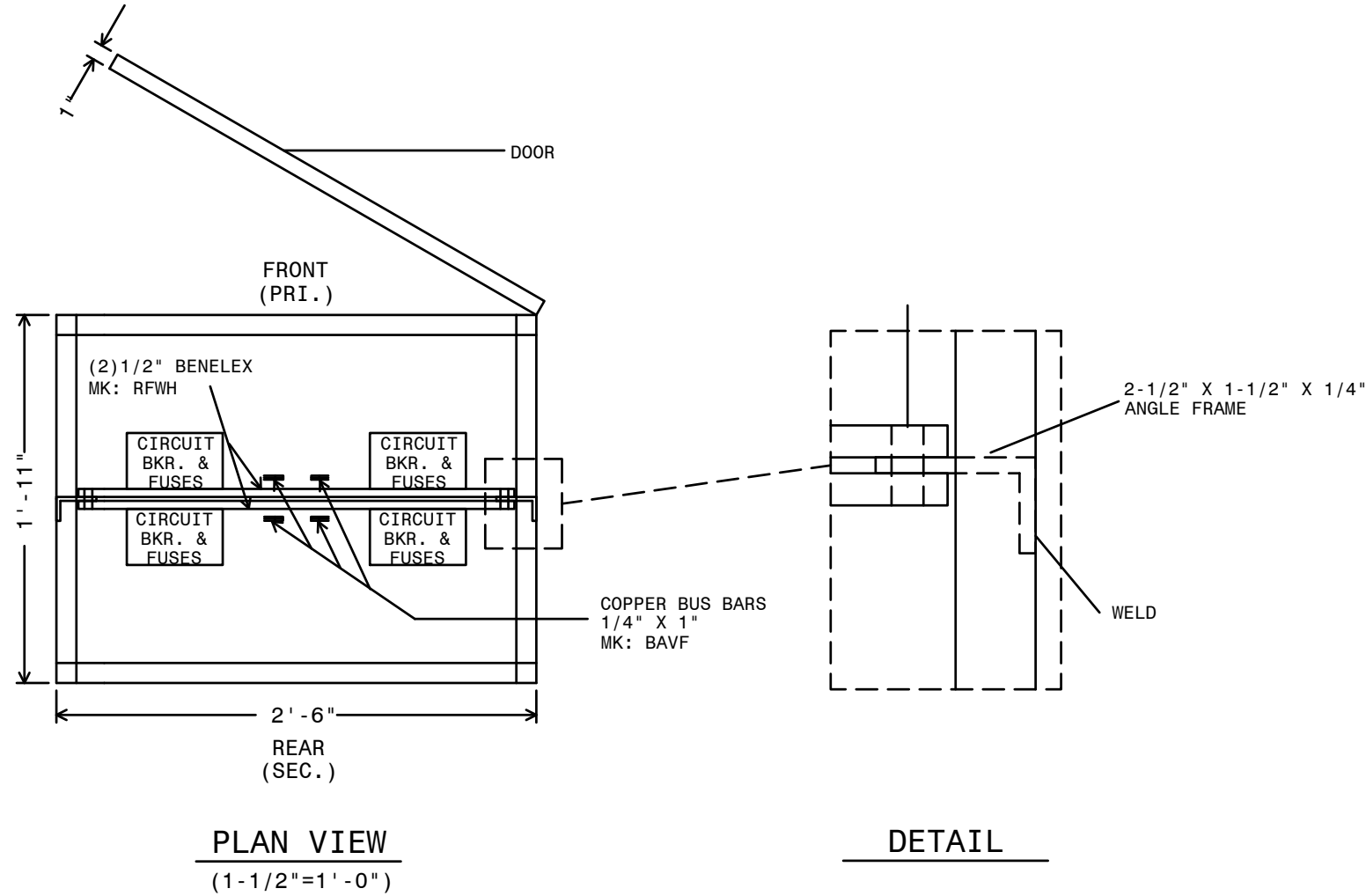
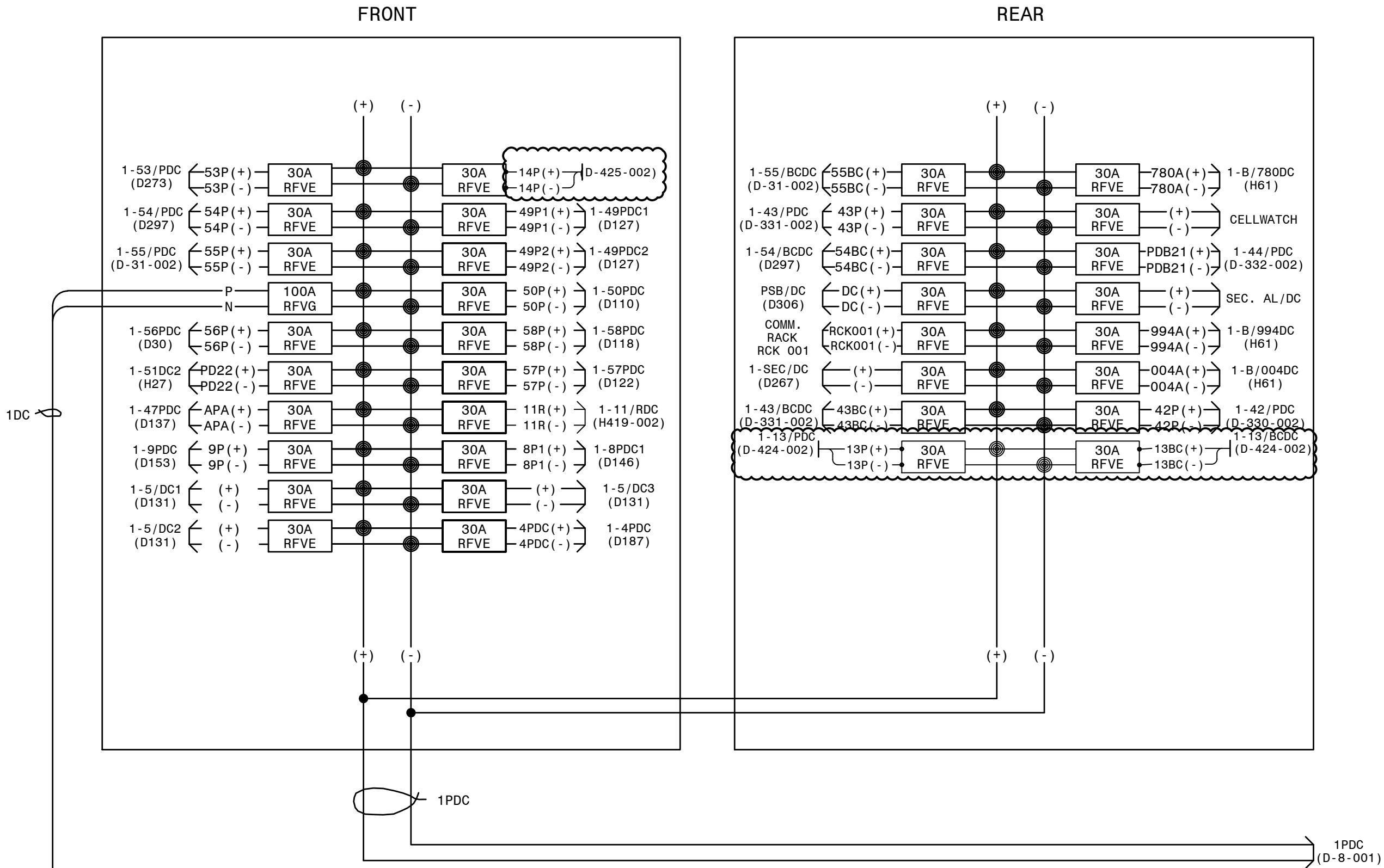


QTY.	CMS UNIT	MATL. MK.	DESCRIPTION	REMARKS	NON STOCK
2	BAVF	BAVF	BAR-CL 1IN X 1IN X 12FT		
30	RFVE-D	RFVE	CIRCUIT BREAKER, AMB COMP, 2P, 30A		
1	RFVG	RFVG	CIRCUIT BREAKER, AMB COMP, 2P, 100A		
2	RFWH	RFWH	PANEL-BENELEX 402 281X 1-41IN X 1IN		
1	RGRG-D	RGRG	SWBD REAR DOOR, 28-3/4" X 90"	0-31-D1	YES
	RGUT	RGUT	SWITCHBOARD ANGLE FRAME 30 X 90 X 23IN	0-31-D1	YES

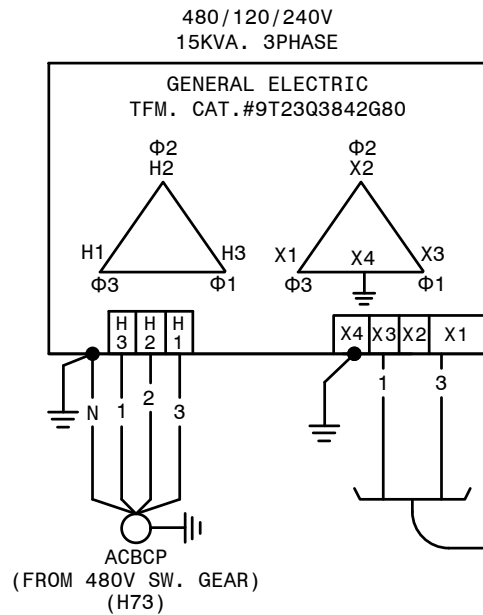


WIRING CONNECTION (JUMPER TAPS):

PRIMARY:	% TAPS	VOLTS
H1-H2-H3	2	502
	3	480
	4	467
	5	458
	6	444
	7	431

SECONDARY:	VOLTS
120	120
240	240
120/240	120/240

CONNECT LOAD TO:
X1-X4
X1-X4
X1-X3-X4
X4 IS A NEUTRAL



CABLE ENTRY IS FROM TOP OF PANEL

REFERENCES:

01-173-D8-001	PRIMARY DC SUPPLY AND BATTERY CHARGER ELEMENTARY
01-173-D8-002	PRIMARY DC - MOBILE BATTERY TRAILER CONNECTIONS
01-173-D103-001	SECONDARY DC SUPPLY AND BATTERY CHARGER ELEMENTARY
01-173-D104-001	PANEL #19 WIRING DIAGRAM SECONDARY D.C. PANEL
01-173-D104-002	SECONDARY DC - MOBILE BATTERY TRAILER CONNECTIONS
01-173-D13	S.S. & THROWOVER CAB #2 WRG & CONN. DIAGRAM
01-173-D215	230KV YARD STATION SERVICE & THROWOVER CABINET #1

P.I.#1899807

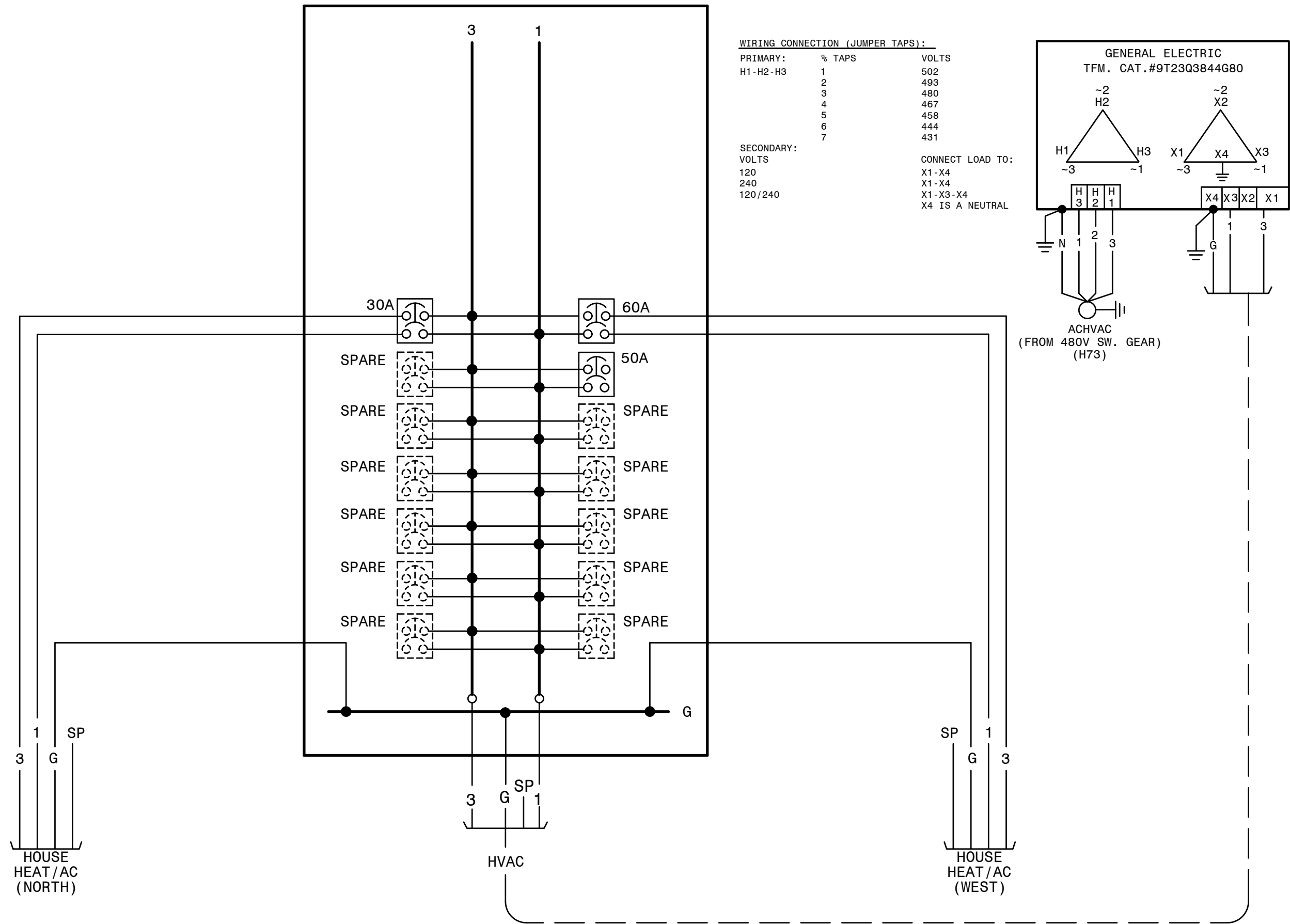


AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

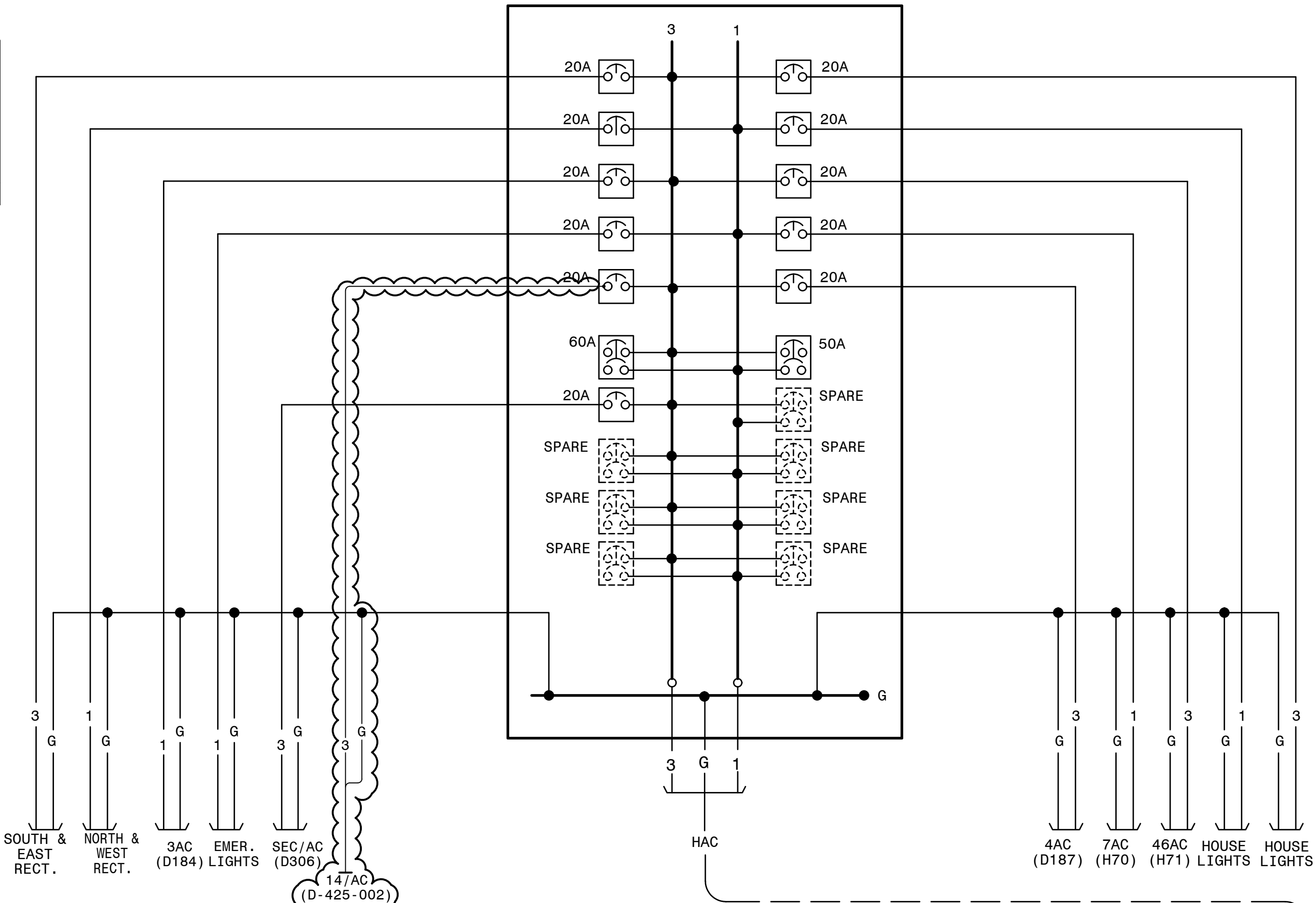
GEORGIA POWER SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS	
DRAWN: JPB		TITLE: PANEL #1 DETAILS & WIRING DIAGRAM PRIMARY D.C. PANEL	
CHECKED: JWH	TYPE: WD	FACILITY #:	NUMBER:
APPROVED:	SCALE: AS SHOWN	01-173	7
DATE: 7/14/2000	BOM:	ASC FACS:	ALT DWG NUM:

08 BAK TM	11/11/2013 P1: 1500701	09 REL LKJ	2/1/2016 P1: F08	10 JCM JCM	2/5/2021 P1: 1855101	11 BPE BPE	06/10/2022 P1: 1609401	12 BPE BPE	05/31/2023 P1: 1930501	13 BPE BPE	2/28/2024 P1: 1943901	14 RJH RCL	USPP	4/1/2024 P1: 2014906	15 EG SW	AA	8/20/2024 P1: 1899807
REMOVE CABLE 1-53PDC. ADD CABLE 1-53PDC FOR PANEL #53 REPLACEMENT.		SHOWN FOR RECORD ONLY.		REMOVE CABLE 1-54PDC & 1-54/BCDC. SHOW CABLES IN CORRECT LOCATIONS ON REAR PANEL, FOR RECORD ONLY.		ADD CIRCUIT PSB/DC FOR DC SUPPLY FOR PHYSICAL SECURITY BOARD.		UPDATE CIRCUITS FOR NEW PANEL #55 NELSON LINE. ADD CIRCUITS FOR NEW PANELS #43 SVS LINE, #44 BUS #1 PRIMARY DIFFERENTIAL AS SHOWN. SECYL ALDC (H79) CIRCUIT REMOVED, FOR RECORD ONLY. DWG UPDATED FOR NEW STANDARD DC BATTERY SYSTEM UPGRADE.		UPDATE DRAWING PER FIELD CHANGES AS SHOWN.		UPDATE REFERENCE FOR CABLE 1-11/RDC FOR INSTALLATION OF NEW TRANSFER TRIP PANEL.		INSTALL TWO 30A CIRCUIT BREAKERS AND CABLES 1-13/PDC, 1-13/BCDC, AND 1-14/PDC.			

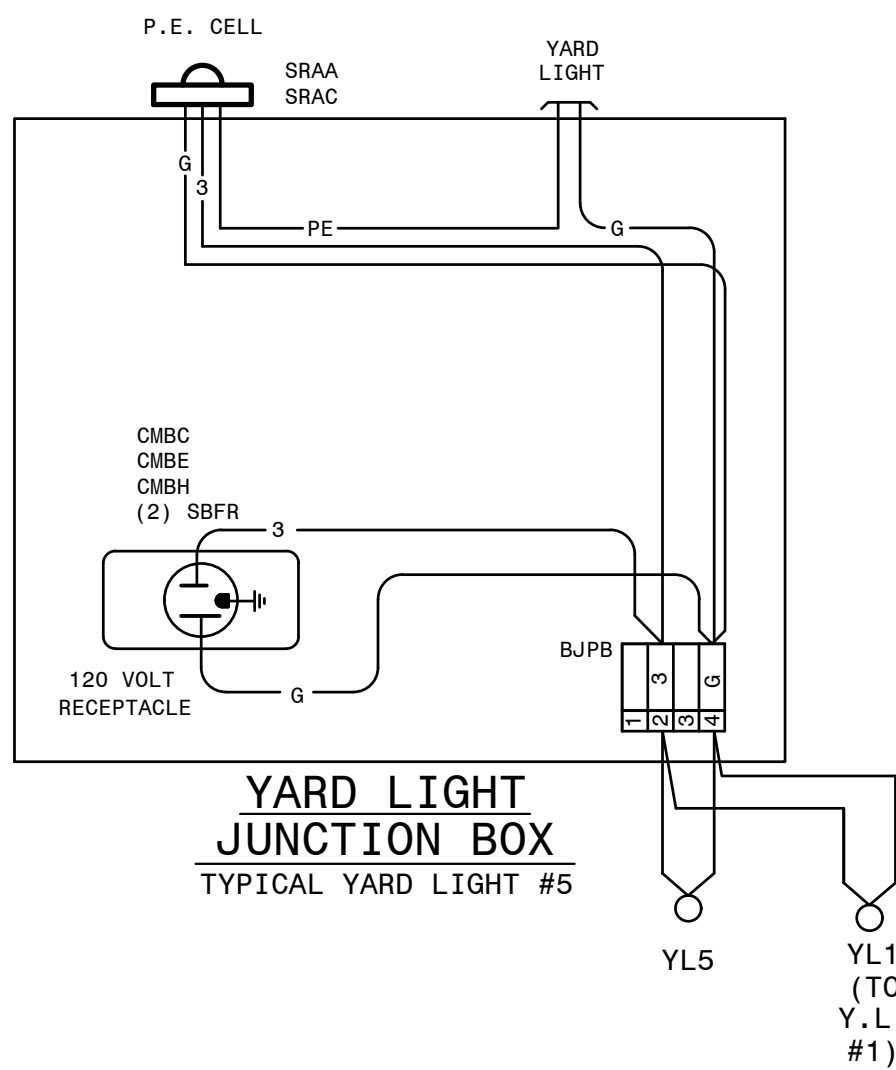
CS: 0-1999 (DGP-X-G-WD)



HVAC A.C. PANEL
WIRING DIAGRAM

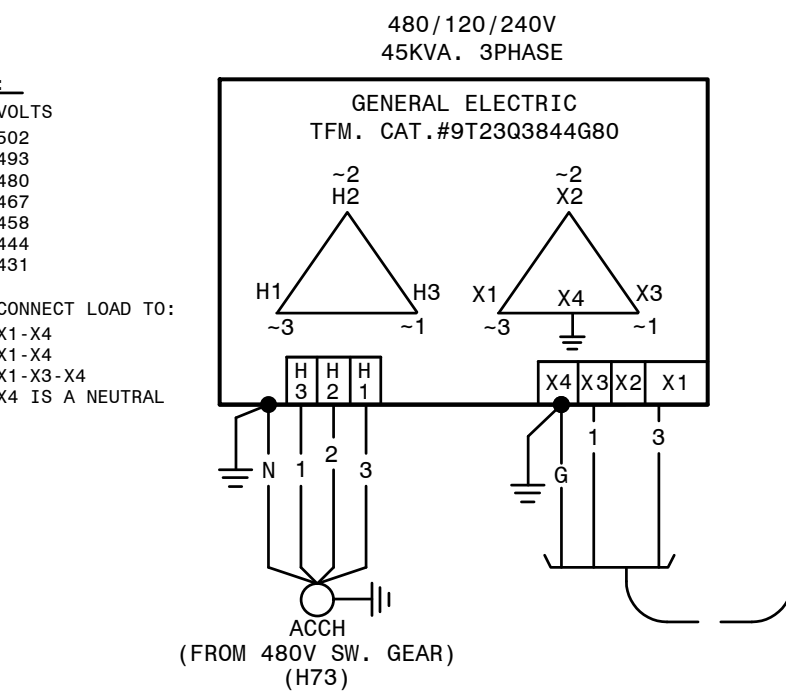


HOUSE A.C. PANEL
WIRING DIAGRAM



YARD LIGHT
JUNCTION BOX
TYPICAL YARD LIGHT #5

WIRING CONNECTION (JUMPER TAPS):		
PRIMARY:	% TAPS	VOLTS
H1-H2-H3	1	502
	2	493
	3	480
	4	467
	5	458
	6	444
	7	431
SECONDARY:		
VOLTS		
120		
240		
120/240		



REFERENCES:
01-173-H64
01-173-H73

ONE LINE DIAGRAM - 480VAC STATION SRVC.
480VAC SWGR. CONNECTION DIAG.

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THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

