

NOTES:

1. ALL WIRING IN THE BUNGALOW IS #16 AWG FLEX UNLESS OTHERWISE NOTED.
2. ALL CROSSING CONTROL EQUIPMENT IS DESIGNED TO PROVIDE A MINIMUM WARNING TIME OF 20 SECONDS AT THE MAXIMUM AUTHORIZED TRAIN SPEED FOR EACH APPROACH.
3. CROSSING APPROACHES WERE LENGTHENED TO COMPENSATE FOR CROSSING CONTROL EQUIPMENT REACTION TIME AND FOR TRAIN SPEED VARIANCE.
4. FOR SIX WIRE HOOK-UP SEE SHEET 3 FOR DRAWINGS AND NOTES.

LEGEND

- ① TRACK ARRESTER (SEE NOTE 2)
- ② EQUALIZER (SEE NOTE 2)
- ③ LINE ARRESTER (SEE NOTE 2)
- ⚠ NO 6 AWG THNN/THWN FLEX WIRE WITH RED SHEATH (B12)
- ⚠ NO 6 AWG THNN/THWN FLEX WIRE WITH BLACK SHEATH (N12)
- ⚠ NO 6 AWG THNN/THWN FLEX WIRE WITH GREEN SHEATH (SAFETY GROUND)
- Ⓢ TWISTED WIRE TWO TURNS PER FOOT

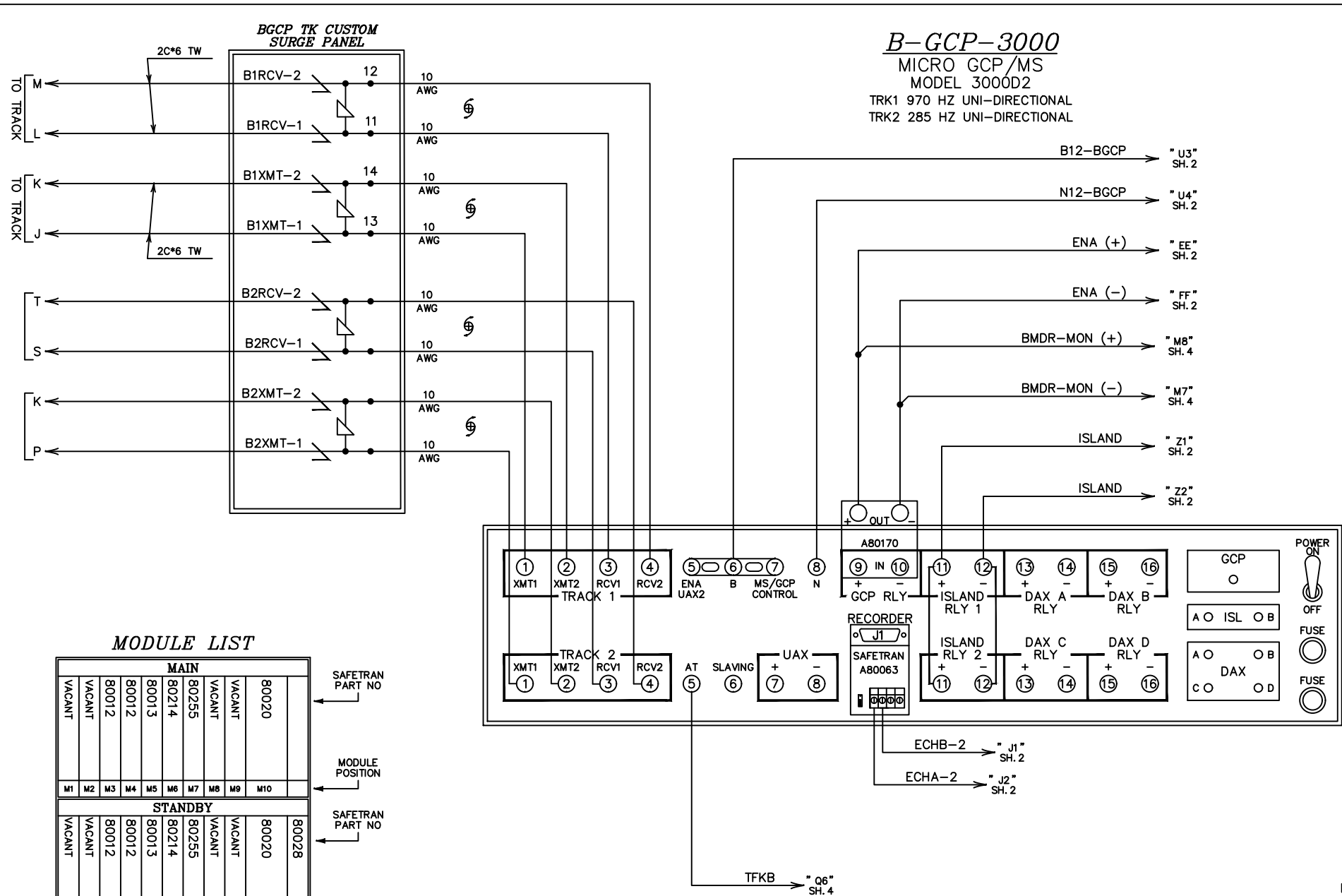
IN SERVICE DATE: 07-11-16 UPDATED		IN SERVICE DATE: 03-14-14 ADDITION OF SEAR II		IN SERVICE DATE: 09-23-13 UPDATED ALL SIGNALS TO L.E.D.		IN SERVICE DATE: 03-20-12 UPDATED		IN SERVICE DATE: 03-14-11 UPDATED	
COR: TRS	CHK:	COR: TAM	CHK: BWL	COR: TAM	CHK:	COR: WAW	CHK:	COR: FWK	CHK:

LAT: 61.418	DESIGNED 08-27-02 NEW BUNGALOW AND MOTION EQUIPMENT DSD/MAT SEQ #
LONG: -149.496	REVISIONS

The ALASKA RAILROAD CORPORATION
SIGNAL ENGINEERING P.O. BOX 107500, ANCHORAGE, AK 99510-7500

BIRCHWOOD ROAD ANCHORAGE, AK
RAILROAD-HIGHWAY GRADE CROSSING WARNING SYSTEM
DOT 868305X M.P. 136.25

DRAWN: DSD	DWG NO. 013630X	1 SHEET OF 13
DATE: 08-27-02		



B-GCP-3000
 MICRO GCP/MS
 MODEL 3000D2
 TRK1 970 HZ UNI-DIRECTIONAL
 TRK2 285 HZ UNI-DIRECTIONAL

PROGRAM INFORMATION
 LEVEL "F" SOFTWARE OR LATER

NUMBER of TRACKS	TRACK 1	TRACK 2
TRACKS ASSIGNMENT	970 HZ	285 HZ
FREQUENCY	UNI	UNI
TRANSMIT LEVEL	MED	HIGH
MODE of OPERATION	PRED	PRED
WARNING TIME	30	30
APP DISTANCE-SELECTED	883'	2318'
APP DISTANCE-CALCULATED	*()	()*
UAX1 PU DELAY	0	0
UAX2/ENA PU DELAY	0	0
ISLAND DISTANCE	N/A	N/A
NUMBER of DAXS	0	
DAX "A" DISTANCE	N/A	N/A
DAX "A" WARNING TIME	N/A	N/A
DAX "B" DISTANCE	N/A	N/A
DAX "B" WARNING TIME	N/A	N/A
DAX "C" DISTANCE	N/A	N/A
DAX "C" WARNING TIME	N/A	N/A
DAX "D" DISTANCE	N/A	N/A
DAX "D" WARNING TIME	N/A	N/A
SLAVING	MASTER	
PASSWORD	DISABLED	
DATA RECORDER	INSTALLED	

