



MCW Consultants Ltd.

Site Instruction

Date: June, 13, 2016

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Project Name: AQUAVISTA - Bayside
Client: TRIDEL Corporation
To: TRIDEL Corporation
Attention: Chadi Loza
Fax number: -

Project No.: 8489D
ADD No.: E 002
Page No.: 1 of 1+ 4 Attached
Office: Toronto
From: Sunanda Perera
Tao Li

Distribution: Vince Mirarchi –TRIDEL
Chadi Loza - TRIDEL
Christina Lee -KIRKOR
Al Medeiros –MCW
Michael Hunter-MCW
Mark Furtado-MCW
Sarfraz H. Jaffrey-MCW

Provide itemized labour, equipment and material costs for Work listed below. Do not proceed with any of the listed Work prior to issuance of signed Change Order.

Title: MUAR-1 additional power feeds.

Specification:

Spec	Issued	Items
Panel Schedule '61MCRM' and '21MCRM'	Yes	- Panel schedule 61MCRM- Circuit 32,34,36 to be read as "Make up Air Unit MAUR-1 Exhaust Fan" - Add 20A single pole breaker in panel '21MMCRM' to feed Make Up Air Unit MAUR-1 Heat wheel.

Electrical:

Drawing No.	Drawing Issued	Items
E2-02A	No	Add two additional power connections for MURA-01. Refer to panel schedule.

ME Schedule:

Drawing No.	Drawing Issued	Items
ME-31	Yes	Circuit description and the Motor capacity updated as shown.

All the changes have been bubbled. Refer to the issued drawings for complete changes under this SI.

Reason for Issue- Mechanical Coordination.

End of SI-E002

PANEL SCHEDULE

120/208 VOLTS

3 PHASE 4 WIRE

200 AMP MAINS

MLO MAIN BREAKER

JOB NUMBER: 8489D

JOB NAME: Aquavista

200 AMP MAINS						21MCRM			JOB NAME: Aquavista					
MLO MAIN BREAKER						LOAD PER PHASE			CCT. NO.	BRKR SIZE	WATT / FIXT.	# OF FIXT.	# OF REC.	DESCRIPTION
DESCRIPTION	# OF REC.	# OF FIXT.	WATT / FIX.	BRKR SIZE	CCT. NO.	a	b	c						
Boiler HBR-01				15	1a	432			2a	15				Unitary DX Fan Coil Unit ACR-02
						1320			4b					
Boiler HBR-02				15	3b		432							
							1320		6c					
Fan EFR-01, 02				20	5c			432						
								500	8a	40				Air Cooled Condenser Unit ACUR-02
Fan EFR-04,06				20	7a	1992								
						500			10b					
Fan SFR-01				15	9b		1992							
							300		12c					
Force Floor Cabinet Heater EHR-01,02				20	11c			1992						
								720	14a	15				Metering
Hot Water Unit Heater UHR-01,02				15	13a		480							
									16b					
Hot Water Unit Heater UHR-03,04				15	15b		480							
									18c					
Hot Water Unit Heater UHR-05,06				15	17c			480						
									20a	15				Unitary DX Fan Coil Unit ACR-03
Hot Water Unit Heater UHR-07				15	19a	156								
						240			22b					
					21b		156							
							432		24c					
Unitary DX Fan Coil Unit ACR-01				15	23c			156						
								432	26a	20				Air Cooled Condenser Unit ACUR-03
					25a	1980								
						432			28b					
					27b		1980							
							1992		30c	15				Spare
Air Cooled Condenser Unit ACUR-01				40	29c			1992	32a	15				Spare
					31a									
						1992			34b	15				Spare
					33b									
							350		36c	15				Spare
				15	35c									
									38a	20				Make Up Air Unit MAUR-1 Heat Wheel

	TOTAL WATT	9524	9434	6704	PANEL TYPE:	TYPE 1 SPRINKLER PROOF
	TOTAL AMP	25662			LOCATION:	L1M RETAIL ELEC RM
		71			MOUNTING:	SURFACE



