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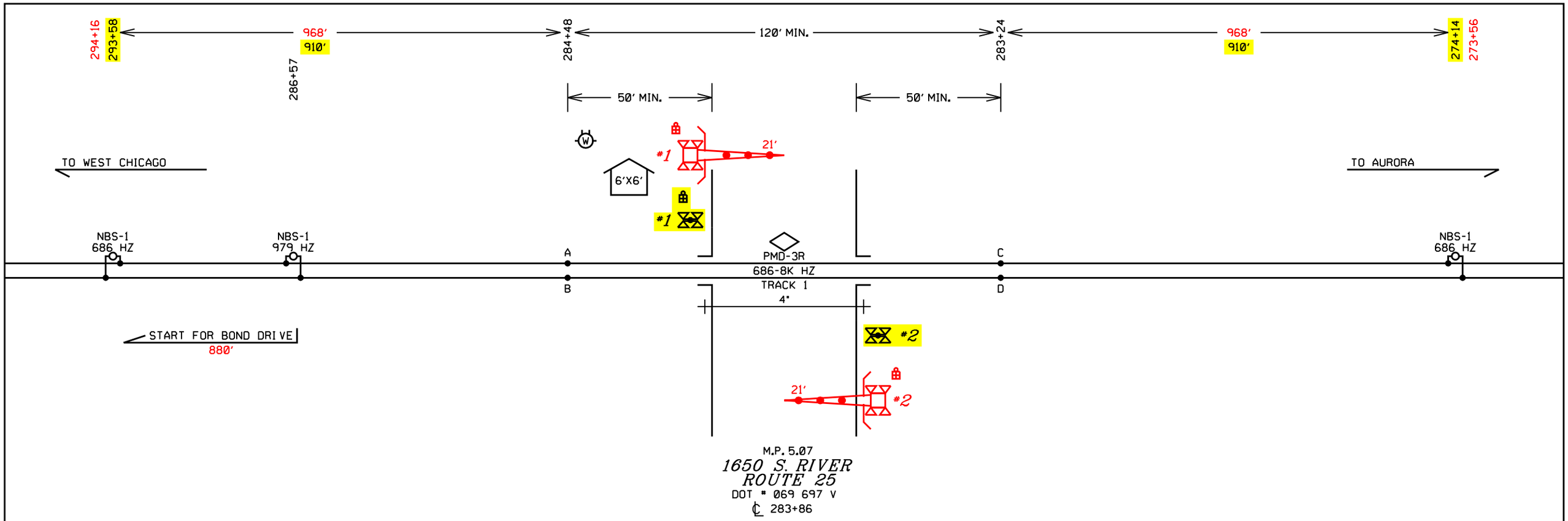

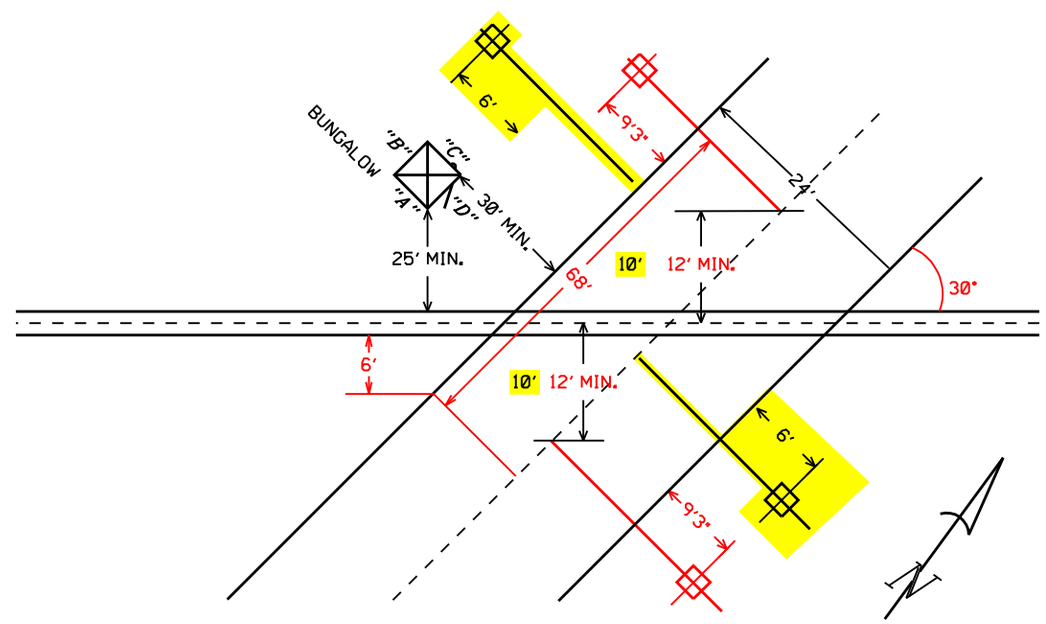

FOUNDATION PLACEMENT SKETCH
NOT TO SCALE

NOTES:

EQUIPMENT IS DESIGNED FOR 20 SECONDS MINIMUM WARNING TIME AT 20 MPH.
APPROACHES WERE LENGTHENED 4 2 SECOND(S) FOR WIDE OR ANGLED CROSSING (CT).
APPROACHES WERE LENGTHENED 5 SECONDS FOR SPEED VARIANCE AND BALLAST CHANGES (BT).
APPROACHES WERE LENGTHENED 4 SECONDS FOR EQUIPMENT RESPONSE TIME (ERT).
ALL OTHER LAMPS TO BE 10V-25W OR LED
ALL FRONT LENS TO BE 30°-15° OR LED
ALL BACK LENS TO BE 70° OR LED

ALL LENS TO BE LED

NOTES:

-TEST TERMINAL
-EQUALIZER
-LINE ARRESTER
-HEAVY DUTY ARRESTER
-TWISTED WIRE 2 TURNS PER FOOT
-CONNECTION TO REC./RTU

ALL WIRES #16 AWG UNLESS OTHERWISE NOTED

BURLINGTON NORTHERN SANTA FE RAILWAY

CROSSING CIRCUIT PLAN
ROUTE 25 - BATAVIA, IL

IN SVC.04-16-03 SEQ#29920 INSTALL PMD-3R DES: SSS/MAT COR: SSS/BES						DESIGNED 10-13-11 INSTALL GATES MP 5.07 XRL/RJF SEQ.# 47345	LS 0065	MP 5.07	SH 01 OF 10

