Rappatta, Mike

From: Rappatta, Mike

Sent: Monday, November 01, 2010 9:01 AM

To: 'Susan Kirkland (skirklan@dot.state.oh.us)'; 'susan.Arduini@dot.state.oh.us'

Cc: 'Patricia Gray'; 'George Martin (George.Martin@puc.state.oh.us)'; 'Tod Darfus (tod.darfus@dot.state.oh.us)'; Ray, Rick H.

November 01, 2010

CX0118349

Re: Norfolk Southern's Sandusky Line, regarding the modification of automatic grade crossing warning devices at Reedtown Road in Seneca County, Ohio, DOT: 481-602P, Milepost S-087.94, order 10-1003-RR-FED.

Susan Kirkland, Supervisor
Ohio Rail Development Commission
50 West Broad Street, Room 1520
Columbus, Ohio 43215

Dear Ms. Kirkland:

Attached for your review and approval are electronic copies of the detailed cost estimate, material list and engineering plans for this crossing.

Although we cannot give you an exact date of installation at this time we can provide our average installation time, which is 9.1 months after authorization from the state. After this project is authorized, we will order material and schedule for installation once we have received approvals from ODOT's District Office.

A copy of the estimate, material list and project plans have been filed on Ohio's Public Utilities Comission Docketing Information System.

If you have any questions or concerns, please contact Mike Rappatta at 404-582-6377 or mike.rappatta@nscorp.com .

01-Nov-10

Detailed Estimate for Grade Crossing Warning Devices

City/State: BELLEVUE, OH
Road: REEDTOWN RD.
MilePost: S-87.94
DOT/AAR: 481620P
State Proj. No.:
County: SENECA
S&E Proj. No.: 10.0003
File Number:
Man Days: 96

Purchases - Others		
Meals and Lodging:	$12,902.40	
Rental of Equipment:	$22,848.00	
(2 Trucks, 1 Backhoe w/ Trailer and 1 Pipe-Pusher for 24 Days)		
Construction Supervision Vehicle:	$4,765.91	
Purchases - Other Total:		$40,516.31
Material And Additives		
Material Cost:	$88,394.00	
Sales and Use Tax:	$0.00	
Material Handling Freight:	$4,419.70	
Material Total:		$92,813.70
Labor And Additives		
Labor Cost:	$26,880.00	
(4 man crew at $1,120.00 a day for: 24 days)		
Payroll Tax & Overheads:	$35,707.39	
Preliminary Engineering:	$10,144.10	
Construction Supervision:	$15,058.18	
Labor Total:		$87,789.67
	Project Cost:	$221,119.68
	Scrap / Salvage Credit:	$0.00
	Project Total:	**$221,120.00**

Estimated on: 01-Nov-10
Estimated by: n5s2v

Estimate valid for 1 year from date of estimate

Norfolk Southern Railway

Highway Crossing Signalization Program - Material List

Do not substitute items without permission from S & E Engineering

City:	BELLEVUE
Road:	REEDTOWN RD.
Mile Post:	S-87.94
Drawing Number:	SNCS08794
State ProjectNumber:	
County:	SENECA
A A R Number:	481620P
Project Number:	10.0003
File Number:	
New File Number:	TBD
A F E Number:	F32820
Store Number:	08726
Supervisor:	A.J. PEASE
Tax Code:	3500

Vendor to supply the following copies after pricing:

1 Set - Material Management with original Invoice
2 Sets - with plans shipped in car with material
1 Set - S&EGen. Supt. Construction w/copy of invoice

Location: BELLEVUE OH S&E Proj. No.: 10.0003 AFE No.: F32820 Drawing No.: SNCS08794

Store No.: 08726 P.O.Number: Date Required: Date Shipped: Vendor: Interrail Engineering, INC

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Quan.	Date Quan.	Date Quan.	Quantity Returned (Credit)	Special Instructions
3	670-360693-4	EA	$5.50	$16.50	AAR/DOT NUMBER PLATE/DECAL, ORDER 3 PER PROJECT. 60 DAY LEAD TIME. SUPPLIED BY S'TRAN.						
1	165-006505-4	EA	$1,051.54	$1,051.54	AC SERVICE, COMPLETE LESS METER BASE, ASSEMBLED ON 30' POLE						
13	105-288384-4	EA	$261.39	$3,398.07	BATTERY,GNB 368AH MODEL 50G15 SINGLE CELL 2.25 VOLTS, FOR USE WITH CROSSINGS DESIGNED AFTER 09/09						
2	670-980689-4	EA	$78.58	$157.16	BRACKET HIGH WIND, (RIGID 3'), WIG- 191036, WALRUS TUSK TYPE						
2	670-561375-4	EA	$1,197.90	$2,395.80	BRACKET, GATE SAVER, NEG385102GS, SPRING LOADED SWING AWAY ADAPTER FOR FIBERGLASS/ALUMINUM GATES, USE WITH GATE 38' AND LESS						
1	670-356949-4	EA	$57.37	$57.37	CABLE, 10' GENERATOR HOOK UP, SERRMI P/N 40524. FEMALE CONNECTOR						
300	465-939422-4	LF	$2.74	$822.00	CABLE, UG 12 CONDUCTOR NO 14 AWG SOLID EACH CONDUCTOR WITH 5/64 IN INSULATION 10 MIL						
600	465-292862-4	LF	$1.27	$762.00	CABLE, UG 2-6 TWISTED, S-23 OKONITE 113-12-3933 SOLID TINNED CONDUCTOR						
500	465-292929-4	LF	$3.84	$1,920.00	CABLE, UG 5 COND. NO. 6 AWG SOLID COPPER CABLE TO MEET NS CORP. SPEC. FOR SIGNAL						
100	465-791835-4	FT	$3.31	$331.00	CABLE, UG AC ENTRANCE 3C#6-7X OKONITE FMPF-L 094-078 TR W/G 1 X 8 7X W010 BRZ TAPE 600V PRODUCT CODE 206-11-6070						
80	165-544477-4	FT	$2.19	$175.20	CONDUIT, 4"x10' PVC, SCHEDULE 80 BELL CONNECTOR AT ONE END, 1/2 PT. GLUE IN KIT 670-123298-4						
4	670-664917-4	EA	$61.53	$246.12	CONNECTOR KIT, WELDED FAR RAIL, CONSISTING OF RUBBER HOSE PROPERLY DRILLED, BONDSTRAND, 1 SPLICING SLEEVE, 1 REDUCING SLEEVE, 3 CLAMPS, 1 TRACK CLIP, 1 WEB WELDED TRACK CONNECTOR, 1 WELD METAL, SAFETRAN 111359-2X						
4	670-632520-4	EA	$51.89	$207.56	CONNECTOR KIT, WELDED NEAR RAIL, CONSISTING OF, RUBBER HOSE PROPERLY DRILLED, BONDSTRAND, SPLICING SLEEVE, 1 REDUCING SLEEVE, 5 CLAMPS, 1 TRACK CLIP, 1 WEB WELDED TRACK CONNECTOR, 1 WELD METAL, SAFETRAN 111359-1X						
2	670-793404-4	EA	$1,212.73	$2,425.46	COUNTERWEIGHT PKAGE, 17-24'GATE S'TRAN S- MECH ONLY, STAINLESS, TO INCLUDE HUB, SUPPORT ARMS						

APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER

Location: BELLEVUE OH S&E Proj. No.: 10.0003 AFE No.: F32820 Drawing No.: SNCS08794

Store No.: 08726 P.O.Number: Date Required: Date Shipped: Vendor: Interrail Engineering, INC

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Quan.	Date Quan.	Date Quan.	Quantity Returned (Credit)	Special Instructions
4	670-760012-4	EA	$39.64	$158.56	COVER, FOR 1 WAY FLASHING LIGHT ASSY. 18 OZ. BLACK VINYL COATED NYLON. ====TO COVER 2 LAMPS====						
1	670-986650-4	EA	$339.81	$339.81	DISPOSAL, CONSTRUCTION DEBRIS AND CLEANING X'ING EQUIPMENT CONTAINER						
1	670-000004-4	EA	$700.00	$700.00	FCC LICENSE FOR MONITOR/RADIO						
4	670-000003-4	EA	$255.85	$1,023.40	FILL/STONE #57, QUANITY IS BASED ON TRUCK LOAD PLUS DELIVERY COST						
2	670-015231-4	EA	$577.50	$1,155.00	FOUNDATION, DIXIE,S-2 GATE 2'6"X2'6"X5'6" ASSEMBLED						
2	670-257031-4	EA	$339.19	$678.38	GATE, ARM FIBERGLASS-ALUMINUM 17-24 FT., INCLUDES GATE GUARD FOR GATE LIGHT CABLE, NEG P/N 8002-244NFS/CG						
1	670-696894-4	EA	$37,189.54	$37,189.54	GCP 4000 2 TRK, REDUNDANT, (2TRK CHASSIS), WIRED RACK EQUIPMENT FOR 6X8 FARADAY, 2 EA SSCCIIII, 2 EA 40 AMP CRAIG CHARGER, WITH SEAR IIi, SAFETRAN 003131-4X						
1	670-477991-4	EA	$317.90	$317.90	KIT, GROUNDING ASSY FOR AL I/S INCLUDES 8 GRD RDS,200'#4WIRE,12 4 WIRE ONE-SHOTS. ERICO SBK206						
1	670-123298-4	EA	$309.31	$309.31	KIT, HARDWARE SUPPLIES REQUIRED X'ING P'CKAGES. WEB CONNECTORS FOR SHUNT(8EA) TAPE, AMPS,P'GUM PAINT,SLEEVES,TAGS,GLUE, 100 EA WHITE TAGS,)NE CAN BLUE MARKING PAINT ETC…						
2	670-764166-4	EA	$1,244.13	$2,488.26	LAMP ASSY, 5" MAST MTG. 2W IND. 20" BKGRD, FLX-12 W/BULB S'TRAN #042003-487XNS						
6	165-643547-4	EA	$5.98	$35.88	LAMP, 18 WATT 10 VOLT S-11 SC BAY 18S11/1SC CLEAR RWY SIGNAL UJ-71463 GE						
4	255-590880-4	EA	$17.08	$68.32	LOCK, AMERICAN LOCK MODEL H-10KA KEYED ALIKE TO PRIVATE KEYWAY D456 AND STAMPED "NS SIG"						
2	670-637778-4	EA	$1,019.15	$2,038.30	MAST, 5" ALUMINUM 13'10" WITH DOUBLE JCT. BOX BASE. S'TRAN P# 070519-11AX.						
2	670-850933-4	EA	$3,886.16	$7,772.32	MECHANISM, GATE MODEL S-60, WITH DEFROSTER AND MINI TRACKSIDE SENSOR S'TRAN # 0740007-X002B3						
1	000-000000-4	EA	$5,000.00	$5,000.00	MISC. EXPENSE, UNDERGROUND BORING						
4	670-001347-4	EA	$44.58	$178.32	PACKAGE, HARDWARE SIGN 5 IN. MOUNTING, SERRMI A1250-5, HARMON @200965-000, OR						

APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER

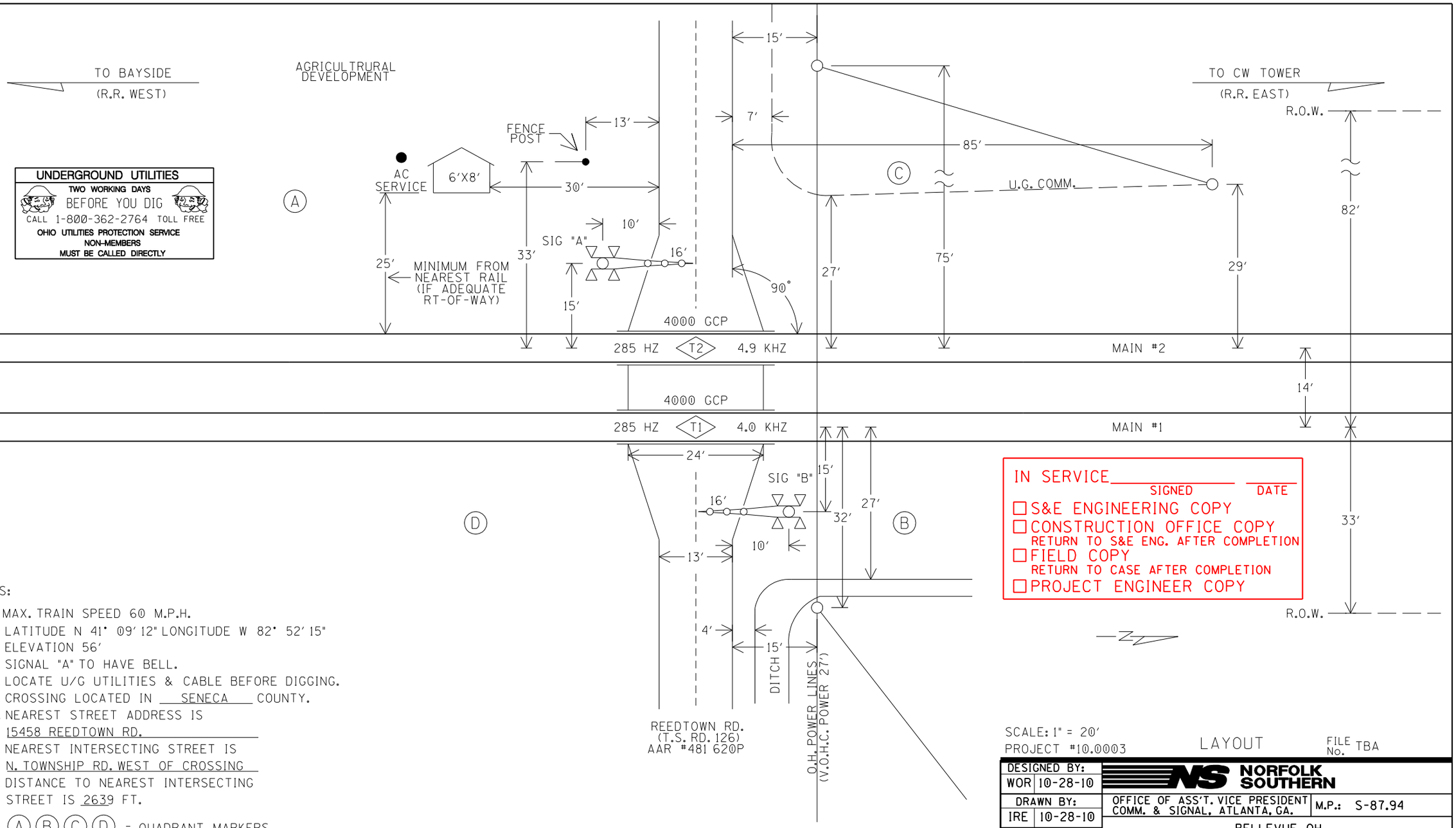
Location: BELLEVUE OH S&E Proj. No.: 10.0003 AFE No.: F32820 Drawing No.: SNCS08794