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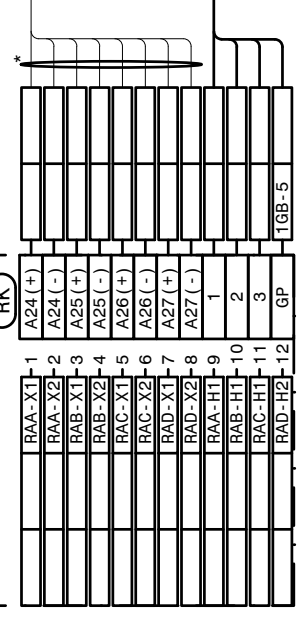
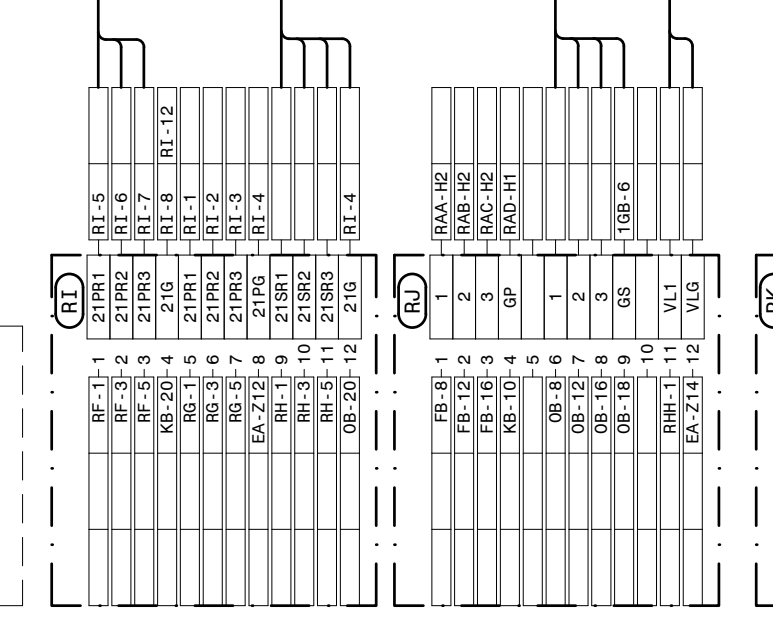
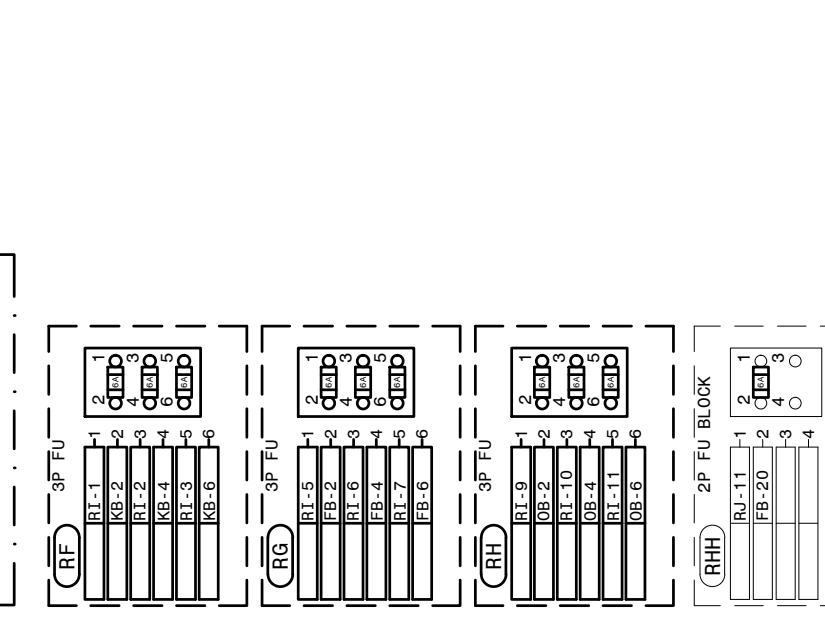
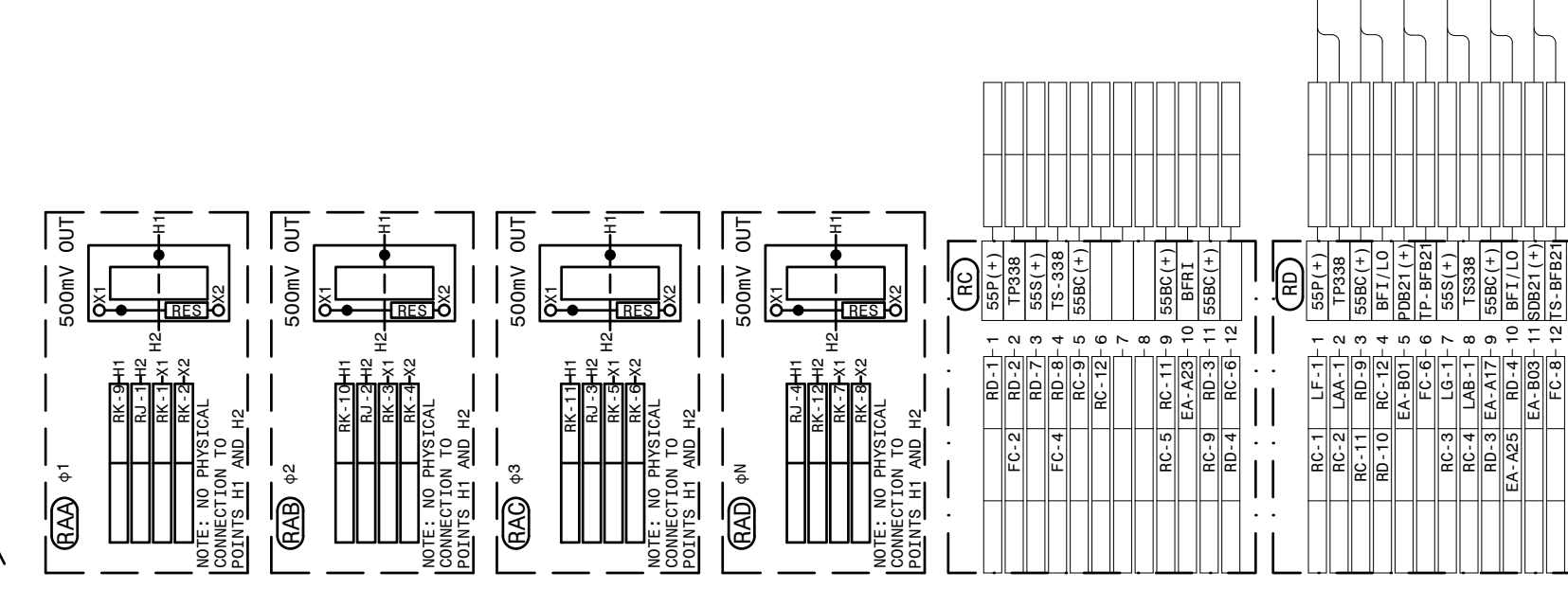
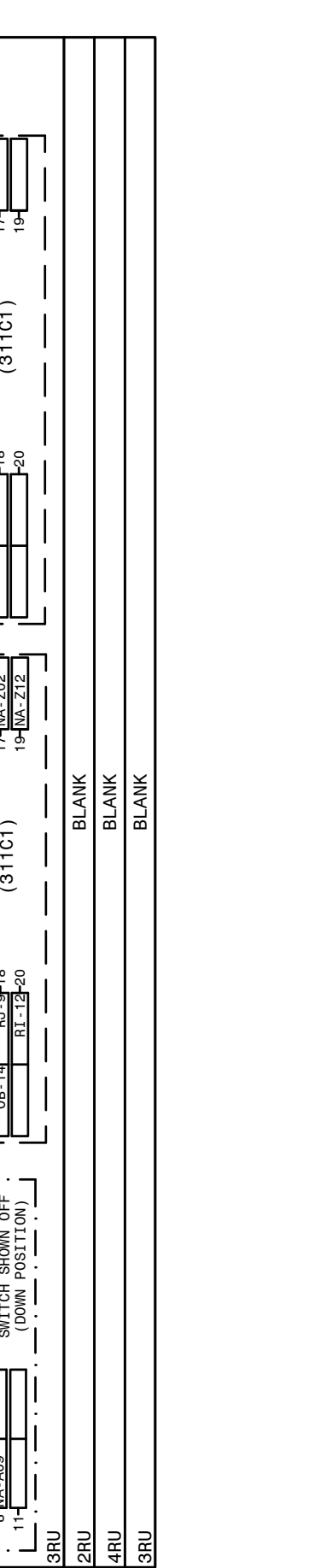
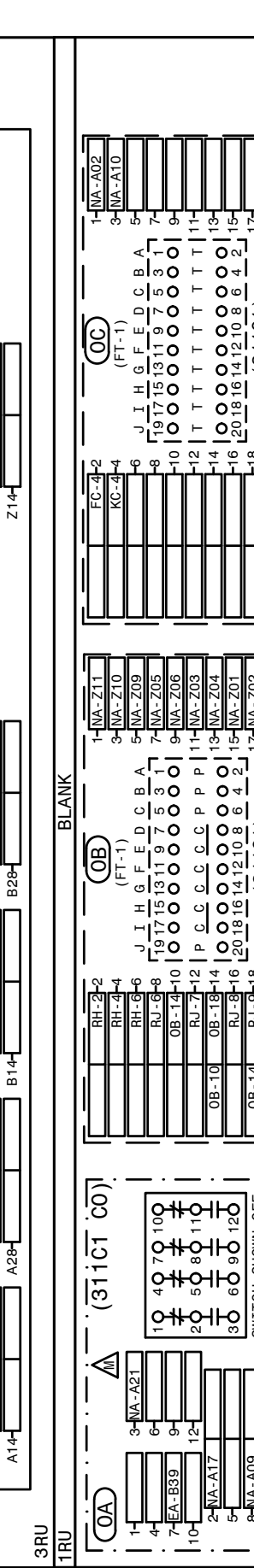
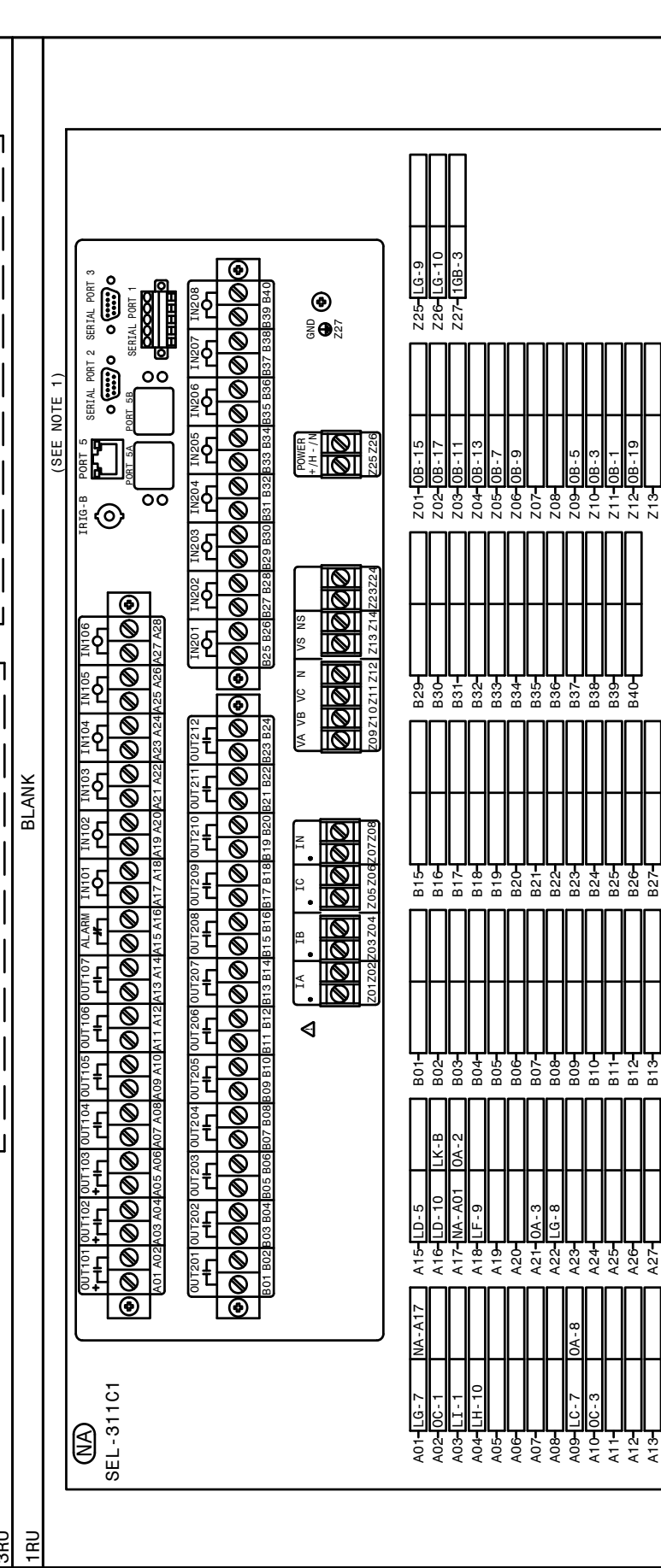
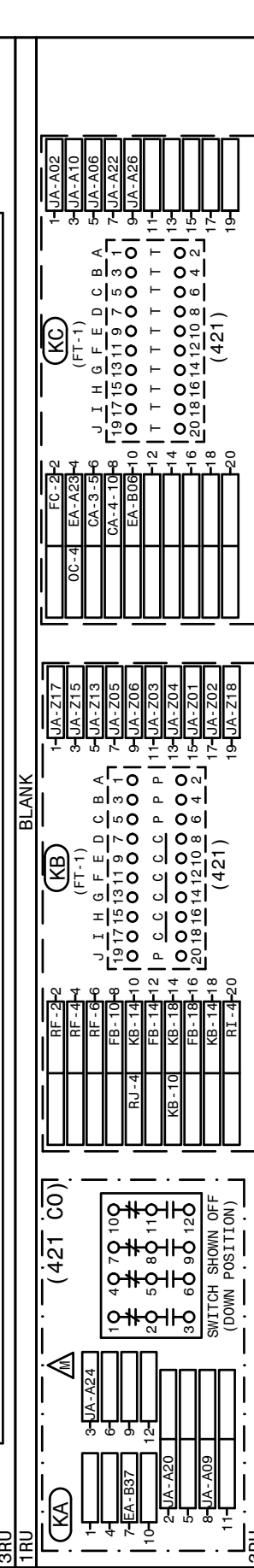
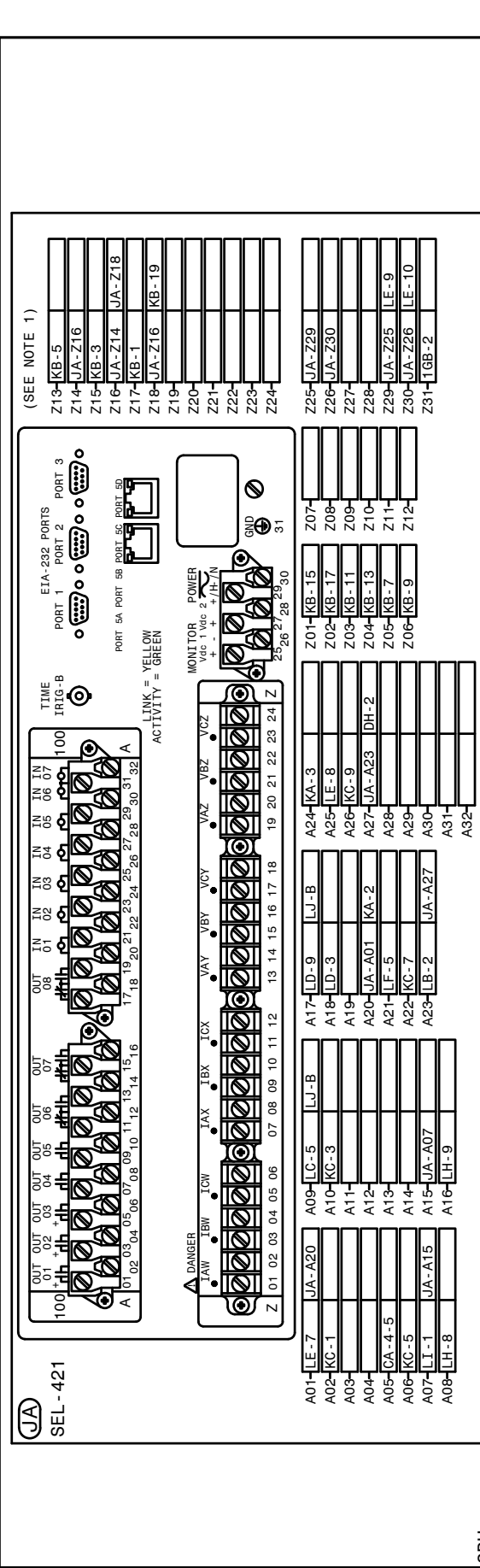
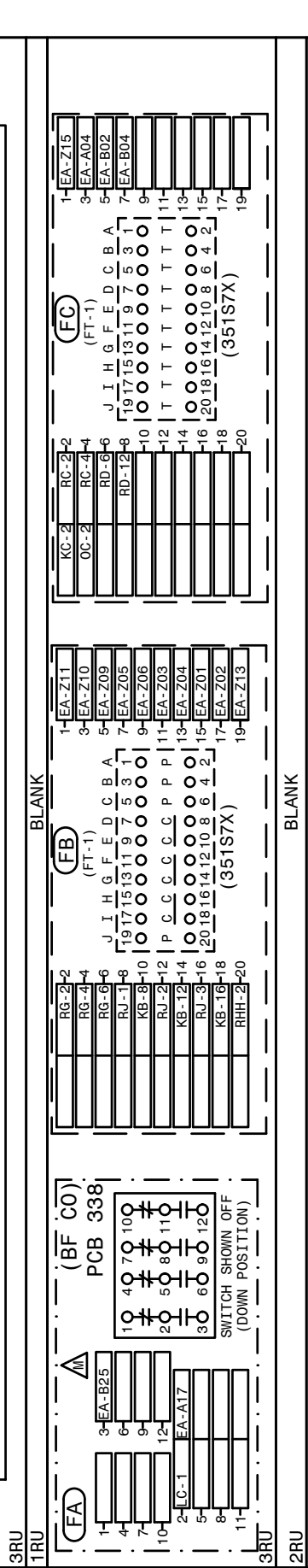
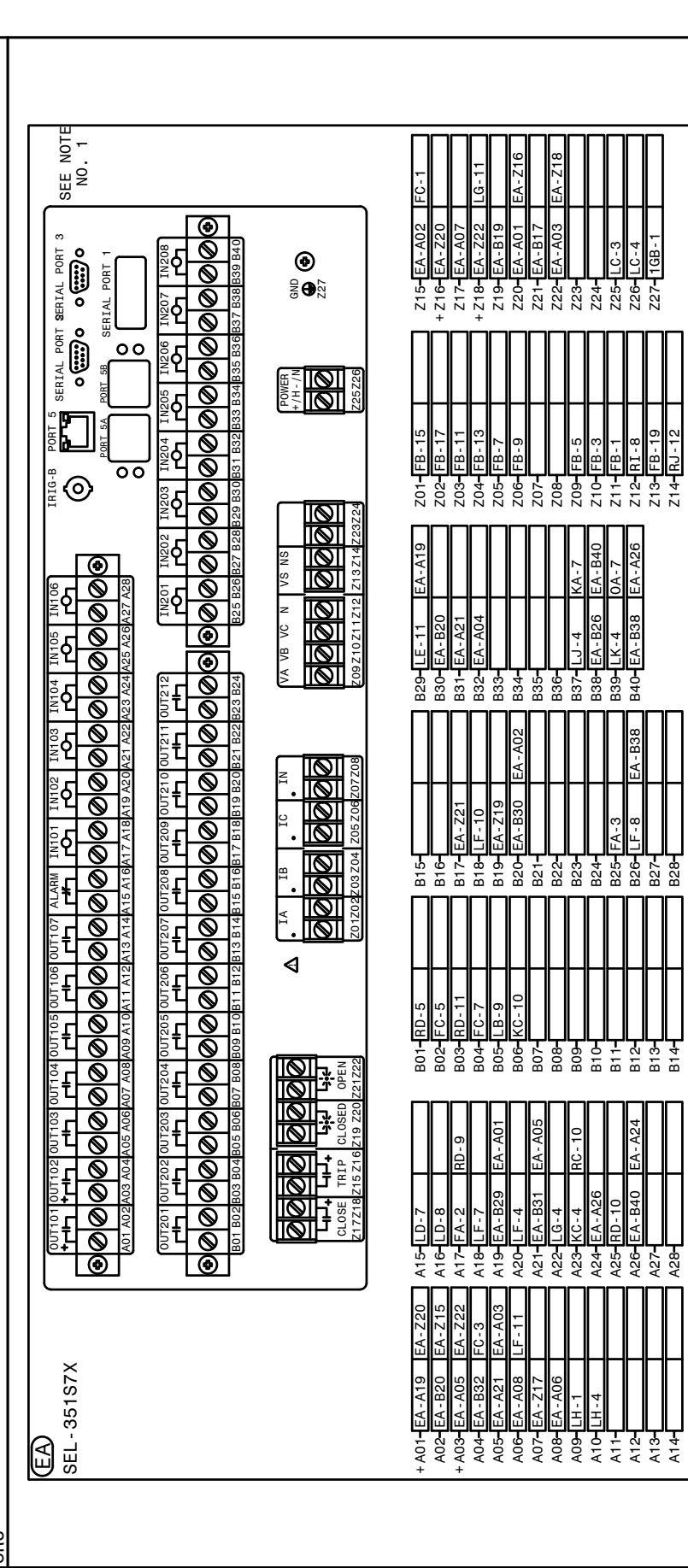
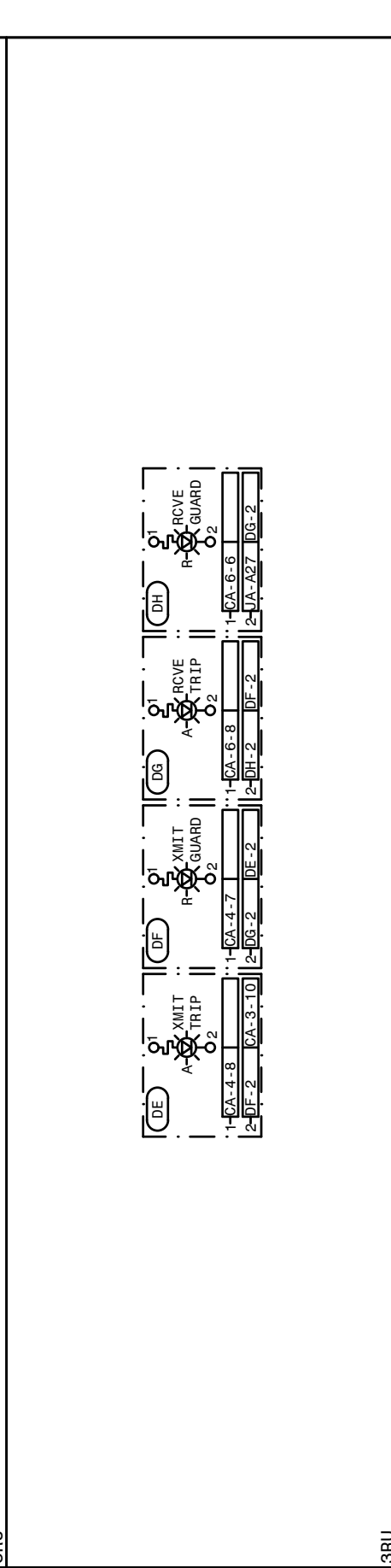
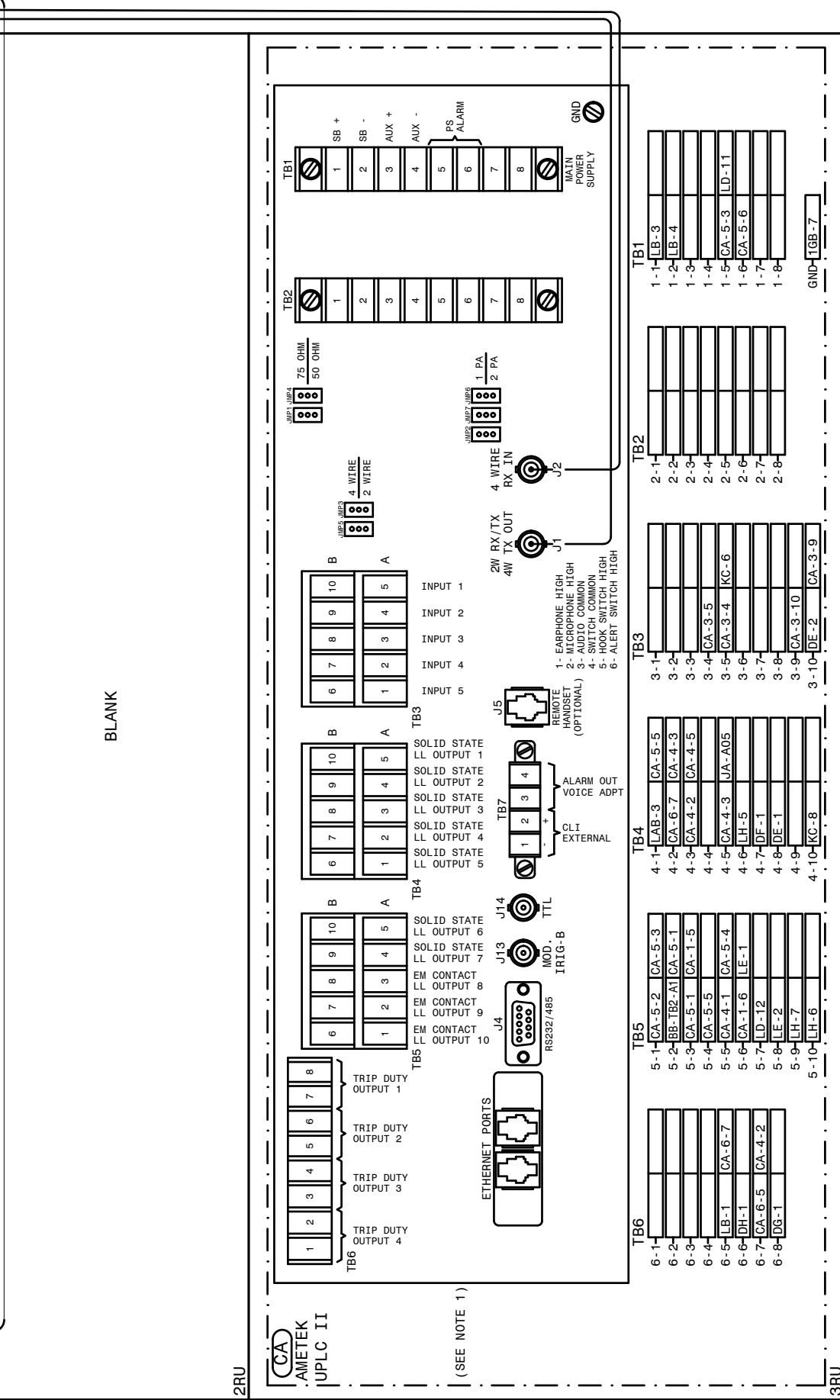
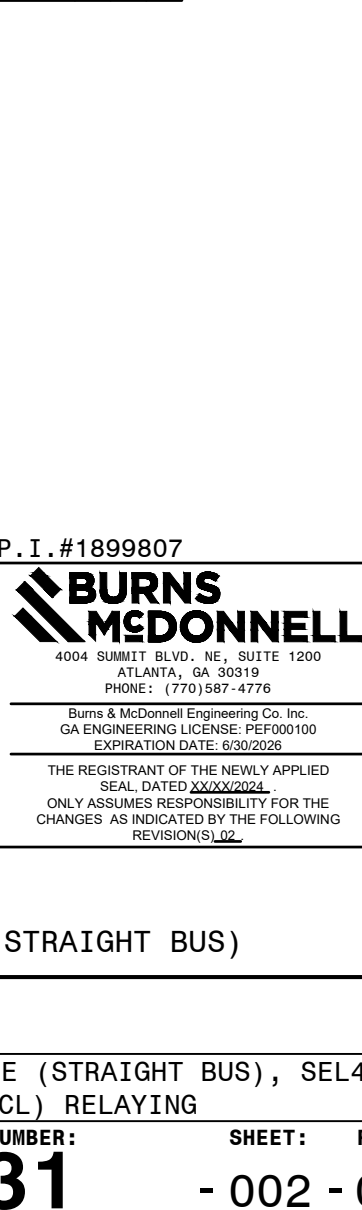
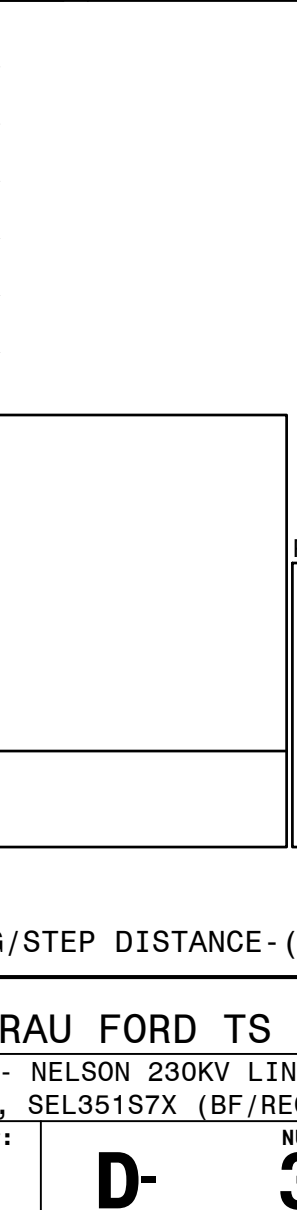
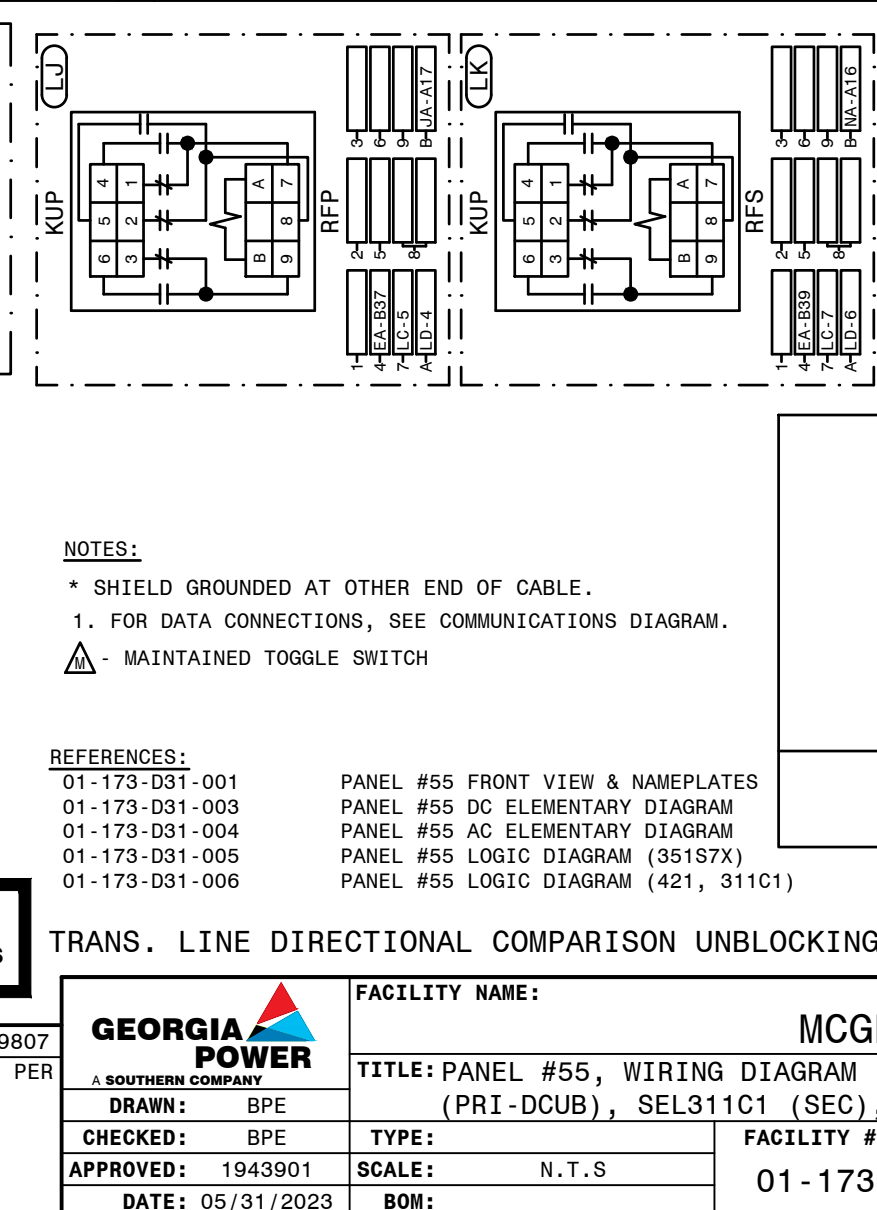
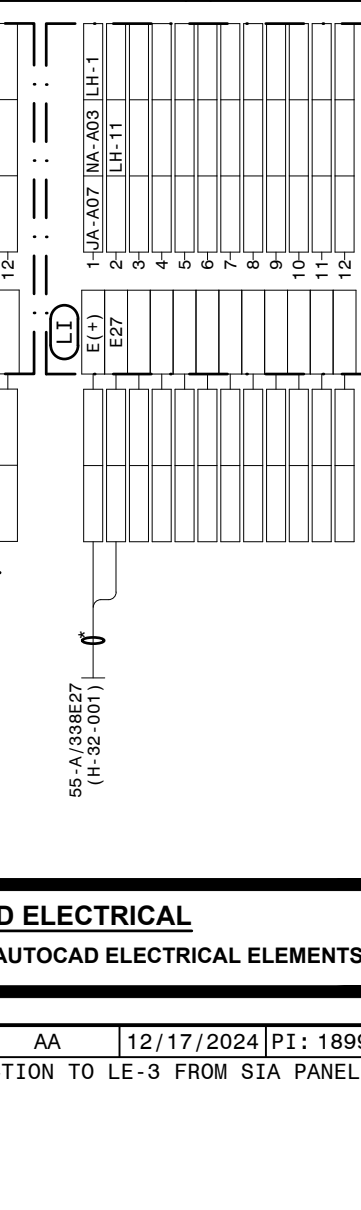
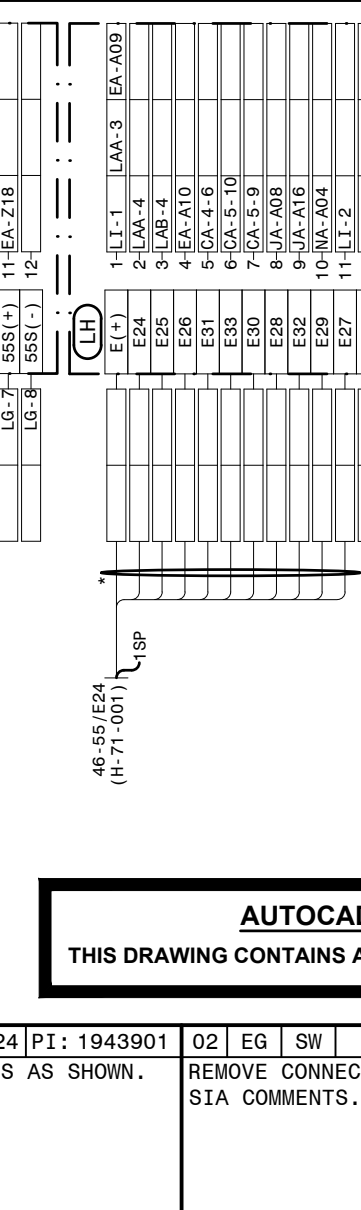
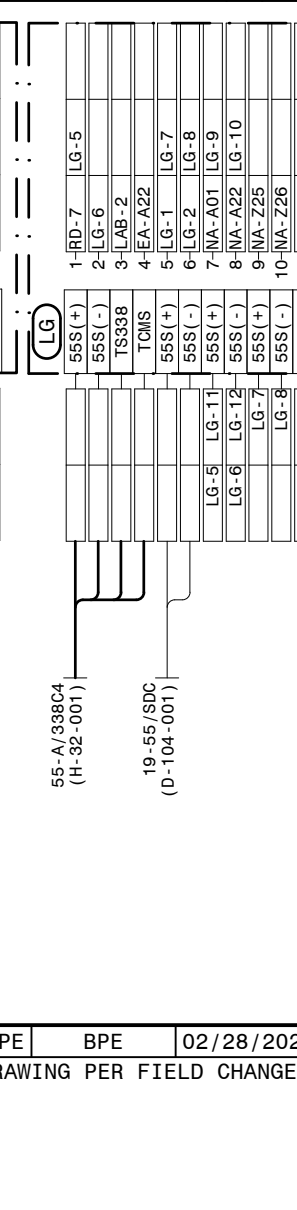
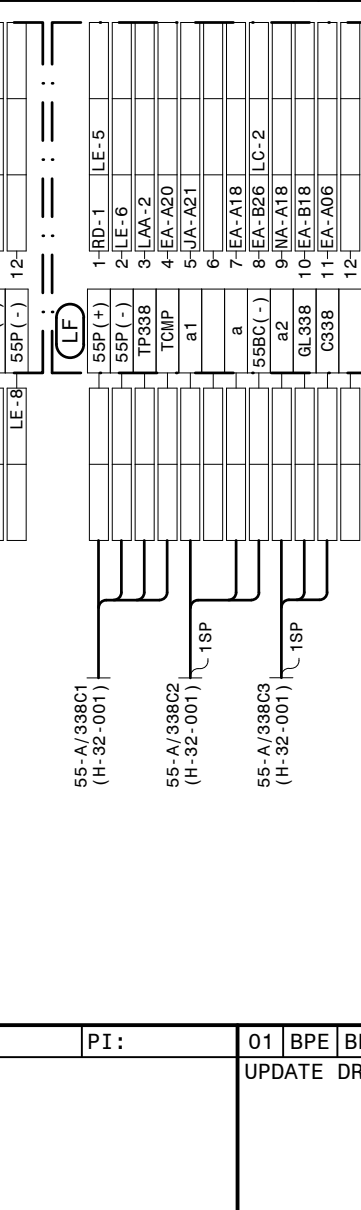
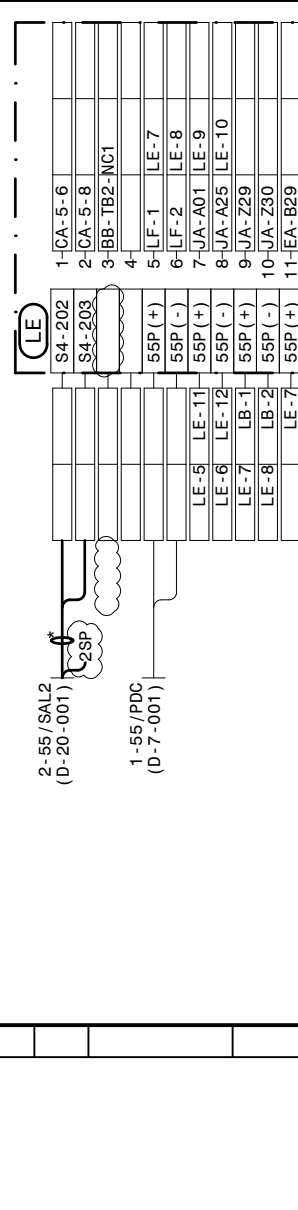
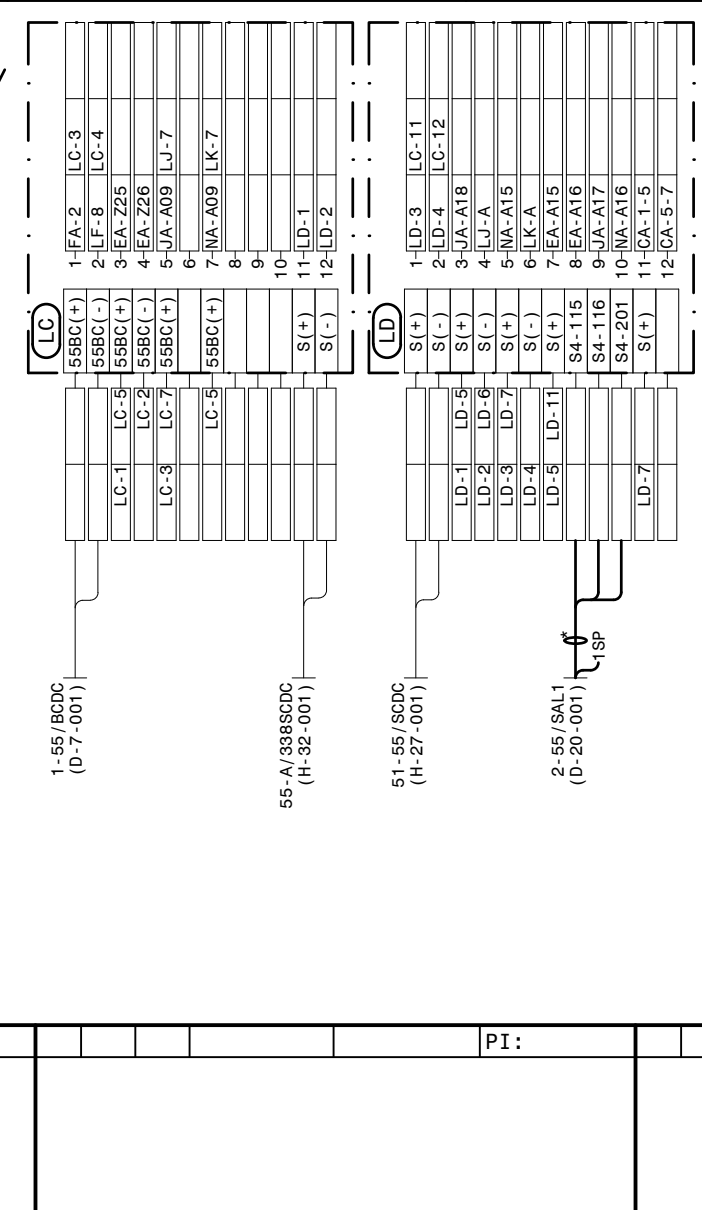
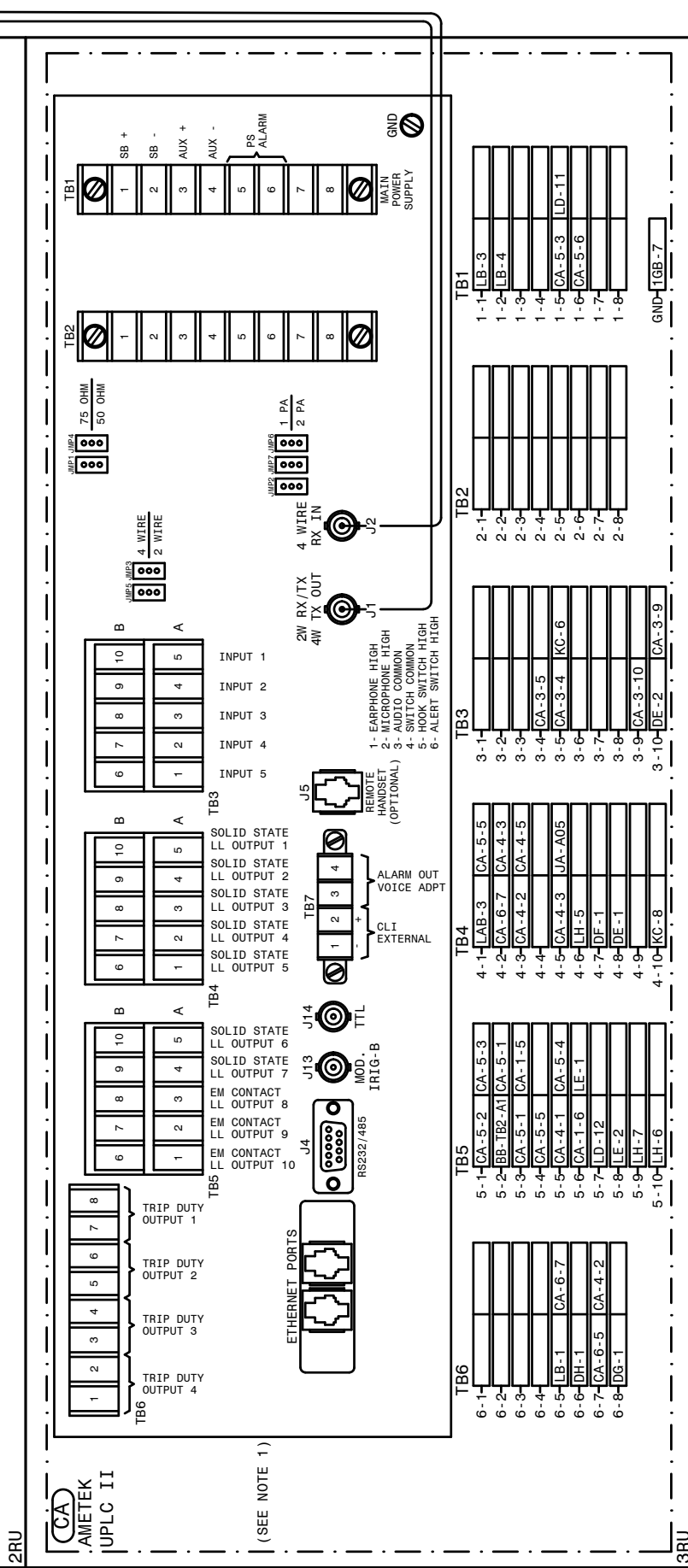
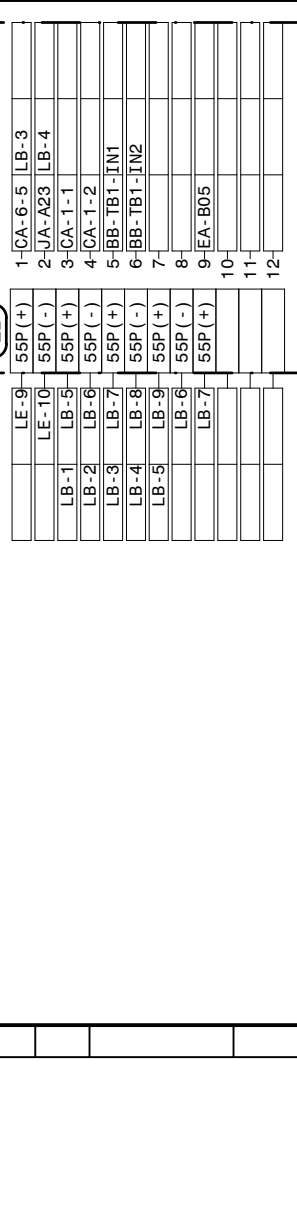
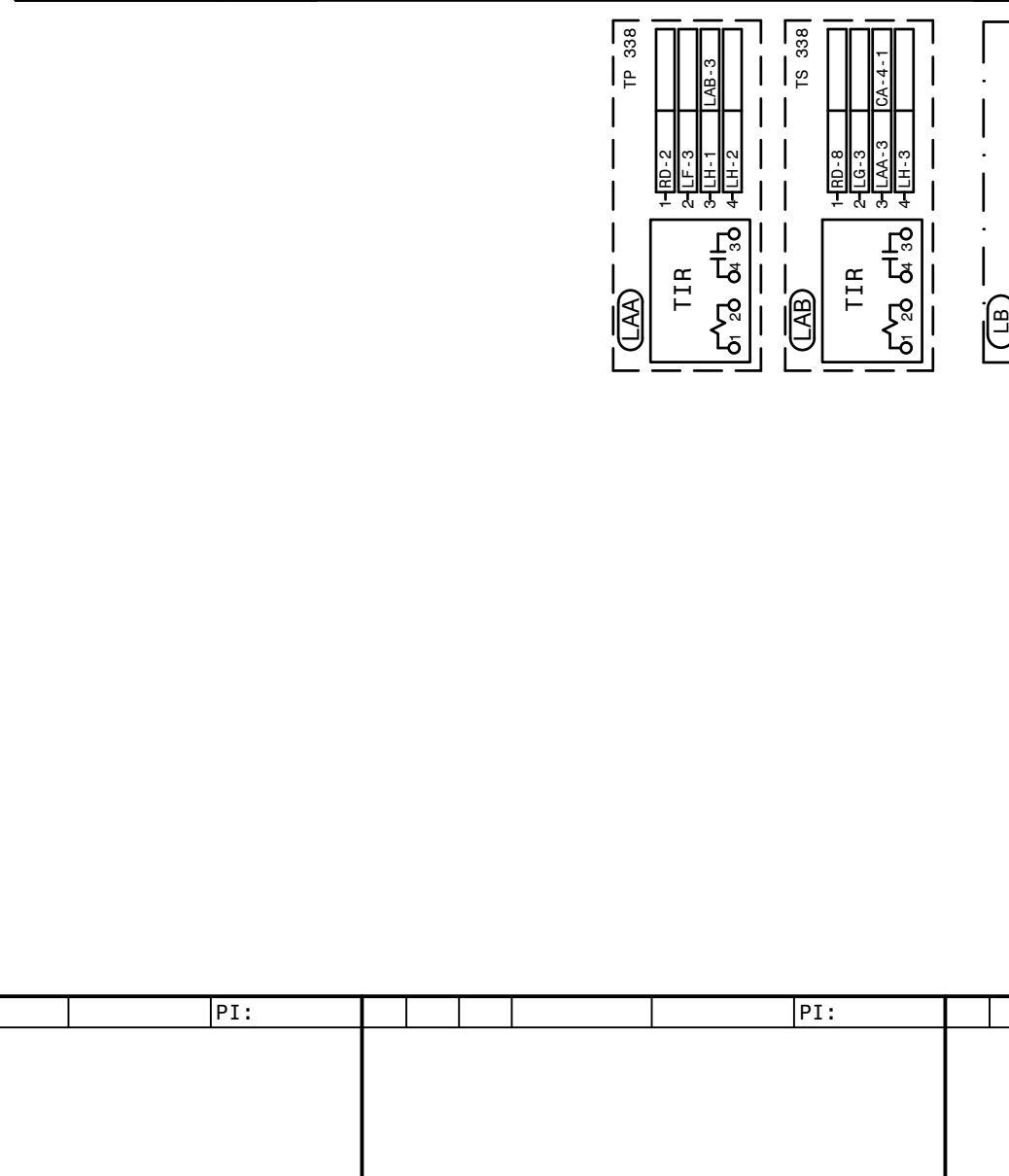
**BURNS
McDONNELL**