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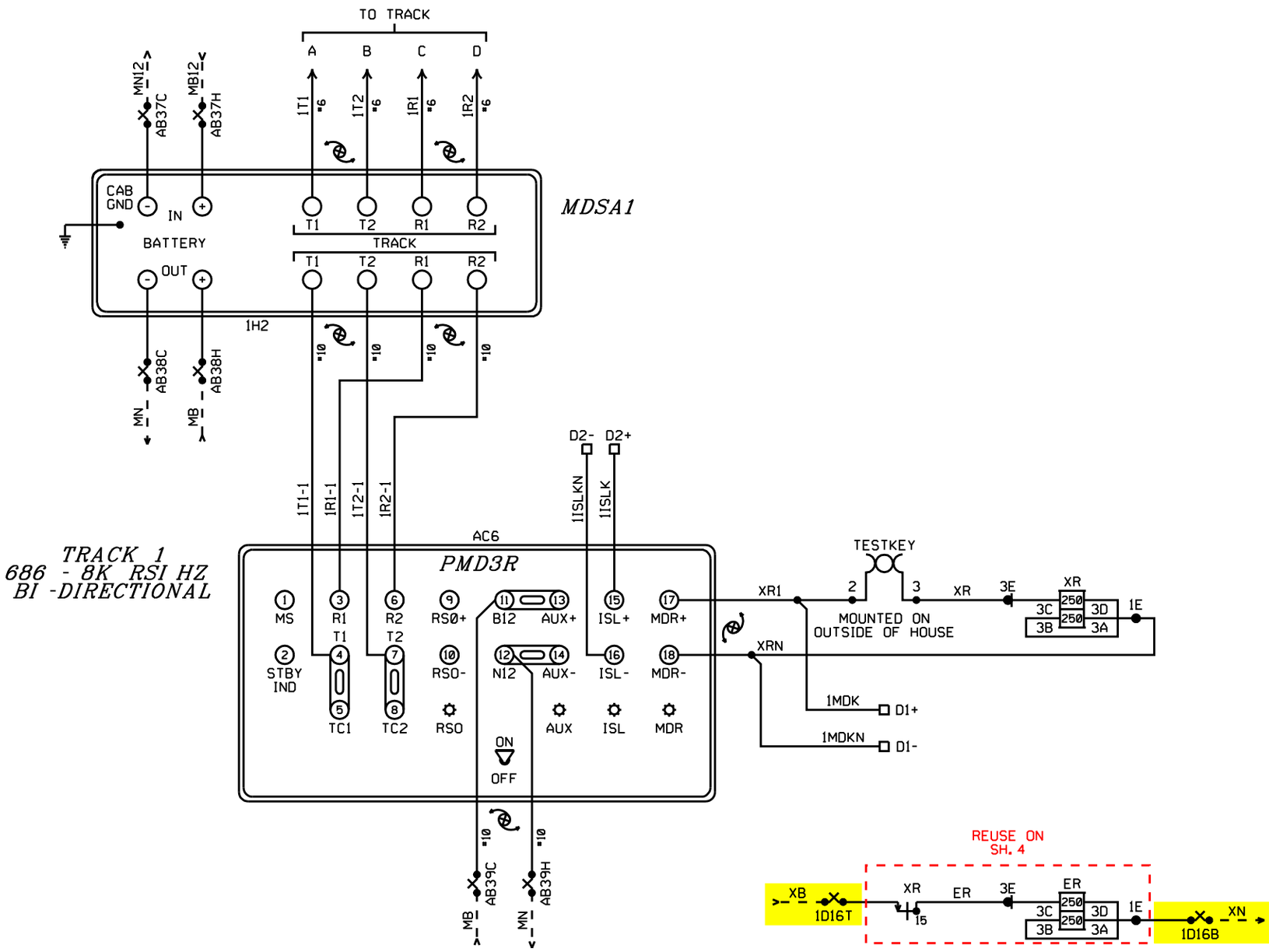


PROGRAM INFORMATION

PROGRAM VERSION 35.0 OR LATER

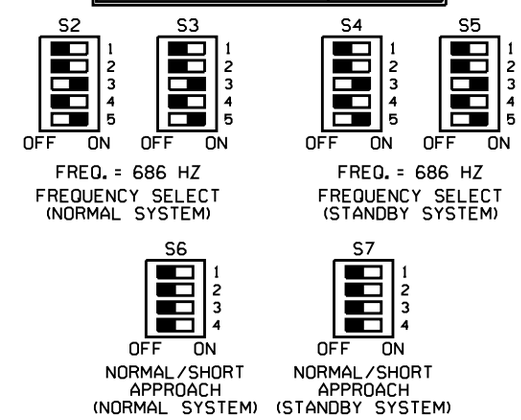
* = FIELD ADJUSTMENT TO BE MADE ACCORDING TO THE HXP3/PMD3 INSTRUCTION MANUAL AND SUPPLEMENTS.

SWITCH INFORMATION

SWITCHES	TRACK 1
MASTER/SLAVE	MASTER
FREQUENCY SELECT	SEE BELOW
SYSTEM CONFIG.	SEE BELOW
RSI FAULT JUMPER	0
RSI-LOS JUMPER	1
TLM W1 JUMPER	PINS 1-2
TLM W2 JUMPER	PINS 1-2
TLM W3 JUMPER	PINS 2-3
CPU W14 JUMPER	NOT INSTALLED
MINUTE TIMEOUT	5 MIN.
CW/MD	CW
STANDBY/AUTO/NORMAL	AUTO

OPTION ADJUSTMENTS

ABBREVIATION	TRACK 1
TC	*
B	*
PC (P-COMP)	*
F (REQ)	686
FS-T FR	DL(0)
FS-T FT	10 MIN
AR-T AR	DL(0)
AR-T AT	10 MIN
ATO-RX	UP
CW/MD	NA
UNI/BI	NA
LIA	* NA
WARNING TIME	NA



NOTES: DL = DEFAULT LEVEL
NA = NON APPLICABLE

NOTES: FOR S6 AND S7

1.) ACTUATOR 1 SELECTS NORMAL APPROACH WHEN SET TO ON POSITION.

2.) WITH ACTUATOR 1 IN OFF POSITION ACTUATOR 2 SELECTS SHORT APPROACH WHEN OFF AND SELECTS VERY SHORT WHEN ON.

3.) ACTUATOR 3 AND 4 RESERVED FOR FUTURE USE.

