 3/8"	1'-5 3/8"
33	2'-9 3/8"	2'-9 3/8"	3'-6 15/16"	3'-6 15/16"	2'-0"	4'-4 7/8"	4'-4 7/8"	1'-11 1/2"	1'-6 1/2"	1'-6 1/2"
36	3'-0 1 1/16"	3'-0 1 1/16"	3'-11 1/4"	3'-11 1/4"	2'-2"	4'-9 1/2"	4'-9 1/2"	2'-2"	1'-7 1 1/16"	1'-7 1 1/16"

FAN SIZE	H									
	TH	BH	UB	DB	TAU	TAD	BAU	BAD	BAU	BAD
24	4'-10 1/16"	4'-5 3/8"	3'-9 1/4"	4'-2 1/2"	5'-6 1/4"	4'-5 1/16"	4'-4 1/2"	3'-11 5/8"	4'-4 1/2"	3'-11 5/8"
27	5'-3 1 1/16"	4'-10 3/8"	4'-1 1/4"	4'-7 1/2"	6'-0 3/4"	4'-10 1/4"	4'-8 3/4"	4'-4 5/16"	4'-8 3/4"	4'-4 5/16"
30	5'-10 3/8"	5'-4 3/8"	4'-6 1/4"	5'-1 1/2"	6'-7 15/16"	5'-4 3/8"	5'-2 5/8"	4'-9 15/16"	5'-2 5/8"	4'-9 15/16"
33	6'-5 1/8"	5'-10 5/8"	4'-11"	5'-7 7/16"	7'-3 1/8"	5'-10 7/8"	5'-7 15/16"	5'-3 3/16"	5'-7 15/16"	5'-3 3/16"
36	7'-0 15/16"	6'-5 5/8"	5'-4 3/4"	6'-2 7/16"	7'-11 1/4"	6'-6 3/8"	6'-2 1/4"	5'-10 1/8"	6'-2 1/4"	5'-10 1/8"

FAN SIZE	L									
	TH	BH	UB	DB	TAU	TAD	BAU	BAD	BAU	BAD
24	3'-8 1/4"	3'-8 1/4"	4'-4 1/4"	4'-4 1/4"	3'-10 3/16"	5'-2 3/8"	5'-2 3/8"	3'-8 7/8"	5'-2 3/8"	3'-8 7/8"
27	4'-0 1/4"	4'-0 1/4"	4'-9 3/8"	4'-9 3/8"	4'-2 1/4"	5'-8"	5'-8"	4'-1 5/16"	5'-8"	4'-1 5/16"
30	4'-5 1/4"	4'-5 1/4"	5'-3 5/16"	5'-3 5/16"	4'-7 1 1/16"	6'-3 3/8"	6'-3 3/8"	4'-6 1 1/16"	6'-3 3/8"	4'-6 1 1/16"
33	4'-9 15/16"	4'-9 15/16"	5'-9 3/16"	5'-9 3/16"	5'-0 5/8"	6'-10 3/16"	6'-10 3/16"	5'-0 1/8"	6'-10 3/16"	5'-0 1/8"
36	5'-3 1 1/16"	5'-3 1 1/16"	6'-4 5/8"	6'-4 5/8"	5'-6 7/16"	7'-5 7/8"	7'-5 7/8"	5'-6 7/16"	7'-5 7/8"	5'-6 7/16"



SYSTEME NO. VH-12: 142

1 - Bifurcateur modèle PVC-10 à deux stages, arrangement no. 9.

Rendement: 210 l/s à 100 Pa, 21 °C, 1450 TPM.

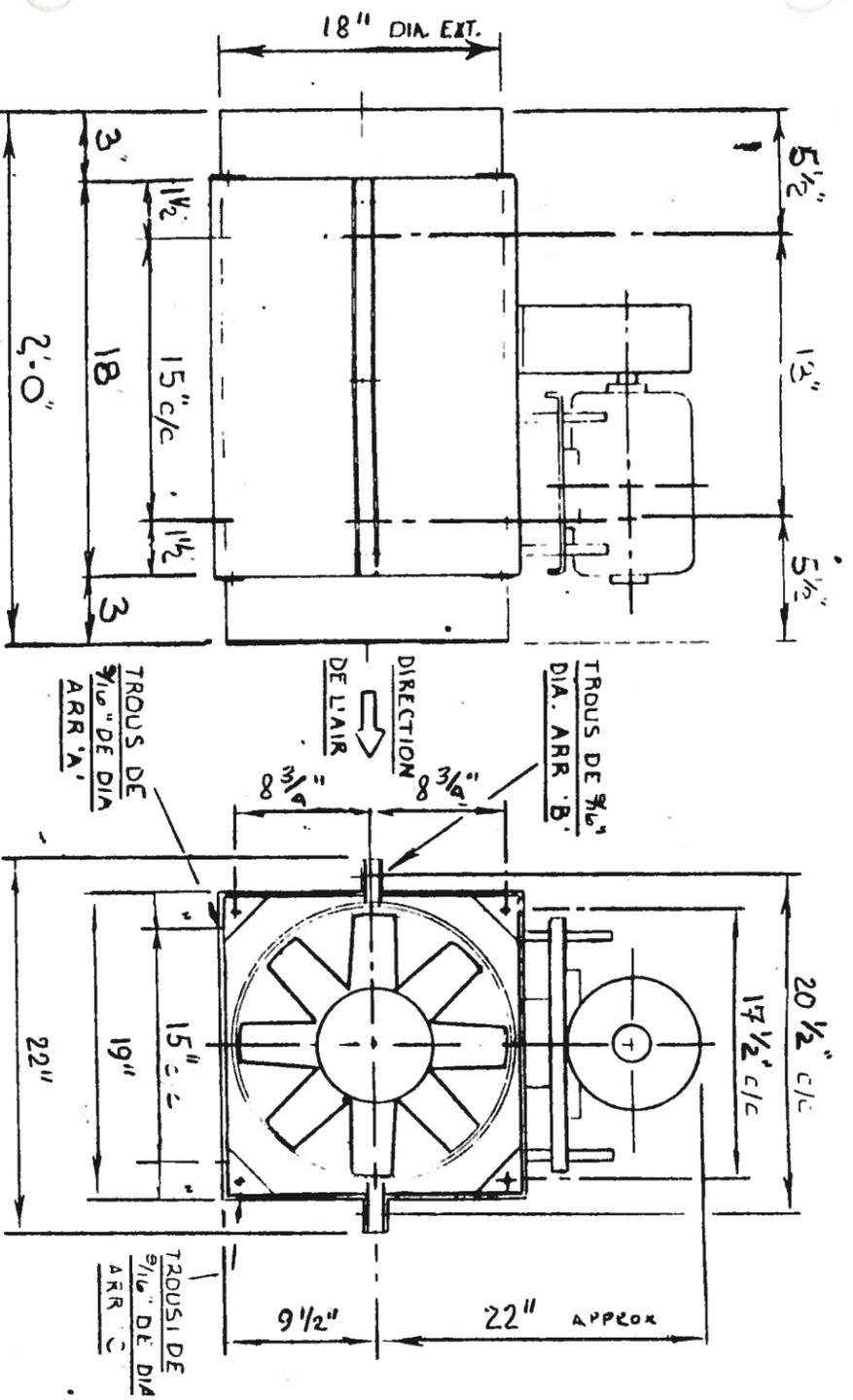
C/Avec: - Moteur 1/4 HP, 120/1/60/1800 TPM, ODP.

- Entraînement avec poulie ajustable sur le moteur et courroie en "V".
- Garde protecteur.
- Joint d'étanchéité en polyéthylène.
- Construction en "PVC".

CONTRÔLE DE DESIGNS D'ATELIER
 Revision visant à assurer la conformité générale avec le contrat.
 Aucune responsabilité à l'égard de l'exactitude FOURNIR TEL QUE PROPOSÉ.
 FAIRE LES CORRECTIONS INDIGUÉS.
 MODIFIER ET PRÉSENTER DE NOUVEAU.
 REFUSÉ.
 VOIR REMARQUES.

HAMEL BEAULIEU & ASSOCIÉS
 150 MARCHAND, SUITE 600
 DRUMMONDVILLE J2C 4N1
 TÉL. 819-478-8191
 Date: 26/3/85 Par: L.F.L.

CLIENT: SOMECC INC.	SHELDONS	NUMERO: 85089
NO. DE COMMANDE: M-165/29973	DESSIN D'INFORMATION D'APPROBATION	NUMERO: 85089
PROJET: CENTRE DE RECHERCHE - LENNOXVILLE	REVISION Δ	DATE: 85/03/19
INGENIEUR: MINISTERE TRAVAUX PUBLICS	DATE:	PAR: JM
<p>LE CLIENT DEVRA PRÉVOIR DES OUVERTURES DE DIMENSIONS SUFFISANTES DANS LES MURS OU LA STRUCTURE DE LA BÂTIMENT AFIN DE PERMETTRE L'ENTRÉE DES PIÈCES D'ÉQUIPEMENT MONTREES SUR CE DESSIN. CE DESSIN EST LA PROPRIÉTÉ DE SHELDONS ET NE PEUT ÊTRE REPRODUIT, COPIÉ OU UTILISÉ SANS UNE PERMISSION ÉCRITE.</p>		
<p>INGENIERIE SHELDONS LIMITEE LES MAÎTRES EN VENTILATION</p>		



SYSTEME NO. VH-13: 243

1 - Bifurcateur, modèle PVC-18 à deux stages, arrangement no. 9.

Rendement: 1,500 l/s à 100 Pa, 21 °C, 1075 TPM.

C/Avec: - Moteur 1 1/2 HP, 600/1/60/1800 TPM, ODP.

- Entraînement avec poulie ajustable sur le moteur et courroie en "V".
- Garde protecteur.
- Joint d'étanchéité en polyéthylène.
- Construction en "PVC".

CONTROLE DE DESSINS D'ATELIER

Revision visant à assurer la conformité générale avec le contrat.

Aucune responsabilité à l'égard de l'exactitude des dimensions ou des détails.

FOURNIR TEL QUE PROPOSÉ.

FAIRE LES CORRECTIONS INDIGNEES.

MODIFIER ET PRESENTER DE NOUVEAU.

REFUSE.

VOIR MARRUCC.