4004 SUMMIT BLVD., NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770)587-4776

Burns & McDonnell Engineering Co., Inc.
GA ENGINEERING LICENSE: PE0000100
EXPIRATION DATE: 03/31/2025


THE REGISTRANT OF THE NEWLY APPLIED
SEAL, DATED 03/31/2025,
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS.

GEORGIA POWER		FACILITY NAME:	
A SOUTHERN COMPANY		MCGRAU FORD TS	
DRAWN: JLC		TITLE: MISCELLANEOUS WIRING DIAG.	
CHECKED: AJW		TYPE: WD	
APPROVED: AJW		SCALE: NO SCALE	
DATE: 06-29-05		FACILITY #:	
		01-173	
		D-	
		NUMBER: SHEET: REV:	
		- 001 - 05	
		ASC FAC:	
		ALT DWG NUM:	



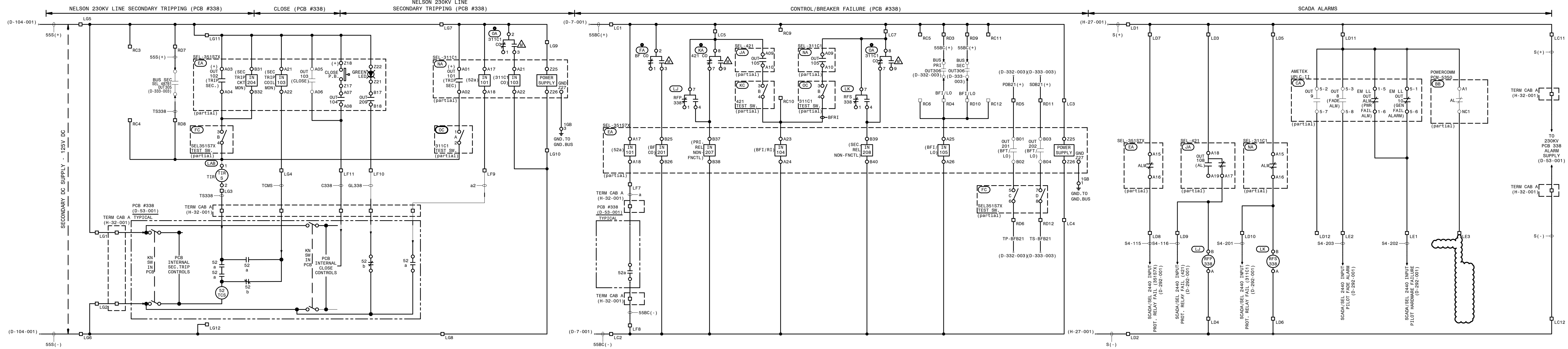
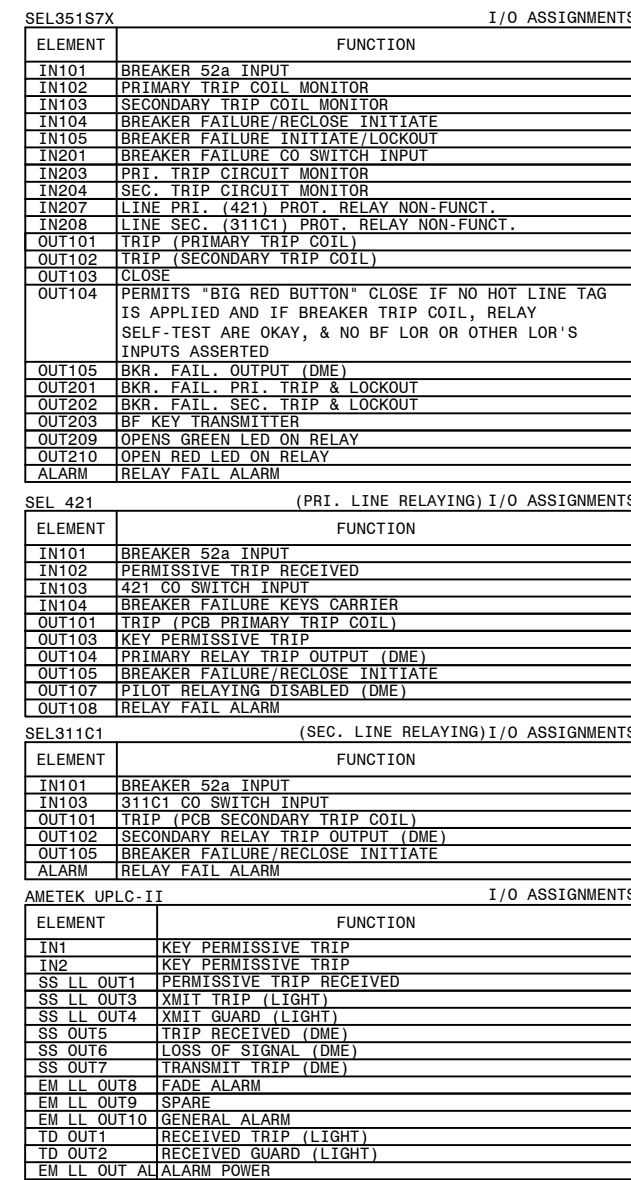
NOTES:





- * SHIELD GROUNDED AT OTHER END OF CABLE.
- 1. FOR DATA CONNECTIONS, SEE COMMUNICATIONS DIAGRAM.

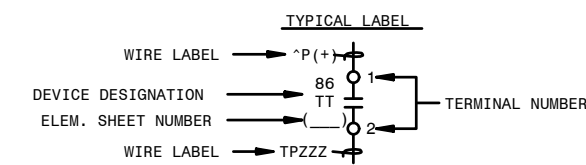
 - MAINTAINED TOGGLE SWITCH

REFERENCES:

01-173-D31-001	PANEL #55 FRONT VIEW & NAMEPLATE
01-173-D31-003	PANEL #55 DC ELEMENTARY DIAGRAM
01-173-D31-004	PANEL #55 AC ELEMENTARY DIAGRAM
01-173-D31-005	PANEL #55 LOGIC DIAGRAM (351S7X)
01-173-D31-006	PANEL #55 LOGIC DIAGRAM (421, 31



-  - SLIDING LINK TERMINALS
OR PHEONIX PLUG
-  - BARRIER BLOCK TERMINAL
-  - LED INDICATING LIGHT
-  - SWITCH SHOWN IN OFF POS



SWITCH/AX RELAY CONTACT DEVELOPMENT

RT2338, RT2336
P383 REL. RLY.
KUP-14015-110

451 CO, 3111 CO,
BF CO

TOXILE SWITCH
W/DR. SWITCH
NS24525-23

CONTACT

7-O		X
8-O		X
9-O		X
10-O		X

MAINTAINED
POSITIONS

READY	LOCAL
CLOCKED	OFF

Δ


1-2		
2-3	X	
4-5	X	
5-6	X	
7-8	X	
8-9	X	
10-11	X	X
11-12	X	

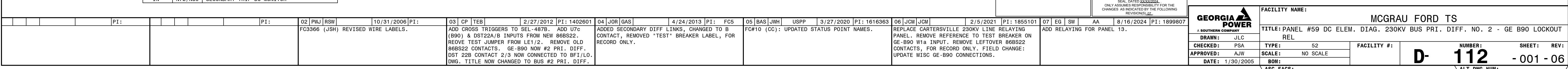
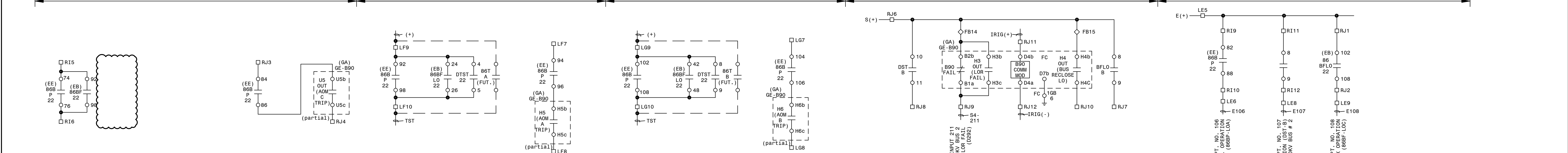
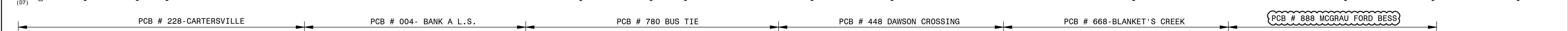
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01-173-D-31-001	PANEL #55 FRONT VIEW & NAMEPLATES
01-173-D-31-002	PANEL #55 WIRING DIAGRAM
01-173-D-31-004	PANEL #55 AC ELEMENTARY DIAGRAM
01-173-D-31-005	PANEL #55 LOGIC DIAGRAM (351S7X)
01-173-D-31-006	PANEL #55 LOGIC DIAGRAM (421, 311C1)

TRANS. LINE DIRECTIONAL COMPARISON UNBLOCKING/STEP DISTANCE- (STRAIGHT BUS)

<div> GEORGIA POWER <small>A SOUTHERN COMPANY</small></div>	FACILITY NAME: MCGRAU FORD TS				
	TITLE: PANEL #55, DC ELEMENTARY - NELSON 230KV LINE, SEL421 (PRI DCUB), SEL31101 (SEC), SEL35157X (BF/RECL) RELAYING				
	DRAWN: BPE	TYPE: S2	FACILITY #:	NUMBER:	SHEET: REV:
	CHECKED: BPE	SCALE: N.T.S.	01 - 173	D- 31	- 003 -
	APPROVED: 1943901	BOM:	A\T DWG NUM:DCUB		
	DATE: 05/31/2023	ASB, FACS:			





(TRANS. BUS PROTECTION/GE-B90/LOCKOUT/8 CURRENT CKT./STRAIGHT BUS)

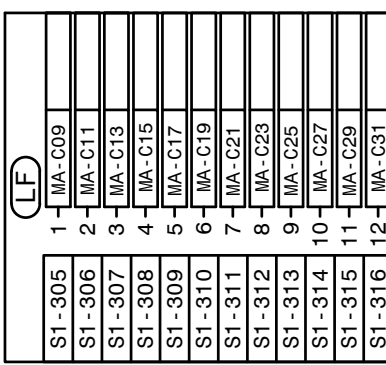
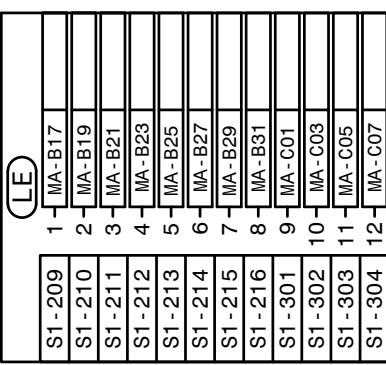
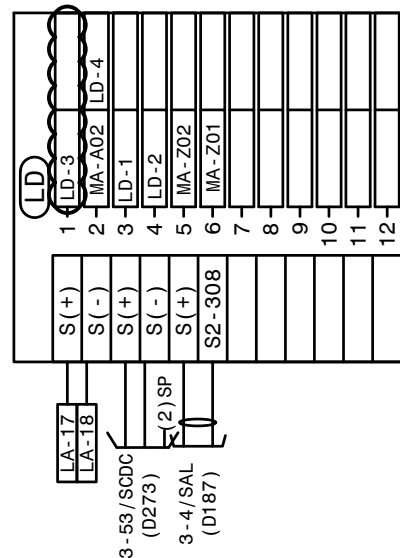
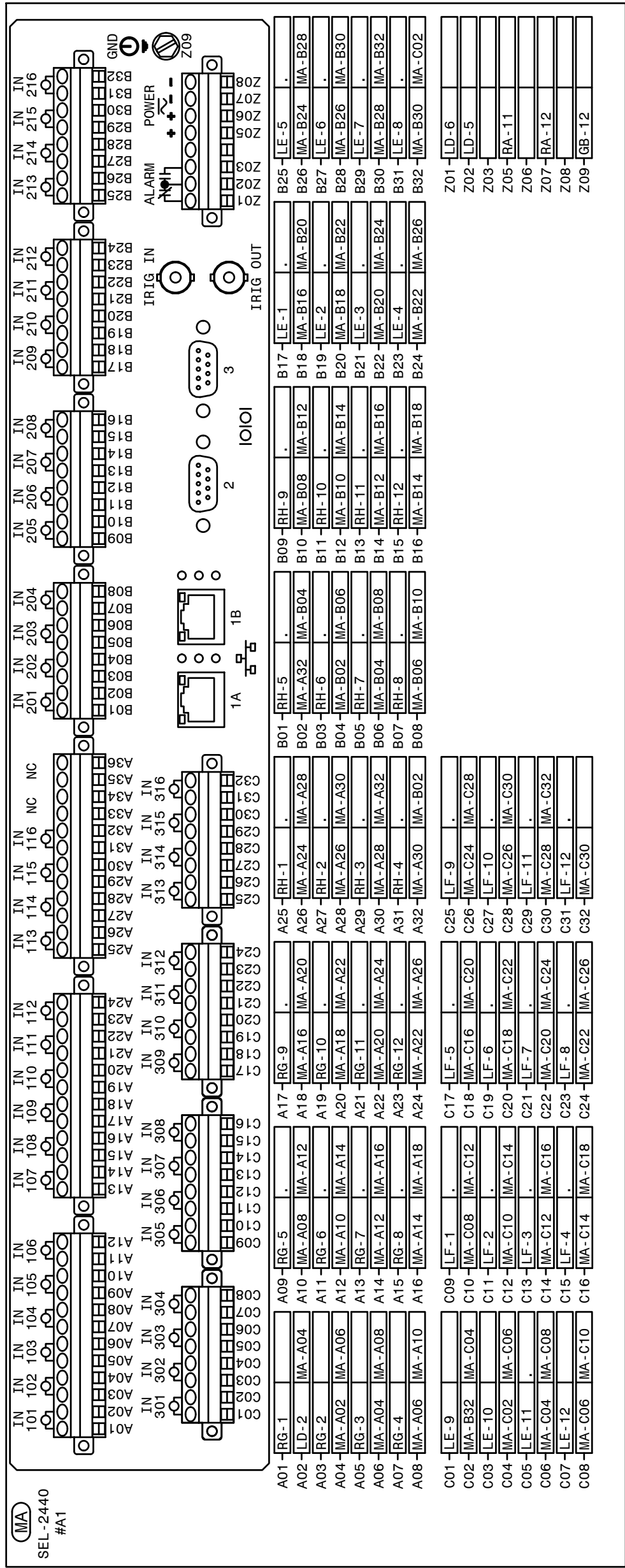
P. I. #1899807

**BURNS
MCDONNELL**

4004 SUMMIT BLVD, NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770) 587-4776

Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE: PEF000100
EXPIRATION DATE: 6/30/2026

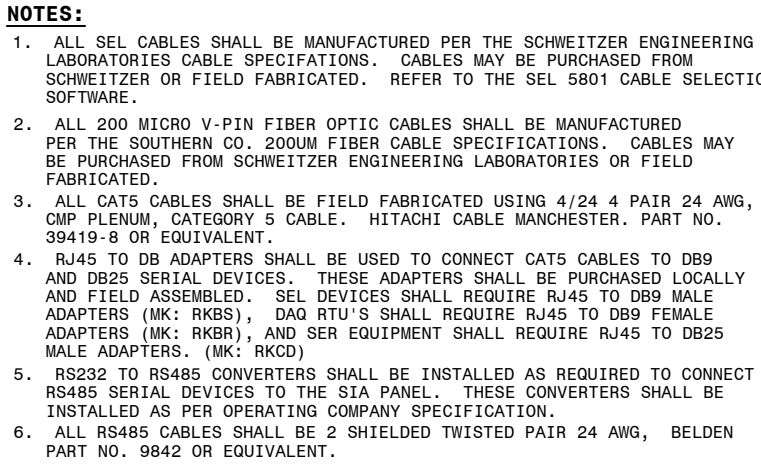
THE REGISTRANT OF THE NEWLY APPLIED
SEAL, DATED XXXXX/2026,
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISION(S): 03.



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THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

REFERENCES:
01-173-D182
01-173-D186
01-173-D187
01-173-D277
01-173-D278

PANEL #3 FRONT VIEW, IT PANEL
SIA COMMUNICATION CONNECTION DIAGRAM
PANEL #4 WIRING DIAGRAM TRANSMISSION SIA PANEL
PANEL #3 ELEMENTARY DIAGRAM SH. 1, IT PANEL
PANEL #3 ELEMENTARY DIAGRAM SH. 2, IT PANEL




REFERENCES:	
173-182	PANEL #2 FRONT VIEW, TRANSMISSION SIA PANEL
173-190	PANEL #3 FRONT VIEW, TRANSMISSION SIA PANEL
173-192	PANEL #3 FRONT VIEW, TRANSMISSION SIA PANEL
173-193	PANEL #3 FRONT VIEW, TRANSMISSION SIA PANEL
173-1814	PANEL #2 WIRING DIAGRAM, IT PANEL
173-1845	PANEL #4 FRONT VIEW 500KV TRANSMISSION SIA PANEL
173-1858	PANEL #4 WIRING DIAGRAM, TRANSMISSION SIA PANEL
173-1859	PANEL #4 WIRING DIAGRAM, TRANSMISSION SIA PANEL
173-1886	PANEL #1 ELEMENTARY DIAGRAM SH. 1 TRANSMISSION SIA PANEL
173-1894	PANEL #4 ELEMENTARY DIAGRAM SH. 2 TRANSMISSION SIA PANEL
173-1897	PANEL #3 ELEMENTARY DIAGRAM SH. 1, IT PANEL
173-1901	PANEL #3 ELEMENTARY DIAGRAM SH. 2, IT PANEL
173-1921	PANEL #2 ELEMENTARY DIAGRAM SH. 2 TRANSMISSION SIA PANEL
173-1922	PANEL #2 ELEMENTARY DIAGRAM SH. 2 TRANSMISSION SIA PANEL

**BURNS
McDONNELL**
4004 SUMMIT BLVD. NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770)587-4776

Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE: PEF000100
EXPIRATION DATE: 6/30/2026

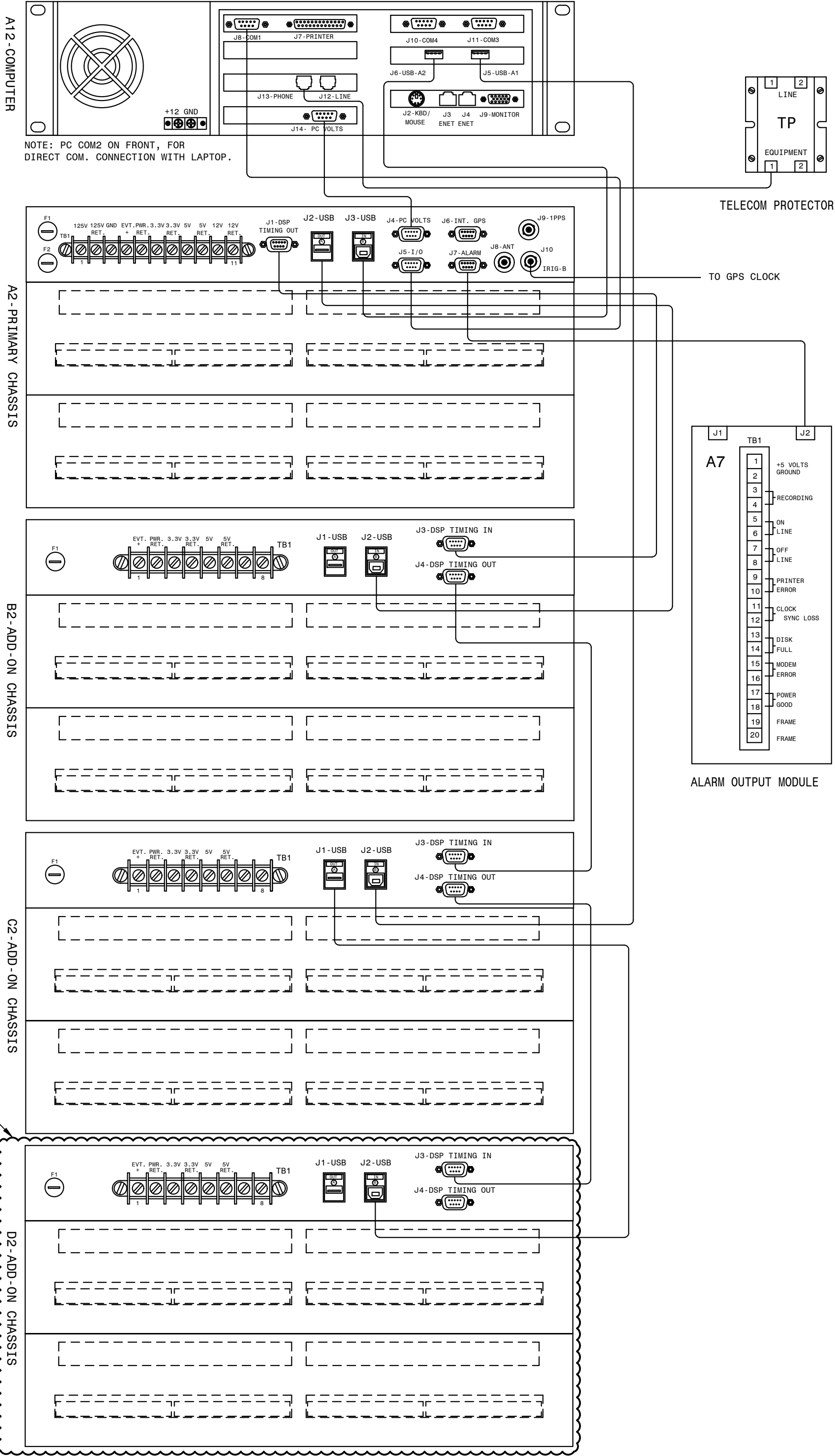
AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS


 A SOUTHERN COMPANY	FACILITY NAME:					MCGRAU FORD TS					
	TITLE: SIA COMMUNICATION CONNECTION DIAGRAM										
	DRAIN: A/JW		TYPE: SIA		FACILITY #:		NUMBER:		SHEET: REV:		
	CHECKED: A/JW		SCALE: N.T.S.		01-173		D-186		- 001 - 14		
APPROVED: A/JW		BOM:									
DATE: 7/31/2006		ASC FACs:						ALT DWG NUM:			

INTERCONNECTING CABLES LIST		
A12-J6 TO A2-J3	A12 COMPUTER USB (A2)	TO PRIMARY CHASSIS USB (B)
A12-J5 TO A2-J2	A12 COMPUTER USB (A1)	TO PRIMARY CHASSIS USB (B)
A12-J14 TO A2-J4	COMPUTER PC VOLTS TO PRIMARY CHASSIS	
A12-J8 TO A2-J5	COMPUTER COM1 TO PRIMARY CHASSIS I/O PORT	
A12-J13 TO A11	PORT 1-8 COMPUTER J13 TO A11 PORT DESIGNATION PER STATION	
A12-J11 TO A2-J6	COMPUTER COM3 TO PRIMARY CHASSIS INT. GPS	
A2-J1 TO B2-J3	A2 CHASSIS DSP TIMING (OUT) TO B2 CHASSIS DSP TIMING (IN)	
A2-J2 TO B2-J2	A2 CHASSIS USB (A) TO B2 CHASSIS USB (B)	
A2-J8 TO A10-IRIG-B	MODULATED IRIG-B CLOCK SOURCE	
A2-J7 TO A7-J2	ALARM OUTPUT MODULE	
B2-J1 TO C2-J2	B2 CHASSIS USB (A) TO C2 CHASSIS USB (B)	
B2-J4 TO C2-J3	B2 CHASSIS DSP TIMING (OUT) TO C2 CHASSIS DSP TIMING (IN)	
C2-J1 TO D2-J2	C2 CHASSIS USB (A) TO D2 CHASSIS USB (B)	
C2-J4 TO D2-J3	C2 CHASSIS DSP TIMING (OUT) TO D2 CHASSIS DSP TIMING (IN)	