BURLINGTON NORTHERN SANTA FE RAILWAY

PMD-3R TRACK CIRCUITS
ROUTE 25 - BATAVIA, IL

IN SVC 04-16-03 SEQ#29920 INSTALL PMD-3R
DES: SSS/MAT COR: SSS/BES

DESIGNED 10-13-11 INSTALL GATES MP 5.07 XRL/RJF SEQ.# 47395

LS 0065 | MP 5.07 | SH 02 OF 10

RED = IN YELLOW = OUT

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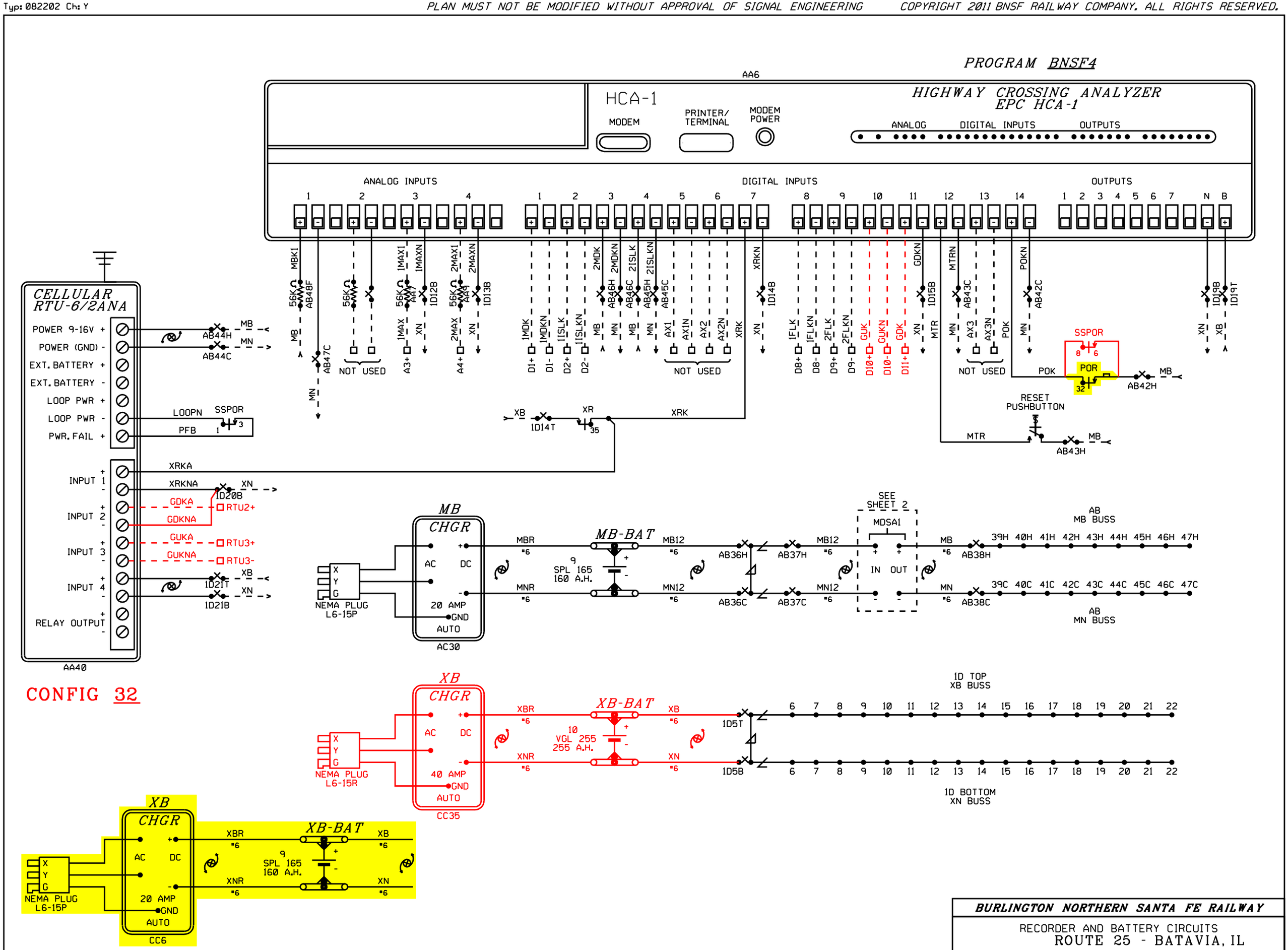

BURLINGTON NORTHERN SANTA FE RAILWAY

RECORDER AND BATTERY CIRCUITS
ROUTE 25 - BATAVIA, IL

IN SVC 04-16-03 SEQ#29920 INSTALL PMD-3R
DES: SSS/MAT COR: SSS/BES

DESIGNED 10-13-11 INSTALL GATES MP 5.07 XRL/RJF SEQ.# 47395

LS 0065 | MP 5.07 | SH 03 OF 10

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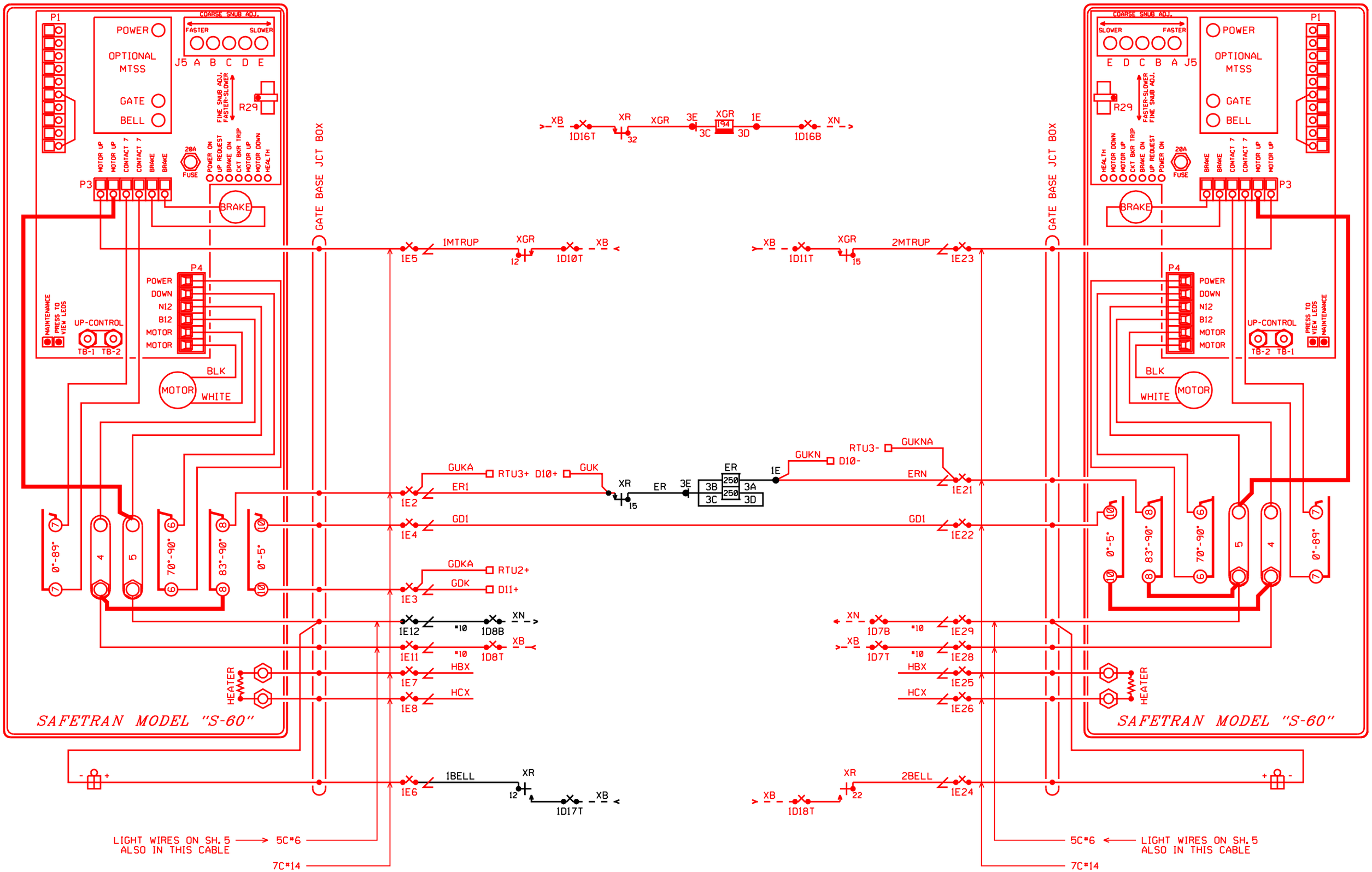