HAMEL BEAULIEU

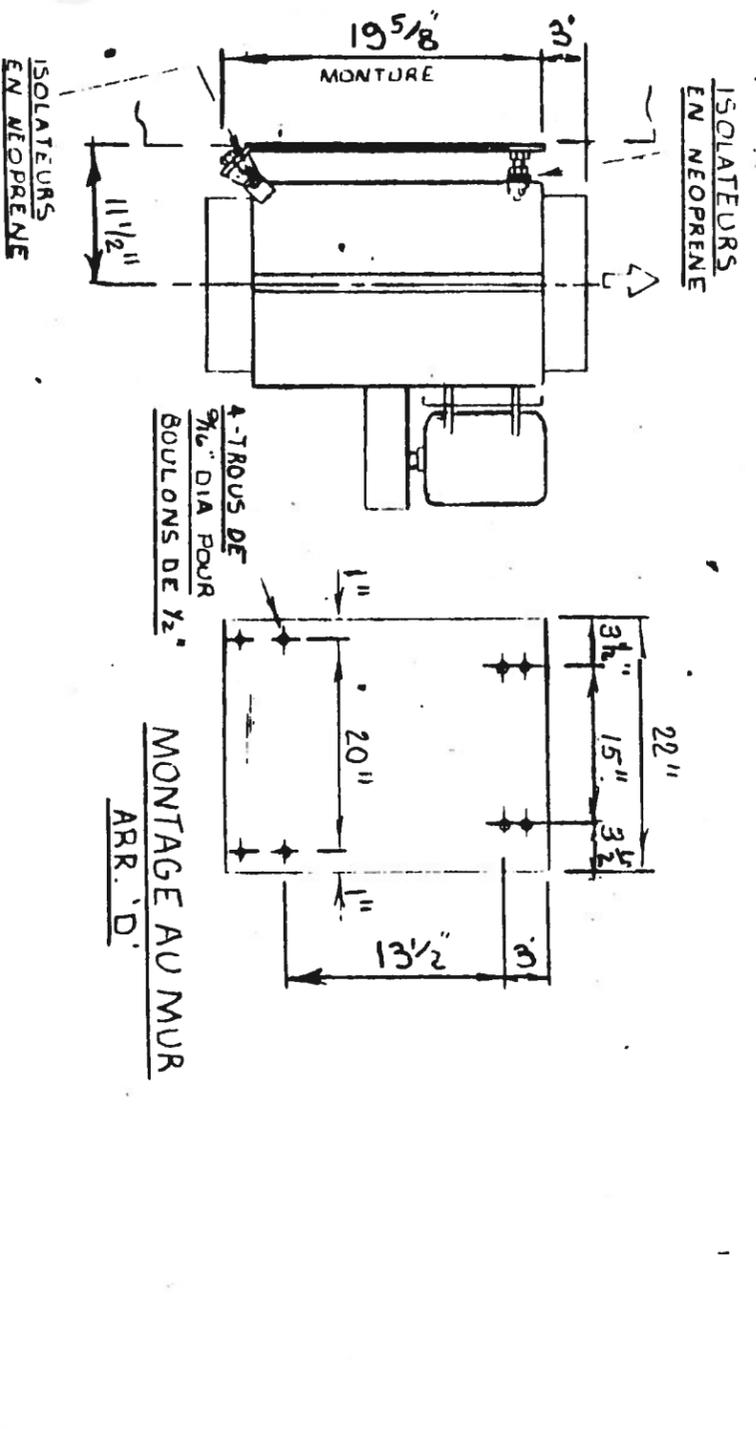
& ASSOCIES

150 MARCHAND, SUITE 600

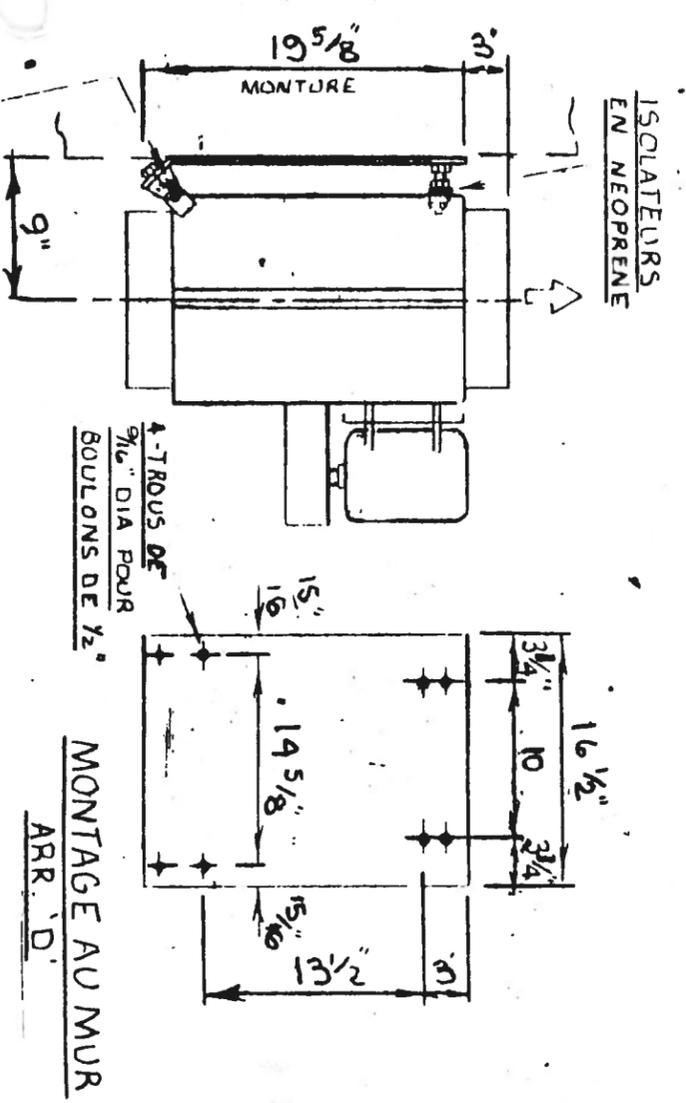
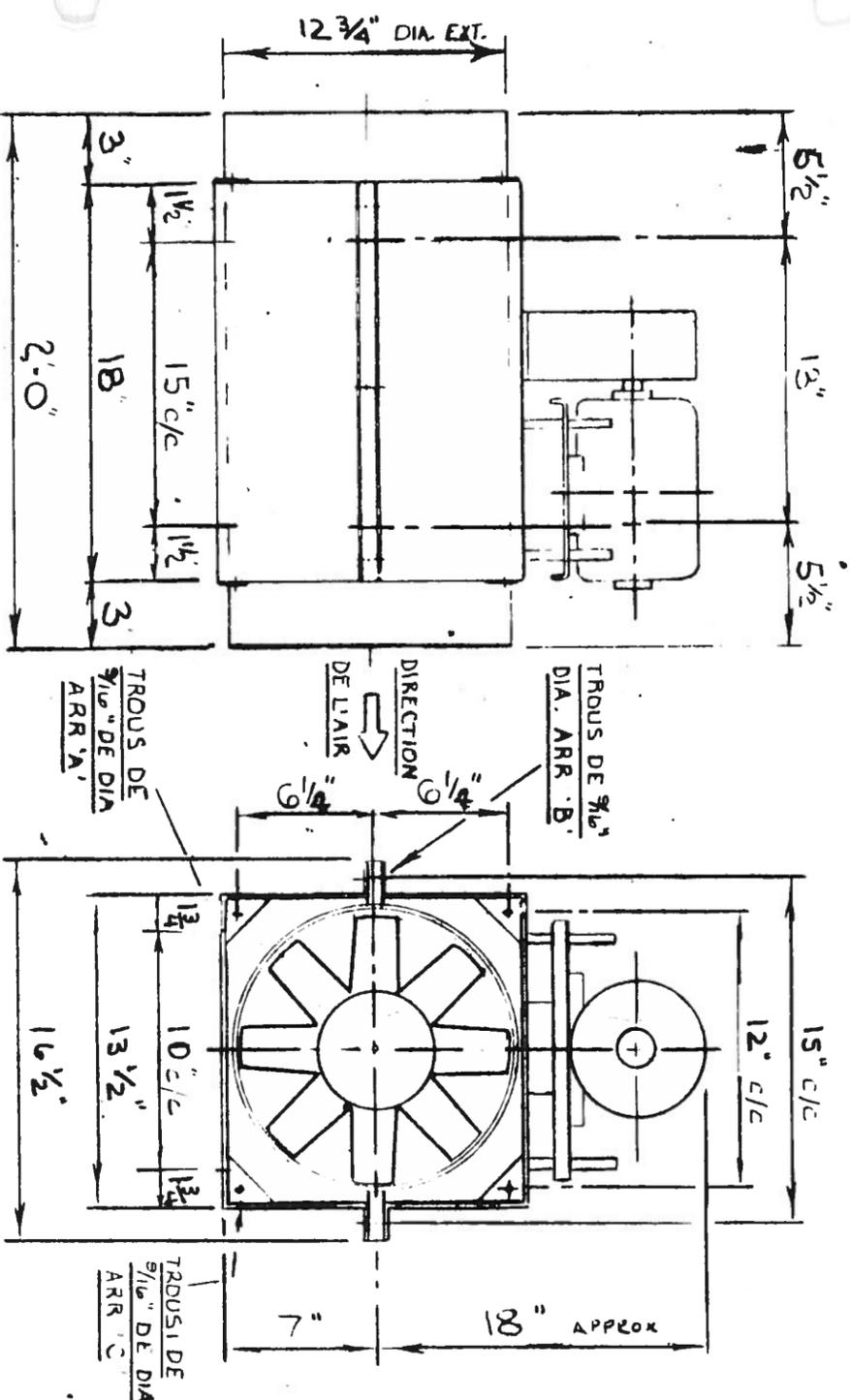
DRUMMONDVILLE J2C 4N1

TÉL. 973-478-8191

Date: 26/3/85 Par: C.F.



CLIENT: SOMEC INC.	SHELDONS		NUMERO: 85090
NO. DE COMMANDE: M-165/29973	<input type="checkbox"/> DESSIN	NUMERO: 85090	PAR: JM
PROJET: CENTRE DE RECHERCHE - LENNOXVILLE	<input type="checkbox"/> INFORMATION	DATE: 85/03/19	PAR: JM
INGENIEUR: MINISTERE TRAVAUX PUBLICS	<input type="checkbox"/> APPROBATION	DATE:	PAR:
<p>LE CLIENT DEVRA PRÉVOIR DES OUVERTURES DE DIMENSIONS SUFFISANTES DANS LES MURS OU LA STRUCTURE DE LA BÂTIMENT AFIN DE PERMETTRE L'ENTRÉE DES PIÈCES D'ÉQUIPEMENT MONTREES SUR CE DESSIN.</p> <p>CE DESSIN EST LA PROPRIÉTÉ DE SHELDONS ET NE PEUT ÊTRE REPRODUIT, COPIÉ OU UTILISÉ SANS UNE PERMISSION ÉCRITE.</p>			
<p>INGENIERIE SHELDONS LIMITEE</p> <p>LES MAÎTRES EN VENTILATION</p>		<p>REVISION <input type="checkbox"/> DATE:</p>	
		<p>REVISION <input type="checkbox"/> DATE:</p>	



SYSTEMES NO. VH-1, VH-7, VH-9, VH-16, VH-18, VH-19, VH-20, VH-25, VE-1:

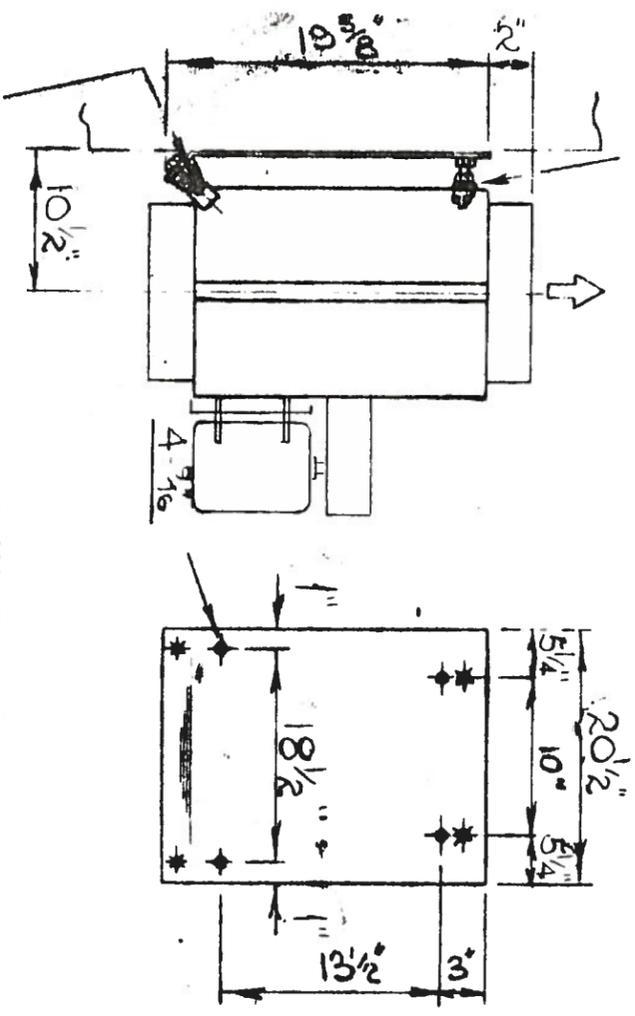
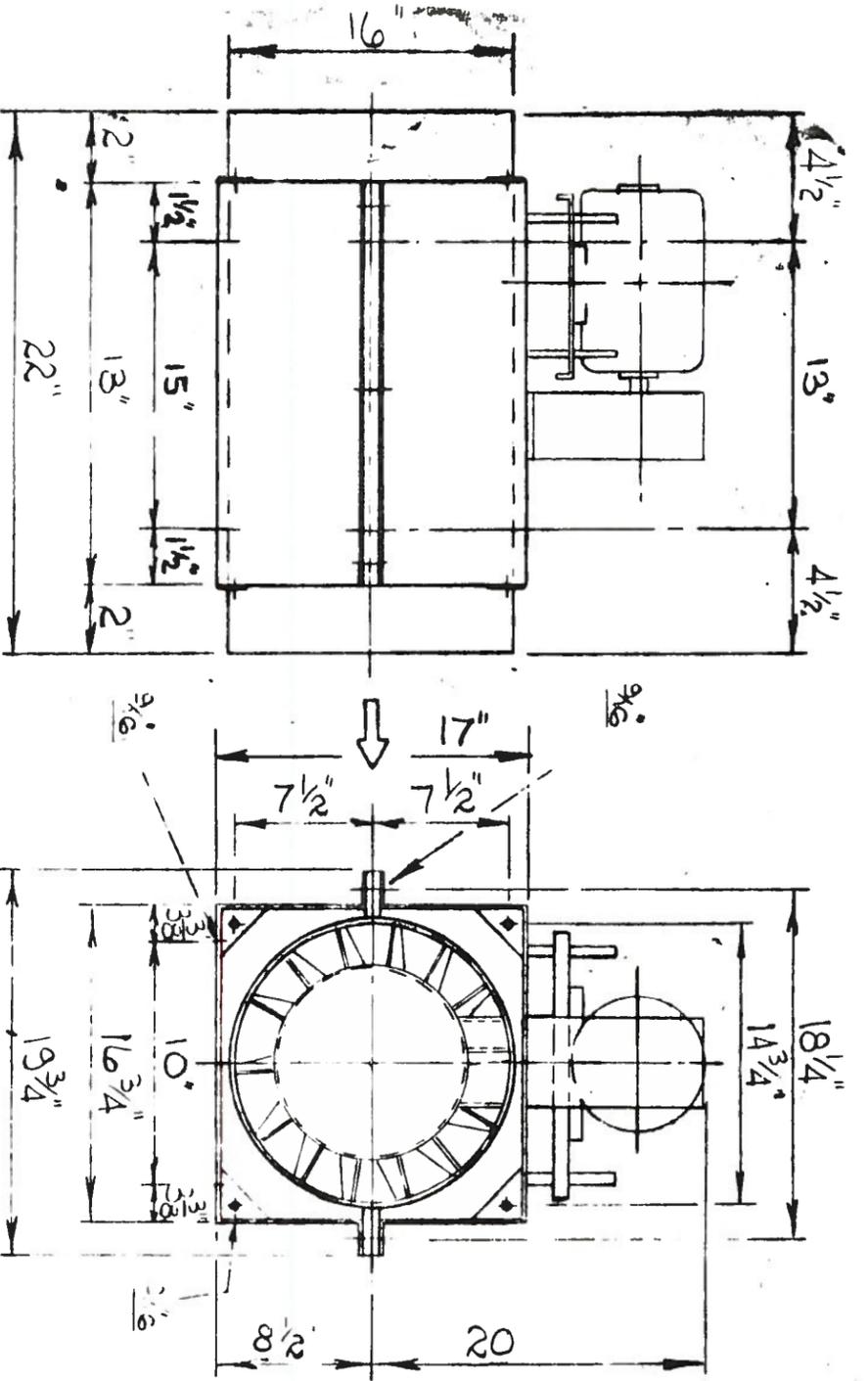
9 - Bifurcateurs modèle PVC-12 à deux stages, arrangement no. 9.