Store No.: 08726 P.O.Number: Date Required: Date Shipped: Vendor: Interrail Engineering, INC

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Quan.	Date Quan.	Date Quan.	Quantity Returned (Credit)	Special Instructions
1	670-514605-4	EA	$11.04	$11.04	PINNACLE, W-C SECT 1-11, 4"& 5" REF K1 110-8 OR SAFETRAN NO. @035045-503X						
1	165-902002-4	EA	$294.80	$294.80	PROTECTOR, SURGE 120/240VAC, ERICO P/N EPD120/240TDFL						
4	465-002899-4	EA	$36.06	$144.24	REEL, CABLE DISPOSABLE FOR CROSSING SIGNAL PACKAGES						
2	435-805560-4	EA	$3.45	$6.90	SAND, 25LB BAG FOR CABLE ENTRANCE INTO THE SHELTER						
1	670-027556-4	EA	$2,629.77	$2,629.77	SEARIIi, ACCESSORY PACKAGE, W/2-ILOD, 1-E-BELL, 2-GTS, 1-GFT, 1-VHFC, WITHOUT MTSS/SEAR UNIT						
1	670-749325-4	EA	$226.97	$226.97	SHELF, FOLDING, FOR LAPTOP USE IN FARADAY 6X8 SHELTER, SAFETRAN 052852-128X						
1	670-755523-4	EA	$9,358.99	$9,358.99	SHELTER, 6'X8' ALUMN FARADAY W/CABLE CHUTES BEHIND TERMINAL BOARD, W/1EA EQUIPMENT RACK, W/GEN RECEPTICAL, BREAKER BOX GFI OUTLET FOR LAPTOP SHELF SAFETRAN 058400-68-85						
4	670-586967-4	EA	$25.79	$103.16	SHUNT COVER W/LAG SCREWS, 19"X19", SERRMI #40271, ORDER 1 PER SHUNT						
4	670-652773-4	EA	$472.80	$1,891.20	SHUNT, MULTI-FREQ. #62775-1543 SAFETRAN NARROW BAND						
2	670-393331-4	EA	$37.43	$74.86	SIGN CROSSING MALFUNCTION ASSEMBLY FOR 4" AND 5" MAST, SAFETRAN #T17215						
2	670-806648-4	EA	$71.37	$142.74	SIGN, X-BUCK, LESS HARDWARE, SAFETRAN 035200-X CR 02-490546						
2	670-353390-4	EA	$37.24	$74.48	SIGN, "2 TRACKS" LESS HARDWARE SAFETRAN 035207-2X						
1	670-330382-4	RL	$15.68	$15.68	TAPE, THOR 3" DURATEC, ORANGE 1000' LENGTHS. "WARNING STOP DIGGING"						

Total Material: $88,393.91

APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER



IN SERVICE _____ _____
SIGNED DATE

☐ S&E ENGINEERING COPY
☐ CONSTRUCTION OFFICE COPY
RETURN TO S&E ENG. AFTER COMPLETION
☐ FIELD COPY
RETURN TO CASE AFTER COMPLETION
☐ PROJECT ENGINEER COPY

NOTES:

1. MAX. TRAIN SPEED 60 M.P.H.
2. LATITUDE N 41° 09' 12" LONGITUDE W 82° 52' 15" ELEVATION 56'
3. SIGNAL "A" TO HAVE BELL.
4. LOCATE U/G UTILITIES & CABLE BEFORE DIGGING.
5. CROSSING LOCATED IN SENECA COUNTY.
6. NEAREST STREET ADDRESS IS 15458 REEDTOWN RD.
7. NEAREST INTERSECTING STREET IS N. TOWNSHIP RD. WEST OF CROSSING
8. DISTANCE TO NEAREST INTERSECTING STREET IS 2639 FT.

(A) (B) (C) (D) = QUADRANT MARKERS

SCALE: 1" = 20'
PROJECT #10.0003

LAYOUT

FILE No. TBA

DESIGNED BY:	
WOR	10-28-10
DRAWN BY:	
IRE	10-28-10
CHECKED BY:	
DBS	10-29-10
IN SERVICE:	
	- -

NORFOLK SOUTHERN

OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: S-87.94

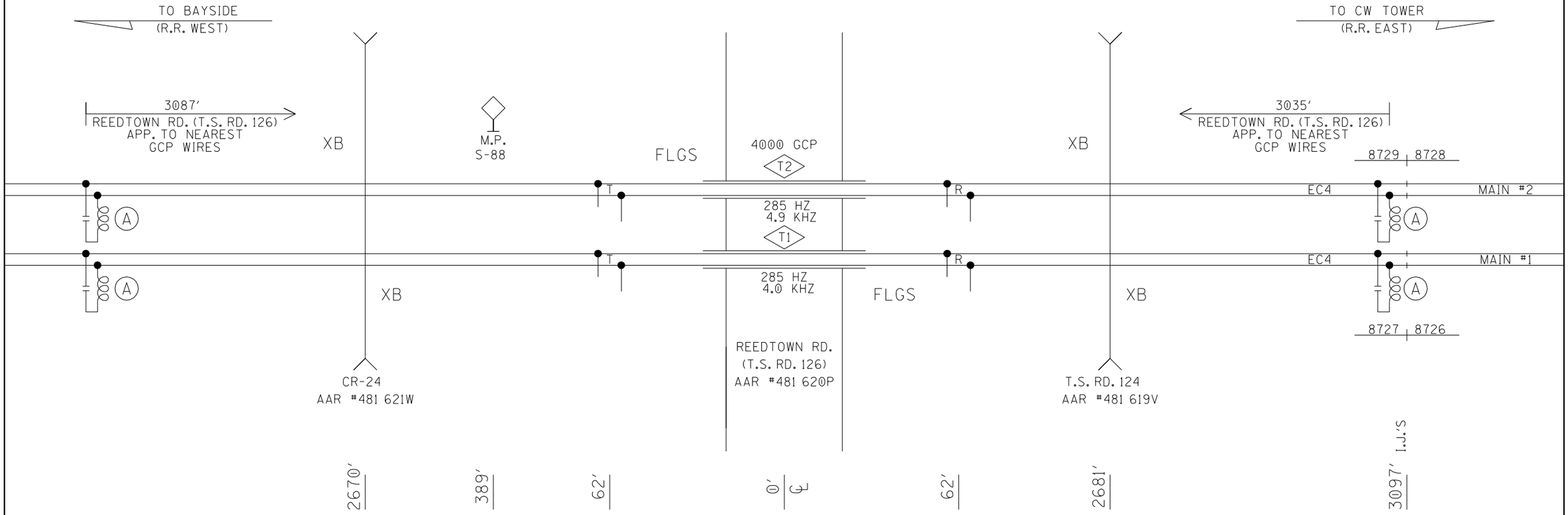
BELLEVUE, OH
FLGS AT REEDTOWN RD. (T.S. RD. 126)

SANDUSKY DISTRICT FILE No. R-

CADD or DWG. No. SNCS08794.01 SHEET No. 1 of 22

REVISION INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



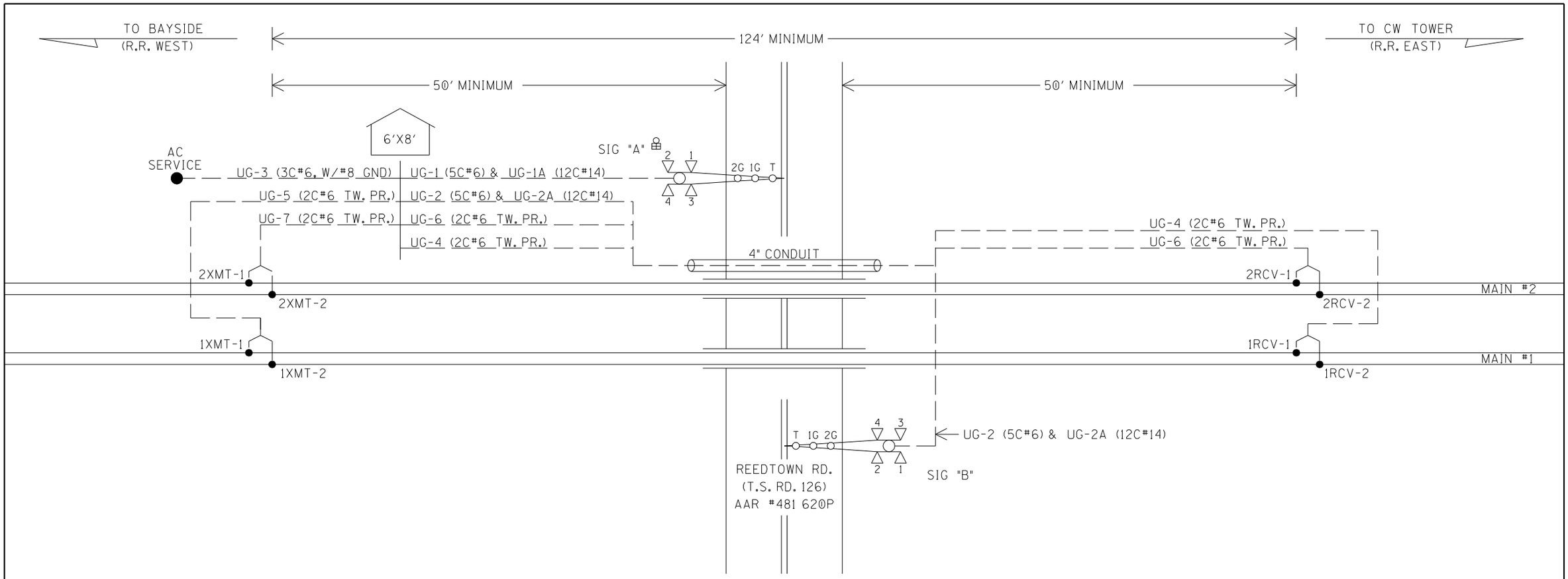
(A)- MF-NBS 62775-1543 (285HZ)

PROFILE

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: S-87.94
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)
IN SERVICE: - -	SANDUSKY DISTRICT — FILE No. R-
	CADD or DWG. No. SNCS08794.02 — SHEET No. 2 of 22

REVISION INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



UG-1-5CUG #6
AEC
AEZ
AEB
B16-A
N16-A

UG-2-5CUG #6
BEC
BEZ
BEB
B16-B
N16-B

UG-1A-12CUG #14
AXG
NAXG
AXX
1AXX
XGP1
AMTSS
AGD
AGBX120
AGNX120
SPARE
SPARE
SPARE

UG-2A-12CUG #14
BXG
NBXG
BXX
1BXX
XGP1
XGP
BMTSS
BGD
BGBX120
BGNX120
SPARE
SPARE

UG-3-3CUG #6 W/#8 GND
BX120-A
BX120-B
NX120
GND

UG-4-TW. PR. #6
1RCV-1
1RCV-2

UG-6-TW. PR. #6
2RCV-1
2RCV-2

UG-5-TW. PR. #6
1XMT-1
1XMT-2

UG-7-TW. PR. #6
2XMT-1
2XMT-2

CABLE PLAN

DESIGNED BY:	
WOR	10-28-10
DRAWN BY:	
IRE	10-28-10
CHECKED BY:	
DBS	10-29-10
IN SERVICE:	
	- -

NORFOLK SOUTHERN

OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. | M.P.: S-87.94

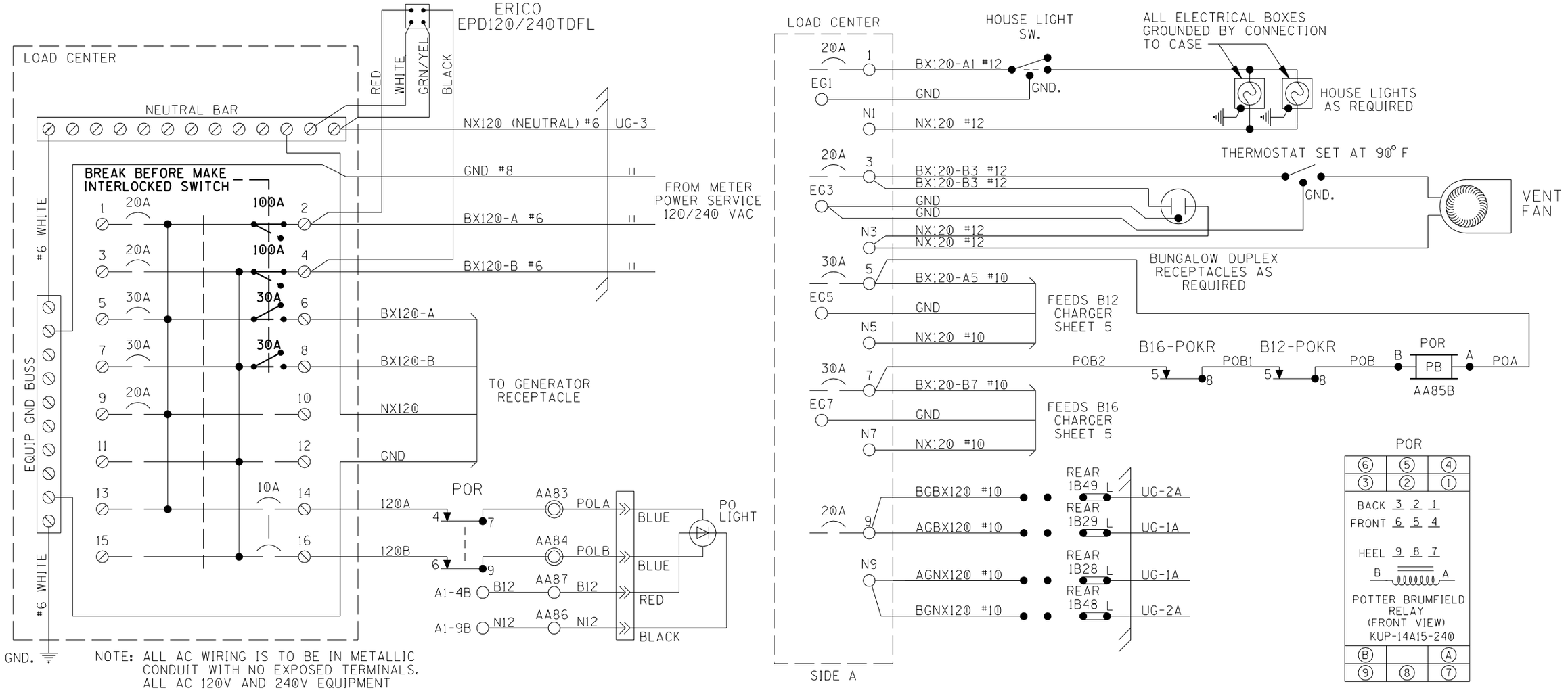
BELLEVUE, OH
FLGS AT REEDTOWN RD. (T.S. RD. 126)