NOTES:

1. ADD JUMPERS IN GATE SHOWN IN BOLD.
2. MAXIMUM WIRE SIZE FOR TERMINAL 5 TO MOTOR UP CONTROL (-) IS #12 AWG.

BURLINGTON NORTHERN SANTA FE RAILWAY

GATE CIRCUIT PLAN
ROUTE 25 - BATVIA, IL

DESIGNED 10-13-11
INSTALL GATES MP 5.07
XRL/RJF SEQ.# 47395

LS	MP	SH
0065	5.07	04 OF 10

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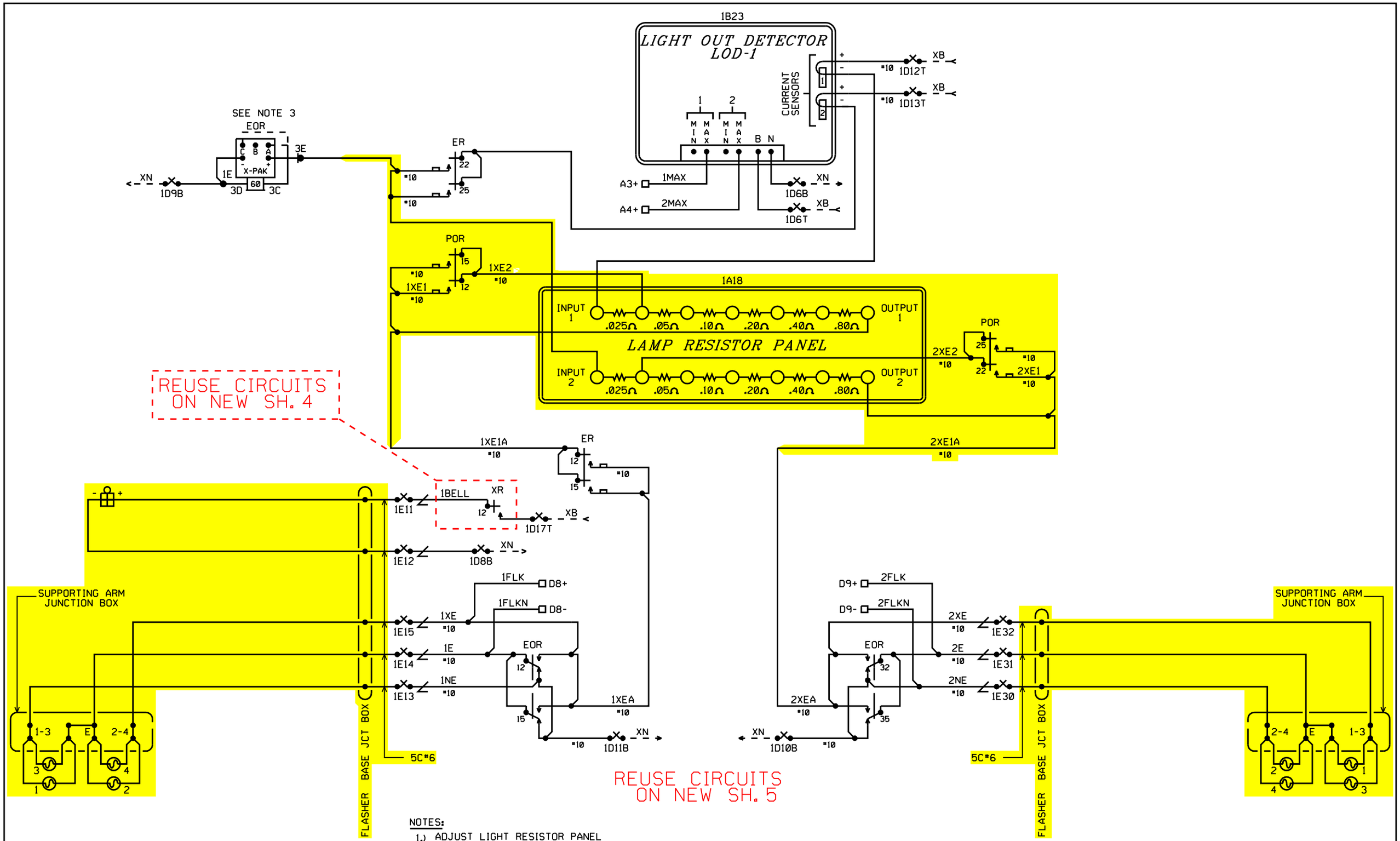


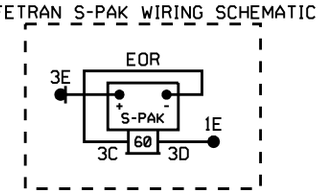
NOTES:

1.) ADJUST LIGHT RESISTOR PANEL TO OBTAIN CORRECT LAMP VOLTAGE. POWER ON: PLACE STRAPS ACROSS THE RESISTOR POSTS OR MOVE WIRES _XE1(A) POWER OFF: MOVE WIRES _XE2

2.) EOR RELAY WIRING SHOWN IS FOR A GRS X-PAK FLASHER PACK. IF A SAFETRAN S-PAK #400700-81 IS USED, CONSULT THE INSERT FOR PROPER WIRING.

3.) WHEN EOR RELAY WITH 60 OHM COIL RESISTANCE IS USED CONNECT JUMPER FROM 3C TO "A". IF 18 OHM COILS ARE USED CONNECT JUMPER FROM 3C TO "C". DO NOT USE S-PAK WITH 18 OHM COILS

SAFETRAN S-PAK WIRING SCHEMATIC



BURLINGTON NORTHERN SANTA FE RAILWAY

FLASHER CIRCUIT PLAN
ROUTE 25 - BATAVIA, IL

IN SVC 04-16-03 SEQ#29920 INSTALL PMD-3R DES: SSS/MAT COR: SSS/BES						DESIGNED 10-13-11 INSTALL GATES MP 5.07 XRL/RJF SEQ.# 47395	LS 0065	MP 5.07	SH 4T OF 10

