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REVISIONS				
1	07-23-20	MST	PRS	JMW
NEW PLAN DRAWN ACCOUNT OF SHARON ROAD				
FILE: #10.0173				
IN SERVICE: XX-XX-XX				
PER: XXX			PRS	JMW

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

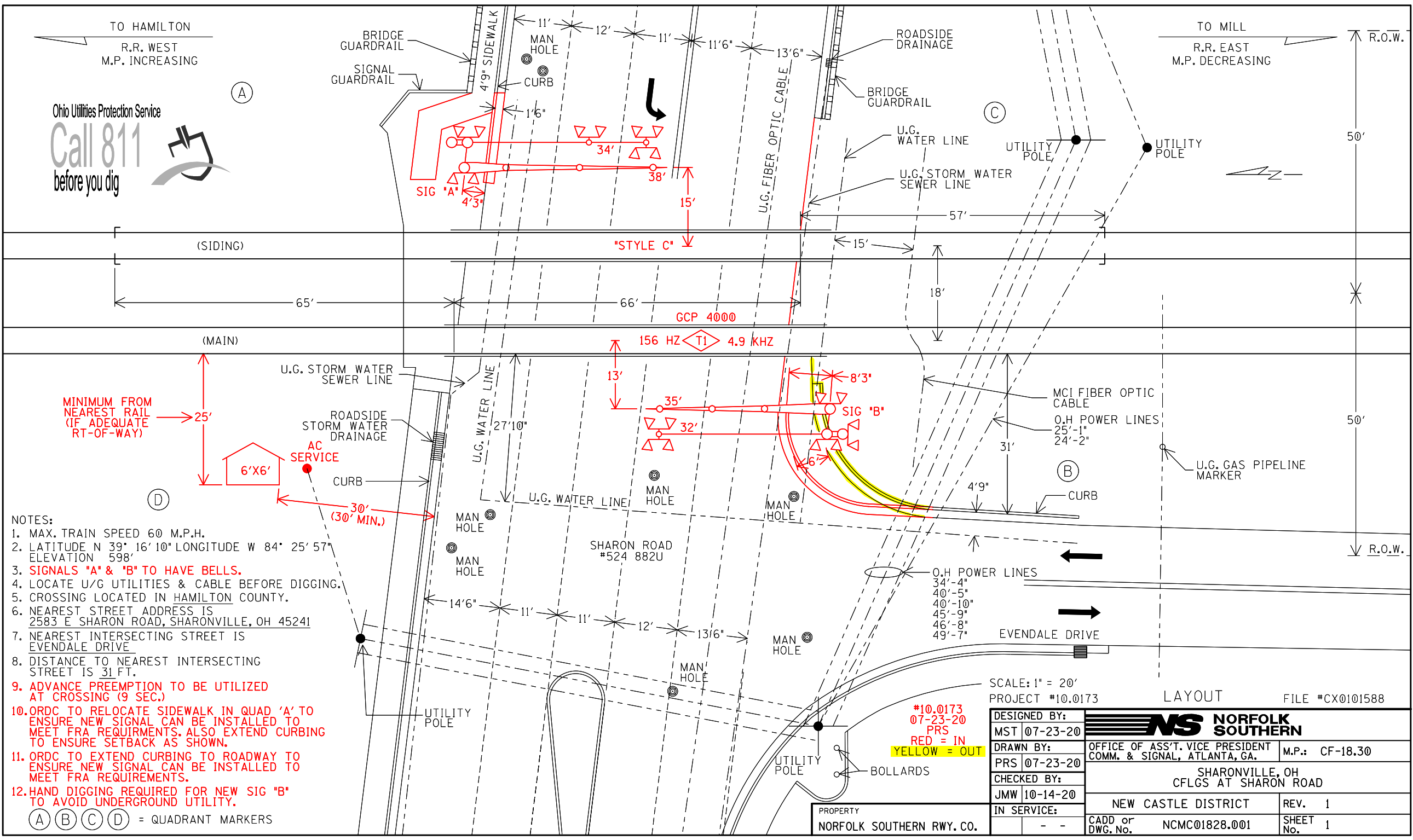
PROJECT ENGINEER COPY

PROPERTY
NORFOLK SOUTHERN R.WY. CO.

DESIGNED BY:			
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.:	CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD		
PRS 07-23-20			
CHECKED BY:			
JMW 10-14-20			
IN SERVICE:	NEW CASTLE DISTRICT	REV.	1
	CADD or DWG. No. NCMC01828.NX1	SHEET No.	1

TO HAMILTON
R.R. WEST
M.P. INCREASING

TO MILL
R.R. EAST
M.P. DECREASING



- NOTES:
1. MAX. TRAIN SPEED 60 M.P.H.
 2. LATITUDE N 39° 16' 10" LONGITUDE W 84° 25' 57" ELEVATION 598'
 3. SIGNALS "A" & "B" TO HAVE BELLS.
 4. LOCATE U/G UTILITIES & CABLE BEFORE DIGGING.
 5. CROSSING LOCATED IN HAMILTON COUNTY.
 6. NEAREST STREET ADDRESS IS 2583 E SHARON ROAD, SHARONVILLE, OH 45241
 7. NEAREST INTERSECTING STREET IS EVENDALE DRIVE
 8. DISTANCE TO NEAREST INTERSECTING STREET IS 31 FT.
 9. ADVANCE PREEMPTION TO BE UTILIZED AT CROSSING (9 SEC.)
 10. ORDC TO RELOCATE SIDEWALK IN QUAD 'A' TO ENSURE NEW SIGNAL CAN BE INSTALLED TO MEET FRA REQUIREMENTS. ALSO EXTEND CURBING TO ENSURE SETBACK AS SHOWN.
 11. ORDC TO EXTEND CURBING TO ROADWAY TO ENSURE NEW SIGNAL CAN BE INSTALLED TO MEET FRA REQUIREMENTS.
 12. HAND DIGGING REQUIRED FOR NEW SIG "B" TO AVOID UNDERGROUND UTILITY.
- (A) (B) (C) (D) = QUADRANT MARKERS

SCALE: 1" = 20'
PROJECT #10.0173 LAYOUT FILE #CX0101588

DESIGNED BY: MST 07-23-20	NS NORFOLK SOUTHERN	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY: PRS 07-23-20			
CHECKED BY: JMW 10-14-20	SHARONVILLE, OH CFLGS AT SHARON ROAD		
IN SERVICE: - -	NEW CASTLE DISTRICT	REV. 1	SHEET 1
PROPERTY NORFOLK SOUTHERN RWY. CO.	CADD or DWG. No. NCMC01828.001	SHEET No. 1	

#10.0173
07-23-20
PRS
RED = IN
YELLOW = OUT

TO HAMILTON
R.R. WEST
M.P. INCREASING

TO MILL
R.R. EAST
M.P. DECREASING

3881'
TO NEAREST
GCP WIRES

3881'
TO NEAREST
GCP WIRES

HIGH
TENSION
O.H.

CFLGS

RING-10

APP.
KEMPER ROAD

2612'
TO NEAREST
GCP WIRES

2607'
TO NEAREST
GCP WIRES

GCP4000
TI

12.8KHZ

156 HZ-4.9 KHZ

CFLGS

SHARON ROAD
#524 882U

3116'

2975'

100' I.J.
85'

0' 9'

85'
91' I.J.

1592' P.S.

3135' DERAIL

3320' P.S.

3444' P.S.

PROFILE

(A) - MF-NBS FSS-1D 250849-003 (156HZ)

(A) - NBS (348HZ)

(B) - MF-NBS 62775- () HZ ← FIELD TO PROVIDE
FREQUENCY

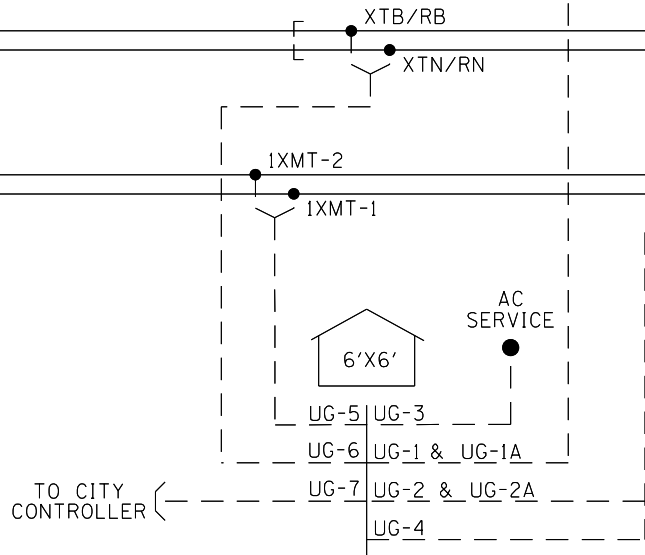
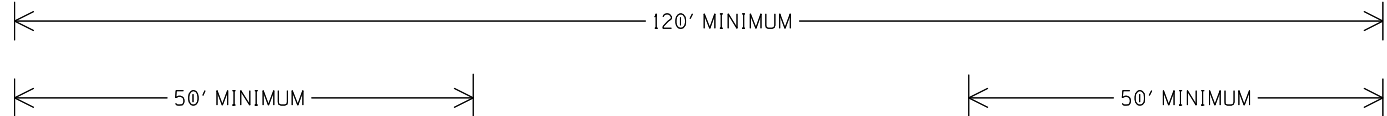
#10.0173
07-23-20
PRS
RED = IN
YELLOW = OUT

PROPERTY
NORFOLK SOUTHERN RWY. CO.

DESIGNED BY:	NS NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or DWG. No. NCMC01828.002	SHEET No. 2
JMW 10-14-20		
IN SERVICE:		

TO HAMILTON
R.R. WEST
M.P. INCREASING

TO MILL
R.R. EAST
M.P. DECREASING



SHARON ROAD
#524 882U

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
AGD
XGP1
AGBX120
AGNX120
SPARE
SPARE
SPARE
SPARE

UG-2A-12CUG #14
BXG
NBXG
BXX
1BXX
BGD
XGP1
XCP
BCBX120
BGNX120
SPARE
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-5-TW. PR. #6
1XMT-1
1XMT-2
UG-6-TW. PR. #6
XTB/RB
XTN/RN

