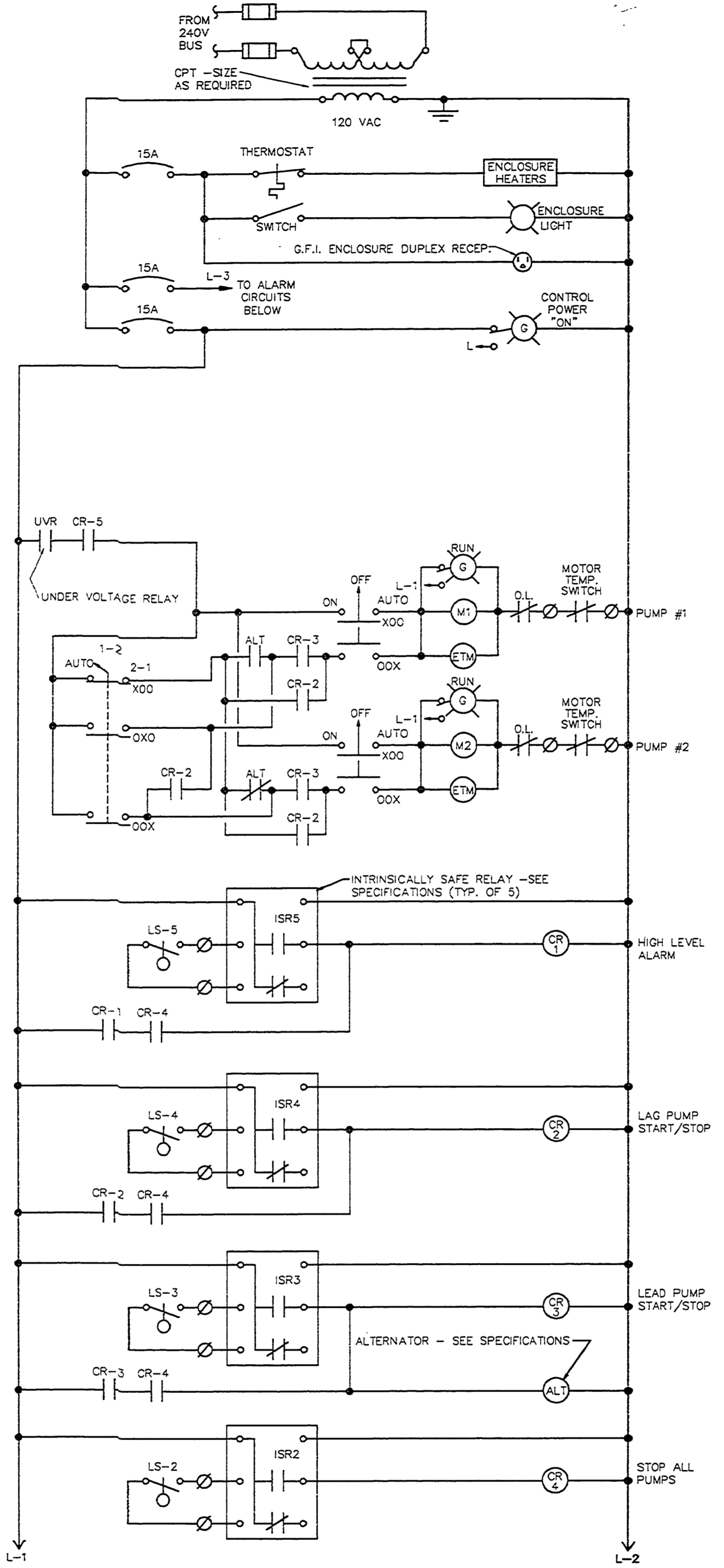