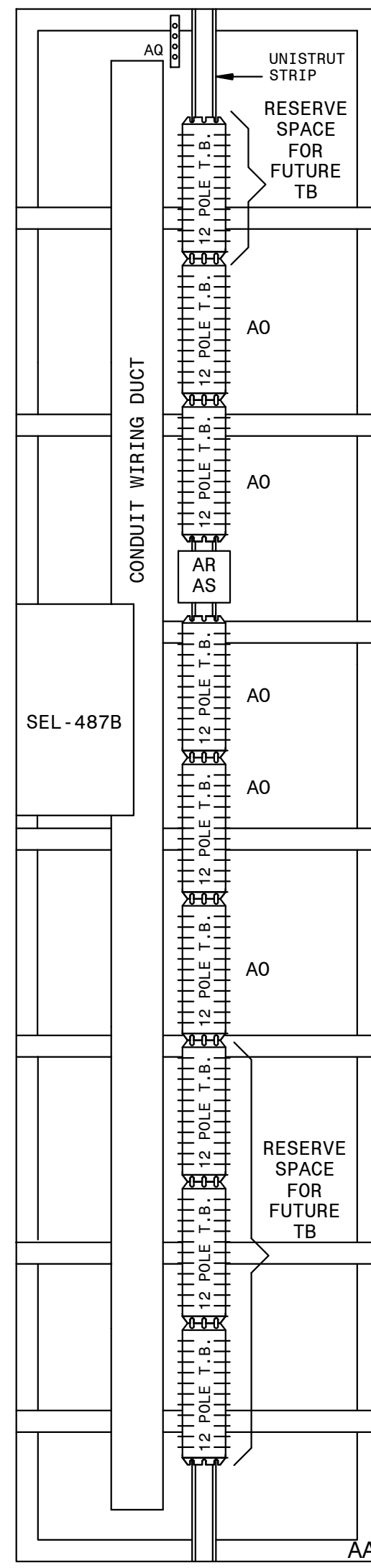
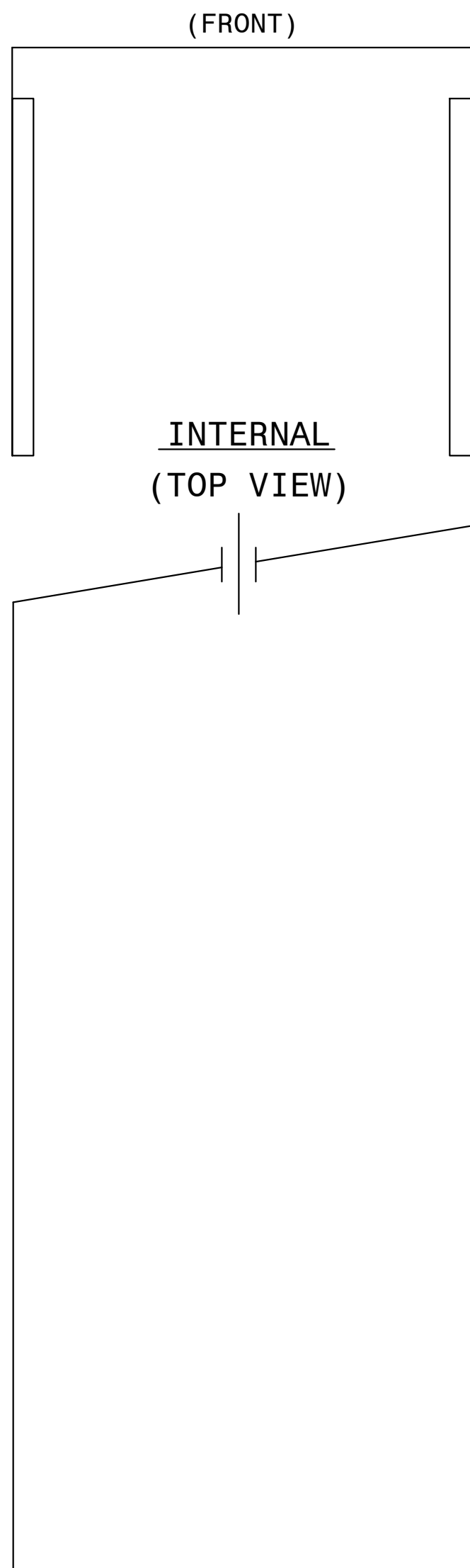
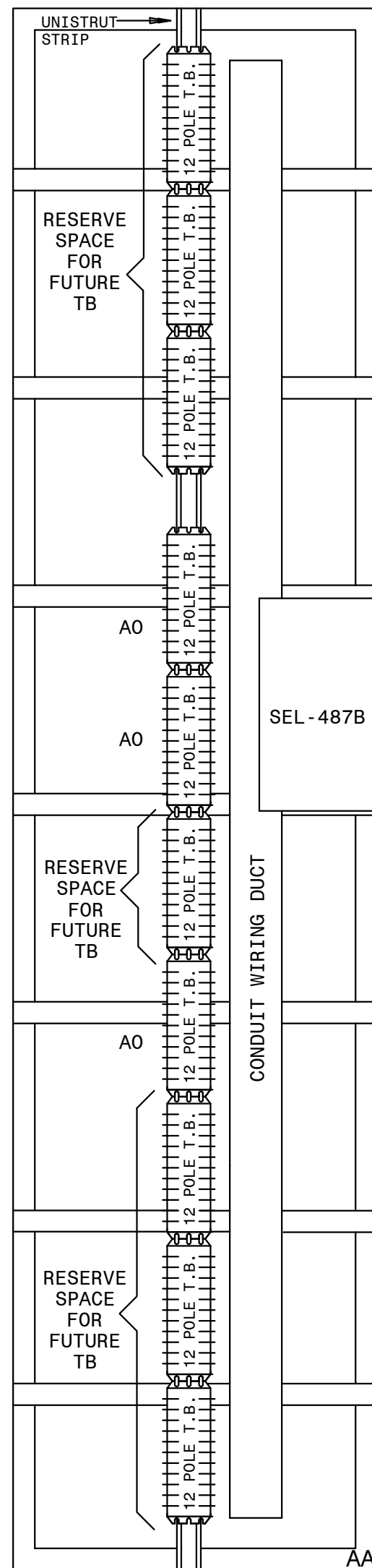
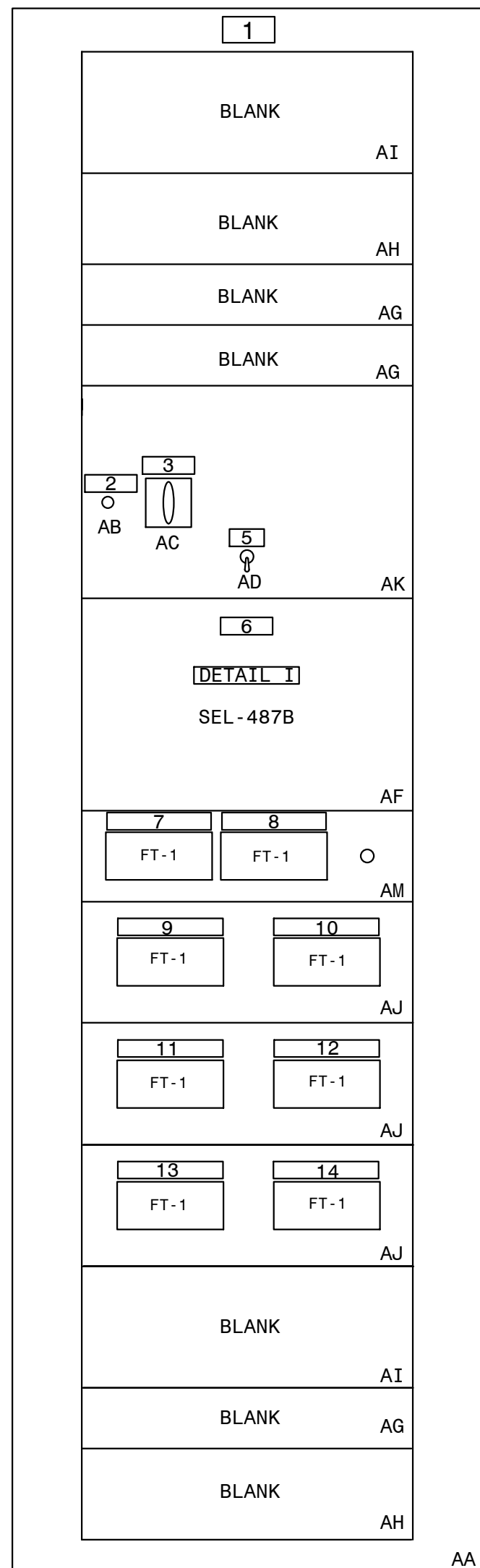
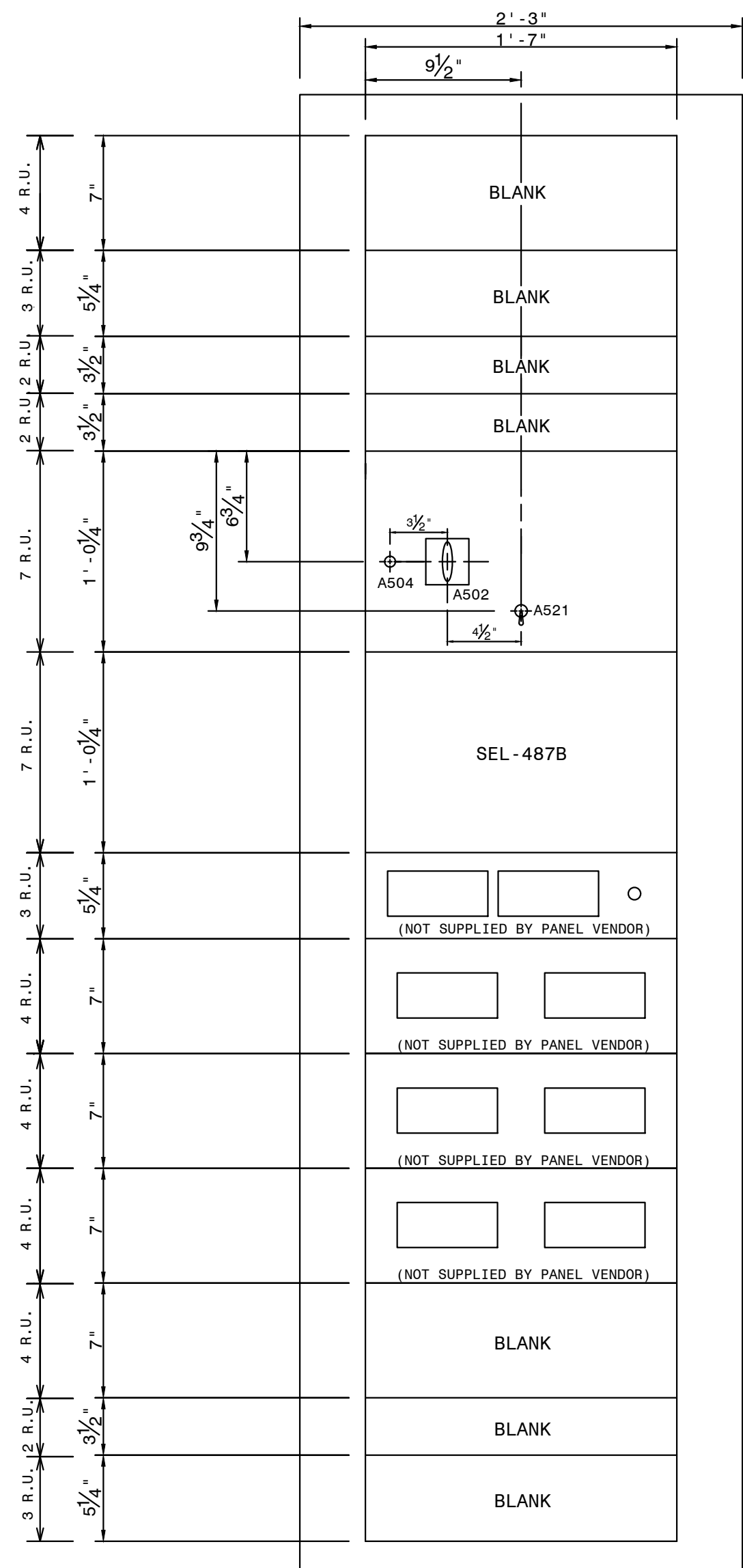
ITEM	QTY	DESCRIPTION
A2	1	PRIMARY CHASSIS 16A, 64E
B2	1	ADD-ON CHASSIS 16A, 64E
C2	1	ADD-ON CHASSIS 16A, 64E
D2	1	ADD-ON CHASSIS 16A, 64E
A6	1	MONITOR/KEYBOARD
A7	1	ALARM OUTPUT MODULE
A9	1	MODEM- INTERNAL TO A12
A12	1	COMPUTER
IL	1	INTERIOR LIGHT
CR	2	CONVENIENCE RECEPTACLE
LS	1	LIGHT SWITCH
TP	1	TELECOM PROTECTOR

FOR REFERENCE

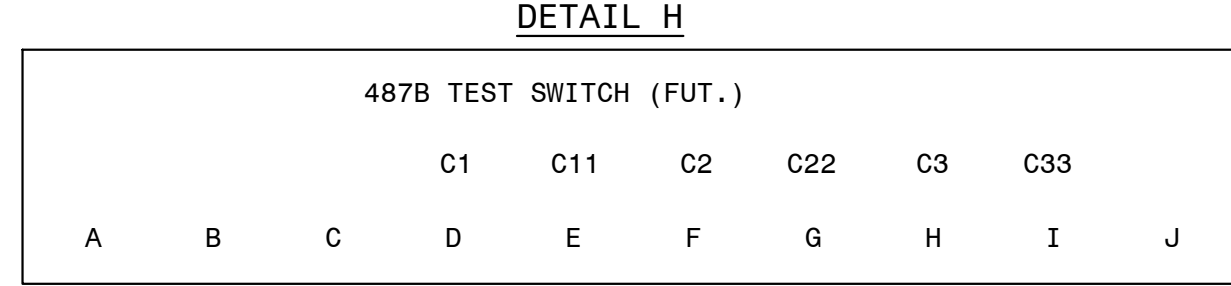
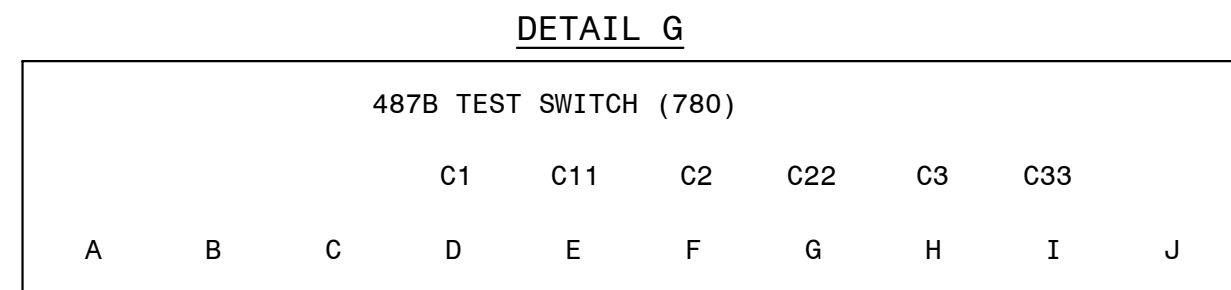
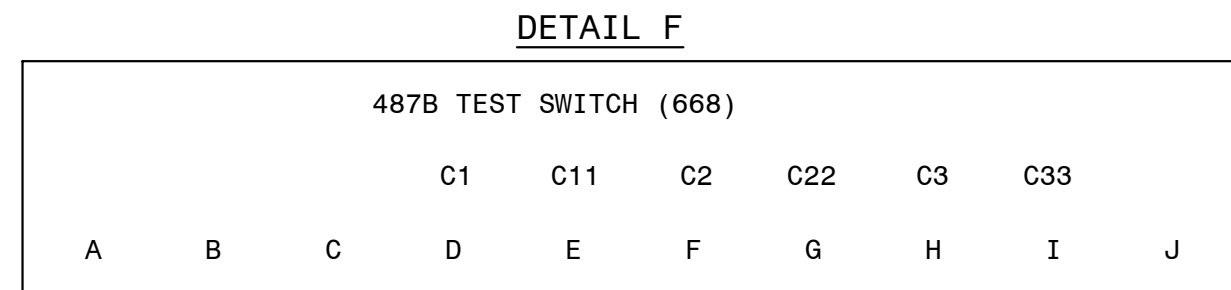
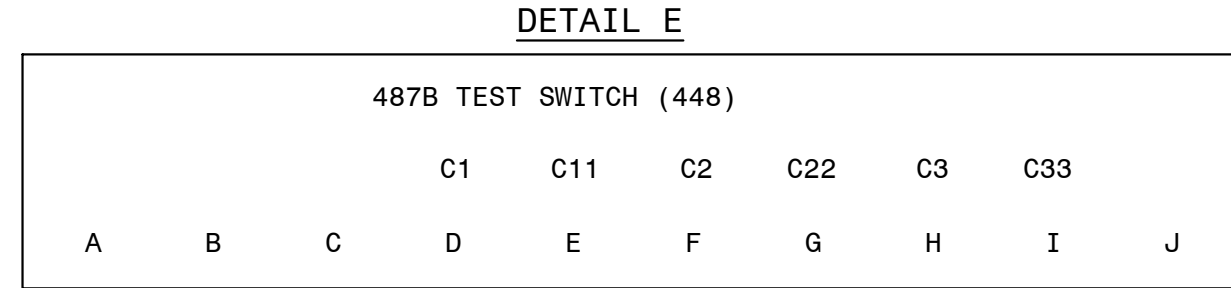
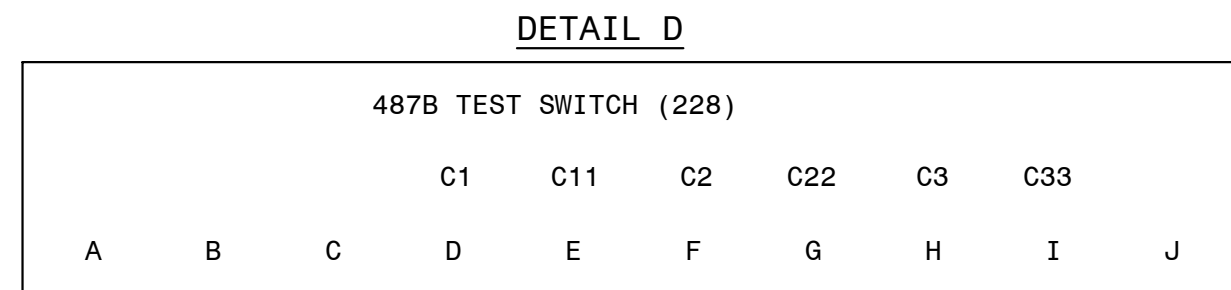
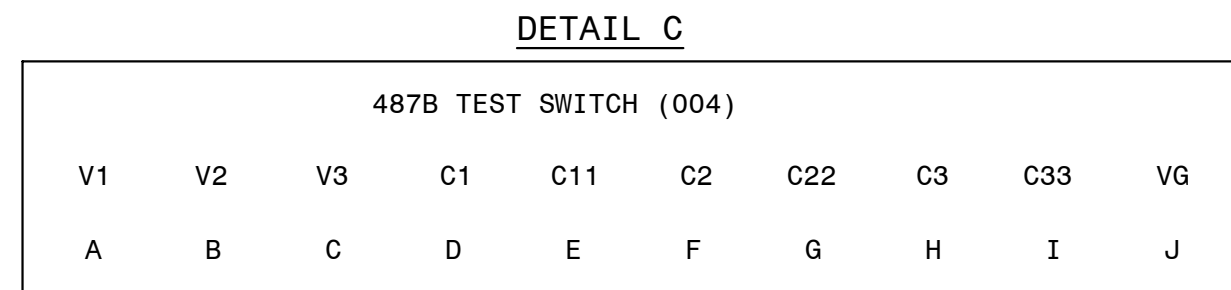
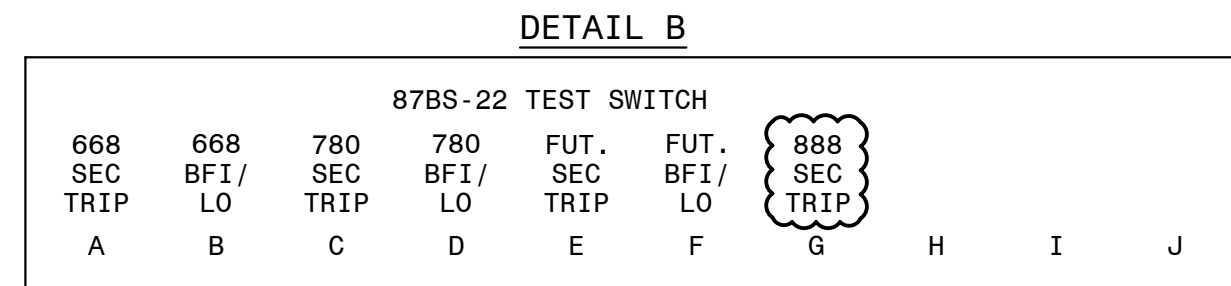
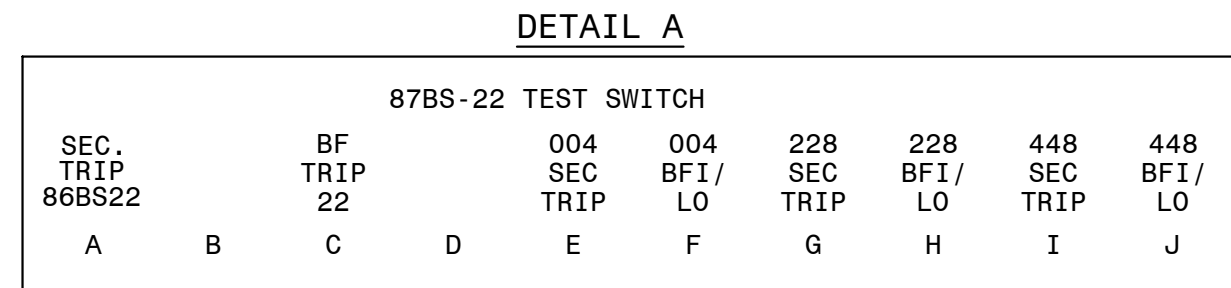
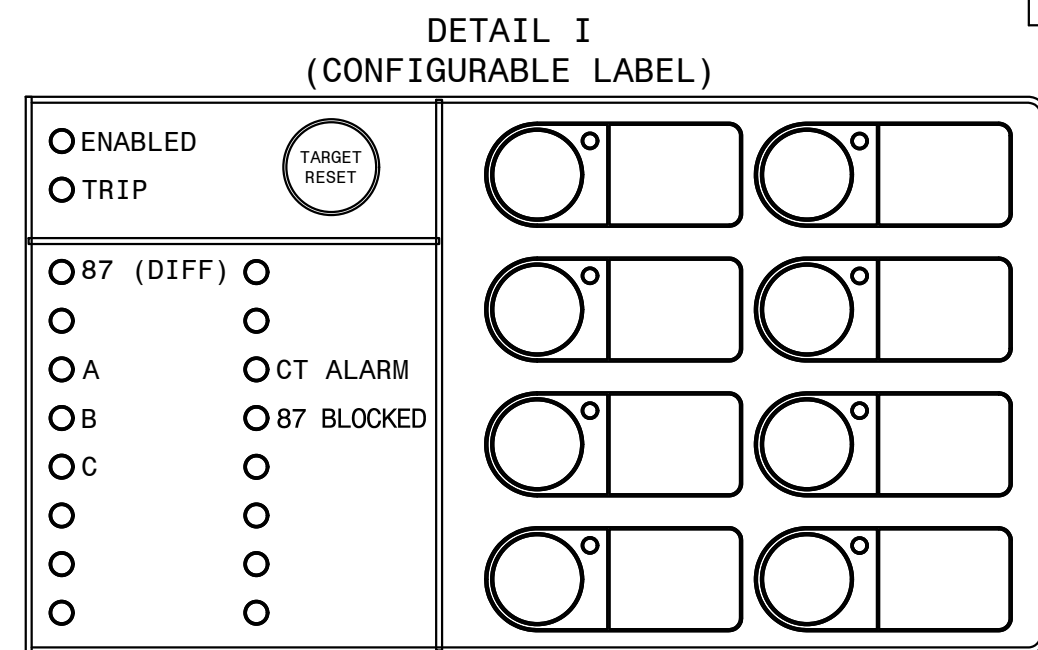


 GEORGIA POWER A SOUTHERN COMPANY	FACILITY NAME:										MCGRAU FORD TS														
	TITLE: 230KV YARD STATION SERVICE & THROWOVER CABINET #1																								
	DRAWN: JLC					SCALE: WD					FACILITY #:					NUMBER:					SHEET: REV:				
	CHECKED: RLJ					TYPE: NTS																			
	APPROVED: AJW					BOM:					D- 215					- 001 - 03									
DATE: 07-18-05					ASC FACS:					ALT DWG NUM:															

LABEL DETAILS					
LABEL NO.	FIRST LINE	SECOND LINE	THIRD LINE	FOURTH LINE	FIFTH LINE
1	PANEL NO. 60		DWG. NO. 01-173-D263		
2	TRIP CIRCUIT MONITOR	86BS-22 RELAY			
3	SECONDARY AUX. TRIPPING RELAY	86BS-22	TRIPS-004, 228, 448, 668, 780, 868		
4					
5	87BS-22 CUTOFF SWITCH	230KV BUS NO.2	DIFFERENTIAL		
6	SEL-487B RELAY	230KV BUS NO. 2	DIFFERENTIAL RELAY		
7	SEE DETAIL A				
8	SEE DETAIL B				
9	SEE DETAIL C				
10	SEE DETAIL D				
11	SEE DETAIL E				
12	SEE DETAIL F				
13	SEE DETAIL G				
14	SEE DETAIL H				



QTY.	MK.	SES ITEM	DESCRIPTION	REMARKS
1	AA	RHCL	SWITCHBOARD PANEL, 49 R.U. SPACES 27" X 90" X 21"	DWG. PAN-CONST-D1
		RHCN	SWITCHBOARD ANGLE FRAME 27" X 90" X 21"	DWG. PAN-CONST-D2
1	AB	RGJL	INDICATING LIGHT, NEON, ET-17, COMPLETE	
1	AC	RGGE	REL-AUX 2NO-2NC/DEK 10 DECK, COR/ER, 30-140VDC	EC #79400D
1	AD	RGJN	SWITCH, TOGGLE, 4-POT	MICROSWITCH #47L1-3
1	AF	RIJC	REL-CURRENT DIFF. TYPE SEL-487B, MICROPROC. BASED	SEL 04B7B045X2XXXXX7
3	AG	RGWU	RACK PANEL, 2 R.U. HIGH, BLANK	DWG. PAN-CONST-D1
2	AH	RGWV	RACK PANEL, 3 R.U. HIGH, BLANK	DWG. PAN-CONST-D1
2	AI	RGWV	RACK PANEL, 4 R.U. HIGH, BLANK	DWG. PAN-CONST-D1
3	AJ	RHUC	TEST BLOCK RACK MOUNT SYSTEM, 2-10P	MEGGER 194R-220G-ST OR ABB S54G014NN014BX00N
1	AK	RGWZ	RACK PANEL, 7 R.U. HIGH, PUNCHED & DRILLED	DWG. PAN-CONST-D1
1	AM	RHUA	SWITCH, REL. TEST ASSY., 2-10 POLE W/HOLE PUNCHED FOR CO SWITCH	MEGGER #A193RG-220L-ST OR ABB #
8	AO	BJPE	BLOCK TERMINAL, 12 POLE, SLIDING LINK	
1	AO	BAVD	GROUND BAR, COPPER	
1	AR	FUPH	FUSE BLOCK-THREE POLE 1-30 AMP, 250 VOLT	
3	AS	RFVM	FUSE CARTRIDGE, SINGLE ELEMENT, 250V, 6 AMP	




NOTES:

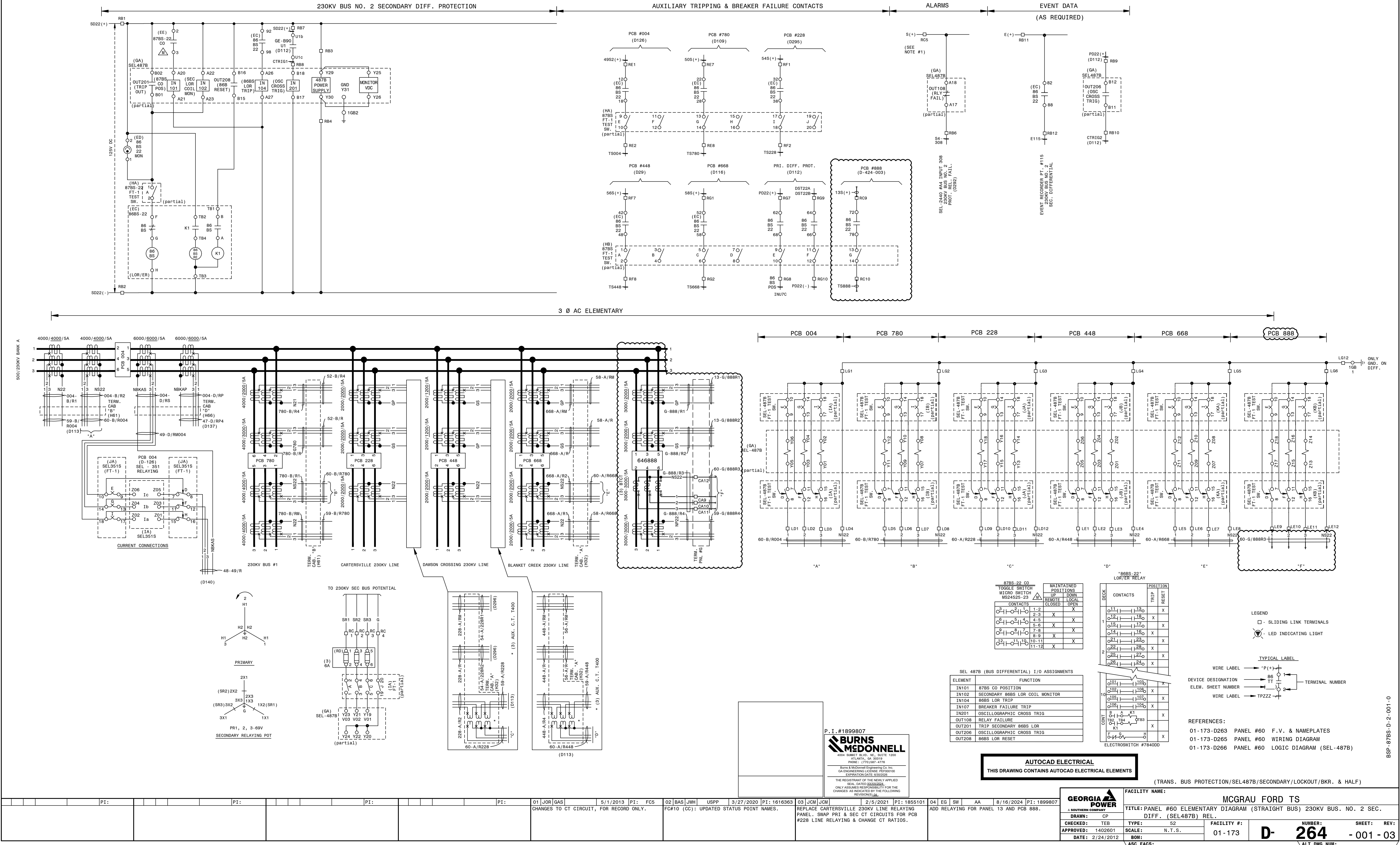
1. CABLE ENTRY IS FROM TOP OF PANEL.

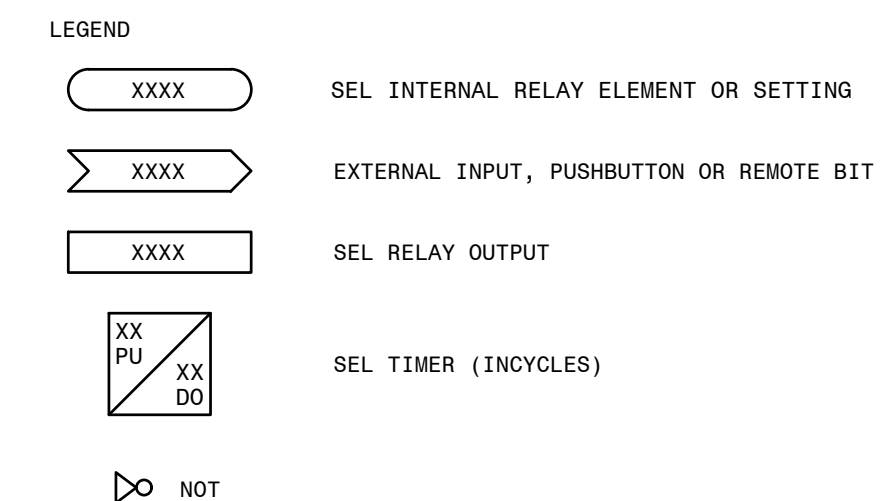
<u>REFERENCES:</u>	
01-173-D264	PANEL #60 ELEMENTARY DIAG.
01-173-D265	PANEL #60 WIRING DIAGRAM
01-173-D266	PANEL #60 LOGIC DIAGRAM (SEL-487B)
PAN-CONST-D1	CONSTRUCTION DETAILS
PAN-CONST-D2	CONSTRUCTION DETAILS

(TRANS. BUS PROTECTION/SEL-487B/SECONDARY/LOCKOUT/STRAIGHT BUS)

 SOUTHERN COMPANY	FACILITY NAME: MCGRAU FORD TS				
	TITLE: PANEL #60 FRONT VIEW & NAMEPLATES (6 CURR. CKT.) 230KV BUS NO. 2				
	SEC. DIFF. (SEL487B REL.)				
	DRAWN: CP	TYPE: EV	FACILITY #:	NUMBER: 263	SHEET: REV:
	CHECKED: TEB	SCALE: 1 1/2"=1'-0"	01-173	D	- 001 - 0
APPROVED: 1402601	ROM:				
DATE: 2/24/2012	ASC FACS:		ALT DWG NUM:		

[illegible]

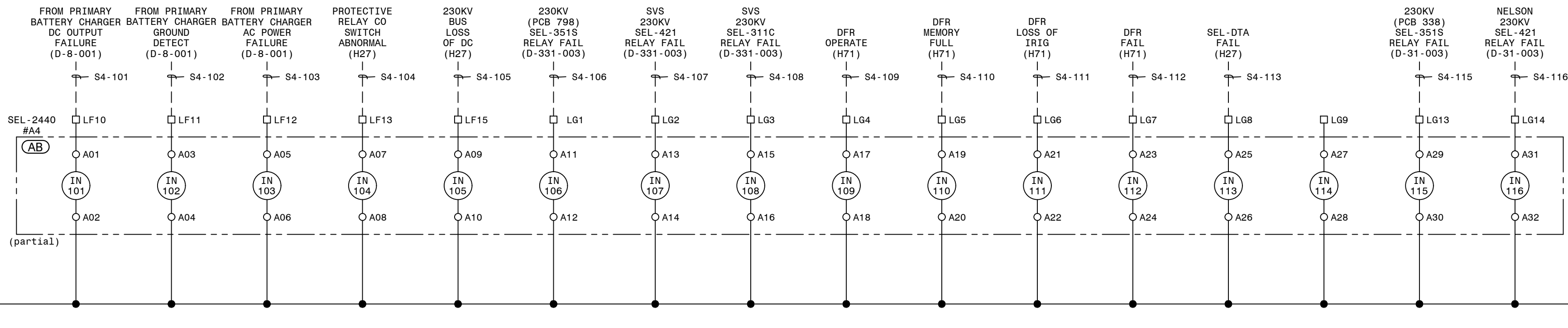




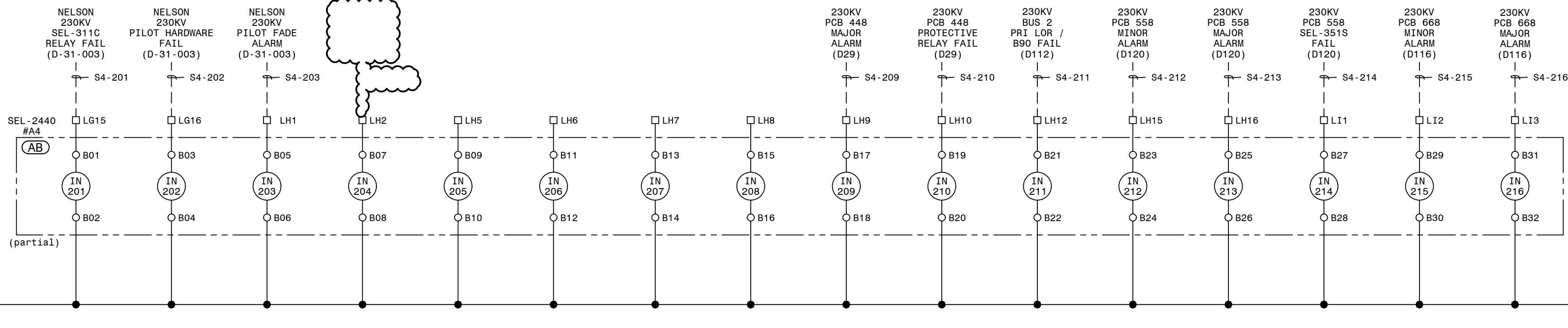
REFERENCES:
01-173-D264 PANEL #60 ELEMENTARY DIAGRAM
01-173-D265 PANEL #60 WIRING DIAGRAM