C/Avec: - Moteur 1/3 HP, 120/1/60/1800 TPM, ODP.

- Entraînement avec poulie ajustable sur le moteur et courroie en "V". *A.36*
- Garde protecteur.
- Joint d'étanchéité en polyéthylène.
- Construction en "PVC".

No. de système	Rendement
215 VH-1, VH-18, VH-19 <i>A.36</i>	380 l/s à 125 Pa, 21 °C, 1500 TPM
211 VH-7, VH-16	360 l/s à 125 Pa, 21 °C, 1500 TPM
146 VH-9	400 l/s à 125 Pa, 21 °C, 1550 TPM
229 VH-20	280 l/s à 100 Pa, 21 °C, 1175 TPM
216 VH-25	285 l/s à 100 Pa, 21 °C, 1175 TPM
Local 160 → VE-1 EXTÉRIEUR	260 l/s à 150 Pa, 21 °C, 1175 TPM

CLIENT: SOMEC INC.	SHELDONS	
NO. DE COMMANDE: M-165/29973	DESSIN	NUMERO: 85087
PROJET: CENTRE DE RECHERCHE - LENNOXVILLE	INFORMATION	NUMERO: 85087
INGENIEUR: MINISTERE TRAVAUX PUBLICS	REVISION	DATE: 85/03/19
LE CLIENT DEVRA PREVOIR DES OUVERTURES DE DIMENSIONS SUFFISANTES DANS LES MURS OU LA STRUCTURE DE LA BÂTIMENT AFIN DE PERMETTRE L'ENTREE DES PIÈCES D'ÉQUIPEMENT MONTREES SUR CE DESSIN	DATE:	PAR: JM
CE DESSIN EST LA PROPRIÉTÉ DE SHELDONS ET NE PEUT ÊTRE REPRODUIT, COPIÉ OU UTILISÉ SANS UNE PERMISSION ÉCRITE.	DATE:	PAR:
INGENIERIE SHELDONS LIMITEE		
LES MAÎTRES EN VENTILATION		



MODELE 400 MF EN PVC

242 B-10
SYSTEMES NO. VH-27, VH-28:

2 - Ventilateurs Sheldon, modèle 400 MF PVC, arr. 9.

C/avec: - Moteur 3/4 HP, 600/3/60/1800 TPM, ODP.

- Entraînement avec poulie ajustable sur le moteur et courroies en "V".
- Garde protecteur.
- Joint d'étanchéité en polyéthylène.
- Construction du ventilateur en PVC renforcé de FRP.
- Arrangement horizontal.

No. de système	Rendement
RADIO-ISO-TOP VH-27 148	715 l/s à 430 Pa, 21 °C 1.79 m ³ /s
MICRO. VH-28	480 l/s à 450 Pa, 21 °C 1.8 m ³ /s

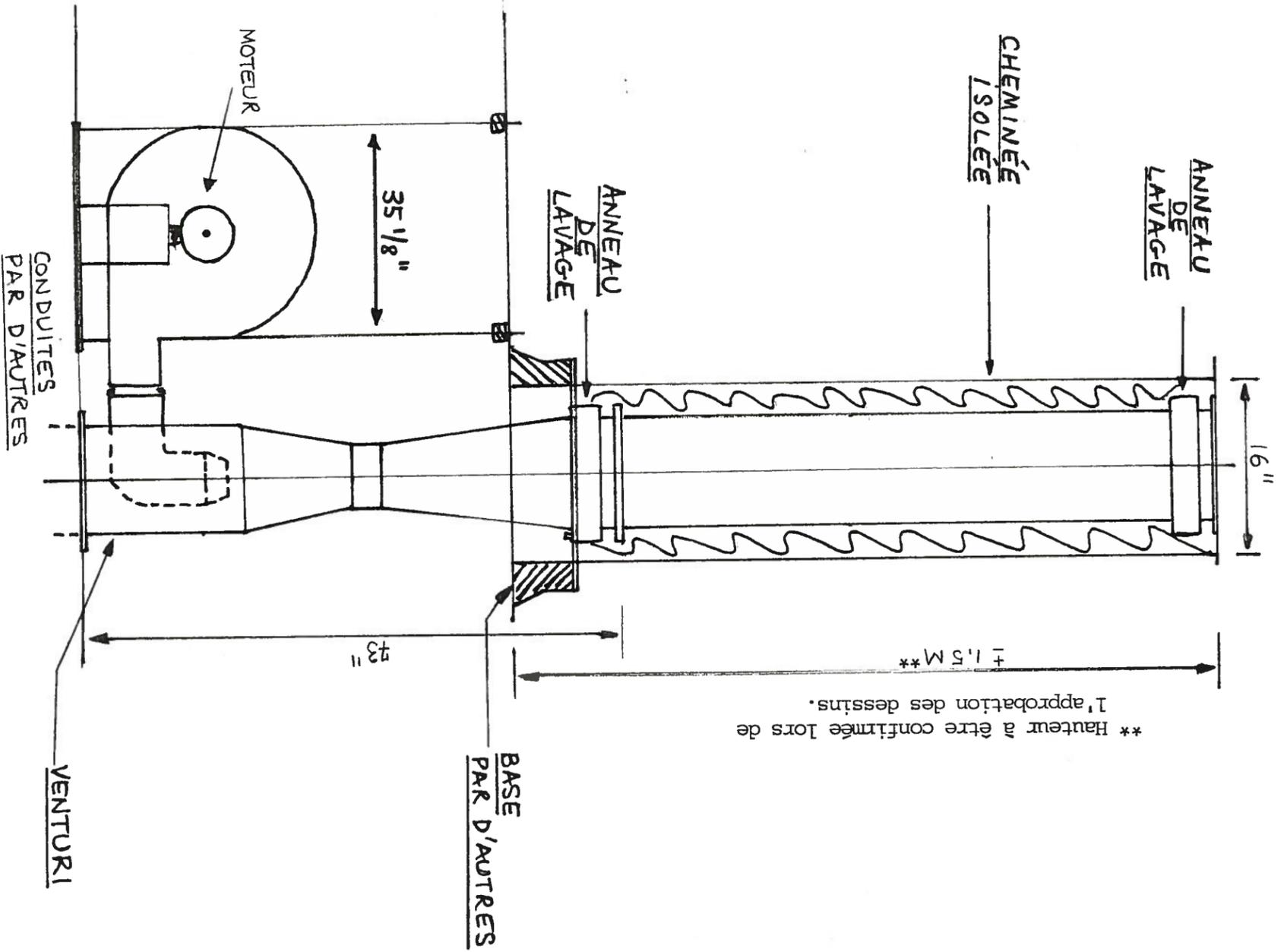
CONTROLE DE DESSINS D'ATELIER
Revision visant à assurer la conformité générale avec le contrat
Aucune responsabilité à l'égard de l'exactitude des dimensions ou des détails.

FOURNIR TEL QUE PROPOSÉ.
 FAIRE LES CORRECTIONS INDIQUEES.
 MODIFIER ET PRESENTER DE NOUVEAU.
 REFUSE.
VOIR REMARQUES.

HAMEL BEAULIEU & ASSOCIES
150 MARCHAND, SUITE 600
DRUMMONDVILLE J2C 4N1
TÉL. 819-478-8191

Date: 26/3/85 Par: L.F.

CLIENT: SOMEC INC.	SHELDONS NUMERO: 85091
NO. DE COMMANDE: M-165/29973	NUMERO: 85091
PROJET: CENTRE DE RECHERCHE - IENNOXYVILLE	DATE: 85/03/19
INGENIEUR: MINISTERE TRAVAUX PUBLICS	PAR: JM
LE CLIENT DEVIENRA PREVOIR DES OUVERTURES DE DIMENSIONS SUFFISANTES DANS LES MURS OU LA STRUCTURE DE LA BATISSE AFIN DE PERMETTRE L'ENTREE DES PIECES D'EQUIPEMENT MONTREES SUR CE DESSIN.	REVISION DATE:
CE DESSIN EST LA PROPRIETE DE SHELDONS ET NE PEUT ETRE REPRODUIT, COPIE OU UTILISE SANS UNE PERMISSION ECRITE.	PAR:
	INGENIERIE SHELDONS LIMITEE
	LES MÂTRES EN VENTILATION



SYSTEMES NO. VP-1, VP-2, VP-3, VP-4, VP-5, VP-6, VP-7, VP-8:
249

8 - Venturis, modèle 1223-6, non isolé, en acier inoxydable grade 316L avec anneau de lavage intégral.

C/Avec: - Moteur 1 1/2 HP, 600/1/60/1800 TPM, ODP.

- Cheminée additionnelle au toit de ± 1.5 m de hauteur.

- Gicleur de conduite où nécessaire.

- Anneaux de lavage auxiliaires, modèle 1223.

No. de système

Rendement

VP-1, VP-2, VP-3, VP-4, VP-6, VP-7	475 l/s à 185 Pa, 21 °C, 1750 TPM
VP-5, VP-8	475 l/s à 125 Pa, 21 °C, 1750 TPM

CONTRÔLE DE DESSIN D'ATELIER
Revision visant à assurer la conformité générale avec le contrat.

Aucune responsabilité à l'égard de l'exactitude des dimensions ou des détails.

- FOURNIR TEL QUE PROPOSÉ.
- FAIRE LES CORRECTIONS INDICUÉES.
- MODIFIER ET PRÉSENTER DE NOUVEAU.
- REFUSÉ.
- VOIR REMARQUES.

HAMEL BEAULIEU

& ASSOCIÉS

150 MARCHAND, SUITE 600

DRUMMONDVILLE J2C 4N1

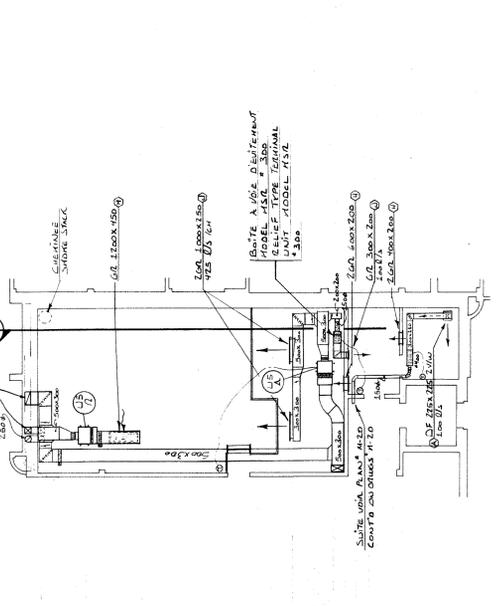
TÉL 819-478-8191

Date: 26/3/85 Par: C.H.