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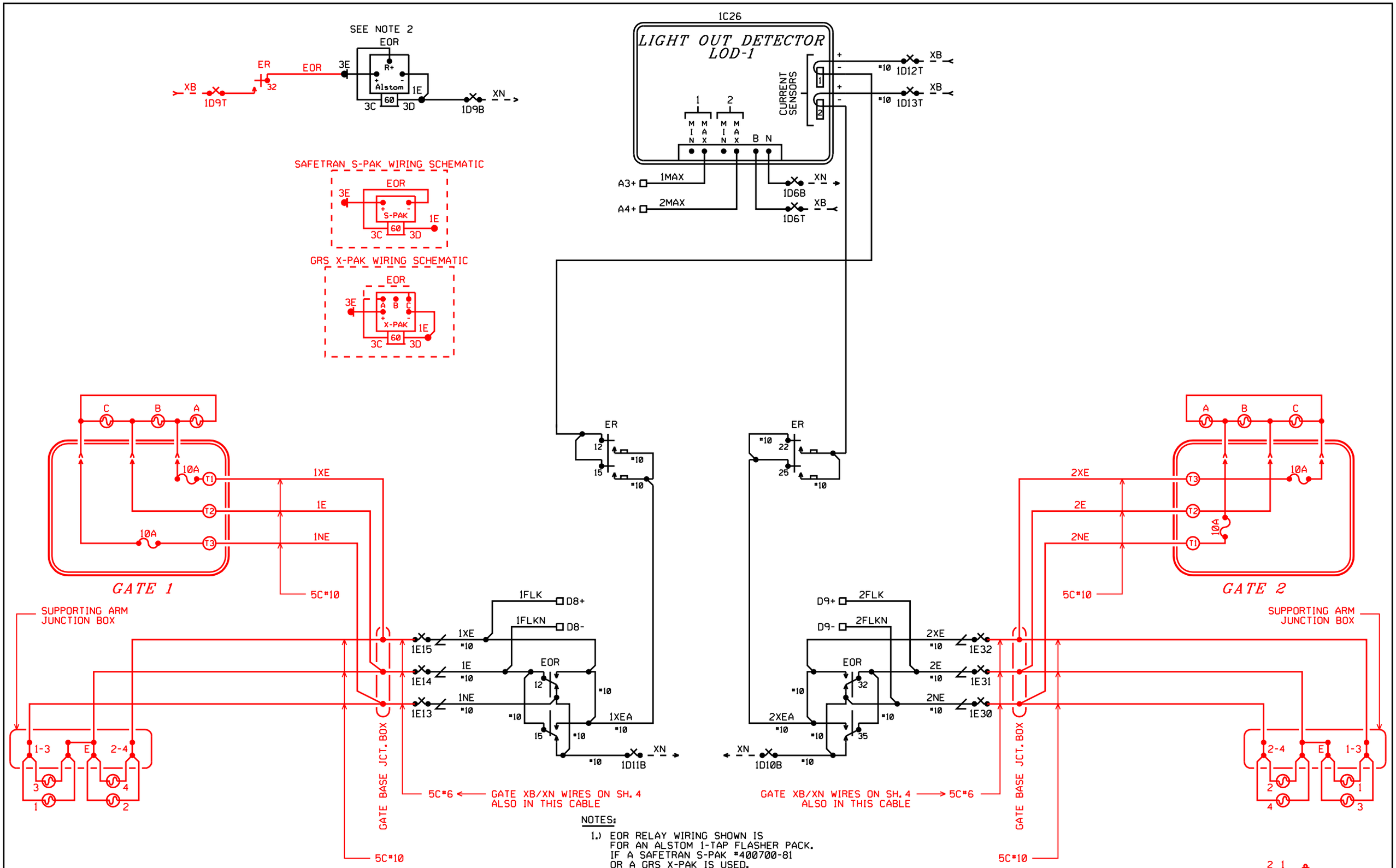

NOTES:

1.) EOR RELAY WIRING SHOWN IS FOR AN ALSTOM 1-TAP FLASHER PACK. IF A SAFETRAN S-PAK #400700-81 OR A GRS X-PAK IS USED, CONSULT THE INSERT FOR PROPER WIRING.

2.) (ALSTOM) WHEN EOR RELAY WITH 60 OHM COIL RESISTANCE IS USED ALSTOM PART #30733-003-02 SHOULD BE USED. IF 18 OHM COILS ARE USED ALSTOM PART #30733-003-04 SHOULD BE USED.

3.) (X-PAK) WHEN EOR RELAY WITH 60 OHM COIL RESISTANCE IS USED CONNECT JUMPER FROM 3C TO "A". IF 18 OHM COILS ARE USED CONNECT JUMPER FROM 3C TO "C".

4.) (S-PAK) DO NOT USE S-PAK WITH 18 OHM COILS

BURLINGTON NORTHERN SANTA FE RAILWAY

FLASHER CIRCUIT PLAN
ROUTE 25 - BATAVIA, IL

DESIGNED 10-13-11
INSTALL GATES MP 5.07
XRL/RJF SEQ.# 47395

LS 0065 | MP 5.07 | SH 05 OF 10

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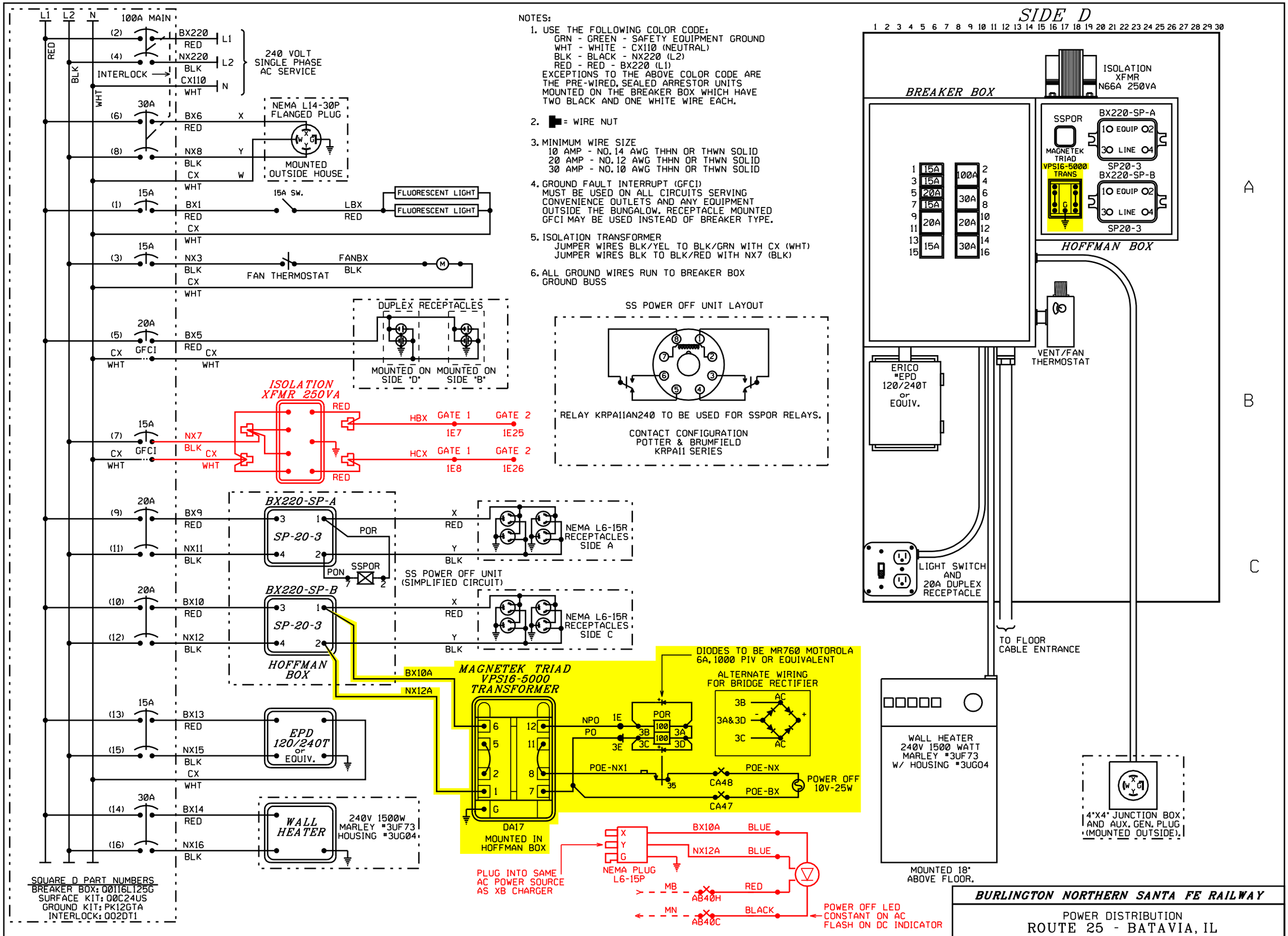