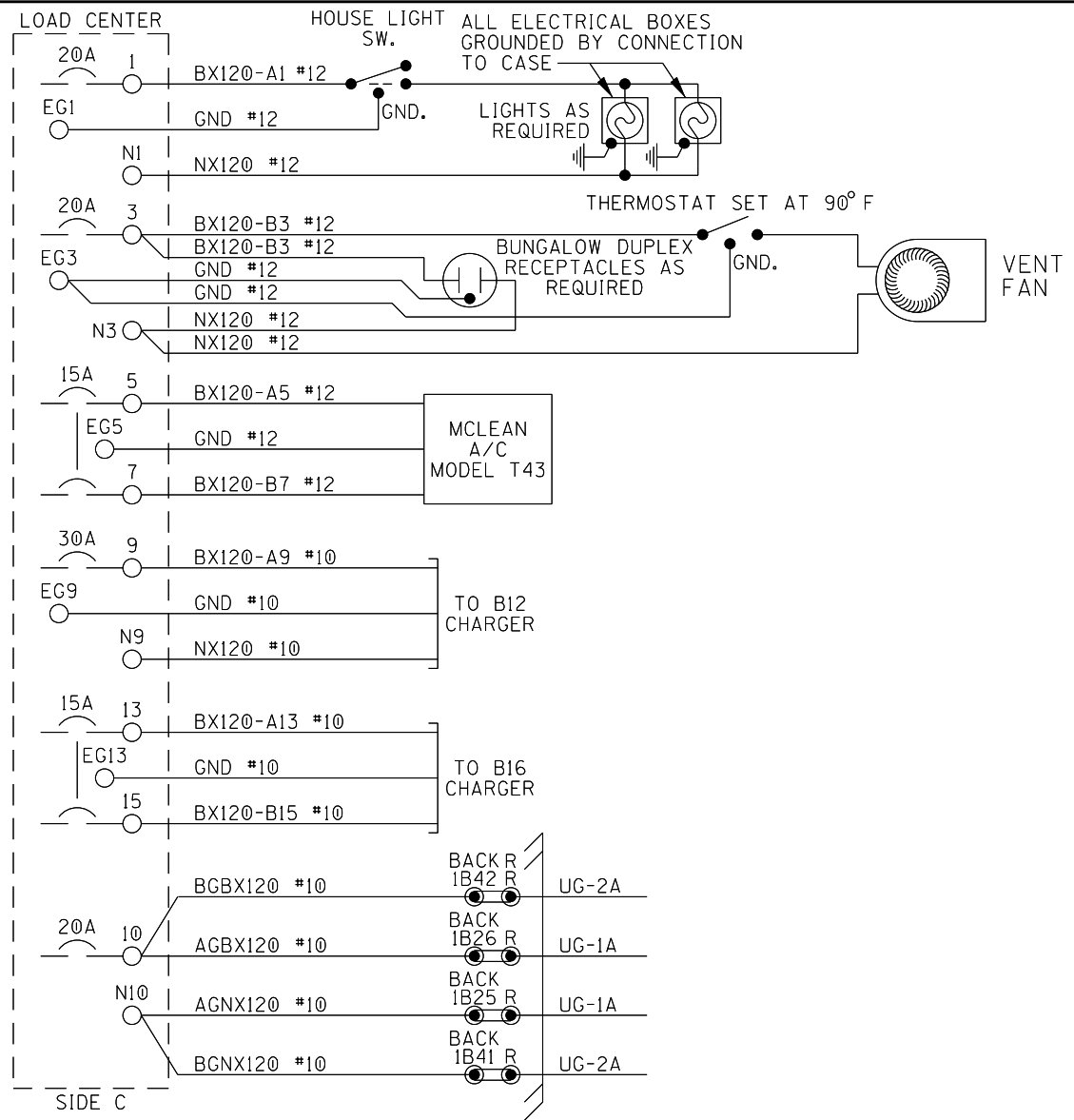
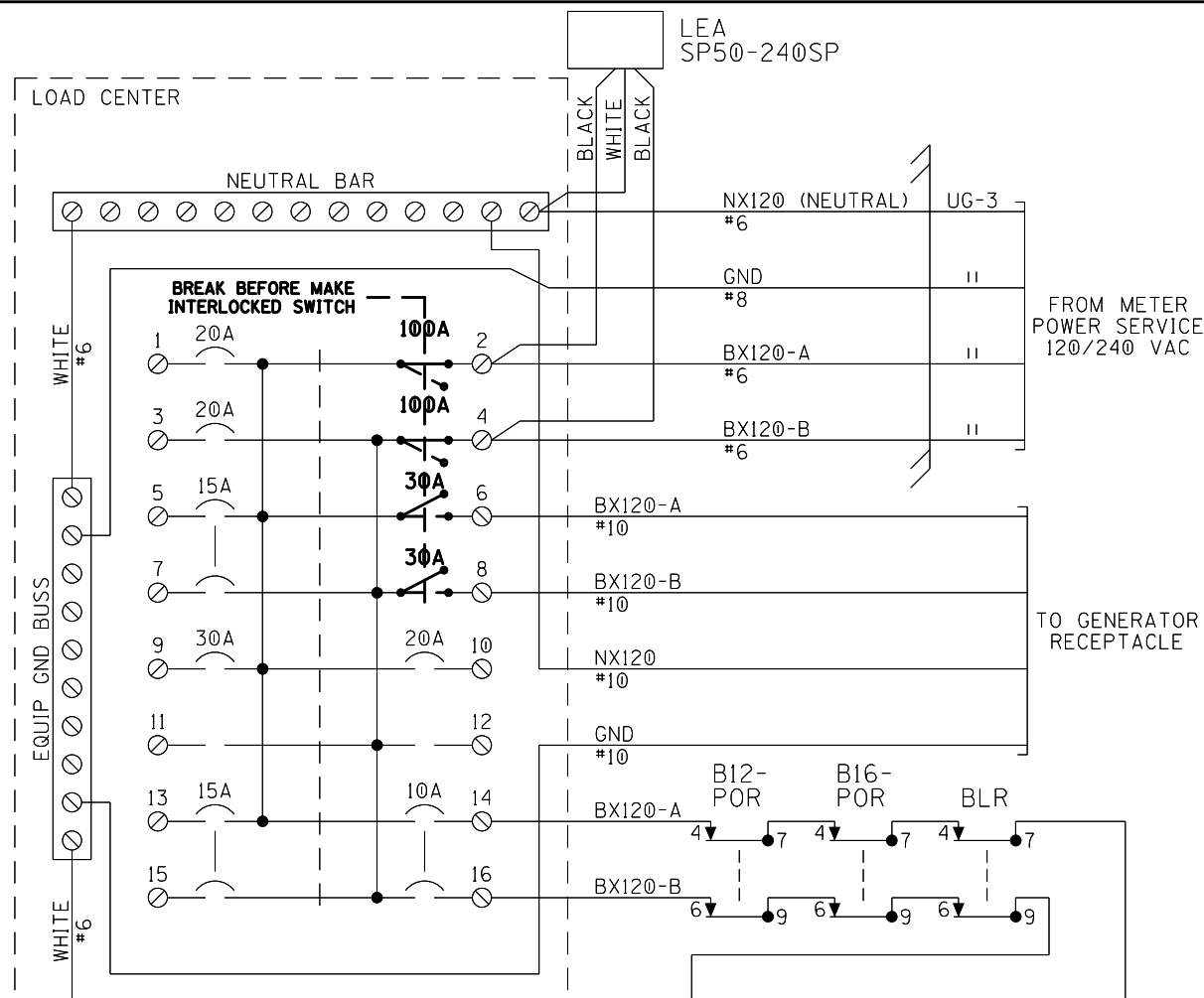
UG-7-12C (6 PAIR) UG#19
INT2
SUPV
SIMPE
SIMPE1
ISLP
ISLP1
CDP
GDP1
GPP
GPP1
SPARE
SPARE

← CABLE PROVIDED BY OTHERS

CABLE PLAN

DESIGNED BY:	NS NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or DWG. No.	SHEET No.
JMW 10-14-20	NCMC01828.003	3
IN SERVICE:	- -	

PROPERTY
NORFOLK SOUTHERN RWY. CO.



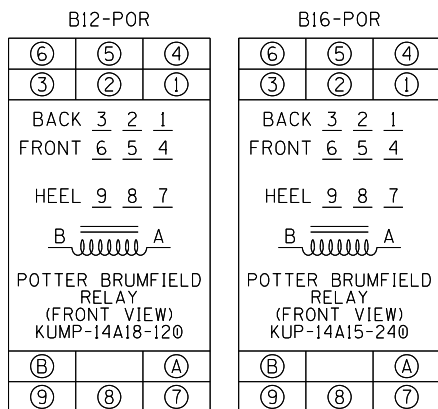
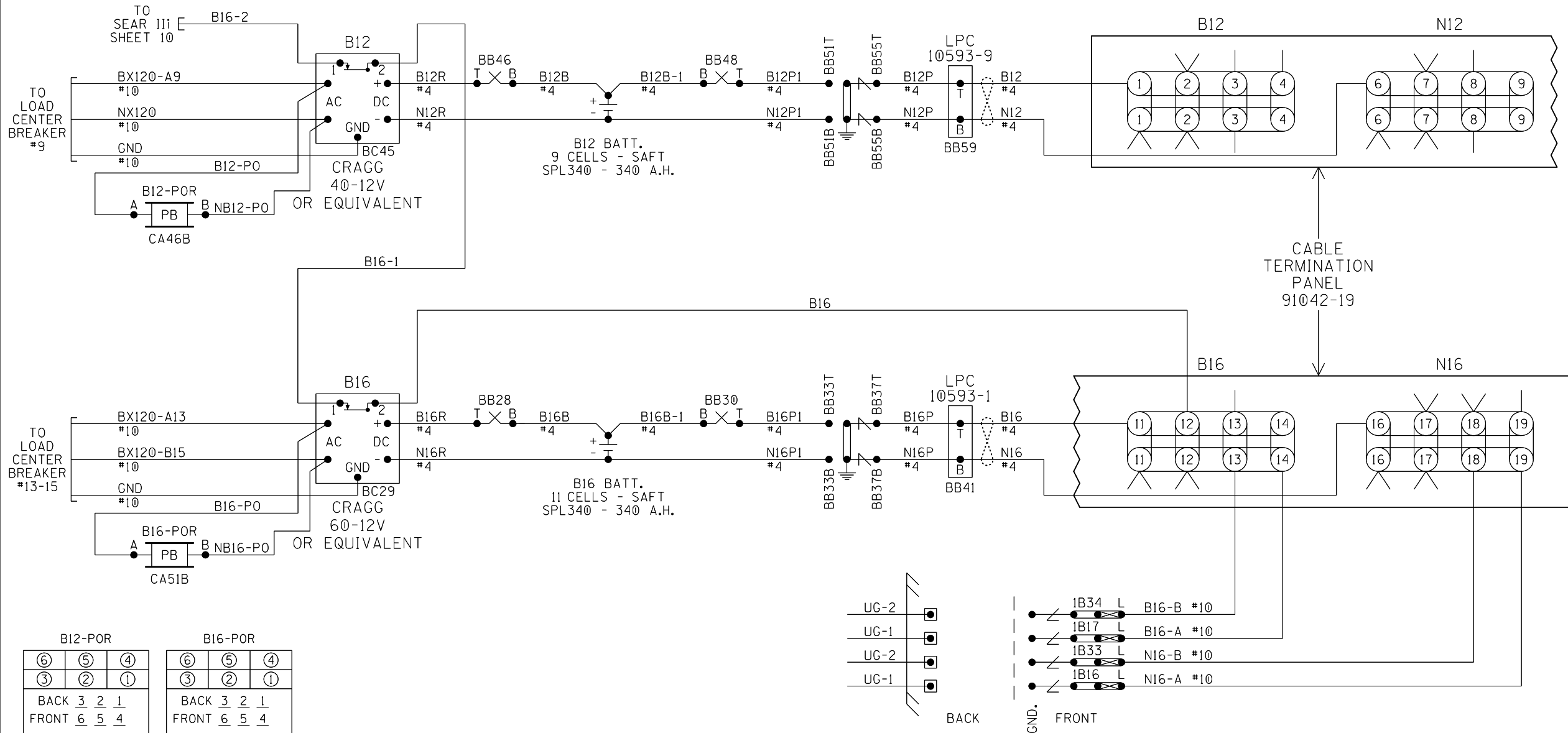
- SQUARE "D" PART NUMBERS:
- LOAD CENTER — Q0132L125G
 - 10A 2P CIR BKR — Q0210
 - 15A 2P CIR BKR — Q0215
 - 20A 1P CIR BKR — Q0120
 - 30A 1P CIR BKR — Q0130
 - 30A 2P CIR BKR — Q0230
 - 60A 2P CIR BKR — Q0260
 - 100A 2P CIR BKR — Q02100
 - MECH INTERLOCK — PK4DTIM4LA
 - GENERATOR RECEPTACLE:
 - MALE CONNECTOR — NEMA L1430-FI

- NOTES:
1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 2. ALL AC WIRING TO LOAD CENTER TO BE IN METALLIC CONDUIT WITH NO EXPOSED TERMINALS. ALL AC 120V AND 240V EQUIPMENT TO BE PROPERLY GROUNDED.
 3. ● = INSULATED NUTS TO BE USED ON ALL TERMINALS OF 120VAC AND ABOVE.

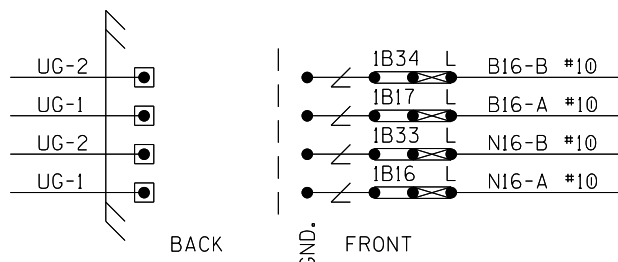
LOAD CENTER

DESIGNED BY:	MST 07-23-20	
DRAWN BY:	PRG 07-23-20	CHECKED BY:
IN SERVICE:	JMW 10-14-20	
OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.		
SHARONVILLE, OH CFLGS AT SHARON ROAD		
PROPERTY	NEW CASTLE DISTRICT	REV. 1
NORFOLK SOUTHERN RWY. CO.	CADD or DWG. No. NCMC01828.004	SHEET No. 4

PROPERTY
NORFOLK SOUTHERN RWY. CO.