CLIENT: SOMEC INC.	SHELDONS NUMERO: 85084
NO. DE COMMANDE: m-165/29962	NUMERO: 85084
PROJET: CENTRE DE RECHERCHE - LENNOXVILLE	DATE: 85/03/19
INGENIEUR: MINISTERE TRAVAUX PUBLICS	PAR: JM
LE CLIENT DEVRÁ PRÉVOIR DES OUVERTURES DE DIMENSIONS SUFFISANTES DANS LES MURS OU LA STRUCTURE DE LA BÂTIMENT AFIN DE PERMETTRE L'ENTRÉE DES PIÈCES D'ÉQUIPEMENT MONTREES SUR CE DESSIN.	REVISION DATE:
CE DESSIN EST LA PROPRIÉTÉ DE SHELDONS ET NE PEUT ÊTRE REPRODUIT, COPIÉ OU UTILISÉ SANS UNE PERMISSION ÉCRITE.	PAR:
INGENIERIE SHELDONS LIMITEE LES MÂTRES EN VENTILATION	

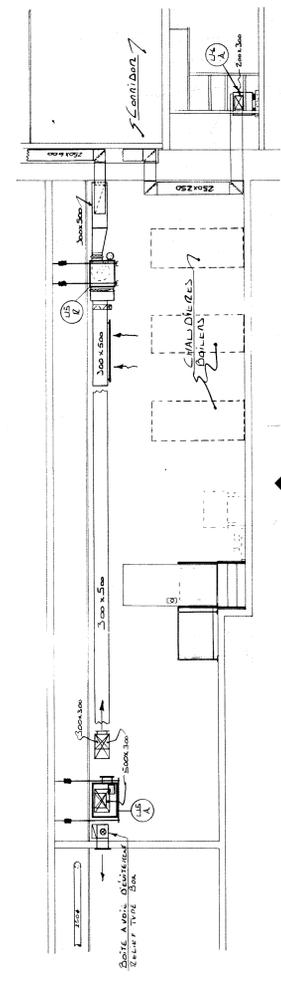
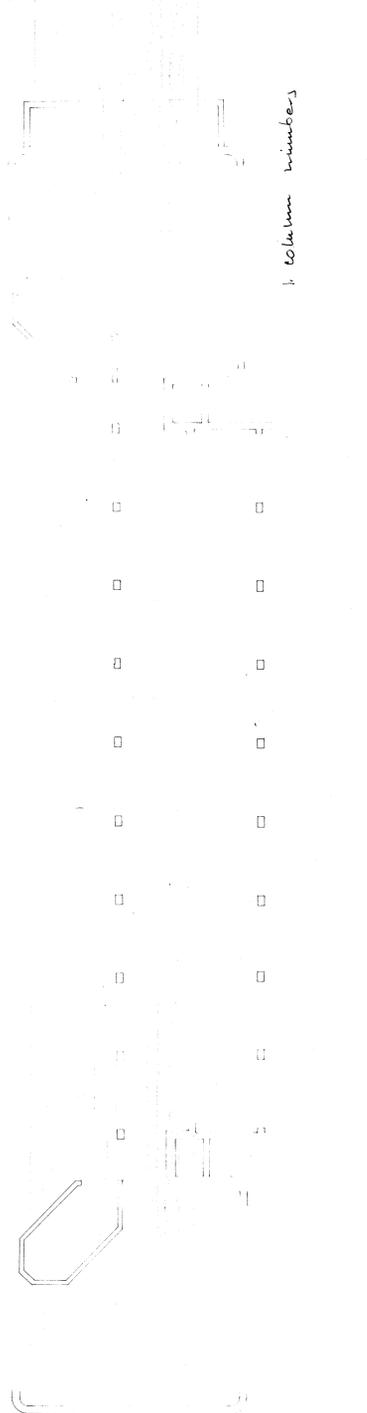
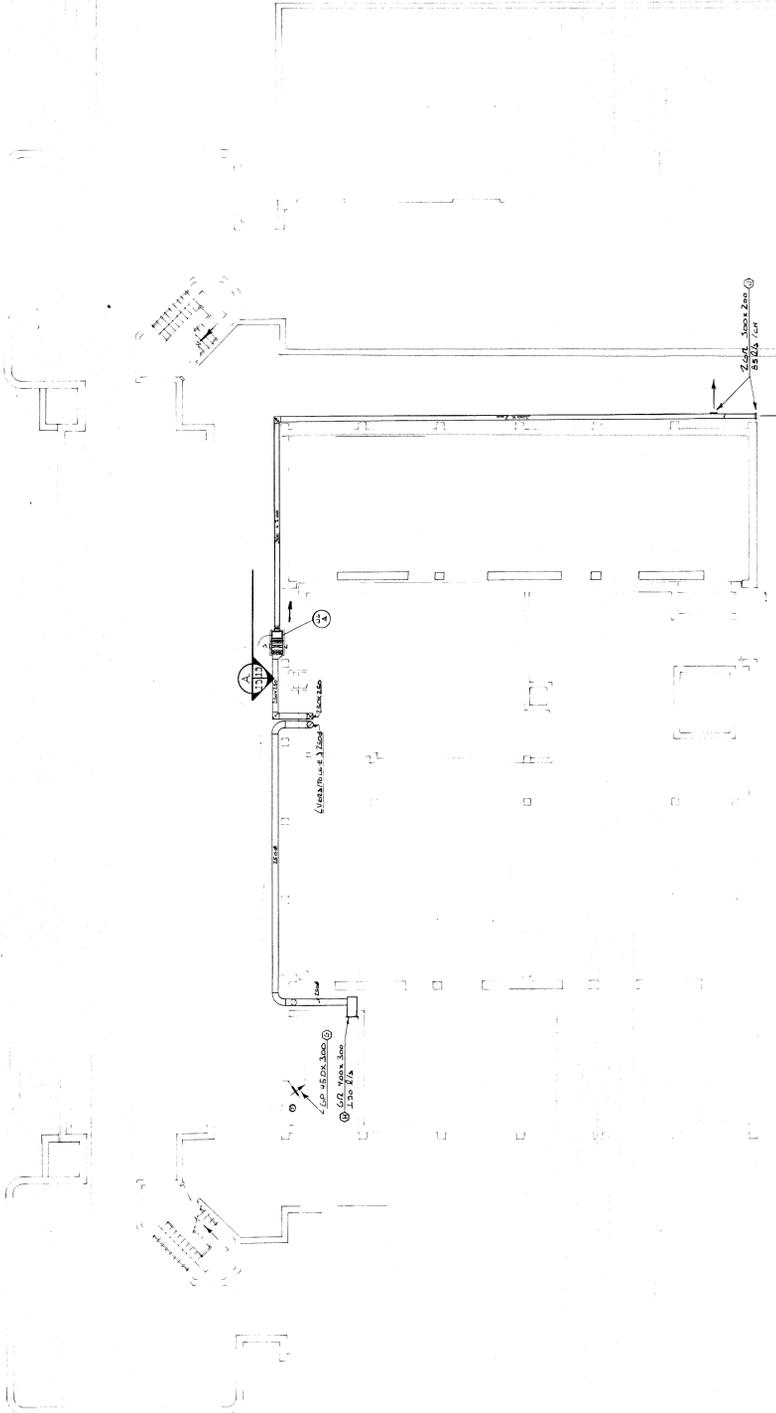
NOTES GENERALES / GENERAL NOTES

- LE PRESENT SOUS-TITRE DEVRA FAIRE LA COORDINATION DE SES TRAVAUX AVEC CEUX DES AUTRES CORPS DE RETRAIT. LE PRESENT SOUS-TITRE DOIT COORDONNER SON TRAVAIL AVEC CELUI DES AUTRES CORPS DE RETRAIT. THIS WORK MUST BE COORDINATED WITH THE WORK OF OTHER TRADES.
- PREVOIR CERTAINES MODIFICATIONS DUES A LA STRUCTURE. PROVIDE SOME CHANGES DUE TO STRUCTURAL ARRANGEMENTS.
- POUR L'EMPALEMENT EXACT DES DIFFUSEURS, GRILLES ET RAMPEURS. FOR EXACT FITTING OF DIFFUSERS, GRILLES AND RAMPERS.
- TOUTES LES DIMENSIONS SONT EN MILLIMETRES. ALL DIMENSIONS ARE IN MILLIMETRES.
- TOUTES LES PIÈCES DE BOIS SONT À INSTALLER À LA MANIÈRE SPECIFIÉE. ALL WOOD PARTS ARE TO BE INSTALLED AS SPECIFIED BY MANUFACTURER.
- TOUTES LES PIÈCES DE BOIS SONT À INSTALLER À LA MANIÈRE SPECIFIÉE. ALL WOOD PARTS ARE TO BE INSTALLED AS SPECIFIED BY MANUFACTURER.
- DANS LES PIÈCES DE BOIS, LA GRILLE D'ÉVACUATION LAISSER UNE DISTANCE DE 25MM ENTRE LES PIÈCES DE BOIS. IN WOOD PARTS, THE EXHAUST GRILLE LEAVE A 25MM GAP BETWEEN WOOD PARTS.

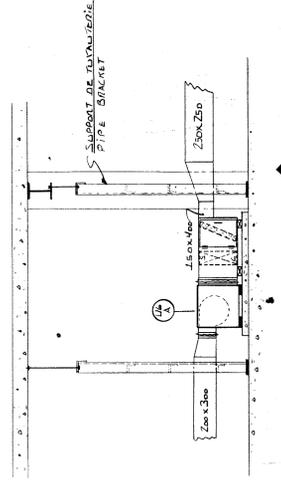


CHAUFFÉRIE / PIECE ELECTR.
ELECTRICAL SYSTEMS

- SUR TOUTES LES SYSTEMES IL Y AURA UNE DISTANCE DE 25MM ENTRE LA BOITE AUX LOUS (LE THERMOSTAT) ET LE DIFFUSEUR. ON ALL SYSTEMS THERE SHALL BE A 25MM GAP BETWEEN THE THERMOSTAT AND THE DIFFUSER.



