



## PROCUREMENT SERVICES

CITY OF SURREY, SURREY CITY HALL  
13450 – 104 Avenue, Surrey, B.C., V3T 1V8  
Tel: 604-590-7274  
E-mail: [purchasing@surrey.ca](mailto:purchasing@surrey.ca)

### ADDENDUM No. 1

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REQUEST FOR QUOTATIONS (RFQ) No.: 1220-040-2022-026

TITLE: Cloverdale Arena Chiller and Condenser Replacement

ADDENDUM ISSUE DATE: April 21<sup>st</sup>, 2022

DATE: PREFER TO RECEIVE QUOTATIONS ON OR BEFORE April 25<sup>th</sup>, 2022.

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### INFORMATION FOR CONTRACTORS

Contractors are advised that Addendum No. 1 to 1220-040-2022-026 is hereby issued by the City. This addendum shall form part of the contract documents and is to be read, interpreted and coordinated with all other parts. The following information is provided to answer questions raised by Contractors for the above-named project, to the extent referenced and shall become a part thereof. No consideration will be allowed for extras due to the Contractors or any sub-contractor not being familiar with this addendum. This Addendum No. 1 contains four (4) pages.

### QUESTIONS AND ANSWERS:

**Q1.** Will bypass be required on the new Cold pump and Condenser fan VFD's?

**A1.** The bidders are to provide a separate optional price for a starting bypass on each of the VFD's for the brine pump and the condenser fan.

**Q2.** Please confirm whether the existing glycol compressor cooling circ. pump is in fact to be retained as is?

**A2.** The existing glycol pump for compressor oil cooling is to be replaced with a new pump and starter. The existing pump is to be turned over to the Owner.

**Q3.** The ammonia and secondary coolant relief systems have been updated this year to current standards under a separate contract. Please confirm that only the valves and branch connections from the new equipment, to the existing piping, are now only the scope of work.

**A3.** The valves and branch connections from the new equipment to the existing piping, are in the scope of work.

**Q4.** Please confirm that the new condenser is to remain mounted on steel beams on the existing concrete slab, similar to as is now.

**A4. The steel beams for the new condenser can be reused if they match the base size and height required for the new condenser. The bidder must include any modifications to the condenser base steel beams required for the new condenser. Professional review of the seismic attachment is also required.**

**Q5.** Can you advise the expected award date of the contract?

**A5. The City will not be providing this information at this time.**

**Q6.** Can the specified schedule can be extended? Between equipment lead times, shipping and installation, it does not look like the initially specified schedule can be met.

**A6. The City would not like to change the schedule at this time and would like contractors to meet this timeline if possible. However, if this is not feasible in current market circumstances, the City is willing to make accommodations.**

**Q7.** Is a new underfloor heating pump required?

**A7. A new underfloor heating pump and starter is required.**

**Q8.** Are brine tests available?

**A8. Current brine tests are included at the end of this addendum as Attachment 1.**

**Q9.** Are check lights required?

**A9. Check lights are to be provided for the heat tracing on the condenser water lines and pan heater.**

**Q10.** Are new oil separators required?

**A10. The bidders are to provide separate optional pricing for new oil separators for each compressor. The new separators are to be supplied with replaceable, coalescing elements, and new stop and check valves.**

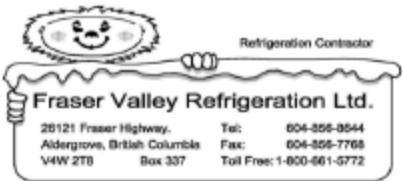


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**All Addenda will become part of the Contract Documents.**

