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The following changes to the tender documents are effective immediately and will form part of the contract documents:

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**CLARIFICATIONS:**

Per addendum 1: RFE: In the Consultants opinion it would not be necessary to apply for an equal for Distech Control products because they have already been implicitly specified (per G115), by specifying BSD (Building Systems Design Ltd.) as an acceptable Controls Supplier/Contractor. This review does not relieve the Controls Contractor from the responsibility to appropriately apply the various Distech products to meet the intent of the Control Specifications (per 259001-1.1 and others).

#	<b>Contractor's Question</b>	<b>Consultant's Response</b>
1	<p>I cannot find a list of valve sizes for replacement on this tender?                      I have the hydronic heating valves that are asked to be changed no details, also no pipe sizing and run length.</p>	<p>A valve schedule has not be provided, but the entire hydronic heating system piping layout is shown on M2.1, M2.2 &amp; M2.3 in the "<i>Existing Heating Piping Layout with New Controls</i>" plan that is on each of those drawings. That plan shows:</p> <ol style="list-style-type: none"> <li>1. the approximate location of the existing control valves that need to be changed</li> <li>2. the approximate location of the existing shut-off valves that serve the control valves</li> <li>3. the approximate location of the hydronic heating mains complete with pipe sizes.</li> <li>4. The approximate location of all hydronic system thermostats, heaters and their heating capacity. Flow rates are based on a 20°FΔT for a 50/50 propylene/distilled water solution.</li> </ol> <p>The existing "as-built" control shop drawings are in Appendix "A" They show the existing control valve size and part number. These valves are to be replaced with new modulating control valves.</p> <p>Also the original balance report showing the hydronic heating system balancing/flow rates is in Appendix "E".</p> <p>Please use this information to select/price the new modulating control valves that will replace the existing control valves.</p>

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#	<b>Contractor's Question</b>	<b>Consultant's Response</b>
1	Will internet service be available for BMS system to connect to for remote access?	No. Per 259001-1.1.3 a modem is the preferred remote connection method for security reasons.
2	When is the expected award of this project? Timing is a crucial for determining shipping options.	It is anticipated the award will be issued the last week of May, 2018.
3	Is there a reflected ceiling plan for the building	<p>No a reflected ceiling plan is not available, but the ceilings are:</p> <ol style="list-style-type: none"> <li>1. <u>Basement</u>: No ceiling everything is exposed.</li> <li>2. <u>Main Floor</u>: Mostly T-bar ceiling throughout except for a raised-coffered drywall ceiling in the center of the Main Floor Lobby that is surrounded by T-bar.</li> <li>3. <u>Second Floor</u>: Basically just T-bar.</li> </ol> <p>In general we are not anticipating any great difficulty with gaining access to either the valves or the Low Pressure By-pass boxes in the ceiling spaces. It is anticipated that access will generally be thru a T-bar ceiling.</p>
4	Can construction waste (e.g. old sensors, wiring, etc.) be disposed of on site? What options are there for site disposal?	Confirm with the Town of Churchill.
5	Can the existing heating system working fluid (e.g. 50/50 propylene glycol mixture) be re-used?	No the existing heating system working fluid (glycol) cannot be reused. It also needs to be properly and safely disposed of in manner approved by the Local Authority Having Jurisdiction.
6	Will BACnet over ZigBee wireless communication be acceptable? The project specification refers to ASHRAE 135 "BACnet: A Data Communication Protocol for Building Automation and Control Networks", and BACnet over ZigBee is documented in ASHRAE 135-2016 as an acceptable form of BACnet communication. See attached Trane Air-Fi information. We feel wireless communication will greatly reduce the installation cost, both in terms of install time and material transportation costs.	No. Wireless communication is not acceptable.
7	Section 25 08 20 EMCS – Warranty and Maintenance refers to service personnel be on site to service EMCS within 3 hours of receiving service request; this is not possible with the remote location of the job.	This can be changed to something more realistic like 1 to 3 days.

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8	Section 25 08 20 EMCS – Warranty and Maintenance outlines 2 minor and 1 major inspection per year – is this for only the first year? Should a service contract be priced separately?	Yes this is just for the first year warranty period. A service contract is outside the scope of the specification.
9	Section 25 10 02 – EMCS – Operators Work Station indicates a new workstation and printer for the BMS system. New controllers do not necessarily require dedicated computers, as their interface software resides in the controller as well. Is there an existing workstation that could be repurposed instead of supplying new?	No there is not an existing workstation that could be reused. The intent is to have a new workstation to accommodate long term data logging for system performance monitoring and tuning.
10	Section 25 10 02 – EMCS – Operators Work Station indicates AutoCAD to be installed on workstation. Is this required?	Yes.

- end addendum 2 -