SANDUSKY DISTRICT | FILE No. R-

CADD or DWG. No. SNCS08794.03 | SHEET No. 3 of 22

REVISION INITIALS												

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



SQUARE "D" PART NUMBERS:

LOAD CENTER———Q0116L125G
10A 1P CIR BKR ——Q0110
10A 2P CIR BKR ——Q0210
20A 1P CIR BKR ——Q0120
30A 1P CIR BKR ——Q0130
30A 2P CIR BKR ——Q0230
60A 2P CIR BKR ——Q0260
100A 2P CIR BKR —Q02100
MECH INTERLOCK——PK4DTIM4LA

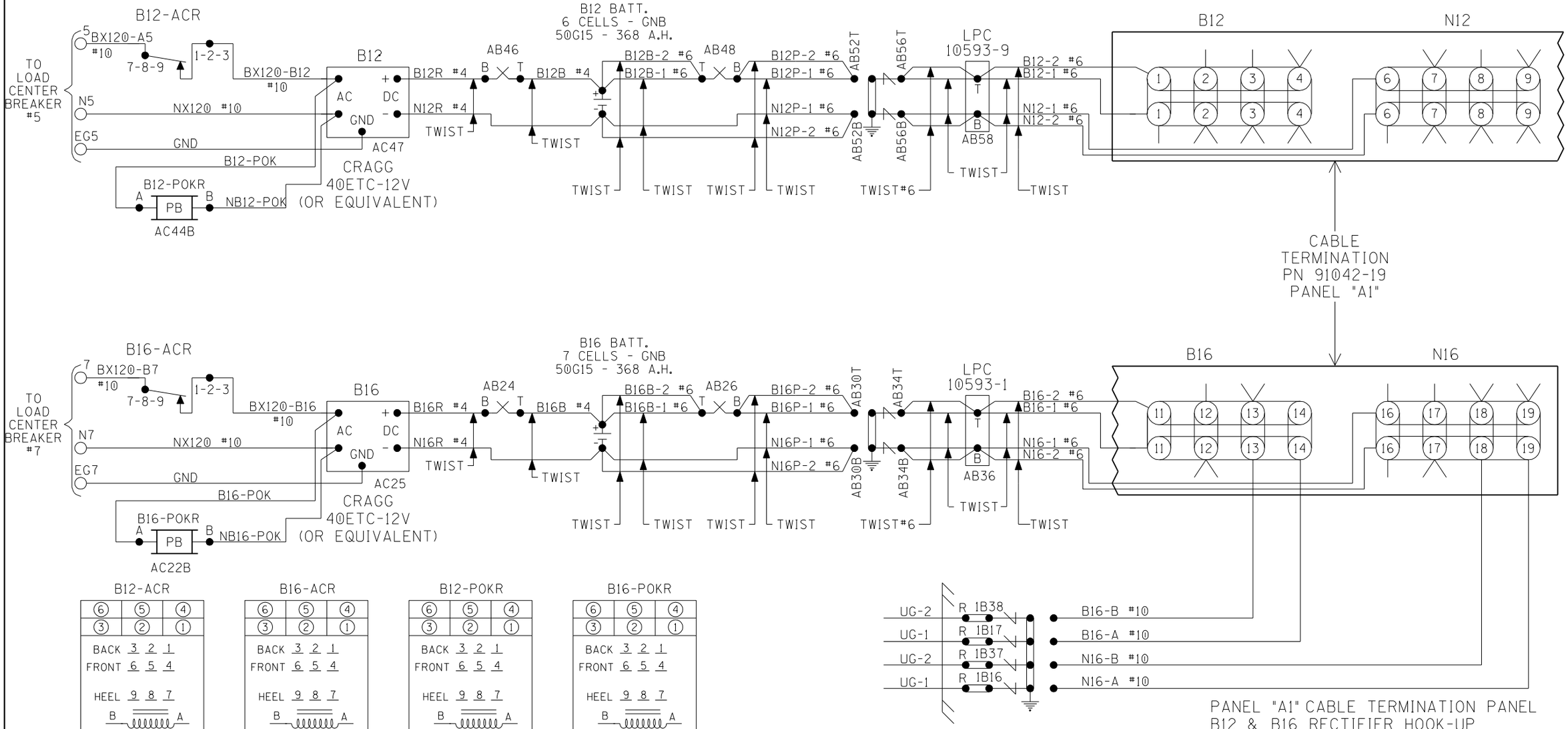
GENERATOR RECEPTACLE:
MALE CONNECTOR - NEMA L1430-FI

LOAD CENTER WIRING

DESIGNED BY:		NORFOLK SOUTHERN	
WOR	10-28-10		
DRAWN BY:		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: S-87.94
IRE	10-28-10		
CHECKED BY:		BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)	
DBS	10-29-10		
IN SERVICE:		SANDUSKY DISTRICT	FILE No. R-
	- -	CADD or DWG. No. SNCS08794.04	SHEET No. 4 of 22

REVISION INITIALS												

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

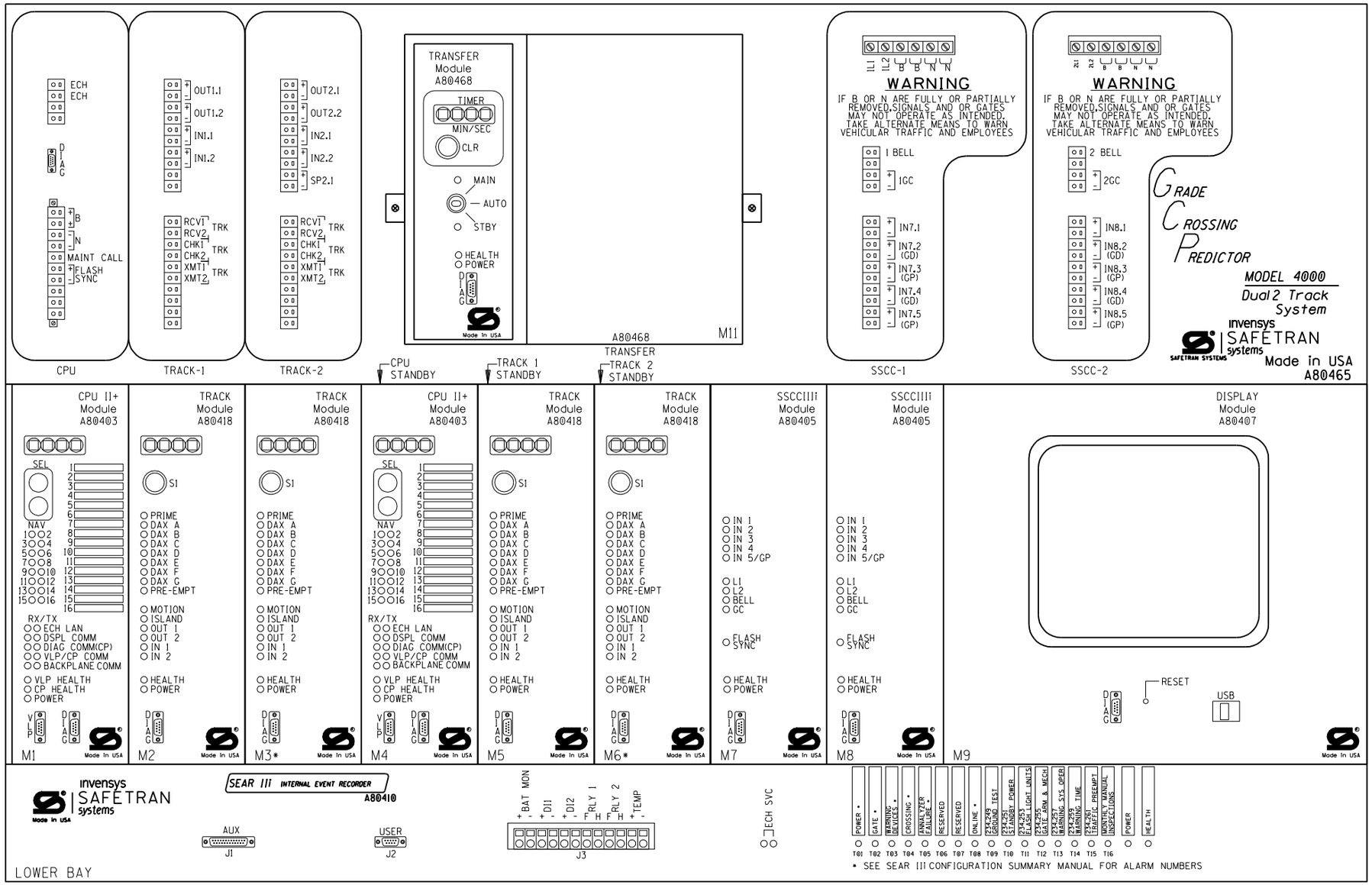


NOTE:
ALL WIRING TO BE #16AWG
UNLESS NOTED OTHERWISE.

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: S-87.94
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)
IN SERVICE: - -	SANDUSKY DISTRICT — FILE No. R-
	CADD or DWG. No. SNCS08794.05 — SHEET No. 5 of 22

REVISION INITIALS											

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



WARNING

REMOVAL OF THE SSCCIIIi MODULE WILL CAUSE THE GATE(S) TO DROP BUT THE LIGHTS WILL NOT ACTIVATE

CAUTION

ASSURE CORRECT POLARITY OF THE SSCCIIIi MODULE OR SEVERE DAMAGE WILL OCCUR.

ATTENTION!

ENSURE THE DISPLAY MODULE HEATER IS DISABLED. LEAVING THE DISPLAY HEATER ENABLED WILL REDUCE THE AMOUNT OF BATTERY STANDBY TIME IN THE EVENT OF AN AC POWER FAILURE.

HEATER FUNCTION IS JUMPER SELECTABLE ON THE DISPLAY MODULE BOARD.
THREE OPTIONS ARE AVAILABLE:
NORMAL LCD HTR (DEFAULT)
HI CURRENT
NO JUMPER (HEATER DISABLED)

*= MAIN AND STANDBY MAY USE RIO IN TRACK 2 SLOTS (M3 AND M6)

PANEL "A2" 4000 GCP REDUNDANT
2-TK CHASSIS AND MODULE LAYOUT

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: S-87.94
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)
IN SERVICE: - -	SANDUSKY DISTRICT — FILE No. R-
	CADD or DWG. No. SNCS08794.06 — SHEET No. 6 of 22

REVISION INITIALS											

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

Program Report

Location and SIN

DOT Number: 481620P
Milepost Number: S-87.94
Site Name: REEDTOWN RD (TS RD 126)

SIN: 755023601716

MCF and Template Selection

MCF Name: GCP-T6X-02-1.mcf
MCF Revision: 021
MCFCRC: 6076E435

Template = 1A:6 Trk Bi

Check Numbers

Office Check No. (DT 4.6.0): 0033D5DD
Office Check Number: 0033D5DD
Config. Check Number: 3536E8F5
(Based on MCF Revision 021)

Program

BASIC: module configuration
Track 1 Slot = Track
Track 2/RIO 1 Slot = Track
Track 3 Slot = Not Used
Track 4 Slot = Not Used
Track 5/RIO 2 Slot = Not Used
Track 6/RIO 3 Slot = Not Used
SSCC-1 Slot = SSCC3i
SSCC-2 Slot = SSCC3i
SEAR Used = Yes

BASIC: MS/GCP operation
Track 1 : MS/GCP Operation = Yes
Track 2 : MS/GCP Operation = Yes

BASIC: island operation
Track 1 : Island Used = Internal
Track 2 : Island Used = Internal

BASIC: preemption
Preempt Logic = No

BASIC: radio Dax links
Radio DAX link A Used = No
Radio DAX link B Used = No

BASIC: Vital Comms links
Vital Comms link 1 Used = No
Vital Comms link 2 Used = No

PREDICTORS: track 1
Track 1 : Prime Used = Yes
Track 1 : Dax A Used = No
Track 1 : Dax B Used = No
Track 1 : Dax C Used = No
Track 1 : Dax D Used = No
Track 1 : Dax E Used = No
Track 1 : Dax F Used = No
Track 1 : Dax G Used = No

PREDICTORS: track 2
Track 2 : Prime Used = Yes
Track 2 : Dax A Used = No
Track 2 : Dax B Used = No
Track 2 : Dax C Used = No
Track 2 : Dax D Used = No
Track 2 : Dax E Used = No
Track 2 : Dax F Used = No
Track 2 : Dax G Used = No

GCP: track 1
Track 1 : GCP Freq Category = Standard
Track 1 : GCP Frequency = 285 Hz
Track 1 : Approach Distance = 3061 ft
Track 1 : Uni/Bi/Sim-Bidirnl = Bidirnl
Track 1 : GCP Transmit Level = High
Track 1 : Island Connection = Isl1
Track 1 : Island Distance = 124 ft
Track 1 : Computed Distance = 9999 ft
Track 1 : Linearization Steps = 100

GCP: track 1 enhanced det
Track 1 : Inbound PS Sensitivity = Off
Track 1 : Speed Limiting Used = Yes
Track 1 : Outbound False Act Lvl = Normal
Track 1 : Outbound PS Timer = 20 sec
Track 1 : Trailing Switch Logic = On
Track 1 : Post Joint Detn Time = 15 sec
Track 1 : Adv Appr Predn = No
Track 1 : Cancel Pickup Delay = This Isl

GCP: track 1 prime
Track 1 : Prime Warning Time = 30 sec
Track 1 : Prime Offset Distance = 0 ft
Track 1 : Switch MS EZ Level = 10
Track 1 : Prime MS/GCP Mode = Pred
Track 1 : Prime Pickup Delay = 15 sec
Track 1 : Prime UAX = Not Used

GCP: track 1 pos start
Track 1 : Positive Start = Off
Track 1 : Sudden Shnt Det Used = No
Track 1 : Low EZ Detection Used = No

