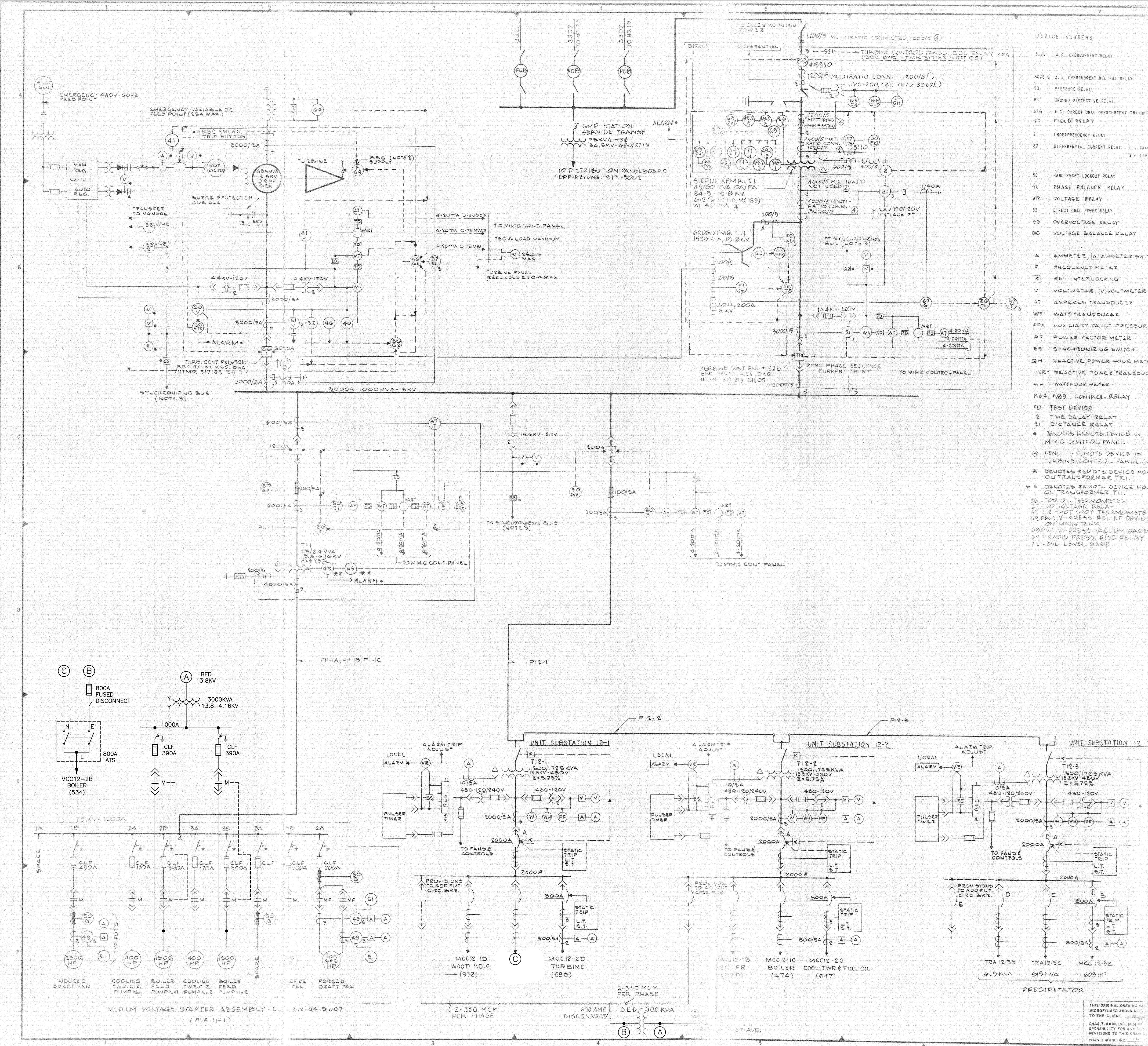




DEVICE NUMBERS

- 50/51 A.C. OVERCURRENT RELAY
- 50/510 A.C. OVERCURRENT NEUTRAL RELAY
- 53 PRESSURE RELAY
- 54 GROUND PROTECTIVE RELAY
- 57 A.C. DIRECTIONAL OVERCURRENT GROUND RELAY
- 40 FIELD RELAY
- 81 UNDERFREQUENCY RELAY
- 87 DIFFERENTIAL CURRENT RELAY - T = TRANSFORMER, G = GENERATOR
- 50 HAND RESET LOCKOUT RELAY
- 46 PHASE BALANCE RELAY
- VR VOLTAGE RELAY
- 32 DIRECTIONAL POWER RELAY
- 59 OVERVOLTAGE RELAY
- 60 VOLTAGE BALANCE RELAY
- A AMMETER, [A] AMMETER SWITCH
- F FREQUENCY METER
- K KEY INTERLOCKING
- V VOLT METER, [V] VOLT METER SWITCH
- AT AMPERES TRANSDUCER
- WT WATT TRANSDUCER
- FX AUXILIARY FAULT PRESSURE
- PF POWER FACTOR METER
- SS SYNCHRONIZING SWITCH
- QH REACTIVE POWER HOUR METER
- VAR REACTIVE POWER TRANSDUCER
- WM WATT-HOUR METER
- K04 K05 CONTROL RELAY
- TD TEST DEVICE
- 2 TIME DELAY RELAY
- 21 DISTANCE RELAY
- DENOTES REMOTE DEVICE IN TURBINE CONTROL PANEL (NOTE 3)
- * DENOTES REMOTE DEVICE MOUNTED OUTSIDE OF TURBINE T-1
- ** DENOTES REMOTE DEVICE MOUNTED ON TRANSFORMER T-1
- 10 TOP OIL THERMOMETER
- 21 NO. 10 THERMOMETER
- 21.2 NO. 10 THERMOMETER
- 600K-1 PRESS. REL. DEVICE ON MAIN TANK
- 600K-2 PRESS. VACUUM GAGE ON MAIN TANK
- 600K-3 PRESS. RISE RELAY
- 71 OIL LEVEL GAGE

FOR SCHEMATIC DIAGRAMS SEE 3000 DNG. HMR 317183 SH. 11, 12 & 13.
2. SEE DNG. 3000-1-315-5000 FOR SYNC ELEMENTARY & DC ONE LINE DIAGRAMS.
4. DEVICES NOT DESIGNATED FOR REMOTE MOUNTING ARE TO BE MOUNTED IN GENERATOR ELECTRIC 13KV SWITCHGEAR CUBICLE AND ALL LOW-VOLTAGE MEDIUM VOLTAGE STARTERS.

REV. 2

UPDATED GMP STA. SERVICE XFMR. VOLTAGE FROM 34.5KV-120/120V TO 34.5KV-480/277V.
UPDATED DNG. TO SHOW ALARM AND TRIP FUNCTIONS.

REV. 3

REVISED GENERATOR RELAYING PER BSC LETTER DATED JAN. 4, 1984.
REVISED SEC. FOR BRKR. ARRANGEMENT SUBSTATION 12-1 & 12-2.

REV. 4

ADDED & CORRECTED CT & PT INFO AT (4) MARK.
CHANGED T1 FROM 13.8KV/5.75% AT (4) MARK.

REV. 5

ADDED CONN. TO EAST AVE. AT (5)

NOTICE

This drawing is a contract document. It contains information, reference, and contract. It is to be used in conjunction with other documents. This drawing, when used with other documents, shows the general requirements of the work and is not complete as to scope or detail.