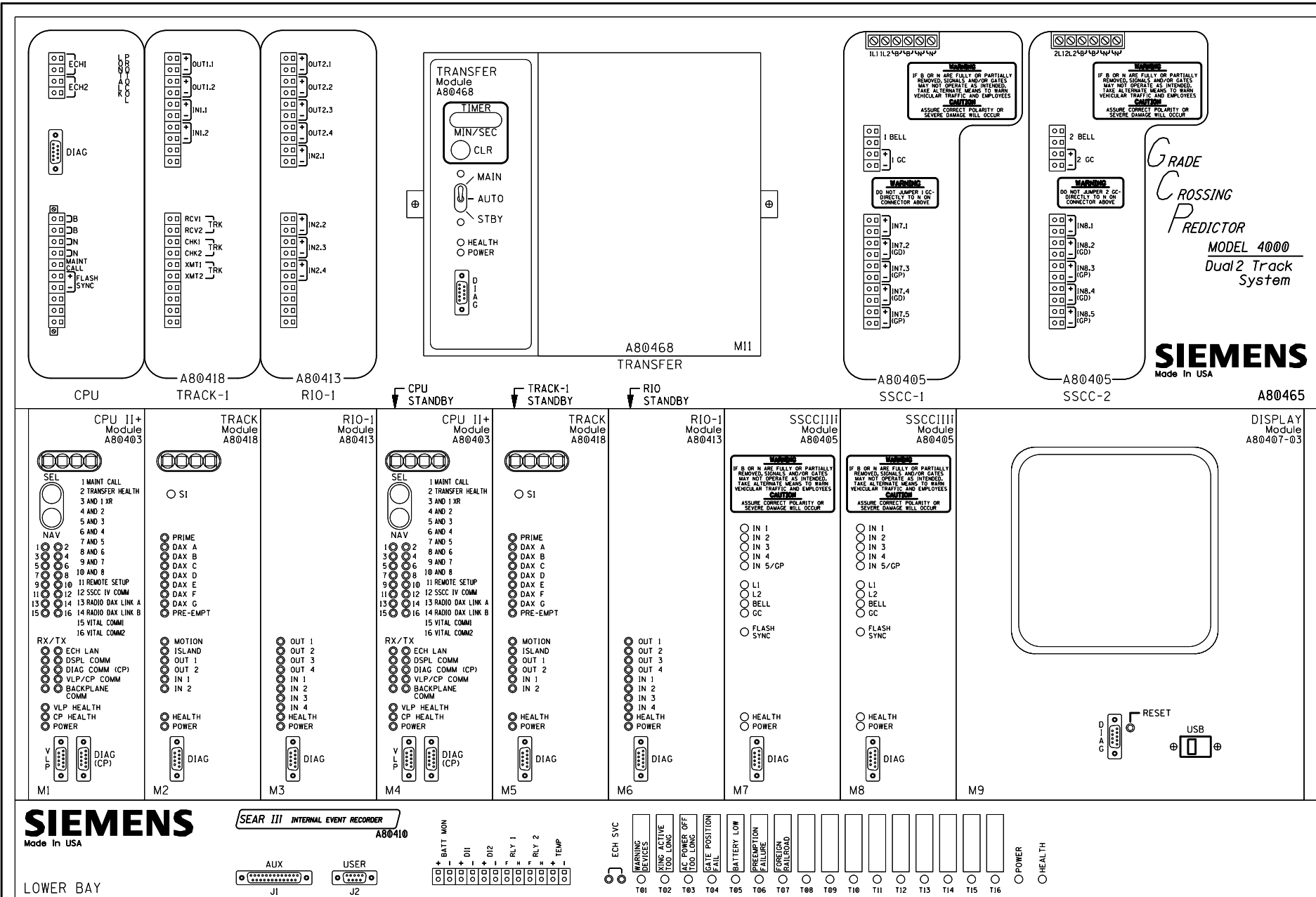
- NOTES:
- ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 - = TWIST



CHARGERS & BATTERIES

DESIGNED BY:		
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or DWG. No.	SHEET 5
JMW 10-14-20	NCMC01828.005	
IN SERVICE:		

PROPERTY
NORFOLK SOUTHERN R.WY. CO.



WARNING
REMOVAL OF THE SSCCIII MODULE WILL CAUSE THE GATE(S) TO DROP WITHOUT GATE DELAY AND FLASHING LIGHTS WILL NOT ACTIVATE.

CAUTION
ENSURE CORRECT POLARITY OF B AND N FOR SSCCIII MODULE OR SEVERE DAMAGE WILL OCCUR.

REFER TO DETAILED INSTRUCTIONS ON THE SSCCIII BEFORE APPLYING POWER TO THE POWER CONNECTOR(S).

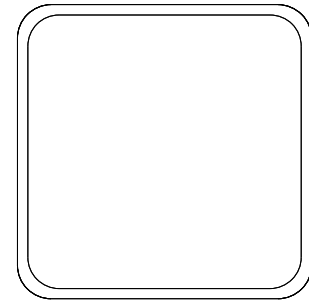
GRADE
CROSSING
PREDICTOR
MODEL 4000
Dual Track System

SIEMENS
Made In USA

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
OFF (NO JUMPER)

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



GCP4000 CHASSIS & MODULE LAYOUT

DESIGNED BY:	NS NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or	SHEET
JMW 10-14-20	DWG. No. NCMC01828.006	No. 6
PROPERTY	IN SERVICE:	
NORFOLK SOUTHERN RY. CO.	- -	

Program Report

Location and SIN

DOT Number: 524882U
 Milepost Number: CF-18.30
 Site Name: SHARON ROAD

SIN: 755023713516

MCF and Template Selection

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

Template = 1A:6 Trk Bi

Check Numbers

Office Check No. (DT 4.6.0): 2A678FFD
 Office Check Number: 2A678FFD
 Config. Check Number: 2CB9DA6C
 (Based on MCF Revision 021)

Program

BASIC: module configuration

Track 1 Slot = Track
 Track 2/RIO 1 Slot = RIO
 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 = SSCC31
 SSCC-2 Slot = SSCC31
 SEAR Used = Yes

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

BASIC: island operation
 Track 1: Island Used = Internal

BASIC: preemption
 Preempt Logic = Advnce
 Adv Preempt Delay = 9 sec
 Preempt Hlth IP Used = Yes
 Adv Preempt IP Used = No
 Traffic Sys Hlth IP Used = No
 Gate Down Logic Used = Yes
 Second Trn Logic Used = Yes

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
 Track 1: Prmpt Used = Yes

GCP: track 1
 Track 1: GCP Freq Category = Standard
 Track 1: GCP Frequency = 156 Hz
 Track 1: Approach Distance = 3881 ft
 Track 1: Uni/Bi/Sim-Bidirnl = Bidirnl
 Track 1: GCP Transmit Level = Medium
 Track 1: Island Connection = Isl1
 Track 1: Island Distance = 170 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 preempr
 Track 1: Prmpt Warning Time = 39 sec
 Track 1: Prmpt Offset Distance = 0 ft
 Track 1: Switch MS EZ Level = 10
 Track 1: Prmpt MS/GCP Mode = Pred
 Track 1: Prmpt Pickup Delay = 15 sec
 Track 1: Prmpt Enable = 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

ISLAND: track 1
 Track 1: Isl Frequency = 4.9 kHz
 Track 1: Pickup Delay (2s +) = 0 sec
 Track 1: 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 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
 TI OOS Control = OOS Input 1

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

ADVANCED: trk 1 overrides
 Track 1: 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

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 = 6 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 = Off
 Aux-1 Xng Ctrl Used = No


SSCC: 2
 SSCC-2 Activation = AND 1 XR
 SSCC-2 Gate Delay = 6 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 = Off
 Aux-2 Xng Ctrl Used = No

OUTPUT: assignment page 1
 OUT 1.1 = Adv Preempr
 OUT 1.2 = AND 1 XR
 OUT 2.1 = Gate Dwn Indication
 OUT 2.2 = Tl Island
 OUT 2.3 = Not Used
 OUT 2.4 = Not Used

INPUT: assignment page 1
 IN 1.1 = AND 1 XR Enable
 IN 1.2 = Not Used
 IN 2.1 = Not Used
 IN 2.2 = Not Used
 IN 2.3 = Not Used
 IN 2.4 = 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 = Out Of Service IP 1
 IN 8.2 = Preempt Health
 IN 8.3 = Not Used
 IN 8.4 = Not Used
 IN 8.5 = Not Used

GCP4000 PROGRAMMING

DESIGNED BY:			
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT	COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH		
PRS 07-23-20	CFLGS AT SHARON ROAD		
CHECKED BY:			
JMW 10-14-20	NEW CASTLE DISTRICT		REV. 1
PROPERTY	IN SERVICE:		
NORFOLK SOUTHERN RWY. CO.	- -	CADD or DWG. No. NCMC01828.007	SHEET No. 7

SEAR
 SEAR Subnode = 3
 DI 1 = Not Used
 DI 2 = Not Used
 Rly 1 = General
 Rly 2 = Not Used

SEAR: inputs
 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 1.2 = Not Used
 IN 2.1 = POK 1
 IN 2.2 = Not Used
 IN 2.3 = Not Used
 IN 2.4 = 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 = Not Used
 IN 8.3 = Not Used
 IN 8.4 = Not Used
 IN 8.5 = Not Used