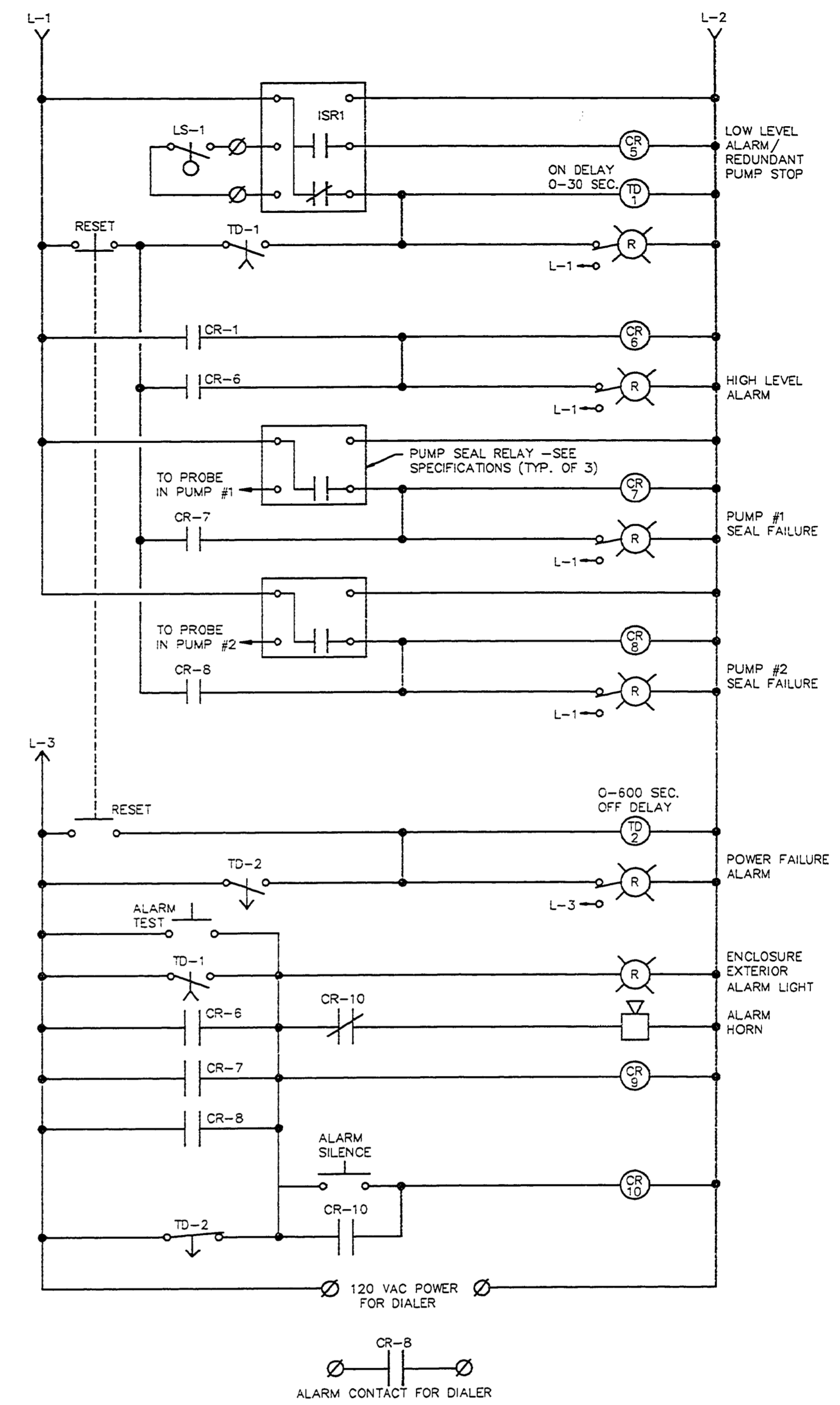