NO.	DATE	DESCRIPTION	BY	CHKD.
6	5/22	AS-BUILT	WV	KSS
5	4/24	ADDED EAST AVE. CONN.	WV	KSS
4	4/24	REVISED CT & PT INFO	WV	KSS
3	4/24	AS BUILT	WV	KSS
2	EN-94	CONSTR. REV.	WV	KSS
1	EN-51	CONSTR. REV.	WV	KSS
0	EN-45	CONSTR. 1955	WV	KSS
B	4/24	UPDATED MCC LOADS	WV	KSS
A	4/24	ISSUED AS-BUILT	WV	KSS
NO DATE		DESCRIPTION		
DRAWN BY	WV	CHECKED BY	WV	
RESP. ENGR.	WV	CH. ENGR.	WV	
PROJECT ENG.	WV	PROJECT MGR.	WV	
IN CHARGE	WV			

MAIN
CHAS. T. MAIN, INC.
BOSTON • NEW YORK • CHARLOTTE • DENVER • PORTLAND

CLIENT/PROJECT TITLE
BURLINGTON

DEPARTMENT
ELECTRIC

JOSEPH C. MC NEIL GENERATING STATION

DEPT
PRIMARY POWER

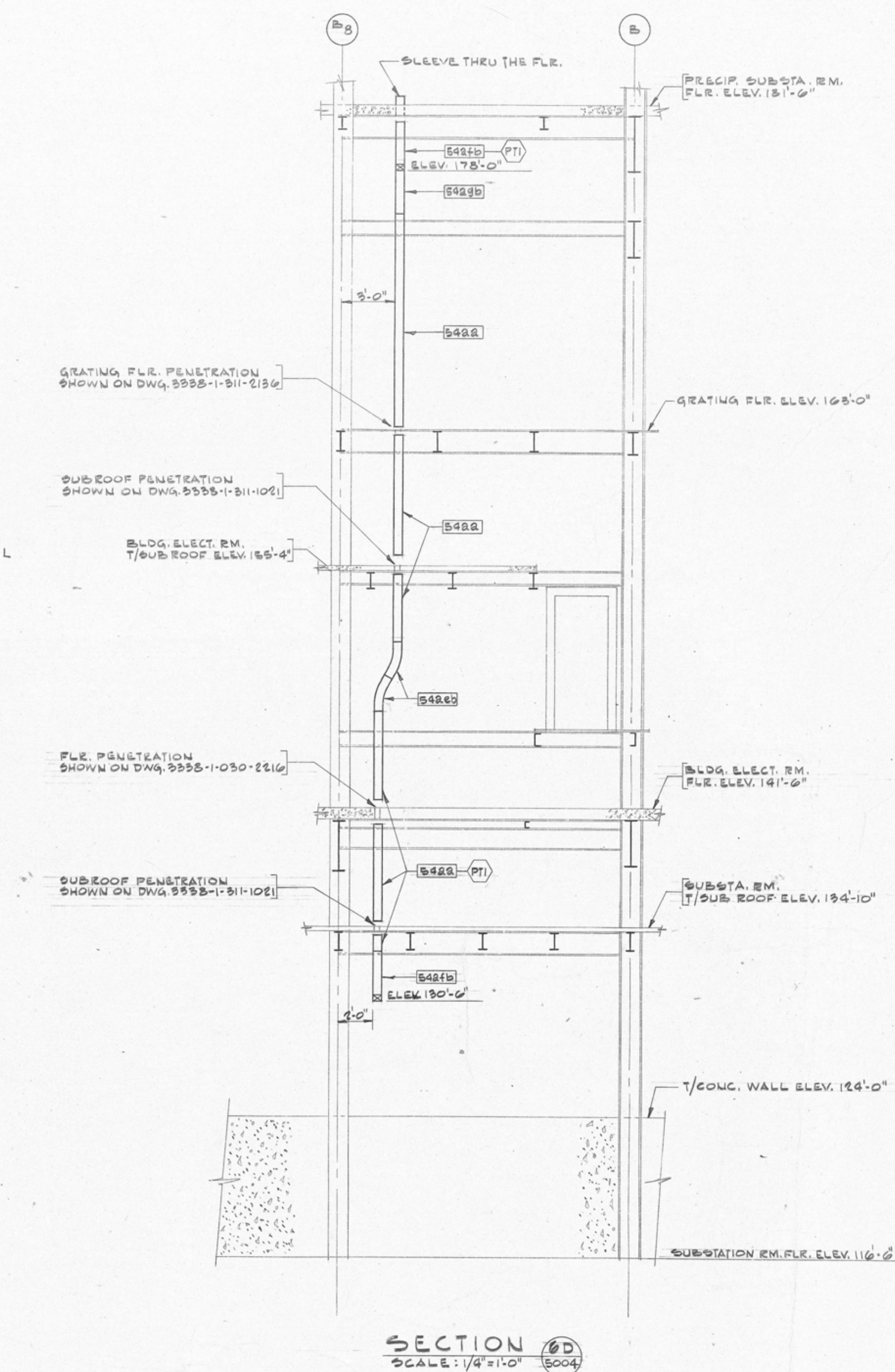
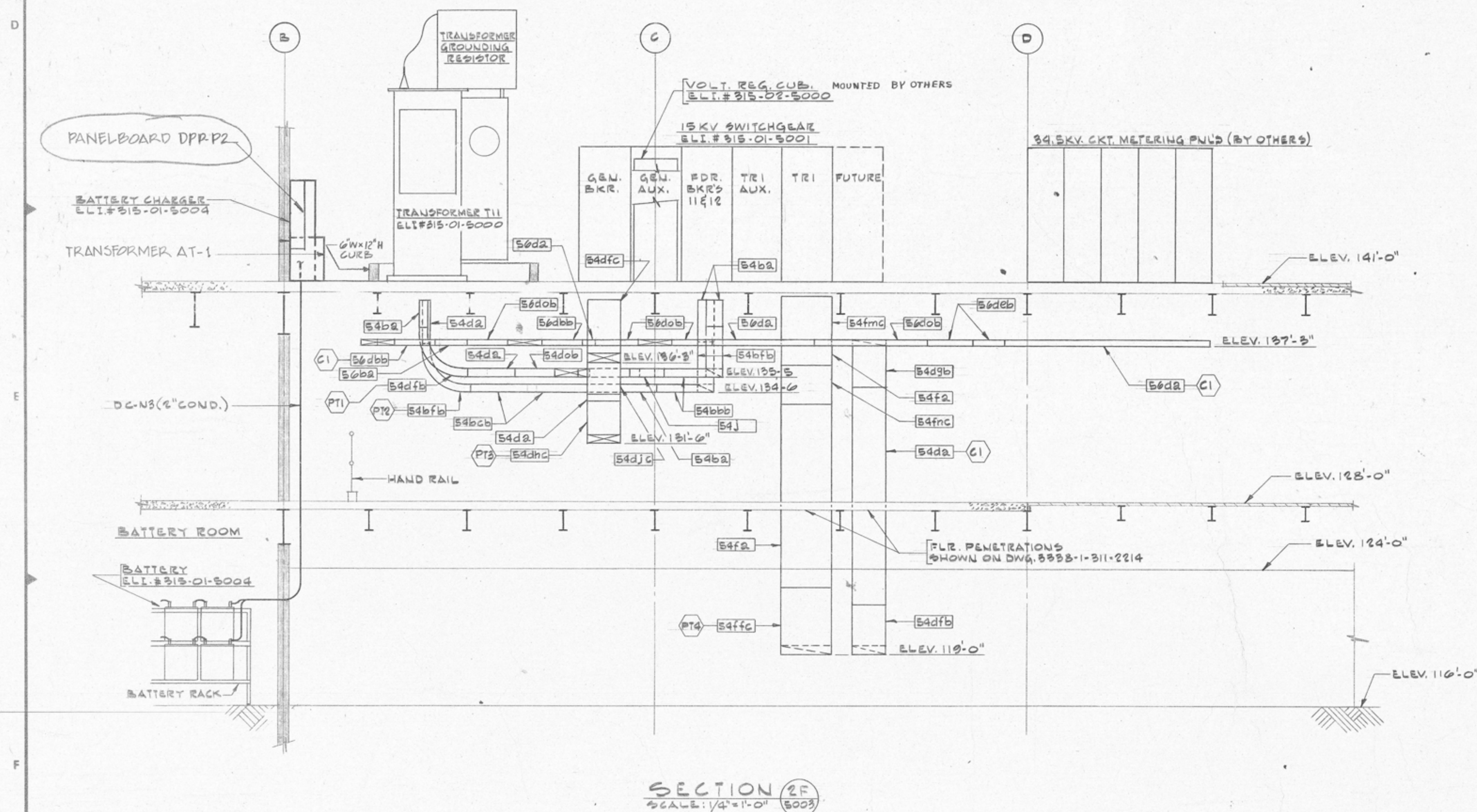
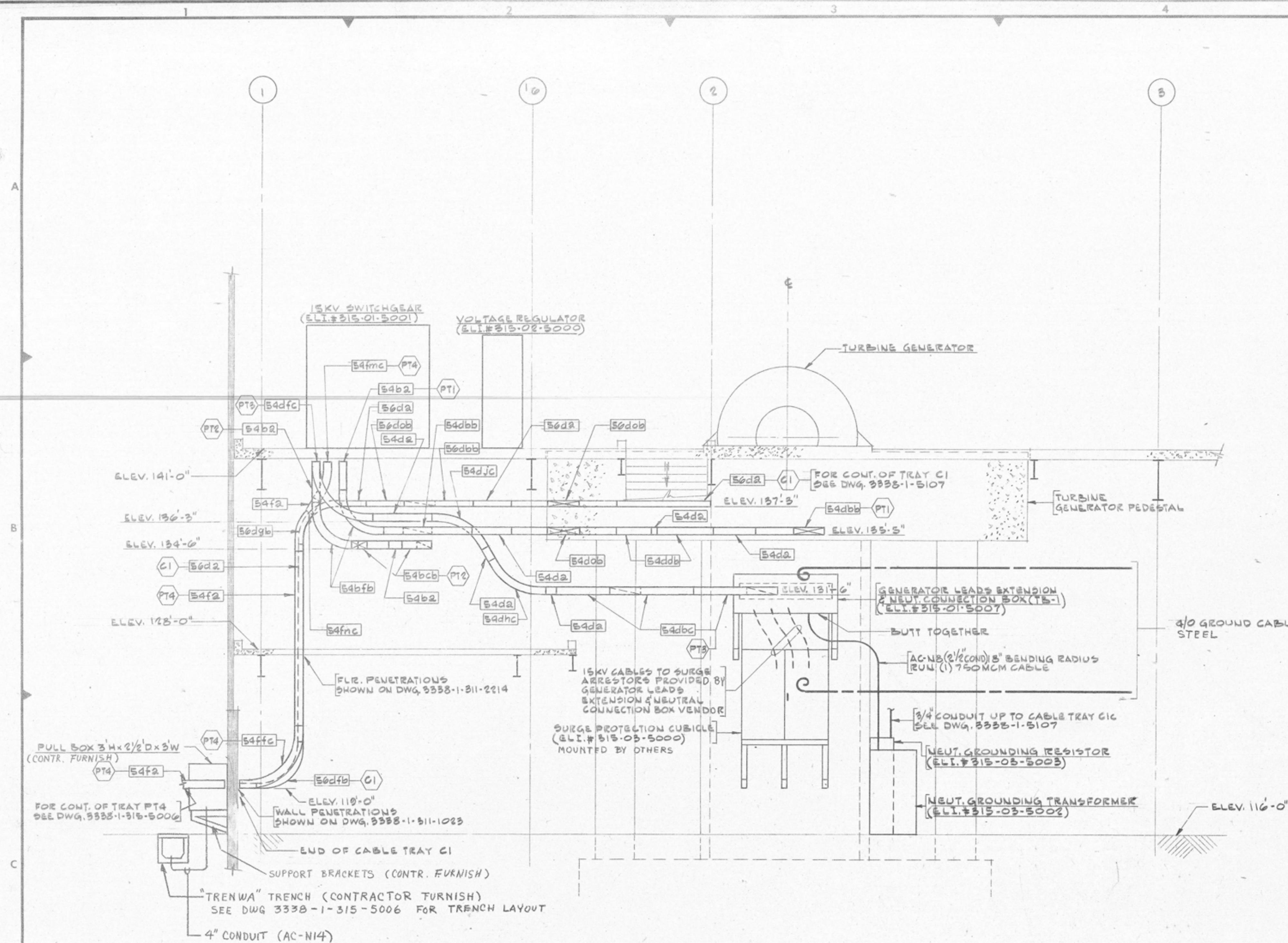
DRAWING NO.
315