TOTAL AMP

MOUNTING: _____ SURFACE _____

PANEL SCHEDULE

347/600 VOLTS

3 PHASE WIRE

200 AMP MAINS

MLO MAIN BREAKER

JOB NUMBER: 8489D

JOB NAME: Aquavista

200 AMP MAINS						61MCRM			JOB NAME: Aquavista						
MLO MAIN BREAKER						LOAD PER PHASE			CCT. NO.	BRKR SIZE	WATT / FIXT.	# OF FIXT.	# OF REC.	DESCRIPTION	
DESCRIPTION	# OF REC.	# OF FIXT.	WATT / FIX.	BRKR SIZE	CCT. NO.	a	b	c							
Make Up Air Unit MAUR-1 Supply Fan				40	1a	733			2a	15				MAUR 01Heating Pumps PR-11, PR-12 Duty/ Standby each 2.2kW	
						3733					4b				
					3b		733								
						3733					6c				
					5c				733						
Condenser Water Pumps PR-01, PR-02 Duty/ Standby each 11.2kW				40	7a	187			8a	15				DHW Circulation Pump PR-15 0 .56kW	
						3733					10b				
					9b		187								
						3733					12c				
					11c				187						
Chilled Water Pumps PR-03, PR-04 Duty/ Standby each 7.5kW				25	13a	250			14a					Loading Bay Exhaust EFR-05	
						2500					16b				
					15b		250								
						2500					18c				
					17c				250						
Boiler#1 Pump PR-05 2.2kW				15	19a				20a	15				Metering	
						733					22b				
					21b				733						
						733					24c				
					23c				733						
Boiler#2 Pump PR-06 2.2kW				15	25a	4467			26a	35				Cooling Tower CTR-01	
						733					28b				
					27b		4467								
						733					30c				
					29c				4467						
High Temp Secondary Pumps PR-07, PR-08 Duty/ Standby each 5.6kW				20	31a	1867			32a	15				Make Up Air Unit MAUR-1 Exhaust Fan	
						1867					34b				
					33b		1867								
						1867					36c				
					35c				1867						
							1867		38a						

Low Temp Secondary Pumps PR-09, PR-10 Duty/ Standby each 2.2kW					37a	733			40b	15					Spare
				15	39b										
						733			42c						
					41c										
								733	44a						
					43a										
									46b						
					45b										
									48c						
					47c										
									50a						
					49a										
									52b						
					51b										
									54c						
					53c										
									56a						
					55a										
									58b						
					57b										
									60c						
					59c										



TOTAL WATT
TOTAL AMP

21536	21536	21536
64608		
62		

PANEL TYPE: TYPE 1 SPRINKLER PROOF

LOCATION: L1M RETAIL ELEC RM

MOUNTING: SURFACE

[illegible]

COOLING TOWER SCHEDULE																																							
REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	CAPACITY (KW)	SUMMER			OUTDOOR TEMP. WB. (°C)	WINTER			TUBES PRESS. DROP (KPA)	MODEL	OPERATING WEIGHT (KG)	MANUFACTURER	PAN HEATER (KW)	FAN MOTOR (KW)	MIN. CIRCUIT AMPS	MAX. FUSE SIZE	POWER SUPPLY					STARTER			CONTROLS			OTHER REQUIREMENTS			OTHERS	REMARKS:	NOTES:		
						FLOW (L/S)	EWI (°C)	LWT (°C)		FLOW (L/S)	EWI (°C)	LWT (°C)									VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO	INTERLOCK BY: Div. 15	Div. 16	DISC. AT MOTOR	W.P. DISC. AT MOTOR				F.A. SHUT DOWN	
CTR-01	INDUCED DRAFT	ROOF	CHILLER #03	RETAIL	430	23.2	35.0	26.4	24.4	-	-	-	-	PT2-04124-SH1	-	BALTIKORE ARCOL	6	2 x 3.7	-	-	575	3	ØRCRM	-	YES	DIV 15	DIV 15	VFD	-	YES	YES	-	-	-	-	-	-	VFD MUST BE COMPATIBLE WITH SIEMENS RLA BAS. BAS+HEATER LOW SIGNAL CAN PROVIDE ALL INTERIOR WIRING AND CONTROL BY DIV 15 CONTRACTOR. PROVIDE SINGLE POWER POINT.	1. REFER TO SECTION 1000S FOR WIRING AND ELECTRIC MOTORS. 2. REFER TO SECTION AND SPECIFICATION 105B FOR FURTHER DETAILS. 3. FOLLING FACTOR FOR COOLERS AND CONDENSERS @ 0.0011 @ 0.0020S. 4. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION. 5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERING OR ELECTRICAL WIRING INSTALLED. 6. SINGLE ELECTRICAL FEED TO THE EQUIPMENT.