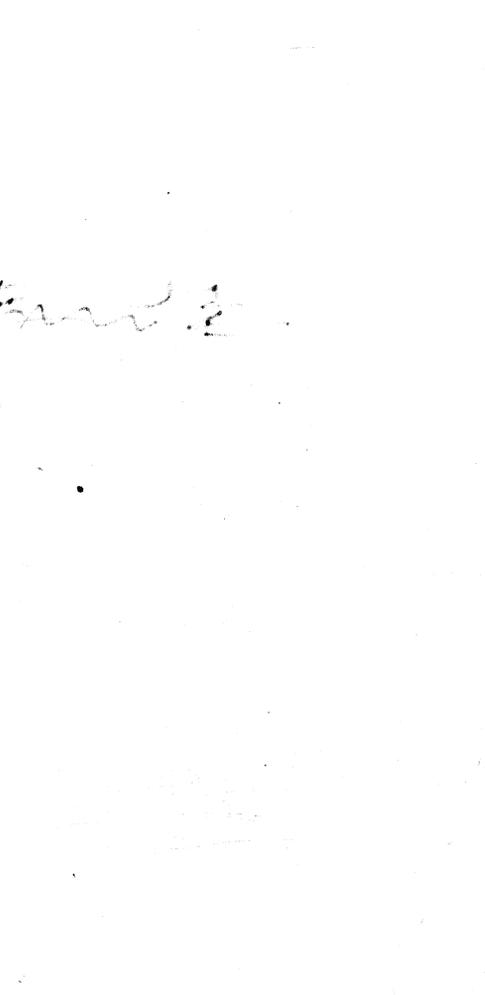
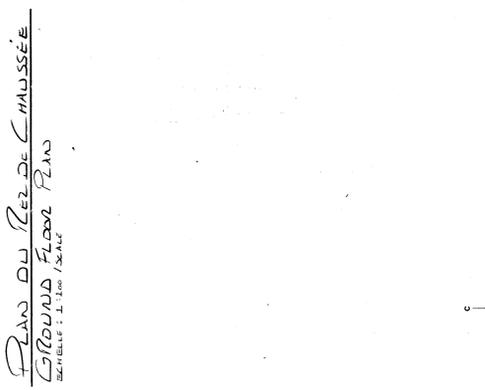
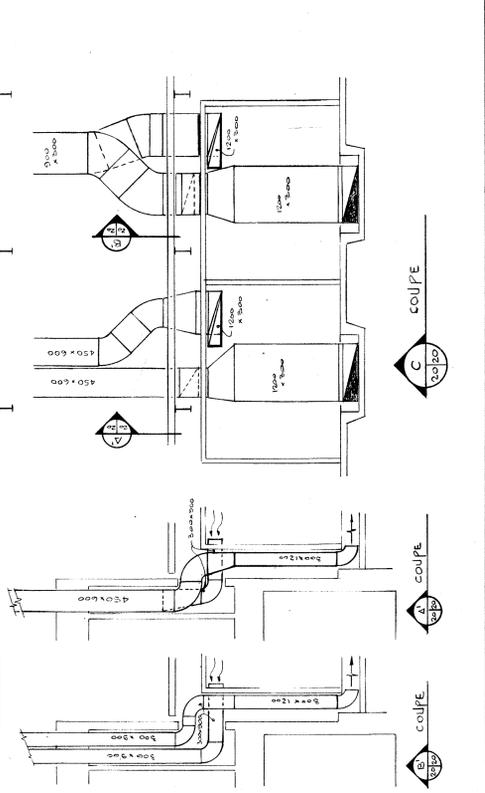
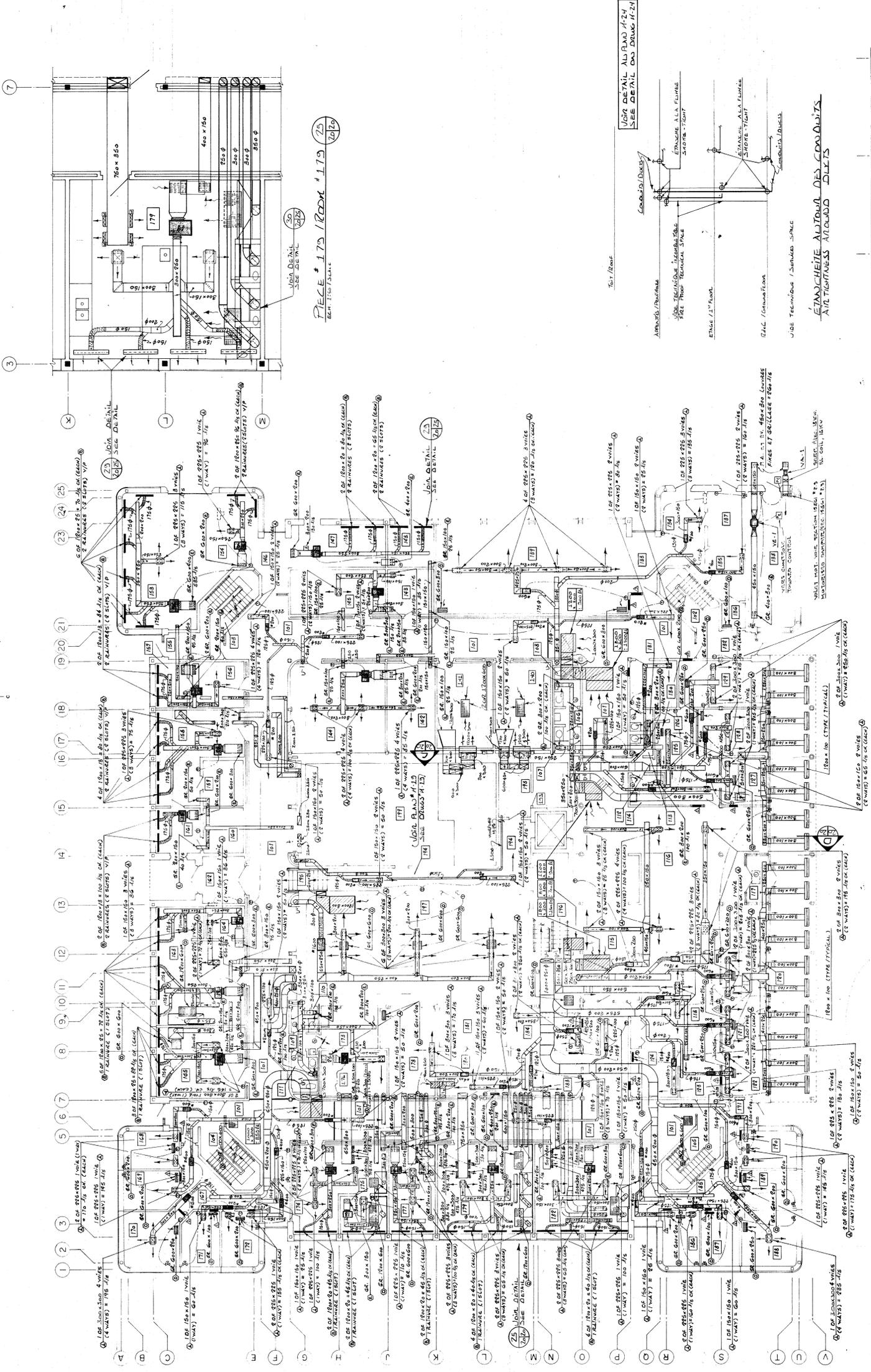
SECTION A-A
ELEVATION 250/250



SECTION B-B
ELEVATION 250/250

<p>Public Works Canada</p>	<p>Region de Québec Québec Region J.G. Riheault Arch. Administrateur de projet project manager</p>	<p>Architecture Québec Direction Générale de la Recherche Research Branch</p>	<p>Delorme & Morin Architectes 2215 rue Galt ouest Sherbrooke</p>	<p>Les Consultants SBSCS Inc 2702 rue Galt ouest Sherbrooke</p>	<p>hamel beaujeu & ass. ingénieurs-consultants 150 rue Marchand suite 600 Drummondville</p>	<p>Les Consultants Lemieux Royer Donaldson, Fields et Associés Inc 150 rue Vimy Nord Sherbrooke</p>	<p>NOTE: LES DIMENSIONS SONT EN MILLIMETRES. LES NIVEAUX SONT EN METRES. ALL DIMENSIONS ARE IN MILLIMETRES. ELEVATIONS ARE IN METRES.</p>	<p>A NO DU DETAIL DETAIL NO B DU DESSIN NO DRAWING NO C DU DESSIN NO DRAWING NO</p>	<p>STATION DE RECHERCHES RESEARCH STATION Lennoxville (Québec)</p>	<p>LOT 2 : PLAN VIDE TECHNIQUE SERVICES SPACE PLAN VENTILATION VENTILATING</p>	<p>PROJET / PROJECT 033994</p>	<p>DATE / DATE M-19</p>
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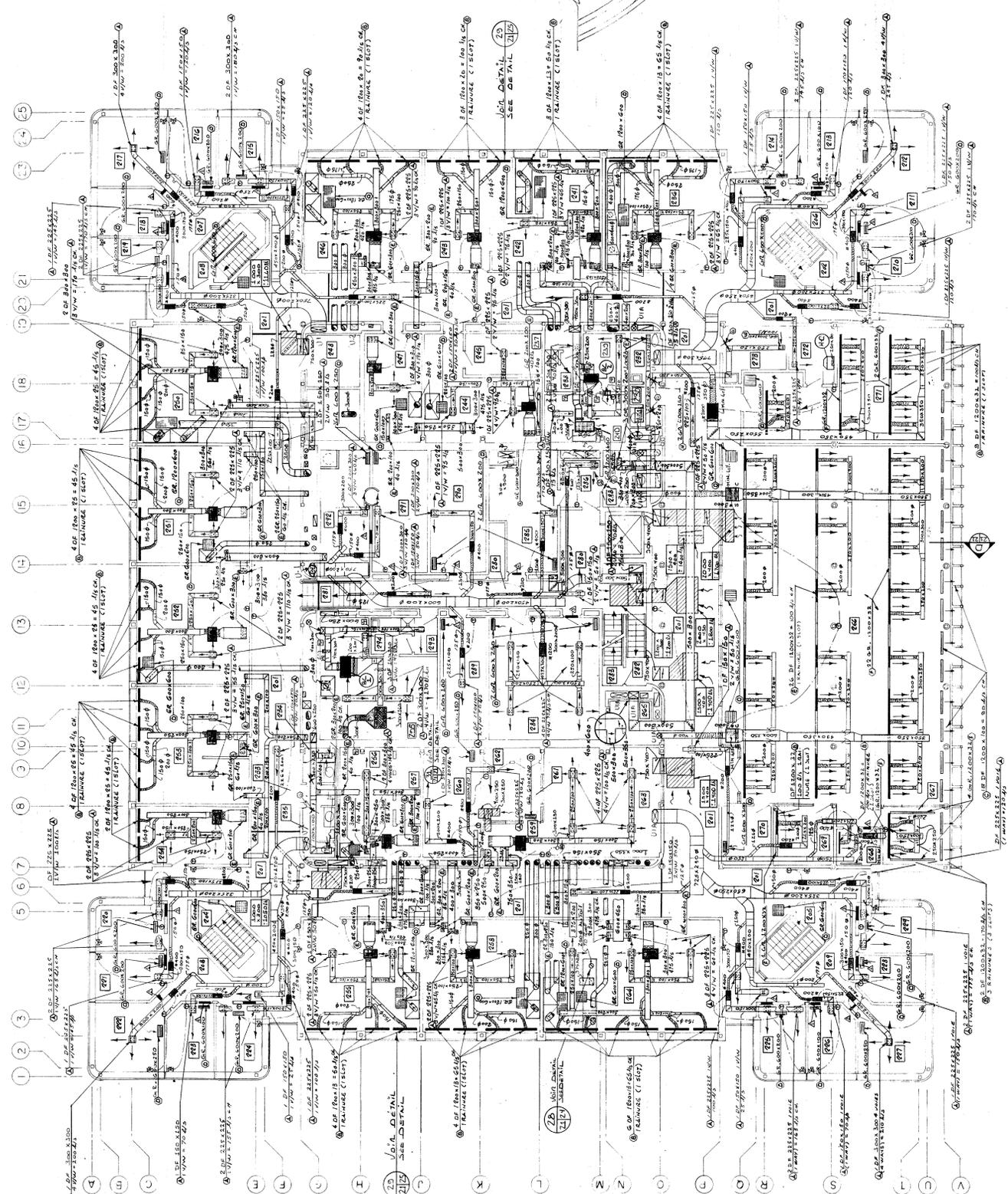
Public Works Travaux publics Canada	Region du Québec Québec Region J.G. Rheault-Arch. Administrateur de projet project manager	Agriculture Canada Direction Générale de la Recherche Research Branch	Delorme & Morin ARCHITECTES 2215 rue Galt ouest Sherbrooke	Les Consultants SBCS inc 2702 rue Galt ouest Sherbrooke	h&h hamel beaujeu & ass ingénieurs-consultants 150 rue Marchand suite 600 Dumoulinville	Les Consultants Lemieux Rover Donaldson, Fields & Associés, Inc 150 rue Vieux Nord Sherbrooke	NOTE: LES DIMENSIONS SONT EN MILLIMÈTRES. LES NIVEAUX SONT EN MÈTRES. ALL DIMENSIONS ARE IN MILLIMETERS ELEVATIONS ARE IN METERS	<table border="1"> <tr> <td>NOUVEAU A</td> <td>NOUVEAU B</td> <td>NOUVEAU C</td> </tr> <tr> <td>NOUVEAU D</td> <td>NOUVEAU E</td> <td>NOUVEAU F</td> </tr> </table>	NOUVEAU A	NOUVEAU B	NOUVEAU C	NOUVEAU D	NOUVEAU E	NOUVEAU F	STATION DE RECHERCHES RESEARCH STATION Lennoxville (Québec) LOT : 2 REZ-DE-CHAUSSEE GROUND FLOOR CLIMATISATION-VENTILATION HEATING-VENTILATING AIR CONDITIONING <table border="1"> <tr> <td>PROJET / PROJECT</td> <td>NO. 033994</td> </tr> <tr> <td>DATE / DATE</td> <td>03/29/80</td> </tr> <tr> <td>ÉCHELLE / SCALE</td> <td>M-20</td> </tr> </table>	PROJET / PROJECT	NO. 033994	DATE / DATE	03/29/80	ÉCHELLE / SCALE	M-20
NOUVEAU A	NOUVEAU B	NOUVEAU C																			
NOUVEAU D	NOUVEAU E	NOUVEAU F																			
PROJET / PROJECT	NO. 033994																				
DATE / DATE	03/29/80																				
ÉCHELLE / SCALE	M-20																				