DRAWING DESCRIPTION
ELECTRICAL ONE LINE DIAGRAM

SCALE
1" = 100'

DWG. NO.
3338-1-315-5001

REV.
6



NOTES
1. FOR GENERAL NOTES, LEGEND & DETAILS SEE GENERAL CONSTRUCTION BOOKLET DWG. 3338-001-5101.

4. CABLE TRAY SPECIFIED BY THIS DRAWING TO BE THE 6" DEEP TYPE, EXCEPT CABLE TRAY C1 TO BE 4" DEEP AND HAVE 9" RUNG SPACING.

REV. 2
MINOR CHANGE

NOTICE
This drawing is issued for:
☐ INFORMATION / REFERENCE
☐ BID
☐ CONTRACT
☒ CONSTRUCTION / FABRICATION
This drawing taken with other documents shows the general requirements of the work and is not complete as to scope or detail.

2	EN-54 CONSTR. REV.	10/10/03	W.N.	REV.
1	EN-51 CONSTR. REV.	10/10/03	W.N.	REV.
0	EN-45 CONSTR. ISSUE	10/10/03	W.N.	REV.
A	ISSUED FOR BID	10/10/03	W.N.	REV.
NO. DATE DESCRIPTION				
DRAWN BY	S.T.D.	CHECKED BY	R.W.L.	
RESP. ENGR.	J.P. B.	CH. DISC. ENGR.		
PROJECT ENGR.	R.C. DAVE	PROJECT MGR.	R.C. DAVE	
IN CHARGE	W.N. NEIL			