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

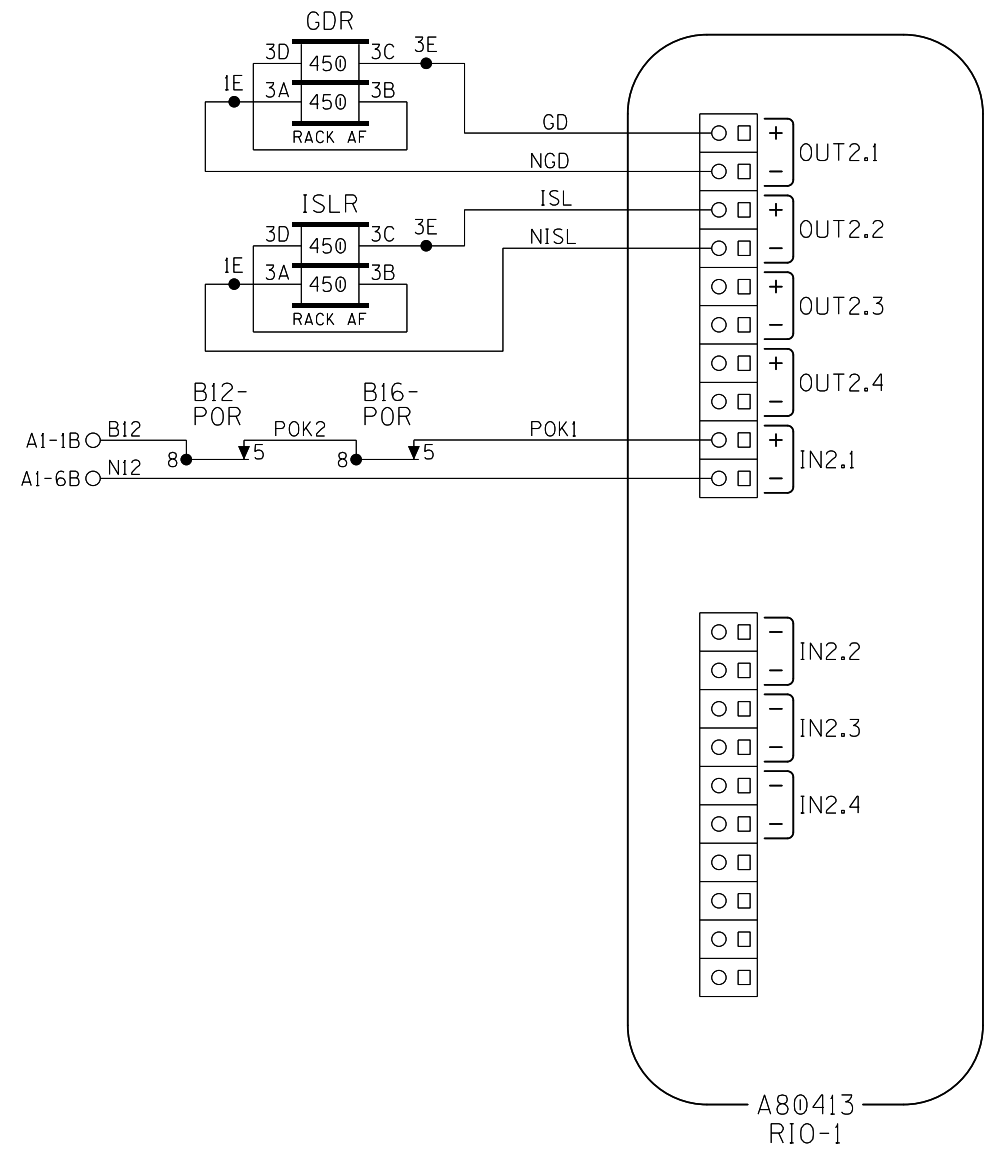
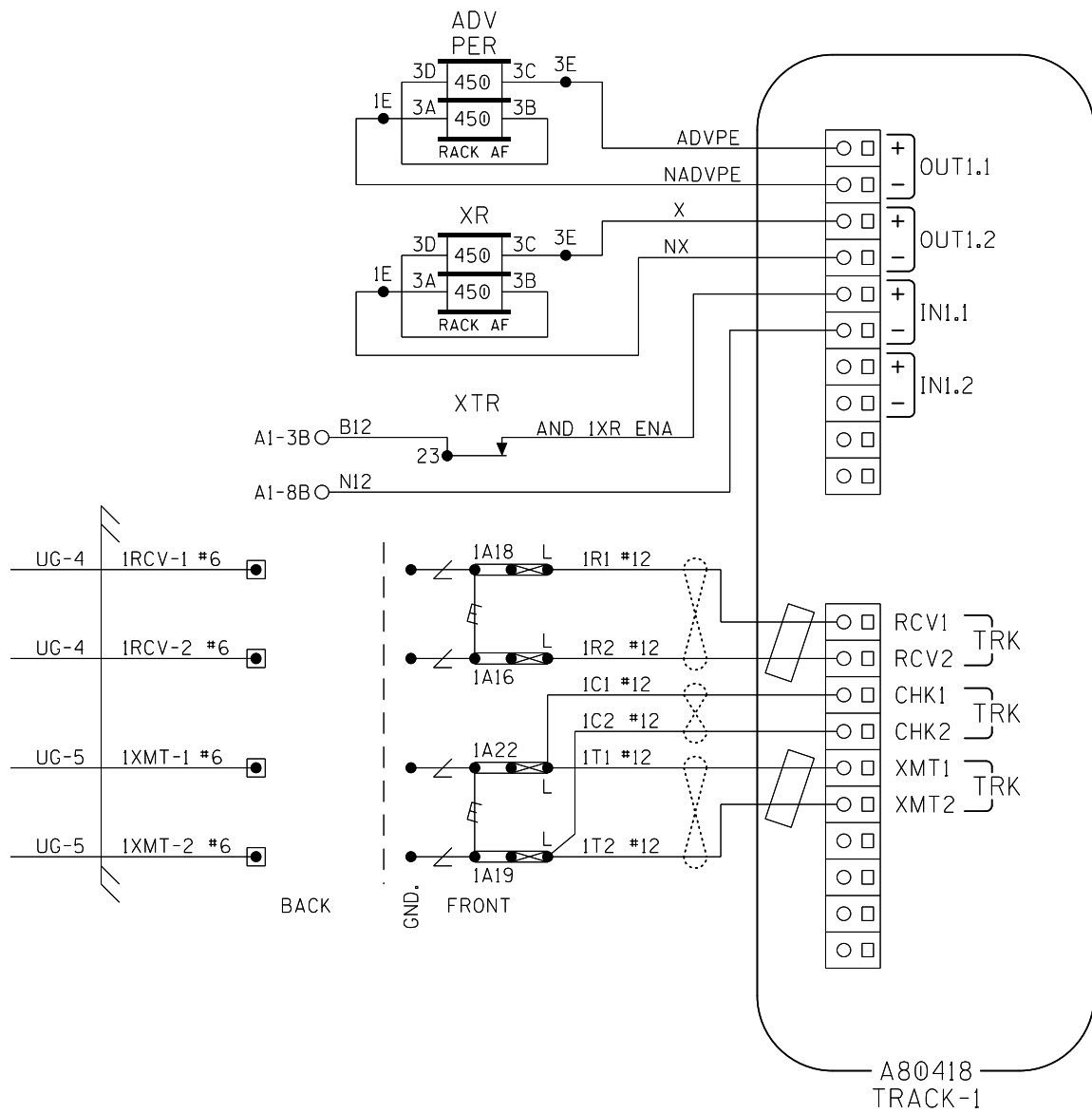
Configuration Package File



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GCP4000 PROGRAMMING


DESIGNED BY:			
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.:	CF-18.30
DRAWN BY:	SHARONVILLE, OH		
PRS 07-23-20	CFLGS AT SHARON ROAD		
CHECKED BY:	NEW CASTLE DISTRICT		
JMW 10-14-20	REV.	1	
IN SERVICE:	CADD or DWG. No.	NCMC01828.008	SHEET No. 8

PROPERTY
 NORFOLK SOUTHERN R.WY. CO.



- NOTES:
1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 2.  = TWIST
 3.  = FERRITE BEAD

CONNECTORS FOR TRACK MODULE & RIO MODULE

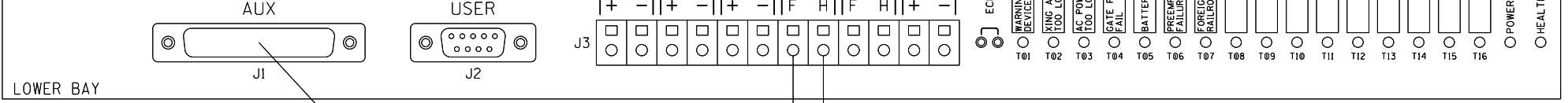
DESIGNED BY:		
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20		
CHECKED BY:	NEW CASTLE DISTRICT	REV. 1
JMW 10-14-20	CADD or DWG. No. NCMC01828.009	SHEET 9
IN SERVICE:	- -	

PROPERTY
NORFOLK SOUTHERN RY. CO.

SIEMENS
Made in USA

SEAR III INTERNAL EVENT RECORDER

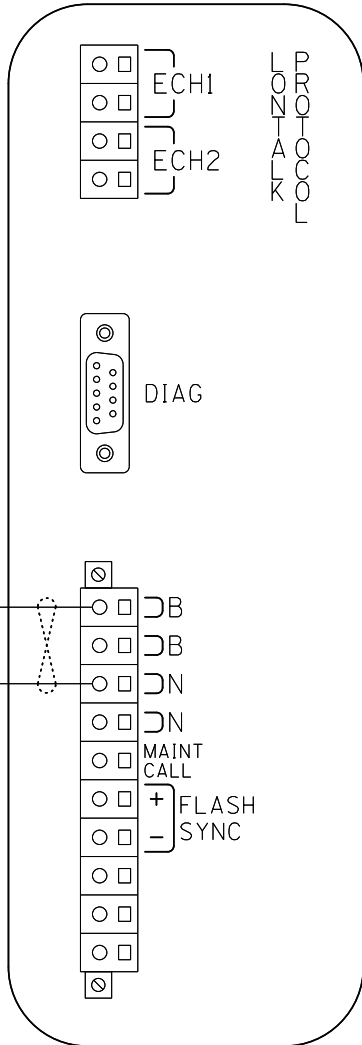
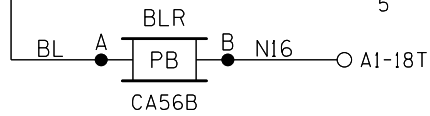
A80410



LOWER BAY

TO RADIO SHEET 13

TO SHEET 5



CPU

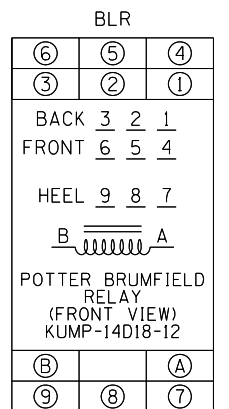
DIAG

ECH1
ECH2

NOTES:

1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.

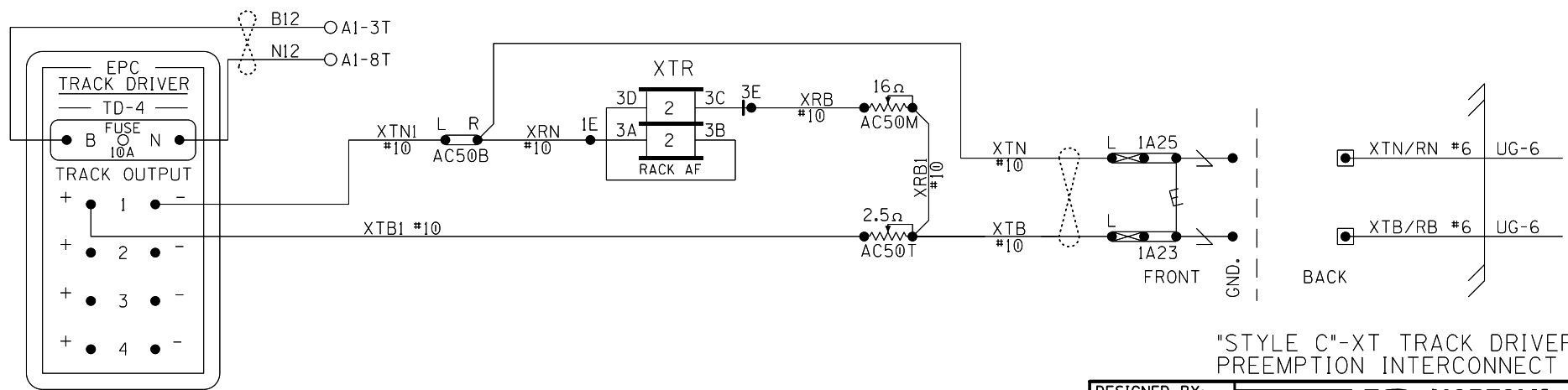
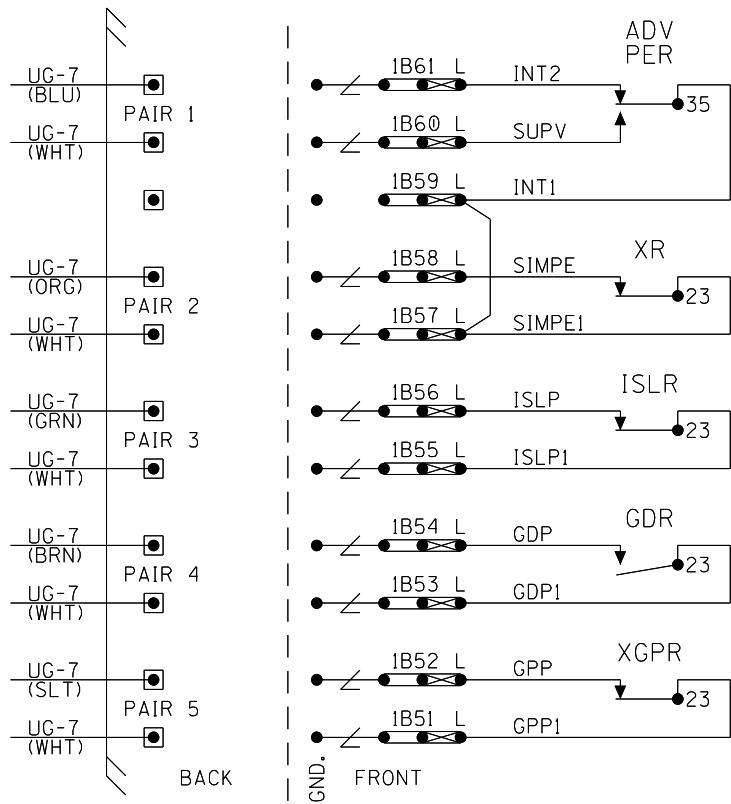
2. = TWIST




CPU MODULE & SEAR III HOOK-UP


DESIGNED BY:	NS NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20		
CHECKED BY:	NEW CASTLE DISTRICT	REV. 1
JMW 10-14-20	CADD or DWG. No. NCMC01828.010	SHEET 10
IN SERVICE:	- -	

PROPERTY
NORFOLK SOUTHERN RY. CO.



