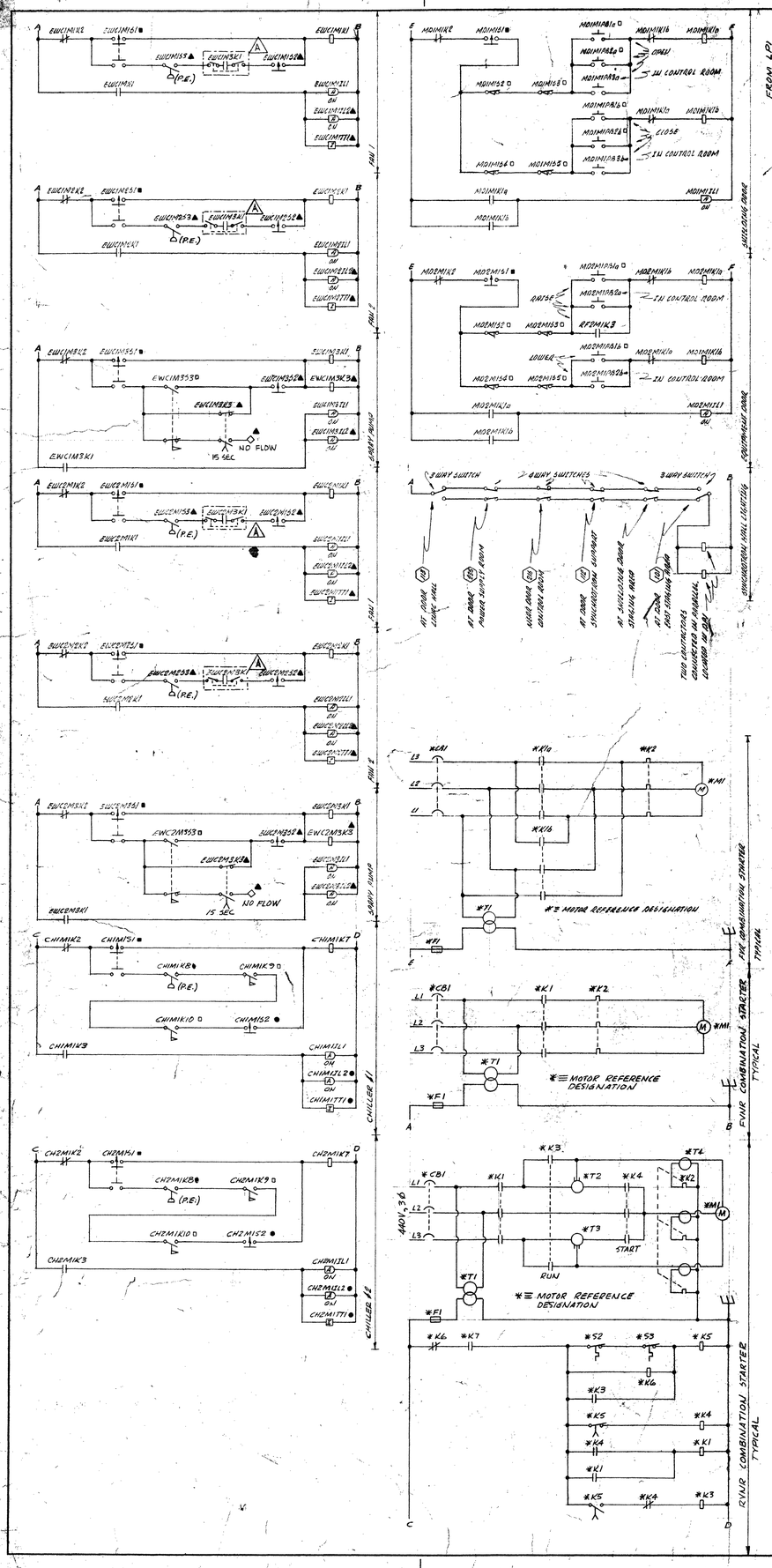

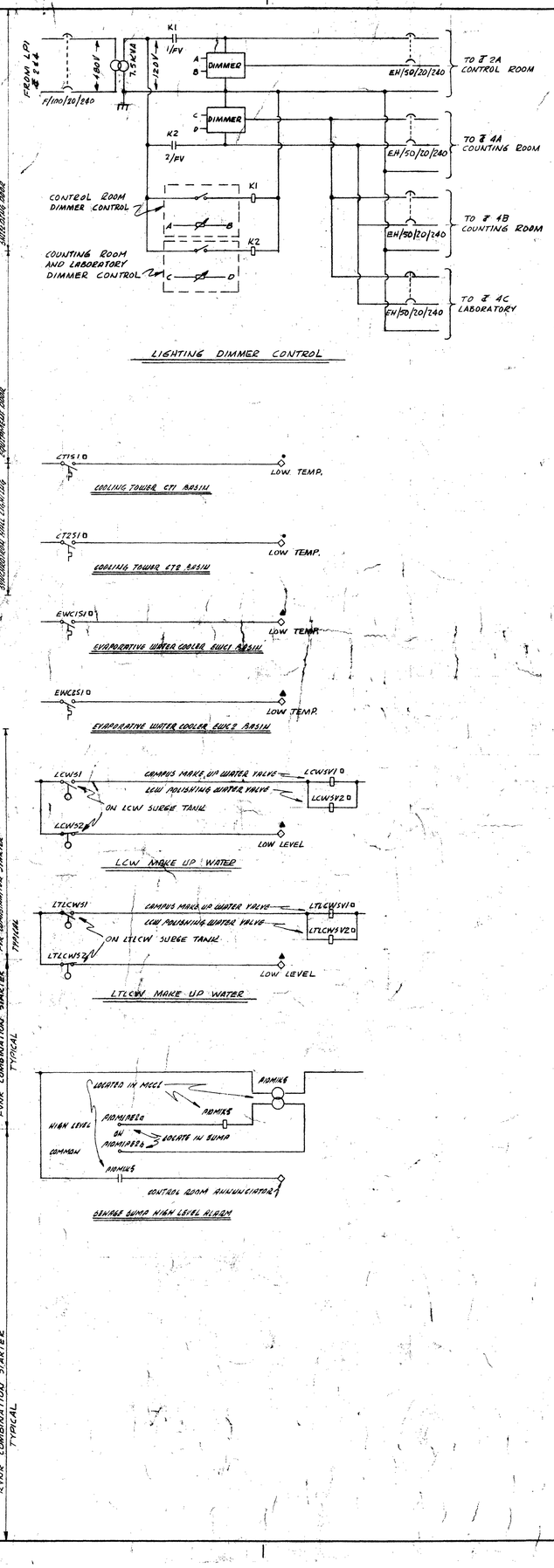

CONTACT	POSITION		
	TEST	OFF	REMOTE
	X		
			X

NOTES:
1. X ≡ CONTACT CLOSED
2. TEST POSITION IS MOMENTARY CONTACT WITH SPRING RETURN TO OFF.
3. OFF POSITION IS MAINTAINED CONTACT WITH PROVISION FOR PADLOCKING OFF.
4. REMOTE POSITION IS MAINTAINED CONTACT.

TYPICAL FOR:

EF1M151	P13M151	RF3M151
EF2M151	P15M151	CT1M151
EF3M151	P16M151	CT1M251
P1M151	P17M151	CT2M151
P2M151	P18M151	CT2M251
P3M151	P19M151	EWC1M151
P4M151	AC1M151	EWC1M251
P5M151	AC2M151	EWC1M351
P6M151	AC2M251	EWC2M151
P7M151	AD1M151	EWC2M251
P8M151	AH1M151	EWC2M351
P9M151	AH2M151	CH1M151
P10M151	SF1M151	CH2M151
P11M151	RF1M151	
P12M151	RF2M151	

CONTACT	POSITION	
	OFF	ON
		X

X ≡ CONTACT CLOSED
TYPICAL FOR:
MD1M151 MD2M151 RF2M156

CONTACT	POSITION	
	OFF	AUTO
		X

X ≡ CONTACT CLOSED
TYPICAL FOR:

P1M152	SF1M152	EWC1M152
P2M152	RF1M152	EWC1M252
P7M152	RF2M152	EWC1M352
	RF3M152	EWC2M152
	CT1M152	EWC2M252
	CT1M252	EWC2M352
	CT2M152	CH1M152
AH1M152	CT2M252	CH2M152
AH2M152		