BOILER SCHEDULE																												NOTES:
REFERENCE	DESCRIPTION	LOCATION	SERVING	OWNERSHIP	INPUT (KW)	OUTPUT (KW)	GAS TRAIN INLET PRESSURE (KPA)	OPERATING PRESSURE MAX (KPA)	OPERATING TEMP. MAX (°C)	MANUFACTURER	MODEL	AMPERE	POWER SUPPLY					STARTER		CONTROLS		OTHER REQUIREMENTS		OTHERS	REMARKS:			
													VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY	TYPE	MANUAL	AUTO.	INTERLOCK BY: DIV. 15			DIV. 16	DISC AT MOTOR	
HER-01	HIGH/LOW HEATING BOILER	MROOM L M	4 PPE RETAIL	RETAIL	732	674	MIN. 1 MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2500	11	120	1	2P1M3M	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)
HER-02	HIGH/LOW HEATING BOILER	MROOM L M	4 PPE RETAIL	RETAIL	732	674	MIN. 1 MAX. 3.2	1137	93.3	LOCHINVAR	FBN 2500	11	120	1	2P1M3M	-	YES	DIV. 15	DIV. 15	PKG.	-	YES	YES	-	DIV. 16	-	-	PROVIDE SHUT OFF SWITCH AT ROOM ENTRY (DIV. 16)

- REFER TO SECTION 10000 FOR WIRING AND ELECTRIC MATERIALS.
- TEMP. MAX. 110°C FOR WATER HEATING SYSTEMS.
- FOLLOW FACTOR FOR COILS AND CONDENSERS (5.000) (5.0000).
- REFER TO FPM. SHEET FOR ADDITIONAL INFORMATION.
- MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERING OR ELECTRICAL WIRING INSTALLATION.
- PROVIDE INSTALLATION GUIDELINES FOR CONTROLLER.
- PROVIDE FLOW SWITCH LOW WATER CUT OFF PRESSURE REDUCING VALVES, AUX. CONTACTS FOR BAS.

[illegible]

COOLING / HEATING COIL SCHEDULE																						REMARKS:	NOTES:	
REFERENCE	DESCRIPTION	SERVICE	OWNERSHIP	TOTAL AIR FLOW (L/S)	COIL AIR FLOW (L/S)	COOLING CAPACITY (KW)		HEATING CAPACITY (KW)	COOLING						HEATING						FLUID			MANUFACTURER
						TOTAL	SENSIBLE		EAT (°C)	LAT (°C)	FLOW (L/S)	EWT (°C)	LWT (°C)	PRE. DP. (KPA)	EAT (°C)	LAT (°C)	FLOW (L/S)	EWT (°C)	LWT (°C)	PRE. DP. (KPA)				
CC-01	COOLING COIL	MAUR-01 COOLING	RETAIL	4248	2360	59.8	39.6	-	26.7/19.4	12.5/11.3	2.6	5.6	11.2	56	-	-	-	-	-	-	WATER	MOQUAY DANKIN		
HC-01	HEATING COIL	MAUR-01 HEATING	RETAIL	4248	4248	-	-	262	-	-	-	-	-	-	-20.0	27.2	6.2	71.1	60.0	40	40% P.GLY.	MOQUAY DANKIN		

[illegible]