GCP: track 1 MS Control
Track 1 : MS/GCP Ctrl IP Used = No
Track 1 : MS Sensitivity Level = 0
Track 1 : Compensation Level = 1300
Track 1 : Warn Time-Ballast Comp = High
Track 1 : Low EX Adjustment = 39
Track 1 : Bidirn Dax Passthru = No
Track 1 : False Act on Train Stop = No
Track 1 : EX Limiting Used = Yes
Track 1 : EZ Correction Used = Yes

GCP: track 2
Track 2 : GCP Freq Category = Standard
Track 2 : GCP Frequency = 285 Hz
Track 2 : Approach Distance = 3061 ft
Track 2 : Uni/Bi/Sim-Bidirnl = Bidirnl
Track 2 : GCP Transmit Level = High
Track 2 : Island Connection = Isl2
Track 2 : Island Distance = 124 ft
Track 2 : Computed Distance = 9999 ft
Track 2 : Linearization Steps = 100

GCP: track 2 enhanced det
Track 2 : Inbound PS Sensitivity = Off
Track 2 : Speed Limiting Used = Yes
Track 2 : Outbound False Act Lvl = Normal
Track 2 : Outbound PS Timer = 20 sec
Track 2 : Trailing Switch Logic = On
Track 2 : Post Joint Detn Time = 15 sec
Track 2 : Adv Appr Predn = No
Track 2 : Cancel Pickup Delay = This Isl

GCP: track 2 prime
Track 2 : Prime Warning Time = 30 sec
Track 2 : Prime Offset Distance = 0 ft
Track 2 : Switch MS EZ Level = 10
Track 2 : Prime MS/GCP Mode = Pred
Track 2 : Prime Pickup Delay = 15 sec
Track 2 : Prime UAX = Not Used

GCP: track 2 pos start
Track 2 : Positive Start = Off
Track 2 : Sudden Shnt Det Used = No
Track 2 : Low EZ Detection Used = No

GCP: track 2 MS Control
Track 2 : MS/GCP Ctrl IP Used = No
Track 2 : MS Sensitivity Level = 0
Track 2 : Compensation Level = 1300
Track 2 : Warn Time-Ballast Comp = High
Track 2 : Low EX Adjustment = 39
Track 2 : Bidirn Dax Passthru = No
Track 2 : False Act on Train Stop = No
Track 2 : EX Limiting Used = Yes
Track 2 : EZ Correction Used = Yes

ISLAND: track 1
Track 1 : Isl Frequency = 4.0 kHz
Track 1 : Pickup Delay (2s +) = 0 sec
Track 1 : Isl Enable IP Used = No

ISLAND: track 2
Track 2 : Isl Frequency = 4.9 kHz
Track 2 : Pickup Delay (2s +) = 0 sec
Track 2 : Isl Enable IP Used = No

AND: track Anding
AND 1 XR Used = Yes
AND 2 Used = No
AND 3 Used = No
AND 4 Used = No
AND 5 Used = No
AND 6 Used = No
AND 7 Used = No
AND 8 Used = No

AND: AND 1 XR
AND 1 XR Track 1 = Prime
AND 1 XR Track 2 = Prime
AND 1 Enable Used = Yes
And 1 Enable Pickup = 5 sec
AND 1 Enable Drop = 0 sec
AND 1 Wrap Used = No

ADVANCED: MS restart
MS/GCP Restart Used = No

ADVANCED: out of service
OOS Control = Display+OOS IPs
OOS Timeout = Yes
OOS Timeout = 1 hrs

ADVANCED: out of service 2
T1 OOS Control = OOS Input 1
T2 OOS Control = OOS Input 1

ADVANCED: track wrap circuits
Wrap LOS Timer = 5 sec
Track 1 Wrap Used = No
Track 2 Wrap Used = No

ADVANCED: trk 1 overrides
Track 1 : All Predictors Override Used = No

ADVANCED: trk 2 overrides
Track 2 : All Predictors Override Used = No

ADVANCED: OR logic
OR 1 Used = No
OR 2 Used = No
OR 3 Used = No
OR 4 Used = No

ADVANCED: internal I/O 1
Pass Thrus = No
Int.1 Sets = Not Used
Int.1 Set by = Not Used
Int.2 Sets = Not Used
Int.2 Set by = Not Used
Int.3 Sets = Not Used
Int.3 Set by = Not Used
Int.4 Sets = Not Used
Int.4 Set by = Not Used

ADVANCED: internal I/O 2
Int.5 Sets = Not Used
Int.5 Set by = Not Used
Int.6 Sets = Not Used
Int.6 Set by = Not Used
Int.7 Sets = Not Used
Int.7 Set by = Not Used
Int.8 Sets = Not Used
Int.8 Set by = Not Used

ADVANCED: internal I/O 3
Int.9 Sets = Not Used
Int.9 Set by = Not Used
Int.10 Sets = Not Used
Int.10 Set by = Not Used
Int.11 Sets = Not Used
Int.11 Set by = Not Used
Int.12 Sets = Not Used
Int.12 Set by = Not Used

ADVANCED: internal I/O 4
Int.13 Sets = Not Used
Int.13 Set by = Not Used
Int.14 Sets = Not Used
Int.14 Set by = Not Used
Int.15 Sets = Not Used
Int.15 Set by = Not Used
Int.16 Sets = Not Used
Int.16 Set by = Not Used

ADVANCED: site options
Daylight Savings = On
Units = Standard
Maint Call Rpt IP Used = No
Emergency Activate IP = No
EZ/EX Logging = Change
EZ/EX Point Change = 3

CONTINUED ON SHEET 8

4000 GCP PROGRAMMING SETUP

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN		
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: S-87.94	
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)		
IN SERVICE: - -	SANDUSKY DISTRICT	FILE No. R-	
	CADD or DWG. No. SNCS08794.07	SHEET No. 7 of 22	

REVISION INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

SSCC
Gates Used = Yes
SSCC1+2 GPs Coupled = Yes
Min Activation = 0 sec
Rmt Activation Cancel= 2 min
Bell On Gate Rising = No
Mute Bell On Gate Down = No
SSCCIV Controller Used = No

SSCC: 1
SSCC-1 Activation = AND 1 XR
SSCC-1 Gate Delay = 4 sec
SSCC-1 Number of GPs = 1
SSCC-1 Number of GDs = 2
SSCC 1:Flash Rate = 40
SSCC 1:Low Battery Detection = No
SSCC 1:Flash Sync = master
SSCC 1:Invert Gate Output = No
SSCC 1:Lamp Neutral Test = On
Aux-1 Xng Ctrl Used = No

SSCC: 2
SSCC-2 Activation = AND 1 XR
SSCC-2 Gate Delay = 4 sec
SSCC-2 Number of GPs = 0
SSCC-2 Number of GDs = 0
SSCC 2:Flash Rate = 40
SSCC 2:Low Battery Detection = No
SSCC 2:Flash Sync = slave
SSCC 2:Invert Gate Output = No
SSCC 2:Lamp Neutral Test = On
Aux-2 Xng Ctrl Used = No

OUTPUT: assignment page 1
OUT 1.1 = Not Used
OUT 1.2 = Not Used
OUT 2.1 = Not Used
OUT 2.2 = Not Used

INPUT: assignment page 1
IN 1.1 = Not Used
IN 1.2 = Not Used
IN 2.1 = Not Used
IN 2.2 = Not Used

IO: assignment SSCC
OUT GC 1 = Gate Output 1
OUT GC 2 = Gate Output 2
IN 7.1 = Not Used
IN 7.2 = GD 1.2
IN 7.3 = AND 1 XR Enable
IN 7.4 = GD 1.1
IN 7.5 = GP 1.1
IN 8.1 = Not Used
IN 8.2 = Out Of Service IP 1
IN 8.3 = Not Used
IN 8.4 = Not Used
IN 8.5 = Not Used

SEAR
SEAR Subnode = 3
DI 1 = Gnd Flt Tester 1
DI 2 = Not Used
Rly 1 = Ground Fault Test
Rly 2 = AC Control

SEAR: inputs
SP 2.1 = POK 1
SP 3.1 = Not Used
SP 4.1 = Not Used
SP 5.1 = Not Used
SP 6.1 = Not Used

SEAR: slot 1-4 inputs
IN 1.1 = Not Used
IN 1.2 = Not Used
IN 2.1 = Not Used
IN 2.2 = Not Used
IN 3.1 = Not Used
IN 3.2 = Not Used
IN 4.1 = Not Used
IN 4.2 = Not Used

SEAR: inputs slot 5
IN 5.1 = Not Used
IN 5.2 = Not Used

SEAR: inputs slot 6
IN 6.1 = Not Used
IN 6.2 = Not Used

SEAR: slot 7-8 inputs
IN 7.1 = TSS 1
IN 8.1 = TSS 2
IN 8.3 = POK 2
IN 8.4 = Not Used
IN 8.5 = Not Used

SITE: programming
Radio Subnode = 1
Field Password = Off
Low Battery Enabled = Off

Configuration Package File

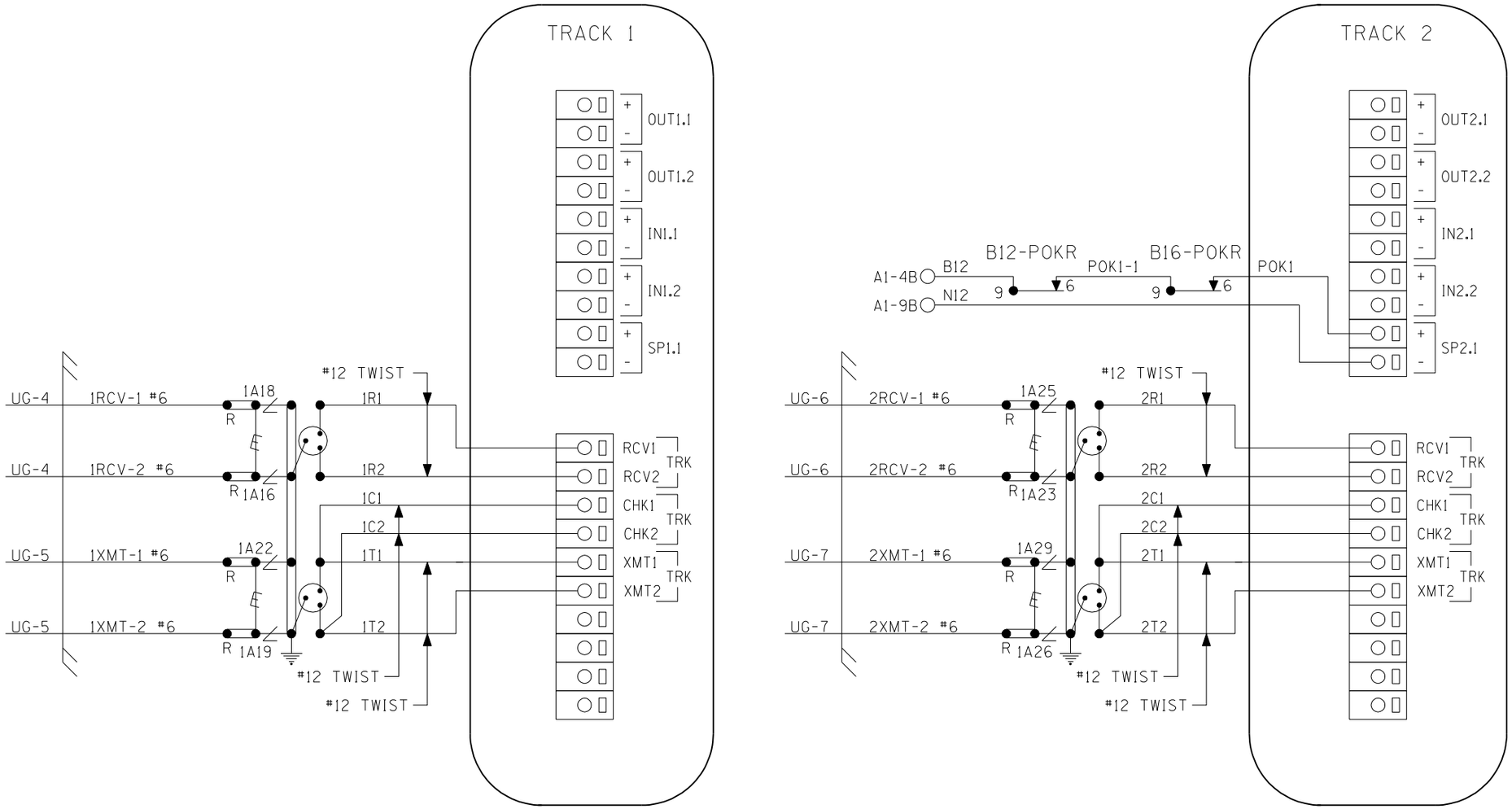
Filename: Sncs08794.pac

4000 GCP PROGRAMMING SETUP

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN		
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: S-87.94	
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)		
IN SERVICE: - -	SANDUSKY DISTRICT	FILE No. R-	
	CADD or DWG. No. SNCS08794.08	SHEET No. 8 of 22	

REVISION INITIALS													

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



PANEL "A2" CONNECTORS FOR MODULES (A80418)

