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TPSGC
11 Laurier St./11 rue Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau, Québec K1A 0S5

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Construction Services Division/Division des services de
construction
11 Laurier St./11 Rue Laurier
3C2, Place du Portage
Phase III
Gatineau, Québec K1A 0S5

Title - Sujet Sir Frederick Banting Fit-up	
Solicitation No. - N° de l'invitation EP076-141420/A	Amendment No. - N° modif. 003
Client Reference No. - N° de référence du client 20141420	Date 2014-02-07
GETS Reference No. - N° de référence de SEAG PW-\$\$\$FG-356-64066	
File No. - N° de dossier fg356.EP076-141420	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2014-02-20	
Time Zone Fuseau horaire Eastern Standard Time EST	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Lagacé, Hélène	Buyer Id - Id de l'acheteur fg356
Telephone No. - N° de téléphone (819) 956-0060 ()	FAX No. - N° de FAX (819) 956-8335
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Sir Frederick Banting Research Centre 251 Sir Frederick Banting Way Ottawa, Ontario	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Solicitation No. - N° de l'invitation

EP076-141420/A

Amd. No. - N° de la modif.

003

Buyer ID - Id de l'acheteur

fg356

Client Ref. No. - N° de réf. du client

20141420

File No. - N° du dossier

fg356EP076-141420

CCC No./N° CCC - FMS No/ N° VME

This amendment is being issued to **re-issue** Addendum 01 (that should have been a part of amendment 002) and to issue Addendums 02 and 03.

Bidders should note that the drawings are available for viewing and/or downloading from the Tenders site under the heading Attachments (<https://buyandsell.gc.ca/procurement-data/tenders>) .

All other terms and conditions remain unchanged.

ADDENDUM NO. 02

The following changes in bid documents are effective immediately. This addendum will form part of the contract documents.

Drawings, Detail Sheets and Specification Sections issued with this Addendum:

None

Addendum is issued to address issues found in the French documentation only. No changes are made to the English documents in this addendum.

END OF SECTION

ADDENDUM NO. 03

The following changes in bid documents are effective immediately. This addendum will form part of the contract documents.

All drawings that are referred to as “revised drawing” replace the original drawing of the same number.

All drawings that are referred to as “partial drawing revision” are in addition to the original drawing of the same number and only revise the change noted in the addendum list.

DRAWINGS**1. L100 – GENERATOR PLAN & DETAILS**

- .1 Detail 1, add line showing extent of existing paving as shown on partial drawing revision L100R1, issued as part of this Addendum.
- .2 Delete detail 2/L100 C.I.P. Concrete Curb and replace with revised detail of C.I.P. Concrete Curb as shown on partial drawing revision L100R1, issued as part of this Addendum.

2. A430 – THIRD FLOOR SOUTHWEST PLAN

- .1 Room A351A, delete reference to “UC-G” cabinets on west wall above M2 tables. Upper shelving is “BS”.
- .2 Room A351A, delete “BS” shelving on north wall.

3. A800 AND A801 – LAB CASEWORK DETAILS

- .1 Add new General Laboratory Casework Note 10., as follows:
 - .10 Dimensions of casework are nominal. Provide manufacturer's standard size and type of casework conforming to the type and design indicated, without affecting layout of equipment and casework.

4. S203 – PENTHOUSE ROOF PLAN

- .1 Change “Keynote 10” to “Keynote 15” pointing to beam to right of grid H.Y as shown on Partial drawing revision FS-S203-04, issued as part of this Addendum.
- .2 Change “Keynote 26” to “Keynote 14” to left of grid M.Y as shown on Partial drawing revision FS-S203-04, issued as part of this Addendum.
- .3 Change “Keynote 26” to “Keynote 14” to left of grid K.Y as shown on Partial drawing revision FS-S203-04, issued as part of this Addendum.
- .4 Clarification: four beams within grids 21-23/M.Y-L.Y are existing beams; three beams near K.Y are W200 x 27 as shown on Partial drawing revision FS-S203-04, issued as part of this Addendum.