RECEIVED
10/14/03

MAIN
CHAS. T. MAIN, INC.
BOSTON • NEW YORK • CHARLOTTE • DENVER • PORTLAND

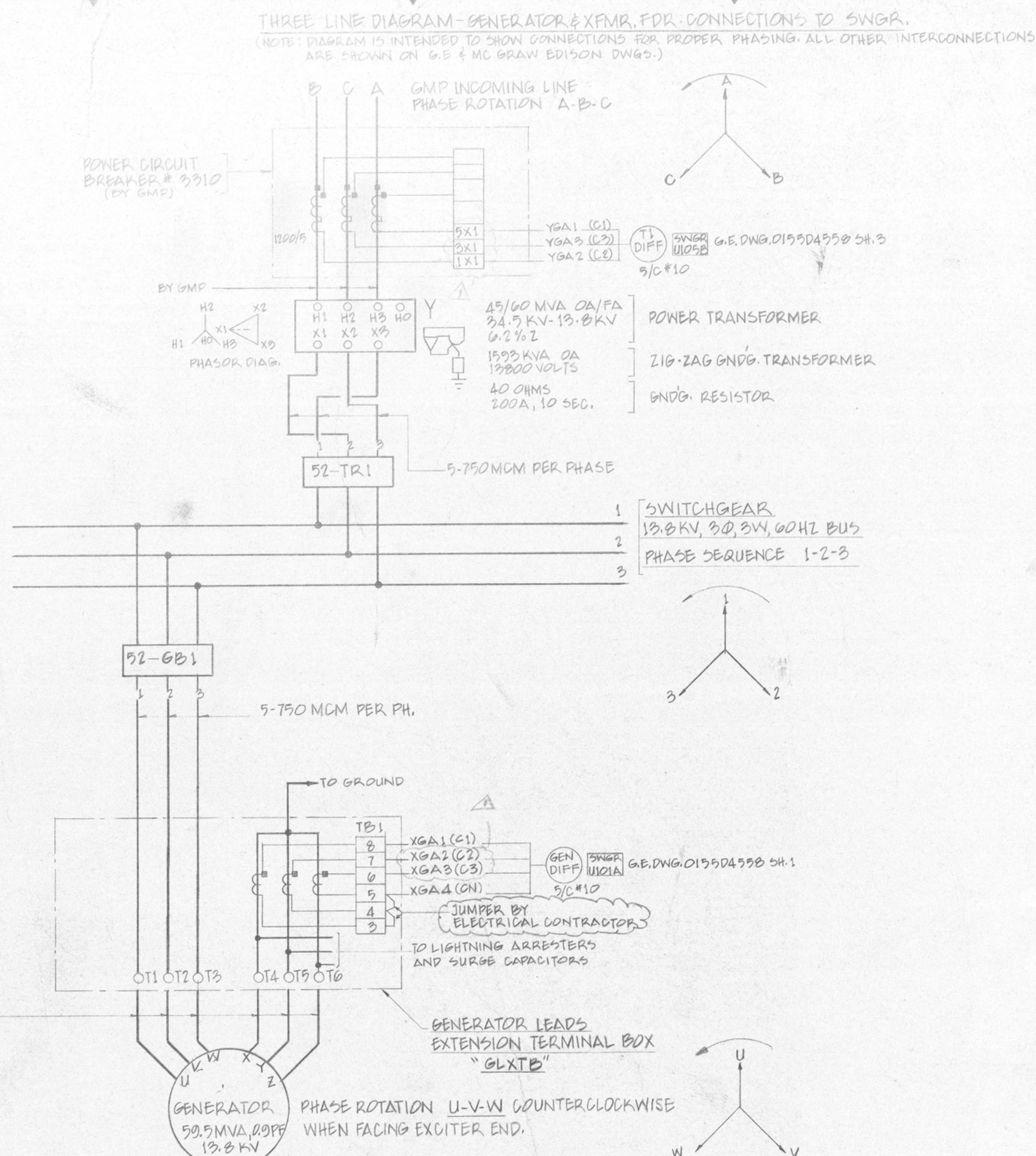
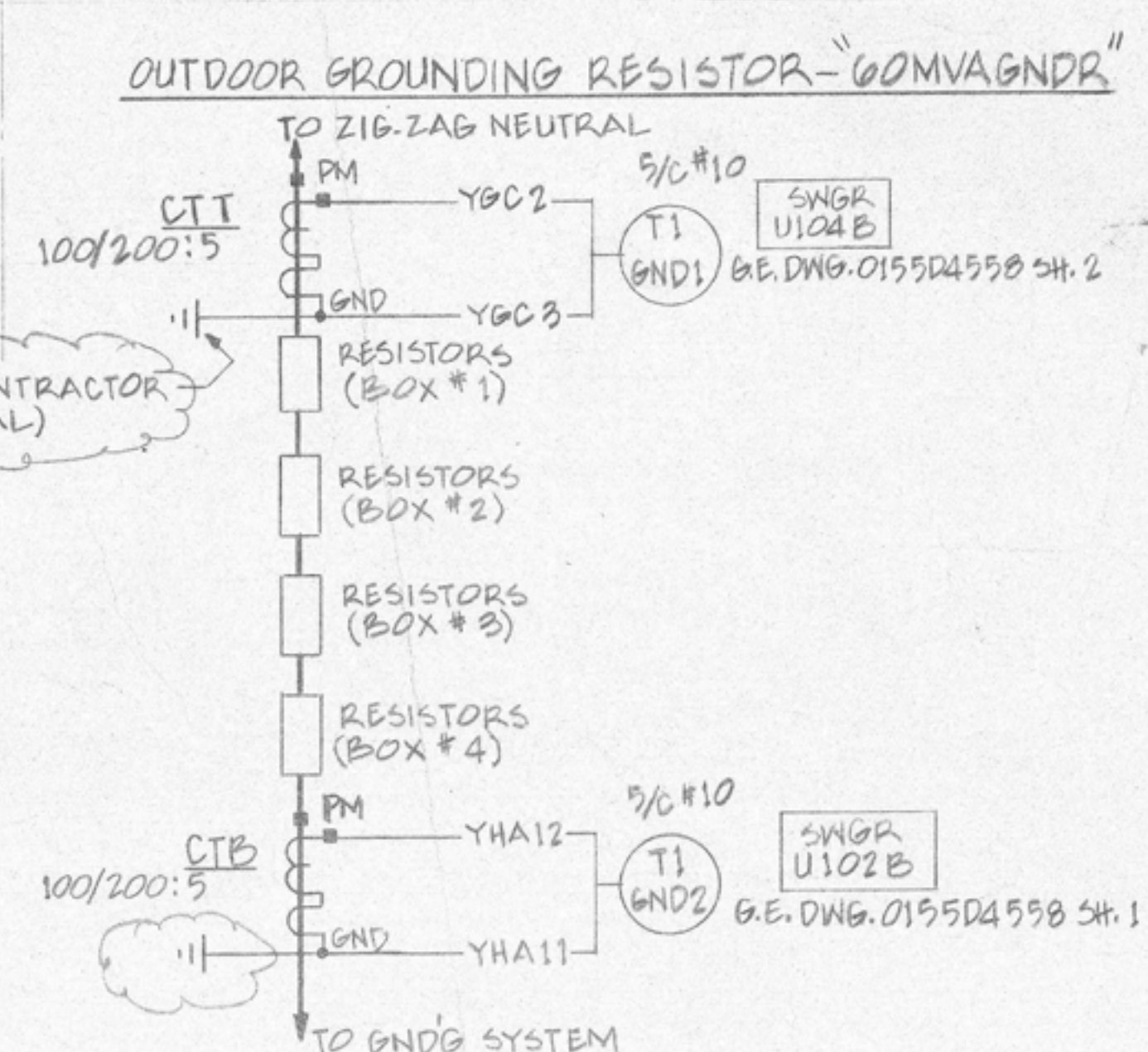
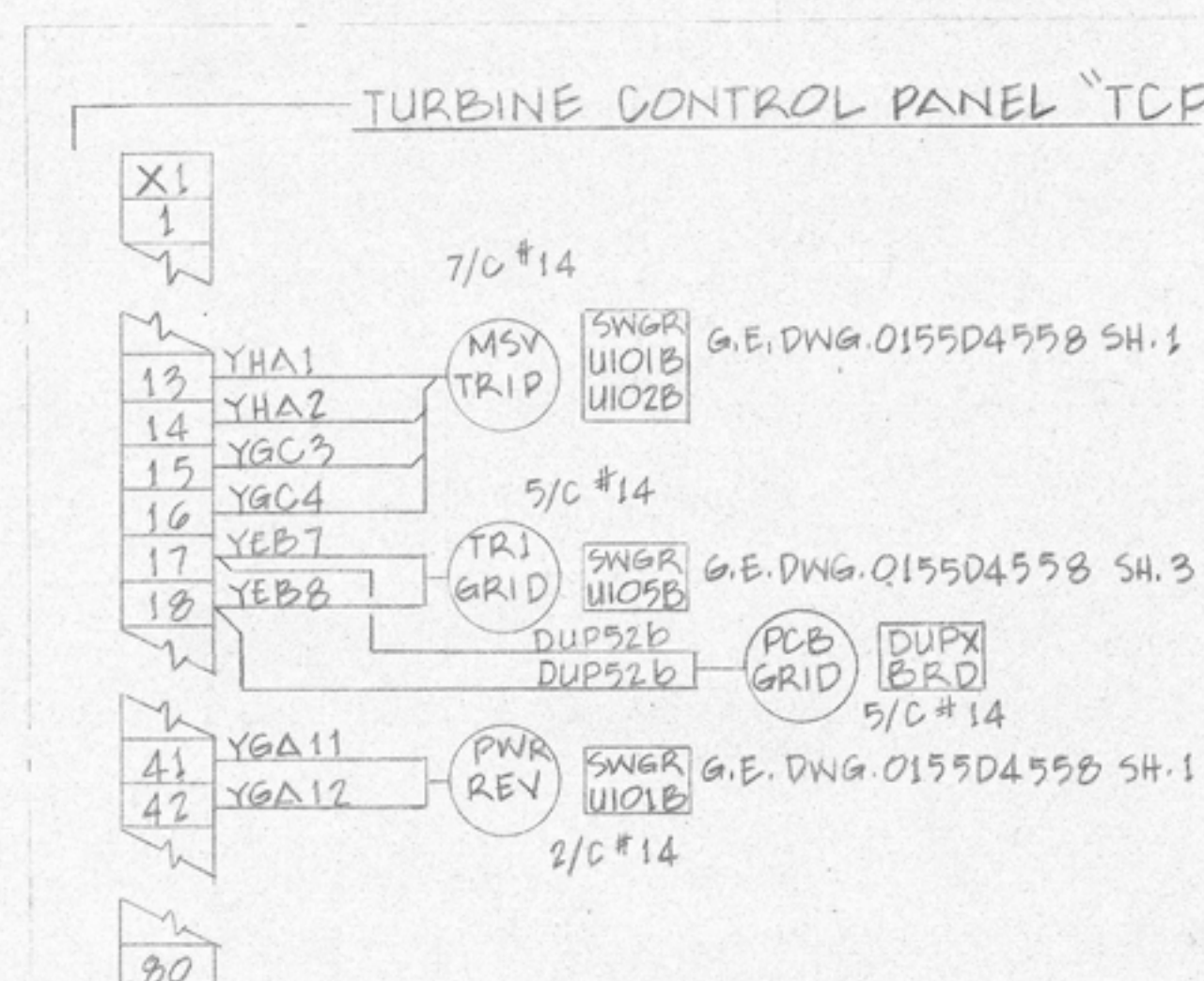
CLIENT/PROJECT TITLE
BURLINGTON