FUNCTION INFORMATION

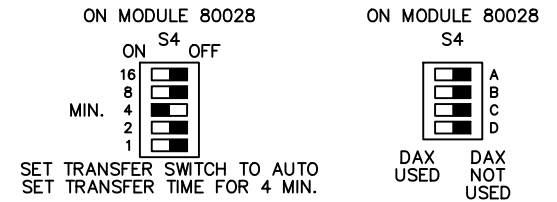
TRACKS ASSIGNMENT	TRACK 1	TRACK 2
SWITCH TO MS/EZ LEVEL	0	0
TRANSFER DELAY MS>GCP	0	0
PRIME PRED OFFSET	162'	162'
PRIME PICKUP DELAY	8	
DAX "A" PICKUP DELAY	0	
DAX "B" PICKUP DELAY	0	
DAX "C" PICKUP DELAY	0	
DAX "D" PICKUP DELAY	0	
COMPENSATION VALUE	*(1300)*(1300)	
NUMBER OF TRACK WIRES	4	4

* FIELD ADJUSTMENTS PER MANUFACTURER'S INSTRUCTION MANUAL

MODULE LIST

MAIN										SAFETRAN PART NO	MODULE POSITION	MODULE DESCRIPTION
M1	M2	M3	M4	M5	M6	M7	M8	M9	M10			
VACANT	VACANT	80012	80013	80214	80255	VACANT	VACANT	80020		80020		CTRL INTERFACE
VACANT	VACANT	80012	80013	80214	80255	VACANT	VACANT	80020		80028		TRANSFER TIMER
STANDBY										SAFETRAN PART NO	MODULE POSITION	MODULE DESCRIPTION
M11	M12	M13	M14	M15	M16	M17	M18	M19	M20			
VACANT	VACANT	80012	80013	80214	80255	VACANT	VACANT	80020		80020		CTRL INTERFACE
VACANT	VACANT	80012	80013	80214	80255	VACANT	VACANT	80020		80028		TRANSFER TIMER

- NOTES:
 1.) FOR ISLAND DISTANCE MEASURE THE DISTANCE BETWEEN THE TRANSMITTER AND RECEIVER LEADS AND ENTER ON CHART - MUST BE 120' MINIMUM.
 2.) DL= DEFAULT LEVEL
 NA= NON APPLICABLE



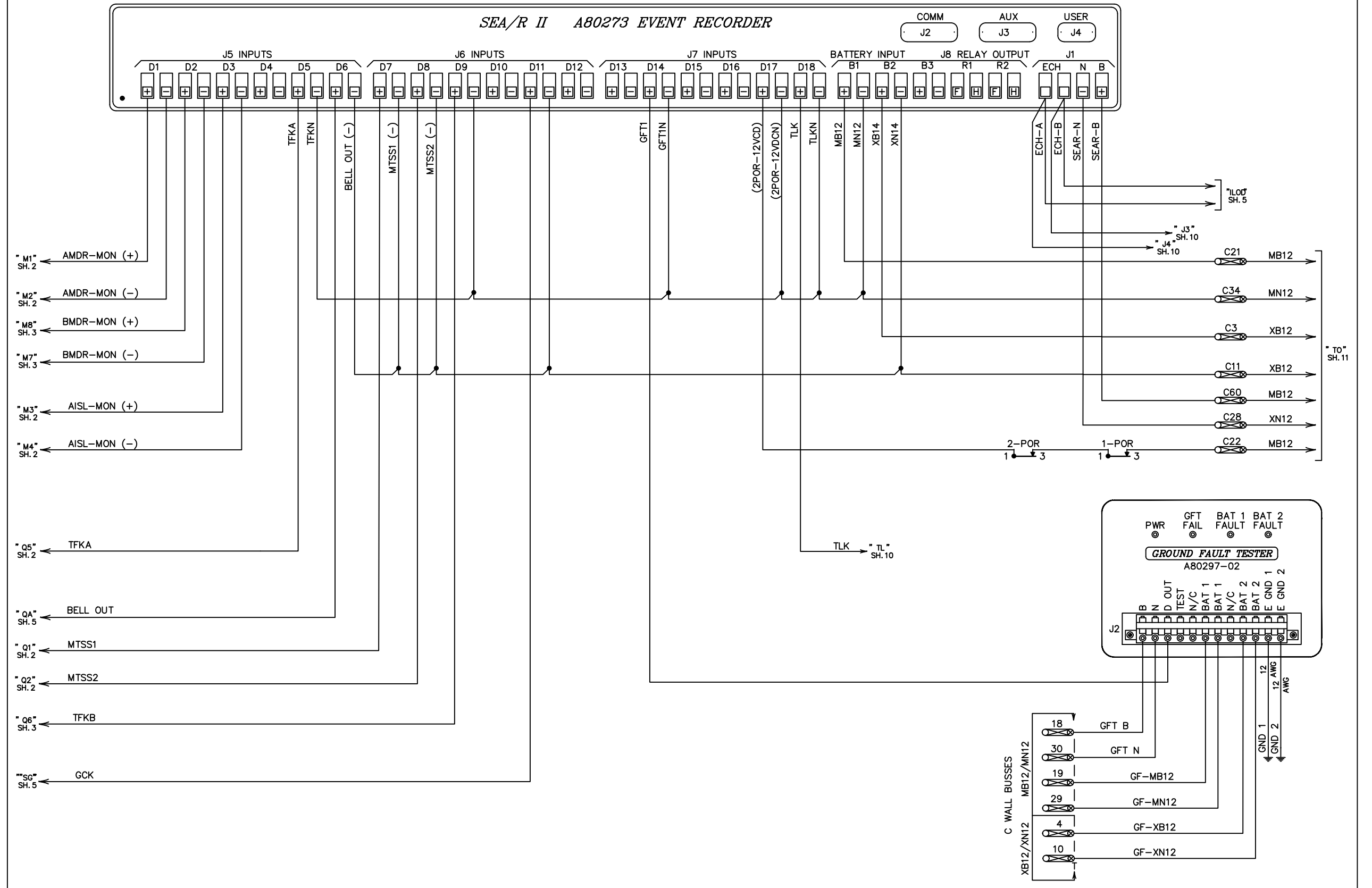
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COR: JAK	CHK:	COR: TAM	CHK: BWL	COR: TAM	CHK:	COR: WAW	CHK:	COR: FWK	CHK:			