5. S300 – PART PLAN/SECTIONS AND DETAILS

- .1 Keynote 9 change “See Architectural Drawings for location” to “See Keynote 18 on Drawing S203.”
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- .2 Keynote 28, change “See Architectural Drawings for location” to “See Keynote 20 on Drawing S203.”
- 6. MG130 – THIRD FLOOR PLAN LABORATORY GAS, MG140 – FOURTH FLOOR PLAN LABORATORY GAS**
 - .1 Refer to drawings MG130 and MG140 for required services to ceiling panels. Majority of rooms require nitrogen and compressed air only, however, there are some areas which require additional services such as Room A430 on MG140.
- 7. MV131-X1 - THIRD FLOOR SOUTHWEST LARGE SCALE PLAN
MV132-X1 - THIRD FLOOR NORTHWEST LARGE SCALE PLAN
MV133-X1 - THIRD FLOOR SOUTHEAST LARGE SCALE PLAN
MV134-X1 - THIRD FLOOR NORTHEAST LARGE SCALE PLAN**
 - .1 Add keynotes for MV drawings issued as part of Addendum No. 1 as shown on Partial Drawing MV-131-X1R1, issued as part of this Addendum.
- 8. TN132 – PARTIAL LEVEL 3 FLOOR PLAN TELECOM/CATV/CLOCKS/WIRELESS**
 - .1 Replace Label T3-158 at Plan TN132 JY12 as a VERTICAL SERVICE CARRIER to T3-165.
- 9. TN133 – PARTIAL LEVEL 3 FLOOR PLAN TELECOM/CATV/CLOCKS/WIRELESS**
 - .1 Replace Label T3-151 at gridline MY30 as a VERTICAL SERVICE CARRIER to T3-161.
 - .2 Replace Label T3-157 at gridline OY26 as a VERTICAL SERVICE CARRIER to T3-163.
- 10. TN134 – PARTIAL LEVEL 3 FLOOR PLAN TELECOM/CATV/CLOCKS/WIRELESS**
 - .1 Re-label AP at gridline LY-23 as T3-160.
 - .2 Replace Label T3-158 at gridline JY30 as a VERTICAL SERVICE CARRIER to T3-164.
 - .3 Replace Label T3-151 at gridline KY30 as a Type A to T3-162.
- 11. TN141 – PARTIAL LEVEL 4 FLOOR PLAN TELECOM/CATV/CLOCKS/WIRELESS**
 - .1 Replace Label T4-16 at gridline NY18 VERTICAL SERVICE CARRIER to T4-17.
 - .2 Replace Label T4-17 at gridline NY18 AP to T4-16.

SPECIFICATIONS

1. SECTION 01 00 10 – GENERAL INSTRUCTIONS

- .1 Article 1.1, delete paragraph 1.1.1 and replace with the following:
 - .1 This Project is not pursuing formal certification, but has targeted LEED CI credits.
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2. SECTION 06 1 00 – ROUGH CARPENTRY

- .1 Article 1.2 REFERENCES, add new paragraph 1.2.6 as follows:
 - .6 Underwriters Laboratory of Canada (ULC)
 - .1 CAN/ULC-S701-11, Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering
- .2 Renumber Article 1.1 ACTION AND INFORMATION SUBMITTALS to Article 1.3. Renumber Article 1.2 QUALITY ASSURANCE to Article 1.4. Renumber Article 1.3 DELIVERY, STORAGE AND HANDLING to Article 1.5.
- .3 Article 1.3, add new paragraph 1.3.4 as follows:
 - .4 Submit certificate of material compatibility.
- .4 Article 1.4, add new paragraph 1.4.3 as follows:
 - .3 Compatibility between components of existing roofing system and new materials is essential. Provide written declaration to Departmental Representative stating that materials and components meet this requirement.
- .5 Add new Article 2.6 ROOFING TIE-IN MATERIALS, as follows:

