

RETURN BIDS TO:
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11 Laurier St./11 rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
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

Ce document comporte une exigence en matière de sécurité / This document contains a Security Requirement

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 Chiller Replacement	
Solicitation No. - N° de l'invitation EP076-160045/A	Amendment No. - N° modif. 004
Client Reference No. - N° de référence du client 20160045	Date 2015-07-02
GETS Reference No. - N° de référence de SEAG PW-\$\$\$FG-350-67413	
File No. - N° de dossier fg350.EP076-160045	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-07-07	Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
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: Séguin, Martine	Buyer Id - Id de l'acheteur fg350
Telephone No. - N° de téléphone (819) 956-4975 ()	FAX No. - N° de FAX (819) 956-8335
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Centre de formation pour Transport Canada / Canada Training Centre for Transport Canada Edifice O-276 Building 200 Airbus privé - 200 Airbus Private 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

EP076-160045/A

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

20160045

Amd. No. - N° de la modif.

004

File No. - N° du dossier

fg350EP076-160045

Buyer ID - Id de l'acheteur

fg350

CCC No./N° CCC - FMS No/ N° VME

THIS AMENDMENT NUMBER 004 IS BEING ISSUED FOR THE FOLLOWING:

Issue Addendums 3 and 4.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED

**Public Works and Government Services Canada
Real Property Contracting
Gatineau, Quebec**

**Addendum No. 3 R1
Page 1 of 1**

**Project Name: Chiller Replacement, Transport Canada Training Centre, 200
Airbus Private, Ottawa**

Project Number: R.060139.002

Date: 2015/06/30

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

Plans

1. Drawing E4 Detail 1:

1. Add new note #8 "Disconnect and remove electrical wiring and disconnect switches from three (3) fan-coil units back to panel ISG located in the main mechanical room 110. Update panel schedule to indicate spare breakers and place breakers in off position. Refer to drawing M304 Detail 1 for exact location of the three (3) fan-coil units."