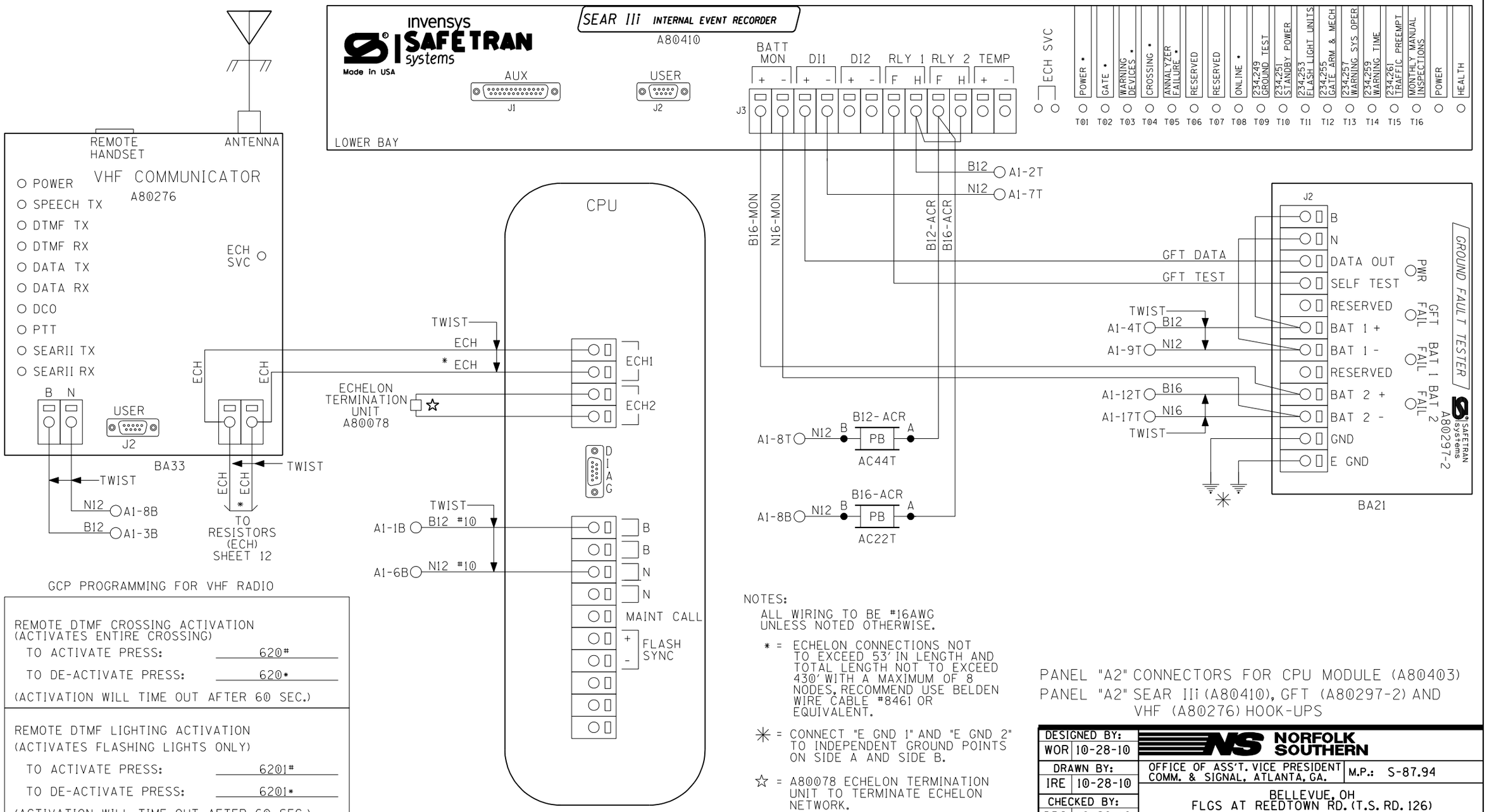
NOTE:
ALL WIRING TO BE #16AWG
UNLESS NOTED OTHERWISE.

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN		
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: S-87.94	
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)		
IN SERVICE: - -	SANDUSKY DISTRICT	FILE No. R-	
	CADD or DWG. No. SNCS08794.09	SHEET No. 9 of 22	

REVISION INITIALS												

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

* SEE SEAR IIi CONFIGURATION SUMMARY MANUAL FOR ALARM NUMBERS



GCP PROGRAMMING FOR VHF RADIO

REMOTE DTMF CROSSING ACTIVATION
(ACTIVATES ENTIRE CROSSING)

TO ACTIVATE PRESS: 620#

TO DE-ACTIVATE PRESS: 620*

(ACTIVATION WILL TIME OUT AFTER 60 SEC.)

REMOTE DTMF LIGHTING ACTIVATION
(ACTIVATES FLASHING LIGHTS ONLY)

TO ACTIVATE PRESS: 6201#

TO DE-ACTIVATE PRESS: 6201*

(ACTIVATION WILL TIME OUT AFTER 60 SEC.)

NOTES:

ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.

* = ECHELON CONNECTIONS NOT TO EXCEED 53' IN LENGTH AND TOTAL LENGTH NOT TO EXCEED 430' WITH A MAXIMUM OF 8 NODES, RECOMMEND USE BELDEN WIRE CABLE #8461 OR EQUIVALENT.

✳ = CONNECT "E GND 1" AND "E GND 2" TO INDEPENDENT GROUND POINTS ON SIDE A AND SIDE B.

☆ = A80078 ECHELON TERMINATION UNIT TO TERMINATE ECHELON NETWORK.

PANEL "A2" CONNECTORS FOR CPU MODULE (A80403)
PANEL "A2" SEAR IIi (A80410), GFT (A80297-2) AND VHF (A80276) HOOK-UPS

DESIGNED BY:	NORFOLK SOUTHERN	
WOR 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: S-87.94
DRAWN BY: IRE 10-28-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)	
CHECKED BY: DBS 10-29-10	SANDUSKY DISTRICT	FILE No. R-
IN SERVICE: - -	CADD or DWG. No. SNCS08794.10	SHEET No. 10 of 22

REVISION INITIALS												

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

TO CONFIGURE SEARIII PRESS SITE SETUP KEY.
USE ARROW KEYS TO MAKE SELECTION,
PRESS ENTER AFTER SELECTION HAS BEEN MADE.

	SITE SET UP PROCEDURE	
	FUNCTION	LED DISPLAY
	DATE/TIME	
	AUTOMATIC DST ADJUSTMENT	YES
	TIME ZONE	EST
	SITE NAME	REEDTOWN RD. (T.S. RD. 126)
	MILEPOST	S-87.94
	DOT #	681 420P
	TESTER TYPE	CROSSING
	DATE FORMAT	MM-DD-YYYY
	TEMP FORMAT	FAHRENHEIT
	INDICATE HOLD (SEC)	0
	INDICATE REFRESH (SEC)	60
	SITE ATCS	7.550.236.017.03.01
	SITE TYPE	NO COMMUNICATION
***	OFFICE ATCS ADDRESS	2.550.00.0000
***	PRIMARY HOP ADDR	7.RRR.LLL.GGG.XX.XX
***	BACKUP HOP ADDR 1	7.RRR.LLL.GGG.XX.XX
***	BACKUP HOP ADDR 2	7.RRR.LLL.GGG.XX.XX
***	POLL ID	1
***	MODE	GEN/ATCS
***	WAMS XID	DISABLED
***	OFFICE COMM DEVICE	MCM (ECHELON)
***	RADIO ATCS ADDR	7.RRR.LLL.GGG.01.01
***	PHONE #	(OFFICE NUMBER)
***	INIT STRING	
***	FIELD COMM	NONE
****	USER PORT	BAUD 57600, N, 8, 1, NONE
****	AUX PORT	BAUD 9600, N, 8, 1, NONE

VERIFY NUMBER OF BULBS: SENSOR #1	
CURR 1: LAMP SET UP	4 BULBS
CURR 2: LAMP SET UP	4 BULBS

VERIFY NUMBER OF BULBS: SENSOR #2	
CURR 1: LAMP SET UP	4 BULBS
CURR 2: LAMP SET UP	4 BULBS

	CONTROL SYSTEM CONFIGURATION MENU QUESTIONS	
	THE QUESTION	SELECT FROM MENU OPTION
	RESET NAMES AND MODULES?	YES
	RAILROAD NUMBER	550
	CROSSING CONFIGURATION	NORMAL
	AND 1 USED AS XR?	YES
	AND 2 USED AS XR?	NO
	AND 3 USED AS XR?	NO
	AND 4 USED AS XR?	NO
	AND 5 USED AS XR?	NO
	AND 6 USED AS XR?	NO
	AND 7 USED AS XR?	NO
	AND 8 USED AS XR?	NO
*	XR CONTROLLED BY FOREIGN RR	
	ENTRANCE GATES	2
*	GATES CONTROLLED BY FOREIGN RR	
	GATE POSITION FAIL TIME (SECONDS)	20
	BATTERY BANKS	2
	BATTERY MON USED	YES
	INTERNAL CROSSING CONTROLLERS	2
	EXTERNAL CROSSING CONTROLLERS	0
	VHF COMMUNICATOR	YES
	DTMF ACTIVATION	YES
*****	ACTIVATION CODE	620
	ACTIVATION TIMEOUT (SECONDS)	60
	ILOD MODULES	2
	ANY LED BULBS USED	NO
	AUTO INSPECTIONS	NO
	BELL SENSORS	1
**	BELL SENSOR TSS1	YES
**	BELL SENSOR TSS2	NO
**	BELL SENSOR TSS3	NO
**	BELL SENSOR TSS4	NO
**	BELL SENSOR TSS5	NO
**	BELL SENSOR TSS6	NO
**	BELL SENSOR TSS7	NO
**	BELL SENSOR TSS8	NO

CONTROL SYSTEM CONFIGURATION MENU QUESTIONS (CONT.)	
BELL ON	GATES LOWERING
GFT'S	YES
BATTERIES ON GFTI	2
GATE TIP SENSORS	YES
RTU	NO
VHF VOICE CHANNEL	2
VHF DATA CHANNEL	2
USE CELL MODEM NON-CRITICAL FEATURE	NO
FULL APPROACH MOVES ALARM	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
GCP4K ATCS SUBNODE	16

NOTES:

* = DISPLAYED IF CROSSING CONFIGURATION IS SPLIT GATE

** = OPTIONS: IF BELL SENSOR = 0, THEN BELL FIELDS ARE NOT USED.

*** = IF SITE TYPE = NO COMMUNICATION, THEN THESE OPTIONS ARE NOT DISPLAYED

**** = THESE SETTINGS SHOULD BE LEFT AT THE DEFAULT SETTING.

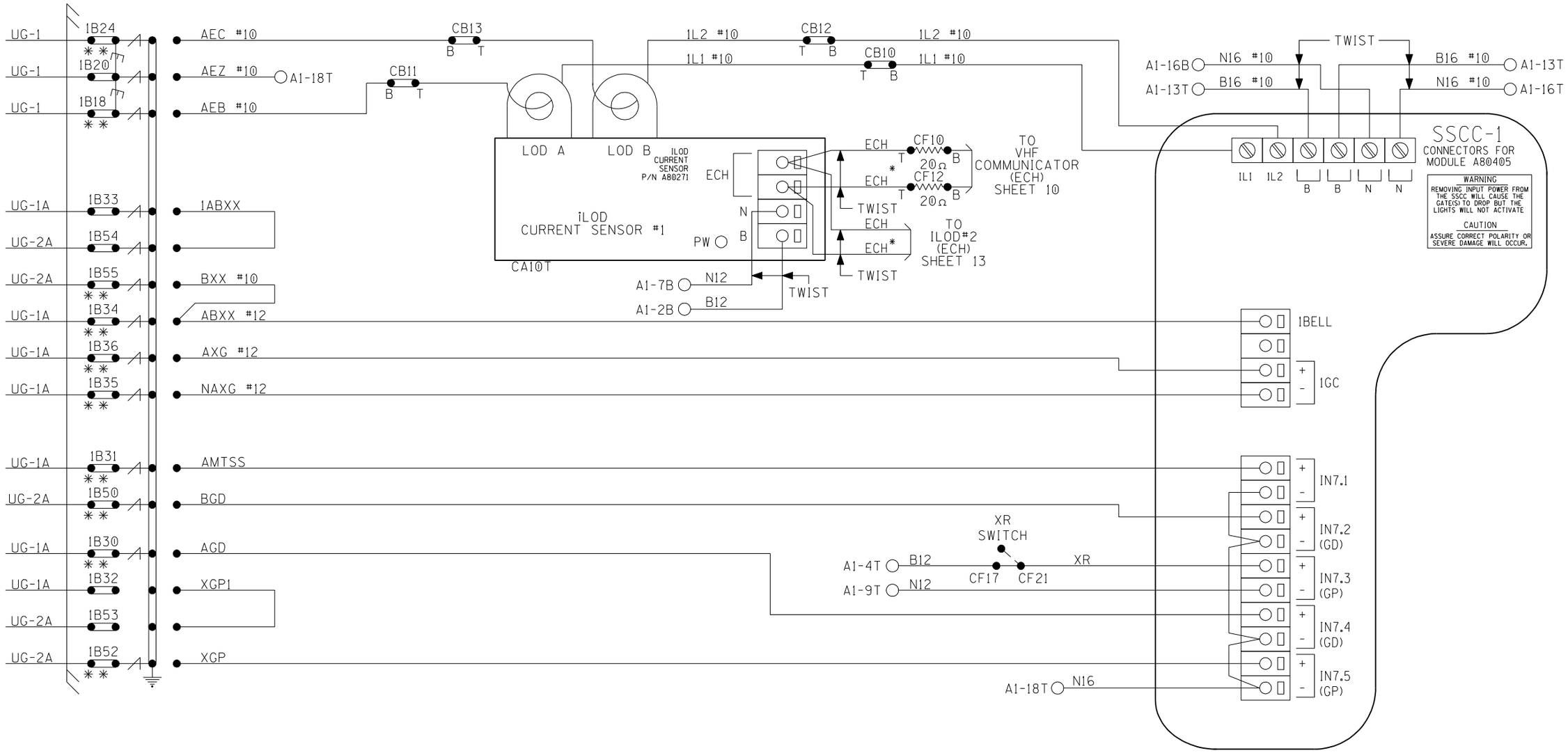
***** = USE LAST 3 NUMBERS FROM DOT NUMBER

SEAR III PROGRAMMING SETUP

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN		
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: S-87.94	
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)		
IN SERVICE: - -	SANDUSKY DISTRICT	FILE No. R-	
	CADD or DWG. No. SNCS08794.11	SHEET No. 11 of 22	

REVISION INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



NOTES: ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.

* = ECHELON CONNECTIONS NOT TO EXCEED 53' IN LENGTH AND TOTAL LENGTH NOT TO EXCEED 430' WITH A MAXIMUM OF 8 NODES, RECOMMEND USE BELDEN WIRE CABLE #8461 OR EQUIVALENT.

