



MCW Consultants Ltd.

Site Instruction

Date: January 28, 2016

207 Queen's Quay West, Suite 615
Toronto, ON
M5J 1A7

Phone (416) 598-2920
Fax (416) 598-5394
www.mcw.com

Project Name: The Residences of 10 York
Client: Tridel
To: Tridel
Attention: Marius Hirboca

Project No.: 8503
SI No.: M017
Page No.: 1 of 1 + attach
Office: Toronto
From: Sarfraz Jaffrey
Val Kurdaliev

Distribution: **Tridel:**
Vince Mirarchi
Wallman Architects
John Harhay
MCW Consultants Ltd
Michael Hunter
Pol Malabanan
Al Medeiros
Sunanda Perera
Vito Mazzaro

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: Revised Storm Sump Pumps

ME Schedules:

Drawing #	Issued	Items
ME-02	Yes	<ul style="list-style-type: none"> Revised duty conditions for storm sump pump P-67 & P-68 as shown.

Reason for Revision: Comply with City Requirements.

End of SI-M017

PUMP SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	WATER FLOW (L/S)	HEAD (KPA)	RPM	MANUFACTURER	TYPE / SIZE	ENERGY REQUIRED (HP)	MOTOR SIZE (KW)	POWER SUPPLY			STARTER				CONTROLS			OTHER REQUIREMENTS			REMARKS:	NOTES:				
										VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:		INSTALLED BY:		TYPE	MANUAL	AUTO.	INTERLOCK BY:			W.P. DISC. AT MOTOR	DISC. AT MOTOR	F.A. SHUT.	
															DIV. 15	DIV. 16	DIV. 15	DIV. 16				DIV. 15						DIV. 16
P-01	HEATING/COOLING WATER PUMP	M/ROOM L3	37.6	315	1800	S.A ARMSTRONG	4300 0610-040	-	30.0	575	3	63M-8,10,12	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY	1. REFER TO SECTION 15050 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 PUMP FAILURE. 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. 7. PRESSURE RATING SHOULD BE PER SYSTEM REQUIREMENT.	
P-02	HEATING/COOLING WATER PUMP	M/ROOM L3	37.6	315	1800	S.A ARMSTRONG	4300 0610-040	-	30.0	575	3	63M-8,10,12	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-03	CHILLED WATER PUMP	M/ROOM L3	19.9	260	1800	S.A ARMSTRONG	4300 0310-015	-	11.2	575	3	63M-14,16,18	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-04	CHILLED WATER PUMP	M/ROOM L3	19.9	260	1800	S.A ARMSTRONG	4300 0310-015	-	11.2	575	3	63M-14,16,18	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-05	HEATING WATER PUMP	M/ROOM L3	25.9	210	1800	S.A ARMSTRONG	4300 0610-015	-	11.2	575	3	6E3MB-26,28,30	YES	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-		C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY
P-06	HEATING WATER PUMP	M/ROOM L3	25.9	210	1800	S.A ARMSTRONG	4300 0610-015	-	11.2	575	3	6E3MB-26,28,30	YES	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-		C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY
P-07	MUA-1 HEATING WATER PUMP	M/ROOM L3	3.8	120	1800	S.A ARMSTRONG	4360 20-2	-	1.5	575	3	63M-26,28,30	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-08	MUA-1 HEATING WATER PUMP	M/ROOM L3	3.8	120	1800	S.A ARMSTRONG	4360 20-2	-	1.5	575	3	63M-26,28,30	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-09	HEATING WATER PUMP	M/ROOM L3	10.1	195	1800	S.A ARMSTRONG	4380 0208-007.5	-	5.6	575	3	6E3MB-32,34,36	YES	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-		C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY
P-10	HEATING WATER PUMP	M/ROOM L3	10.1	195	1800	S.A ARMSTRONG	4380 0208-007.5	-	5.6	575	3	6E3MB-32,34,36	YES	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-		C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY
P-11	BOILER # 01 CIR. PUMP	M/ROOM L3	8.8	90	1800	S.A ARMSTRONG	4360 30-2	-	1.5	575	3	63M-38,40,42	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT		
P-12	BOILER # 02 CIR. PUMP	M/ROOM L3	8.8	90	1800	S.A ARMSTRONG	4360 30-2	-	1.5	575	3	63M-44,46,48	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT		
P-13	BOILER # 03 CIR. PUMP	M/ROOM L3	8.8	90	1800	S.A ARMSTRONG	4360 30-2	-	1.5	575	3	63M-50,52,54	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT		
P-14	BOILER # 04 CIR. PUMP	M/ROOM L3	12.5	105	1800	S.A ARMSTRONG	4380 3x3x8-5	-	3.7	575	3	6E3MB-25,27,29	YES	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-		C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT
P-15	BOILER # 05 CIR. PUMP	M/ROOM L3	12.5	105	1800	S.A ARMSTRONG	4380 3x3x8-5	-	3.7	575	3	6E3MB-25,27,29	YES	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-		C/W ANSI # 250 PRESSURE RATING, ISOLATION DISCONNECT