BURLINGTON NORTHERN SANTA FE RAILWAY

POWER DISTRIBUTION
ROUTE 25 - BATAVIA, IL

IN SVC.04-16-03 SEQ#29920 INSTALL PMD-3R
DES: SSS/MAT COR: SSS/BES

DESIGNED 10-13-11 INSTALL GATES MP 5.07
XRL/RJF SEQ.# 47395

LS 0065 | MP 5.07 | SH 06 OF 10

0065005_07x06c_.dgn October 13, 2011

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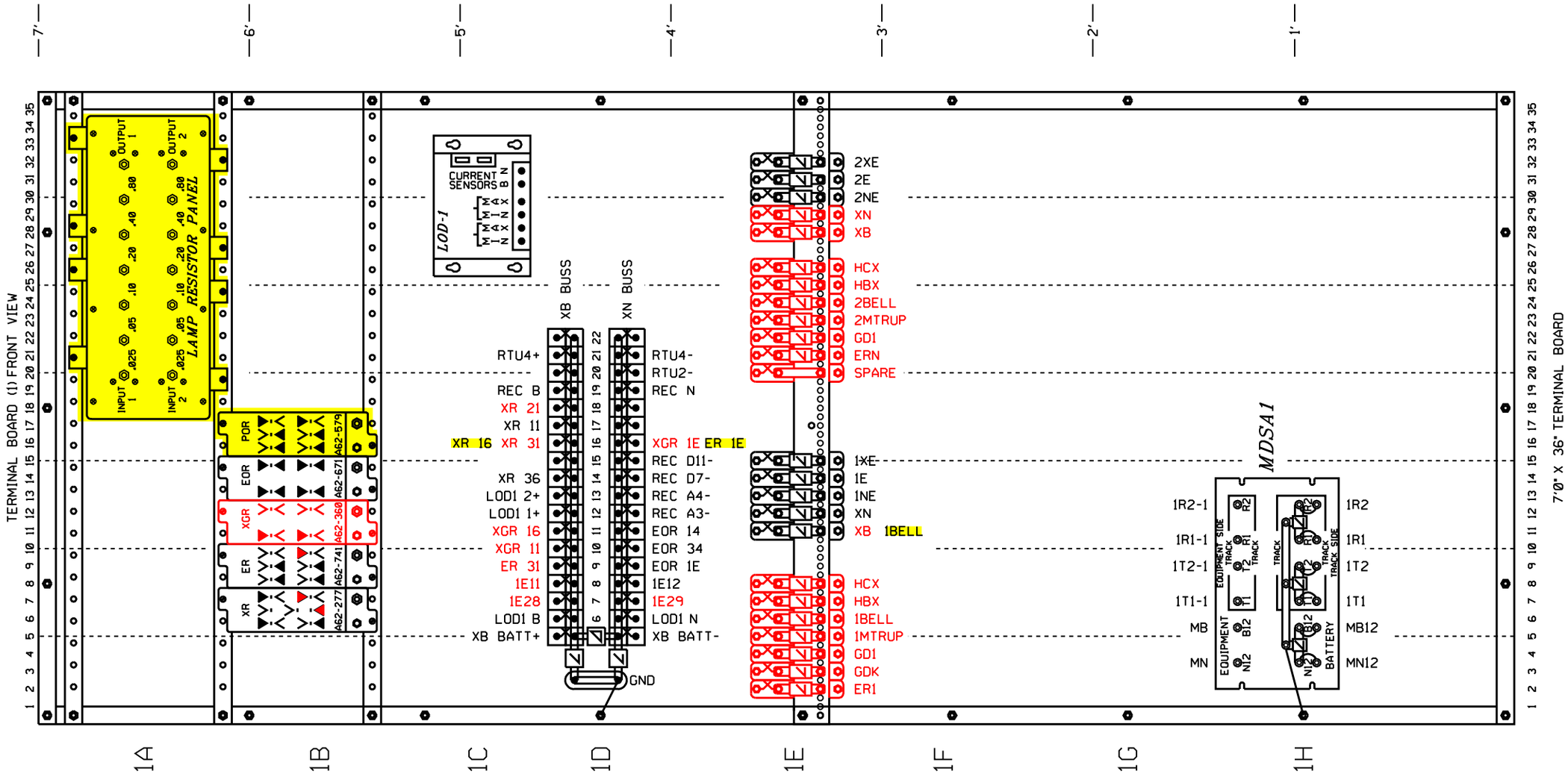
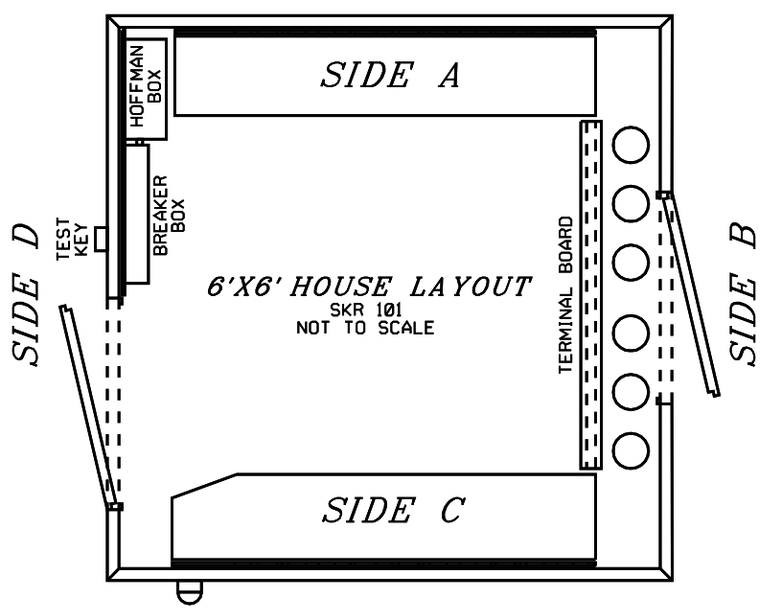
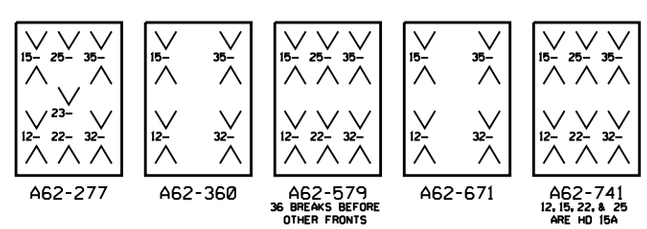