(TRANS. BUS PROTECTION/SEL487B/SECONDARY/LOCKOUT/STRAIGHT BUS)

SEL-2440#A4 DIGITAL INPUTS

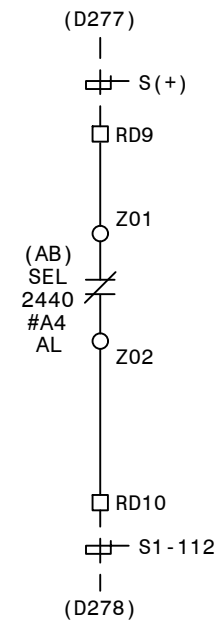
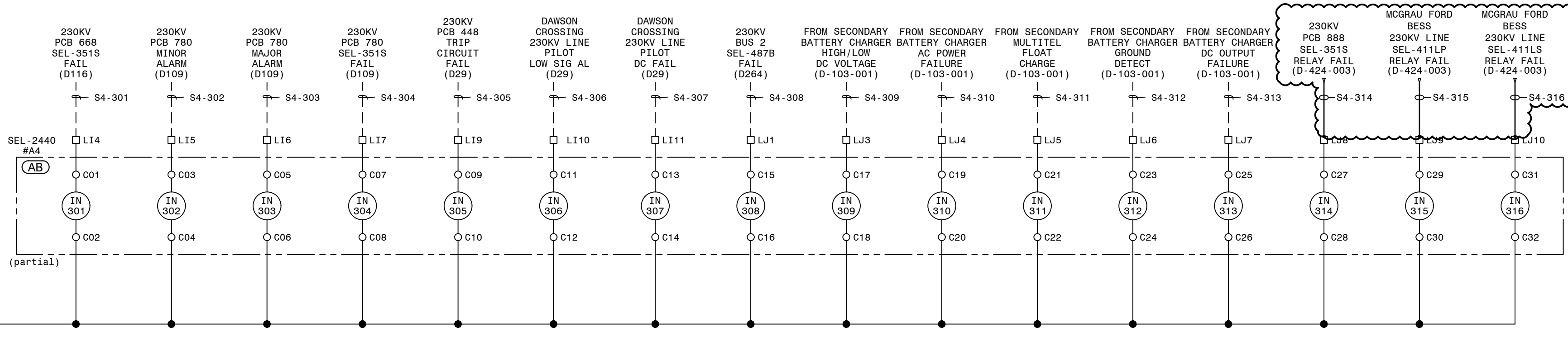


SEL-2440#A4 DIGITAL INPUTS



SEL-2440#A4 DIGITAL INPUTS

SEL-2440#A4 ALARM



SEL-2440#A4 I/O ASSIGNMENT	
ELEMENT	FUNCTION
IN 101	PRIMARY BATTERY OPEN CIRCUIT
IN 102	PRIMARY BATTERY GROUND FAULT
IN 103	PRIMARY BATTERY CHARGER LOSS OF AC
IN 104	PROTECTIVE RELAY SWITCH ABNORMAL
IN 105	230KV BUS LOSS OF DC
IN 106	SEL-351S RELAY FAILURE ALARM (PCB 798)
IN 107	SVS 230KV SEL-421 RELAY FAILURE ALARM
IN 108	SVS 230KV SEL-311C RELAY FAILURE ALARM
IN 109	DFR OPERATE
IN 110	DFR MEMORY FULL
IN 111	DFR LOSS OF IRIG
IN 112	DFR FAIL
IN 113	SEL-DTA FAIL
IN 114	SPARE
IN 115	SEL-351S RELAY FAILURE ALARM (PCB 338)
IN 116	NELSON 230KV SEL-421 RELAY FAILURE ALARM
IN 201	NELSON 230KV SEL-311C RELAY FAILURE ALARM
IN 202	NELSON 230KV PILOT HARDWARE FAILURE ALARM
IN 203	NELSON 230KV PILOT FADE ALARM
IN 204	
IN 205	
IN 206	
IN 207	
IN 208	
IN 209	230KV PCB 448 MAJOR ALARM
IN 210	230KV PCB 448 PROTECTIVE RELAY FAIL
IN 211	230KV BUS 2 PRIMARY LOR / GE-B90 FAIL
IN 212	230KV PCB 558 MINOR ALARM
IN 213	230KV PCB 558 MAJOR ALARM
IN 214	230KV PCB 558 SEL-351S FAIL
IN 215	230KV PCB 668 MINOR ALARM
IN 216	230KV PCB 668 MAJOR ALARM
IN 301	230KV PCB 668 SEL-351S FAIL
IN 302	230KV PCB 780 MINOR ALARM
IN 303	230KV PCB 780 MAJOR ALARM
IN 304	230KV PCB 780 SEL-351S FAIL
IN 305	230KV PCB 448 TRIP CIRCUIT FAIL
IN 306	DAWSON CROSSING 230KV LINE PILOT LOW SIGNAL ALARM
IN 307	DAWSON CROSSING 230KV LINE PILOT DC FAIL
IN 308	230KV BUS 2 SEL-487B FAIL
IN 309	SECONDARY BATTERY HIGH/LOW VOLTAGE
IN 310	SECONDARY BATTERY CHARGER LOSS OF AC
IN 312	SECONDARY BATTERY GROUND FAULT
IN 313	SECONDARY BATTERY DC OUTPUT FAILURE
IN 314	230KV PCB 888 SEL-351S RELAY FAIL
IN 315	MCGRAU FORD BESS 230KV LINE SEL-411LP RELAY FAIL
IN 316	MCGRAU FORD BESS 230KV LINE SEL-411LS RELAY FAIL

AUTOCAD ELECTRICAL

THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

P.I.#1899807



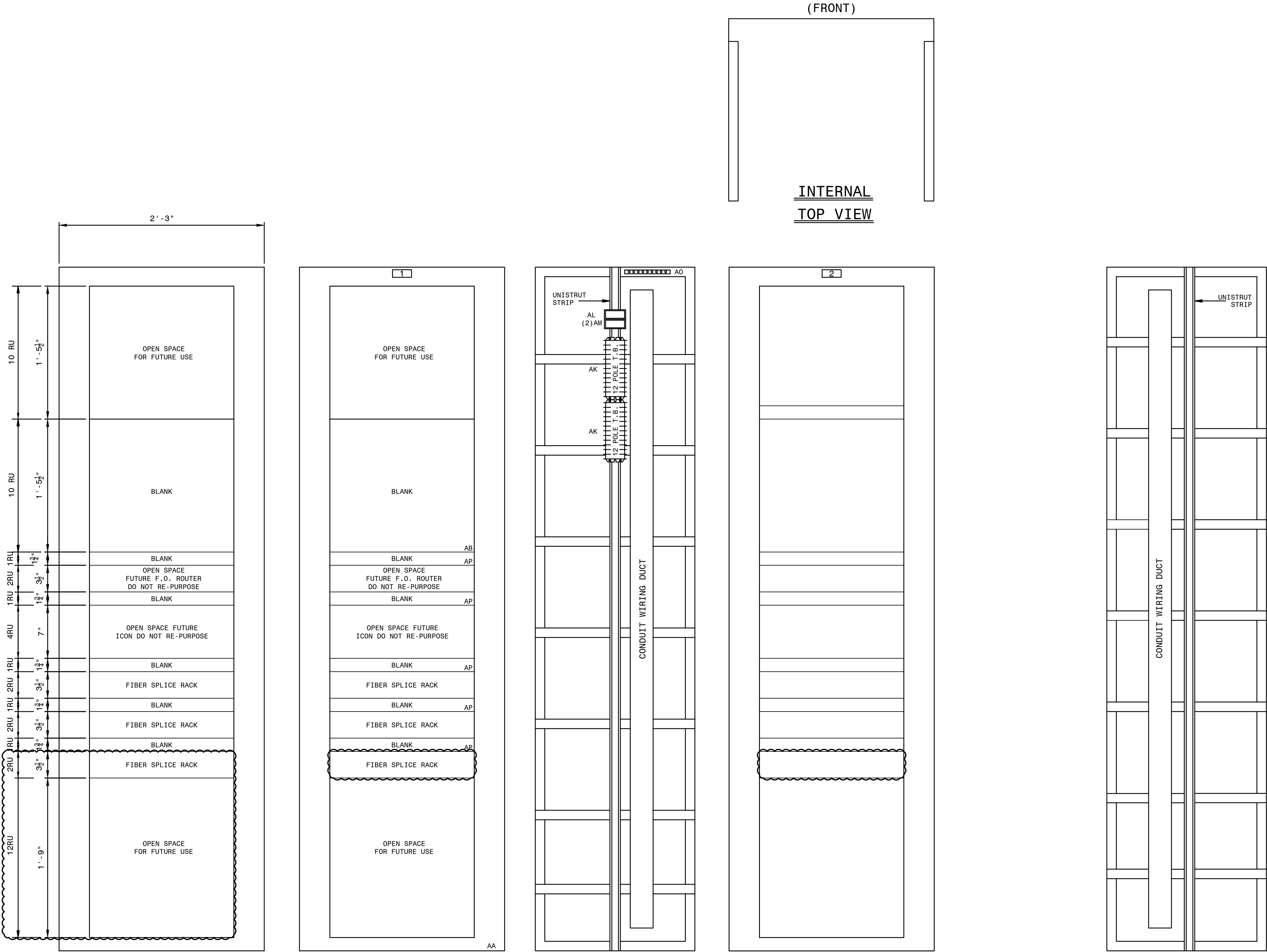
REFERENCES:

- | | |
|-------------|---|
| 01-173-B2 | PANEL #2 FRONT VIEW, TRANSMISSION SIA PANEL |
| 01-173-D20 | PANEL #2 WIRING DIAGRAM, TRANSMISSION SIA PANEL |
| 01-173-D186 | SIA COMMUNICATION CONNECTION DIAGRAM |
| 01-173-D291 | PANEL #2 ELEMENTARY DIAGRAM SH. 1, TRANSMISSION SIA PANEL |

GEORGIA POWER		FACILITY NAME:	
SOUTHERN COMPANY		MCGRAU FORD TS	
DRAWN: BAS		TITLE: PANEL #2 ELEMENTARY DIAGRAM SH. 2, TRANSMISSION SIA PANEL	
CHECKED: JWH	TYPE: SIA	FACILITY #:	NUMBER:
APPROVED: USPP	SCALE: N.T.S.	01-173	292
DATE: 3/23/2020	BOM:		- 001 - 03
ASC FAC:		ALT DWG NUM:	

LABEL DETAILS			
LABEL NO.	FIRST LINE	SECOND LINE	THIRD LINE
1	PANEL NO. 42	SVS FIBER SPLICE PANEL	DWG. NO.01-173-D-330
2	PANEL NO. 42	SVS FIBER SPLICE PANEL	DWG. NO.01-173-D-330

QTY	ITEM S	CATALOG	DESCRIPTION	REMARKS
1	AA	RHCL-I	27IN X 90IN SWITCHBOARD PANEL (FULL RACK) WITH FRAME	DWG-PAN-CONST-D1, DWG-PAN-CONST-D2
1	AB	RGXC-I	RACK PANEL TYPE C 10-RACK UNITS	DWG-PAN-CONST-D1
2	AK	BJPE-I	12 POLE SLIDING LINK TERMINAL BLOCK	STATES ELECTRIC MFG: M-25012-T
1	AL	FUPF	FUSE BLOCK, PHENOL, 2-POLE, 1-30A	
2	AM	RFWM	FUSE, CARTRIDGE, 1ELEM, NR, 250V, 6A	
1	AO	BAVD-I	COPPER NEUTRAL BAR GRD TERM, #4-#14	BURNDY: K12P4CG1
5	AP	RGWT-I	RACK PANEL TYPE A 1-RACK UNIT	DWG-PAN-CONST-D1



FRONT PANEL
(PUNCH MARKS)

FRONT PANEL
(NAMEPLATES AND
MATERIAL MARKS)

LEFT REAR

REAR PANEL
INTERNAL PANEL
REAR VIEW

RIGHT REAR

AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

- NOTES:
- EQUIPMENT TO BE PLACED AS NEEDED.
 - FOR DATA CONNECTION, SEE COMMUNICATION DIAGRAM D-186-001.

- REFERENCES:
- | | |
|------------------|---|
| 01-173-D-330-002 | PANEL #42 WIRING DIAGRAM |
| 01-173-D-330-003 | PANEL #42 ELEMENTARY DIAGRAM |
| 01-173-D-330-004 | PANEL #42 FIBER SPLICE CONNECTIONS (SVS) |
| 01-173-D-330-005 | PANEL #42 FIBER SPLICE CONNECTIONS (MCGRAU FORD BESS) |

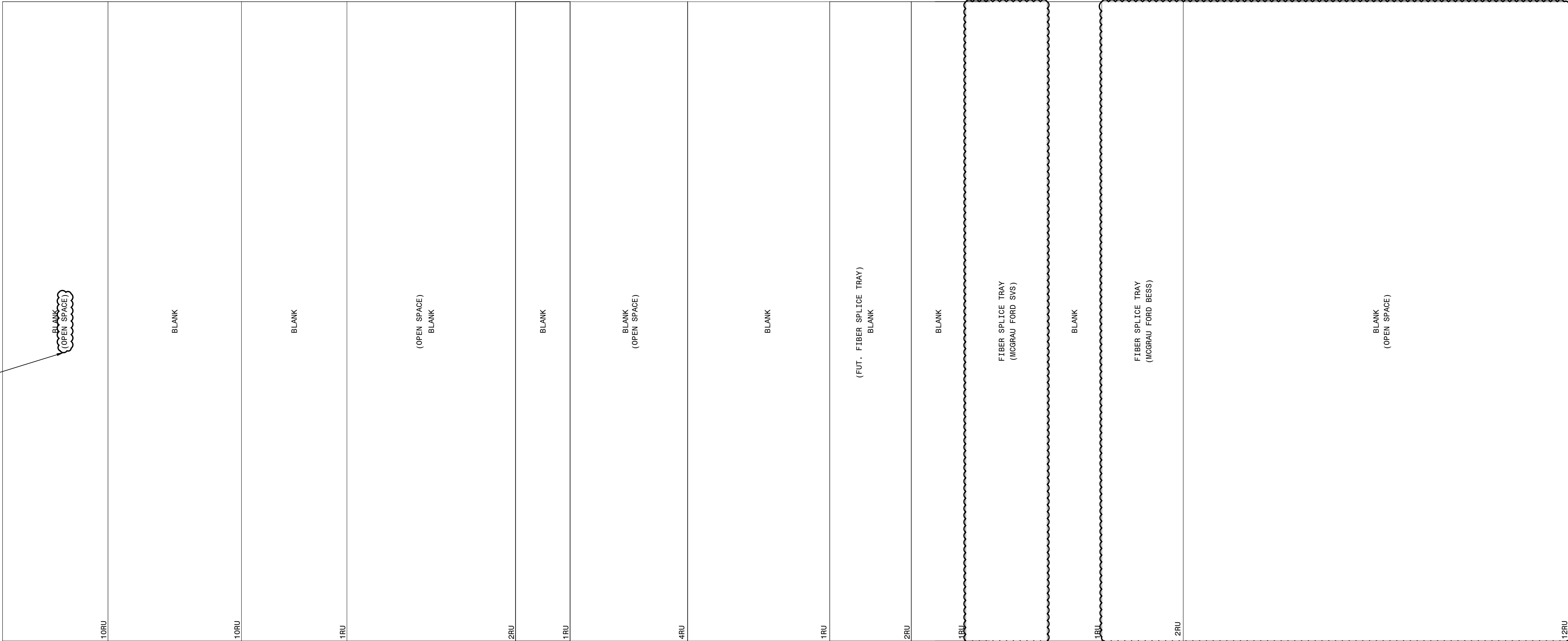
P.I.#1899807

BURNS & MCDONNELL
4004 SUMMIT BLVD., NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770) 587-4775
FAX: (770) 587-4776
EXPIRATION DATE: 03/31/2025
THE REGISTRANT OF THE NEWLY APPLIED
SEAL, STATE OF GEORGIA,
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS.

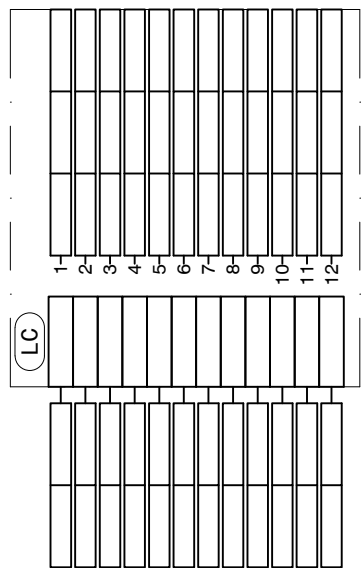
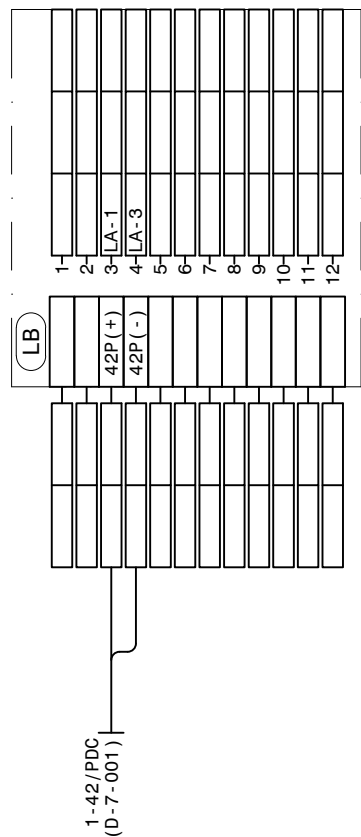
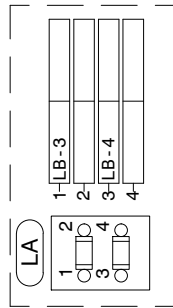
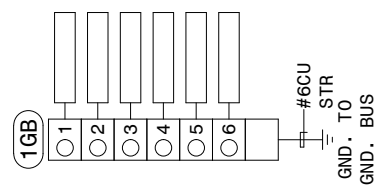
SVS FIBER (AND MCGRAU FORD BESS) INTERFACE

GEORGIA POWER		FACILITY NAME:	
A SOUTHERN COMPANY		MCGRAU FORD TS	
DRAWN: BPE		TITLE: PANEL #42, FRONT VIEW & NAMEPLATES - SVS (AND MCGRAU FORD BESS) FIBER INTERFACE	
CHECKED: BPE		TYPE: FV	
APPROVED: 1890501		FACILITY #: 01-173	
DATE: 05/31/2023		NUMBER: 330	
ASC FACS:		SHEET: REV: 001 - 00	
		ALT DWG NUM:	

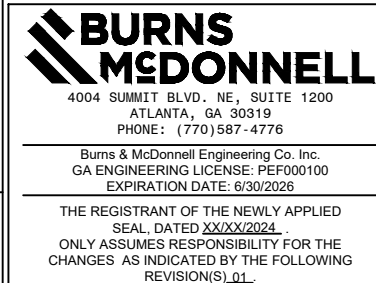
FOR REFERENCE



FOR REFERENCE



P.I.#1899807




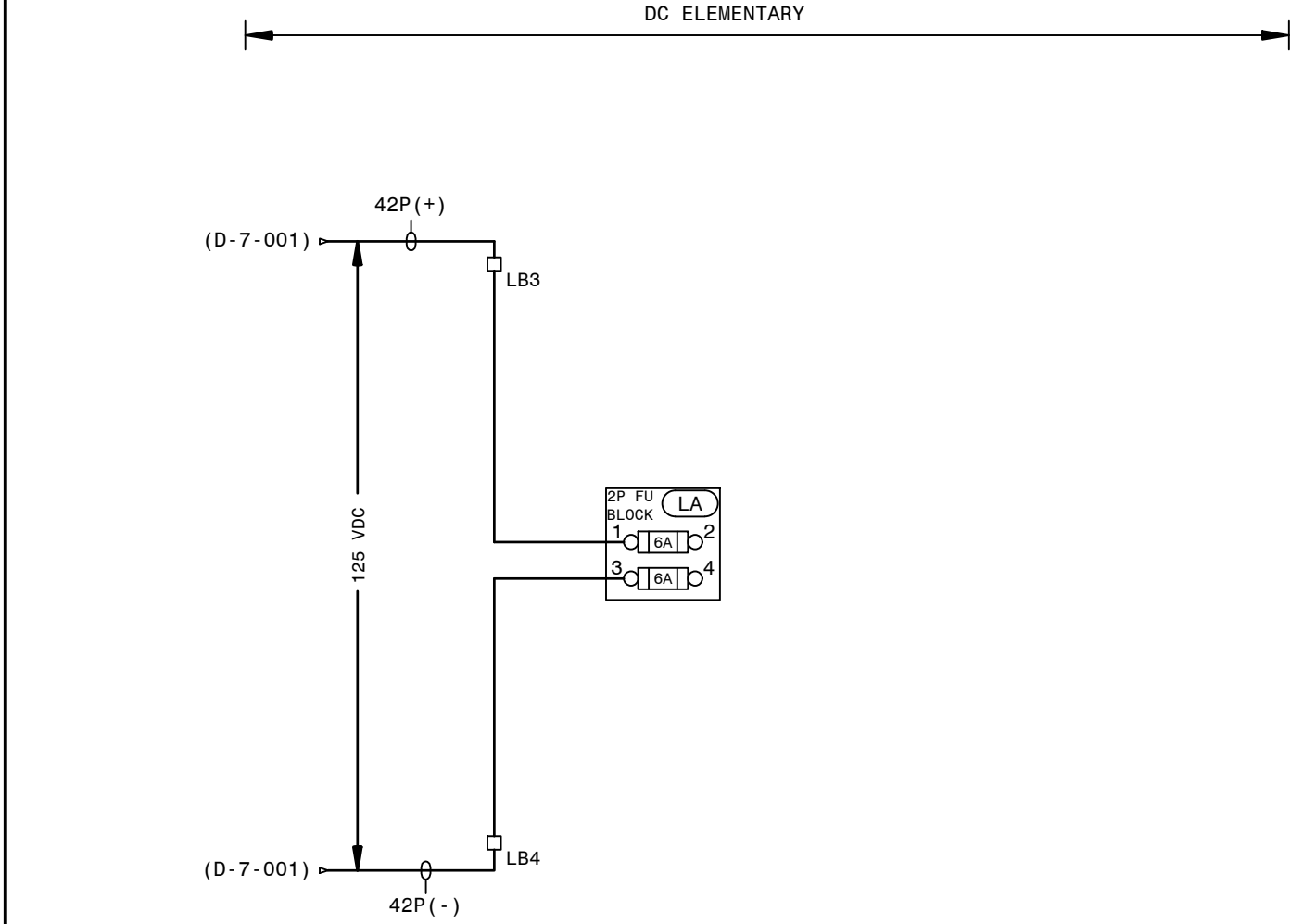
AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

NOTES:
1. FOR SERIAL CONNECTIONS, SEE COMMUNICATION DIAGRAM D-186.

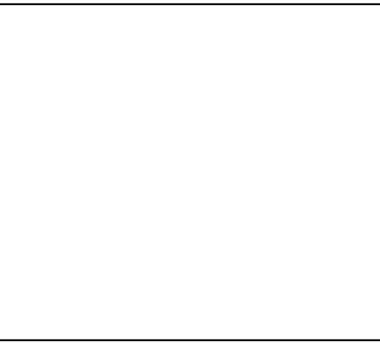
REFERENCES:
01-173-D-330-001 PANEL #42 FRONT VIEW & NAMEPLATES
01-173-D-330-003 PANEL #42 ELEMENTARY
01-173-D-330-004 PANEL #42 FIBER SPLICE CONNECTIONS (SVS)
01-173-D-330-005 PANEL #42 FIBER SPLICE CONNECTIONS (MCGRAU FORD BESS)

SVS (AND MCGRAU FORD BESS) FIBER INTERFACE

 A SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS		
TITLE: PANEL #42, WIRING DIAGRAM - SVS (AND MCGRAU FORD BESS) FIBER INTERFACE				
DRAWN: BPE	TYPE: WD	FACILITY #: 01 - 173	NUMBER: D- 330	
CHECKED: BPE	SCALE: NTS			
APPROVED: 1930501	DATE: 05/31/2023	SHEET: REV: - 002 - 00		
ASC FACS:		ALT DWG NUM:		




AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

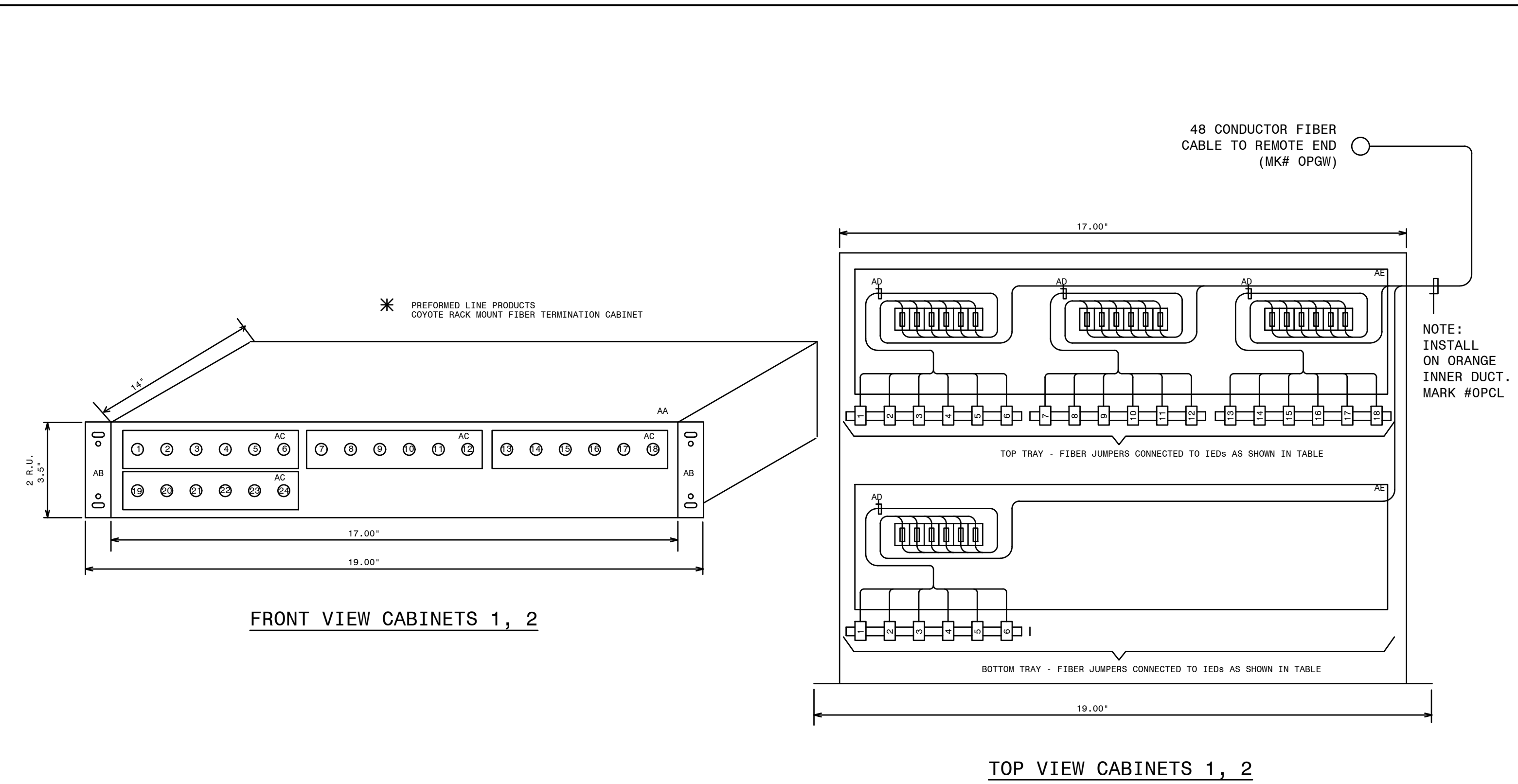


P.I.#1899807

- LEGEND:**
- - SLIDING LINK TERMINALS OR PHEONIX PLUG
 - - LED INDICATING LIGHT
 - - SWITCH SHOWN IN OFF POSN
- TYPICAL LABEL**
- WIRE LABEL → P(+) 1
DEVICE DESIGNATION → 88 TT
ELEM. SHEET NUMBER → 1 2
WIRE LABEL → TPZZZ
- TERMINAL NUMBER

- REFERENCES:**
- 01-173-D-330-001 PANEL #42 FRONT VIEW & NAMEPLATES
 - 01-173-D-330-002 PANEL #42 WIRING DIAGRAM
 - 01-173-D-330-004 PANEL #42 FIBER SPLICE CONNECTIONS (SVS)
 - 01-173-D-330-005 PANEL #42 FIBER SPLICE CONNECTIONS (MCGRAU FORD BESS)

SVS (AND MCGRAU FORD BESS FIBER) INTERFACE							
 GEORGIA POWER SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS					
		TITLE: PANEL #42, DC ELEMENTARY DIAGRAM - SVS (AND MCGRAU FORD BESS) FIBER INTERFACE					
		DRAWN: BPE					
		CHECKED: BPE		TYPE: 52		FACILITY #:	
APPROVED: 1930501		SCALE: N.T.S.		01 - 173		D- 330	
DATE: 05/31/2023		BOM:				SHEET: REV: - 003 - 00	
ASC FACs:				ALT DWG NUM:			



(SEE NOTE 1)

FIBER NUMBER	FUNCTION (TX OR RX)	SCHEME	CABLE NAME	LOCAL CONNECTION	REMOTE DEVICE	MARK #	COLOR	BUFFER
1	SEL-421-TX	MCGRAU FORD - SVS (PRIMARY)	T0-43/F01	SEL-421 (PRIMARY)	SEL-487E (PRIMARY-SVS)		BLUE	BLUE
2	SEL-421-RX						ORANGE	
3	SEL-421-TX						GREEN	
4	SEL-421-RX						BROWN	
5	SEL-421-TX						GRAY	
6	SEL-421-RX						WHITE	
7	SEL-421-TX						RED	
8	SEL-421-RX						BLACK	
9		MCGRAU FORD - SVS (SECONDARY)	T0-43/F02	SEL-311C (SECONDARY)	SEL-487E (SECONDARY-SVS)		YELLOW	ORANGE
10							PURPLE	
11							PINK	
12							CYAN	
13	SEL-311C-TX						BLUE	
14	SEL-311C-RX						ORANGE	
15	SEL-311C-TX						GREEN	
16	SEL-311C-RX						BROWN	
17	SEL-311C-TX						GRAY	
18	SEL-311C-RX						WHITE	
19	SEL-311C-TX						RED	
20	SEL-311C-RX						BLACK	
21							YELLOW	
22							PURPLE	
23							PINK	
24							CYAN	

MCGRAU FORD FIBER PATH (OPGW) ROUTING DETAIL

SVS CONTROL HOUSE

SECONDARY PATH - MFD-SVS/F02
(OPGW - 48 STRAND FIBER)

PRIMARY PATH - MFD-SVS/F01
(OPGW - 48 STRAND FIBER)

MCGRAU FORD CONTROL HOUSE

QTY	ITEM	MARK #	CMDTY #	DESCRIPTION	REMARKS
2	AA	OPCF	J-19763	PLP RDC6 RACK MOUNT CABINET ALLOWS UP TO 36 FIBER SPLICES AND CONNECTIONS	PLP MODEL # RDC6
4	AB	OPCJ	J-19773	MOUNTING BRACKET ASSEMBLY FOR MOUNTING RDC6 IN 19" RACK MOUNT PANEL	PLP MODEL # BKT2U19A
8	AC			LC CONNECTORS - TO BE SELECTED AND PLACED BY IT GROUP	LC CONNECTORS
8	AD	OPCH	J-19770	FIBER PIGTAIL - MIC CABLE 6 FIBER, 2 METER ST-SM	PROVIDES SM-ST TERM. FOR 6 FIBERS.
4	AE	OPBD	J-19598	FIBER CABLE SPLICE TRAY - MOUNTS INTERNAL TO OPCF	PLP MODEL # 80805514
	AF	OPCP	J-19820	SINGLE MODE SIMPLEX JUMPER ST TO ST (1 METER)	
	AG	OPCQ	J-19821	SINGLE MODE SIMPLEX JUMPER ST TO ST (33 METER)	
	AH	OPCR	J-19803	SINGLE MODE DUPLEX JUMPER ST TO ST (1 METER)	
	AI	OPCM	J-19804	SINGLE MODE DUPLEX JUMPER ST TO ST (2 METER)	
	AJ	OPDN	J-19805	SINGLE MODE DUPLEX JUMPER ST TO ST (5 METER)	
	AK	OPDA	J-19708	62.5 MICRON MULTIMODE DUPLEX FIBER JUMPER ST TO ST (1 METER)	
	AL	OPDB	J-82075	62.5 MICRON MULTIMODE DUPLEX FIBER JUMPER ST TO ST (2 METER)	
	AM	OPDC	J-81612	62.5 MICRON MULTIMODE DUPLEX FIBER JUMPER ST TO ST (5 METER)	
4	AO	OPDP	J-19864	SINGLE MODE DUPLEX JUMPER ST TO ST (20 METER)	
1	AP	OPCO	J-19776	PLP RDC3 RACK MOUNT CABINET ALLOWS UP TO 18 FIBER SPLICES AND CONNECTIONS	PLP MODEL # RDC3
		OPAZ			

* PROVIDED BY IT.

P.I.#1899807

BURNS & MCDONNELL

4004 SUMMIT BLVD., NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770) 887-4779

Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE: PE000100
EXPIRATION DATE: 6/30/2026

THE REGISTRANT OF THE NEWLY APPLIED SEAL DATED 8/26/2025.
ONLY ASSUMES RESPONSIBILITY FOR THE CHANGES AS INDICATED BY THE FOLLOWING REVISIONS/DATE.

