



**Addendum #1**

**Invitation To Tender**

**ITT 01-20 Strathcona Gardens Energy Efficiency Upgrade Project – Air Handling Units.**

**Issued March 13, 2020**

The Strathcona Regional District (SRD) wishes to issue the following Addendum to its “Invitation to Tender – ITT 01-20 Strathcona Gardens Energy Efficiency Upgrade Project – Air Handling Units”.

The SRD is providing technical clarification to the design (see additional pages).

If you have any questions concerning this Addendum or ITT, please email [procurement@srd.ca](mailto:procurement@srd.ca).

Please sign below, acknowledging receipt of this Addendum and return this document with your submission to the ITT. If submitting multiple responses, please include a copy with each submission.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Firm

\_\_\_\_\_  
Name and Title (Print)

\_\_\_\_\_  
Date

*The following addendum supersedes information contained in drawings and specifications issued for the project to the extent referenced. This Addendum forms part of the Tender Documents and is subject to all of the conditions set out in the contract conditions.*

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## 1. CLARIFICATIONS

- .1 **Question:** Regarding Section 23 01 31, Part 2.1 – Is there a list of Approved Manufacturers?
  - .1 **Answer:** No acceptable manufacturer section currently. As discussed during walkthrough, Contractors are free to submit proposed alternate manufacturers, completed with supporting data indicating they are equal and references of previous projects that used the equipment.
- .2 **Question:** Insulation – Note 3 on Drawing M5 mentions throughout the complete run. Exterior/Interior? Specification mentions Exterior piping only.
  - .1 **Answer:** Drawing M5, Note #3 – insulation on existing hydronic piping. Exterior piping to be insulated per specification. Interior heat pump piping does not require insulation at this time.
- .3 **Question:** HPS/R piping branch lines to each new AHU. Pipe support sleepers, do we use the Detail 3/M8 or Detail 5/M8.
  - .1 **Answer:** Drawing M8, details 2 and 3 are to be where support is replacing existing (making use of existing roof penetrations). Detail 5 is to be for new supports, where required, to minimize/eliminate any new roof penetrations. Contractor to provide a unit price to provide support per Detail 2 and 3 to allow for a situation identified during construction where it would be required in lieu of the Detail 5 sleeper.
- .4 **Question:** Piping material to each new AHU. Sch80 PVC to pump enclosures?
  - .1 **Answer:** Heat pump hydronic piping to be schedule 80 PVC throughout. High temperature hydronic piping (i.e. from boiler plant) to be steel per specifications.
- .5 **Question:** New pump line sizes?
  - .1 **Answer:** Pipe sizes and connection sizes to mains to be as follows:
    - .1 AHU-3-2020 – 50mm
    - .2 AHU-4-2020 – 65mm
    - .3 AHU-5-2020 – 75mm
    - .4 DH-2-2020 – 100mm
    - .5 P-202-2020 – 150mm
    - .6 P-203-2020 – 100mm
- .6 **Question:** Connection for the P-203-2020 to boiler loop? Is the connection through a heat exchanger in the boiler room above?
  - .1 **Answer:** Connection through P-203-2020 to boiler loop is not through a heat exchanger. This is why the chemical treatment of the fluid in the existing heat pump piping, plus any added fluid to the system, needs to match the existing chemical mix in the existing boiler loop fluid.
- .7 **Question:** Is Separate Price #1 the work associated with AHU #3?
  - .1 **Answer:** Paragraph G – Separate Prices, Separate Price #1 is to have the same wording as #2 and #3, except for AHU-03 and AHU-03-2020.

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.8 **Question:** Please confirm the thickness of pipe insulation – is it 5” thick for the roof piping and new HWS/HWR?

.1 **Answer:** Insulation thickness on external piping is to be 5” per specification.

## 2. ATTACHMENTS

.1 Refer to attached email regarding the Propylene Glycol Test Results from Share Canada.

**END OF TENDER ADDENDUM NO. 1**

## Rachel Turner

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**From:** Brandon Manderson <Brandon@canwestmechanical.com>  
**Sent:** Monday, March 2, 2020 11:01 AM  
**To:** Wolfgang Parada; Cassidy Taylor  
**Subject:** Fwd: Strathcona Gardens Propylene Glycol Test July 16, 2019

FYI.

Sent from my iPhone

Begin forwarded message:

**From:** Richard Harnish <rharnish@sharecanada.ca>  
**Date:** July 16, 2019 at 7:25:26 PM PDT  
**To:** Brandon Manderson <Brandon@canwestmechanical.com>  
**Subject: Strathcona Gardens Propylene Glycol Test July 16, 2019**

Hi Brandon,

Here's my results from the P. Glycol test done today at the Strathcona Gardens Recreation Center.

PH, 7.0-7.5  
Conductivity, 2700mhos  
P. Glycol, -4c temp, ~12% PG/Vol  
Sample was nicely clear, no sediment.

Not sure if there is any Inhibitor present in this Glycol at all.

The PH is low compared to the Conductivity reading.

A low PH suggests there's no Inhibitor present but the Conductivity level would suggest that there maybe some. If no Inhibitor is present then the Conductivity is on the higher side and I'm not sure why. Its below 3000mhos for a closed loop with Inhibitor so it's not alarming but I'd still suggest it be watched.

Can you find out if it was Inhibited Propylene Glycol used here and if it was, what is the Inhibitor ? I'd suggest a Nitrite or Phosphate Inhibitor be used.

The PGlycol is definitely low...not sure what the Temperature Spec is on this loop (I didn't provide the PGlycol) but typically it's usually at least over -10c...and to -20c is not unusual.

Let me know if I can be of anymore assistance.

Best regards,

Richard Harnish,  
**Share Canada**  
Duncan, BC  
1-250-732-3328-c