NOTE: INSTALL POWER OFF INDICATOR LIGHT ON TRACK SIDE NEAREST THE HIGHWAY AND NEAR EAVE OF HOUSE.

RELAY CROSS REFERENCE

GRS	SAFETRAN
A62-277	400004
A62-360	400200
A62-579	400801
A62-671	400700
A62-741	400005



▼ = CONTACT USED

V = CONTACT NOT USED

BURLINGTON NORTHERN SANTA FE RAILWAY

TERMINAL BOARD 1 LAYOUT
ROUTE 25 - BATAVIA, IL

IN SVC.04-16-03 SEQ#29920 INSTALL PMD-3R DES: SSS/MAT COR: SSS/BES	IN SVC.04-16-03 SEQ#29920 FIX MINOR CHANGES DES: SSS/MAT COR: SSS/BES					DESIGNED 10-13-11 INSTALL GATES MP 5.07 XRL/RJF SEQ.# 47395	LS 0065	MP 5.07	SH 07 OF 10

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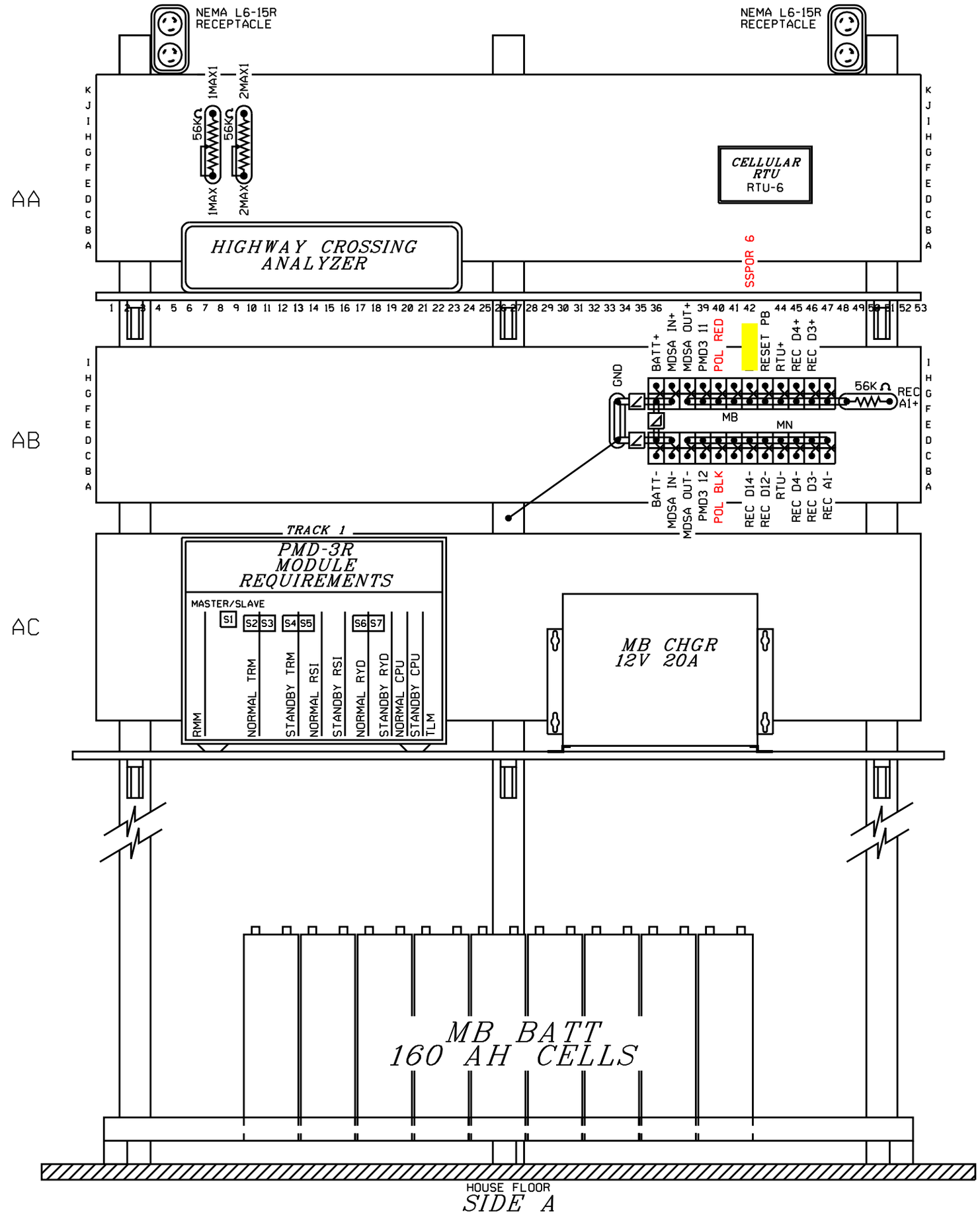

BURLINGTON NORTHERN SANTA FE RAILWAY

SIDE "A" SHELF LAYOUT
ROUTE 25 - BATAVIA, IL

IN SVC.04-16-03 SEQ#29920 INSTALL PMD-3R DES: SSS/MAT COR: SSS/BES						DESIGNED 10-13-11 INSTALL GATES MP 5.07 XRL/RJF SEQ.# 47395	LS 0065	MP 5.07	SH 08 OF 10