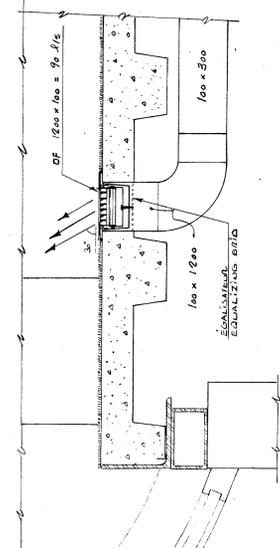
OUVERTURES DANS LES MURS AU DESSUS DU PLAFOND
 OPENINGS IN WALLS ABOVE THE SUSPENDED CEILING

100 x 200 100 x 250 150 x 300

- DIFFUSEURS ET GRILLES**
- 1) DIFFUSEUR, MODÈLE 150, POUR PLAFOND SUSPENDU
 - 2) DIFFUSEUR, MODÈLE 150, POUR PLAFOND SUSPENDU (RAINURE)
 - 3) DIFFUSEUR, MODÈLE 150, POUR PLAFOND SUSPENDU (RAINURE) - 150 x 300
 - 4) GRILLE, MODÈLE 065L, POUR PLANCHER
 - 5) GRILLE, MODÈLE 065L, POUR PLANCHER SUSPENDU, RETOUR OU TRANSFERT
 - 6) GRILLE, MODÈLE 065L, POUR PLANCHER SUSPENDU, ÉVALUATION
 - 7) GRILLE, MODÈLE 065L, POUR PLAFOND SUSPENDU, RETOUR OU TRANSFERT (RAINURE)
 - 8) GRILLE POUR POUTRES, FOURNIE PAR L'ARCHITECTE - 300 x 250
 - 9) GRILLE, MODÈLE XE VOI, POUR MURS, ALIMENTATION, ÉVALUATION
 - 10) GRILLE, MODÈLE XE VOI, POUR MURS, ALIMENTATION
- PRODUITS ACCEPTABLES : ÉQUIVAL, ANÉMOSTAT, LEO LISI, TITUS**
- DIFFUSERS AND GRILLES**
- 1) DIFFUSER, MODEL 150, FOR SUSPENDED CEILING
 - 2) DIFFUSER, MODEL 150, FOR SUSPENDED CEILING (SLOT)
 - 3) DIFFUSER, MODEL 150, FOR SUSPENDED CEILING (SLOT) - 150 x 300
 - 4) GRILLE, MODEL 065L, FOR FLOOR
 - 5) GRILLE, MODEL 065L, FOR FLOOR SUSPENDED, RETURN OR TRANSFER
 - 6) GRILLE, MODEL 065L, FOR FLOOR SUSPENDED, EVALUATION
 - 7) GRILLE, MODEL 065L, FOR SUSPENDED CEILING, RETURN OR TRANSFER (SLIT)
 - 8) GRILLE FOR BEAMS, FURNISHED BY ARCHITECT - 300 x 250
 - 9) GRILLE, MODEL XE VOI, FOR WALL, TRANSFER, EXHAUST
 - 10) GRILLE, MODEL XE VOI, FOR WALL, SUPPLY
- ACCEPTABLE PRODUCTS : EQUIVAL, ANEMOSTAT, LEO LISI, TITUS**

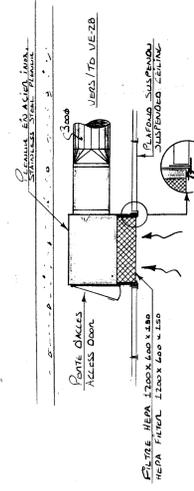


PLAN DE L'ÉTAGE
 FIRST FLOOR PLAN



COUPE / SECTION
 ÉCH. 1/5 / SCALE

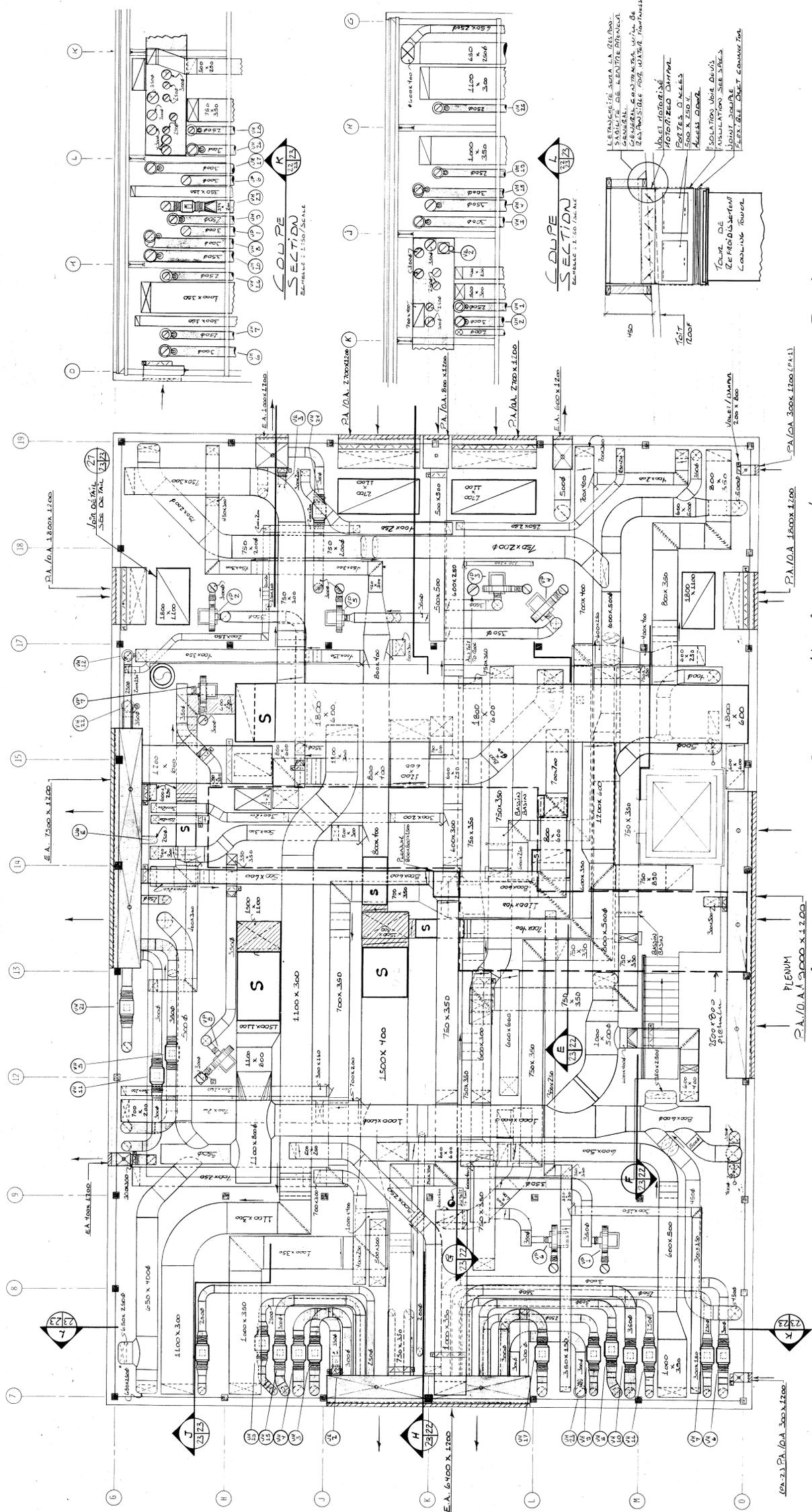
NOTE DE LA MANÈRE MODÈLE 15000 CAPACITÉ DE 15000 LITRES
 GARANTIE 10 ANS. LE DÉTAIL 21/22. ÉQUIVAL, ANÉMOSTAT, LEO LISI, TITUS
 ÉVALUATION, ÉVALUATION



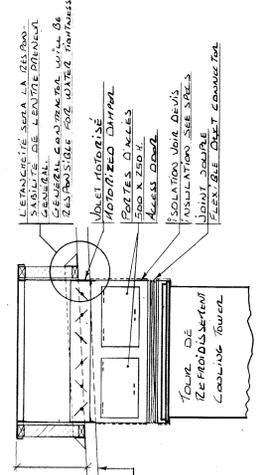
DÉTAIL
 ÉCH. 1/5 / SCALE

<p>Public Works Corpus</p>	<p>Region du Québec Québec Region J.C. Rheaume Arch. Administrateur de projet project manager</p>	<p>Agriculture Canada Direction Générale de la Recherche Research Branch</p>	<p>Delorme & Morin Architects 2215 rue Galt ouest Sherbrooke</p>	<p>Les Consultants SBOS inc 2702 rue Galt ouest Sherbrooke</p>	<p>amel beaujeu & ass. Ingénieurs-conseils 150 rue Marchand suite 600 Drummondville</p>	<p>Les Consultants Lemieux, Royer, Donaldson, Fields et Associés Inc 150 rue Vimy Nord Sherbrooke</p>	<p>NOTE: LES DIMENSIONS SONT EN MILLIMÈTRES / LES DIMENSIONS SONT EN METRES NOT DIMENSIONS ARE IN MILLIMETERS ELEVATIONS ARE IN METERS</p> <p>1) For dimensions on wall 2) For dimensions on ceiling 3) For dimensions on floor 4) For dimensions on wall 5) For dimensions on floor 6) For dimensions on wall 7) For dimensions on floor</p>	<p>A NO DU DETAIL B DU DETAIL NO C DU DETAIL NO D DU DETAIL NO</p>	<p>STATION DE RECHERCHES RESEARCH STATION Lennoxville (Québec)</p>	<p>LOT-2 PLAN DE L'ÉTAGE FIRST FLOOR PLAN CHAUFFAGE - VENTILATION CLIMATISATION - VENTILATION AIR - CONDITIIONING</p>	<p>033994 0329480 M-21</p>
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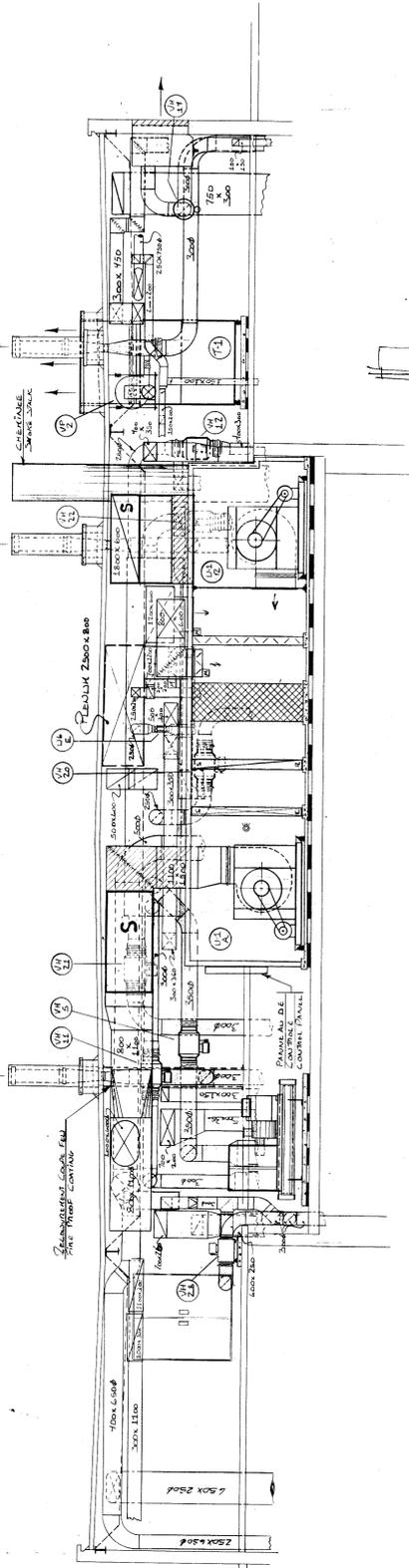
Public Works Travaux publics Canada	Region du Quebec Quebec Region J.G. Rheault, Arch. Administrateur de projet project manager	Agriculture Canada Direction Generale du Recherche Research Branch	Delorme & Morin Architectes 2215 rue Galt ouest Sherbrooke	Les Consultants SBCS inc 2702 rue Galt ouest Sherbrooke	hamel beaujeu & ass. Ingenieurs-consultants 150, rue McLeod, suite 600 Drummondville	Les Consultants Lemay, Donatien, Ferland & Ass. Inc 150 rue Wemy Nord Sherbrooke	NOTE TOUTES LES DIMENSIONS SONT EN MILLIMETRES LES NIVEAUX SONT EN METRES NOTE ALL DIMENSIONS ARE IN MILLIMETRES ELEVATIONS ARE IN METRES	DATE A NO DU DETAIL DETAIL NO B DU DESSIN NO DESIGN NO C SUR DESSIN NO ON DRAWING NO
STATION DE RECHERCHES RESEARCH STATION Lennoxville (Quebec)								
LOT: 2 SALLE DE MECANIQUE MECHANICAL ROOM VENTILATION-CLIMATISATION VENTILATING AIR CONDITIONING								
033994 0329480 M-23								



**DETAIL DES SORTIES AU TOIT
DES TOURS DE REFRIGERISSEMENT
COOLING TOWERS, ROOF OUTLETS
DETAIL**
E.CHELLE: ALIGUME / N.T.3.