**Project Name: Chiller Replacement, Transport Canada Training Centre, 200
Airbus Private, Ottawa**

Project Number: R.060139.002

Date: 2015/06/29

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

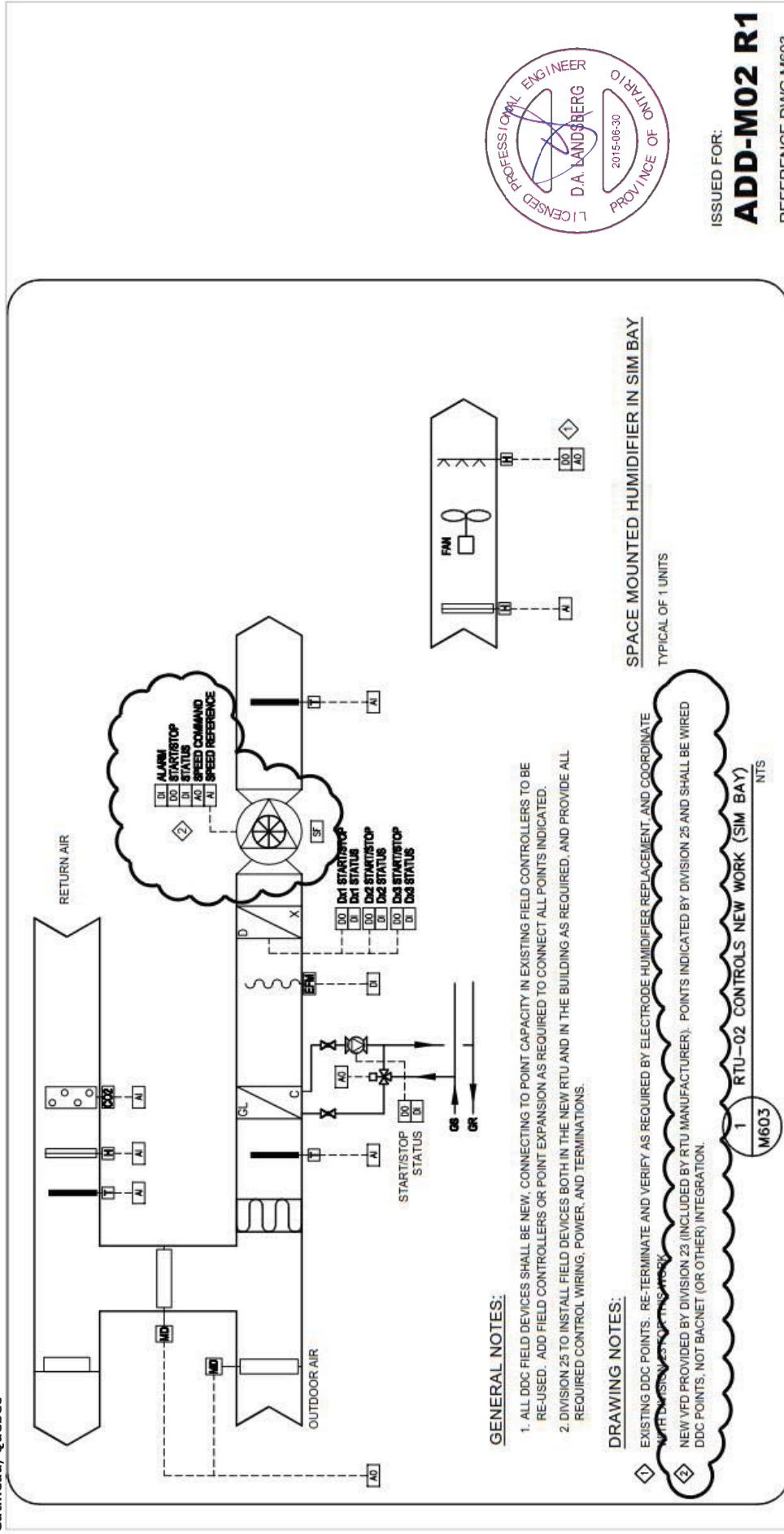
Plans

1. Mechanical drawing M002.
 1. Delete mechanical schedule for Roof Top Air Handlers entirely.
 2. Add new mechanical schedule for Roof Top Air Handler as per attached drawing M-002.
2. Mechanical drawing M603.
 1. Delete M603 Detail #1 entirely.
 2. Add new M603 Detail #1as per attached sketch SKE-01-R1.

Specifications

1. Section 25 05 00 – COMMON WORK RESULTS FOR HVAC
 - .1 Delete article 3.2.1 entirely.
 - .2 Add new article 3.2.1 as follows:
 - .1 Clean interior and exterior of all systems including strainers. Vacuum interior of new ductwork and new air handling units.





Ottawa :
bpa
430 de l'hôpital Bld, suite 210, J6V 1T7
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CHILLER REPLACEMENT
FOR TRANSPORT CANADA
TRAINING CENTRE
(BUILDING O-276)

ROOF TOP UNIT RTU-02
CONTROLS NEW WORK
SCHEMATIC

SKE-01-R1

[illegible]

TANK					
REF. NO.	TYPE	CAPACITY (L.)	FLUID	RANGES INLET Ø (mm) OUTLET Ø (mm)	NOTES
1-01	BUFFER TANK	757	50% GLYCOL	80 80	CW ASME STAMP, SEISMIC RATED LEGS, INTERNAL DRAFFLE & 13mm INSULATION BY MANUFACTURER

GLYCOL FILL STATION						
REF. NO.	TYPE	CAPACITY (L)	PRESSURE (kPa)	FLUID MEDIUM	ELECTRICAL V/W/ AMPS	NOTES
GF5401	GLYCOL PRESSURIZATION	65	160	50% GLYCOL	120 2	COMPLETE W/TH INTEGRAL DIVERTOR VALVE AND LOW LEVEL CUT-OFF.