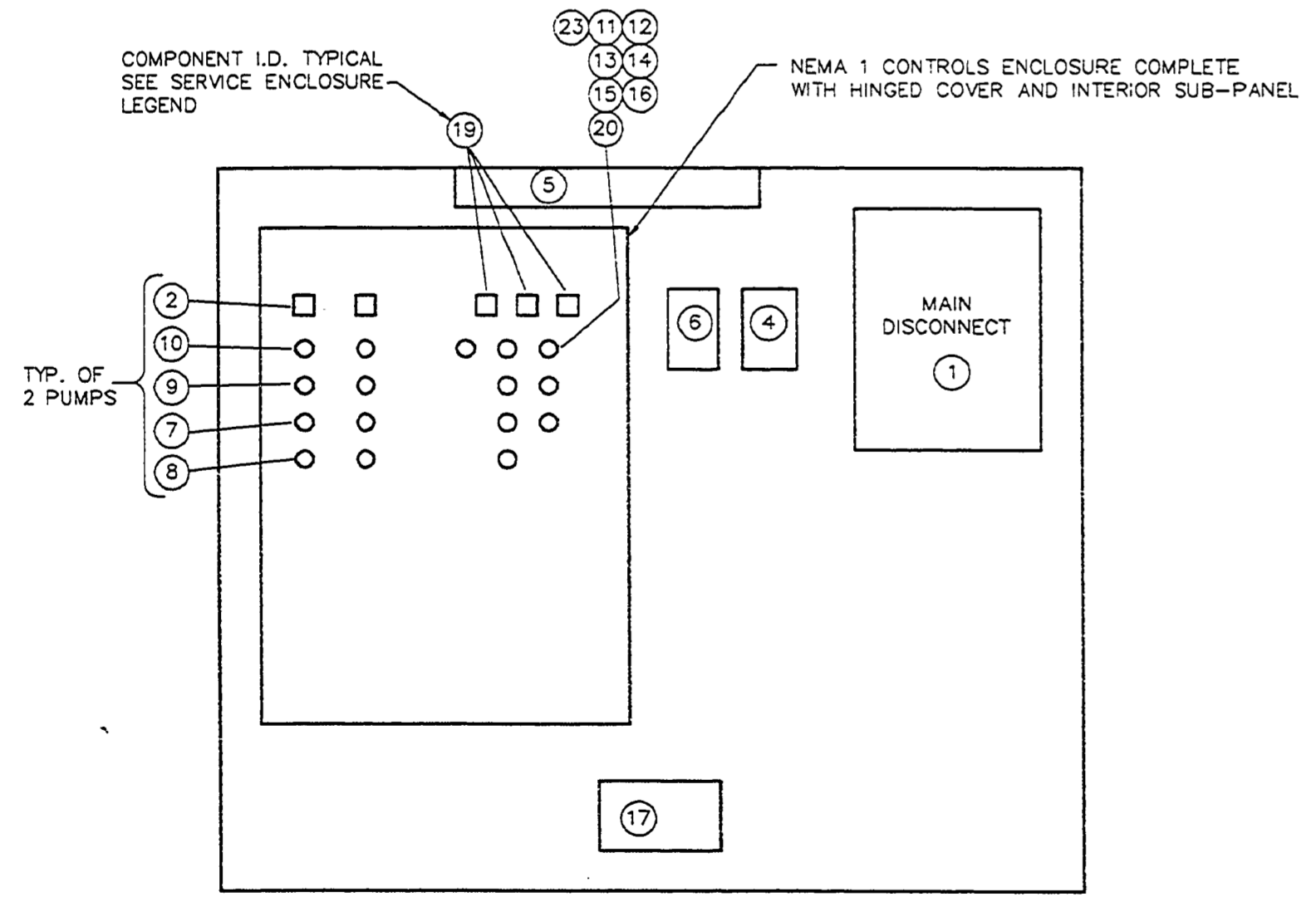
SERVICE ENCLOSURE DETAIL
NO SCALE
(SEE SHEET 21 FOR ELECTRICAL SERVICE DETAILS)