2.6 ROOFING TIE-IN MATERIALS

- .1 Waterproofing Membrane: self-adhesive SBS modified bituminous vapour barrier membrane, with woven polyethylene top surface, and silicone release film on underside. Nominal thickness: 0.80 mm, air permeability less than 0.007 L/second·m² to ASTM E283 at 75 Pa, water vapour permeance 0.92 ng/Pa·s·m² to ASTM E96 Procedure B.
 - .2 Insulation: Extruded polystyrene (XPS) to CAN/ULC-S701, Type 4, thickness 38 mm, RSI 0.88 per 25 mm thickness, 240 kPa compressive strength.
 - .3 Separation Sheet: UV-resistant, black woven water pervious polyolefin fabric for installation between insulation and stone ballast in protected membrane system, approved by insulation manufacturer.
 - .4 Ballast: 19 to 32 mm size, well graded crushed stone, opaque, non-porous, washed, free from fines, long splinters, moisture, ice and snow.
- .6 Add new Article 3.5 ROOFING TIE-INS, as follows:

3.5 ROOFING TIE-INS

- .1 Preparation:
 - .1 Protect existing roofing system. Limit traffic and material storage to areas of existing roofing membrane that have been protected.
 - .2 Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains.
 - .3 Do not permit water to enter into or under existing membrane roofing system components.
-

- .2 Waterproofing Membrane:
 - .1 Clean substrates of dirt, dust and debris. Prime surfaces in accordance with manufacturer's recommendations.
 - .2 Apply waterproofing membrane in accordance with manufacturer's recommendations. Overlap existing roofing membranes by 300 mm minimum. Seal terminations with mastic.
- .3 Insulation:
 - .1 Place insulation loose laid, fit snug against existing insulation.
 - .2 Where insulation is in contact with cants or curbs, cut bevel edges on insulation to fit snug to cant slope.
- .4 Separation Sheet:
 - .1 Apply separation sheet unbonded over installed insulation. Overlap existing filter fabric by 300 mm minimum.
 - .2 Cut sheet around roof drains, vents and other penetrations and extend under metal flashings.
- .5 Ballast: Apply stone ballast, dry, as soon as possible after placement of fabric, at minimum rate of 50 kg/m².

3. SECTION 11 53 00 – LABORATORY EQUIPMENT

- .1 Article 2.2, paragraph 2.2.1 change “180 kg” capacity to “minimum 140 kg” capacity, and change “36 kg storage bin” to “minimum 36 kg storage bin”.

4. SECTION 11 53 13 – FUME HOODS

- .1 Article 1.8, paragraph 1.8.1 change “ANSI/ASHRAE 110 and EN 14175” to “ANSI/ASHRAE 110 or EN 14175”.
 - .2 Article 1.8, paragraph 1.8.2 change “CAN/CSA C22.2 No. 61010-1” to CAN/CSA C22.2 No. 1010.1”.
 - .3 Article 2.2, paragraph 2.2.8, delete subparagraphs 2.2.8.1 and 2.2.8.2 in their entirety. Renumber remaining subparagraph.
 - .4 Article 2.5, subparagraph 2.5.10.1, replace with the following:
 - .1 Factory wire electrical outlets and switches, and terminate in box on top of fume hood, to CAN/CSA-C22.2 No. 1010.1. Only ULC listed or CSA approved electrical devices are acceptable. Provide two duplex receptacles and one light switch per fume hood.
 - .5 Article 2.5, paragraph 2.5.12, delete “baffle settings”.
 - .6 Article 2.6, paragraph 2.6.1 Safety Accessories, delete subparagraph 2.6.1.3 in its entirety and renumber remaining subparagraph.
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- .7 Article 2.9, replace paragraph 2.9.1 with the following:

2.9 SOURCE QUALITY CONTROL - AM TESTING

- .1 Departmental Representative reserves the right to require manufacturer to demonstrate hood performance and submit testing results verified by an independent engineering testing laboratory prior to shipment to prove compliance with contract requirements. Test hoods to verify performance requirements in accordance with ANSI Z9.5, ASHRAE 110 or EN 14175. Failure to meet performance requirements specified in Article 2.2 PERFORMANCE AND DESIGN REQUIREMENTS shall be cause for rejection.