EXPANSION TANK							
REF. No.	TYPE	CAPACITY (L)	ACCEPTANCE VOLUME (L)	FLUID	INITIAL PRESSURE (MPa)	OPERATING PRESSURE (MPa)	NOTES
E1'01	DAPHRAGM	8	3.7	90% GLYCOL	83	166	
E1'02	DAPHRAGM	50	31	90% GLYCOL	83	166	

CONTROL VALVES											
REF. NO.	APPLICATION	PRESSURE DROP (kPa)	BODY	FLOW (l/s)	FLUID	CV	REQUIRED ACTION	CONNECTION	BODY SIZE (mm)	CLOSE OFF (kPa)	NOTES
CV-01	CHILLER CH-02	-	-	-	50% GLYCOL	-	-	-	-	-	BY CHILLER MANUFACTURER, FACTORY INSTALLED
CV-02	CHILLER CH-02	-	-	-	50% GLYCOL	-	-	-	-	-	BY CHILLER MANUFACTURER, FACTORY INSTALLED
CV-03	FLOW COOLING	91	2-WAY	3.2	50% GLYCOL	1.6	FAIL LAST POSITION	SCREWED	40	600	NON-SPRING RETURN, 2-10 VDC
CV-04	FREE COOLING	91	2-WAY	6.2	50% GLYCOL	3.1	FAIL LAST POSITION	ANSI 180 FLANGE	60	1034	NON-SPRING RETURN, 2 POSITION
CV-05	FLUID COOLER FC-02	65	2-WAY	7.6	50% GLYCOL	65	FAIL LAST POSITION	SCREWED	50	340	NON-SPRING RETURN, 2 POSITION
CV-06	FLUID COOLER FC-01	65	2-WAY	7.6	50% GLYCOL	65	FAIL LAST POSITION	SCREWED	50	340	NON-SPRING RETURN, 2 POSITION
CV-07	FAN COIL AC-02	5.5	2-WAY	0.76	50% GLYCOL	5.5	FAIL LAST POSITION	SCREWED	20	690	NON-SPRING RETURN, 2-10 VDC
CV-08	FAN COIL AC-01	5.5	2-WAY	0.76	50% GLYCOL	5.5	FAIL LAST POSITION	SCREWED	20	690	NON-SPRING RETURN, 2-10 VDC
CV-09	FC-01	11.7	2-WAY	0.09	50% GLYCOL	1.6	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 5-10 VDC
CV-10	FC-02	11.7	2-WAY	0.13	50% GLYCOL	1.6	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 5-10 VDC
CV-11	FC-01	8.3	2-WAY	0.05	WATER	10	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 5-10 VDC
CV-12	FC-02	9.0	2-WAY	0.12	WATER	10	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 5-10 VDC
CV-13	CH-01	8.3	2-WAY	0.05	WATER	10	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 5-10 VDC
CV-14	RC-02	8.3	2-WAY	0.05	WATER	10	FAIL FULLY OPEN	SCREWED	15	1724	SPRING RETURN, 5-10 VDC

FLUID COOLERS																		
REF. No.	MEDIUM	NOMINAL (kW)	COIL INFORMATION							FAN				ELECTRICAL			OPERATING WEIGHT (kg)	
			AMBIENT	EGT	LCGT	FLOWRATE	PRESSURE	NO. OF ROOFS	NO. OF CONNECTIONS FROM ROOF	RPM	LS	NO. OF VANE	AIRFLOW	VPh	FIA	MCA		MOCp
FC-1	50% GLYCOL	178	35.5	46.8	40.5	7.71	84.1	56	3	30,000	850	24.4	VERTICAL	575/50	16.8	21	25	1270
FC-2	50% GLYCOL	178	35.5	46.8	40.5	7.71	84.1	56	3	30,000	850	24.4	VERTICAL	575/50	16.8	21	25	1270

NOTES:
1) CONTACT PER PAIR OF FANS AND NON-USED DISCONNECT.
2) PROVIDE WITH 300mm HEIGHTLESS.

FAN COIL																	
REF. NO.	REF. TYPE	FLOW (L/s)	ESP (Pa)	MEDIA	COOLING				HEATING				ELECTRICAL			OPERATING WEIGHT (kg)	NOTES
					NOMINAL (kW)	EST (°C)	LAT (°C)	EAT (°C)	NOMINAL (kW)	EST (°C)	LAT (°C)	EAT (°C)	V/Fn	F/LA	NCA	MA/CP	
AC01	UPBLAST - BELT DRIVE	944	62	50% GYCOL	17.6	7.2	15.6	26.7	15.2	-	-	-	-	59/53	-	-	-
AC02	UPBLAST - BELT DRIVE	944	62	50% GYCOL	17.6	7.2	15.6	26.7	15.2	-	-	-	-	59/53	-	-	FLOOR MOUNTED FAN COIL UNIT, TOP DISCHARGE, MERV 8 FILTER
AC03	UPBLAST - BELT DRIVE	944	62	50% GYCOL	17.6	7.2	15.6	26.7	15.2	-	-	-	-	59/53	-	-	FLOOR MOUNTED FAN COIL UNIT, TOP DISCHARGE, MERV 8 FILTER
FC01	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC02	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC03	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC04	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC05	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC06	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC07	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC08	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC09	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC10	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC11	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC12	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC13	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC14	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC15	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC16	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC17	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC18	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC19	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC20	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25
FC21	CEILING HANG	241	62	WATER	-	-	-	-	-	56.6	56.4	43.3	21.1	37.7	115.0	2.6	3.25