PUMP CONTROLS DIAGRAM



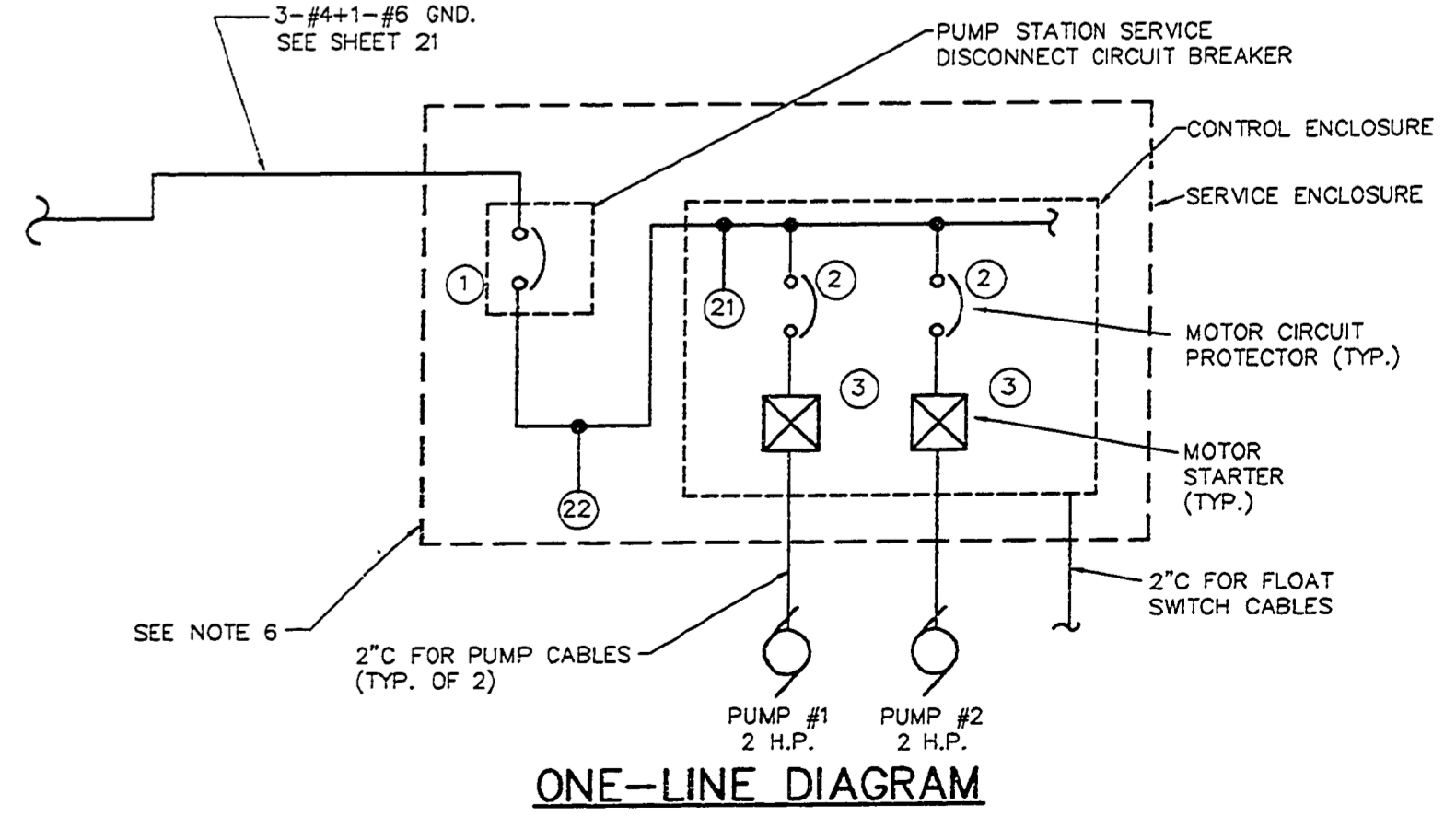
PUMP CONTROLS DIAGRAM



TYPICAL SERVICE ENCLOSURE SUBPANEL LAYOUT DETAIL
NO SCALE

SERVICE ENCLOSURE LEGEND		
COMP. I.D. (1)	DESCRIPTION	NOTES
1	60 AMP, 2 POLE, 600V ENCLOSED CIRCUIT BREAKER	1
2	30 AMP, 2 POLE, 600V MOTOR CIRCUIT PROTECTOR	3, 4
3	TYPE MOTOR STARTER, RESET BUTTON THROUGH FACE OF CONTROL ENCLOSURE SIZE PER NEC FOR APPROVED PUMPS	2, 3
4	LIGHT SWITCH AND COVER PLATE	--
5	TWO FOOT, 20W FLUORESCENT FIXTURE WITH THERMOPLASTIC LENS	--
6	DUPLEX RECEPTACLE (GF) AND COVER PLATE	--
7	"RUN" INDICATOR LIGHT	--
8	"HAND-OFF-AUTO" SELECTOR SWITCH	--
9	"PUMP SEAL FAILURE" INDICATOR LIGHT	--
10	ELAPSED TIME METER	--
11	NOT USED	--
12	"LOW WATER ALARM" INDICATOR LIGHT	--
13	"HIGH WATER ALARM" INDICATOR LIGHT	--
14	"ALARM TEST" BUTTON	--
15	"ALARM RESET" BUTTON	--
16	"ALARM SILENCE" BUTTON	--
17	CABINET HEATER AND THERMOSTAT	--
18	NOT USED	--
19	CONTROL POWER CIRCUIT BREAKER	3,4
20	"CONTROL POWER ON" INDICATING LAMP	--
21	UNDERVOLTAGE RELAY	3
22	SURGE ARRESTOR	--
23	"AUTOMATIC,1-2,2-1" SELECTOR SWITCH	--

- NOTES:**
- ENCLOSED CIRCUIT BREAKERS SHALL BE LISTED AND LABELLED AS SUITABLE FOR USE AS SERVICE EQUIPMENT.