Electric DEPARTMENT

JOSEPH C. MC NEIL GENERATING STATION
DEPT. PRIMARY POWER NO. 315

DRAWING DESCRIPTION
ELECTRICAL
POWER PLAN, SECTION
& DETAILS - SWGR. RM.

SCALE 1/4" = 1'-0"
MAIN'S DWG. NO. 3338-1-315-5005



5 1. EXCEPT AS NOTED, ONLY EXTERNAL
WIRINGS WERE SHOWN ON DRAWING.

MOP - MIMIC CONTROL PANEL
SWGR - 15 KV SWITCHGEAR
 U102B - UNIT 102B
GEN EXB - GENERATOR EXCITER BOX
DCPNTL - 125VDC PANEL
MPP - MISC. POWER PANEL
VRC - VOLTAGE REGULATOR CUBICLE
 OR EXCITATION CONTROL CUBICLE
GMPDUP - GREEN MOUNTAIN POWER
 DUPLEX SWITCHBOARD
TCP - TURBINE CONTROL PANEL
GTBMK7 - GENERATOR TERMINAL BOX MAT
GENEXB - GENERATOR EXCITER BOX
GLXTB - GENERATOR LEADS EXTENSION
 TERMINAL BOX
GOMVAGNDR - GROUPING RESISTOR FOR 60 MVA
 OUTDOOR TRANSFORMER

EN60 - NEW DWG.
- CONTRACTOR TO INSTALL
JUMPERS AND CT GROUND CONNECTION

This drawing is issued for:

☐ INFORMATION/REFERENCE

☐ BID

☐ MATERIAL PROCUREMENT

☐ CONTRACT

☒ CONSTRUCTION/FABRICATION

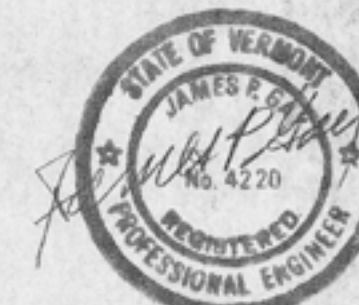
This drawing taken with other documents shows the general requirements of the work and is not complete as to scope or detail.

[illegible]

	
CHAS. T. MAIN, INC. BOSTON • NEW YORK • CHARLOTTE • DENVER • PORTLAND	
CLIENT/PROJECT TITLE BURLINGTON	
DEPARTMENT	
JOSEPH C. MC NEIL GENERATING STATION	
DEPT. PRIMARY POWER	NO. 315
DRAWING DESCRIPTION ELECTRICAL WIRING DIAGRAMS SH. 1 OF 10	
SCALE NO SCALE	
MAIN'S DWG. NO. 3302A	REV.

* JOSEPH C. MCNIEL GENERATING STATION

LINE-UP 01
INDOOR POWER VAC METALCLAD
13.8 3PH-3W-60HZ-3000A



EN60-NEW DWG.

1. ELECTRICAL CONTRACTOR
TO INSTALL OWNER
FURNISHED CT, CONNECT
PRIMARY AND SECONDARY
WIRINGS TO TERMINALS
SHOWN ON CONNECTION
DRAWING 0155D4557 SH. 9

THIS DRAWING IS ISSUED FOR

☐ INFORMATION / REFERENCE

☐ BID

☐ CONTRACT

☒ CONSTRUCTION / FABRICATION

0	1-29	ENDG. CONSTR.	NO	315	NO	CH	RE	QDR	172
(MAIN) CHART T. MAIN, INC. INCORPORATED IN NEW YORK 100 WEST 111 STREET NEW YORK 1, N.Y. DESCRIPTION OF WORK PRIMARY POWER									

BURLINGTON		DEPARTMENT
DRAWING TITLE		REV.
JOSEPH C. MC NEIL GENERATING STATION		1
WIRING DIAGRAMS		2
MAIN'S DRAWING NO.		3