PUMPS														
REF.	TYPE	APPLICATION	PUMP CHARACTERISTICS			CONSTRUCTION		PIPE CONNECTIONS			ELECTRICAL	NOTES		
No.			FLOW (l/h)	HEAD (ft/Pa)	RPM	BODY	IMPELLER	TYPE	INLET (mm)	OUTLET (mm)	V/Ph (mm)	MOTOR HP	WEIGHT (kg)	OPERATING F.L.A
P-1	VERTICAL CLOSE-COUPLED	CONDENSER	7.57	272	3450	CAST IRON	BRASS	FLANGED	500	500	575/3	5	38.6	WATER
P-2	VERTICAL CLOSE-COUPLED	CONDENSER	7.57	272	3450	CAST IRON	BRASS	FLANGED	500	500	575/3	5	38.6	WATER
P-3	VERTICAL CLOSE-COUPLED	CONDENSER	7.57	272	3450	CAST IRON	BRASS	FLANGED	500	500	575/3	5	38.6	WATER
P-4	VERTICAL CLOSE-COUPLED	CONDENSER	7.57	272	3450	CAST IRON	BRASS	FLANGED	500	500	575/3	5	38.6	WATER
P-5	VERTICAL CLOSE-COUPLED	MAN. COOLING	6.12	411	3000	CAST IRON	BRASS	FLANGED	500	500	575/3	10	46.8	WATER
P-6	VERTICAL CLOSE-COUPLED	MAN. COOLING	6.12	411	3000	CAST IRON	BRASS	FLANGED	500	500	575/3	10	46.8	WATER
P-7	VERTICAL CLOSE-COUPLED	RTU HEATING COIL	1.58	65	1170	CAST IRON	BRASS	FLANGED	400	400	575/3	1.0	-	GLYCOL-PROPYLENE 50%
P-8	VERTICAL CLOSE-COUPLED	RTU HEATING COIL	1.58	65	1170	CAST IRON	BRASS	FLANGED	400	400	575/3	7.5	-	GLYCOL-PROPYLENE 50%

TEMPORARY CHILLER																	
REF. No.	TYPE	COOLING				EVAPORATOR			REFRIGERANT	ELECTRICAL				OPERATING WEIGHT (kg)	NOTES		
		MEDIUM	NOMINAL (kW)	BER	EGT (°C)	EGT (°C)	FLOW RATE (L/h)	EGT (°C)		EGT (°C)	V/Ph	F/LA	MCA			MOCP	
TCH-1	AIR COOLED	50% GLYCOL	183	15	12.2	6.6	9.8	122	12.2	6.6	R-404A	5750	74	93	110	1728	MIN. FOUR STAGES OF REFRIGERATION, COMPLETE WITH PUMP

CHILLERS																				
REF.	TYPE	COOLING				CONDENSER				EVAPORATOR				ELECTRICAL			OPERATING HEIGHT (m)	NOTES		
		MEDIUM	NOMINAL (kW)	EER	EGT (°C)	FLOW RATE (L/h)	EGT (°C)	LOT (°C)	PRESSURE (gPa)	FLOW RATE (L/h)	EGT (°C)	LOT (°C)	REFRIGERANT	WIRN	FLA	MCA			MOQP	
CH-1	WATER COOLED	50% GLYCOL	281	15.80	12.2	0.6	15	15.2	35.0	29.4	12.3	12.3	6.6	R-410A	575/3	54	123	160	1300	MODULAR, C/W TWO MODULES OF 14 kW, 2 STAGE SMOOLES

[illegible]