NOTE:
1. FUNCTION MUST BE REVERSED ON REMOTE END. IE - IF A1 IS CONNECTED TO TX ON THIS END, IT MUST BE CONNECTED TO RX ON REMOTE END.
2. SEE SIA COMMUNICATION CONNECTION DIAGRAM D-186 FOR ADDITIONAL INFORMATION.
3. FIELD TO VERIFY FINAL FIBER INSTALLATION DETAILS.

REFERENCES:
01-173-D-330-001 PANEL #42 FRONT VIEW & NAMEPLATES
01-173-D-330-002 PANEL #42 WIRING DIAGRAM
01-173-D-330-003 PANEL #42 AG/DC ELEMENTARY
01-173-D-330-005 PANEL #42 FIBER SPLICE CONNECTIONS (MCGRAU FORD BSS)

GEORGIA POWER
A SOUTHERN COMPANY

FACILITY NAME: MCGRAU FORD TS

TITLE: PANEL #42, FIBER SPLICE CONNECTIONS - SVS FIBER INTERFACE

DRAWN: BPE
CHECKED: BPE
APPROVED: 1930501
DATE: 05/31/2023

TYPE: WD
SCALE: N.T.S.
BOM:

FACILITY #: 01-173

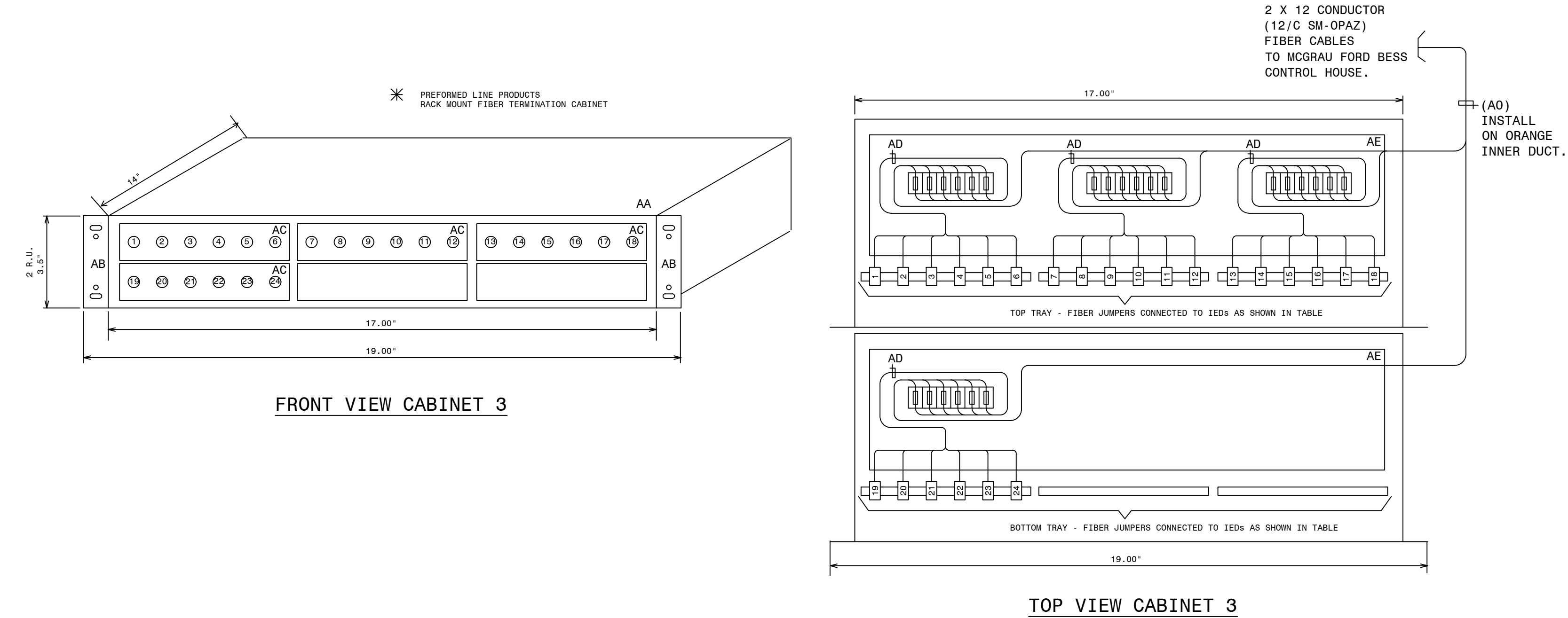
NUMBER: D-330

SHEET: 004 - 00

REV: 00

ASC FACS:

ALT DWG NUM:



(SEE NOTE 1)

TABLE A - FIBER PANEL 2 (FOP-3) FIBER JUMPER CONNECTIONS

FIBER NUMBER	FUNCTION (TX OR RX)	CABLE NAME	REMOTE DEVICE	REMOTE LOCATION	DWG REF	MARK #	COLOR	BUFFER
1	PRI RELAY RX	13-42/FIB1	SEL-411LP MCGRAU FORD BESS 230KV LINE	PANEL 13	D-424-002	OPDP	BLUE	BLUE
2	PRI RELAY TX						ORANGE	
3	SPARE						GREEN	
4	SPARE						BROWN	
5	SPARE						GRAY	
6	SPARE						WHITE	
7	SPARE						RED	ORANGE
8	SPARE						BLACK	
9	SPARE						YELLOW	
10	SPARE						PURPLE	
11	SPARE						PINK	
12	SPARE						CYAN	
13	SEC RELAY RX	13-42/FIB2	SEL-411LS MCGRAU FORD BESS 230KV LINE	PANEL 13	D-424-002	OPDP	BLUE	GREEN
14	SEC RELAY TX						ORANGE	
15	SPARE						GREEN	
16	SPARE						BROWN	
17	SPARE						GRAY	
18	SPARE						WHITE	
19	SPARE						RED	BROWN
20	SPARE						BLACK	
21	SPARE						YELLOW	
22	SPARE						PURPLE	
23	SPARE						PINK	
24	SPARE						CYAN	

✱

QTY	ITEM	MARK #	CMDTY #	DESCRIPTION	REMARKS
1	AA	OPCF	J-19763	PLP RDC6 RACK MOUNT CABINET ALLOWS UP TO 36 FIBER SPLICES AND CONNECTIONS	PLP MODEL # RDC6
1	AB	OPCJ	J-19773	MOUNTING BRACKET ASSEMBLY FOR MOUNTING RDC6 IN 19" RACK MOUNT PANEL	PLP MODEL # BKT2U19A
4	AC	OPCG	J-19767	PLP 6ISMST ST CONNECTOR SIX PACK	ST TO ST TERMINATION FOR 6 FIBERS
4	AD	OPCH	J-19770	FIBER PIGTAIL - MIC CABLE 6 FIBER, 2 METER ST-SM	PROVIDES SM-ST TERM. FOR 6 FIBERS.
1	AE	OPBD	J-19598	FIBER CABLE SPLICE TRAY - MOUNTS INTERNAL TO OPCF	PLP MODEL # 80805514
	AF	OPCP	J-19820	SINGLE MODE SIMPLEX JUMPER ST TO ST (1 METER)	
	AG	OPCQ	J-19821	SINGLE MODE SIMPLEX JUMPER ST TO ST (33 METER)	
	AH	OPCR	J-19803	SINGLE MODE DUPLEX JUMPER ST TO ST (1 METER)	
1	AI	OPCM	J-19804	SINGLE MODE DUPLEX JUMPER ST TO ST (2 METER)	
	AJ	OPDN	J-19805	SINGLE MODE DUPLEX JUMPER ST TO ST (5 METER)	
	AK	OPDA	J-19708	62.5 MICRON MULTIMODE DUPLEX FIBER JUMPER ST TO ST (1 METER)	
	AL	OPDB	J-82075	62.5 MICRON MULTIMODE DUPLEX FIBER JUMPER ST TO ST (2 METER)	
	AM	OPDC	J-81612	62.5 MICRON MULTIMODE DUPLEX FIBER JUMPER ST TO ST (5 METER)	
2	AN	OPDP	J-19864	SINGLE MODE DUPLEX JUMPER ST TO ST (20 METER)	
2	AO	OPAZ	J-19520	OPTICAL CABLE 12 FIBER SINGLE MODE	
	AP	OPBB	J-19549	OPTICAL CABLE 24 FIBER SINGLE MODE	

NOTE:
1. FUNCTION MUST BE REVERSED ON REMOTE END. IE - IF A1 IS CONNECTED TO TX ON THIS END, IT MUST BE CONNECTED TO RX ON REMOTE END.

REFERENCES:
D-330-001 PANEL #42 FRONT VIEW AND NAMEPLATES
D-330-002 PANEL #42 WIRING DIAGRAM
D-330-003 PANEL #42 ELEMENTARY DIAGRAM
D-330-004 PANEL #42 FIBER SPLICE CONNECTIONS (SVS)

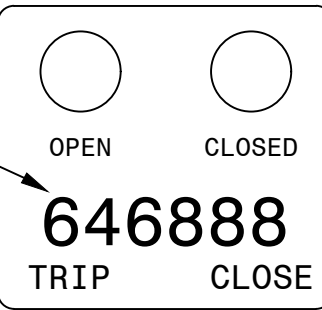


BESS FIBER INTERFACE

GEORGIA POWER A SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS	
DRAWN: EG/BHCD		TITLE: PANEL #42, FIBER SPLICE CONNECTIONS - MCGRAU FORD BESS INTERFACE	
CHECKED: SW/BHCD	TYPE: WD	FACILITY #:	NUMBER:
APPROVED: P1#1899807	SCALE: N.T.S.	01-173	SHEET: REV:
DATE: 9/23/2024	BOH:	D-330	- 005 -- .A
ASC FAC:		ALT DWG NUM:	

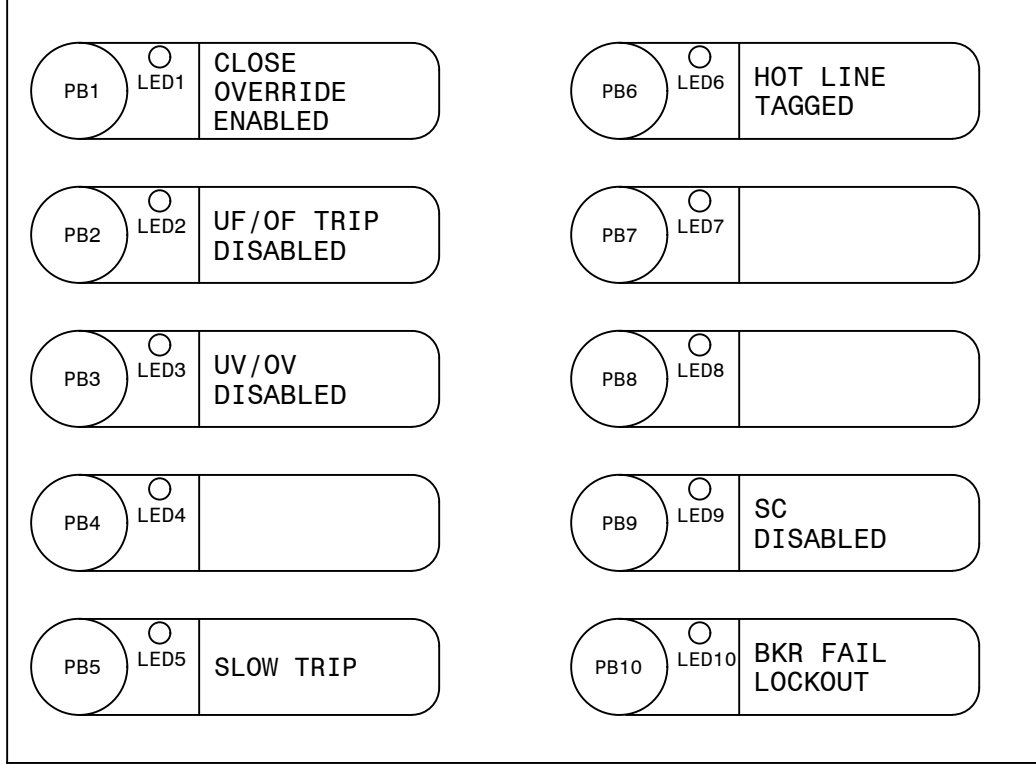
NAMEPLATE DETAILS			
NAMEPLATE NO.	FIRST LINE	SECOND LINE	THIRD LINE
1	PANEL NO. 13		DWG.01-173-D424
2	PANEL NO. 13		DWG.01-173-D424
3	351S7X RELAY	646888	CONTROL - BF/RCLS
4	351S7X RELAY	646888	CONTROL - BF/RCLS
5	BF C0	646888	
6	411L PRI RELAY	646888	MCGRAU FORD BESS 230KV LINE
7	411L PRI RELAY	646888	MCGRAU FORD BESS 230KV LINE
8	411L SEC RELAY	646888	MCGRAU FORD BESS 230KV LINE
9	411L SEC RELAY	646888	MCGRAU FORD BESS 230KV LINE

DETAIL A2
(PCB 888 351S7X
CONFIGURABLE LABELS)

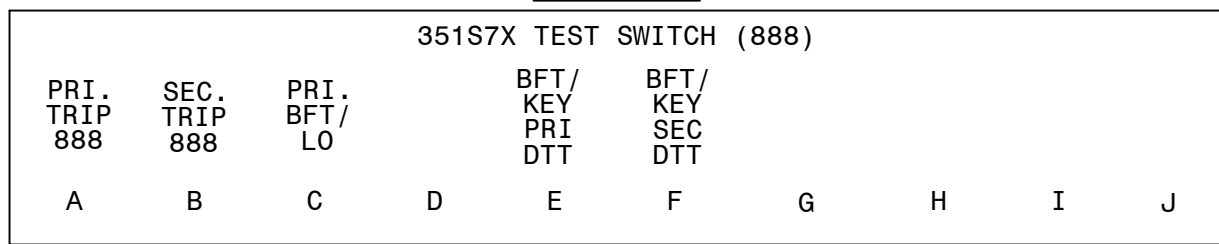


QTY	ITEMS	CATALOG	DESCRIPTION	REMARKS
1	AA	RHCL-I	27IN X 90IN SWITCHBOARD PANEL (FULL RACK) WITH FRAME	DWG-PAN-CONST-D1, DWG-PAN-CONST-D2
6	AB	RGWT-I	RACK PANEL TYPE A 1-RACK UNIT	DWG-PAN-CONST-D1
1	AC	RGWU-I	RACK PANEL TYPE A 2-RACK UNITS	DWG-PAN-CONST-D1
5	AD	RGWV-I	RACK PANEL TYPE B 3-RACK UNITS	DWG-PAN-CONST-D1
1	AE	RLAK	SEL-351S7X	SEL-0351S7XHE4B5421
3	AF	RHUA	2-10 POLE TYPE FT-1 SWITCHES, POS.A:(T T T T T T T T T T),POS. B:(P P P C-C C-C C-P), POS C:(TOGGLE SWITCH CUTOUT)	ABB #S3G036014S01M
1	AG	RHHS-I	SWITCH,TOGGLE,4P,DT,15A,115V.,.25A@125VDC	MICROSWITCH #4TL1-3
2	AH	RTIW	SEL-411L T/M LINE DIFF/STEP DIST WITH OC AND TRAVELING-WAVE FLT DET., 5RU	SEL #0411L1X6X5B8DHXHE424XX
10	AM	BJPE-I	12 POLE SLIDING LINK TERMINAL BLOCK	STATES ELECTRIC MFG: M-25012-T
1	AN	BAVD-I	COPPER NEUTRAL BAR GRD TERM, #4-#14	BURNDY: K12P4CG1
1	AP	FUPF	FUSE BLOCK, PHENOL,2-POLE,1-30A	BUSSMANN: H25030-2SR
3	AQ	FUPH	FUSE BLOCK, PHENOL,3-POLE,1-30A	BUSSMANN: H25030-3S
10	AR	RFYM	FUSE,CARTIDGE,1ELEM,NR,250V,6A	BUSSMANN: KTN-6J8-11G30
2	AU	RFUT-I	REL-AUX, TRIP CURR IND. - TIR, 1.0A OPER., COIL 10A NOM.	ELECTROMAX #6319209
1	AV	RGWV-I	RACK PANEL TYPE B 4-RACK UNITS	DWG-PAN-CONST-D1
4	BF	RHKH-I	TRANSF-CURRENT 5A WINDOW 500MM, DFR/DME	UTILITY SYSTEMS INC: CTR-1001-17714813

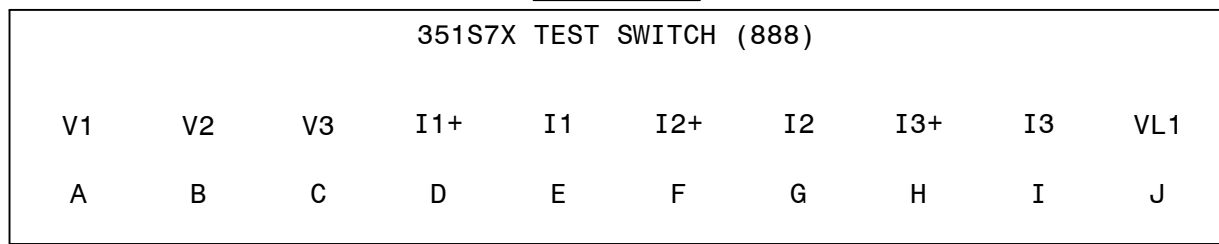
DETAIL A
(351S7X CONFIGURABLE LABELS)



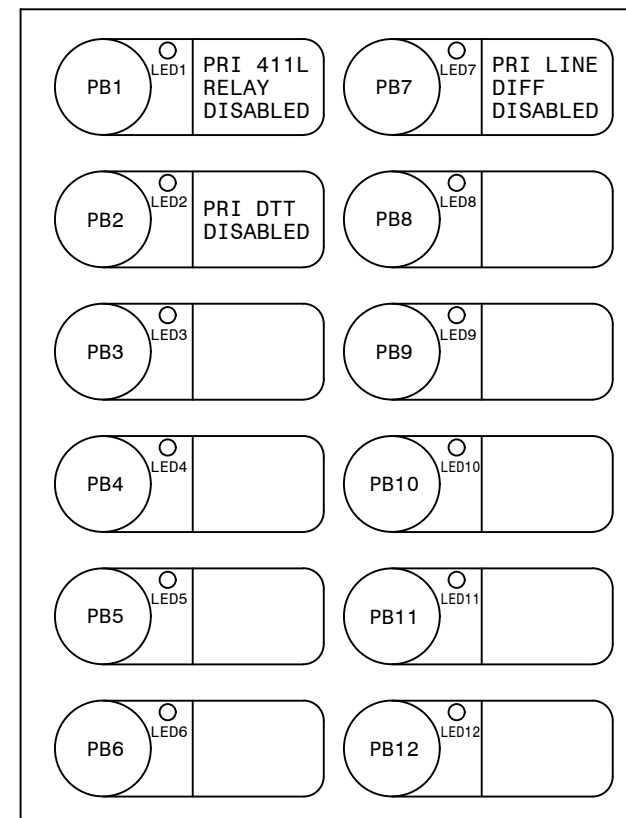
DETAIL B



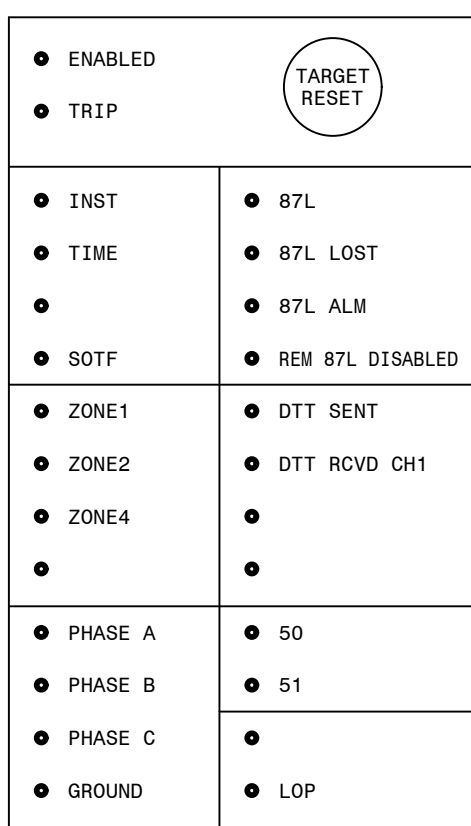
DETAIL C



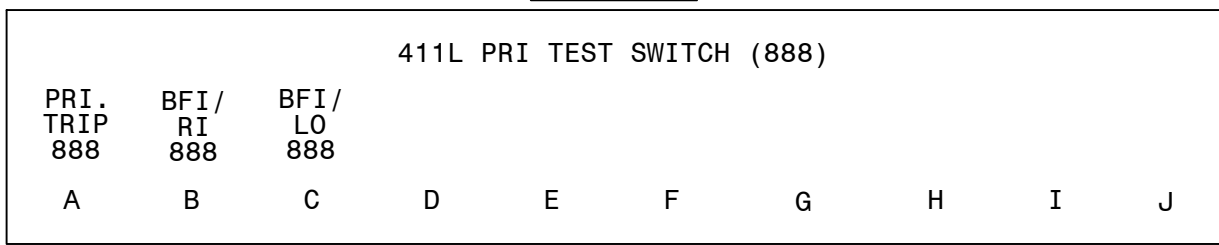
DETAIL D
(411L PRI CONFIGURABLE LABELS)



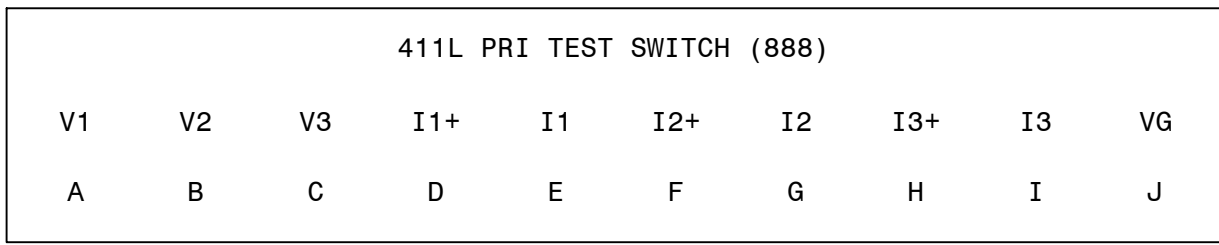
DETAIL D1



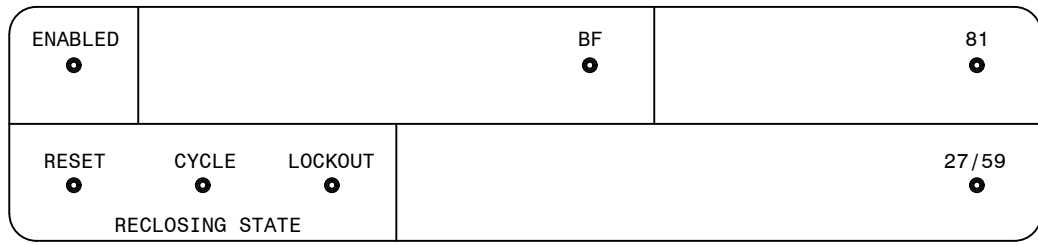
DETAIL E



DETAIL F



DETAIL A1



P.I.#1899807

BURNS & MCDONNELL

4004 SUMMIT BLVD., NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770)887-4776

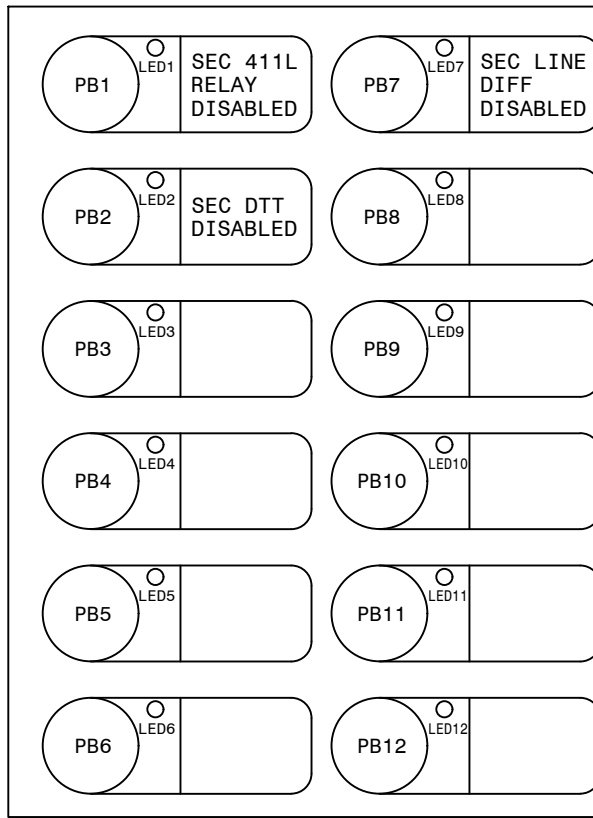
Burns & McDonnell Engineering Co., Inc.
GA ENGINEERING LICENSE: PE000100
EXPIRATION DATE: 03/30/2028

THE REGISTRANT OF THE SEAL HAS APPLIED
SEAL DATE: 03/30/2024

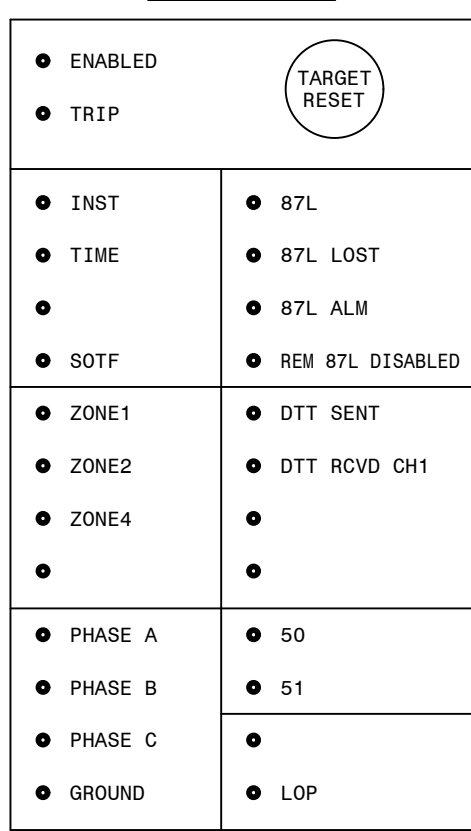
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS

DETAIL G

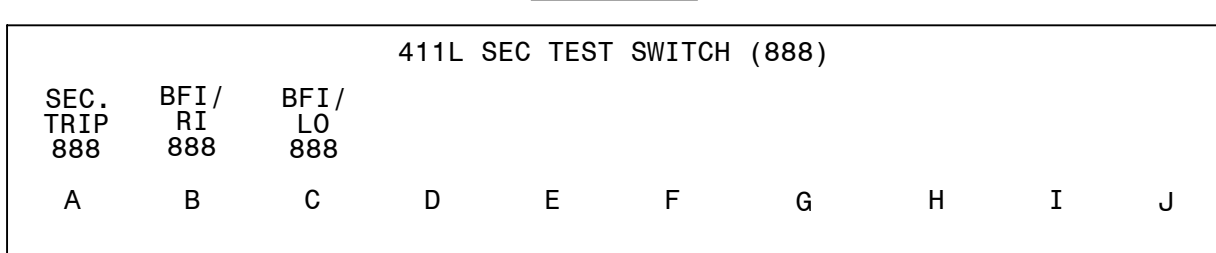
(411L SEC CONFIGURABLE LABELS)



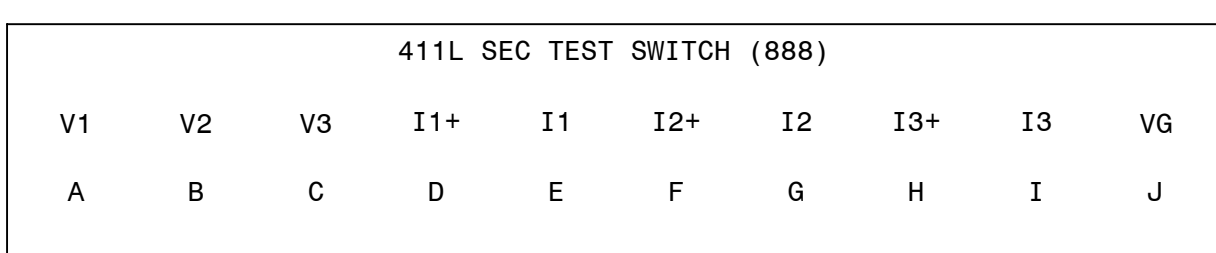
DETAIL G1



DETAIL H



DETAIL I



REFERENCES:

D-424-002 PANEL 13 WIRING DIAGRAM
D-424-003 PANEL 13 DC ELEMENTARY DIAGRAM
D-424-004 PANEL 13 AC ELEMENTARY DIAGRAM
D-424-005 PANEL 13 LOGIC DIAGRAM (411L PRI)
D-424-006 PANEL 13 LOGIC DIAGRAM (411L SEC)
D-424-007 PANEL 13 LOGIC DIAGRAM (351S7X BF/RCLS)

NOTES:

1. SLIDING LINKS TO OPEN TOWARD INTERNAL WIRING SIDE.

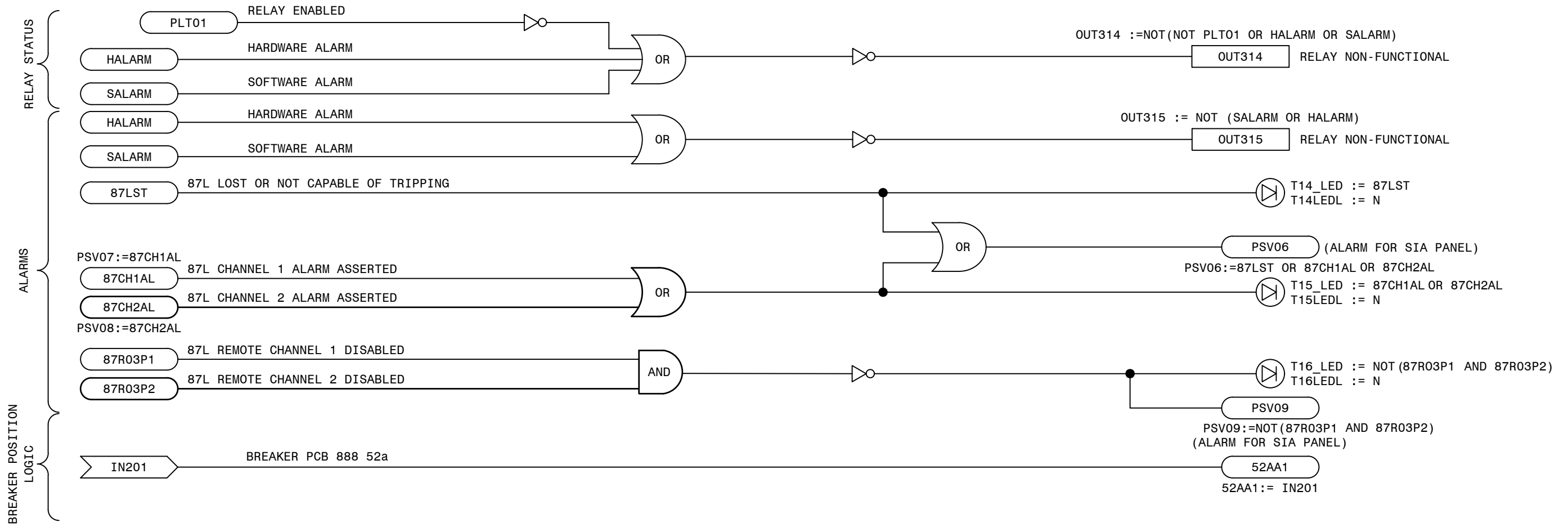
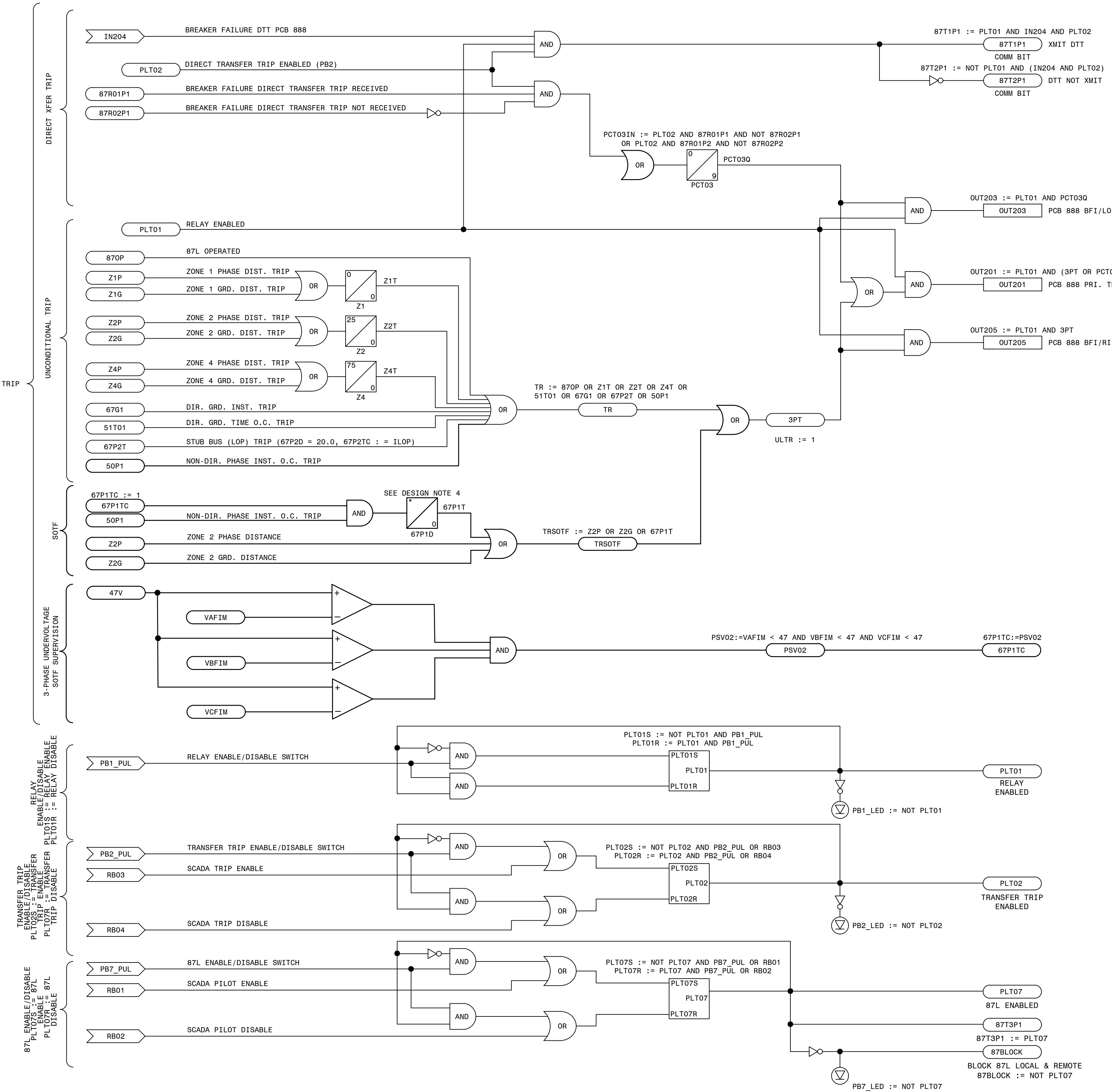
AUTOCAD ELECTRICAL

THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

PANEL 13, FRONT VIEW, TRANS. LINE 87L/DTT FIBER, STR. BUS

GEORGIA POWER A SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS	
DRAWN: EG/BHCD		TITLE: PANEL NO.13, FRONT VIEW - MC. FORD BESS 230KV LINE SEL411L (PRI-FIB LINE DIFF/DIST.), SEL411L (SEC-FIB LINE DIFF/DIST.), SEL351S (BF/RCLS	
CHECKED: SW/BHCD		TYPE: FV	
APPROVED: PI#1899807		SCALE: 1-1/2" = 1'-0"	
DATE: 7/31/2024		FACILITY #: 01-173	
		SHEET: 424	
		REV: -001--.A	
		ASC FACS: ALT DWG NUM:	

LNP-SELPR-D-32-001-06



- LEGEND:
- xxxx SEL INTERNAL RELAY ELEMENT OR SETTING (IF RECESSED IT WAS DEVELOPED ON THIS SHEET)
 - xxxx EXTERNAL INPUT, PUSHBUTTON OR REMOTE BIT
 - xxxx SEL RELAY OUTPUT
 - xx xx xx SEL TIMER (IN CYCLES)
 - NOT (INVERT INPUT)

- REFERENCES:
- D-424-001 PANEL 13 FRONT VIEW AND NAMEPLATES
 - D-424-002 PANEL 13 WIRING DIAGRAM
 - D-424-003 PANEL 13 DC ELEMENTARY DIAGRAM
 - D-424-004 PANEL 13 AC ELEMENTARY DIAGRAM
 - D-424-006 PANEL 13 LOGIC DIAGRAM (411L SEC)
 - D-424-007 PANEL 13 LOGIC DIAGRAM (351S7X BF/RCLS)

ALIAS NOTES:

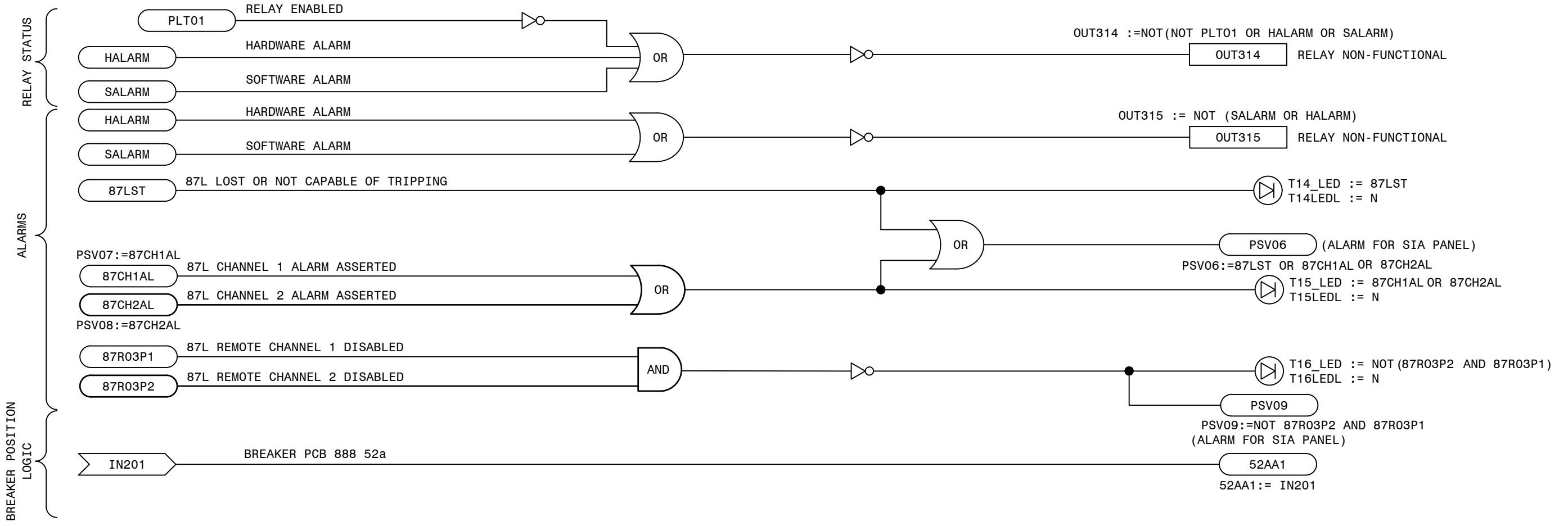
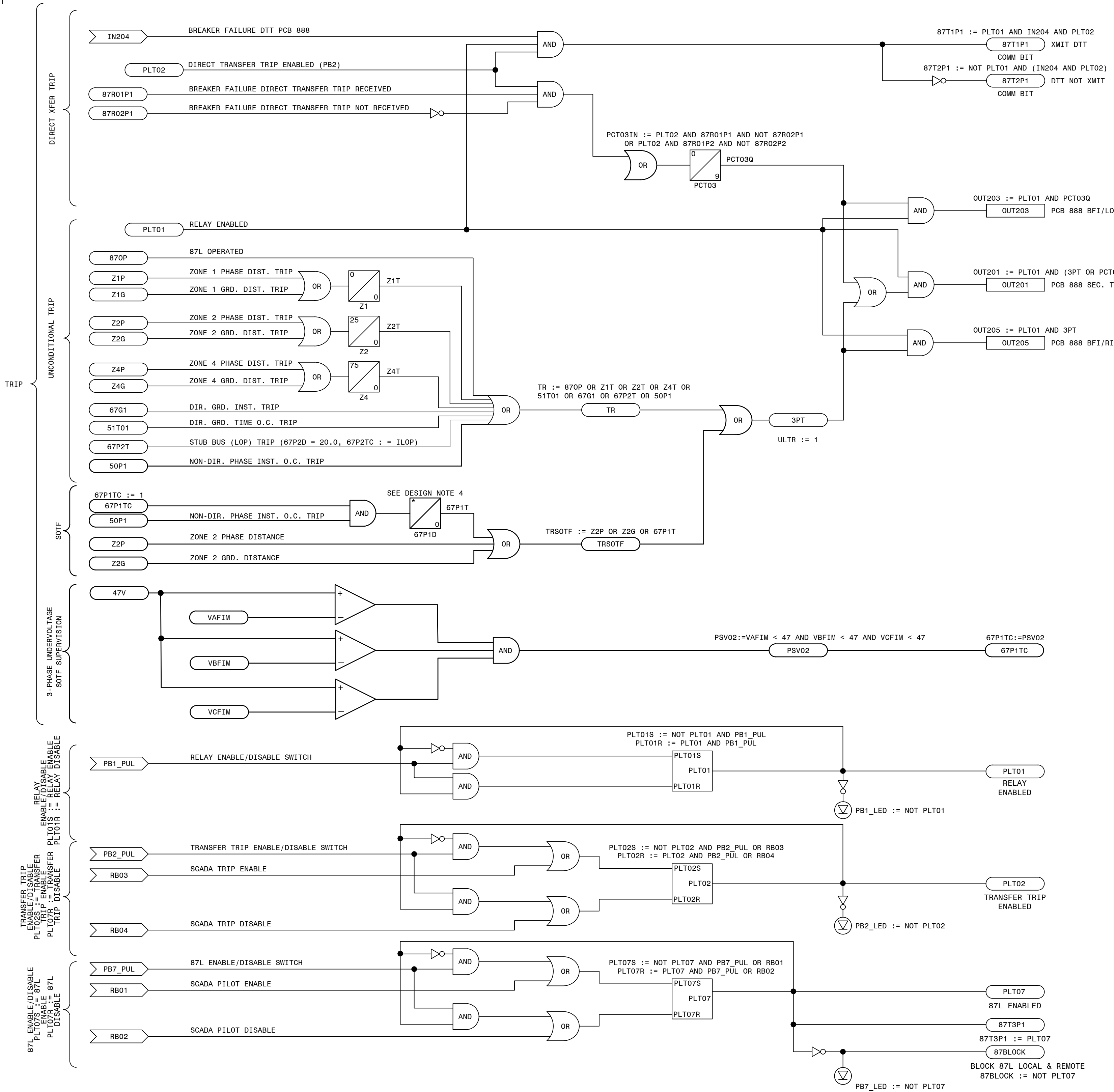
THE FOLLOWING LIST PROVIDES ALTERNATE LOGIC EQUATIONS IF ELEMENT ALIASES ARE NOT USED.

- T2_LED := PCT01Q AND NOT (TLED_1 OR TLED_4)
- T5_LED := (Z1P OR Z1G OR 67G1) AND NOT (TLED_6 OR TLED_7)
- T6_LED := (Z2P OR Z2G) AND NOT (Z1P OR Z1G OR 67G1 OR TLED_5 OR TLED_7)
- T7_LED := (Z3P OR Z3G) AND NOT (Z1P OR Z2P OR Z1G OR Z2G OR 67G1 OR TLED_5 OR TLED_6)
- T21_LED := (67G1 OR 67P1) AND NOT TLED_22
- T22_LED := 51S1T AND NOT (67G1 OR 67P1 OR TLED_21)

PRELIMINARY DESIGN
INFORMATION CONTAINED WITHIN THIS PRELIMINARY
DESIGN PACKAGE IS SUBJECT TO CHANGE.
NOT FOR CONSTRUCTION

TRANS. LINE PRIMARY 87L/DTT FIBER LOGIC - STRAIGHT BUS

GEORGIA POWER SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS	
DRAWN: EG/BMCD		TITLE: PANEL NO.13, LOGIC DIAGRAM - MCGRAU FORD BESS 230KV LINE SEL411L (PRI-FIB. LINE DIFF/DIST.), STRAIGHT BUS	
CHECKED: SW/BMCD		TYPE: 52L	
APPROVED: PJ#1899007		SCALE: N.T.S.	
DATE: 7/31/2024		FACILITY #: 01-173	
		NUMBER: D-424	
		SHEET: REV: -005--.A	
		ASC FACs: ALT DWG NUM:	



LEGEND:

- XXXX SEL INTERNAL RELAY ELEMENT OR SETTING (IF RECESSED IT WAS DEVELOPED ON THIS SHEET)
- XXXX EXTERNAL INPUT, PUSHBUTTON OR REMOTE BIT
- XXXX SEL RELAY OUTPUT
- XX PU XX DO SEL TIMER (IN CYCLES)
- NOT (INVERT INPUT)

REFERENCES:

- D-424-001 PANEL 13 FRONT VIEW AND NAMEPLATES
- D-424-002 PANEL 13 WIRING DIAGRAM
- D-424-003 PANEL 13 DC ELEMENTARY DIAGRAM
- D-424-004 PANEL 13 AC ELEMENTARY DIAGRAM
- D-424-005 PANEL 13 LOGIC DIAGRAM (411L PRI)
- D-424-007 PANEL 13 LOGIC DIAGRAM (351S7X BF/RCLS)

ALIAS NOTES:

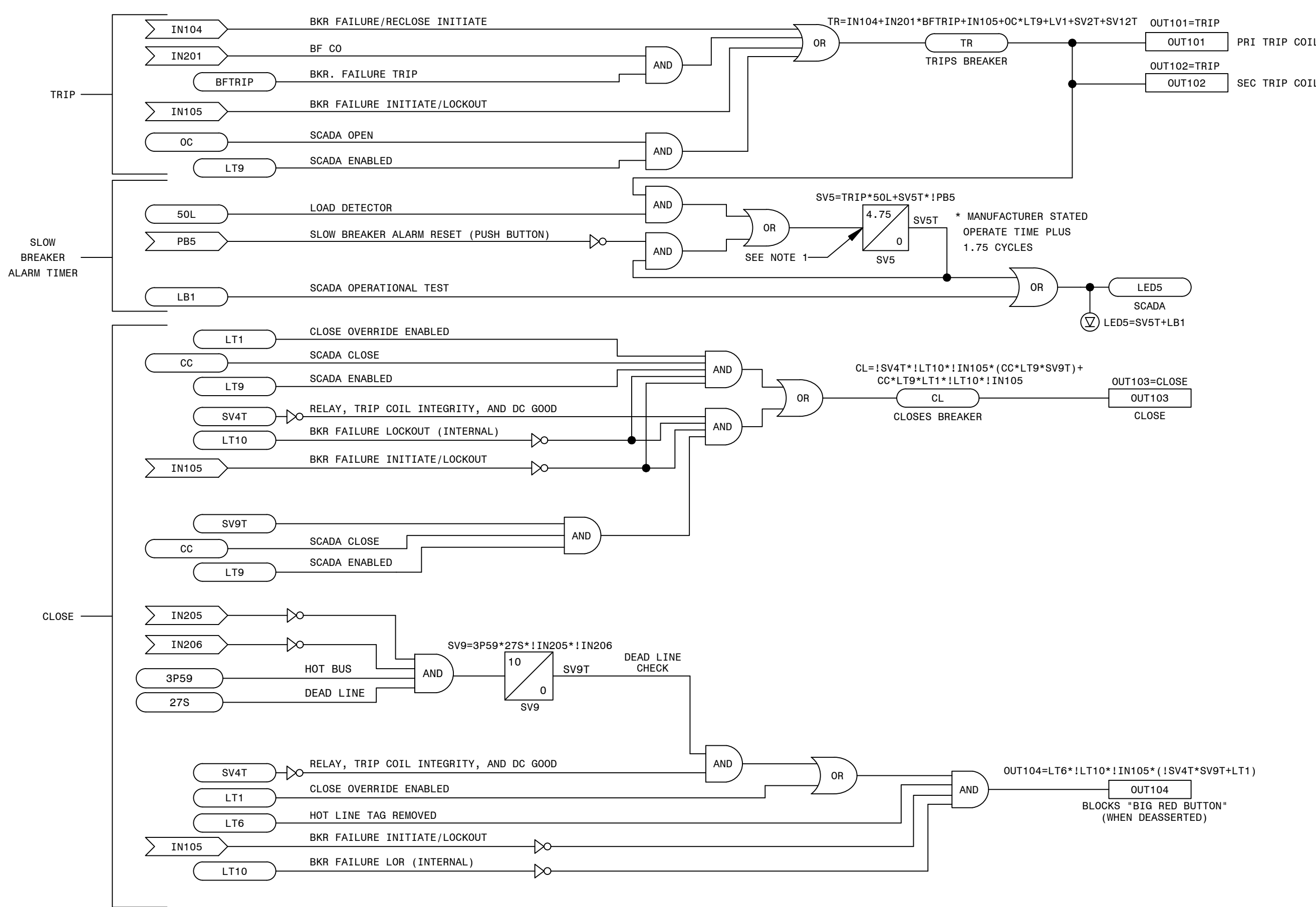
THE FOLLOWING LIST PROVIDES ALTERNATE LOGIC EQUATIONS IF ELEMENT ALIASES ARE NOT USED.

- T2_LED := PCT01Q AND NOT (TLED_1 OR TLED_4)
- T5_LED := (Z1P OR Z1G OR 67G1) AND NOT (TLED_6 OR TLED_7)
- T6_LED := (Z2P OR Z2G) AND NOT (Z1P OR Z1G OR 67G1 OR TLED_5 OR TLED_7)
- T7_LED := (Z3P OR Z3G) AND NOT (Z1P OR Z2P OR Z1G OR Z2G OR 67G1 OR TLED_5 OR TLED_6)
- T21_LED := (67G1 OR 67P1) AND NOT TLED_22
- T22_LED := 51S1T AND NOT (67G1 OR 67P1 OR TLED_21)


PRELIMINARY DESIGN
INFORMATION CONTAINED WITHIN THIS PRELIMINARY
DESIGN PACKAGE IS SUBJECT TO CHANGE.
NOT FOR CONSTRUCTION

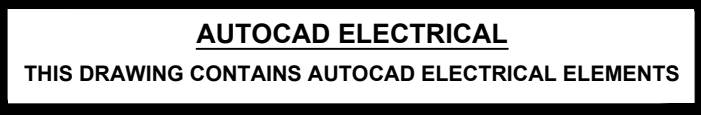
TRANS. LINE SECONDARY 87L/DTT FIBER LOGIC - STRAIGHT BUS

GEORGIA SOUTHERN POWER	FACILITY NAME:		MCGRAY FORD TS	
	TITLE:		PANEL NO.13, LOGIC DIAGRAM - MCGRAY FORD BESS 230KV LINE SEL411L (SEG-FIB. LINE DIFF/DIST.), STRAIGHT BUS	
	CHECKED:	TYPE:	FACILITY #:	NUMBER:
	APPROVED:	SCALE:	01-173	424
	DATE:	7/31/2024	ASC FACS:	ALT DWG NUM:



D-424-001	PANEL 13 FRONT VIEW AND NAMEPLATES
D-424-002	PANEL 13 WIRING DIAGRAM
D-424-003	PANEL 13 DC ELEMENTARY DIAGRAM
D-424-004	PANEL 13 AC ELEMENTARY DIAGRAM
D-424-005	PANEL 13 LOGIC DIAGRAM (411L PRI)
D-424-006	PANEL 13 LOGIC DIAGRAM (411L SEC)

 GEORGIA POWER A SOUTHERN COMPANY	FACILITY NAME:				MCGRU FORD TS			
	TITLE: PANEL NO.13, LOGIC DIAGRAM - MCGRU FORD 230KV LINE SEL351S (BF/RCLS)							
	REL., STRAIGHT BUS							
	DRAWN: EG/BMCD	TYPE: 52L	FACILITY #:	<div style="font-size: 2em; font-weight: bold;">D-</div>		NUMBER:	<div style="font-size: 2em; font-weight: bold;">424</div>	
	CHECKED: SW/BMCD	SCALE: N.T.S.	01-173			SHEET:		
APPROVED: P1/899807	BOM:					- 007 -- A		
DATE: 7/31/2024	ASC FACS:		ALT DWG NUM:					




P. I. #1899807

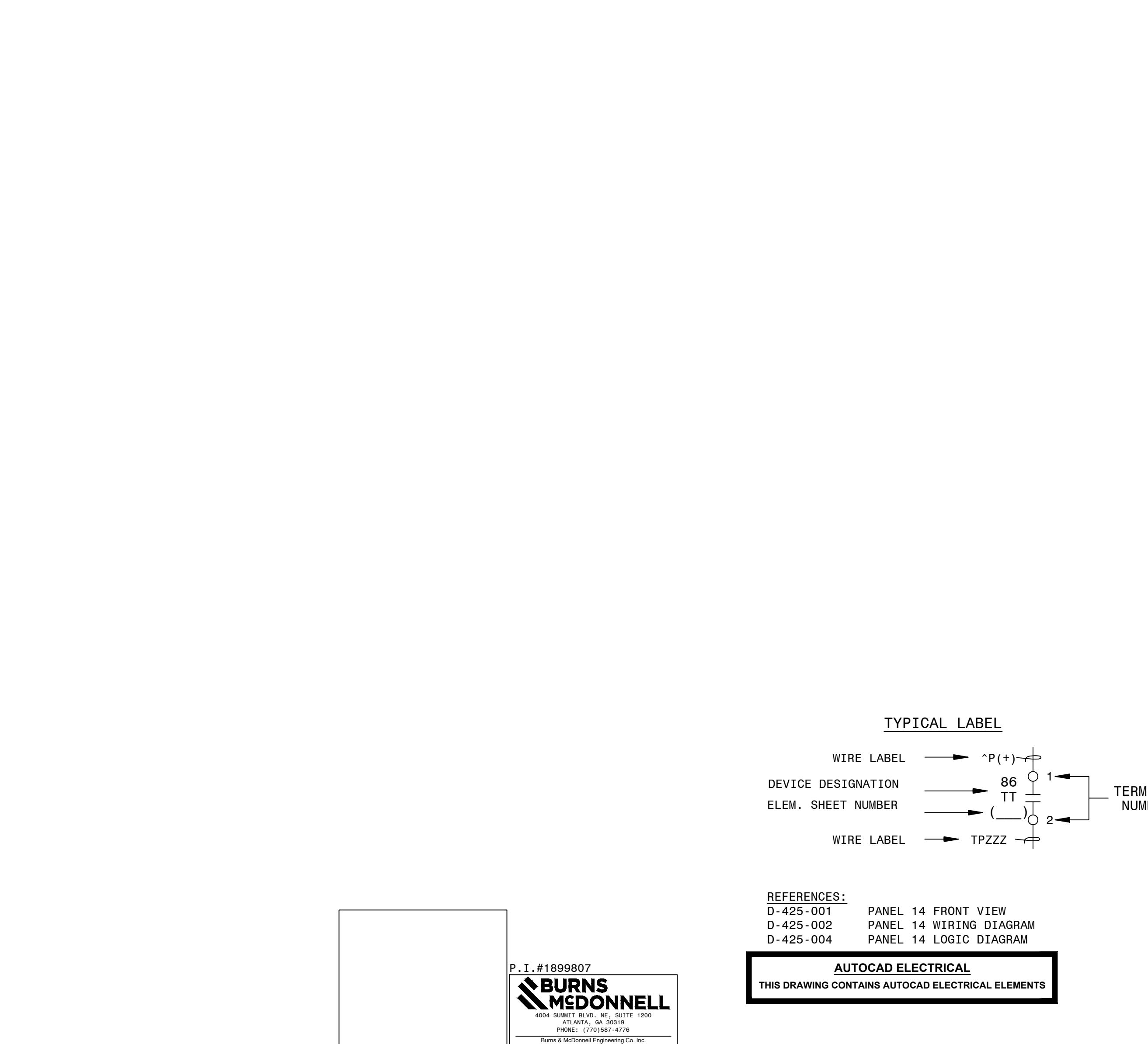
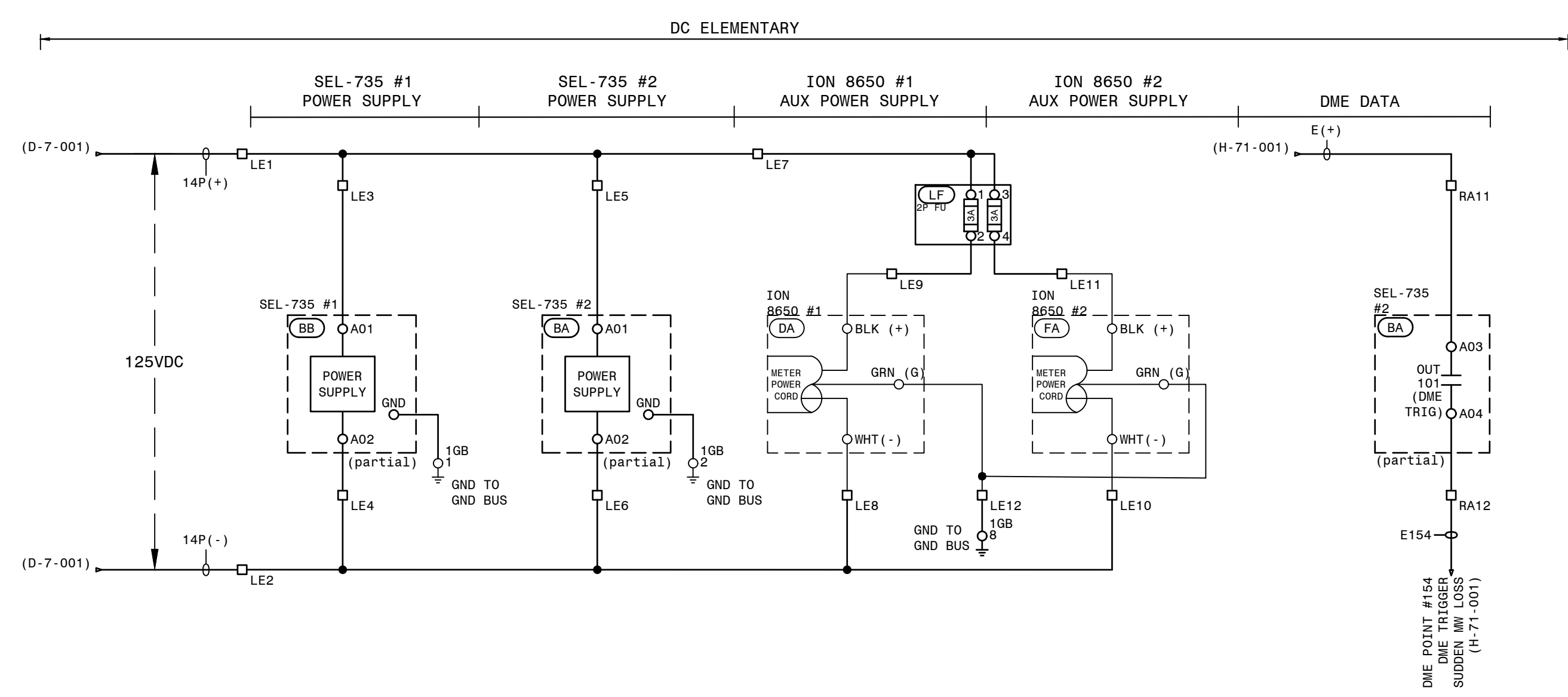
**BURNS
MCDONNELL**

4004 SUMMIT BLVD. NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770)587-4776

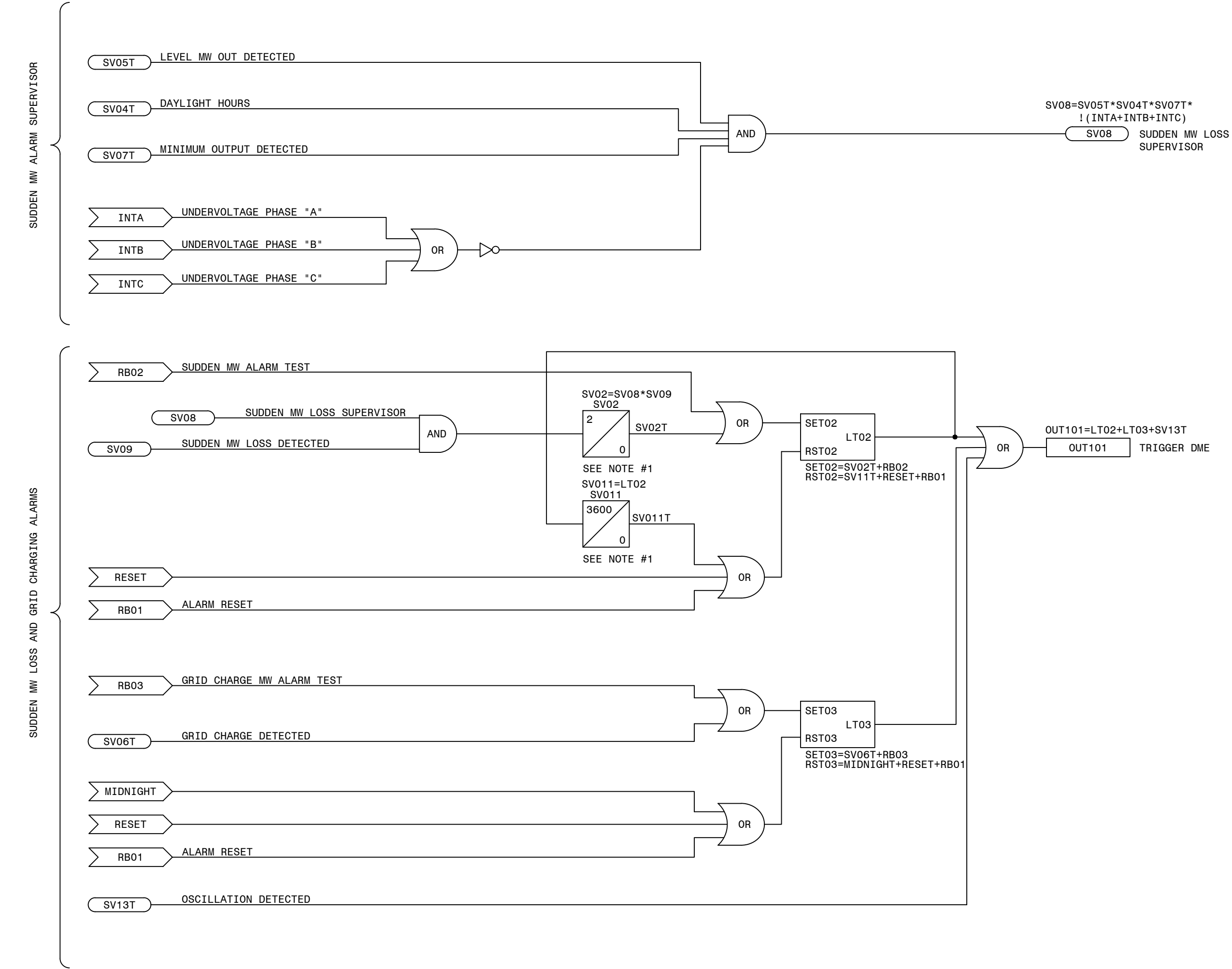
Burns & McDonnell Engineering Co. Inc.
GA ENGINEERING LICENSE: PE000100
EXPIRATION DATE: 6/30/2026

THE REGISTRANT OF THE NEWLY APPLIED
SEAL DATED XX/XX/2024,
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS/LD.

 <p>GEORGIA POWER A SOUTHERN COMPANY</p>	FACILITY NAME:		MCGRAU FORD TS	
	TITLE: PANEL NO.14, WIRING DIAGRAM - TRANSMISSION REVENUE AND PQ METERING			
	DRAWN: EG/BMCD			
	CHECKED: SW/BMCD	TYPE: VD	FACILITY #:	NUMBER:
	APPROVED: PIH1899807	SCALE: N.T.S.	01-173	D- 425
DATE: 8/14/2024	BOM:			SHEET: REV:
	ASC FACS:			- 002 - .A
				ALT DWG NUM:

[illegible]

SUDDEN MW LOSS



NOTE:
1. SEL-735P TIMER UNITS ARE SECONDS.