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**- END OF ADDENDUM -**

- 3 -  
ATTACHMENT 1 – BRINE TESTS

Brine/Glycol Sample Report(s)		91																					
Customer	SURREY-CLOVERDALE ARENA	 <p style="font-size: small;">Refrigeration Contractor</p> <p><b>Fraser Valley Refrigeration Ltd.</b></p> <p>28121 Fraser Highway, Tel: 604-856-8644  Aldergrove, British Columbia Fax: 604-856-7766  V4W 2T8 Box 337 Toll Free: 1-800-661-5772</p>																					
Attention	ADAM BEAMER																						
Fax / email	<a href="mailto:abeamer@surrey.ca">abeamer@surrey.ca</a>																						
Report Date	December 3, 2021																						
CC	<a href="mailto:sbducic@surrey.ca">sbducic@surrey.ca</a>																						
		WO ID REF #	109375																				
<b>SEMI-ANNUAL TESTING</b>																							
		PAGE: 1 of	2																				
<p><i>Please find attached the results of the recent lab tests for the samples recently taken at your plant.</i></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%; text-align: left; font-size: small;">DESCRIPTION</th> <th style="width: 15%; text-align: left; font-size: small;">TYPE</th> <th style="width: 30%;"></th> <th style="width: 40%;"></th> </tr> </thead> <tbody> <tr> <td style="padding-top: 10px;"> <b>Sample ==&gt;&gt;</b>  <b>COLD FLOOR</b>  SAMPLED 30-Sep-21  <i>Previous 24-Feb-21</i> </td> <td style="vertical-align: top; padding-top: 10px;"><b>BRINE</b></td> <td style="vertical-align: top; padding-top: 10px;"><b>NHL SIZE</b></td> <td style="vertical-align: top; padding-top: 10px;">10000 LITERS</td> </tr> <tr> <td colspan="4" style="padding-top: 10px;"> <b>Results ==&gt;&gt;</b>  <b>Comments</b> Very good results ! No adjustments necessary.  <hr/><hr/><hr/><hr/> </td> </tr> <tr> <td style="padding-top: 10px;"> <b>Sample ==&gt;&gt;</b>  <b>HEAT FLOOR</b>  SAMPLED 30-Sep-21  <i>Previous 24-Feb-21</i> </td> <td style="vertical-align: top; padding-top: 10px;"><b>BRINE</b></td> <td style="vertical-align: top; padding-top: 10px;"><b>NHL SIZE</b></td> <td style="vertical-align: top; padding-top: 10px;">3300 LITERS</td> </tr> <tr> <td colspan="4" style="padding-top: 10px;"> <b>Results ==&gt;&gt;</b>  <b>Comments</b> Very good results ! No adjustments necessary.  <hr/><hr/><hr/><hr/> </td> </tr> </tbody> </table>				DESCRIPTION	TYPE			<b>Sample ==&gt;&gt;</b> <b>COLD FLOOR</b> SAMPLED 30-Sep-21 <i>Previous 24-Feb-21</i>	<b>BRINE</b>	<b>NHL SIZE</b>	10000 LITERS	<b>Results ==&gt;&gt;</b> <b>Comments</b> Very good results ! No adjustments necessary. <hr/> <hr/> <hr/> <hr/>				<b>Sample ==&gt;&gt;</b> <b>HEAT FLOOR</b> SAMPLED 30-Sep-21 <i>Previous 24-Feb-21</i>	<b>BRINE</b>	<b>NHL SIZE</b>	3300 LITERS	<b>Results ==&gt;&gt;</b> <b>Comments</b> Very good results ! No adjustments necessary. <hr/> <hr/> <hr/> <hr/>			
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NEXT SAMPLING DATE REQUIRED :		@ 6 MONTH INTERVAL ==>	March 29, 2022																				
This Site Sampling Frequency is set up to be :		<b>EVERY 6 MONTHS OR TWICE IN A YEAR</b>																					
<p><i>A summary of chemicals required is provided below based on Lab Analysis report ( attached ). The original copy of the Lab Report will be mailed together with the invoice. Please let us know if you need us to supply any of the chemicals or we can bring them up to you on our next service maintenance to your facility. Let us know your preference and we will schedule delivery.</i></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><i>Remember - discontinue Filtering for 2-3 weeks after adding chemicals ! After that continue filtering as usual and keep an eye on filtering.</i></p> <p>Sincerely yours, </p> <p><i>for Fraser Valley Refrigeration</i></p> <p><b>Mike Ambrosio, A.Sc.T.</b>  ph 604-856-8644  cell 778-875-9800</p> <p style="text-align: center;">   <a href="mailto:mikea@frvri.com">mikea@frvri.com</a> </p> </div> <div style="width: 50%;"> <p><b>SUMMARY OF CHEMICALS:</b></p> <p>___ BAGS 94-97% BRINE PELLET</p> <p>___ LBS - DRY CAUSTIC</p> <p>___ 20L PAILS - Z5750 INHIBITOR</p> <p>___ LITERS - AMSCAV</p> <p>___ LITERS PROP. INHIBITOR Z-PGIN</p> <p>___ LITERS ETH. INHIBITOR Z-EGIN</p> <p>___ LITERS OF INHIBITED PROPYLENE GLYCOL (STANFROST)</p> <p>___ LITERS OF INHIBITED ETHYLENE GLYCOL (STANCOOL)</p> <p>___ LITERS Z-ph Boost</p> </div> </div>																							



**Zeotec Limited**  
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**REPORT OF CALCIUM CHLORIDE BRINE ANALYSIS**

Customer Name: Fraser Valley Refrigeration	Date: December 3, 2021
Address: 26121-Fraser Highway, Box 337, Aldergrove B.C. V4W 2T8	Attention: Mike Ambrosio
Phone: 604-856-8644	cc:
Fax: 604-856-7768	E-mail: <a href="mailto:mikea@fvrl.com">mikea@fvrl.com</a>
	Reference: Cloverdale Arena CFHF
	P.O.: 22366

CONSTITUENT	C.F.	H.F.	Control Range
Sample Date	September 30, 2021	September 30, 2021	
Appearance	Yellow/Clear	Yellow/Clear	Clean/Clear
Visible Solids	< 30 ppm	< 30 ppm	< 30 ppm
Specific Gravity	1.20	1.17	1.20 Min.
% Calcium Chloride	21.5	18.6	21.5% Min
Freezing Point (°C)	-21.00	-15.60	-5.0 °F or -20.5 °C Min
Visible iron	< 30 ppm	< 30 ppm	< 30 ppm
Complex Phosphate Inhibitor (cPO <sub>4</sub> )	22 ppm	23 ppm	20/30ppm cPO <sub>4</sub> at 1.2% Z-5750
pH	9.09	10.20	8.50 to 9.50
Dissolved iron	15 ppm	< 10 ppm	< 10 ppm
Ammonia (NH <sub>3</sub> )	0 ppm	0 ppm	0 ppm (SM4500-NH <sub>3</sub> )

**FINDINGS & RECOMMENDATIONS**

**Cooling Floor:** pH is good at 9.09.  
Visible solids are good at < 30 ppm.  
cPO<sub>4</sub> is good at 22 ppm.

**Heating Floor:** pH is high at 10.20.  
Visible solids are good at < 30 ppm.  
cPO<sub>4</sub> is good at 23 ppm.

1977 to 2021 - 44 Years of Service

Kristofer Bacon, Chemical Technologist

WATER MANAGEMENT CHEMICALS \* EQUIPMENT \* ENGINEERING AND LABORATORY SERVICES