The ALASKA RAILROAD CORPORATION
 SIGNAL ENGINEERING P.O. BOX 107500, ANCHORAGE, AK 99510-7500

LAT: 61.418
 LONG: -149.496

BIRCHWOOD ROAD BIRCHWOOD, AK
 RAILROAD-HIGHWAY GRADE CROSSING WARNING SYSTEM
 DOT 868305X M.P. 136.25

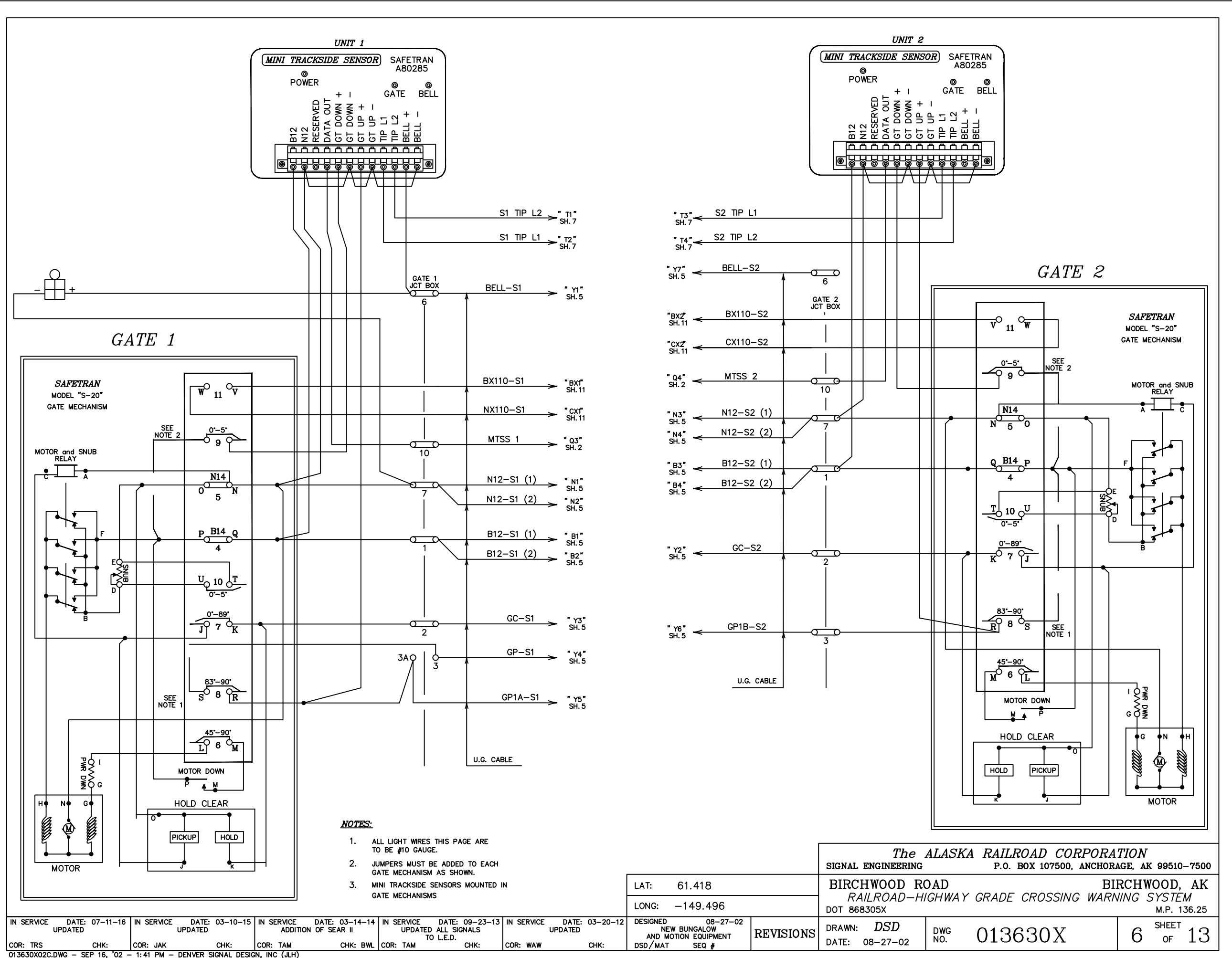
SEA/R II A80273 EVENT RECORDER

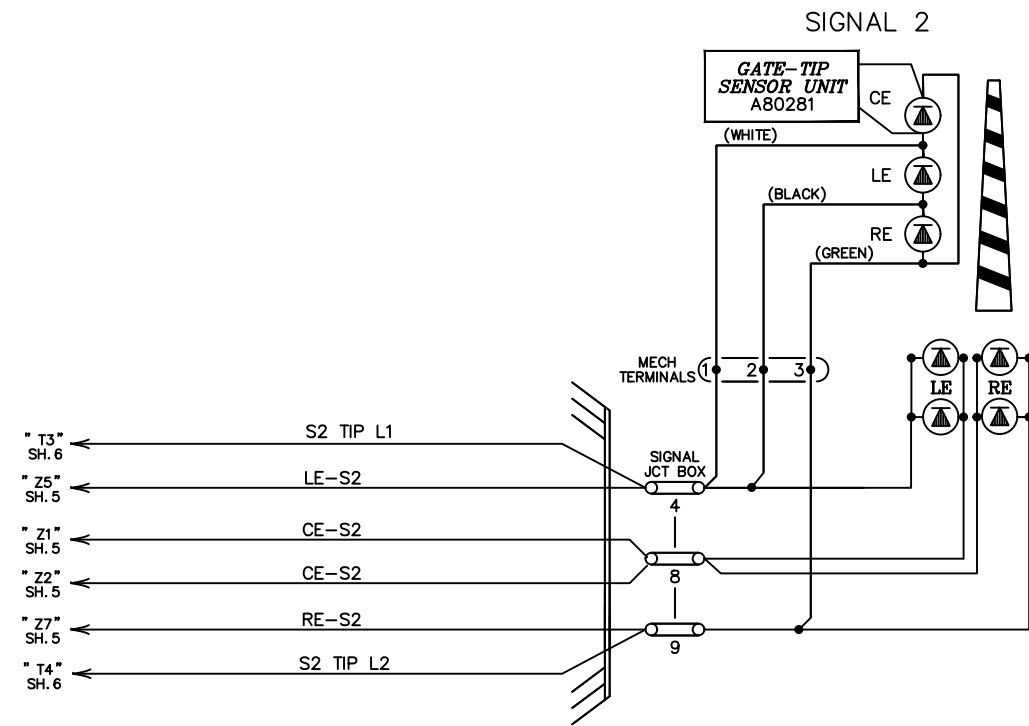
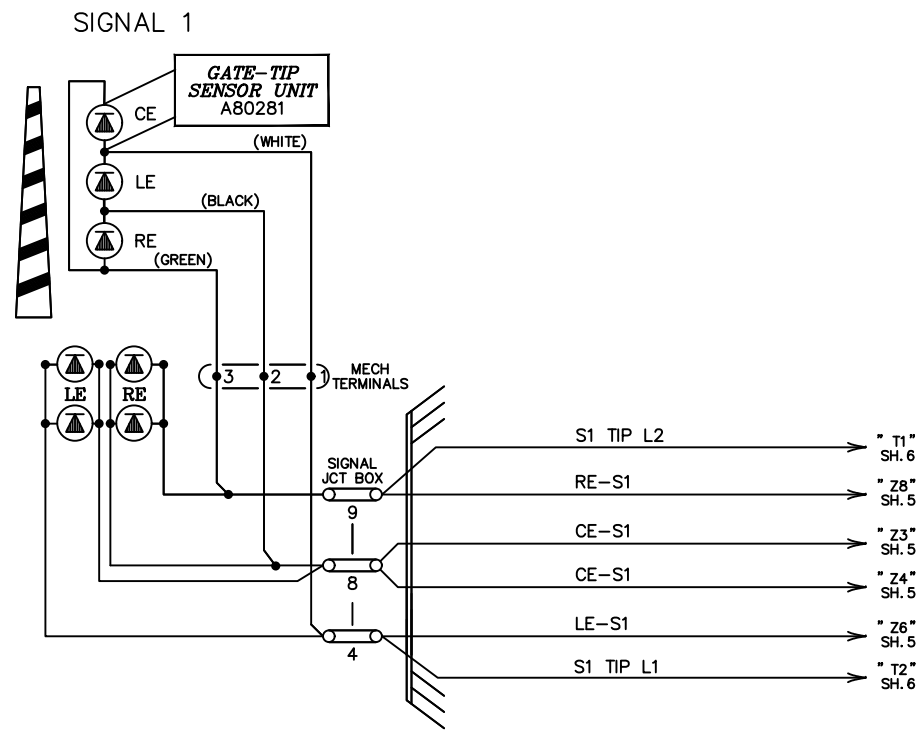


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CHK:	CHK: B.W.	CHK:	CHK:	CHK:

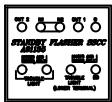
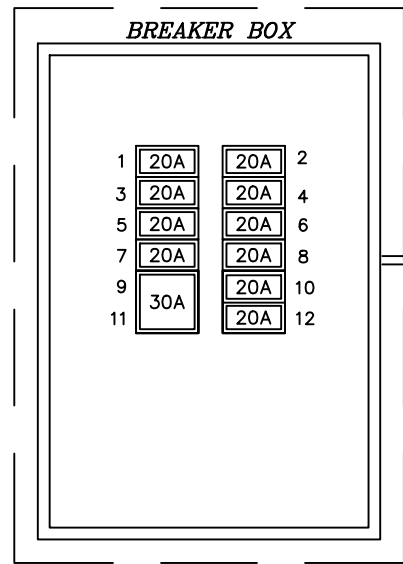
