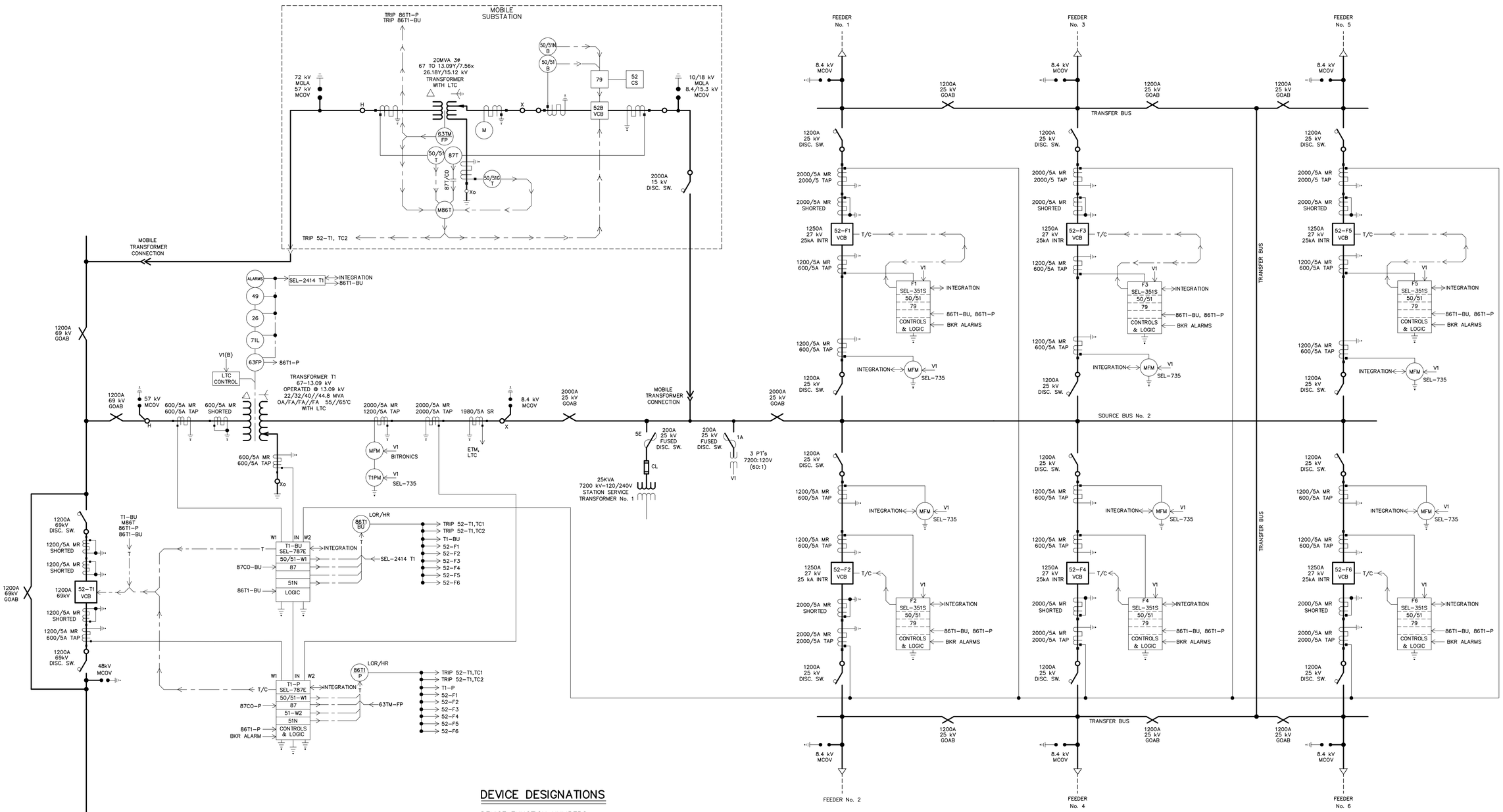

DEVICE DESIGNATIONS

DEVICE FUNCTION NUMBERS

49	TRANSFORMER WINDING TEMP
50/51	INST/TIME OVERCURRENT
50FB	INST FAST BUS OVERCURRENT
52	AC CIRCUIT BREAKER
52_-P	MULTIFUNCTION BREAKER RELAY
63FP	FAULT PRESSURE DEVICE/RELAY
63TM-FP	MOBILE SUB FAULT PRESSURE
71	TRANSFORMER LIQUID LEVEL
79	RECLOSING RELAY FUNCTION
81	FREQUENCY RELAY FUNCTION
86T1-P/-BU	LOCKOUT RELAY-PRIMARY/BACKUP
87	DIFFERENTIAL RELAY FUNCTION
87CO	DIFFERENTIAL CUTOFF
T1-P/T1-BU	MULTIFUNCTION TRANSFORMER RELAYS
M86T	MOBILE SUB LOR MULTI-FUNCTION
MFM	METER

LETTER CODES

V1	RELAY POTENTIAL – 15kV

SUFFIXES

GCB	GAS CIRCUIT BREAKER
GOAB	GROUP OPERATED AIR BREAK
MOLA	METALLIC OXIDE LIGHTNING ARRESTER
MCOV	MAXIMUM CONTINUOUS OPERATING VOLTAGE
VCB	VACUUM CIRCUIT BREAKER

NOTES:

1.) BREAKER CONTROLS PERFORMED BY SEL-351S PUSHBUTTONS

2.) DIFFERENTIAL CUT-OFFS (87CO) PERFORMED BY CONTROL SWITCHES ON RELAY PANEL

3.) OTHER CONTROL SWITCH FUNCTIONS (71L-CO, 26/49-CO; etc.) PERFORMED BY LOCAL BITS IN T1-P & T1-BU RELAYS.

LEGEND

- HIGH VOLTAGE CIRCUITS
- LOW VOLTAGE CIRCUITS
- UNDERGROUND FEEDER EXIT
- DIRECTION OF RELAY ACTION

PWC Fayetteville's HOMETOWN UTILITY

Booth & Associates, LLC
CONSULTING ENGINEERS
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Raleigh, NC 27612
NC F-0221

PRELIMINARY – DO NOT USE FOR CONSTRUCTION

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NO.	REVISIONS	ENG.	DATE

PROJECT NAME: BLACK & DECKER 69 TO 15 X 25 kV SUBSTATION

DRAWING TITLE: BLACK AND DECKER 69KV TO 15 KV SUBSTATION ONE LINE DIAGRAM

DRAWN BY:	JRT
CHECKED BY:	MFC
APPROVED BY:	JBS
DATE:	10/07/2020
SCALE:	NTS
FILE NUMBER:	12502E01

SHEET: E01