ADD FIELD MOUNT

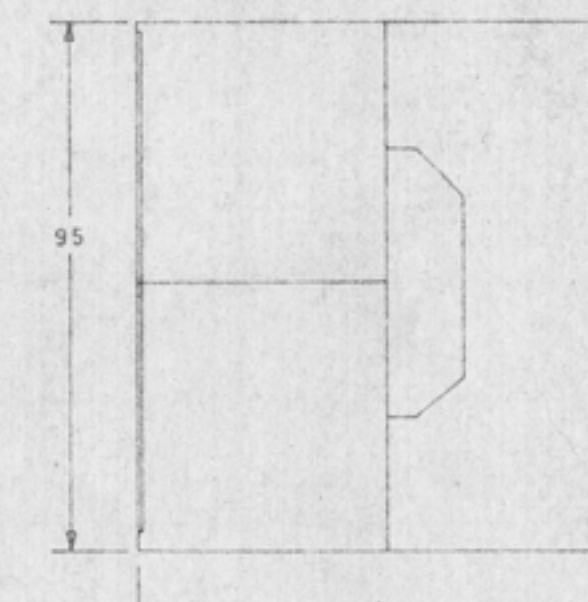
V
Wash. D.C.
Sept. 10, 1908

	Dr. Geo. M. W. 978	5	7.00
	1898 v. 12 d. 1810		

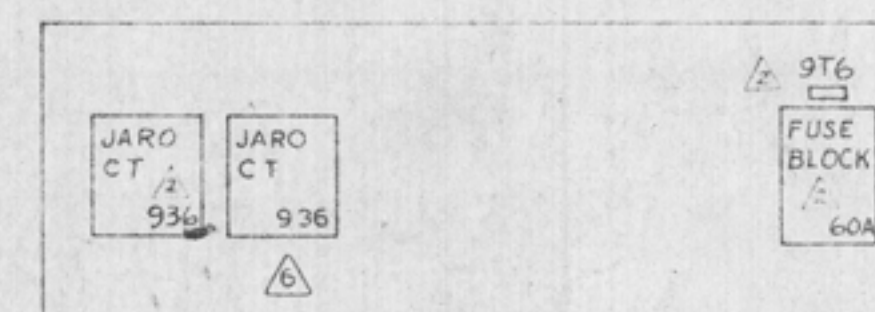
6-7-83	REVISED	78
6-7-83	PREPARED	78

RF	1	785
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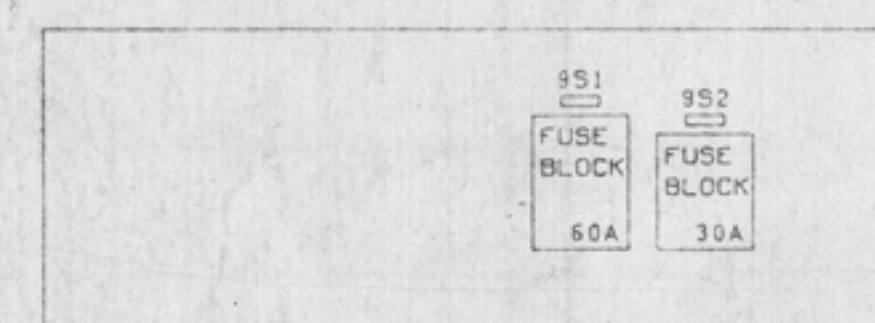
BY R. WISTROM	APL	SWITCHGEAR	0155D3593
ISSUED AUG 23		BURLINGTON, IOWA	CONT. SH. 2 SH. 1
		E. F. BERGER	972899 729