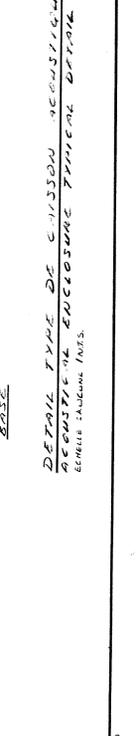
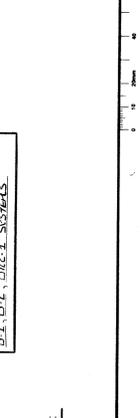
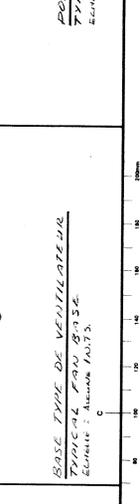
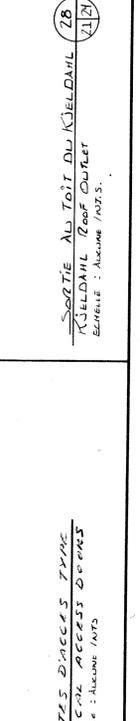
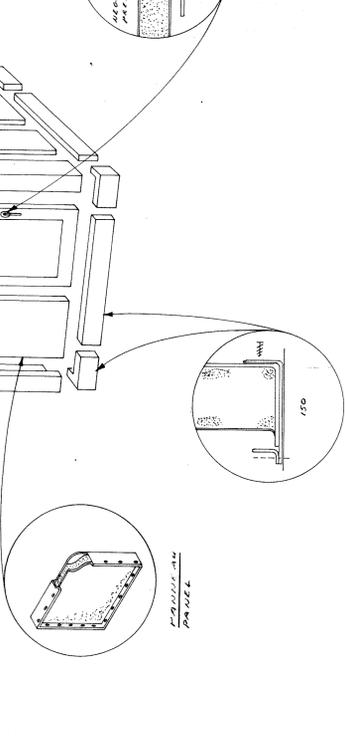
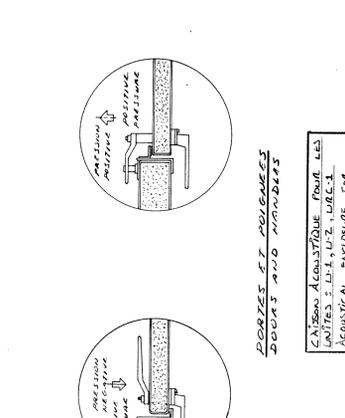
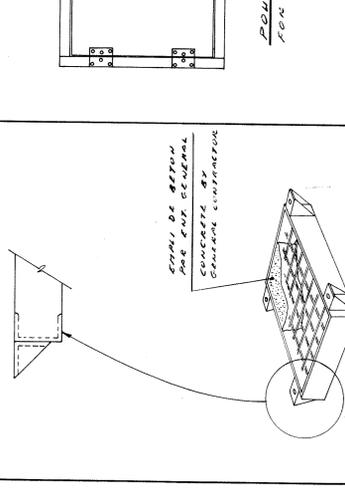
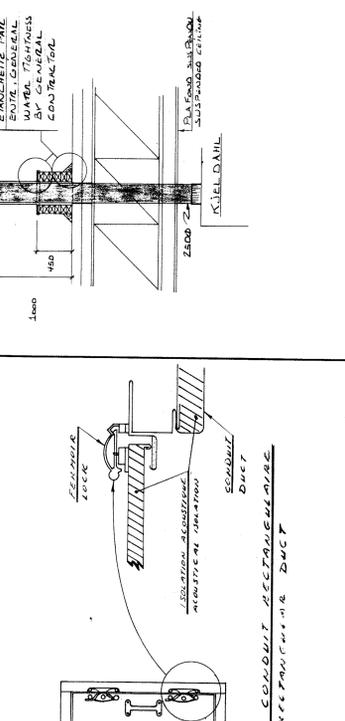
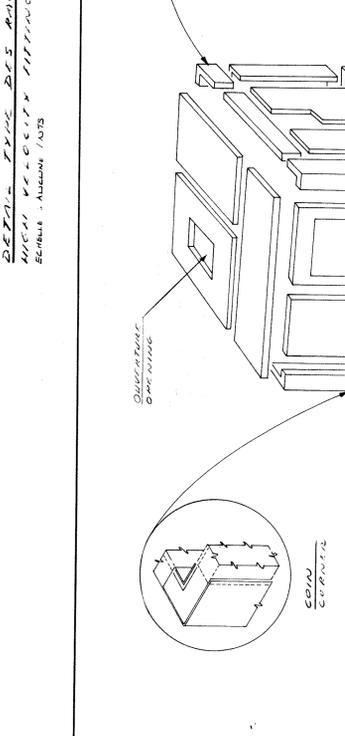
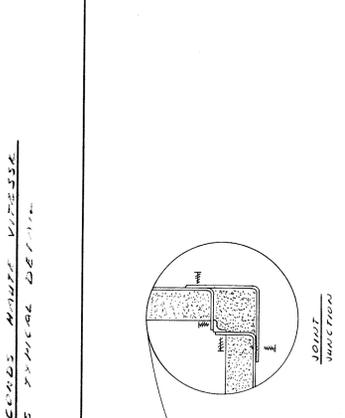
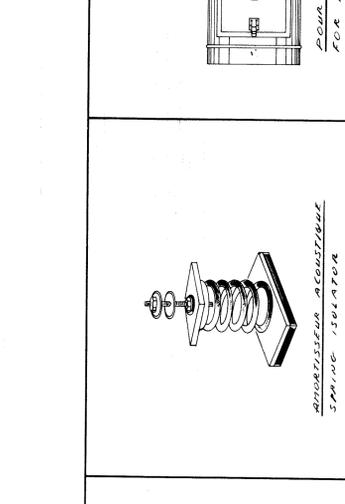
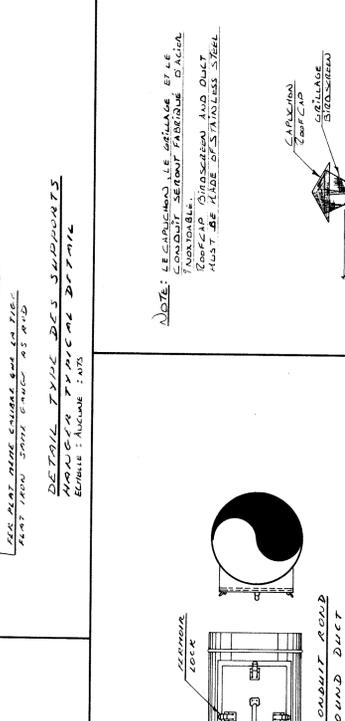
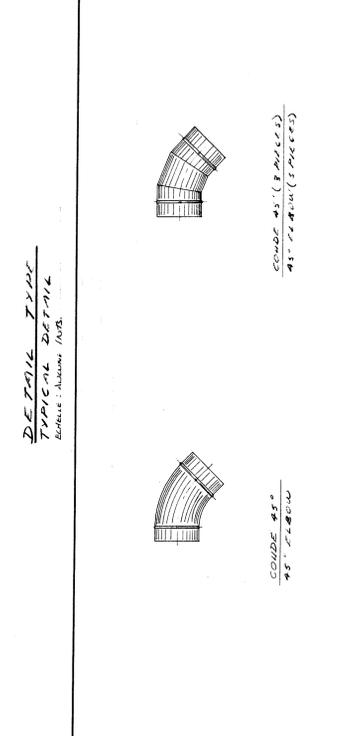
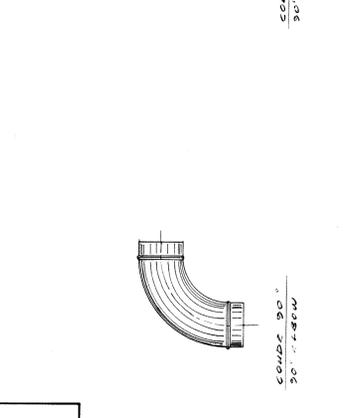
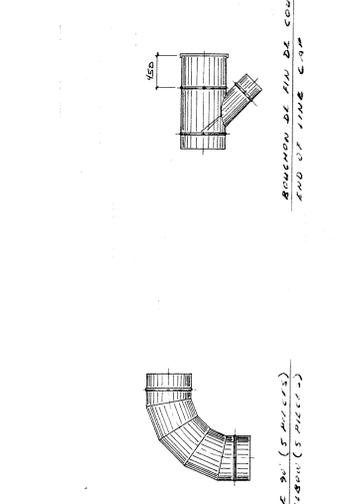
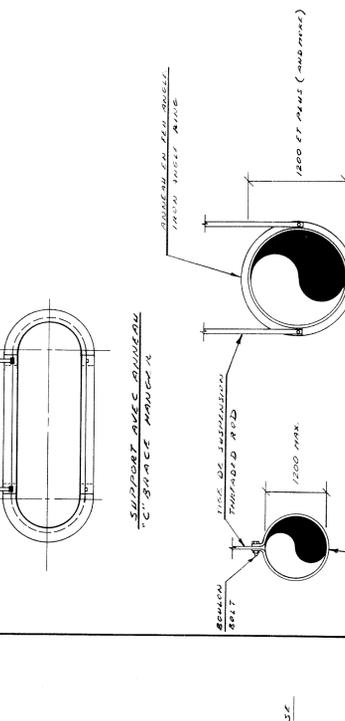
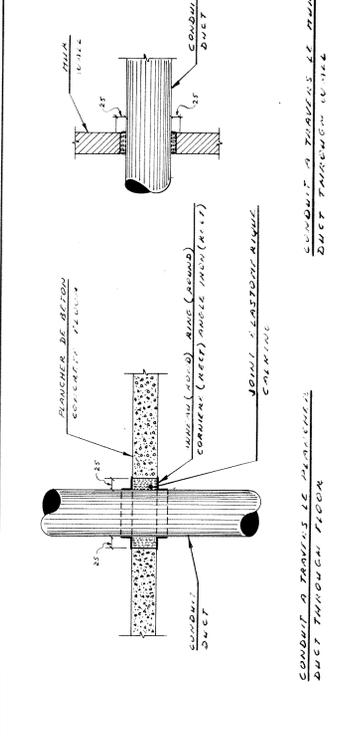
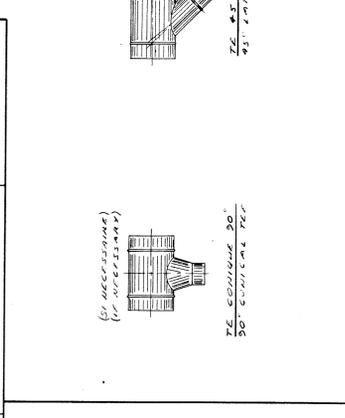
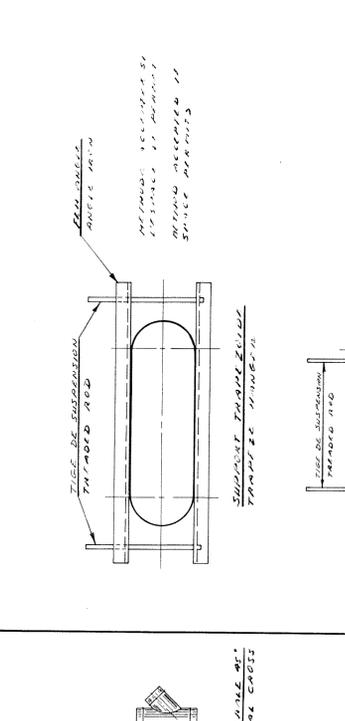
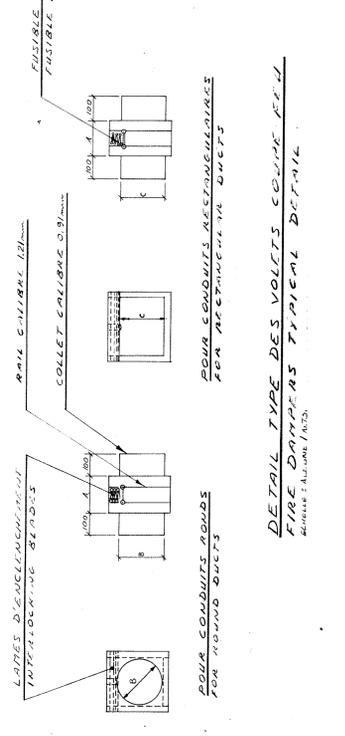
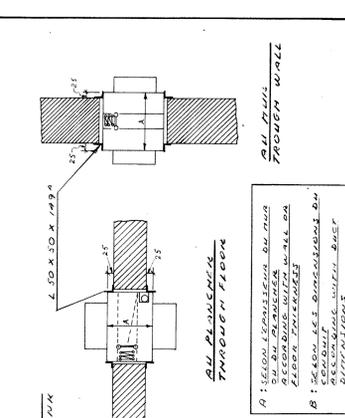
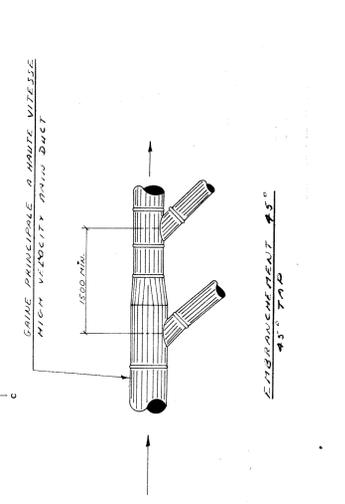
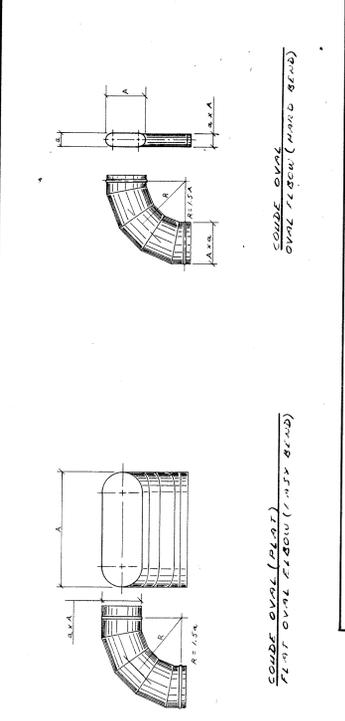