"STYLE C"-XT TRACK DRIVER & PREEMPTION INTERCONNECT CIRCUITRY

- NOTES:
1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 2.  = TWIST

DESIGNED BY:	 NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20		
CHECKED BY:	NEW CASTLE DISTRICT	REV. 1
JMW 10-14-20	CADD or DWG. No. NCMC01828.011	SHEET 11
IN SERVICE:	- -	

PROPERTY
NORFOLK SOUTHERN RY. CO.

SITE SET UP PROCEDURE	
FUNCTION	LED DISPLAY
SITE NAME	SHARON ROAD
MILEPOST	CF-18.30
DOT NUMBER	524-882U
TESTER TYPE	CROSSING
AUTO DST ADJUST	NO
TIMEZONE	OTHER
GMT OFFSET	-00:00
DATE FORMAT	MM-DD-YYYY
TEMP. FORMAT	FAHRENHEIT
INDICATE HOLDOFF (SEC)	0
INDICATE REFRESH (SEC)	60
GEO CTL REFRESH (SEC)	0
SITE ADDRESS (ATCS)	7.550.237.135.03.01
SITE TYPE	NO COMMUNICATION
# OFFICE ADDRESS (ATCS)	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 DEVICE	NONE
★ USER PORT BAUD	57600
★ USER PORT DATA BITS	8
★ USER PORT PARITY	NONE
★ USER PORT STOP BITS	1
★ USER PORT FLOW CONTROL	NONE
★ AUX PORT BAUD	9600
★ AUX PORT DATA BITS	8
★ AUX PORT PARITY	NONE
★ AUX PORT STOP BITS	1
★ AUX PORT FLOW CONTROL	NONE

CONTROL SYSTEM CONFIGURATION MENU QUESTIONS	
THE QUESTION	SELECT FROM MENU OPTION
RESET NAMES AND MODULES?	YES
RAILROAD NUMBER?	550
CROSSING CONFIGURATION?	NORMAL
AND1 USED AS XR?	YES
AND2 USED AS XR?	NO
AND3 USED AS XR?	NO
AND4 USED AS XR?	NO
AND5 USED AS XR?	NO
AND6 USED AS XR?	NO
AND7 USED AS XR?	NO
AND8 USED AS XR?	NO
* XR CONTROLLED BY FOREIGN RR?	NO
ENTRANCE GATES?	2
85% VOLTAGE RELAY OUT?	NO
BATTERY BANKS?	2
BATT MON USED?	NO
PREEMPTION?	YES
INTERNAL CROSSING CONTROLLERS?	2
EXTERNAL CROSSING CONTROLLERS?	0
VHF COMMUNICATOR?	NO
DTMF ACTIVATION?	NO
ILOD MODULES?	0
USE CELL MODEM NON-CRITICAL FEATURE?	NO


PROGRAM MENU QUESTIONS	PROGRAM
EDIT DIGITAL INPUTS	NO
EDIT BATTERIES	NO
EDIT RELAYS	NO
EDIT INDICATOR LEDS	NO
EDIT TEST LEDS	NO
GCP4K ATCS SUBNODE	16

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

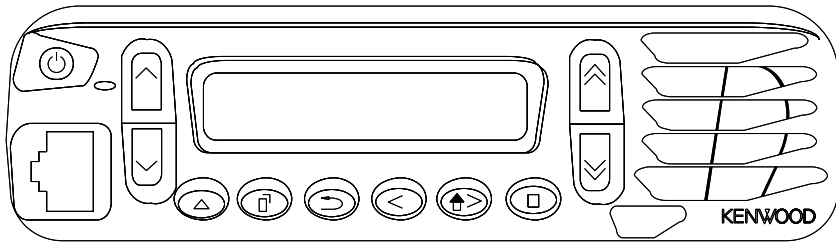
NOTES:

- # = NOT DISPLAYED IF SITE TYPE = NO COMMUNICATION
- ★ = USE DEFAULT SETTINGS
- * = ONLY DISPLAYED IF CROSSING CONFIGURATION = SPLIT GATE

SEAR III PROGRAMMING

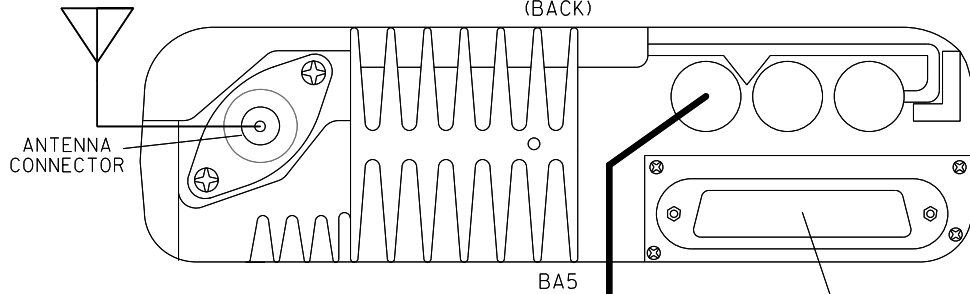
DESIGNED BY:	MST 07-23-20		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	PRS 07-23-20			
CHECKED BY:	JMW 10-14-20	SHARONVILLE, OH CFLGS AT SHARON ROAD		
IN SERVICE:	- -	NEW CASTLE DISTRICT	REV. 1	
PROPERTY	NORFOLK SOUTHERN RWY. CO.	CADD or DWG. No.	NCMC01828.012	SHEET No. 12

(FRONT)



KENWOOD RADIO NX-700H
OR EQUIVALENT

(BACK)



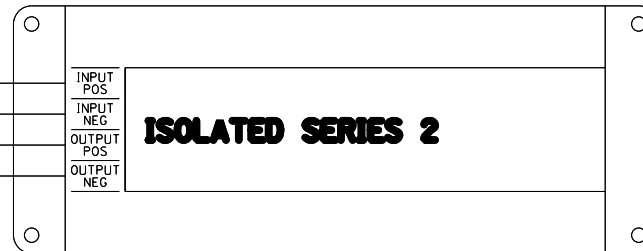
ANTENNA
CONNECTOR

BA5

DB25M - DB25M
STRAIGHT THROUGH CABLE } TO
SEAR III
SHEET 10

CABLE - KENWOOD
P/N E30-7520-15

A1-2B ○ B12
A1-7B ○ N12
B12
N12



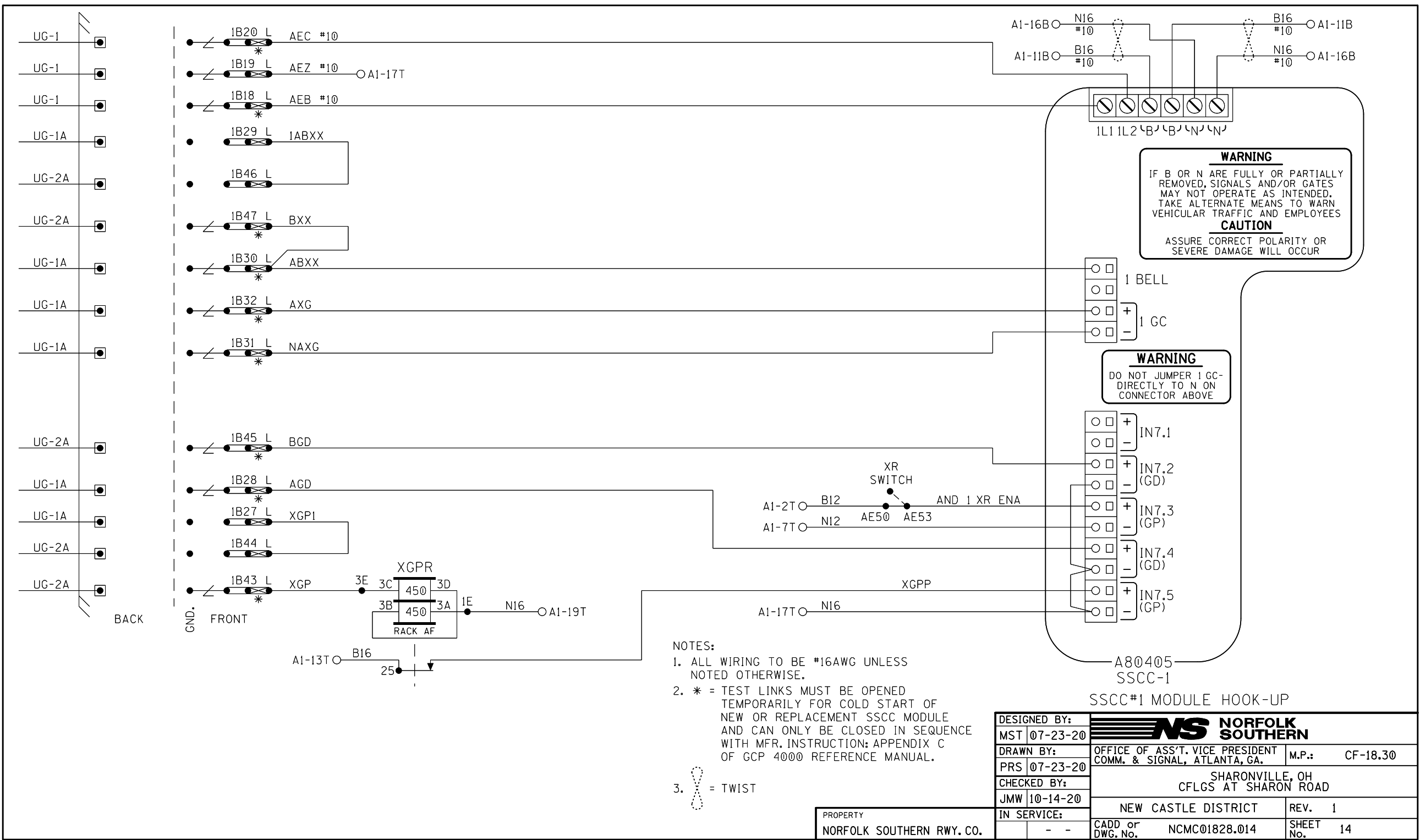
NOTE:
1. ALL WIRING TO BE #10AWG UNLESS
NOTED OTHERWISE.

BB5

BACKHAUL EQUIPMENT

DESIGNED BY:		
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	
CHECKED BY:	JMW 10-14-20	REV. 1
IN SERVICE:	CADD or DWG. No. NCMC01828.013	SHEET No. 13

PROPERTY
NORFOLK SOUTHERN RWY. CO.