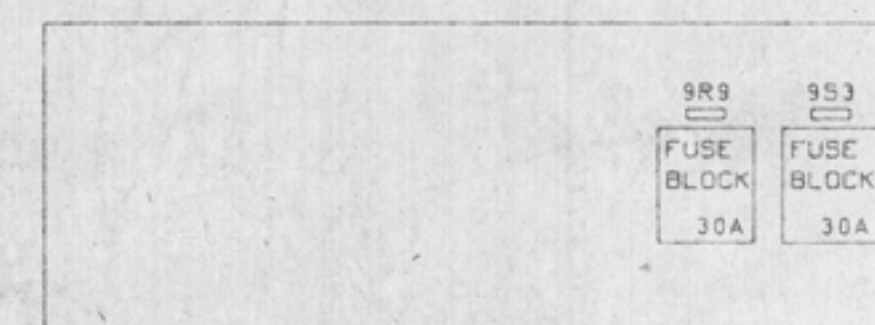
TYPICAL SIDE VIEW
INDOOR



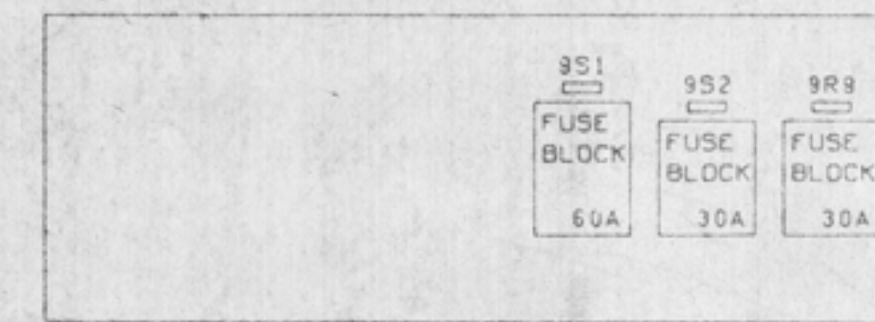
AUX DEVICE PANE
UNIT 104B



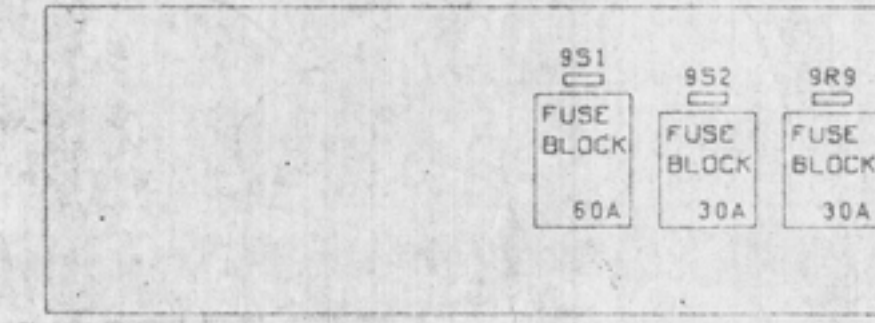
AUX DEVICE PANEL
UNIT 101B



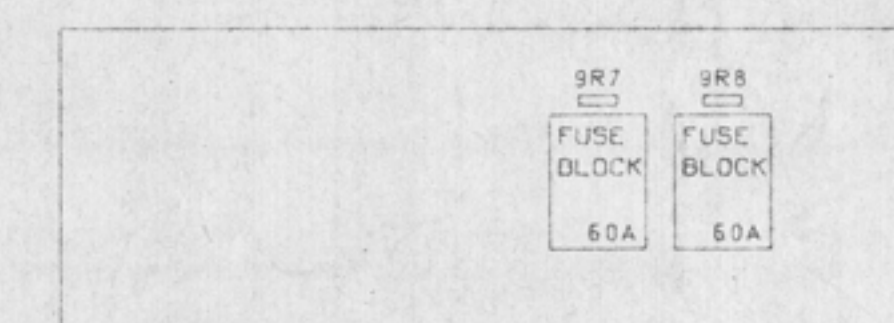
AUX DEVICE PANEL
UNIT 102A



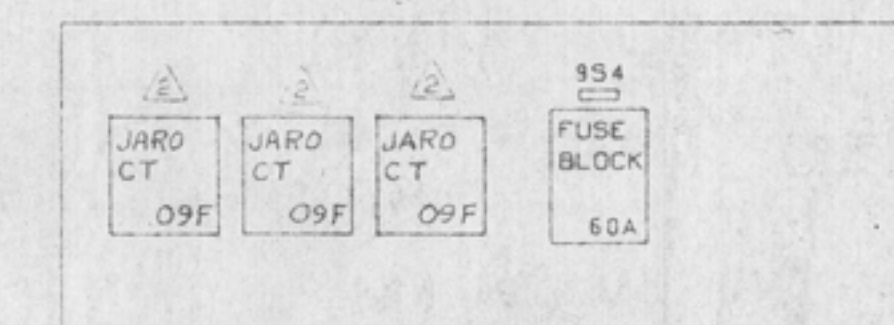
AUX DEVICE PANEL
UNIT 103A



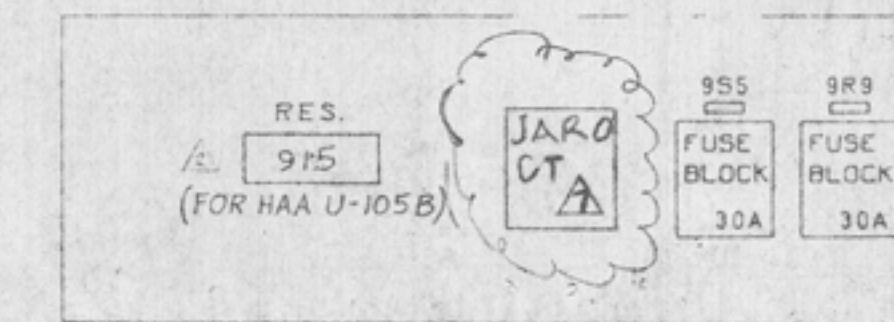
AUX DEVICE PANEL
UNIT 1038



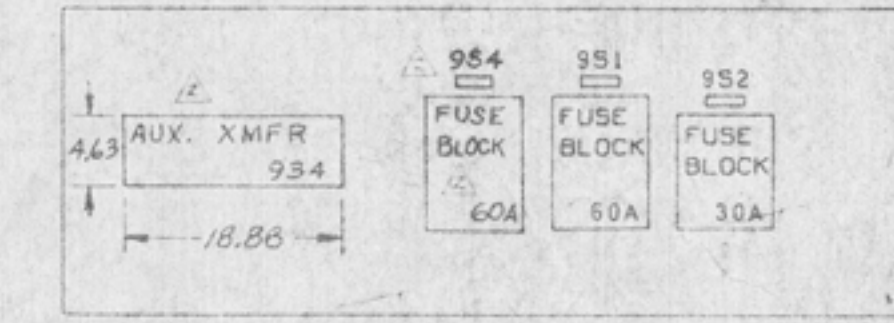
AUX DEVICE PANEL
UNIT 101A



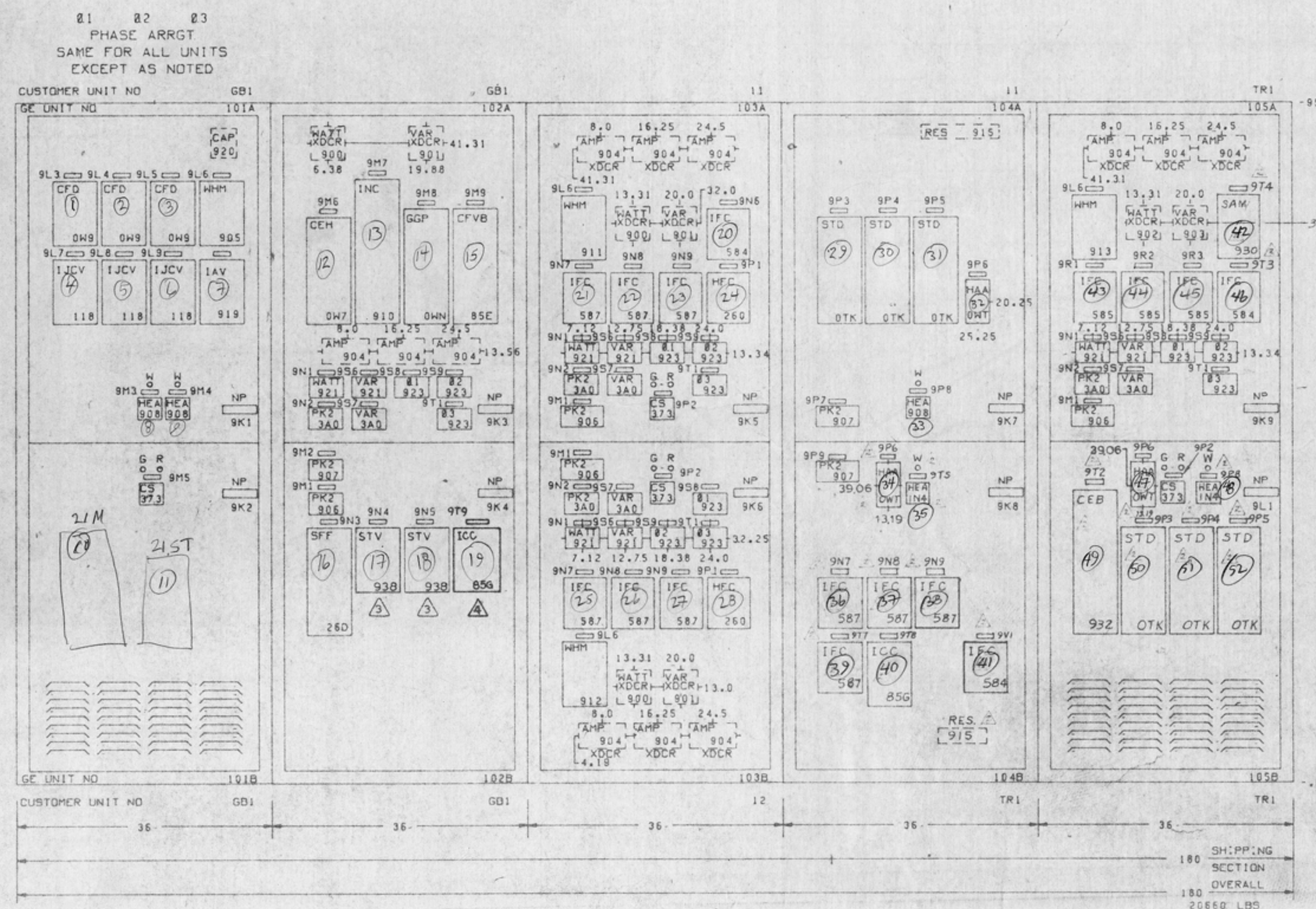
AUX DEVICE PANEL
UNIT 104A



AUX. DEVICE PANEL
UNIT 105A



AUX DEVICE PANEL
UNIT 105B



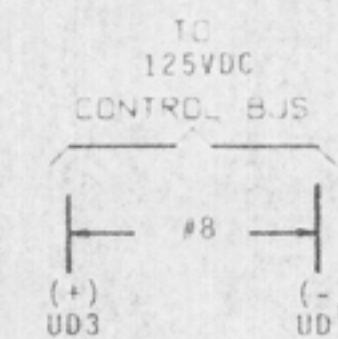
FRONT VIEW
LINE-UP # 01
BREAKER REMOVAL END