**SALLE DE MECANIQUE (PARTIE HAUTE)
MECHANICAL ROOM (HIGH LEVEL)**
E.CHELLE: 1:150 / SCALE



1. O.A. Plenum to be simulated.
2. every supply air ductwork take-off is to be have a ballasting damper.

**COUPE SECTION
SCALE: 1:150 / SCALE**





APPENDIX C BASIS OF PAYMENT (Financial proposal)

1.0 General

Payment shall be in accordance with **article 14.0 of Part 3, Method of Payment and 15.0 of Part 3, Direct Deposit.**

All deliverables FOB destination, Canadian custom duties and excise tax (if applicable). If applicable, Applicable Taxes for the labour will be shown separately.

2.0 Pricing Basis

The Contractor shall be paid in accordance with the following for work performed under the Contract.

2.1 **The financial bid should indicate three (3) separate firm prices plus an hourly rate price (Phase 3) that could be used following the conditions below:**

Price Phase I - Feasibility study:

Price Phase II - Plans and specifications:

Price Phase III - Construction supervision:
(Including 40 hours and less)

TOTAL :

If Phase III (construction supervision) were to last more than 40 hours, overtime will be paid according to the hourly rate below:

Hourly Rate:

- Prices must exclude all taxes
- No travel expenses will be reimbursed under this contract.

Name and address of the company: (including postal code)

Contractor Representative:

Name

Title

Signature

Date



APPENDIX D EVALUATION PROCEDURES & CRITERIA

TECHNICAL PROPOSAL

It is essential that the elements contained in the Proposal be stated in a clear manner and in sufficient depth to allow for evaluation by the evaluation team.

1.0 METHOD OF SELECTION – LOWEST COST (ONCE MANDATORY REQUIREMENTS HAVE BEEN MET)

- 1.1 The evaluation process is designed to identify the most qualified contractor to provide services as stipulated in the Statement of Work (Appendix B).
- 1.2 This section comprises the detailed Proposal requirements that will be used to evaluate Bidders' responses to the RFP.
- 1.3 The mandatory requirements under section 2.0 will be evaluated on a compliant/non-compliant basis. The Proposals must include the necessary documentation to demonstrate this compliance.
- 1.4 The selection of the responsive Proposal will be made on the basis of the LOWEST PRICE for the financial proposal.

In the event that two financial proposals submit the same "lowest total price", **the contract will be awarded to the bidder submitting the lowest price for Phase 1.**

- 1.5 To be considered Compliant, a Proposal Must:
 - 1- Meet all the mandatory requirements specified in section 2.0 below;
- 1.6 The price of the Proposal will be evaluated in CANADIAN DOLLARS, Applicable Taxes excluded, FOB destination for goods/services, Customs Duties and Excise Taxes included.
- 1.7 The Bidders acknowledge and agree that Canada is not responsible to search for, and therefore evaluate, information that is not properly referenced or is not otherwise provided in accordance with the Proposal Preparation Instructions in Part 2, Article 3.0.
- 1.8 Bidders shall not place any conditions or make any assumptions that attempt to limit or otherwise modify the scope of Work pursuant to the Statement of Work (Appendix B).

2.0 MANDATORY REQUIREMENTS

Failure to comply with any of the mandatory requirements will render the Proposal non-compliant and the Proposal will receive no further consideration.

The Bidder is requested to submit the information below:



- Proof that the proposed project manager is a mechanical engineer, a member in good standing of the Ordre des ingénieurs du Québec:
 - Provide a copy of the diploma and proof of belonging to the OIQ
- Proof that the project manager has a minimum of 5 years' experience:
 - Provide a summary of 3 projects completed in the last 5 years in building systems and more specifically in the design of mechanical ventilation systems in a research environment. Provide details such as project dates, locations, names of entities / companies for which these projects were carried out, scope of project, etc.

3.0 FINANCIAL PROPOSAL

- 3.1** In the financial proposal (Appendix C, Basis of Payment), the tenderer must propose a firm price for each phase and a firm total price. In addition, the tenderer must submit an hourly rate as indicated in the financial proposal.

4.0 DETERMINATION OF SUCCESSFUL BIDDER

The Bidder whose proposal will represent the lowest total cost will be awarded the contract.



APPENDIX E CERTIFICATION REQUIREMENTS

The following certification requirements apply to this Request for Proposal (RFP) document. Bidders should include, with their proposal, a signed copy of this certification below.

A) LEGAL ENTITY AND CORPORATE NAME

Please certify that the Bidder is a legal entity that can be bound by the contract and sued in court and indicate **i)** whether the Bidder is a corporation, partnership or sole proprietorship, **ii)** the laws under which the Bidder was registered or formed, **iii)** together with the registered or corporate name. Also identify **iv)** the country where the controlling interest/ownership (name if applicable) of the Bidder is located.

i) _____

ii) _____

iii) _____

iv) _____

Any resulting Contract may be executed under the following:

Corporate full legal name: _____

Place of business (complete address): _____

Contact person: _____

Phone: _____

Email: _____

GST number: _____

Name

Signature

Date



B) EDUCATION/EXPERIENCE CERTIFICATION

We certify that all statements made with regard to the education and the experience of individuals proposed for completing the subject Work are accurate and factual, and we are aware that the Minister reserves the right to verify any information provided in this regard and that untrue statements may result in the proposal being declared **non-responsive** or in other action which the Minister may consider appropriate.

Name

Signature

Date

C) PRICE/RATE CERTIFICATION

"We hereby certify that the price quoted have been computed in accordance with generally accepted accounting principles applicable to all like services rendered and sold by us, that such prices are not in excess of the lowest prices charged anyone else, including our most favoured customer for like quality and quantity so the services, does not include an element of profit on the sale in excess of that normally obtained by us on the sale of services of like quality and quantity, and does not include any provision for discounts or commissions to selling agents".

Name

Signature

Date

D) VALIDITY OF PROPOSAL

It is requested that proposals submitted in response to this Request for Proposal be:

- valid in all aspects, including price, for not less than one hundred and twenty (120) days from the closing date of this RFP; and,



- signed by an authorized representative of the Bidder in the space provided on the RFP; and,
- provide the name and telephone number of a representative who may be contacted for clarification or other matters relating to the Bidder's proposal.

Name

Signature

Date

E) AVAILABILITY AND STATUS OF PERSONNEL

The Bidder certifies that, should it be authorized to provide services under any contract resulting from this RFP, the employees proposed in its proposal will be available to commence performance of the work within a reasonable time from contract award, or within the time specified herein.

If the Bidder has proposed any person in fulfilment of this requirement who is not an employee of the Bidder, the Bidder hereby certifies that it has written permission from such person to propose the services of such person in relation to the work to be performed in fulfilment of this requirement and to submit such person's résumé to the Contracting Authority.

During the proposal evaluation, the Bidder MUST upon the request of the Contracting Authority provide a copy of such written permission, in relation to any or all non-employees proposed. The Bidder agrees that failure to comply with such a request may lead to disqualification of the Bidder's proposal from further consideration.

Name

Signature

Date

F) FORMER PUBLIC SERVANT – STATUS AND DISLCOSURE

Contracts with former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and



directives on contracts with FPS, bidders must provide the information required below.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the Financial Administration Act, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means, a pension or annual allowance paid under the Public Service Superannuation Act (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the Supplementary Retirement Benefits Act, R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the Canadian Forces Superannuation Act, R.S., 1985, c.C-17, the Defence Services Pension Continuation Act, 1970, c.D-3, the Royal Canadian Mounted Police Pension Continuation Act, 1970, c.R-10, and the Royal Canadian Mounted Police Superannuation Act, R.S., 1985, c.R-11, the Members of Parliament Retiring Allowances Act, R.S., 1985, c.M-5, and that portion of pension payable to the Canada Pension Plan Act, R.S., 1985, c.C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension?

Yes () No ()

If so, the Bidder must provide the following information, for all FPS in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure report.



Work Force Reduction Program

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of a work force reduction program? Yes () No ()

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force reduction program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including the Goods and Services Tax or Harmonized Sales Tax.

Name

Signature

Date

G) JOINT VENTURES

1.0 In the event of a proposal submitted by a contractual joint venture, the proposal shall be signed by either all members of the joint venture or a statement shall be provided to the effect that the signatory represents all parties of the joint venture. The following will be completed if applicable:

- 1. The Bidder represents that the bidding entity is/is not (delete as applicable) a joint venture in accordance with the definition in paragraph 3.
- 2. A Bidder that is a joint venture represents the following additional information:
 - (a) Type of joint venture (mark applicable choice):
 - _____ Incorporated joint venture
 - _____ Limited partnership joint venture
 - _____ Partnership joint venture
 - _____ Contractual joint venture
 - _____ Other
 - (b) Composition (names and addresses of all members of the joint venture)



3. Definition of joint venture

A joint venture is an association of two or more parties who combine their money, property, knowledge, skills, time or other resources in a joint business enterprise agreeing to share the profits and the losses and each having some degree of control over the enterprise. Joint ventures may be carried on in a variety of legal forms divided into three categories:

- (a) The incorporated joint venture;
- (b) The partnership venture;
- (c) The contractual joint venture where the parties combine their resources in the furtherance of a single business enterprise without actual partnership or corporate designation.

4. The joint venture team arrangement is to be distinguished from other types of Contractor arrangements, such as:

- (a) Prime Contractor, in which, for example, the purchasing agency contracts directly with a Contractor (prime) who acts as the system assembler and integrator, with major components, assemblies and subsystems normally subcontracted;
- (b) Associated Contractor, in which for example, the purchasing agency contracts directly with each of the major component suppliers and performs the integration tasks or awards a separate contract for this purpose.

5. If the Contract is awarded to an unincorporated joint venture, all members of the joint venture shall be jointly and severally responsible for the performance of the Contract.

Name

Signature

Date

H) FEDERAL CONTRACTORS PROGRAM

Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from Human Resources and Skills Development Canada - Labour's website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.



I) INTEGRITY PROVISIONS

1. Ineligibility and Suspension Policy (the “Policy”), and all related Directives (2016-04-04), 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.

Certification:

I _____ (Suppliers name) understand that any information I submit in order for the department to confirm my eligibility to receive a contract may be shared and used by AAFC and /or PSPC as part of the validation process, and the results of verification may be publicly disseminated. Moreover, I am aware that any erroneous or missing information could result in the cancellation of my bid as well as a determination of ineligibility/suspension.

Name

Signature

Date