WARNING
 IF B OR N ARE FULLY OR PARTIALLY REMOVED, SIGNALS AND/OR GATES MAY NOT OPERATE AS INTENDED. TAKE ALTERNATE MEANS TO WARN VEHICULAR TRAFFIC AND EMPLOYEES.
CAUTION
 ASSURE CORRECT POLARITY OR SEVERE DAMAGE WILL OCCUR

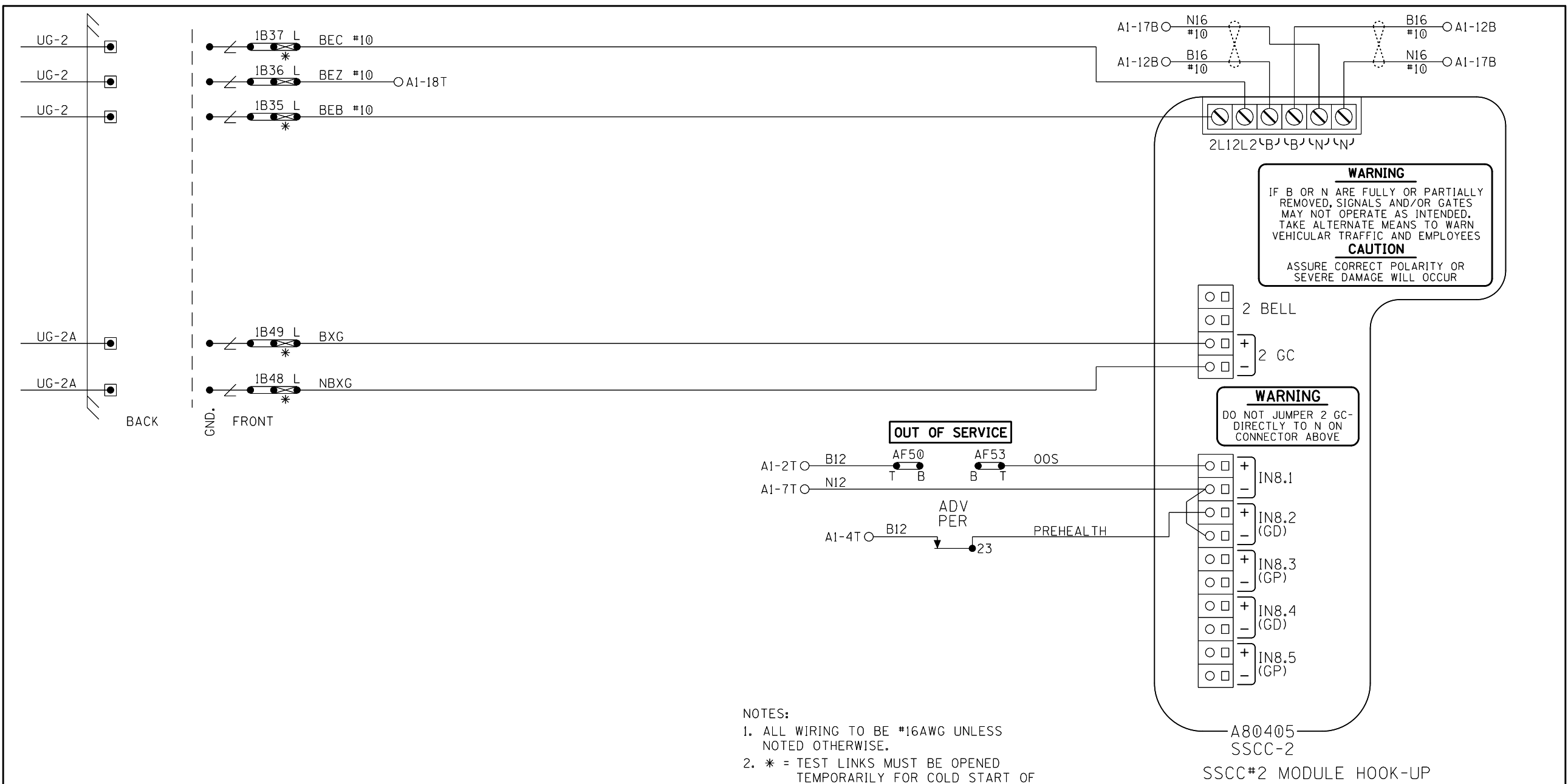
WARNING
 DO NOT JUMPER 1 GC DIRECTLY TO N ON CONNECTOR ABOVE


- NOTES:
1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 2. * = TEST LINKS MUST BE OPENED TEMPORARILY FOR COLD START OF NEW OR REPLACEMENT SSSC MODULE AND CAN ONLY BE CLOSED IN SEQUENCE WITH MFR. INSTRUCTION; APPENDIX C OF GCP 4000 REFERENCE MANUAL.

3. [twist symbol] = TWIST


SSCC#1 MODULE HOOK-UP

DESIGNED BY:	MST 07-23-20	
DRAWN BY:	PRG 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.
CHECKED BY:	JMW 10-14-20	SHARONVILLE, OH CFLGS AT SHARON ROAD
IN SERVICE:	- -	NEW CASTLE DISTRICT CADD or DWG. No. NCMC01828.014
PROPERTY	NORFOLK SOUTHERN RWY. CO.	M.P.: CF-18.30 REV. 1 SHEET 14

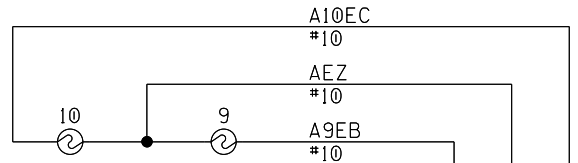


- NOTES:
1. ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.
 2. * = TEST LINKS MUST BE OPENED TEMPORARILY FOR COLD START OF NEW OR REPLACEMENT SSCC MODULE AND CAN ONLY BE CLOSED IN SEQUENCE WITH MFR. INSTRUCTION; APPENDIX C OF GCP 4000 REFERENCE MANUAL.
 3.  = TWIST

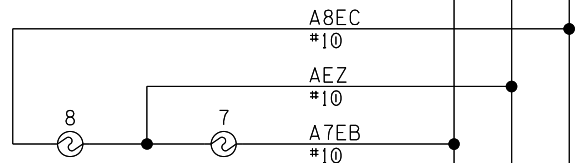
PROPERTY
NORFOLK SOUTHERN RY. CO.

DESIGNED BY:		
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or DWG. No.	SHEET No.
JMW 10-14-20	- -	15
IN SERVICE:	NCMC01828.015	

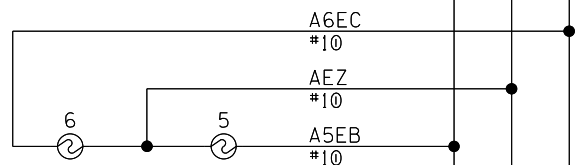
"A" TIP FLASHING LIGHTS (BACK)



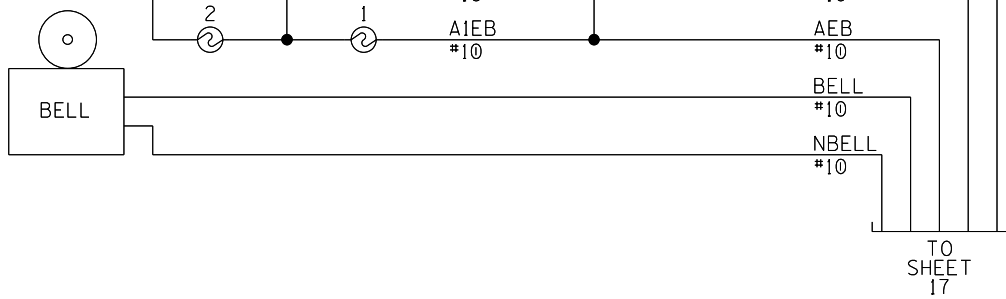
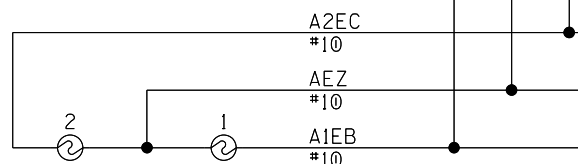
"A" TIP FLASHING LIGHTS (FRONT)



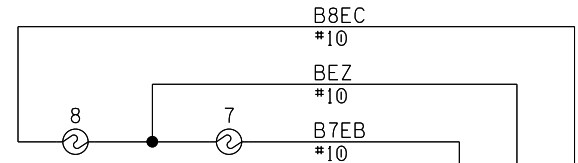
"A" TIP FLASHING LIGHTS (FRONT)



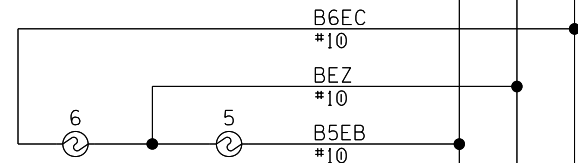
"A" CANTILEVER MAST FLASHING LIGHTS



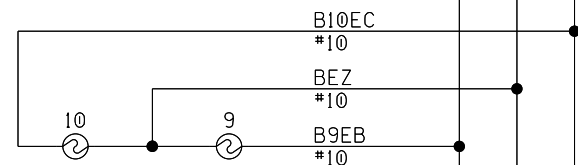
"B" TIP FLASHING LIGHTS (BACK)



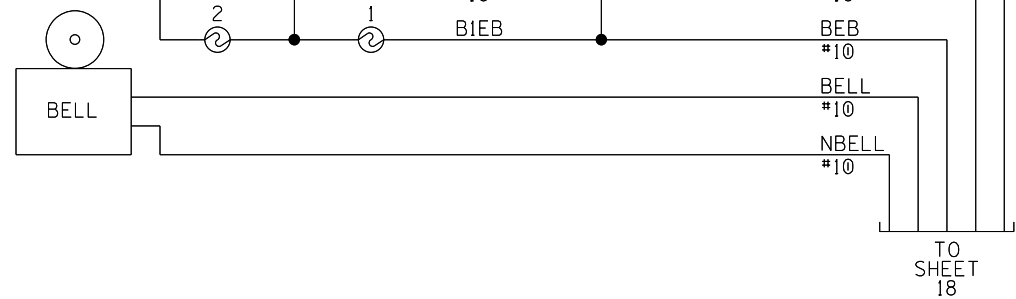
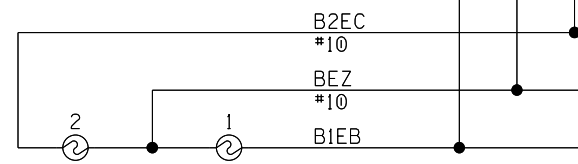
"B" TIP FLASHING LIGHTS (FRONT)



"B" CANTILEVER MAST FLASHING SIDE LIGHTS

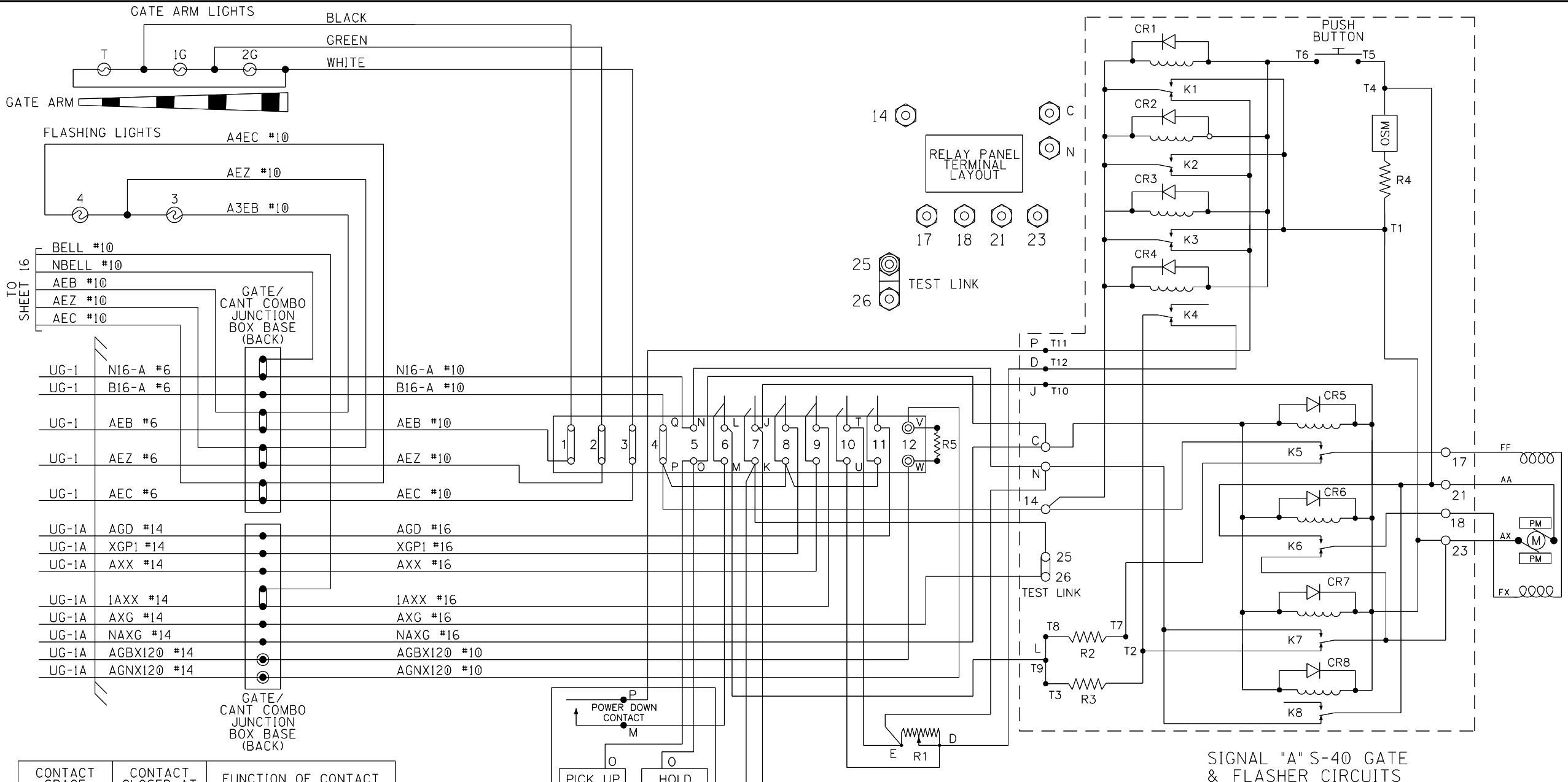


"B" CANTILEVER MAST FLASHING LIGHTS



CANTILEVER FLASHER LIGHTS

DESIGNED BY:		
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or DWG. No.	SHEET No.
JMW 10-14-20	NCMC01828.016	16
IN SERVICE:	- -	
PROPERTY NORFOLK SOUTHERN RY. CO.		