PUMP SCHEDULE																													
REFERENCE	DESCRIPTION	LOCATION	OWNERSHIP	WATER FLOW (U.S.)	HEAD (KPA)	RPM	MANUFACTURER	TYPE / SIZE	ENERGY REQUIRED (HP)	MOTOR SIZE (KW)	POWER SUPPLY					STARTER				CONTROLS				OTHER REQUIREMENTS			REMARKS:	NOTES: 1. REFER TO SECTION 15005 FOR WIRING AND ELECTRIC MOTORS. 2. REFER TO SECTION 15400 AND 15700 FOR FURTHER DETAILS. 3. REFER TO SECTION 15100 FOR VIBRATION ISOLATION. 4. ALL PUMPS WITH 100% STANDBY UNIT TO BE WITH AUTOMATIC SWITCH OVER ON PLUMB FAULTS. 5. MECHANICAL CONTRACTORS SUPPLYING EQUIPMENT MUST COORDINATE LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ANY EQUIPMENT ORDERED OR ELECTRICAL WIRING INSTALLED. 6. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION.	
											VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:		INSTALLED BY:		TYPE	MANUAL	AUTO.	INTER-LOCK BY:		W.P. DISC. AT MOTOR	DISC. AT MOTOR			F.A. SHUT.
																DIV. 15	DIV. 16	DIV. 15	DIV. 16				DIV. 15	DIV. 16					
PR-01	CONDENSER WATER PUMP	MROOM L1	RETAL	23.2	235	1800	ARMSTRONG	4300 0406-015.0	-	11.2	575	3	\$1MCRM	-	YES	YES	-	YES	-	PWG	-	YES	YES	-	-	DIV. 15	-		CW ISOLATION DISCONNECT. ONE DUTY / ONE STANDBY.
PR-02	CONDENSER WATER PUMP	MROOM L1	RETAL	23.2	235	1800	ARMSTRONG	4300 0406-015.0	-	11.2	575	3	\$1MCRM	-	YES	YES	-	YES	-	PWG	-	YES	YES	-	-	DIV. 15	-		CW ISOLATION DISCONNECT. INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY PACKAGE UNIT. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
PR-03	OILHELD WATER PUMP	MROOM L1	RETAL	18.5	250	1800	ARMSTRONG	4300 0310-010.0	-	7.5	575	3	\$1MCRM	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-		CW ISOLATION DISCONNECT. INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY PACKAGE UNIT. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.
PR-04	OILHELD WATER PUMP	MROOM L1	RETAL	18.5	250	1800	ARMSTRONG	4300 0310-010.0	-	7.5	575	3	\$1MCRM	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	CW ISOLATION DISCONNECT. INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY PACKAGE UNIT. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.	
PR-05	SOLER # 1 PUMP	MROOM L1	RETAL	10.9	85	1800	ARMSTRONG	4380 0306-003.0	-	2.2	575	3	\$1MCRM	-	YES	YES	-	YES	-	CM PMNR	-	YES	YES	-	-	DIV. 15	-	CW ISOLATION DISCONNECT.	
PR-06	SOLER # 2 PUMP	MROOM L1	RETAL	10.9	85	1800	ARMSTRONG	4380 0306-003.0	-	2.2	575	3	\$1MCRM	-	YES	YES	-	YES	-	CM PMNR	-	YES	YES	-	-	DIV. 15	-	CW ISOLATION DISCONNECT.	
PR-07	HIGH TEMP. SEC. PUMP	MROOM L1	RETAL	18.3	230	1800	ARMSTRONG	4300 0306-007.5	-	5.6	575	3	\$1MCRM	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	CW ISOLATION DISCONNECT. - INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY PACKAGE UNIT. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.	
PR-08	HIGH TEMP. SEC. PUMP	MROOM L1	RETAL	18.3	230	1800	ARMSTRONG	4300 0306-007.5	-	5.6	575	3	\$1MCRM	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	CW ISOLATION DISCONNECT. - INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY PACKAGE UNIT. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.	
PR-09	LOW TEMP. SEC. PUMP	MROOM L1	RETAL	4.7	190	1800	ARMSTRONG	4380 1506-003.0	-	2.2	575	3	\$1MCRM	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	CW ISOLATION DISCONNECT. - INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY PACKAGE UNIT. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.	
PR-10	LOW TEMP. SEC. PUMP	MROOM L1	RETAL	4.7	190	1800	ARMSTRONG	4380 1506-003.0	-	2.2	575	3	\$1MCRM	-	YES	YES	-	YES	-	VFD	-	YES	YES	-	-	DIV. 15	-	CW ISOLATION DISCONNECT. - INTEGRATED VFD WITH SENSORLESS CONTROL SOFTWARE. - ONE DUTY / ONE STANDBY PACKAGE UNIT. - VFD MUST BE COMPATIBLE WITH SIEMENS FLN BAS.	
PR-11	MAJOR-01 HEATING PUMP	MROOM L1 MZ	RETAL	6.2	130	1800	ARMSTRONG	4380 0206-003.0	-	2.2	575	3	\$1MCRM	-	YES	YES	-	YES	-	PWG	-	YES	YES	-	-	DIV. 15	-	CW ISOLATION DISCONNECT. ONE DUTY / ONE STANDBY PACKAGE UNIT.	
PR-12	MAJOR-01 HEATING PUMP	MROOM L1 MZ	RETAL	6.2	130	1800	ARMSTRONG	4380 0206-003.0	-	2.2	575	3	\$1MCRM	-	YES	YES	-	YES	-	PWG	-	YES	YES	-	-	DIV. 15	-	CW ISOLATION DISCONNECT. ONE DUTY / ONE STANDBY PACKAGE UNIT.	
PR-13	NOT USED																												
PR-14	NOT USED																												
PR-15	DHW REGR. PUMP	MROOM	CONDO	1.0	90	1800	S.A.ARMSTRONG	4380 1.5D-0.75	-	0.36	575	3	\$1MCRM	-	YES	YES	-	YES	-	CM PMNR	-	YES	YES	-	-	YES	-	CW BRONZE & ISOLATION DISCONNECT	