### CNRC NRC

### Addendum Addenda

No./No

1

Project Description / Description de projet								
U61 - Free Cooling & Chiller Replacement								
Project No./No de projet	Date							
5886	Benoit Huot	13-Oct-2021						
Solicitation No./N° de solicitation								
21-58061								
Notice: This addendum shall form part of the tender documents and all conditions shall apply and be read in conjunction with the original plans and specifications.								
	Cet addenda fait partie intégrale des dossiers d'appel; toutes les conditions énoncées appliquées en conjonction avec les plans et les devis originaux.	doivent être lues et						

Item No

Description

#### Questions

# 1.1 Can Daikin be considered as an acceptable manufacturer for the air cooled chiller?

- Daikin is considered an acceptable manufacturer. Note that the performance data and specifications must be met. Any changes resulting from using an alternate chiller must be coordinated with other divisions (including structural with regards to dimensions). Contractor must carry all costs associated with an alternate chiller. Note clearance around the chiller must be maintained in accordance with manufacturer's instructions. Note that valve 61CV001 is sized for the chiller's minimum flow. If the alternate chiller has different minimum flow, the control valve must be revised accordingly.

# 1.2 Can Bell and Gossett and Tyco be considered as an acceptable manufacturer for the chilled water pumps?

- Bell & Gossett and Tyco are considered an acceptable manufacturer. Note that the pumps must match the performance data shown on the equipment schedule (HP, flow, etc.) and pumps must meet specifications including ASHRAE 90.1. Any changes resulting from using an alternate pump must be coordinated with other divisions. Contractor must carry all costs associated to an alternate pump. Note clearance around the chiller must be maintained in accordance with chiller manufacturer's instructions.

# 1.3 The control valves schedule on drawing 5886-M01 calls for the existing 3-way valves to be replaced with new 2-way valves. Piping to be adjusted and new insulation to be provided? What is the pipe type currently used at the fan coils and what insulation to use?

- Pipe to be as per Section 23 21 13.02 – Hydronic Systems: Steel, article 2.1. Refer to Section 23 07 15 for chilled water insulation requirements.





### CNRC NRC

#### 1.4 Who's responsible to dispose the existing glycol in the system?

- Contractor is responsible for removal and disposal of the glycol, and in accordance with the applicable regulations.

# 1.5 Can the balancing be performed during regular hours or must be done after hours?

- Balancing can be performed during regular normal hours.

#### 1.6 Is there any asbestos in the building?

- The chilled water system piping does not have asbestos. The building's designated substance report will be provided to the successful bidder for reference.

1.7

The thrust block details shown on drawing 5886-M09 are only applicable if the soil has a minimum soil bearing capacity of 100kPa. Was there a study performed to determine that the soil capacity meets this capacity?

- Yes. Geotechnical report will be provided to the successful bidder. Note, the Contractor must have a Geotechnical Engineer (Hired by Contractor) inspect and approve the bearing surfaces prior to placing concrete. The thrust blocks must also be inspected and approved by Civil Engineer (Hired by Contractor) prior to backfilling.

1.8

Specifications are calling for an independent third party Cx agent to oversee commissioning. Can you please confirm this requirement?

- Yes. We would like to have an independent 3rd party Cx agent on this project. This person/company must report directly to the Departmental Representative and cannot be under the Contractor's regular payroll (independent).

# 1.9 Can Carrier be listed as an acceptable manufacturer for the air cooled chiller?

- Carrier is not approved due to larger dimensions and clearance requirements recommended by manufacturer.





### CNRC NRC

1.10

# The fittings for the below ground chilled water piping are supplied uninsulated. Please clarify insulation requirements for buried pipe elbows.

- Yes, the fittings are uninsulated from manufacturer. The Contractor is responsible to provide insulation for fittings as per Section 23 21 13.02, article 2.2.6. See article 2.2.5 on same section for insulation requirements and refer to drawing detail 1/M09 for thickness.

# 1.11 Is there storage available onsite for the temporarily removed metal screen siding?

-Yes exterior storage is available and will be discussed with departemental representative at the kick off meeting.

#### 1.12 Are there washroom available onsite?

- No, contractor must provide a portable toilet and hand washing station.

# 1.13 We would like to request that Urecon be considered an alternate to the Perma-Pipe system specified on this project. See attached spec sheet for

\_ Proposed product is not an approved alternate to the specified pipe. The system proposed uses a tape jacket and the specified product is a seamless extruded jacket. The jacket thickness for the specified product is 100mils up to 12in diameter, the proposed jacket is 50mils up to 16in diameter.