 - PROVIDE CIRCUIT BREAKER AND THERMAL OVERLOAD ELEMENTS (HEATERS) PER THE N.E.C. ARTICLE 430.
 - MOUNT EQUIPMENT REFERENCED TO THIS NOTE ON SUB-PANEL OF CONTROLS ENCLOSURE, ALLOW MINIMUM OF TWENTY PERCENT SPACE ON SUB-PANEL FOR FUTURE EQUIPMENT.
 - CIRCUIT BREAKER HANDLES SHALL PROJECT THROUGH FACE OF CONTROL ENCLOSURE.
 - PROVIDE SEAL-OFF FITTINGS IN CONDUITS ENTERING THE WET WELL IN ACCORDANCE WITH THE N.E.C. ARTICLE 501.
 - ALL ENCLOSURES WITH CONTROL EQUIPMENT INSIDE SHALL BE UL LABELLED AS AN ASSEMBLY.



ONE-LINE DIAGRAM
NO SCALE

FILE NAME: 1159E2B
 UPDATED ON: 11/10/94 14:43
 BASE SHEET FROM FILE: 0141EBUL
 UPDATED BY: DRS

DRN BY: MLM	IDENTIFICATION NO.	ISSUED FOR	DATE
DESIGN BY: MLM	PROJECT - MUSKEGON	PRELIMINARY <input checked="" type="checkbox"/>	7-21-94
CHKD BY: M.J.J.	STATE ACCOUNT	CONSTRUCTION <input checked="" type="checkbox"/>	11-09-94
APPD BY: GDA	607-75-2450-400	FINAL RECORD <input type="checkbox"/>	



STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
Office of Facilities

QUALITY OF LIFE RECREATION BOND
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
PARKS DIVISION - STATE ACCT. NO. 607-75-2450-400

MUSKEGON STATE PARK
CAMPGROUND PUMP STATION IMPROVEMENTS
ELECTRICAL

SCALE: AS SHOWN
PROJ. NO.: 91159
SHEET 6B OF 21