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DRAWN: DSD DATE: 08-27-02	DWG NO. 013630X
4 SHEET OF 13	



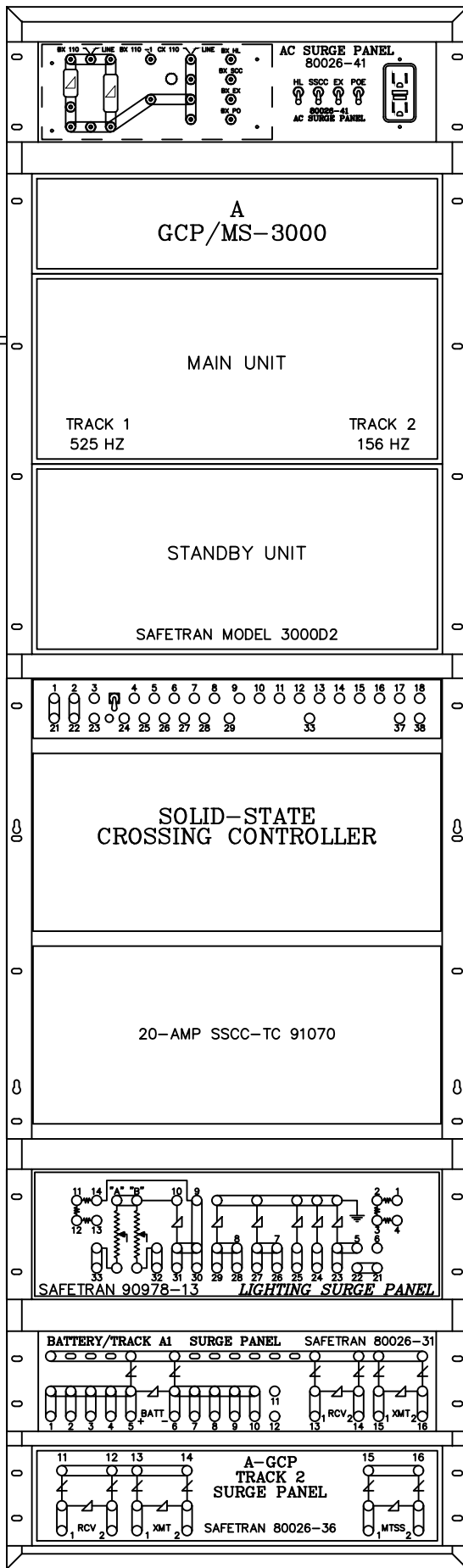


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					LONG: -149.496		RAILROAD-HIGHWAY GRADE CROSSING WARNING SYSTEM		
							DOT 868305X M.P. 136.25		
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COR: TRS CHK:	COR: JAK CHK:	COR: TAM CHK: BWL	COR: TAM CHK:	COR: WAW CHK:			DATE: 08-27-02		
013630X02C.DWG - SEP 16, '02 - 1:41 PM - DENVER SIGNAL DESIGN, INC (JLH)									