- .8 Article 3.3, replace entire article with the following:

3.3 FIELD (AI) TESTING

- .1 Provide independent third-party field testing of each unit after completion of installation to verify operation of hoods in accordance with requirements specified in Article 2.2 PERFORMANCE AND DESIGN REQUIREMENTS. Perform tests in accordance with ASHRAE 110 Method of Testing Performance of Laboratory Fume Hoods, and ANSI Z9.5 based on face velocity and sash height specified in Article 2.2 PERFORMANCE AND DESIGN REQUIREMENTS.
- .1 Perform velocity grid test, flow visualization or smoke test, and tracer gas containment test.
- .2 Confirm performance requirements specified in Article 2.2 PERFORMANCE AND DESIGN REQUIREMENTS.
- .3 Provide report of results by testing agency.

5. SECTION 12 35 53 – STEEL LABORATORY CASEWORK

- .1 Article 2.4, subparagraph 2.4.5.5 Above-Counter Upper Cabinets, add new subparagraph 2.4.5.5.6 as follows:
- .6 Provide wall mounted brackets and wall rails for mounting cabinets installed above tables without a rear frame assembly with vertical uprights, or above open floor space.
- .2 Article 2.19, delete paragraph 2.19.3.5 and replace with the following:
- .5 Core: 304L grade virtually non-magnetic stainless steel honeycomb with damping.
- .3 Article 2.19, delete paragraph 2.19.3.10 in its entirety.

6. SECTION 23 31 13 – METAL DUCTS – LOW PRESSURE TO 500 PA

- .1 Article 2.3, paragraph 2.3.2, replace with the following:
- .2 Base material: Type 304 or 316 stainless steel. Factory-fabricated seams: fusion-weld longitudinal seams, butt-weld transverse seams.

**7. SECTION 23 37 13 – MODULAR AIR HANDLING UNITS, DRAWING M-601
MECHANICAL SCHEDULES**

- .1 Glycol heat reclaim module, GRC-6-1, is to be constructed to the requirements of specification Section 23 73 13 - Modular Air Handling Units. The intent is that the heat reclaim module be constructed of standard components of a modular air handling unit. Specification requirements in Section 23 73 13 apply to GRC-6-1 but must be suitable for outdoor installation.
- .2 Drawing M-601: Schedule indicates “stainless steel liner” which applies to the floor of the air handling unit as well.
- .3 Variable frequency drives (VFD) for the air handling units shall be located on a field-fabricated frame adjacent to the air handling unit. VFD shall be arranged in a 2-wide, 2-high configuration (total of 4 VFD per unit). Refer also to Detail 5/Drawing E504.
- .4 Section 23 37 13 - Modular Air Handling Units, delete paragraph 2.10.2. Disconnect switches shall be as specified in Division 26.
- .5 Contractor shall be required to demonstrate by way of field testing that air leakage meets requirement specified in Section 23 37 13 - Modular Air Handling Units, paragraph 2.3.10 are met.

8. SECTION 27 06 00 - SCHEDULES FOR COMMUNICATIONS

- .1 Paragraph 2.6.7, Patch Panel 2J, revise as follows:
 - .1 Add at Port 31, Drawing Designator T3-160 at Designator Label TRA324-2J31, Note AP.
 - .2 Add at Port 32, Drawing Designator T3-151 at Designator Label TRA324-2J32.
 - .3 Add at Port 33, Drawing Designator T3-161 at Designator Label TRA324-2J33.
 - .4 Add at Port 34, Drawing Designator T3-162 at Designator Label TRA324-2J34.
 - .5 Add at Port 35, Drawing Designator T3-163 at Designator Label TRA324-2J35.
 - .6 Add at Port 36, Drawing Designator T3-164 at Designator Label TRA324-2J36.
 - .7 Add at Port 37, Drawing Designator T3-165 at Designator Label TRA324-2J37.
- .2 Paragraph 3.3.9, Patch Panel 2I, revise as follows:
 - .1 Replace Label T4-428, T4-429 T4-430 T4-431 at Plan TN141 KY23/26 Type A SERVICE CARRIER to T4-148.
 - .2 Add at Port 67, Drawing Designator T4-148 at Designator Label TRA426-2I67.