TO SHEET 16

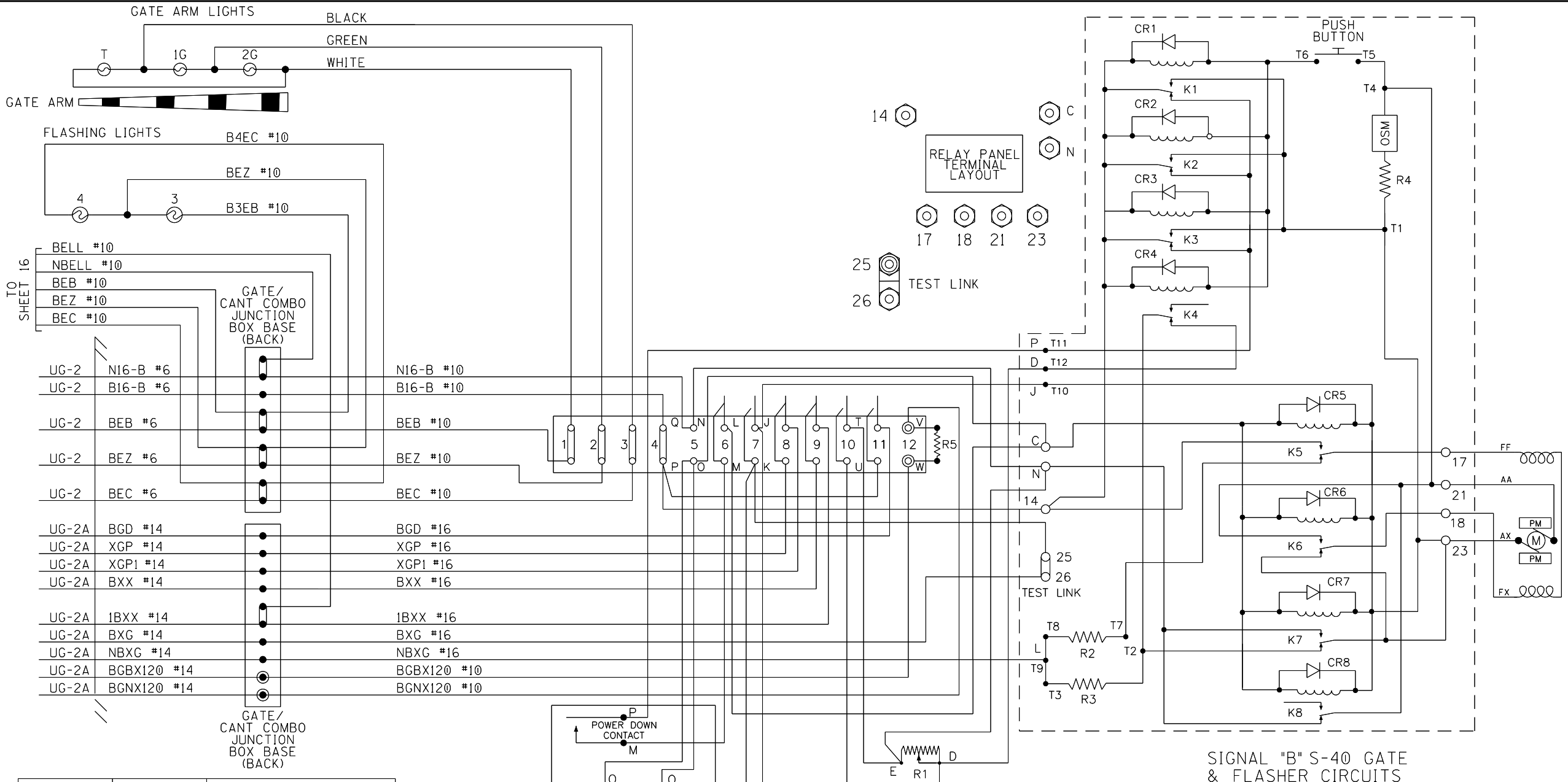
UG-1	N16-A #6	N16-A #10
UG-1	B16-A #6	B16-A #10
UG-1	AEB #6	AEB #10
UG-1	AEZ #6	AEZ #10
UG-1	AEC #6	AEC #10
UG-1A	AGD #14	AGD #16
UG-1A	XGP1 #14	XGP1 #16
UG-1A	AXX #14	AXX #16
UG-1A	1AXX #14	1AXX #16
UG-1A	AXG #14	AXG #16
UG-1A	NAXG #14	NAXG #16
UG-1A	AGBX120 #14	AGBX120 #10
UG-1A	AGNX120 #14	AGNX120 #10

CONTACT SPACE	CONTACT CLOSED AT	FUNCTION OF CONTACT
(6) L-M	45° - 90°	POWER DOWN CONTROL
(7) J-K	0° - 89°	POWER UP CONTROL
(8)	83° - 90°	FLASHING LGT. CONTROL
(9)	5° - 90°	BELL CONTROL
(10) T-U	0° - 5°	HORIZONTAL SNUB
(11)	0° - 5°	GATE DOWN INDICATION

R1 - DOWN SNUB RESISTOR, ADJ.
R2 - POWER DOWN RATE RESISTOR
R3 - POWER DOWN LIMIT RESISTOR
R4 - OSM SNUB RESISTOR
R5 - DEFROSTER
K1-8 - GATE & MAINT. RELAYS
OSM - OVERSPEED MODULE

DESIGNED BY:	NS NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	JMW 10-14-20	SHEET 17
IN SERVICE:	CADD or DWG. No. NCMC01828.017	

PROPERTY
NORFOLK SOUTHERN RWY. CO.



TO SHEET 16

UG-2	N16-B #6	N16-B #10
UG-2	B16-B #6	B16-B #10
UG-2	BEB #6	BEB #10
UG-2	BEZ #6	BEZ #10
UG-2	BEC #6	BEC #10
UG-2A	BGD #14	BGD #16
UG-2A	XGP #14	XGP #16
UG-2A	XGP1 #14	XGP1 #16
UG-2A	BXX #14	BXX #16
UG-2A	1BXX #14	1BXX #16
UG-2A	BXG #14	BXG #16
UG-2A	NBXG #14	NBXG #16
UG-2A	BGBX120 #14	BGBX120 #10
UG-2A	BGNX120 #14	BGNX120 #10

CONTACT SPACE	CONTACT CLOSED AT	FUNCTION OF CONTACT
(6) L-M	45° - 90°	POWER DOWN CONTROL
(7) J-K	0° - 89°	POWER UP CONTROL
(8)	83° - 90°	FLASHING LGT. CONTROL
(9)	5° - 90°	BELL CONTROL
(10) T-U	0° - 5°	HORIZONTAL SNUB
(11)	0° - 5°	GATE DOWN INDICATION

R1 - DOWN SNUB RESISTOR, ADJ.
 R2 - POWER DOWN RATE RESISTOR
 R3 - POWER DOWN LIMIT RESISTOR
 R4 - OSM SNUB RESISTOR
 R5 - DEFROSTER
 K1-8 - GATE & MAINT. RELAYS
 OSM - OVERSPEED MODULE

DESIGNED BY:	NS NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	JMW 10-14-20	SHEET 18
IN SERVICE:	CADD or DWG. No. NCMC01828.018	

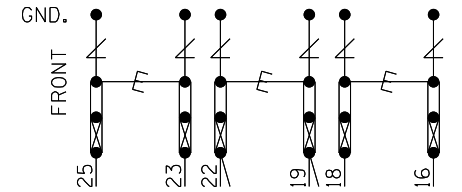
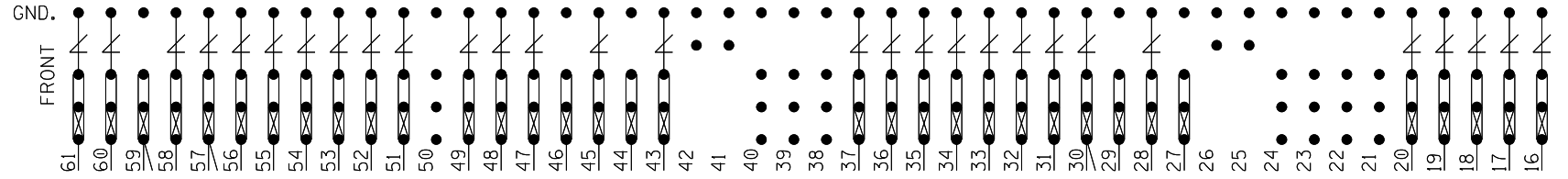
PROPERTY
 NORFOLK SOUTHERN RWY. CO.

LEFT TWO FRONT ROWS TERMINAL BOARD 1

"1A"

"1B"

SEE FARADAY SHIELD SHOP DRAWING DETAIL FOR HOW THIS PORTION OF THE FARADAY SHIELD IS PREDRILLED. ONLY INSTALL AND USE THE TERMINALS NEEDED.



NOTES:

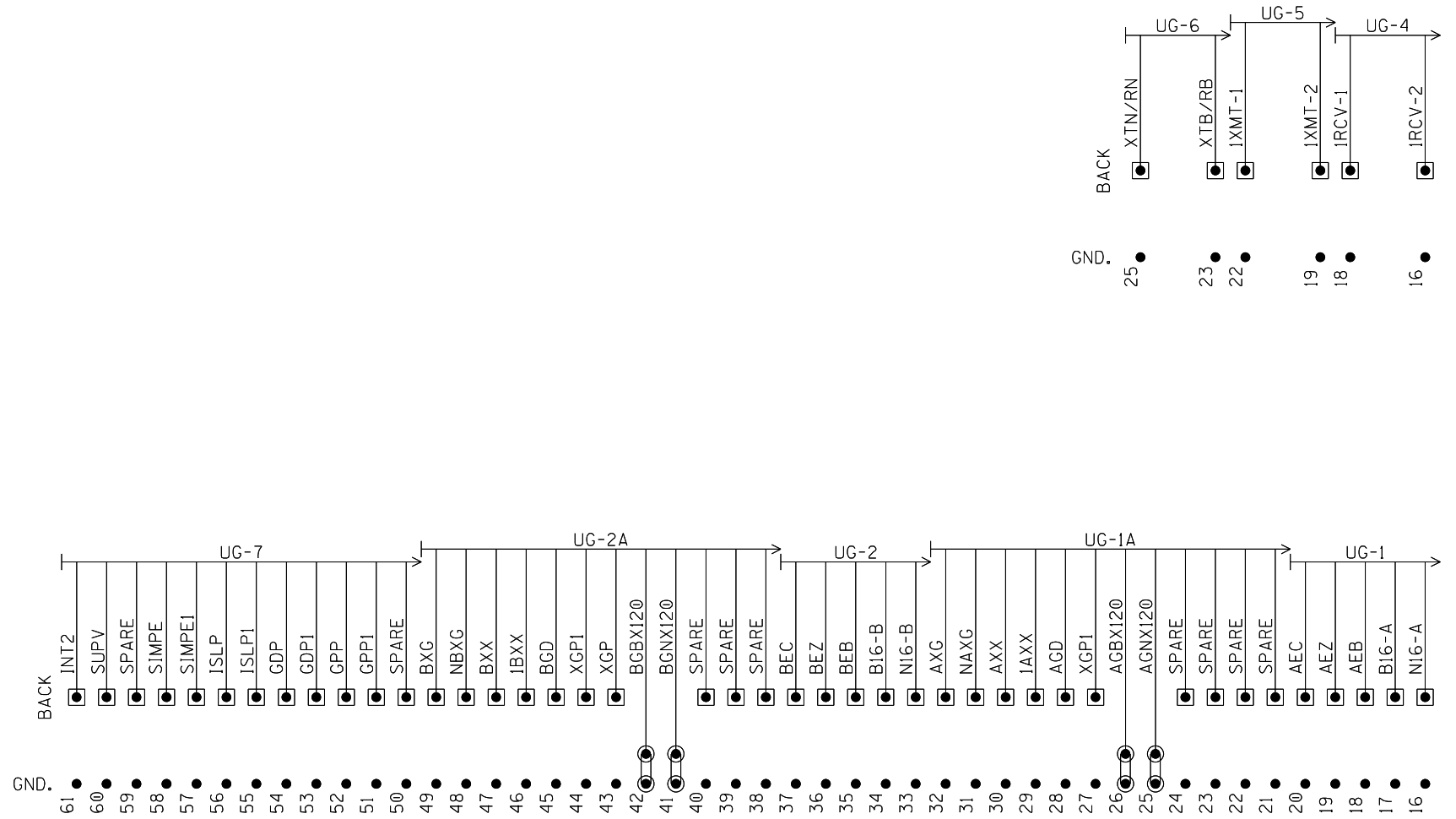
1. = HEAVY DUTY EQUALIZER (022700-1X)
2. = ERICO LIGHTNING ARRESTER (EPD2050F)
3. GND. ● = THROUGH GROUND POST ON EACH TERMINAL BLOCK TO FARADAY SHIELD
4. = TEST LINK
5. INSTALL TEST LINKS ON ALL TRACK WIRES AND ON ALL LOW VOLTAGE UNDERGROUND CABLE TERMINATIONS.