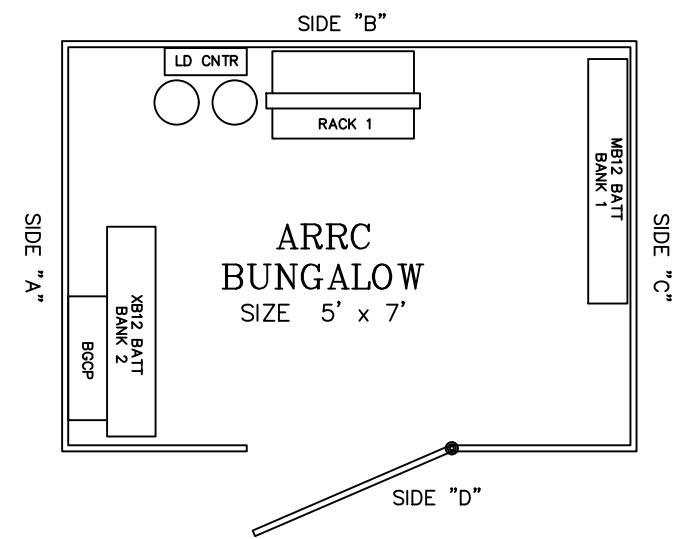
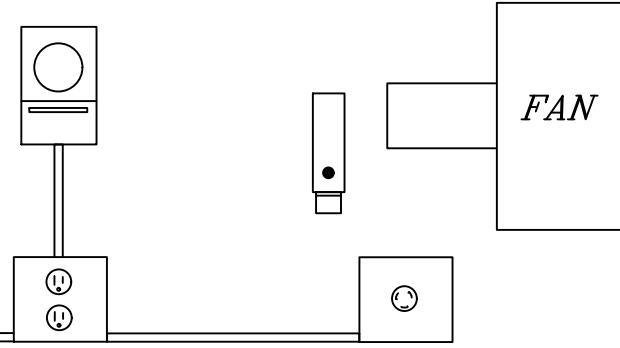


3"

3"



SIDE "B"



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LONG: -149.496

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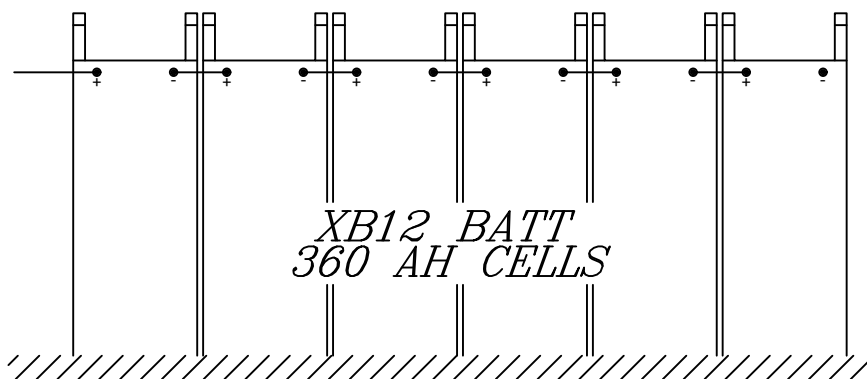
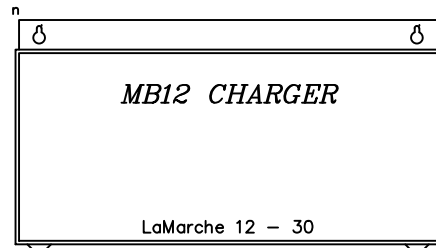
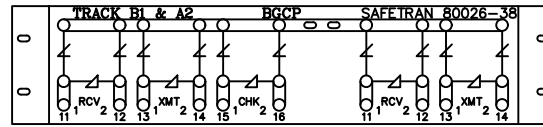
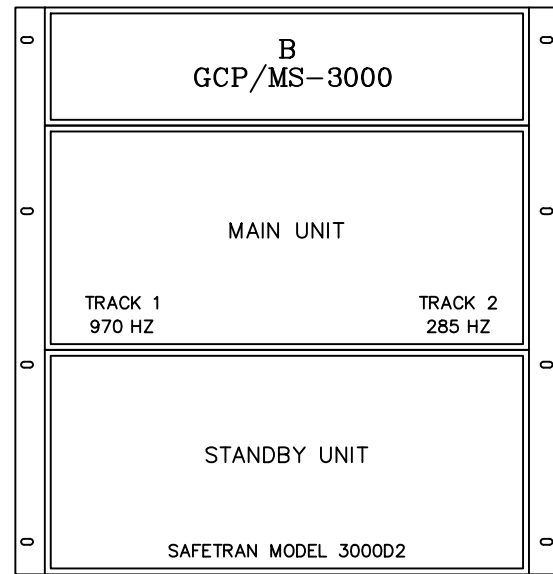
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NEW BUNGALOW
AND MOTION EQUIPMENT
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REVISIONS
DRAWN: DSD
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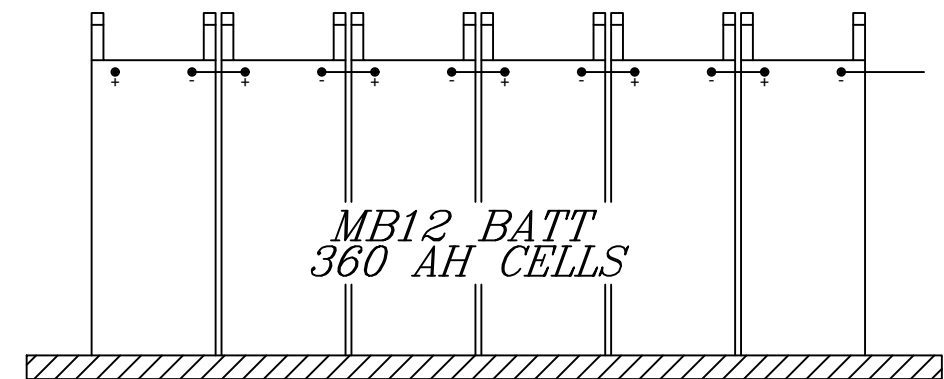
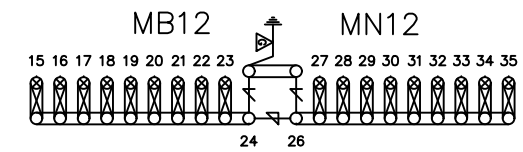
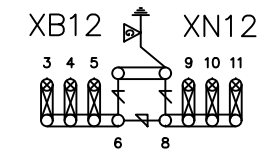
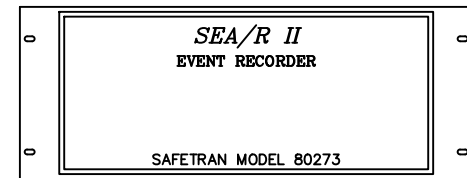
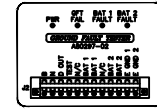
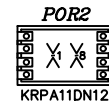
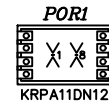
DWG NO. 013630X