END OF SECTION

DRAWING NOTES:

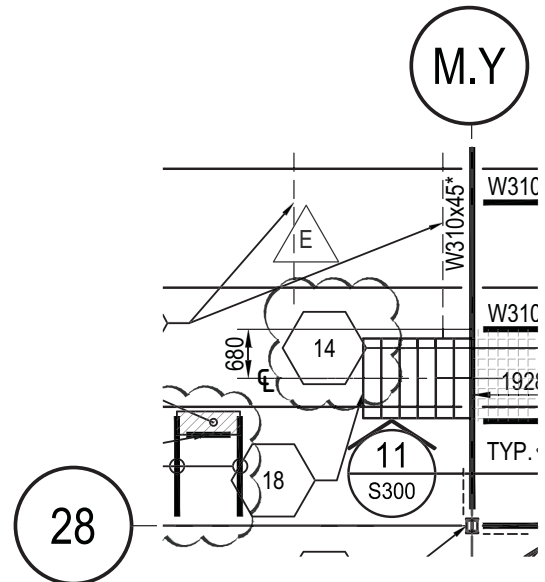
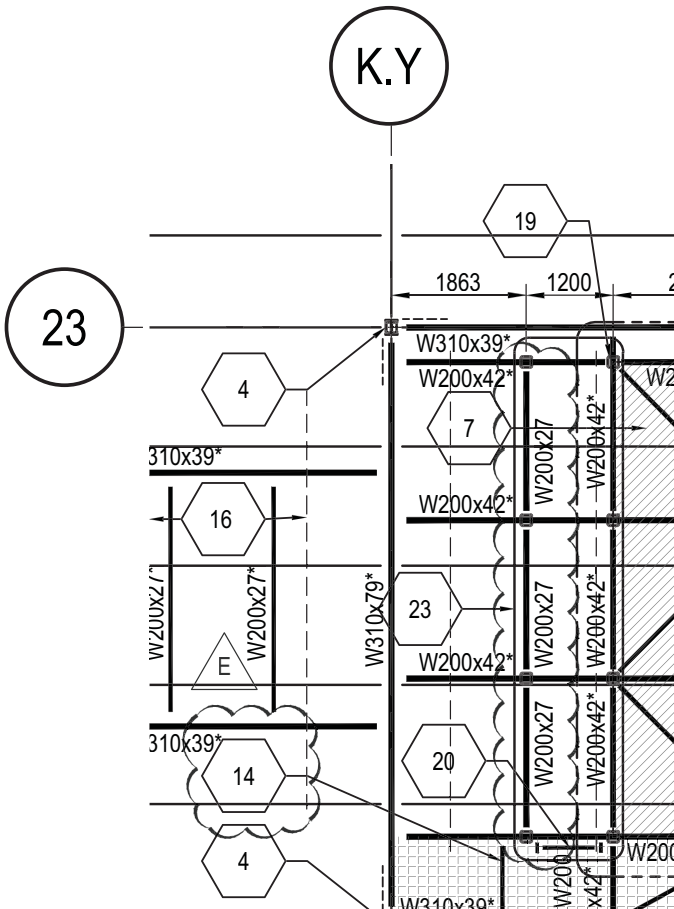
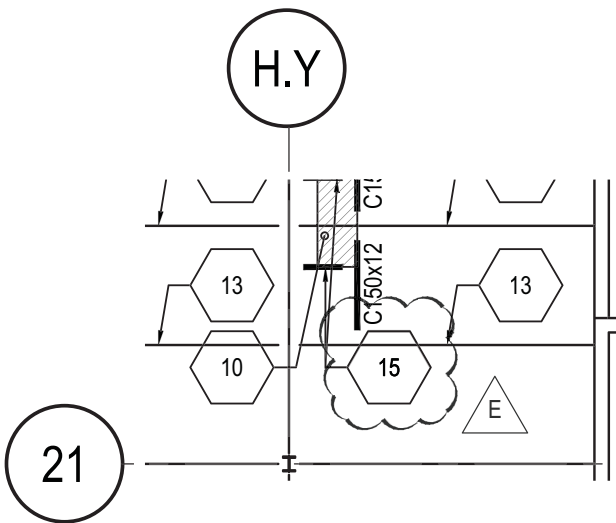
NO.