CONTACT	POSITION		
	#1	OFF	#2
	X		
			X

X ≡ CONTACT CLOSED
TYPICAL FOR:
P3M152 P5M152

TIMER RELAY

CONTACTS	DE-ENERGIZED	ENERGIZED	
		TIMING	TIMED OUT
	X	X	
			X

X ≡ CONTACT CLOSED
RESET ON DEENERGIZATION
TYPICAL FOR:

P1M1K3	P6M1K3	P8M1K3
P2M1K3	P7M1K3	EWC1M3K3
P3M1K3	P15M1K3	EWC2M3K3
P4M1K3	P16M1K3	
P5M1K3	P17M1K3	

ALTERNATOR RELAY

CONTACTS	POSITION	
	#1	#2
	X	
		X
	X	
		X

X ≡ CONTACT CLOSED
TYPICAL FOR:
P8M1K5 P10M1K4

MECHANICAL RATCHET TYPE SEQUENCE RELAY

LOCATION LEGEND

SYMBOL	LOCATION
NONE	MCC
•	AIR CONDITIONING LOCAL CONTROL PANEL
▲	SYNCHROTRON COOLING SYSTEM LOCAL CONTROL PANEL
■	LOCAL TO MOTOR
▫	LOCAL TO EQUIPMENT

MECHANICAL LEGEND

(P.E.) PNEUMATIC-ELECTRIC SWITCH (MECHANICAL FLOW DIAGRAM DESCRIPTION FOR A PRESSURE SWITCH)

(E.P.) ELECTRIC-PNEUMATIC SWITCH (MECHANICAL FLOW DIAGRAM DESCRIPTION FOR A SOLENOID VALVE IN A CONTROL AIR LINE)

(D.P.) DIFFERENTIAL PRESSURE SWITCH (MECHANICAL FLOW DIAGRAM DESCRIPTION)

NOTES

1. SELECTOR SWITCHES USED ARE SINGLE AND MULTI-CONTACT.
2. SYNCHROTRON COOLING SYSTEM LOCAL CONTROL PANEL
   - COMPATIBLE & SIMILIAR TO THE AIR CONDITIONING LOCAL CONTROL PANEL SPECIFIED UNDER SECTION II, DIVISION IX OF THE SPECIFICATIONS.
   - N.E.M.A. 1 SURFACE MOUNTING ENCLOSURE
   - HAND-LETTERED "COLOR GRAPHICS" WITH SCHEMATICS FOR EACH SYSTEM, IS NOT REQUIRED.
   - LOCATION INDICATED ON THE MECHANICAL DRAWINGS.
3. CONTROL ROOM ANNUNCIATOR
   - AS SPECIFIED UNDER SECTION II, DIVISION II OF THE SPECIFICATIONS.
   - FIRST POINT: ACTUATION OF ANY ANNUNCIATOR POINT IN THE AIR CONDITIONING LOCAL CONTROL PANEL WILL INITIATE THIS ALARM.
   - SECOND POINT: ACTUATION OF ANY ANNUNCIATOR POINT IN THE SYNCHROTRON COOLING SYSTEM LOCAL CONTROL PANEL WILL INITIATE THIS ALARM.
   - THIRD POINT: HIGH LEVEL IN THE SEWAGE SUMP WILL INITIATE THIS ALARM.
   - FOURTH POINT: SPARE
   - FIFTH POINT: SPARE
   - INSTALL ON THE NORTH WALL OF THE CONTROL ROOM AS DIRECTED BY THE OWNER.
4. FURNISH & INSTALL ALL RACEWAYS, INSULATED CONDUCTORS, & ETC., AS REQUIRED, TO PROVIDE THE OPERATION INDICATED ON THESE DIAGRAMS & INDICATED ON THESE DRAWINGS.

LTR	REVISIONS	DATE	CHK'D	APP'D
A	AS-BUILT CORRECTIONS	1-16-68		
		BY	R.D.Z.	

10 GEV CORNELL SYNCHROTRON LABORATORY

CORNELL UNIVERSITY
ITHACA NEW YORK

POWER – CONTROL
ELEMENTARY DIAGRAMS
SHEET 2 OF 2

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WMB & Assoc. DATE NOV 15, 1968	MGR. BUSINESS DATE JAN 15, 1966		WMB & A NO. 1114

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