P-16	MUA-2 HEATING WATER PUMP	M/ROOM L31	5.0	120	1800	S.A ARMSTRONG	4360 20-2	-	1.5	575	3	63M-7,9,11	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-17	MUA-2 HEATING WATER PUMP	M/ROOM L31	5.0	120	1800	S.A ARMSTRONG	4360 20-2	-	1.5	575	3	63M-7,9,11	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-18	HEATING/COOLING WATER PUMP	M/ROOM L31	28.4	240	1800	S.A ARMSTRONG	4300 4x4x13L-15	-	11.2	575	3	634M-13,15,17	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-19	HEATING/COOLING WATER PUMP	M/ROOM L31	28.4	240	1800	S.A ARMSTRONG	4300 4x4x13L-15	-	11.2	575	3	634M-13,15,17	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-20	CONDENSER WATER PUMP	M/ROOM PH	54.0	255	1800	S.A ARMSTRONG	4300 6x6x13-40	-	22.4	575	3	6RM-13,15,17	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-21	CONDENSER WATER PUMP	M/ROOM PH	54.0	255	1800	S.A ARMSTRONG	4300 6x6x13-40	-	22.4	575	3	6RM-13,15,17	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-22	HEATING/COOLING WATER PUMP	M/ROOM PH	43.0	300	1800	S.A ARMSTRONG	4300 0611-030	-	22.4	575	3	6RM-19,21,23	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-23	HEATING/COOLING WATER PUMP	M/ROOM PH	43.0	300	1800	S.A ARMSTRONG	4300 0611-030	-	22.4	575	3	6RM-19,21,23	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-24	CONDENSER WATER PUMP	M/ROOM PH	19.9	210	1800	S.A ARMSTRONG	4300 4x4x10-10	-	7.5	575	3	6RM-25,27,29	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-25	CONDENSER WATER PUMP	M/ROOM PH	19.9	210	1800	S.A ARMSTRONG	4300 4x4x10-10	-	7.5	575	3	6RM-25,27,29	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-26	CHILLED WATER PUMP	M/ROOM PH	15.9	240	1800	S.A ARMSTRONG	4300 0310-010	-	7.5	575	3	6RM-31,33,35	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-27	CHILLED WATER PUMP	M/ROOM PH	15.9	240	1800	S.A ARMSTRONG	4300 0310-010	-	7.5	575	3	6RM-31,33,35	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-28	MUA-3 HEATING WATER PUMP	M/ROOM PH	3.8	120	1800	S.A ARMSTRONG	4360 20-2	-	1.5	575	3	6RM-37,39,41	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-29	MUA-3 HEATING WATER PUMP	M/ROOM PH	3.8	120	1800	S.A ARMSTRONG	4360 20-2	-	1.5	575	3	6RM-37,39,41	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-30	HEATING WATER PUMP	M/ROOM PH	6.9	170	1800	S.A ARMSTRONG	4380 1508-005.0	-	3.70	575	3	6RM-14,16,18	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-31	HEATING WATER PUMP	M/ROOM PH	6.9	170	1800	S.A ARMSTRONG	4380 1508-005.0	-	3.70	575	3	6RM-14,16,18	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-32	HEATING WATER PUMP	M/ROOM PH	9.5	180	1800	S.A ARMSTRONG	4380 0208-005	-	3.70	575	3	6RM-20,22,24	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-33	HEATING WATER PUMP	M/ROOM PH	9.5	180	1800	S.A ARMSTRONG	4380 0208-005	-	3.70	575	3	6RM-20,22,24	-	YES	-	YES	-	VFD	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-34	BOILER # 11 CIR. PUMP	M/ROOM PH	7.1	90	1800	S.A ARMSTRONG	4360 30-1.5	-	1.1	575	3	6RM-26,28,30	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-35	BOILER # 12 CIR. PUMP	M/ROOM PH	7.1	90	1800	S.A ARMSTRONG	4360 30-1.5	-	1.1	575	3	6RM-32,34,36	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-36	BOILER # 13 CIR. PUMP	M/ROOM PH	10.6	105	1800	S.A ARMSTRONG	4380 3x3x8-5	-	3.7	575	3	6RM-38,40,42	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-37	BOILER # 14 CIR. PUMP	M/ROOM PH	10.6	105	1800	S.A ARMSTRONG	4380 3x3x8-5	-	3.7	575	3	6RM-44,46,48	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-38	BOILER # 15 CIR. PUMP	M/ROOM PH	10.6	105	1800	S.A ARMSTRONG	4380 3x3x8-5	-	3.7	575	3	6RM-50,52,54	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-39	BOILER # 06 CIR. PUMP	M/ROOM L3	10.6	105	1800	S.A ARMSTRONG	4380 3x3x8-5	-	3.7	575	3	63M-68,70,72	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-40	BOILER # 07 CIR. PUMP	M/ROOM L3	10.6	105	1800	S.A ARMSTRONG	4380 3x3x8-5	-	3.7	575	3	63M-74,76,78	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-41	BOILER # 08 CIR. PUMP	M/ROOM L3	10.6	105	1800	S.A ARMSTRONG	4380 3x3x8-5	-	3.7	575	3	63M-80,82,84	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-42	D. HEATING WATER PUMP	M/ROOM L3	31.5	270	1780	S.A ARMSTRONG	4300 5x5x11.5-20	-	15.0	575	3	63M-25,27,29	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT - ONE DUTY / ONE STANDBY		
P-43	D. HEATING WATER PUMP	M/ROOM L3	31.5	270	1780	S.A ARMSTRONG	4300 5x5x11.5-20	-	15.0	575	3	63M-25,27,29	-	YES	-	YES	-	PKG	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-44	DHW REGR. PUMP	M/ROOM L3	1.1	90	1800	S.A ARMSTRONG	4360 1.50-0.75	-	0.56	575	3	63M-31,33,35	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-45	DHW REGR. PUMP	M/ROOM L3	1.1	90	1800	S.A ARMSTRONG	4360 1.50-0.75	-	0.56	575	3	63M-37,39,41	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-46	DHW REGR. PUMP	M/ROOM L3	1.1	90	1800	S.A ARMSTRONG	4360 1.50-0.75	-	0.56	575	3	63M-43,45,47	-	YES	-	YES	-	CM FNVR	-	YES	YES	-	-	YES	-	C/W ISOLATION DISCONNECT		
P-47	DHW REGR. PUMP																											