14. W200x19*

15. C150x12 TYP. CONNECT BETWEEN EXISTING OWSJ.

NOTES:

ALL EXTERIOR STRUCTURAL STEEL AND METAL FABRICATIONS ARE TO BE GALVANIZED.



project
**SIR FREDERICK BANTING
RESEARCH CENTRE
ANIMAL TO WET LAB CONVERSION**

251 SIR FREDERICK BANTING WAY, ON

drawing

RTU SUPPORT DETAILS

project

Designed By A.CHEUNG

Date 2014/01/15

Drawn By E.PILLON

Date 2014/01/15

Reviewed By A.CHEUNG

Date 2014/01/15

Approved By A.CHEUNG

Date 2014/01/15

Tender

Project Manager

Conçu par

(yyyy/mm/dd)

Dessiné par

(yyyy/mm/dd)

Examiné par

(yyyy/mm/dd)

Approuvé par

(yyyy/mm/dd)

Soumission

Administrateur de projets



Publics Works and
Government Services
Canada

Travaux publics et
services gouvernementaux
Canada

Canada

Project no.

No. du projet

R.044033.002

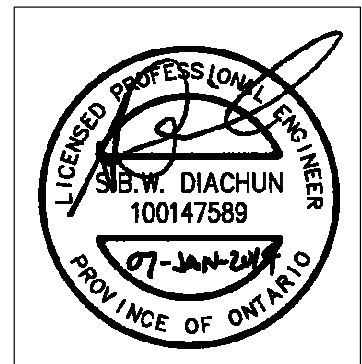
Drawing no.


No. du dessin

FS-S203-04

DRAWING KEYNOTES:

1. 150mmØ CONNECTION FOR FUME EXTRACTION ARM. PROVIDE BUBBLE TIGHT DAMPER AND BALANCE TO 35l/s.
2. 150mmØ THIMBLE CONNECTION FOR EQUIPMENT. PROVIDE BUBBLE TIGHT DAMPER AND BALANCE TO 59l/s.
3. 150mmØ THIMBLE CONNECTION FOR EQUIPMENT. PROVIDE BUBBLE TIGHT DAMPER AND BALANCE TO 47l/s.
4. RADIOISOTOPE EXHAUST DUCT UP TO PENTHOUSE.
5. OZONE FREE SUPPLY AIR DUCT FROM PENTHOUSE.
6. STAINLESS STEEL HEAT/CONDENSATE HOOD. BALANCE TO 55L/s. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
7. LOW LEVEL EXHAUST GRILLE; MOUNT 600mm AFF MEASURED TO THE BOTTOM OF THE GRILLE.
8. EXISTING EXHAUST GRILLE. REBALANCE TO VALUE SHOWN.
9. EXISTING EXHAUST DUCTING; CLEAN DUCTING AND GRILLES AS NECESSARY. RESEAL DUCTING AS NECESSARY.
10. ACOUSTICALLY LINED TRANSFER DUCT.
11. PROVIDE NEW FIRE DAMPER FOR EXISTING EXHAUST DUCTWORK.
12. BALANCE TO 10L/s.
13. TIE NEW DUCTING INTO EXISTING EXHAUST MAIN.



project SIR FREDERICK BANTING RESEARCH CENTRE ANIMAL TO WET LAB CONVERSION 251 SIR FREDERICK BANTING WAY, ON	projet Designed By JD Date (yyyy/mm/dd) Drawn By JD Date (yyyy/mm/dd) Reviewed By SD Date (yyyy/mm/dd) Approved By SD Date 2013/12/20 (yyyy/mm/dd) Tender Project Manager	Conçu par Dessiné par Examiné par Approuvé par Soumission Administrateur de projets	<div style="text-align: center;">  Publics Works and Government Services Canada Travaux publics et services gouvernementaux Canada </div> <div style="text-align: center; font-size: 24px; font-weight: bold;">Canada</div> <div style="display: flex; justify-content: space-between;"> <div> Project no. R.044033.002 Drawing no. MV131-X1-R1 </div> <div> No. du projet No. du dessin </div> </div>
drawing MECHANICAL DETAILS			