LEGEND:

XXXX SEL INTERNAL RELAY ELEMENT OR SETTING
(IF RECESSED IT WAS DEVELOPED ON THIS SHEET)

XXXX EXTERNAL INPUT, PUSHBUTTON OR REMOTE BIT

XXXX SEL RELAY OUTPUT

XX
PU
XX
DO SEL TIMER (IN CYCLES)

NOT (INVERT INPUT)

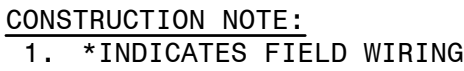
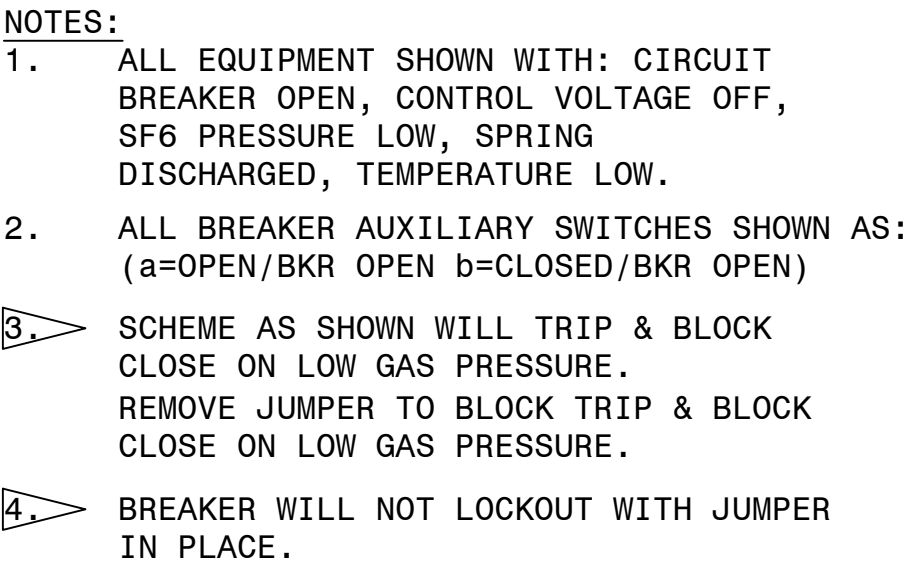
REFERENCES:
D-425-001 PANEL 14 FRONT VIEW
D-425-002 PANEL 14 WIRING DIAGRAM
D-425-003 PANEL 14 AC/DC ELEMENTARY

PRELIMINARY DESIGN
INFORMATION CONTAINED WITHIN THIS PRELIMINARY
DESIGN PACKAGE IS SUBJECT TO CHANGE.
NOT FOR CONSTRUCTION

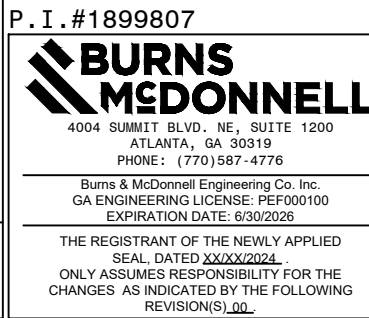
LOGIC DIAGRAM, TRANS. REVENUE & PQ METERING PANEL 14

<div><div>GEORGIAPOWER</div><div><small>SOUTHERN COMPANY</small></div></div>	FACILITY NAME: MCGRAU FORD TS	
	TITLE: PANEL NO.14, LOGIC DIAGRAM - TRANSMISSION REVENUE AND POWER QUALITY METERING	
DRAWN: EG/BMCD	TYPE: S2L	FACILITY #:
CHECKED: SW/BMCD	SCALE: N.T.S.	01-173
APPROVED: PI#1899807	DATE: 8/14/2024	NUMBER: 425
ASC FACs:		ALT DWG NUM:


SGEN-POM_D-1-004-00

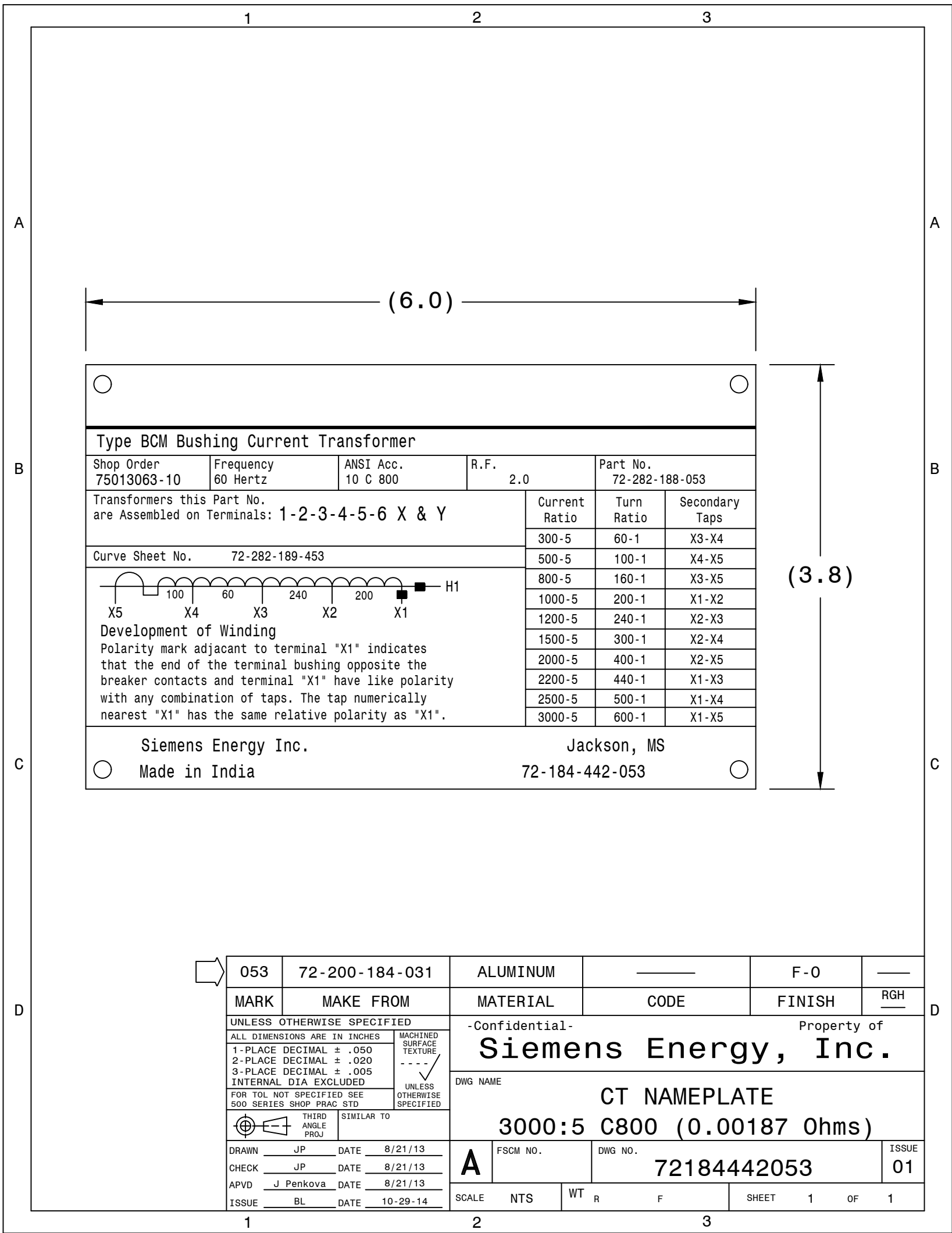
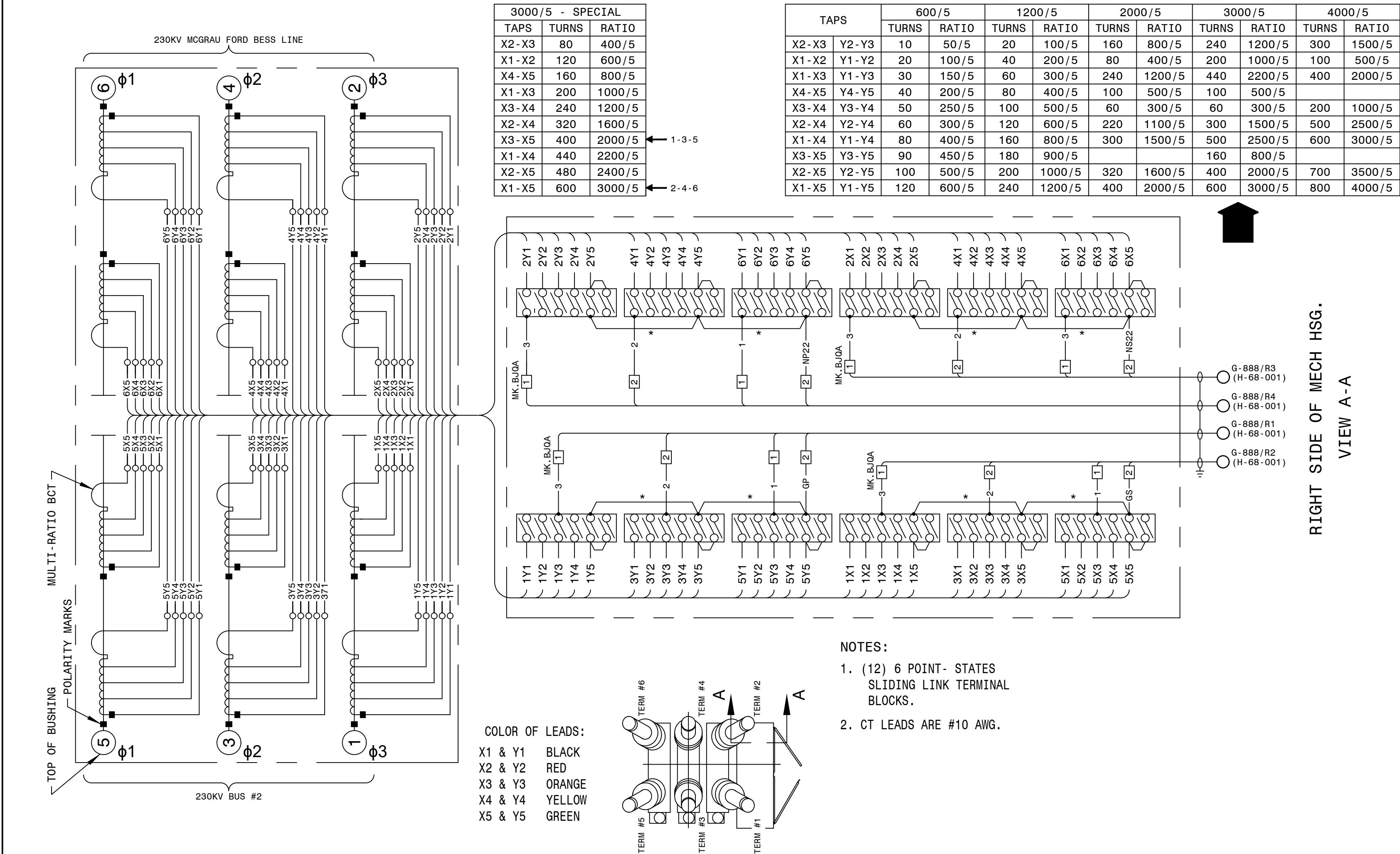


REFERENCES			
D-426-002	230KV PCB 646888	(CO.#B19453)	ELEMENTARY DIAGRAM SH.2
D-426-003	230KV PCB 646888	(CO.#B19453)	WIRING DIAGRAM
D-426-004	230KV PCB 646888	(CO.#B19453)	BCT WIRING DIAGRAM & NAMEPLATE
D-426-005	230KV PCB 646888	(CO.#B19453)	NAMEPLATE & GAS SYSTEM



AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

 GEORGIA POWER SOUTHERN COMPANY	FACILITY NAME:										MCGRAU FORD TS														
	TITLE: 230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.1																								
	DRAWN: EG/BMCD					TYPE: 92					FACILITY #:					NUMBER:					SHEET: REV:				
	CHECKED: SW/BMCD					SCALE: N.T.S.					01-173					D-426					- 001 - -				
	APPROVED: PT#189807					BOM:																			
DATE: 12/17/2024					ASC FACS:					DSC					ALT DWG NUM:										



AUTOCAD ELECTRICAL

THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

- CONSTRUCTION NOTES:
- INDICATES FIELD WIRING
 - POWER TERMINAL BLOCK MK. BJQA TO BE LOCATED AND INSTALLED BY THE FIELD, AS REQUIRED.
 - CABLES INSTALLED FROM POWER TERMINAL BLOCK MK. BJQA TO BLOCK TERMINAL MK. BJPE TO BE #10.

REFERENCES

D-426-001 230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.1

D-426-002 230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.2

D-426-003 230KV PCB 646888 (CO.#B19453) WIRING DIAGRAM

D-426-005 230KV PCB 646888 (CO.#B19453) NAMEPLATE & GAS SYSTEM

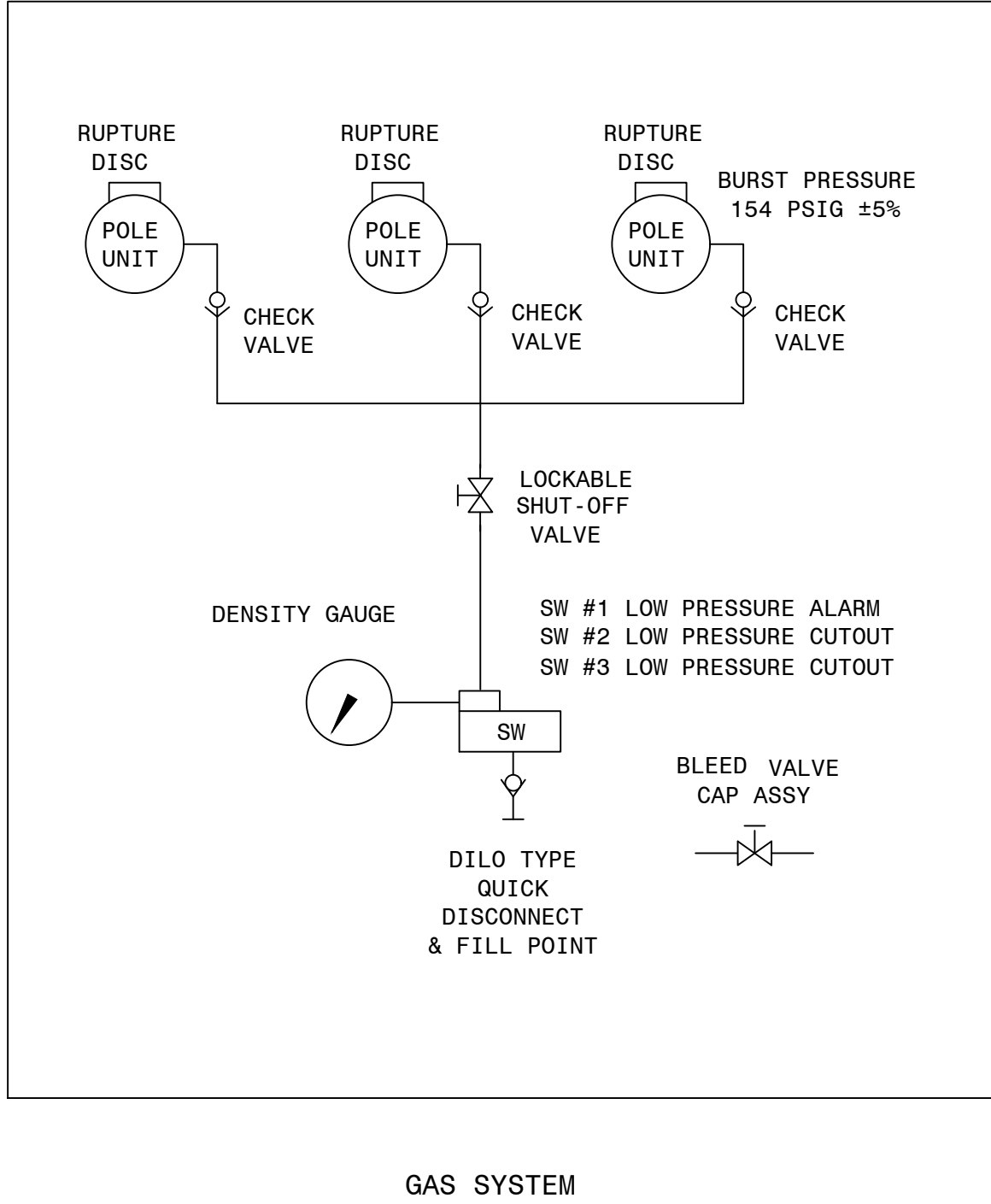
P.I.#1899807



GEORGIA POWER A SOUTHERN COMPANY	FACILITY NAME: MCGRAU FORD TS
DRAWN: EG/BHCD	TITLE: 230KV PCB 646888 (CO.#B19453) BCT WIRING DIAGRAM & NAMEPLATE
CHECKED: SW/BHCD	TYPE: 82
APPROVED: PT#1899807	SCALE: N.T.S.
DATE: 12/17/2024	NUMBER: 01-173
DEV.#: 646888	SHEET: 004 - -
ASC FAC:	ALT DWG NUM:

<div><div></div><div>Sulfur Hexafluoride Circuit Breaker Type SPS2S-245-63 -1</div></div> <div><div></div><div><div>SIEMENS</div><div>energy</div></div><div></div></div> <div><div></div><div></div><div></div></div>		
Rated Max. Volts 245 kV	Rated Voltage Range Factor 1.0 (K)	Rated Interrupting Time 2.0 Cycles
Rated Continuous Current 3000 A	Rated Short Circuit Current 63000 A	Rated Capacitance Current Switching
Frequency 60 Hz	Rated Out of Phase Current 15800 A	Line Charging 200 A Isolated Bank Sw. 1200 A Back -to- Back Sw. 700 A Inrush Peak 20000 A Inrush Freq. 4250 Hz
Wt. of Breaker With Gas 11200 Lbs	Full Wave Impulse Withstand 900 kV	Rated Operating Duty Cycle OCO-15SEC-CO
Weight of SF6 Gas 116 Lbs	PO# GPC11335358 ITEM# 1876166	
Rated Operating Pressure at 68°F/20 °C 87 psig	Short Time Current Duration 3 SEC	Serial - S.O. 75013063-1 THRU 15
Minimum Operating Pressure at 68 F/20 °C 72 psig	Close and Latch 170 kA	Parts List No.
SF6 Alarm Pressure at 68°F/20 °C 75 psig	Rated Chopped Wave @ 2 microS 1160 kV	Instruction Book PB- 3538-01
SF6 Cutout Pressure at 68°F/20 °C 72 psig		Date of Mfr. MONTH/YEAR
% of DC Component 57 %		
Siemens Energy, Inc. Manufactured or Assembled of U.S. and Foreign Components		Jackson, MS 72184717001

001	72200184027	ALUMINUM	---	F-0	---
MARK	MAKE FROM	MATERIAL	CODE	FINISH	RGH
UNLESS OTHERWISE SPECIFIED		-Confidential- Property of			
ALL DIMENSIONS ARE IN INCHES		Siemens Energy, Inc.			
1-PLACE DECIMAL ± .050		DWG NAME			
2-PLACE DECIMAL ± .020		NAMEPLATE			
3-PLACE DECIMAL ± .005		BREAKER, 245kV			
INTERNAL DIA EXCLUDED		A FSCM NO. DWG NO. ISSUE			
FOR TOL NOT SPECIFIED SEE 500 SERIES SHOP PRGMS STD		72184717001			
UNLESS OTHERWISE SPECIFIED		SCALE 1=1 WT R F SHEET 1 OF 1			
DRAWN MD DATE 6/3/19					
CHECK MD DATE 6/3/19					
APVD BL DATE 2/5/20					
ISSUE TH DATE 2/7/20					



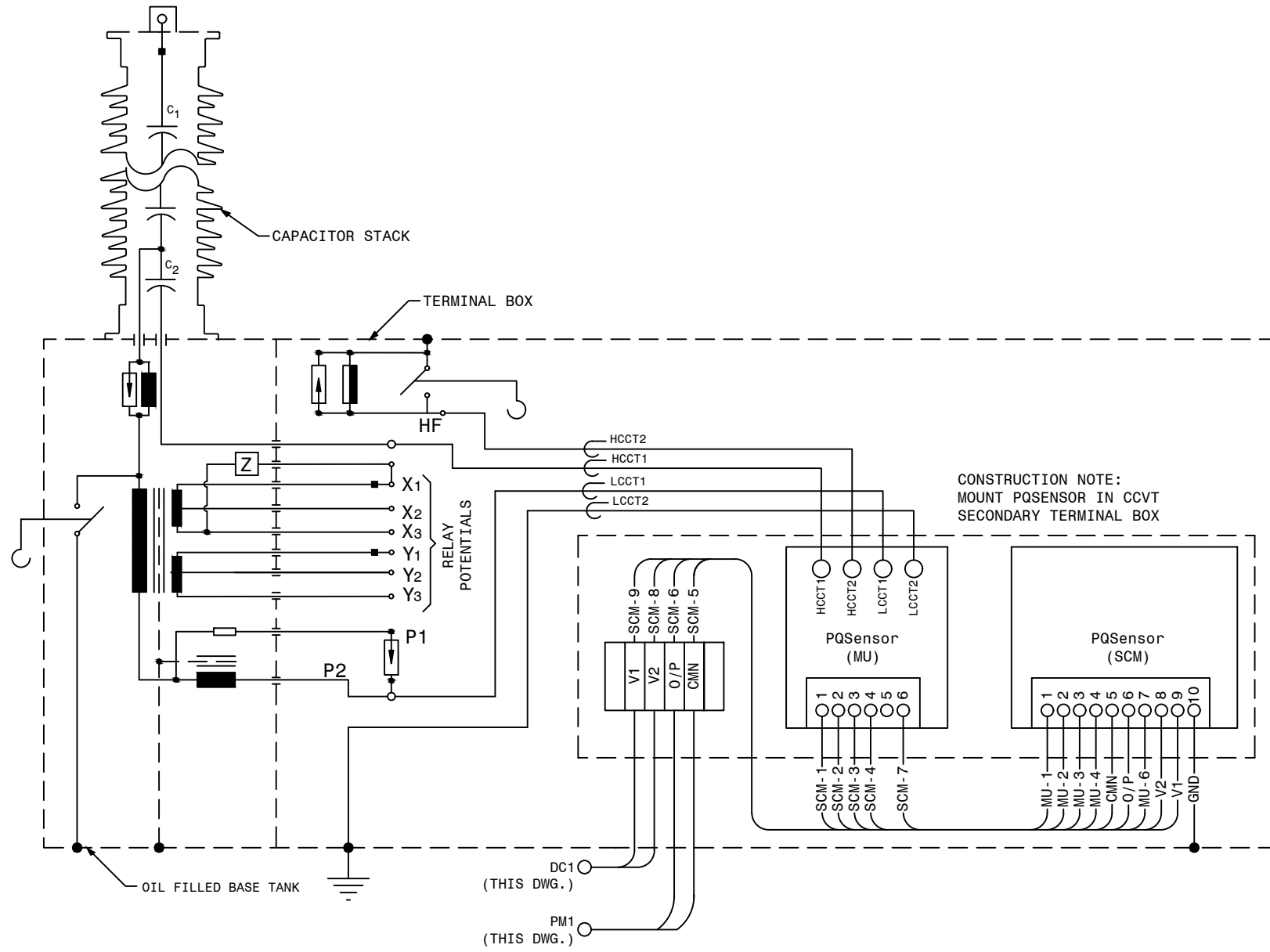
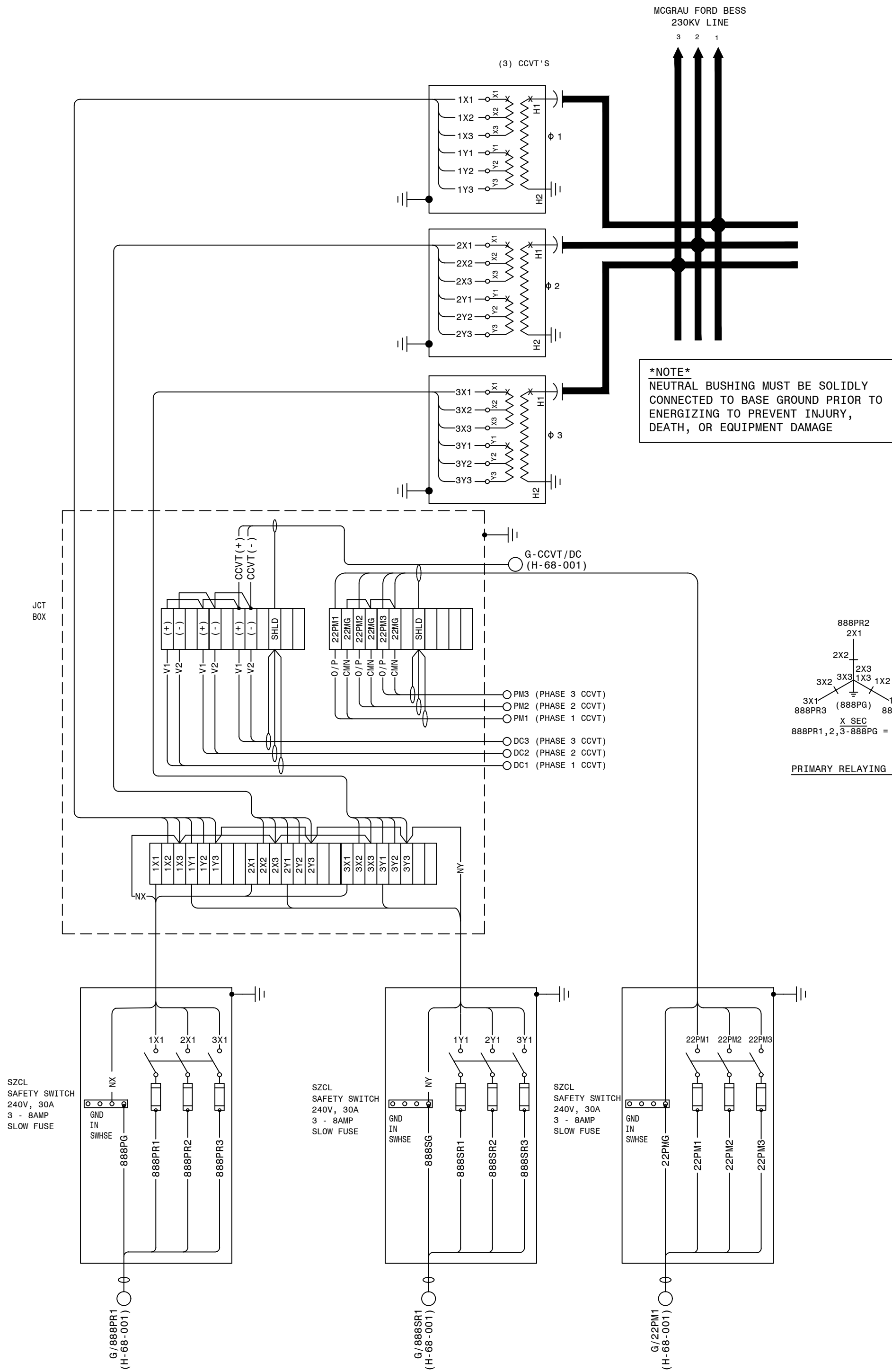
UNLESS OTHERWISE SPECIFIED		-Confidential- Property of			
ALL DIMENSIONS ARE IN INCHES		Siemens Energy, Inc.			
1-PLACE DECIMAL ± .050		DWG NAME			
2-PLACE DECIMAL ± .020		GAS SYSTEM SCHEMATIC			
3-PLACE DECIMAL ± .005		OSDS w/SHUT-OFF			
INTERNAL DIA EXCLUDED		A FSCM NO. DWG NO. ISSUE			
FOR TOL NOT SPECIFIED SEE 500 SERIES SHOP PRGMS STD		72-181-177-442			
UNLESS OTHERWISE SPECIFIED		SCALE NTS WT R F SHEET 1 OF 1			
DRAWN TH DATE 2-16-05					
CHECK TH DATE 2-16-05					
APVD JP DATE 2-17-05					
ISSUE M BOYD DATE 10/07/08					

AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

REFERENCES	
D-426-001	230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.1
D-426-002	230KV PCB 646888 (CO.#B19453) ELEMENTARY DIAGRAM SH.2
D-426-003	230KV PCB 646888 (CO.#B19453) WIRING DIAGRAM
D-426-004	230KV PCB 646888 (CO.#B19453) BCT WIRING DIAGRAM & NAMEPLATE



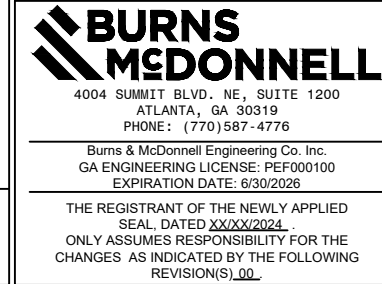
GEORGIA POWER A SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS	
DRAWN: EG/BMCD		TITLE: 230KV PCB 646888 (CO.#B19453) NAMEPLATE & GAS SYSTEM	
CHECKED: SW/BMCD		TYPE: 82	
APPROVED: PT#1899807		FACILITY #: 01-173	
DATE: 12/17/2024		NUMBER: D-426	
DEV.#: 646888		SHEET: 005	
ASC FACS:		REV: -	
		ALT DWG NUM:	



PHASE 1 CCVT/PQ SENSOR WIRING DETAIL (TYPICAL FOR PHASE 2 & 3)

REFERENCE:
H-24-001 SINGLE LINE DIAGRAM SH.1

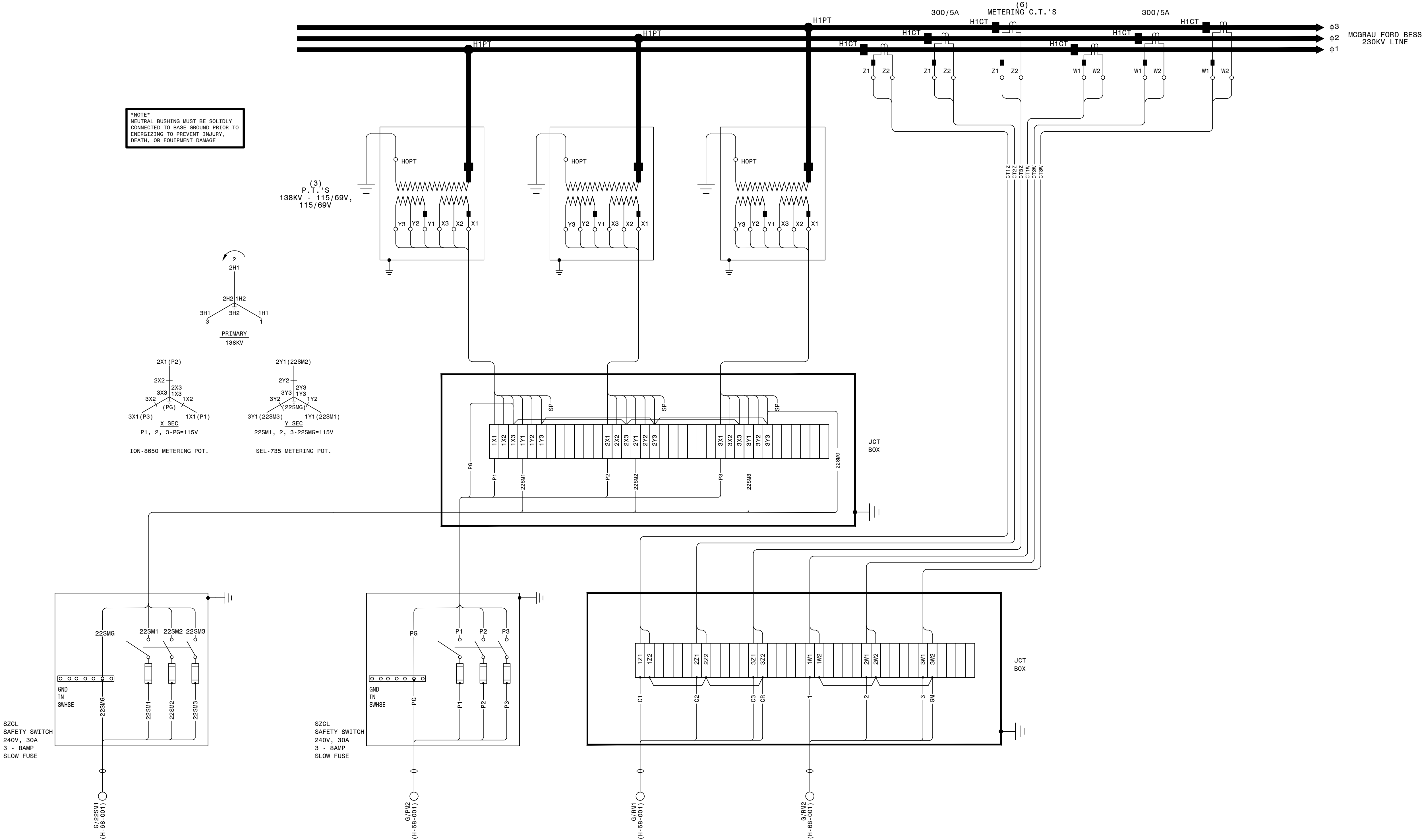
P.I.#1899807



AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

GEORGIA POWER A SOUTHERN COMPANY		FACILITY NAME: MCGRAU FORD TS	
DRAWN: EG/BMCD		TITLE: 230KV MCGRAU FORD BESS CCVT POTENTIAL CONNECTION DIAGRAM	
CHECKED: SW/BMCD	TYPE: PT	FACILITY #:	NUMBER:
APPROVED: P.I.#1899807	SCALE: N.T.S.	01 - 173	SHEET: REV:
DATE: 12/19/2024	BOM:	D-427	- 001 - 00
ASC FAC:		ALT DWG NUM:	

NOTE
NEUTRAL BUSHING MUST BE SOLIDLY
CONNECTED TO BASE GROUND PRIOR TO
ENERGIZING TO PREVENT INJURY,
DEATH, OR EQUIPMENT DAMAGE



REFERENCE:
H-24-001 SINGLE LINE DIAGRAM SH.1

P.I.#1899807

BURNS & MCDONNELL
4004 SAMMET BLVD., NE, SUITE 1200
ATLANTA, GA 30319
PHONE: (770) 887-4775
Burns & McDonnell Engineering Co., Inc.
GA ENGINEERING LICENSE: PE700100
EXPIRATION DATE: 6/30/2026

THE REGISTRANT OF THE NEWLY APPLIED
SEAL ENTERED AND MAINTAINED
ONLY ASSUMES RESPONSIBILITY FOR THE
CHANGES AS INDICATED BY THE FOLLOWING
REVISIONS/DATE.

AUTOCAD ELECTRICAL
THIS DRAWING CONTAINS AUTOCAD ELECTRICAL ELEMENTS

GEORGIA POWER A SOUTHERN COMPANY		FACILITY NAME: MCGR AU FORD TS	
DRAWN: EG/BMCD		TITLE: MCGR AU FORD BESS LINE INTERCHANGE REVENUE METERING CT AND PT WIRING DIAGRAM	
CHECKED: SW/BMCD		TYPE: WD	
APPROVED: P.I.#1899807		SCALE: N.T.S.	
DATE: 12/19/2024		BOM:	
ASC FACS:		SHEET: REV:	

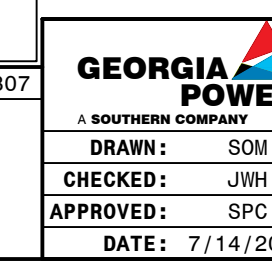
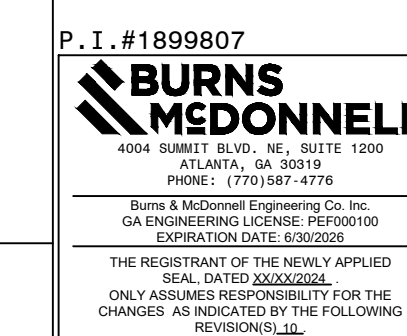
NUMBER: 01-173
D-428
- 001 - 00
ALT DWG NUM:



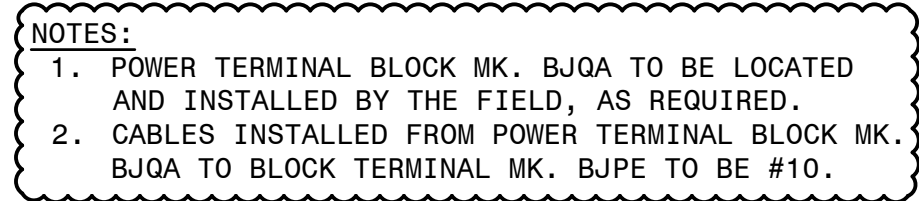
1. FIELD TO LOCATE NEW BATTERY EQUIPMENT.

REFERENCES

01-173-H-24-001	SINGLE LINE DIAGRAM - SH. 1
01-173-H-63-001	SINGLE LINE DIAGRAM - SH. 2
01-173-D-334-001	SINGLE LINE DIAGRAM - SH. 3



FACILITY NAME:		MCGRAU FORD TS			
TITLE: SWITCHBOARD PANEL LAYOUT					
TYPE:	61	FACILITY #:	H-	NUMBER:	SHEET: REV:
SCALE:	3/8"=1'-0"	01-173		17	- 001 - 09
BON:					



15-371-H17 CONTROL PANEL LAYOUT
15-371-D83 SWBD. CONSTRUCTION DETAILS
32" TERMINATION CABINETS A-H

500KV PCB #120; MOD'S 121, 123, & 671.

TITLE: TERMINATION CABINET G CONNECTION DIAGRAM

H-	NUMBER:	SHEET:	REV:
	68	- 001 -	02