180 SH:PP:
SECTION
OVERALL
180
20560 LBS

* RING TERMINAL



DENOTES INTERNAL WIRING
BY ELECTRICAL CONTRACTOR



THIS DRAWING
NOT TO SCALE

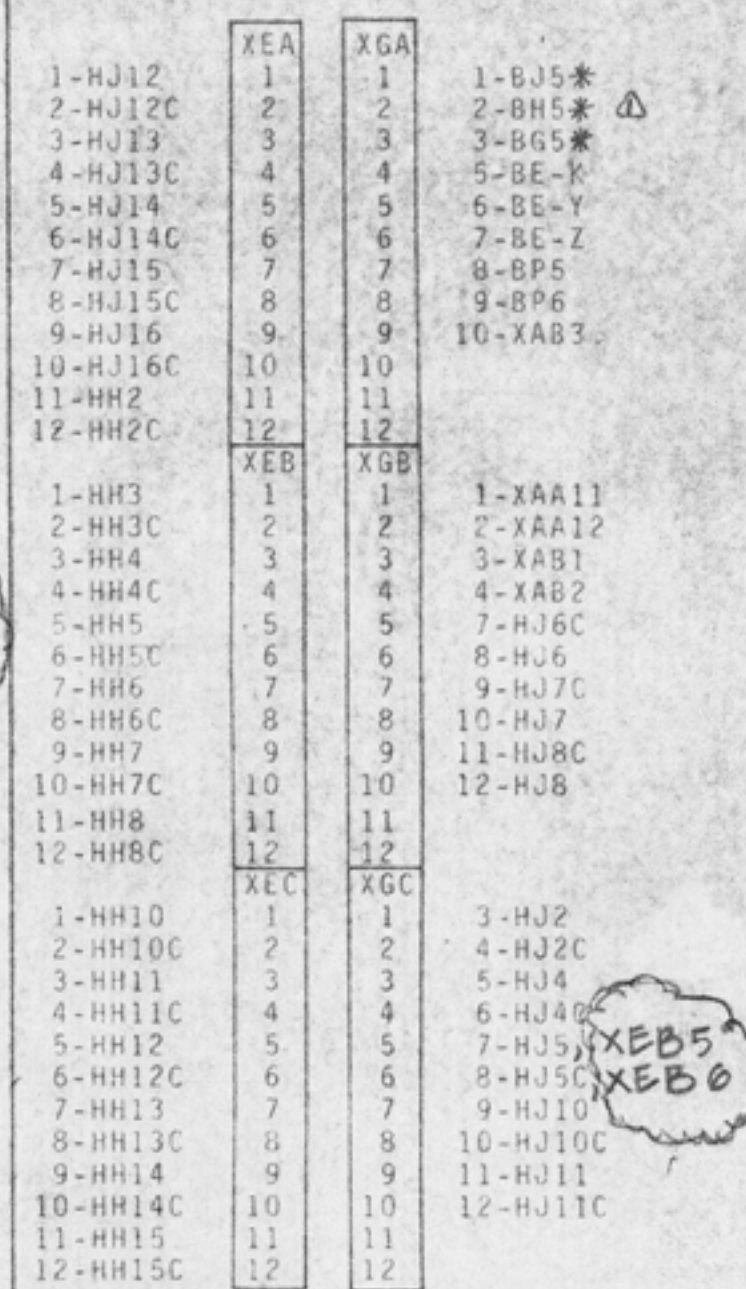
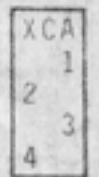
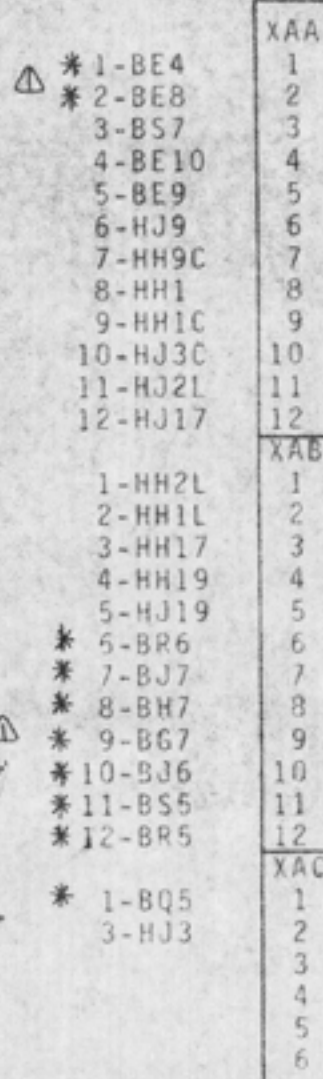
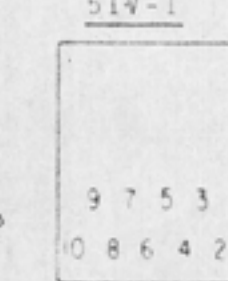
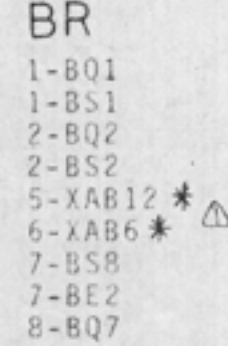
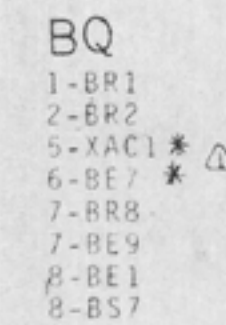
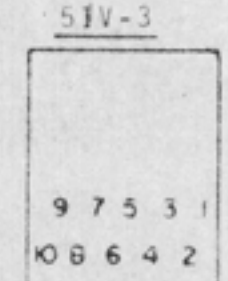
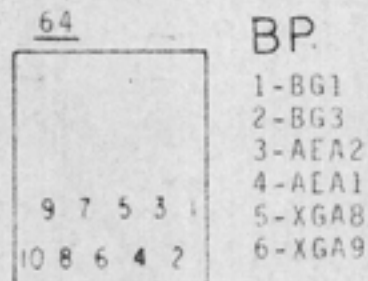
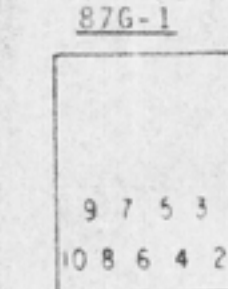
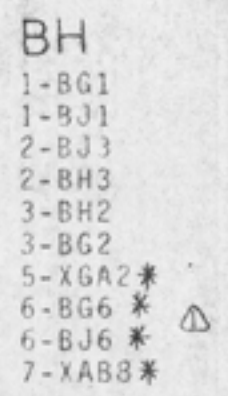
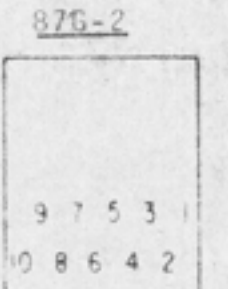
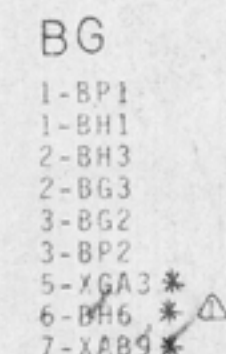
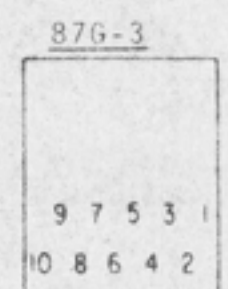
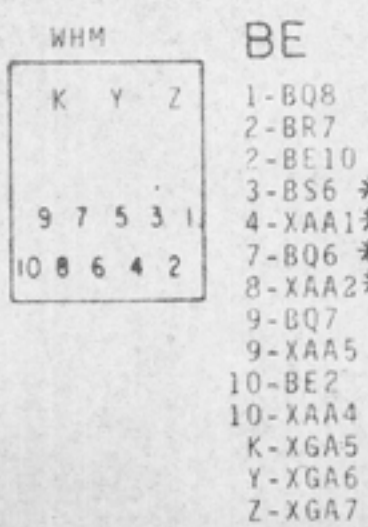
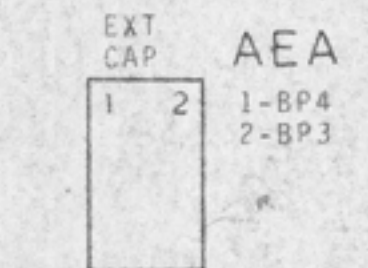
CONNECTION DIAGRAM

USER: BURLINGTON ELECTRIC DEPT.
LOCATION: INTERVAL ROAD, BURLINGTON, VT.
STATION: JOSEPH C. MCNEIL GENERATING STATION
CONSULTANT: C.T. MAIN, INC.
CONTRACTOR:
DISTRIBUTOR:
ORDER NO:

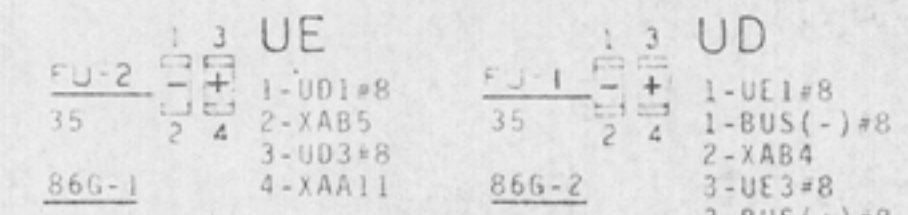
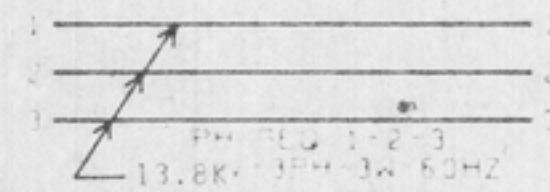
GE S.O. 972899
GE SUM 0308A5812
GE REQ. 297-91358
REQ. ITEM NO.
INSTALL
DWG.
SPECS GEZ2512A

UNIT -101A

0155D4557
CONT. 2 SHEET
REV. 0
0187C9606
0155D3593
0155D4558



ENGO-NEW DWG.
CONTRACTOR TO INSTALL
JUMPERS.



NO.	DESCRIPTION	REV.	DATE
1	ENGO-CONST.	0	10/1/00
2	ENGO-CONST.	1	10/1/00
3	ENGO-CONST.	2	10/1/00
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198	ENGO-CONST.	197	10/1/00
199	ENGO-CONST.	198	10/1/00
200	ENGO-CONST.	199	10/1/00

NOTICE

This drawing is issued for:
☐ INFORMATION / REFERENCE
☐ BID
☐ CONTRACT
☒ CONSTRUCTION / FABRICATION
This drawing taken with other documents shows the general requirements of the work and is not complete as to scope or detail.



(A) DOOR BACK VIEW

LEFT SIDE SHEET

DOOR THROUGH

RIGHT SIDE SHEET