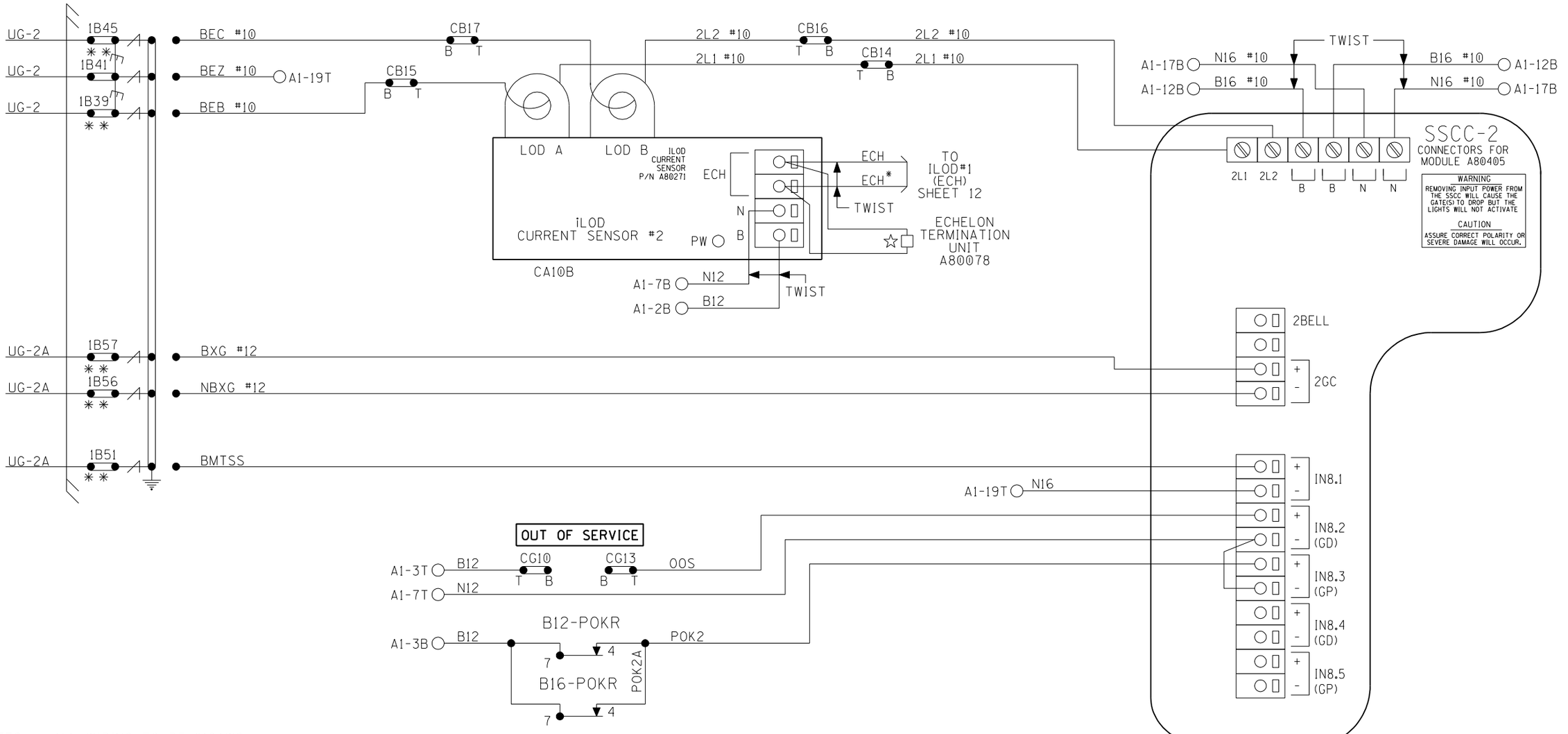
** = TEST LINKS MUST BE OPENED TEMPORARILY FOR NEW COLD START OF NEW OR REPLACEMENT SSCC MODULE AND CAN ONLY BE CLOSED IN SEQUENCE WITH MFR. INSTRUCTIONS: SECTION 8 OF THE GCP 4000 REFERENCE MANUAL.

PANEL "A2" CONNECTORS FOR SSCC#1 MODULE (A80405) iLOD#1 (A80271) HOOK-UP

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: S-87.94
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)
IN SERVICE: - -	SANDUSKY DISTRICT — FILE No. R-
	CADD or DWG. No. SNCS08794.12 — SHEET No. 12 of 22

REVISION INITIALS												

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



NOTES: ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.

* = ECHELON CONNECTIONS NOT TO EXCEED 53' IN LENGTH AND TOTAL LENGTH NOT TO EXCEED 430' WITH A MAXIMUM OF 8 NODES, RECOMMEND USE BELDEN WIRE CABLE #8461 OR EQUIVALENT.

** = TEST LINKS MUST BE OPENED TEMPORARILY FOR NEW COLD START OF NEW OR REPLACEMENT SSCC MODULE AND CAN ONLY BE CLOSED IN SEQUENCE WITH MFR. INSTRUCTIONS: SECTION 8 OF THE GCP 4000 REFERENCE MANUAL.

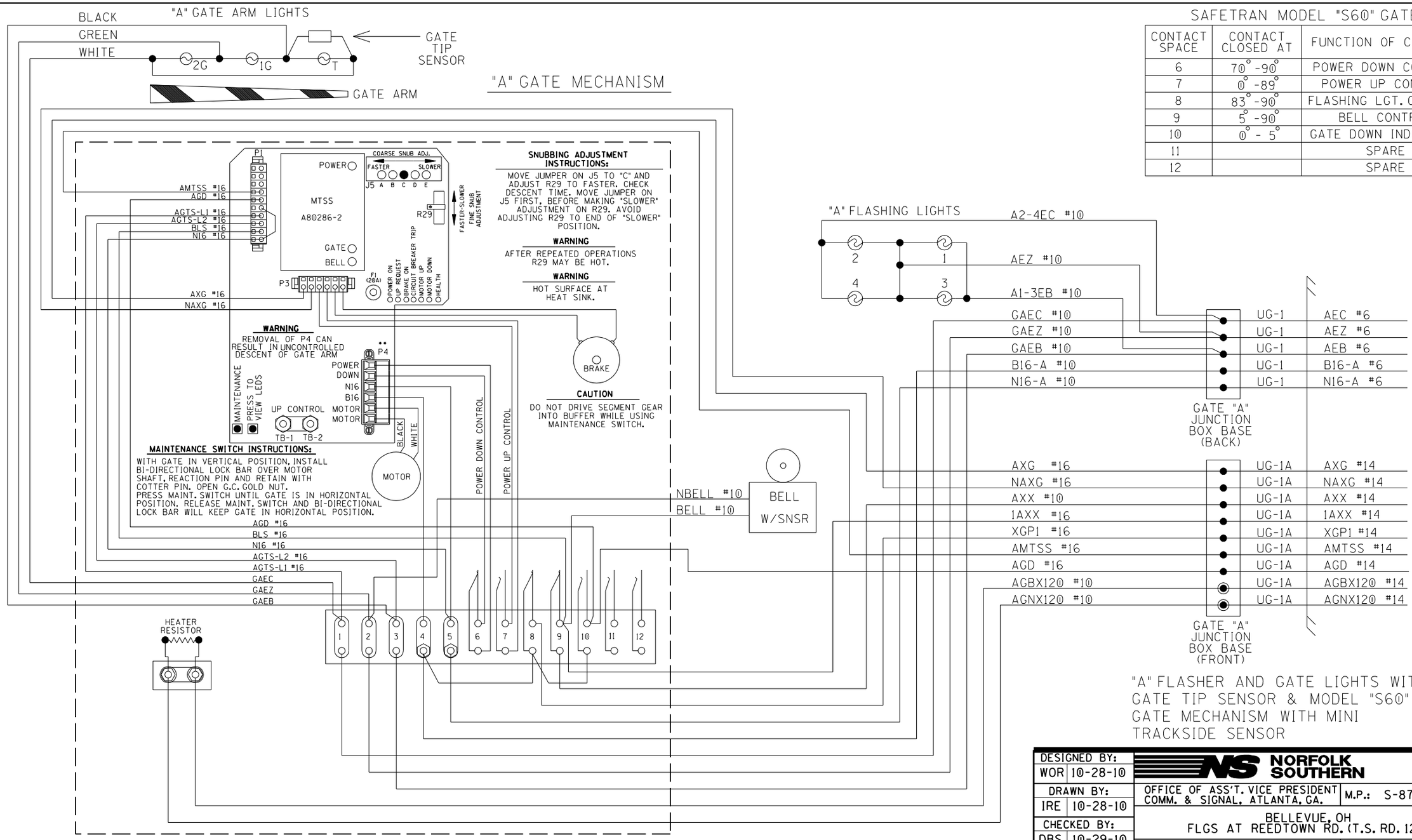
☆ = A80078 ECHELON TERMINATION UNIT TO TERMINATE ECHELON NETWORK.

PANEL "A2" CONNECTORS FOR SSCC#2 MODULE (A80405)
PANEL "A3" iLOD#2 (A80271) HOOK-UP

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN		
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: S-87.94	
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)		
IN SERVICE: - -	SANDUSKY DISTRICT	FILE No. R-	
	CADD or DWG. No. SNCS08794.13	SHEET No. 13 of 22	

REVISION INITIALS												

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



SAFETRAN MODEL "S60" GATE

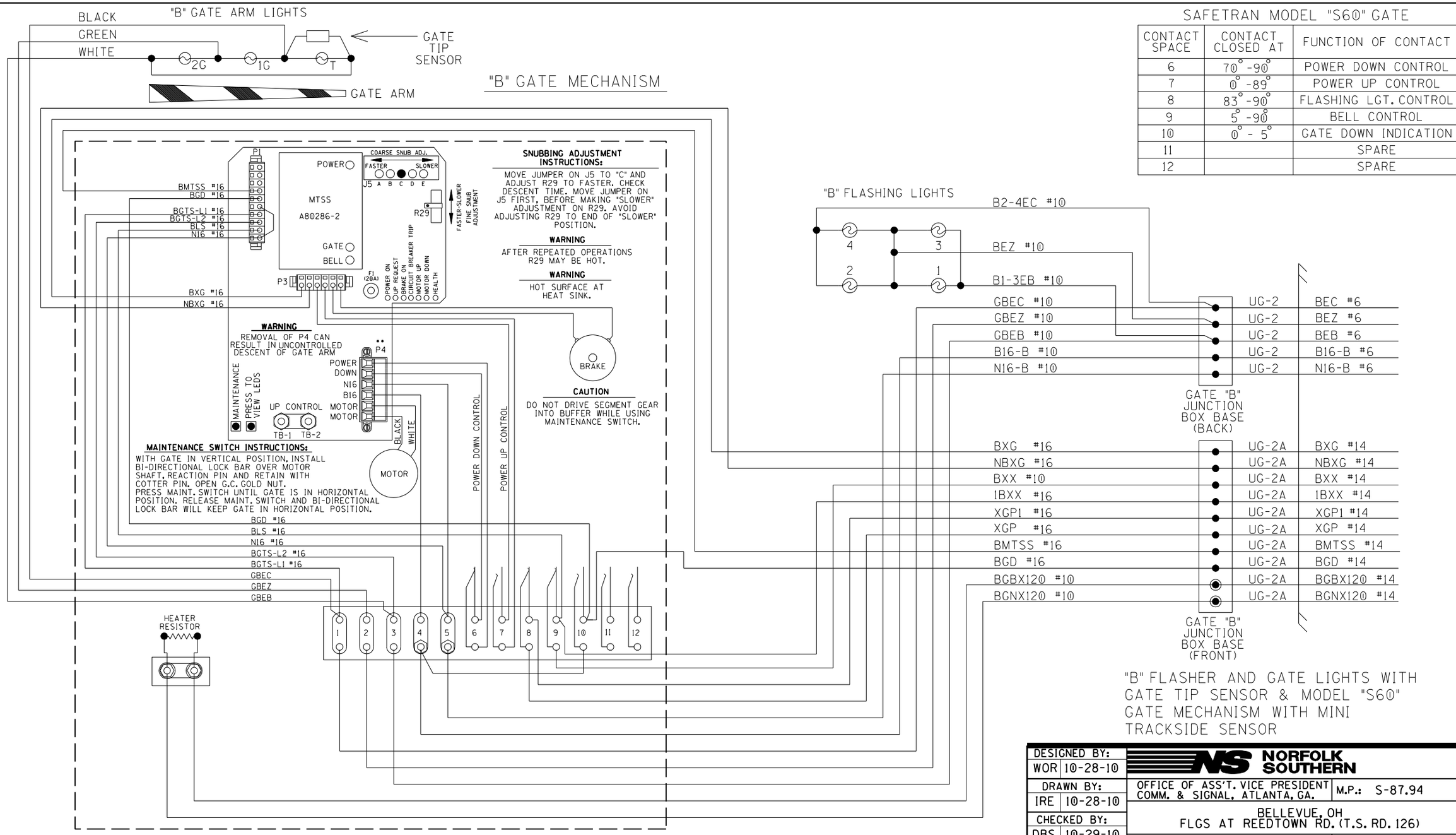
CONTACT SPACE	CONTACT CLOSED AT	FUNCTION OF CONTACT
6	70° -90°	POWER DOWN CONTROL
7	0° -89°	POWER UP CONTROL
8	83° -90°	FLASHING LGT. CONTROL
9	5° -90°	BELL CONTROL
10	0° - 5°	GATE DOWN INDICATION
11		SPARE
12		SPARE

"A" FLASHER AND GATE LIGHTS WITH GATE TIP SENSOR & MODEL "S60" GATE MECHANISM WITH MINI TRACKSIDE SENSOR

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: S-87.94
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)
IN SERVICE: - -	SANDUSKY DISTRICT — FILE No. R-
	CADD or DWG. No. SNCS08794.14 — SHEET No. 14 of 22

REVISION INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



SAFETRAN MODEL "S60" GATE

CONTACT SPACE	CONTACT CLOSED AT	FUNCTION OF CONTACT
6	70°-90°	POWER DOWN CONTROL
7	0°-89°	POWER UP CONTROL
8	83°-90°	FLASHING LGT. CONTROL
9	5°-90°	BELL CONTROL
10	0°-5°	GATE DOWN INDICATION
11		SPARE
12		SPARE

"B" FLASHER AND GATE LIGHTS WITH GATE TIP SENSOR & MODEL "S60" GATE MECHANISM WITH MINI TRACKSIDE SENSOR

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: S-87.94
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)
IN SERVICE: - -	SANDUSKY DISTRICT — FILE No. R-
	CADD or DWG. No. SNCS08794.15 — SHEET No. 15 of 22

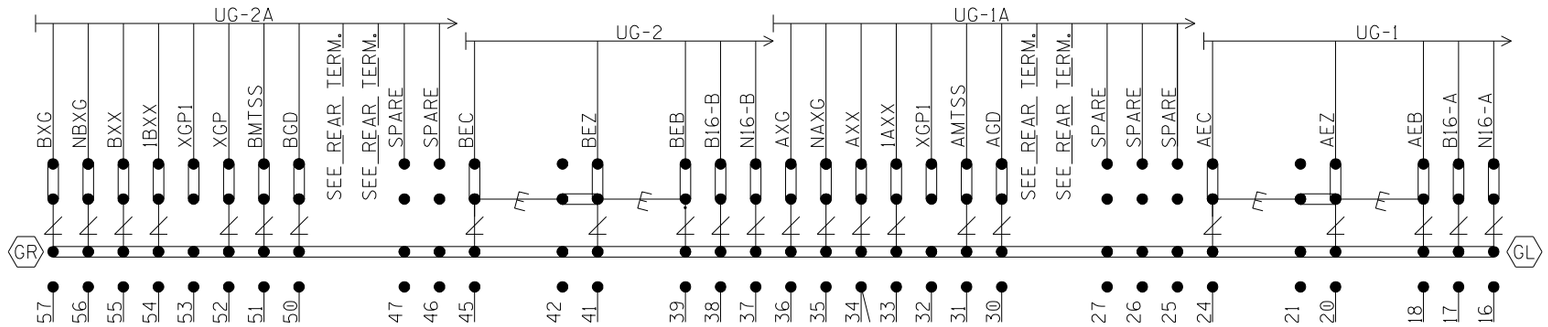
REVISION INITIALS

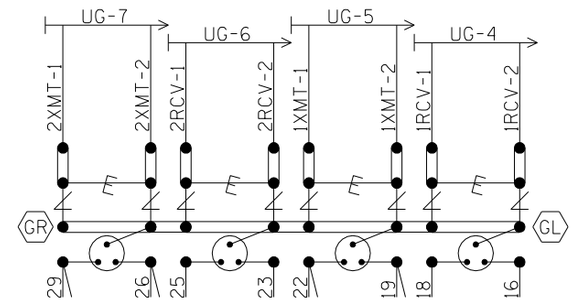
PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

LEFT TWO ROWS TERMINAL BOARD 1

"1A"

"1B"





NOTE: INSTALL TEST LINKS ON ALL TRACK WIRES AND ON ALL LOW VOLTAGE UNDERGROUND CABLE TERMINATIONS.

