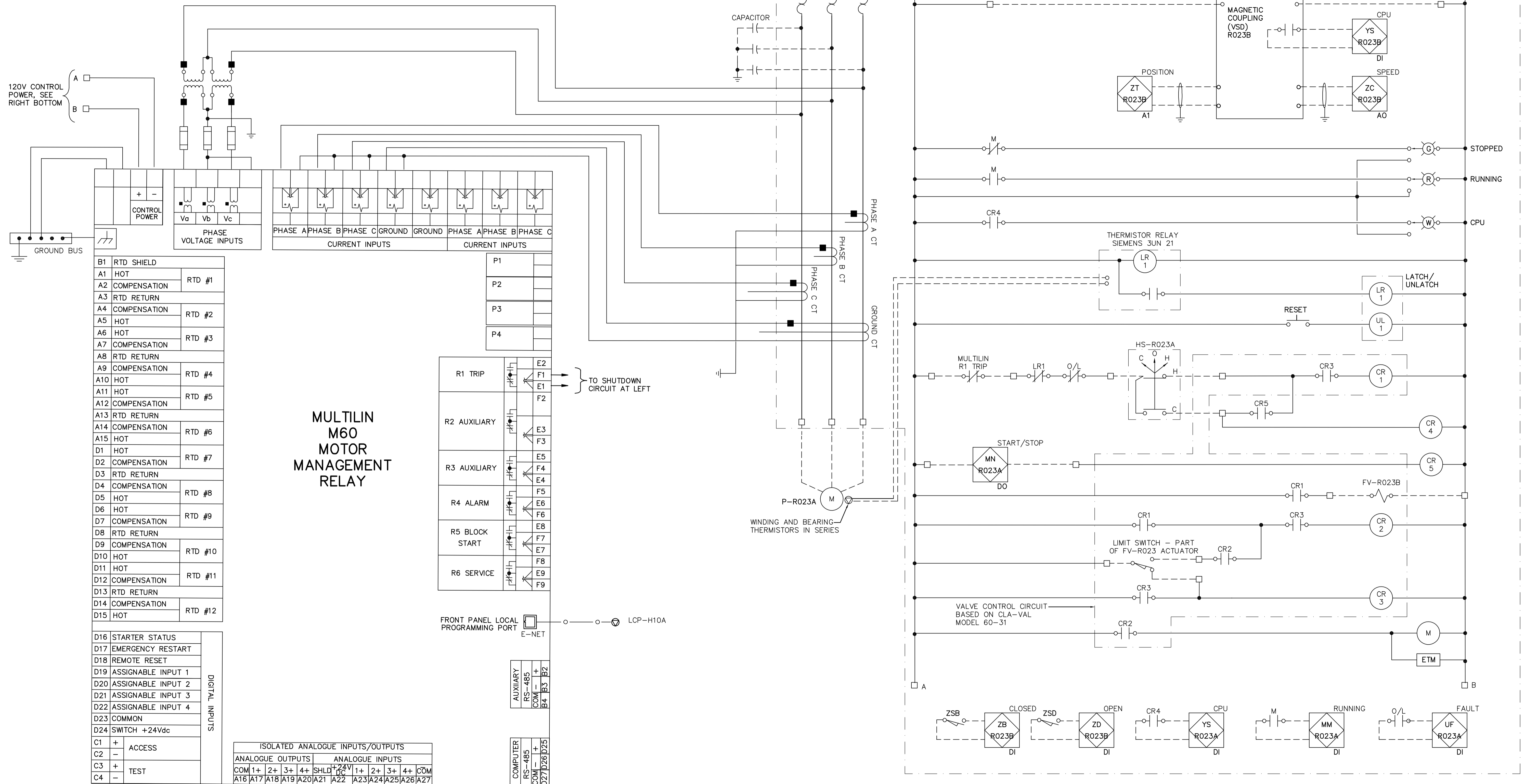


NOTES:
 1. ALLOW 350A VA ADDITIONAL CAPACITY FOR MAGNETIC COUPLING (VSD).
 2. PUMP OPERATION:
 PUMP STARTS AGAINST A CLOSED VALVE. WHEN THE PUMP IS STARTED, THE SOLENOID CONTROL IS ENERGIZED AND THE VALVE BEGINS TO OPEN SLOWLY, GRADUALLY INCREASING LINE PRESSURE TO FULL PUMPING HEAD. WHEN THE PUMP IS SIGNALLED TO SHUT-OFF, THE SOLENOID CONTROL IS DE-ENERGIZED AND THE VALVE BEGINS TO CLOSE SLOWLY, GRADUALLY REDUCING FLOW WHILE PUMP CONTINUES TO RUN. WHEN THE VALVE IS CLOSED THE LIMIT SWITCH RELEASES THE STARTER AND THE PUMP STOPS.



