CITY OF VANCOUVER

CITY CLERK'S DEPARTMENT
Access to Information & Privacy

File No.: 04-1000-20-2020-058

March 2, 2020

s.22(1)

Dear s.22(1)

Re: **Request for Access to Records under the Freedom of Information and Protection of Privacy Act (the "Act")**

I am responding to your request of January 20, 2020 for:

> **RFP and outline of work contract for construction of Kitsilano Community Centre whirlpool slated to commence December 2019. Date Range: August 1, 2019 to January 22, 2020.**

All responsive records are attached.

Please note we were informed by the Manager of Energy and Utilities that the document that outlines the work associated with the whirlpool recommissioning project is a Contemplated Change Notice that is under an existing contract with the mechanical contractor who is already working on a larger mechanical upgrade project at the site.

Under section 52 of the Act you may ask the Information & Privacy Commissioner to review any matter related to the City's response to your request. The Act allows you 30 business days from the date you receive this notice to request a review by writing to: Office of the Information & Privacy Commissioner, info@oipc.bc.ca or by phoning 250-387-5629.

If you request a review, please provide the Commissioner's office with: 1) the request number assigned to your request (#04-1000-20-2020-058; 2) a copy of this letter; 3) a copy of your original request for information sent to the City of Vancouver; and 4) detailed reasons or grounds on which you are seeking the review.

Please do not hesitate to contact the Freedom of Information Office at foi@vancouver.ca if you have any questions.

Yours truly,

Cobi Falconer, Acting Director, ATIP,

Barbara J. Van Fraassen, BA
Director, Access to Information & Privacy
Barbara.vanfraassen@vancouver.ca
453 W. 12th Avenue Vancouver BC V5Y 1V4

*If you have any questions, please email us at foi@vancouver.ca and we will respond to you as soon as possible. Or you can call the FOI Case Manager at 604.871.6584.

Encl.

:kt

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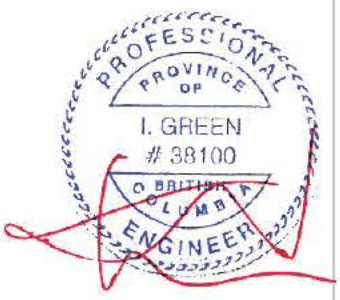
Contemplated Change Notice

Project Name	Kitsilano Mechanical Upgrade
Project #	2015029
CCN No.	M6
Prepared By	JoC
Reason for Change	Recommissioning of Whirlpool
Date CCN Issued	June 12, 2019
Response Requested:	June 30, 2019



Engineer Seal

This Contemplated Change Notice forms part of the contract documents and is to be read, interpreted and co-ordinated with all other parts. Work related to this Contemplated Change Notice shall not proceed until written authorization is issued. Provide a detailed breakdown of the additional cost or savings including, material costs, labour times and rates, along with all applicable taxes, permits, licensing fees, bonding, and any additional costs as may be affected by this change.

GENERAL

Modifications to the existing drawings under this contemplated change notice are enclosed in drawing Rev Clouds marked with triangles #1.

Provide shall mean supply, install and commission where applicable.

1. GENERAL - REPLACE PUMP P-5 ICE RINK BOILER ROOM

1.1 Replace existing pump P 5 with new pump as per equipment schedules on new drawing M 11. Select pump to match flange size of existing pump.

2. DRAWING M-2.1 ICE RINK PARTIAL PLAN – AREA 1

2.1 Provide mechanical room refrigerant ventilation system in the new rink mechanical room.

3. DRAWING M-3.0 COMMUNITY CENTRE LOWER FLOOR

3.1 Provide hot water supply, return and recirculation piping in community center.

3.1.1 Whirlpool

3.1.1.1 Replace existing HW supply and return piping with new 2 ½" dia. Piping from mechanical room to whirlpool heat exchanger in whirlpool mechanical room.

320 - 3605 Gilmore Way, Burnaby, BC V5G 4X5 main: 604 298 4858 toll free: 888 724 1715 prismengineering.com

3.1.2 Combination shower / eyewash station

3.1.2.1 Replace existing DHW, DCW and DHW recirculation piping with new 1 ½“ dia. DCW supply, 1 ½” dia. DHW supply and ¾” dia. DHW recirculation piping from mechanical room to new combination shower / eyewash station in whirlpool mechanical room.

3.1.2.2 Existing piping layouts not indicated on drawing. Mechanical contractor to inspect site to determine existing piping run and route new piping.