8 SHEET OF 13

SIDE "A"



SIDE "C"



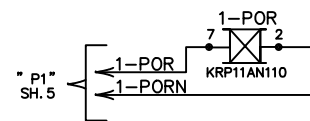
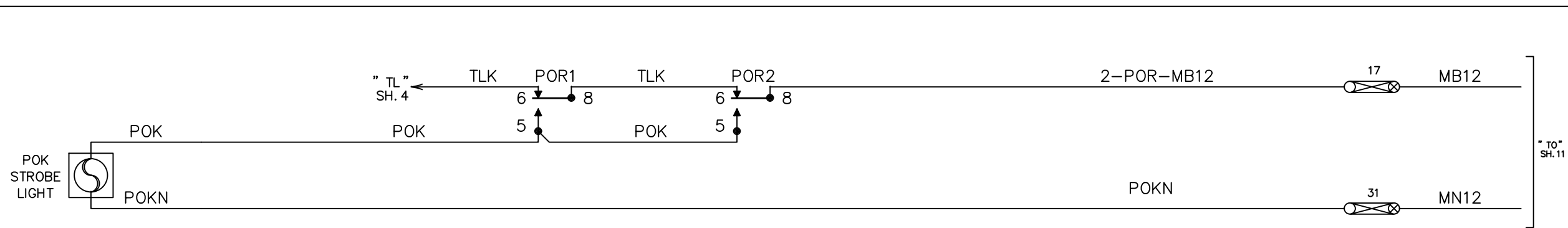
1. SHELVES AND BACKBOARDS ARE DRAWN TO A SCALE OF 1" = 0.20".

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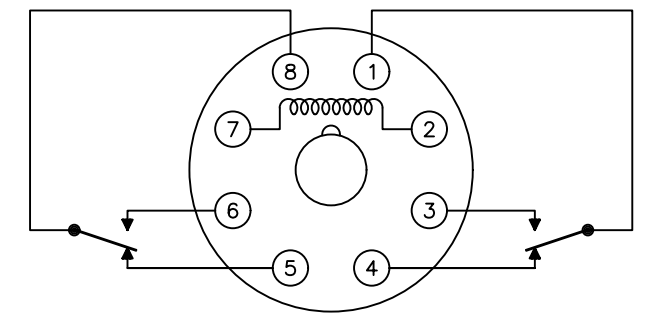
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BIRCHWOOD ROAD RAILROAD-HIGHWAY GRADE CROSSING WARNING SYSTEM DOT 868305X	BIRCHWOOD, AK M.P. 136.25
DRAWN: DSD DATE: 08-27-02	DWG NO. 013630X
9	SHEET OF 13

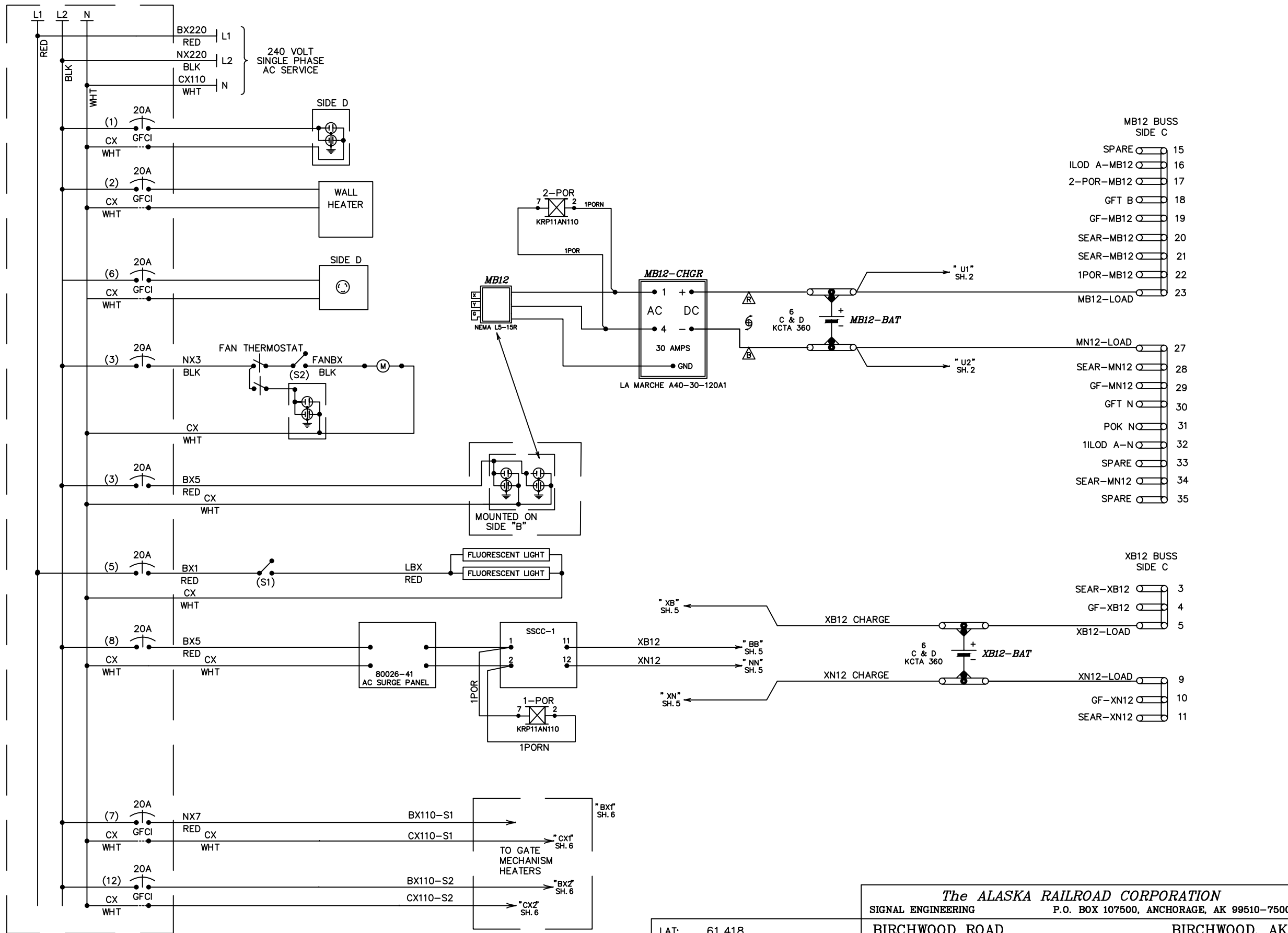


POR
POTTER & BRUMFIELD RELAY
KRPA11 SERIES



POWER OFF RELAY CIRCUIT DETAIL

					<i>The ALASKA RAILROAD CORPORATION</i> SIGNAL ENGINEERING P.O. BOX 107500, ANCHORAGE, AK 99510-7500				
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DOT 868305X M.P. 136.25	
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DATE: 08-27-02	11 SHEET OF 13

TO CONFIGURE SEAR II & SEAR III PRESS SITE SETUP KEY. USE
ARROW KEYS TO MAKE SELECTION, PRESS ENTER AFTER
SELECTION HAS BEEN MADE.