SEE FARADAY SHIELD DETAILS - 1A & 1B FOR HOW THIS PORTION OF THE FARADAY SHIELD IS PREDRILLED. ONLY INSTALL AND USE THE TERMINALS NEEDED.

= Heavy Duty Equalizer (022700-1X)

= Clearview Lightning Arrester (022585-1X)

= LPC-10560-51

GR / GL = TERMINALS GROUNDED TO SHIELD. 4 POST BLOCKS USE EITHER - GR - SERMMI PART NO. 61278 GL - SERMMI PART NO. 61278-1.

BACKBOARD DETAIL - 1A & 1B

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN		
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: S-87.94	
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)		
IN SERVICE: - -	SANDUSKY DISTRICT	FILE No. R-	
	CADD or DWG. No. SNCS08794.16	SHEET No. 16 of 22	

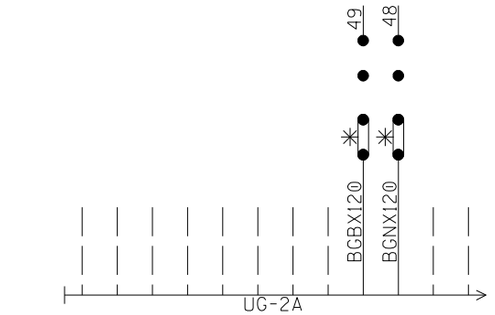
REVISION INITIALS												

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

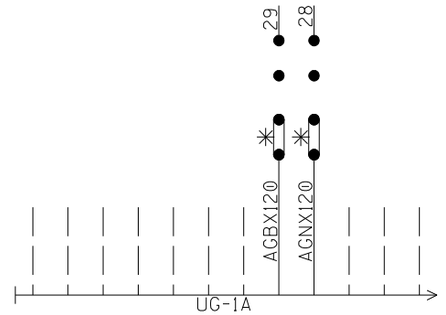
REAR VIEW OF LEFT TWO ROWS TERMINAL BOARD 1

"1A"

"1B"



(SEE PREVIOUS SHEET FOR OTHER WIRES IN CABLE)



(SEE PREVIOUS SHEET FOR OTHER WIRES IN CABLE)

NOTE: ALL 120VAC AND ABOVE WILL BE WIRED TO THE REAR OF FARADAY BACKBOARD. INSULATED NUTS MUST BE USED ON ALL TERMINALS.

✳ = CLOSED DURING WINTER MONTHS

REAR OF FARADAY BACKBOARD
REAR BACKBOARD DETAIL - 1A & 1B

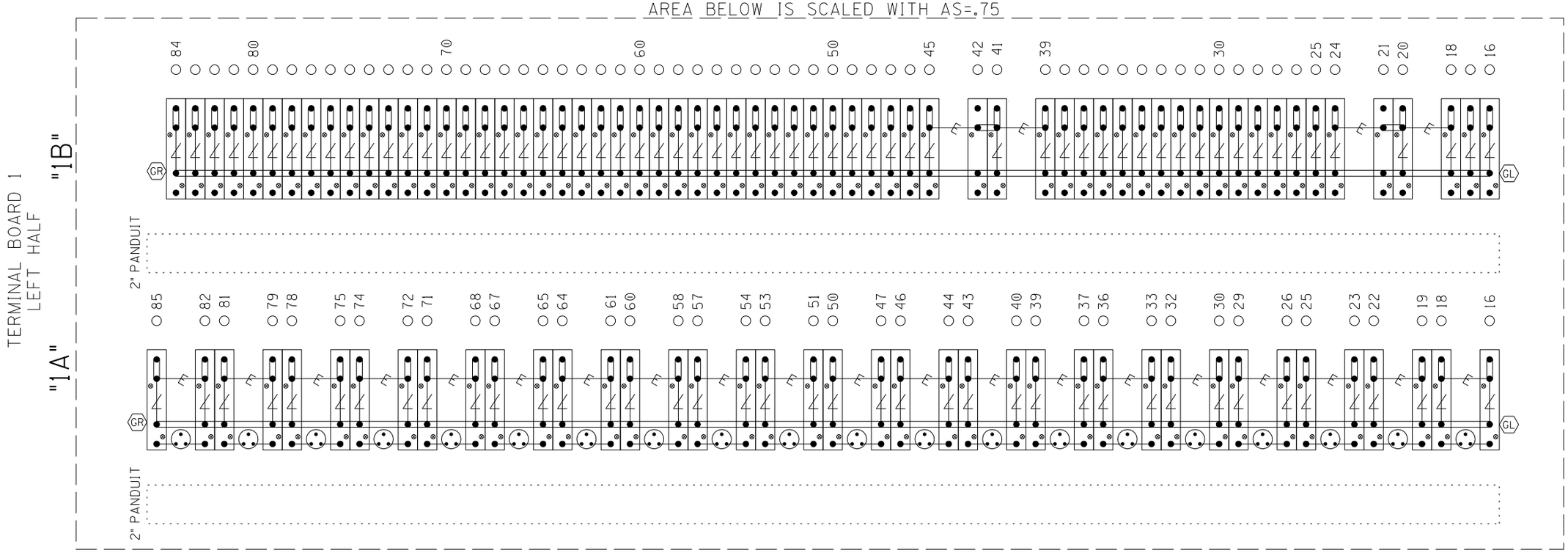
DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: S-87.94
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)
IN SERVICE: - -	SANDUSKY DISTRICT — FILE No. R-
	CADD or DWG. No. SNCS08794.17 — SHEET No. 17 of 22

REVISION INITIALS													

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

NOTE: IF THE FARADAY SHIELD WOULD EVER NEED TO BE DRILLED IN THE FIELD, PROPER PRECAUTIONS MUST BE TAKEN TO INSURE METAL SHAVINGS DO NOT GET INTO EXISTING TERMINALS/WIRES.

AREA BELOW IS SCALED WITH AS=.75



= Heavy Duty Equalizer (022700-1X)

Clearview = Lightning Arrester (022585-1X)

= LPC-10560-51

TERMINAL BOARD 1
LEFT TWO ROWS
FARADAY SHIELD DETAIL - 1A & 1B

= INDICATES PLACEMENT OF PANDUIT

THIS SHEET IS FOR REFERENCE ONLY, TO REFLECT HOW THE FARADAY SHIELD IS PREDRILLED. ONLY INSTALL AND USE THE TERMINALS NEEDED.

GR / GL = TERMINALS GROUNDED TO SHIELD. 4 POST BLOCKS USE EITHER -
GR - SERMMI PART NO. 61278
GL - SERMMI PART NO. 61278-1.

DESIGNED BY: WOR	10-28-10
DRAWN BY: IRE	10-28-10
CHECKED BY: DBS	10-29-10
IN SERVICE:	- -

NORFOLK SOUTHERN

OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: S-87.94

BELLEVUE, OH
FLGS AT REEDTOWN RD. (T.S. RD. 126)

SANDUSKY DISTRICT FILE No. R-

CADD or DWG. No. SNCS08794.18 SHEET No. 18 of 22

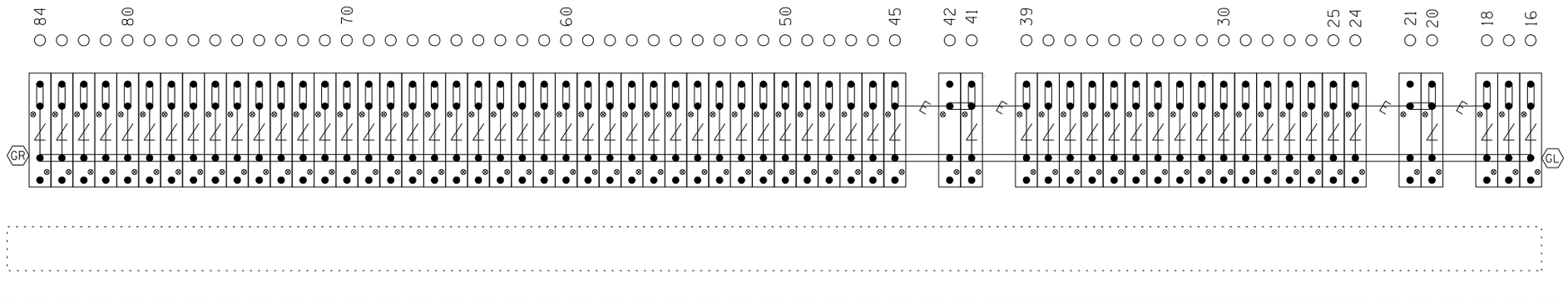
REVISION INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

NOTE: IF THE FARADAY SHIELD WOULD EVER NEED TO BE DRILLED IN THE FIELD, PROPER PRECAUTIONS MUST BE TAKEN TO INSURE METAL SHAVINGS DO NOT GET INTO EXISTING TERMINALS/WIRES.

AREA BELOW IS SCALED WITH AS=.75

TERMINAL BOARD 1
RIGHT HALF
"1C"



= Heavy Duty Equalizer (022700-1X)

Clearview = Lightning Arrester (022585-1X)

= LPC-10560-51

TERMINAL BOARD 1
RIGHT ROW
FARADAY SHIELD DETAIL - 1C

= INDICATES PLACEMENT OF PANDUIT

THIS SHEET IS FOR REFERENCE ONLY, TO REFLECT HOW THE FARADAY SHIELD IS PREDRILLED. ONLY INSTALL AND USE THE TERMINALS NEEDED.

GR / GL = TERMINALS GROUNDED TO SHIELD.
4 POST BLOCKS USE EITHER -
GR - SERMMI PART NO. 61278
GL - SERMMI PART NO. 61278-1.

DESIGNED BY: WOR	10-28-10
DRAWN BY: IRE	10-28-10
CHECKED BY: DBS	10-29-10
IN SERVICE:	- -

NORFOLK SOUTHERN

OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: S-87.94

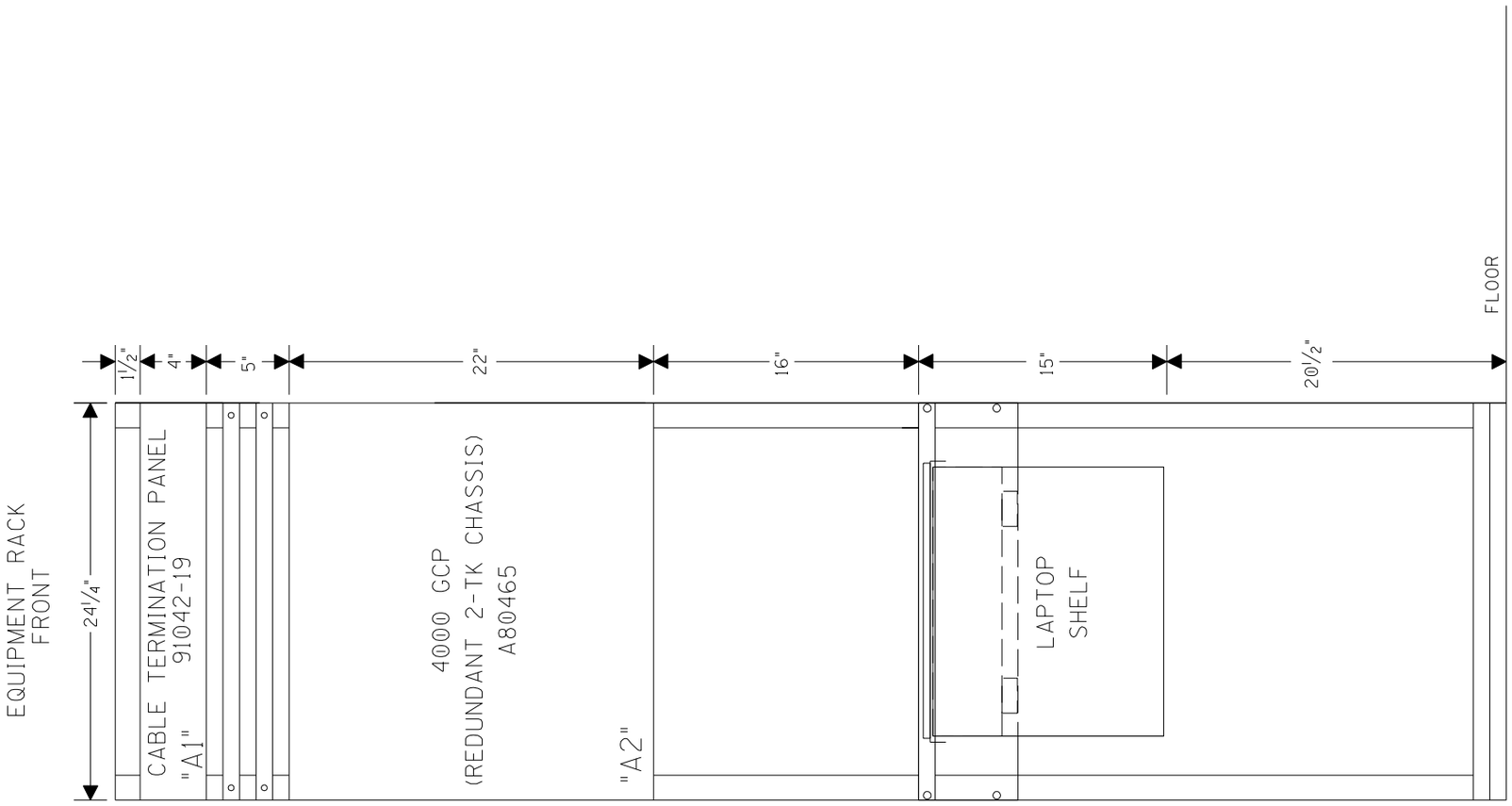
BELLEVUE, OH
FLGS AT REEDTOWN RD. (T.S. RD. 126)