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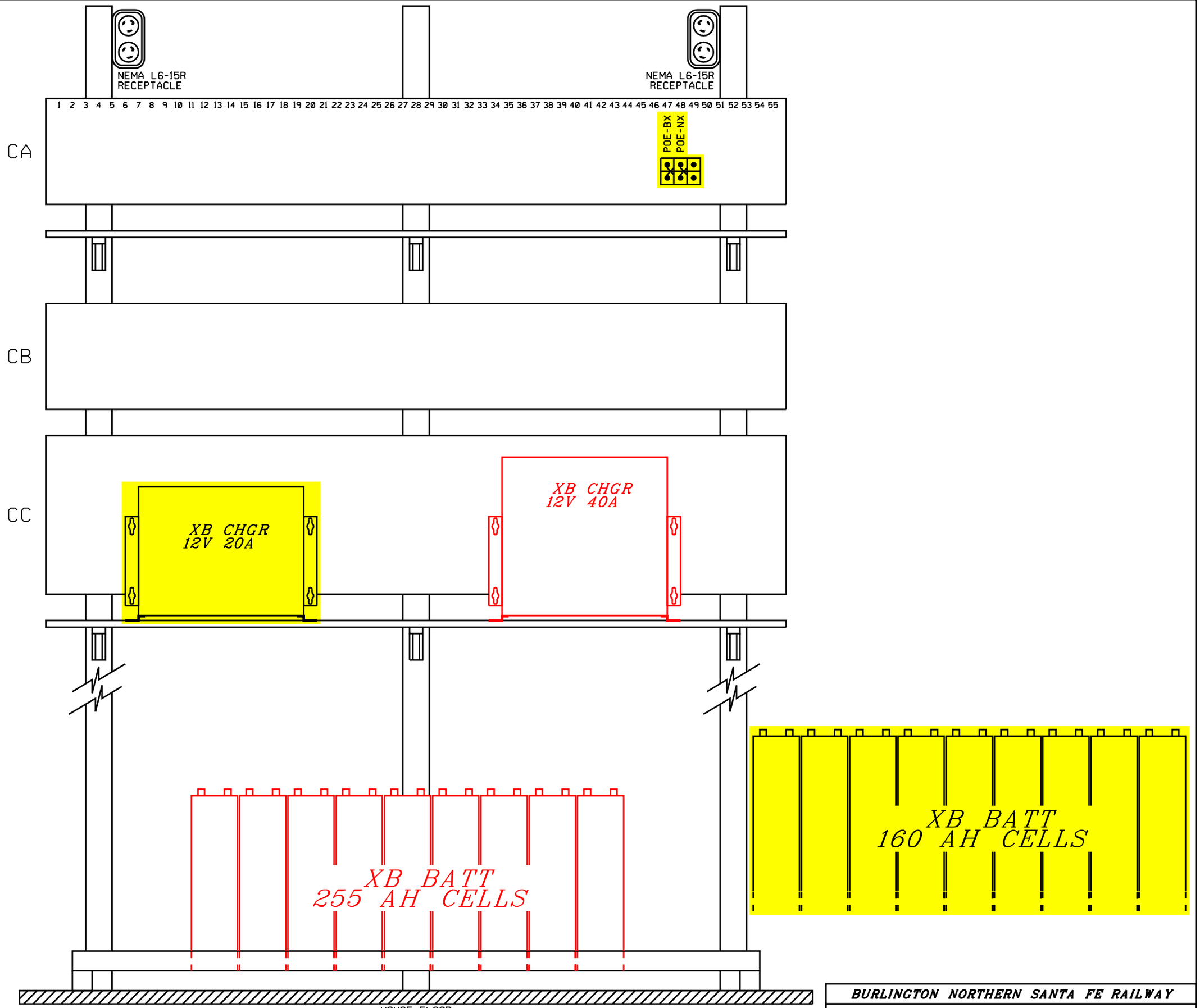

BURLINGTON NORTHERN SANTA FE RAILWAY

SIDE "C" SHELF LAYOUT
ROUTE 25 - BATAVIA, IL

IN SVC.04-16-03 SEQ#29920 INSTALL PMD-3R DES: SSS/MAT COR: SSS/BES							DESIGNED 10-13-11 INSTALL GATES MP 5.07 XRL/RJF SEQ.# 47395	LS 0065	MP 5.07	SH 09 OF 10

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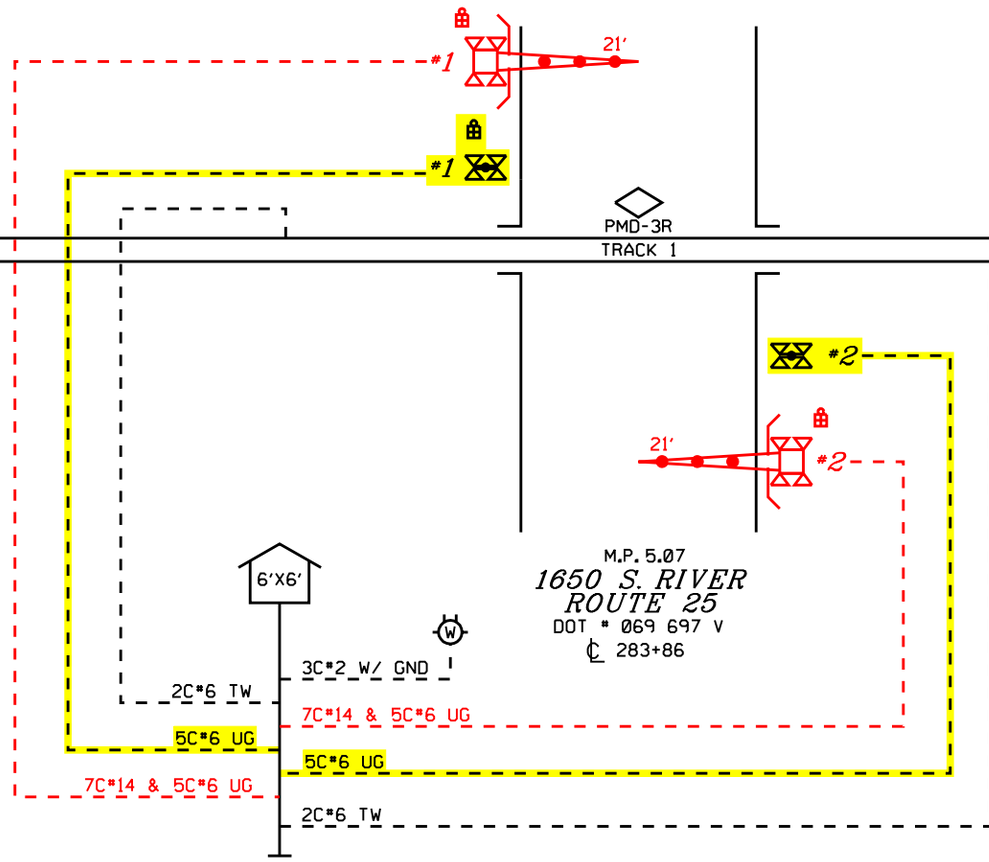

BURLINGTON NORTHERN SANTA FE RAILWAY

GATE & CABLE LAYOUT
ROUTE 25 - BATAVIA, IL

IN SVC.04-16-03 SEQ#29920 INSTALL PMD-3R DES: SSS/MAT COR: SSS/BES							DESIGNED 10-13-11 INSTALL GATES MP 5.07 XRL/RJF SEQ.# 47395	LS 0065	MP 5.07	SH 10 OF 10