SUPERNATANT PUMP 1 (P-R023A)

MULTILIN M60 MOTOR MANAGEMENT RELAY

B1	RTD SHIELD	
A1	HOT	RTD #1
A2	COMPENSATION	
A3	RTD RETURN	
A4	COMPENSATION	RTD #2
A5	HOT	
A6	HOT	RTD #3
A7	COMPENSATION	
A8	RTD RETURN	
A9	COMPENSATION	RTD #4
A10	HOT	
A11	HOT	RTD #5
A12	COMPENSATION	
A13	RTD RETURN	
A14	COMPENSATION	RTD #6
A15	HOT	
D1	HOT	RTD #7
D2	COMPENSATION	
D3	RTD RETURN	
D4	COMPENSATION	RTD #8
D5	HOT	
D6	HOT	RTD #9
D7	COMPENSATION	
D8	RTD RETURN	
D9	COMPENSATION	RTD #10
D10	HOT	
D11	HOT	RTD #11
D12	COMPENSATION	
D13	RTD RETURN	
D14	COMPENSATION	RTD #12
D15	HOT	

R1	TRIP	E2
		F1
		E1
		F2
R2	AUXILIARY	E3
		F3
R3	AUXILIARY	E5
		F4
R4	ALARM	E6
		F5
R5	BLOCK START	E8
		F7
R6	SERVICE	E9
		F8
		E7
		F9

D16	STARTER STATUS	
D17	EMERGENCY RESTART	
D18	REMOTE RESET	
D19	ASSIGNABLE INPUT 1	
D20	ASSIGNABLE INPUT 2	
D21	ASSIGNABLE INPUT 3	
D22	ASSIGNABLE INPUT 4	
D23	COMMON	
D24	SWITCH +24Vdc	

C1	+	ACCESS
C2	-	
C3	+	TEST
C4	-	

ANALOGUE OUTPUTS		ANALOGUE INPUTS	
COM 1+	2+	3+	4+
A16	A17	A18	A19
A20	A21	A22	A23
A24	A25	A26	A27

PHASE A CT, PHASE B CT, PHASE C CT, GROUND CT, WINDING AND BEARING THERMISTORS IN SERIES, P-R023A, M, CAPACITOR, 600V, 3PH, 120V, CPU, STOPPED, RUNNING, CPU, LATCH/UNLATCH, RESET, CR1, CR2, CR3, CR4, CR5, FV-R023B, VALVE CONTROL CIRCUIT, MULTILIN R1 TRIP, LR1, HS-R023A, START/STOP, MN-R023A, DO, CR1, CR2, CR3, CR4, CR5, ZSB, ZSD, OPEN, CLOSED, ZB, ZD, CPU, RUNNING, FAULT, YS, MM, UF, ETM.

<p>Certificate of Authorization CH2M HILL Canada Ltd. No. 1441 Expiry: April 30, 2007</p>	B.M. ELEV.	<p>Frederickson Cooper ARCHITECTS</p>	<p>A Yoo International Ltd. Company</p>	ENGINEER'S SEAL ORIGINAL SIGNED BY L.D. LLEWELLYN 2006/03/29	<p>THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION</p> <p>WATER TREATMENT PLANT MAIN BUILDING MECHANICAL AND ELECTRICAL</p> <p>ELECTRICAL CONTROL DIAGRAM</p>
	DESIGNED BY JT CHECKED BY ND DRAWN BY KJ APPROVED BY AHL	SCALE: NTS RELEASED FOR CONSTRUCTION BY: R. SOROKOWSKI 2005/11/08	CONSULTANT DRAWING NO. WB-E0561	CITY FILE NUMBER SHEET OF	
	NO. REVISIONS DATE BY	DATE 2005/11/08 DATE 2006/03/29	CITY DRAWING NUMBER 1-06018-H-E0561-001-01D		