SEAR II PROGRAMMING

PROGRAM MENU QUESTIONS	OPTIONS / RANGE	PROGRAM
SITE NAME?	STREET NAME	BIRCHWOOD ROAD
MILE POST?	MILEAGE	136.30
DOT/CROSSING ID #?		868 305 X
TESTER TYPE?	CROSSING, WAYSIDE	CROSSING
AUTOMATIC DST ADJUSTMENT?	YES / NO	YES
TIME ZONE?	EASTERN,CENTRAL,MOUNTAIN, PACIFIC,ALASKA,HAWAII, ATLANTIC,SASKATCHEWAN, NEW FOUNDLAND	ALASKA
GMT OFFSET		N/A
DATE/TIME?	CURRENT DATE/TIME	
DATE FORMAT?	mm-dd-yyy, dd-mm-yyyy	dd-mm-yyyy
TEMPERATURE FORMAT?	FAHRENHEIT,CELSIUS	FAHRENHEIT
INDICATE HOLDOFF		0
SITE TYPE?	NO COM, BULLHORN,DIALUP, NODE,COLLECTOR	COLLECTOR
SITE ATCS ADDRESS?	7.RRR.LLL.GGG.99.01	70051003059901
OFFICE ATCS ADDRESS?	2.RRR.NN.DDDD	2005019101
OFFICE SITE ATCS ADDRESS? (WHEN SITE TYPE = NODE)	7.RRR.LLL.GGG.99.01	N/A
BACKUP SITE ATCS ADDRESS 1 (WHEN SITE TYPE = NODE)	7.RRR.LLL.GGG.99.01	N/A
BACKUP SITE ATCS ADDRESS 2 (WHEN SITE TYPE = NODE)	7.RRR.LLL.GGG.99.01	N/A
POLL ID? (WHEN SITE TYPE = COLLECTOR)	1-99	1
GEN/ATCS MODE? (WHEN SITE TYPE = COLLECTOR)	NORMAL, EXTENDED	GEN/ATCS
XID DISABLED? (WHEN SITE TYPE = COLLECTOR)	YES, NO	YES
OFFICE COMM. DEVICE? (WHEN SITE TYPE = COLLECTOR)	DIRECT (RS232) MCM (RS232) MCM (ECHELON) SPREAD SPEC (ECHELON) DIAL MODEM (RS232) S200 RADIO (RS422)	DIAL MODEM (RS232)
OFFICE COMM. PORT (WHEN SITE TYPE = RS232 OR RS422)	AUX, COMM	AUX
MCM ADDRESS (WHEN OFFICE COMM DEVICE = MCM)		N/A
OFFICE PHONE NUMBER (WHEN OFFICE COMM DEVICE = DIAL MODEM)	PHONE NUMBER OF WAMS	192.168.18.45
INIT STRING (WHEN OFFICE COMM DEVICE = DIAL MODEM)	OPTIONAL HAYES MODEM INITIALIZATION STRING	AT
FIELD COMM. DEVICE?	VHF COMM. (ECHELON), VHF COM.(RS232), SPREAD SPECTRUM(ECH), SPREAD SPECTRUM(RS232)	LOCATION SPECIFIC
USER PORT	BAUD,DATA BITS,PARITY, STOP BITS,FLOW CONTROL	57600,8,N,1,N
AUX PORT	BAUD,DATA BITS,PARITY, STOP BITS,FLOW CONTROL	9600,8,N,1,H
COMM PORT BAUD?	BAUD,DATA BITS,PARITY, STOP BITS,FLOW CONTROL	9600,8,N,1,N

PROGRAM MENU QUESTIONS	OPTIONS / RANGE	PROGRAM SEAR II
RESET NAMES/MODULES?	YES / NO	YES
RAILROAD NUMBER	1-999	005
CROSSING CONFIGURATION ?	STANDARD,ISLAND ONLY SPLIT GATE, LARGE REMOTE,CP COLLECTOR	STANDARD
NUMBER OF XR INPUTS	0-4	2
NUMBER OF ISL INPUTS	0-4	1
CONSTANT WARNING DEVICE	NONE, GCP, OTHER	GCP
TOTAL NUMBER OF GCP NODES	1-7	2
NUMBER OF REDUNDANT GCP'S	0-3	NONE
CROSSING CONTROLLER 1	NONE, SCC IIIA/PLUS SSCCIV, SSCCII, SSCCIII OTHER	OTHER
CROSSING CONTROLLER 2	NONE, SCC IIIA/PLUS SSCCIV, SSCCII, SSCCIII OTHER	NONE
POK2	NO/YES	YES
TLITE FUNCTION	TLITE ONLY,TLITE/POK2	TLITE/POK2
MAIN/STANDBY	NO/YES	YES
AUXILARY TRACKS	0-2	0
ENTRANCE GATES	0-4	2
EXIT GATES	0-2	0
GATES NOT STARTING TIME (SECONDS)	10-20	15
NUMBER OF UAX INPUTS	0-2	0
BATTERY BANKS	1-6	2
PREMPTION	NORMAL,ADVANCED,NO	NO
VHF COMMUNICATOR	YES / NO	NO
DTMF ACTIVATION	YES / NO	N/A
ACTIVATION CODE	1-999	N/A
ACTIVATION TIMEOUT(SEC)	30-600	N/A
ILOD MODULES	0-4	1
ANY LED BULBS USED	NO / YES	YES
AUTO INSPECTIONS	YES / NO	NO
BELL SENSORS	0-8	1
BELL SENSOR INPUT 4	NO / YES	NO
BELL SENSOR INPUT 5	NO / YES	NO
BELL SENSOR INPUT 6	NO / YES	NO
BELL SENSOR INPUT 7	NO / YES	YES
BELL SENSOR INPUT 8	NO / YES	NO
BELL SENSOR INPUT 9	NO / YES	NO
BELL SENSOR INPUT 10	NO / YES	NO
BELL SENSOR INPUT 11	NO / YES	NO
BELL ON	GATES LOWERING, GATES MOVING,	ALWAYS
GATE TIP SENSORS	YES / NO	YES
GFT'S	YES / NO	YES
BATTERIES ON GFT'S	1-2	2
VHF VOICE CHANNEL	1-8	N/A
VHF DATA CHANNEL	1-8	N/A
FULL APPROACH MOVE ALARMS	ACTIVATE, DO NOT ACTIVATE	DO NOT ACTIVATE

PROGRAM MENU QUESTIONS	PROGRAM
EDIT DIGITAL INPUTS	NO
EDIT BATTERIES	NO
EDIT RELAYS	NO
EDIT INDICATOR LEDS	NO
EDIT TEST LEDS	NO
EDIT ILOD SENSORS	NO
EDIT VHF SETTINGS	NO

YOU WILL NOW SEE A MESSAGE "PLEASE WAIT COMPILING STAGE 2"
CONTINUE TO NEXT PROGRAM MENU QUESTIONS.