4. DRAWING M-3.2 C.C. UPPER FLOOR MECH PLAN – DEMO

4.1 Remove vent duct from ground level to ceiling level of mechanical room and cap off upper duct.

5. DRAWING M-3.3 C.C. UPPER FLOOR MECH. PLAN – NEW

5.1 Layouts are provided in this drawing, schematic and details provided in drawing M 4.3.

5.1.1 Provide DHW connections to T 3.

5.1.2 Replace HW connections from Whirlpool to T 3.

5.2 Combination showers / eyewash station

5.2.1 Replace existing piping as described in 3.1.2.1.

5.3 Relocate existing electrical panel, location to be determined on site with operations staff.

6. DRAWING M-4.3 COMMUNITY CENTRE HEATING SYSTEM SCHEMATIC

6.1 DHW heating connections to T 3

6.1.1 Provide all supply and return piping, piping components, two pumps (DHWP 2, DHWP 3) and heat exchanger HX 4 as per equipment schedules on new drawing M 11.

6.2 HW connections from Whirlpool to T 3

6.2.1 Replace existing piping as described in 3.1.1.1.

6.2.2 Provide supply and return piping, piping components and pump P2.1 as per equipment schedules on new drawing M 11.

7. DRAWING M-10 COMMUNITY CENTRE WHIRLPOOL SCHEMATIC AND FLOOR PLAN

7.1 New Drawing

8. DRAWING M-11 COMMUNITY CENTER WHIRLPOOL EQUIPMENT SCHEDULES

8.1 New Drawing

9. ELECTRICAL SPECIFICATION

9.1 Provide electrical connections for pumps as follows:

Tag	-	P-WP-JET	P-WP-FILTER	P-2.1	DHWP-2	DHWP-3	P-5
Service	-	C.C. Whirlpool jet circuit	C.C. Whirlpool filter and heating circuit	Source side pump to Whirlpool HX-5	Load side pump to DHW HX-4	Source side pump to DHW HX-4	Heat recovery from Arena desuperheater
Location		C.C. Whirlpool mech room	C.C. Whirlpool mech room	C.C. Boiler Room	C.C. Boiler Room	C.C. Boiler Room	Arena Boiler Room
Motor	hp (W)	7.5	4.3 (3,200)	1.05 (772)	0.4 (265)	0.4 (265)	frac (97)
Electrical	V/ph/Hz	208/3/60	208/1/60	115/1/60	115/1/60	115/1/60	115/1/60
Wiring	-	3 #10 + #12 Grn Grd	2 #10 + #12 Grn Grd	2 #12 + #12 Grn Grd	2 #12 + #12 Grn Grd	2 #12 + #12 Grn Grd	2 #12 + #12 Grn Grd
Conduit	in	1	1	3/4	3/4	3/4	3/4
Switch & Starter	-	60A 208V 3P Unfused	30A 208V 2P Unfused	30A 120V 1P Unfused	30A 120V 1P Unfused	30A 120V 1P Unfused	30A 120V 1P Unfused
Breaker	-	60A 3P	20A 2P	15A 1P	15A 1P	15A 1P	15A 1P

10. MECHANICAL SPECIFICATIONS – SECTION 25 90 01 EMCS SEQUENCES OF OPERATION

10.1 Whirlpool Heating

10.1.1 General

10.1.1.1 Whirlpool heating shall operate according to Whirlpool weekly schedule.

10.1.2 Occupied Mode

10.1.2.1 Pump P 2.1 shall be enabled.

10.1.2.2 The pump shall operate and the speed shall be based on a control loop output that maintains the whirlpool supply water temperature (measured by sensor TS 23) at the adjustable occupied setpoint of 42°C.

10.1.2.3 The minimum pump speed shall be 20%.

10.1.2.4 Pump P 2.1 shall be switched off when Whirlpool return water temperature (TS 22) > setpoint + 1°C and be switched on when TS 22 = setpoint.

10.1.3 Unoccupied Mode

10.1.3.1 Pump P 2.1 shall be controlled as per occupied mode control to maintain the adjustable unoccupied setpoint of 30°C.

10.1.4 Warmup Mode

10.1.4.1 Provide an option for automatic warmup mode in the weekly schedule.

10.1.4.2 Pump P 2.1 shall be enabled and run continuously at 100% speed until TS 22 achieves the occupied setpoint, where warmup mode shall be disabled and occupied mode is enabled.

10.1.5 Operator Alarm

10.1.5.1 Provide an operator alert when pump P 2.1 status in on and TS 22 > 47°C (fixed).

10.2 Whirlpool Filter Pump

10.2.1 Pump P WP FILTER shall operate continuously.

10.2.2 Provide an operator alarm during P WP FILTER status is off.

10.3 Whirlpool Jet Pump

10.3.1 Repurpose one of the emergency push buttons in the whirlpool room as a switch to provide an enable command for P WP JET. Provide lamacoid label above button labelled 'Jet Pump'.