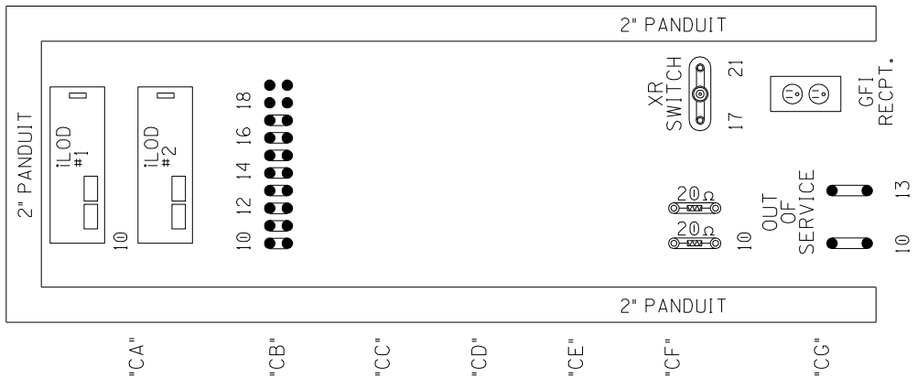
SANDUSKY DISTRICT | FILE No. R-

CADD or DWG. No. SNCS08794.19 | SHEET No. 19 of 22

REVISION INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



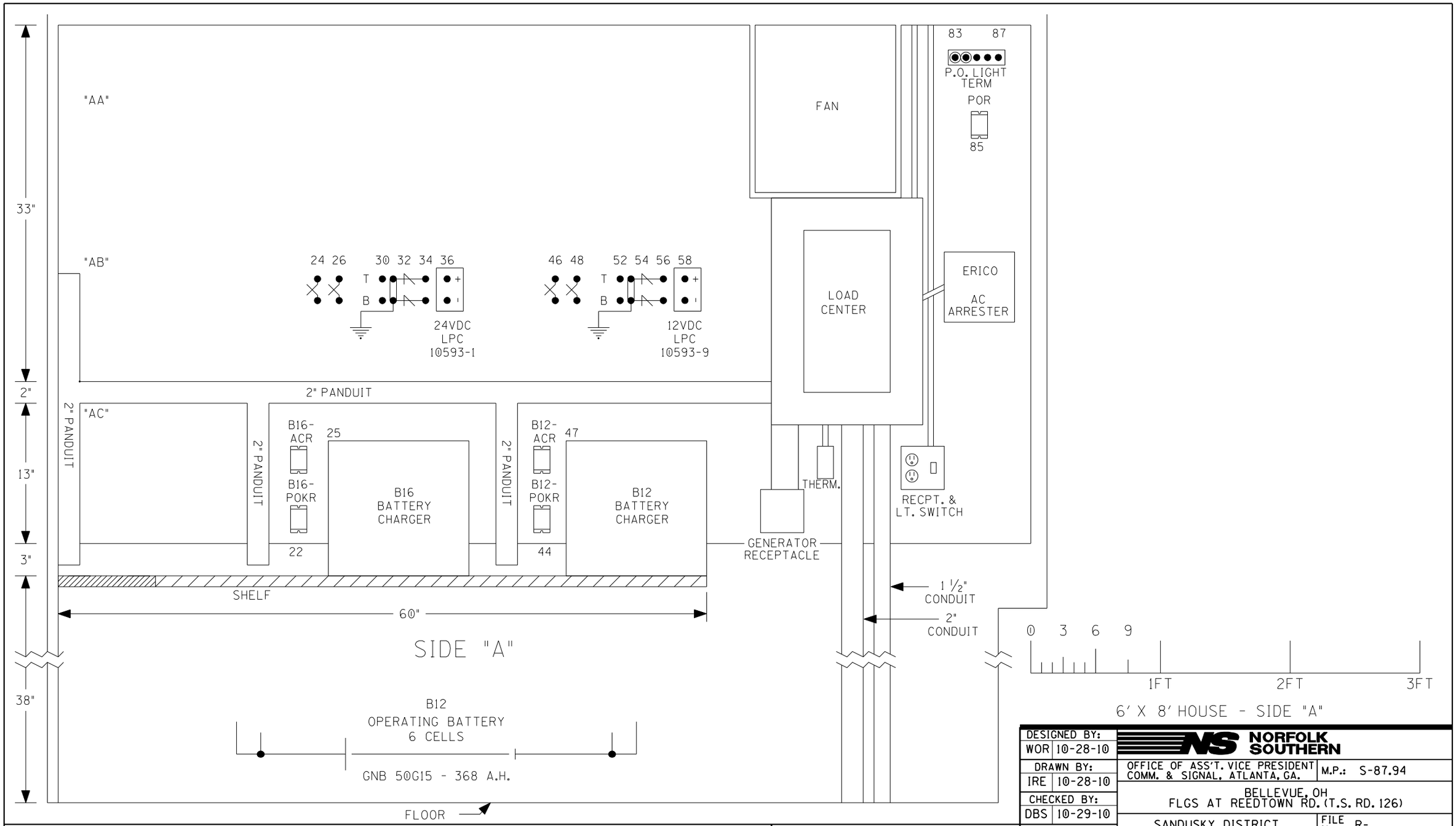


RACK PLACEMENT
6' X 8' HOUSE - SIDE "C"

DESIGNED BY: WOR 10-28-10	NORFOLK SOUTHERN		
DRAWN BY: IRE 10-28-10	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: S-87.94	
CHECKED BY: DBS 10-29-10	BELLEVUE, OH FLGS AT REEDTOWN RD. (T.S. RD. 126)		
IN SERVICE: - -	SANDUSKY DISTRICT	FILE No. R-	
	CADD or DWG. No. SNCS08794.20	SHEET No. 20 of 22	

REVISION INITIALS										

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



REVISION INITIALS											

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

DESIGNED BY:	
WOR	10-28-10
DRAWN BY:	
IRE	10-28-10
CHECKED BY:	
DBS	10-29-10
IN SERVICE:	
	- -

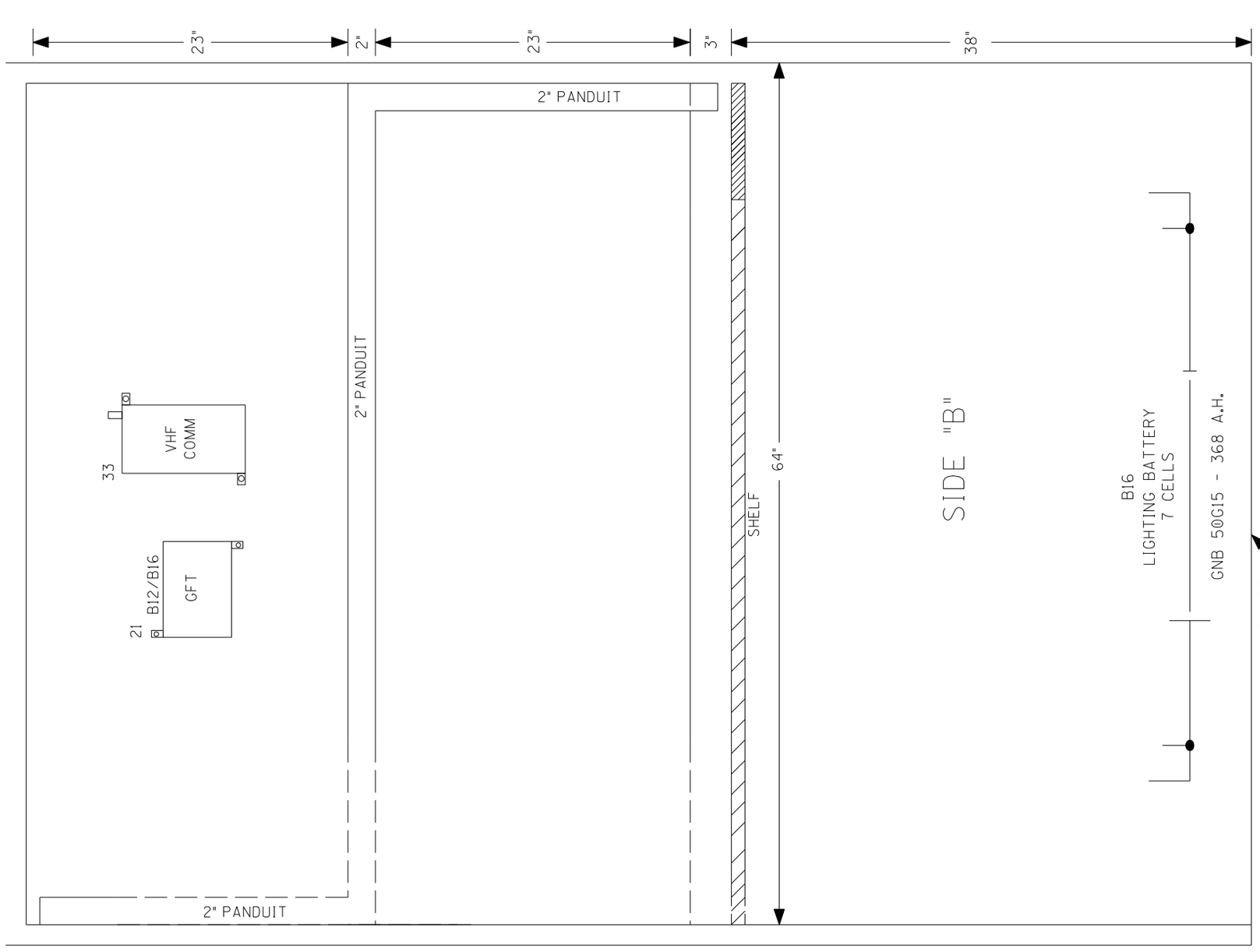
NORFOLK SOUTHERN

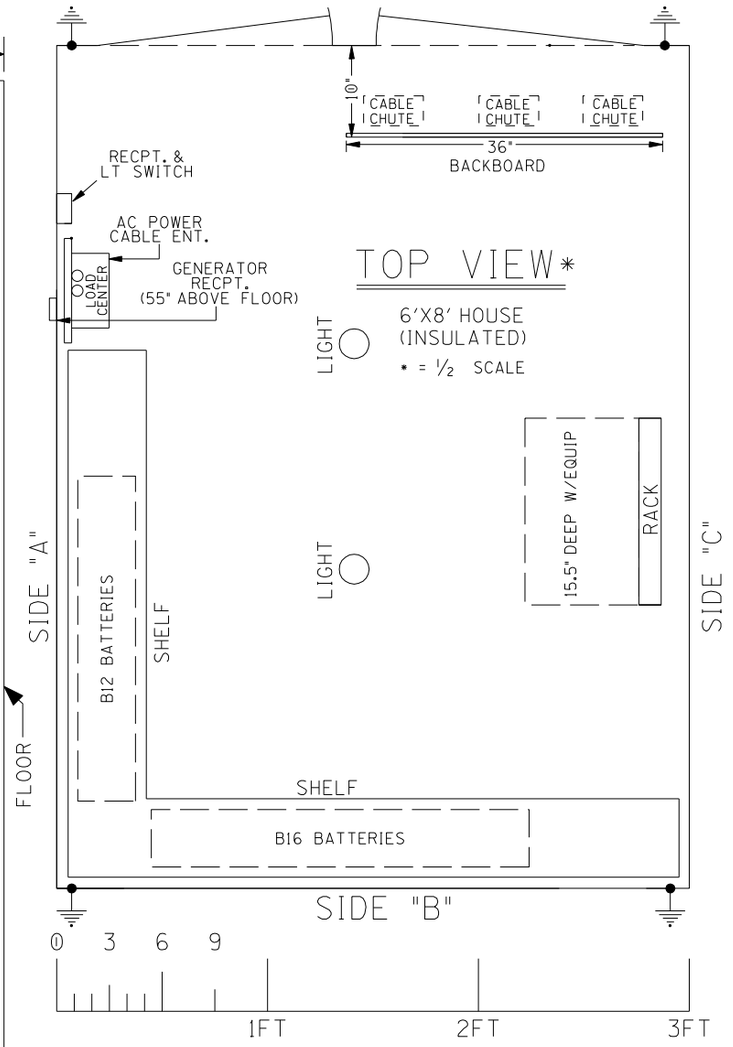
OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: S-87.94

BELLEVUE, OH
FLGS AT REEDTOWN RD. (T.S. RD. 126)

SANDUSKY DISTRICT — FILE No. R-

CADD or DWG. No. SNCS08794.21 — SHEET No. 21 of 22





6' X 8' HOUSE (SIDE "B" & TOP VIEW)

REVISION INITIALS		PROPERTY: NORFOLK SOUTHERN RAILWAY CO.	DESIGNED BY: WOR 10-28-10
			DRAWN BY: IRE 10-28-10
			CHECKED BY: DBS 10-29-10
			IN SERVICE: - -

NORFOLK SOUTHERN

OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: S-87.94

BELLEVUE, OH
FLGS AT REEDTOWN RD. (T.S. RD. 126)

SANDUSKY DISTRICT — FILE No. R-

CADD or DWG. No. SNCS08794.22 — SHEET No. 22 of 22

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

11/1/2010 9:14:53 AM

in

Case No(s). 10-1003-RR-FED

Summary: Correspondence Estimate, material list and design plans for Reedtown Road, DOT 481-620P, located in Bellevue, Seneca County, Oh electronically filed by Mr. Michael L Rappatta on behalf of Norfolk Southern Corp