YOU WILL NOW SEE A MESSAGE "PLEASE WAIT COMPILING STAGE 1"
CONTINUE TO NEXT PROGRAM MENU QUESTIONS.

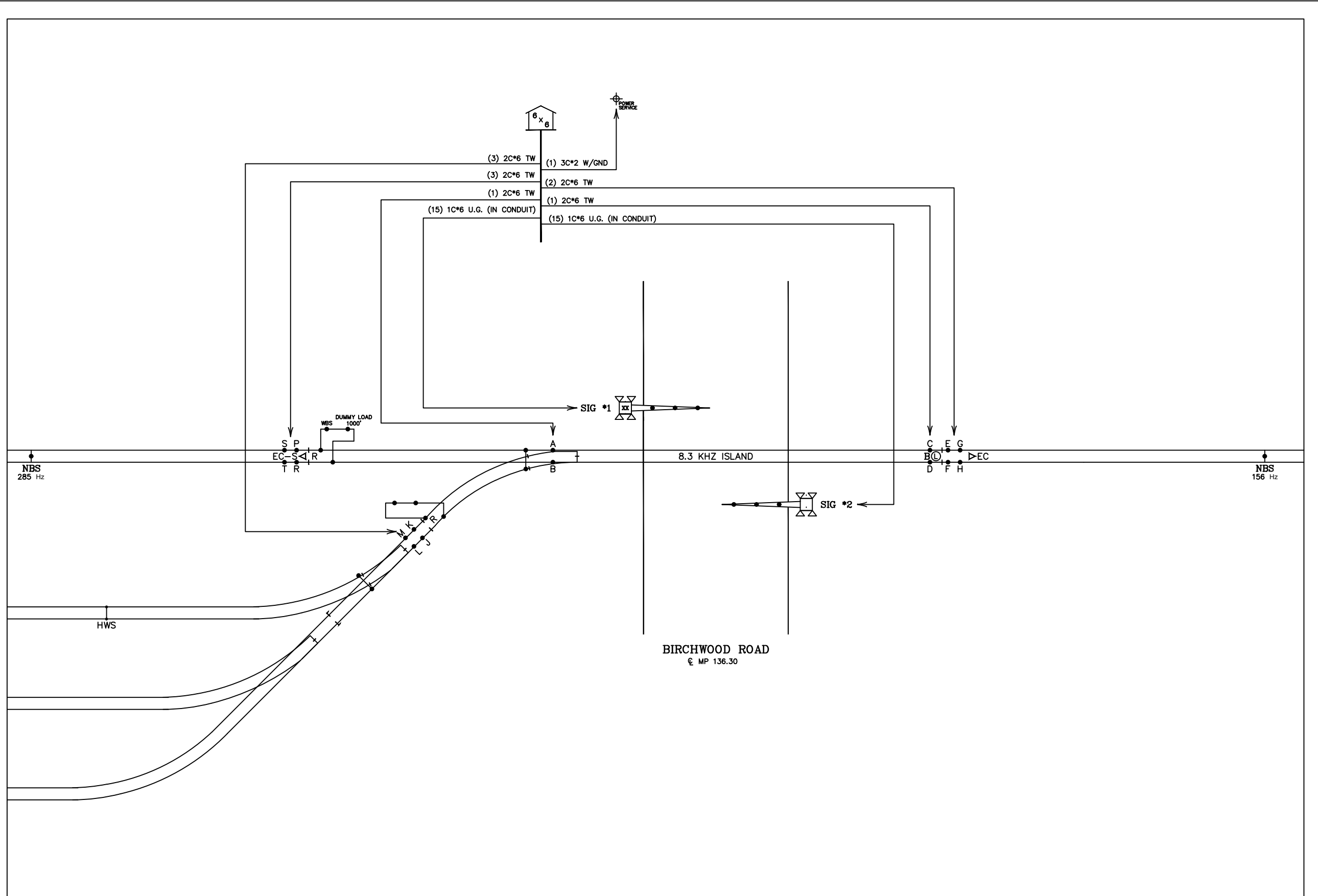
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RAILROAD-HIGHWAY GRADE CROSSING WARNING SYSTEM
DOT 868305X M.P. 136.25

IN SERVICE DATE: 07-11-16 UPDATED	IN SERVICE DATE: 03-10-15 UPDATED	IN SERVICE DATE: 03-14-14 ADDITION OF SEAR II	IN SERVICE DATE: 09-23-13 UPDATED ALL SIGNALS TO L.E.D.	IN SERVICE DATE: 03-16-11 UPDATED	DESIGNED 08-27-02 NEW BUNGALOW AND MOTION EQUIPMENT DSD/MAT SEQ #	REVISIONS
COR: TRS CHK:	COR: JAK CHK:	COR: TAM CHK: BWL	COR: TAM CHK:	COR: FWK CHK:		

DRAWN: DSD	DWG NO. 013630X	12 SHEET OF 13
DATE: 08-27-02		



					The ALASKA RAILROAD CORPORATION SIGNAL ENGINEERING P.O. BOX 107500, ANCHORAGE, AK 99510-7500				
LAT: 61.418		BIRCHWOOD ROAD			BIRCHWOOD, AK				
LONG: -149.496		RAILROAD-HIGHWAY GRADE CROSSING WARNING SYSTEM			DOT 868305X			M.P. 136.25	
IN SERVICE DATE: 07-11-16 UPDATED	IN SERVICE DATE: 03-10-15 UPDATED	IN SERVICE DATE: 03-14-14 ADDITION OF SEAR II	IN SERVICE DATE: 09-23-13 UPDATED ALL SIGNALS TO L.E.D.	IN SERVICE DATE: 03-16-11 UPDATED	DESIGNED 08-27-02 NEW BUNGALOW AND MOTION EQUIPMENT DSD/MAT SEQ #	REVISIONS	DRAWN: DSD DATE: 08-27-02	DWG NO. 013630X	13 SHEET OF 13
COR: TRS	CHK: JAK	COR: TAM	CHK: BWL	COR: TAM	CHK: FWK				
013630X03C.DWG - SEP 16, '02 - 1:41 PM - DENVER SIGNAL DESIGN, INC (JLH)									