10.3.2 Pump P WP JET shall start and run for 15 minutes (adjustable) when switch is activated.

10.3.3 Provide an operator alarm during P WP JET command / status mismatch.

10.4 Whirlpool emergency push button

10.4.1 Inspect and review existing emergency push button installed in the whirlpool room for function and replace with code compliant button if required.

10.4.2 When activated, Whirlpool emergency (panic) push button shall:

10.4.2.1 De energize pump P WP JET via DDC.

10.5 Community Center DHW Heating

10.5.1 General

10.5.1.1 The Community Center DHW Heating shall operate according to the Community Center's weekly schedule.

10.5.1.2 Create a 'DHW Heating HR' variable to indicate sufficient capacity for DHW heating via heat recovery.

10.5.1.3 The 'DHW Heating HR' variable shall be enabled when:

10.5.1.3.1 HRC 2 is enabled; and

10.5.1.3.2 TS 16A (HRC evaporator entering water temperature) is above 16°C (setpoint) + 1°C (deadband).

10.5.1.4 The 'DHW Heating HR' variable shall be disabled when:

10.5.1.4.1 HRC 2 is disabled; or

10.5.1.4.2 TS 16A is below 16°C (setpoint) 1°C (deadband).

10.5.1.5 DHWP 2 and DHWP 3 sequence

10.5.1.5.1 Both pumps shall operate together and the speed shall be based on a control loop output that maintains tanks T 4 and T 5 at the adjustable 'CC DHW heat recovery' setpoint.

10.5.1.5.2 The minimum pump speed shall be 20%.

10.5.1.5.3 Both pumps shall be switched off when tanks T 4 and T 5 are at setpoint for more than 5 minutes and switched on when tanks T 4 and T 5 are 2°C below setpoint.

10.5.2 Occupied Mode

10.5.2.1 The 'CC DHW heat recovery' setpoint shall be set to 50°C.

10.5.2.2 When 'DHW Heating HR' is enabled:

10.5.2.2.1 DHW Boiler B 1 and DHWP 1 shall be disabled.

10.5.2.2.2 Pumps DHWP 2 and DHWP 3 shall be enabled.

10.5.2.3 When 'DHW Heating HR' is disabled:

10.5.2.3.1 DHWP 2 and DHWP 3 shall be disabled.

10.5.2.3.2 DHW Boiler B 1 and DHWP 1 shall be enabled.

10.5.2.4 If T 4 and T 5 tank temperature < 40°C (adjustable) for more than 5 minutes:

10.5.2.4.1 DHWP 2 and DHWP 3 shall stop; and

10.5.2.4.2 DHW Boiler B 1 and DHWP 1 shall be enabled until tanks temperature is 60°C (fixed) for 10 minutes (fixed).

10.5.3 Unoccupied Mode

10.5.3.1 Pumps DHWP 2 and DHWP 3 shall be off.

10.5.3.2 Enable DHW Boiler B 1 and DHWP 1 for 90 minutes between 3 am and 4:30 am.

10.6 Graphic Screens

10.6.1 Revise and/or provide new existing graphic screens to portray the revised system topology including all relevant existing points and all new heating plant control points and setpoints, including:

10.6.1.1 Whirlpool mechanical systems including jet circuit and filter / heating circuit

10.6.1.2 Community Center Domestic Hot Water revisions

11. MECHANICAL SPECIFICATIONS – SECTION 25 30 03 POINTS LIST

11.1 DDC Points List

11.1.1 New points list under CCN No. M6 as follows.

Building	System	Point Description	Tag	Comment
KitsCC	Whirlpool Jet Pump	Pump P-WP-JET Status		
		Pump P-WP-JET Enable		
		Whirlpool Jet Pump Override Button		Re-use two existing Whirlpool emergency push-button. For emergency push-button retain audio alarm in reception.
		Whirlpool Emergency Pushbutton		
	Whirlpool Filter Pump	Pump P-WP-FILTER Status		
	Whirlpool Heating Pump	Pump P-2.1 Enable		
		Pump P-2.1 Speed Control		
		Pump P-2.1 Status		
	Domestic Hot Water Load Side Pump	Pump DHWP-2 Enable		
		Pump DHWP-2 Speed Control		
		Pump DHWP-2 Status		
	Domestic Hot Water Source Side Pump	Pump DHWP-3 Enable		
		Pump DHWP-3 Speed Control		
		Pump DHWP-3 Status		
	Domestic Hot Water Heat Exchanger, HX-4	HX-4 Load Side EWT	TS-23	
		HX-4 Load Side LWT	TS-24	
	Whirlpool Heating	Whirlpool Water Return Temperature	TS-21	
		Whirlpool Water Supply Temperature	TS-22	

END OF CCN No. M6