#### 1.14 Electrical panel 'PD1' pictures



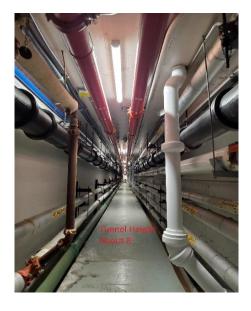




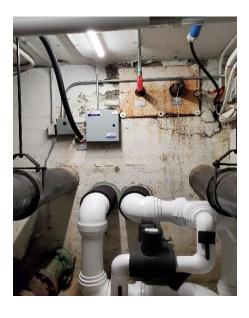


### 1.15 Tunnel pictures





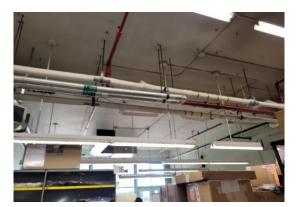




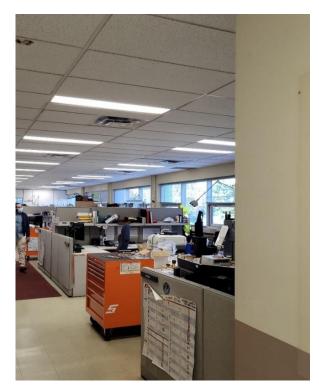
#### 1.16 Office and workshop pictures and ceiling height

Workshop and offices on ground floor have a 13' height from slab to slab. The suspended ceiling found in office on the ground floor is 11' from the floor with a 2 foot plenum.

Office space on 2nd floor have a 11' height from slab to slab. The suspended ceiling is 9' from the floor with a 2' plenum.









### CNRC-NRC

1.17

Contractor to carry a cash allowance of \$5000.00 to hire movers as required to rebalanced existing balancing valves as indicated on drawing M01 throughout the building , Contractor to provided backups (invoice) from movers , the total value will be adjusted as per invoice provided and the contract will be adjusted accordingly .(please see attached revised cost breakdown required with bids)

1.18 Attached Mandatory Attendance sheet

End.





#### National Research Council Conseil national de recherches Canada

### **COST BREAKDOWN FOR FIXED PRICE CONTRACT**

Description and location of work  U61 Chiller Replacement			Request no. 5886		Page 1 of 1
oor omner Kepiacement			Contract no.		
			% Done		
Item No.	Description	Value of Item	This period	To Date	Amount to Date
1	General Contractor / Entrepreneur Général				
2	Mobilization / Mobilisation				
3	Structural / Structure (S01,S02)				
4	Architectural / Architecture (A01,SP01)				
5	Mechanical/Mécanique Démolition				
6	Chiller / Refroidisseur				
7	Pumps and new Control valves Pompe et valve de contrôle				
8	Mechanical Piping and Fittings / Tuyauterie et Raccords Mécaniques				
9	Pipe Insulation / Calorifuge Tuyauterie				
10	Mechanical Labour / Main D'oeuvre (Mécanique)				
11	Controls / Régulation				
12	Electrical Labour / Main D'oeuvre (Électrique)				
13	Electrical (wiring, conduit and breaker) / Electrique (cablage, conduit, et disjoncteurs)				
14	Commissioning / Mise en service				
15	Balancing / Équilibrage				
16	Seismic / Seismique				
17	Demobilization Démobilisation				
18	Closeout Documents Documents de Fermeture				
19	Movers (Addendum #1_Item_1.17) Déménageur (Addenda #1_Item_1.17)	\$5000			

### NRC-CNRC

### Mandatory Site Visit Attendance / Visite de chantier obligatoire

Page #

Project Description / Description de projet					Closing Date / Date de fermature		
	October 21st 2021	2:00 PM					
Solicitation No./N° de solicitation		Project N	Project No./No de projet				
	21-58061	5886		October 6 2021 12:00			
Departmental Representative / représentant		Signature	Alternate / Substituts	Question	2nd Showing / 2ieme visite		
Benoit Huot			October 12th 2021	October 14th 2021	October 8 20211	12:00 AM	
COMPANY/ENTREPRENEUR	NAME/NOM	SIGNATURE	PHONE/TELEPHONE		EMAIL/COURRIEL		
Gannon Blackburn	Corey Lees	October 6th	613-859-2653	clees@gbeinc.ca			
Baxtec	Alain Routhier	October 6th	613-738-7450				
Climate Works	Brett Reid	October 6th	October 6th 613-297-4091		breid@climateworks.ca		
Thompson boiler works	Claude Turpin	October 6th	613-227-8893	estimating@thompsonboilerworks.ca			
TPH	Kevin McNeil	October 6th	613-979-2038	kevinmcneil@tphinc.ca			
Seamless Mechanical	Nicolas Vinette	October 8th	613-406-9324	nick@seamlessmech.com			
Black & McDonald	Calum Mackay	October 6th	tober 6th 613-407-4912 cr		nackay@blackandmcdonald.com		
Richie's Welding	Daniel Akat	October 8th	613-909-4157	daniel@ritchieswelding.ca			
Modern Niagara	Jason Chapman	October 8th	613-223-8627	jason.chapman@modernniagara.com			
Carleton electric	Mark Conrad	October 8th	613-880-2260	mconrad@carletonelectric.com			
F.trottier	Hamid Zeghoud	October 8th	613-745-8688	Gabrielle@trottier.ca			
TPH	Kevin McNeil	October 8th	613-979-2038	kevinmcneil@tphinc.ca			
McNolty	Chris Smith	October 8th	613-668-8573	chris@mcnolty.ca			
Century	Greg Lundy	October 8th	613-726-1539	g	glundy@centurymechanical.com		
Plan Group Inc	Jacob Thomas	October 8th	613-797-6900		jacthomas@plan-group.com		