BACKBOARD 1A & 1B

DESIGNED BY:		
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or DWG. No.	SHEET No.
JMW 10-14-20	NCMC01828.019	19
IN SERVICE:	- -	

PROPERTY
NORFOLK SOUTHERN R.WY. CO.

REAR VIEW OF LEFT TWO ROWS TERMINAL BOARD I
"1A"



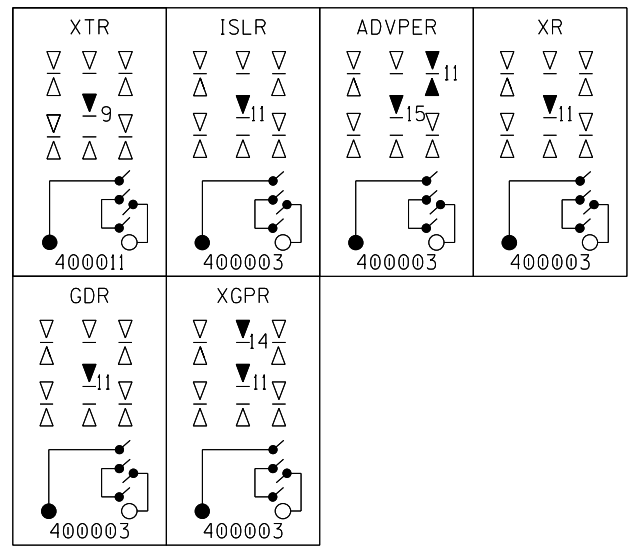
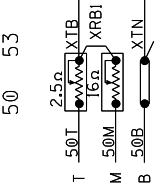
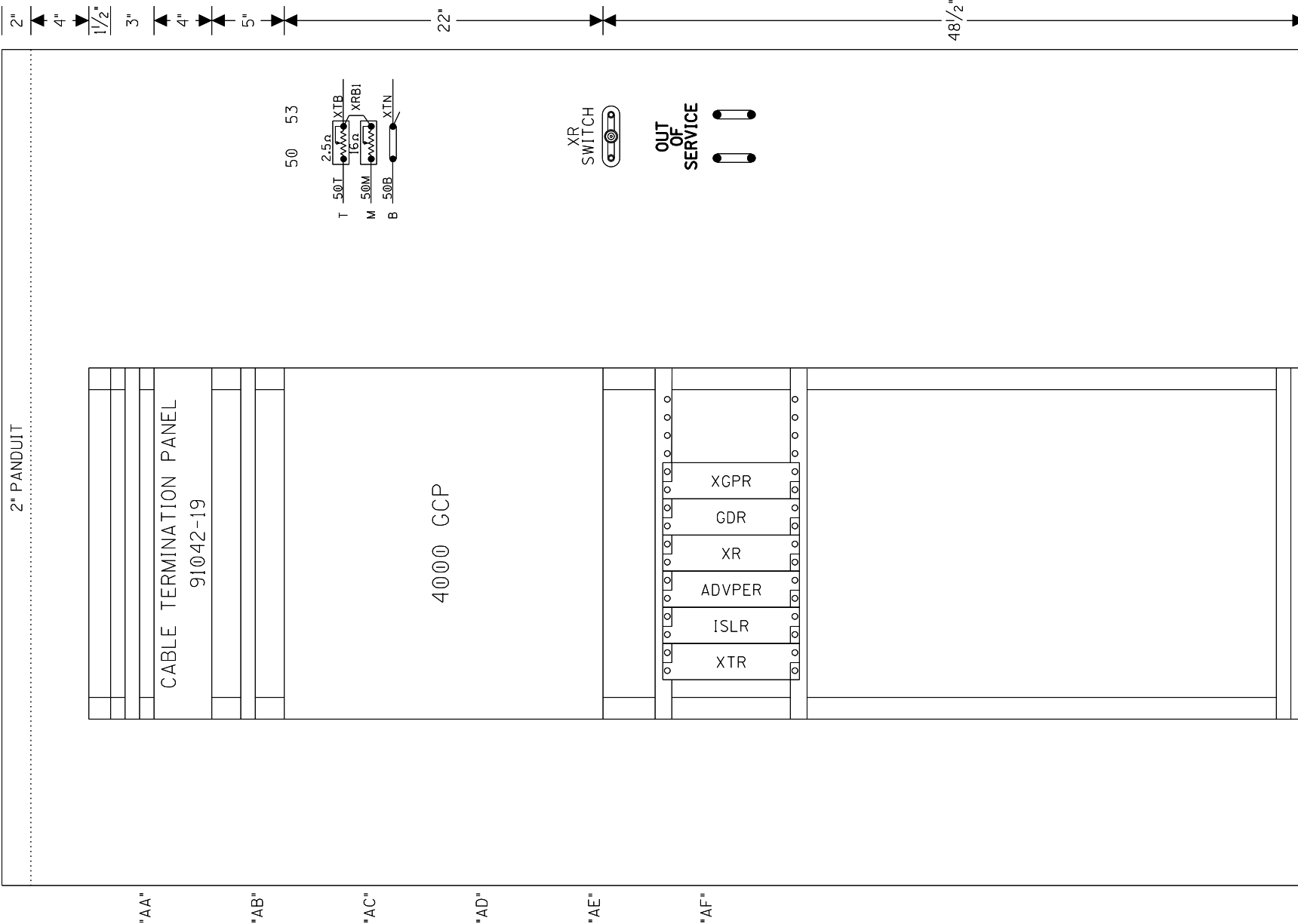
SEE FARADAY SHIELD SHOP DRAWING DETAIL FOR HOW THIS PORTION OF THE FARADAY SHIELD IS PREDRILLED. ONLY INSTALL AND USE THE TERMINALS NEEDED.

NOTES:

1. GND. ● = THROUGH GROUND POST ON EACH TERMINAL BLOCK TO FARADAY SHIELD
2. * = TEST LINKS MUST BE OPENED
3. ● = INSULATED NUTS TO BE USED ON ALL 120VAC AND ABOVE TERMINALS

REAR BACKBOARD 1A & 1B

DESIGNED BY:		
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or DWG. No. NCMC01828.020	SHEET No. 20
JMW 10-14-20		
IN SERVICE:		
PROPERTY NORFOLK SOUTHERN RWY. CO.		



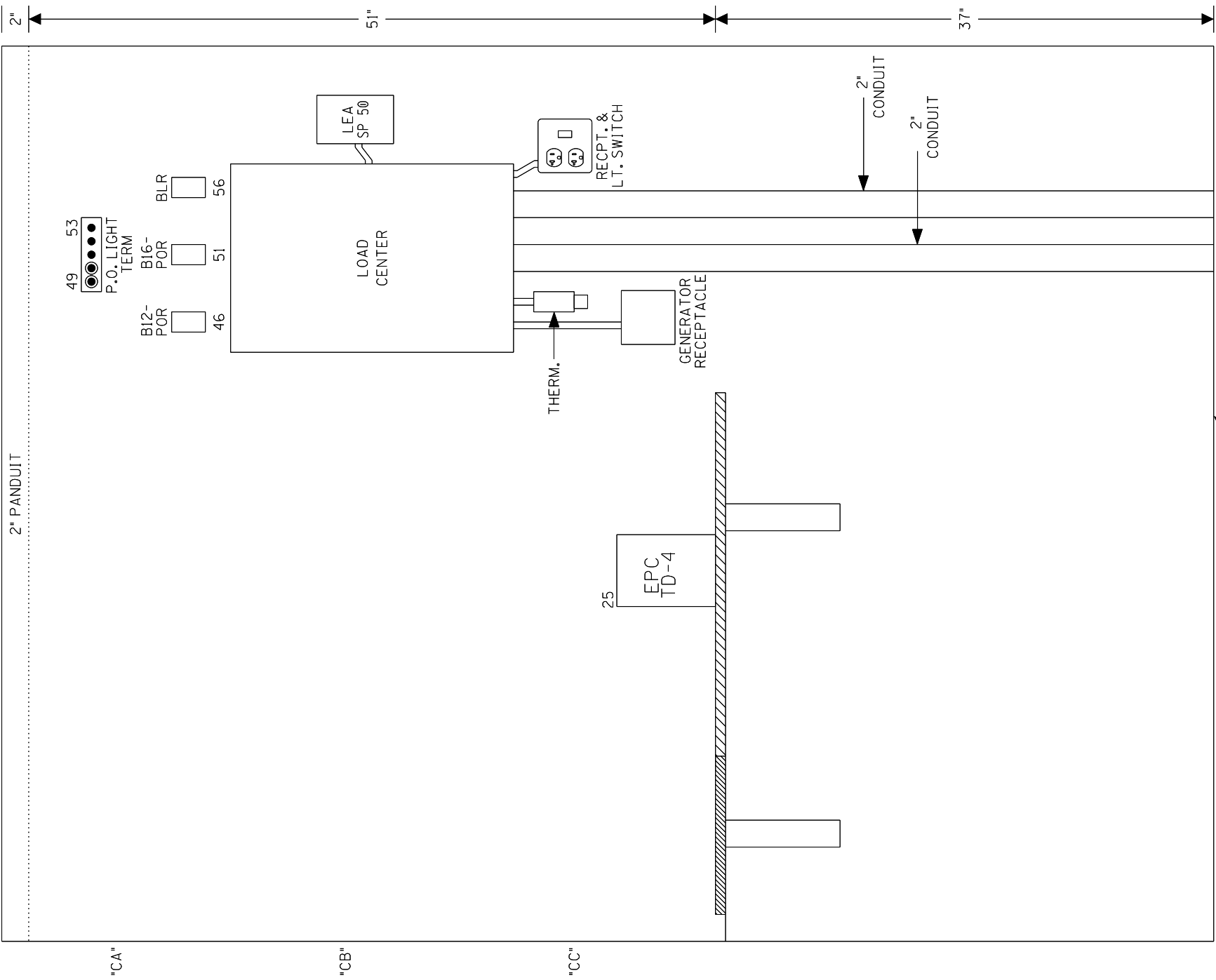
SAFETRAN ALSTOM (GRS) RELAY
CROSS REFERENCE LIST

SAFETRAN	ALSTOM (GRS)
400003	A62-308
400011	A62-267



SIDE A LAYOUT & RACK PLACEMENT

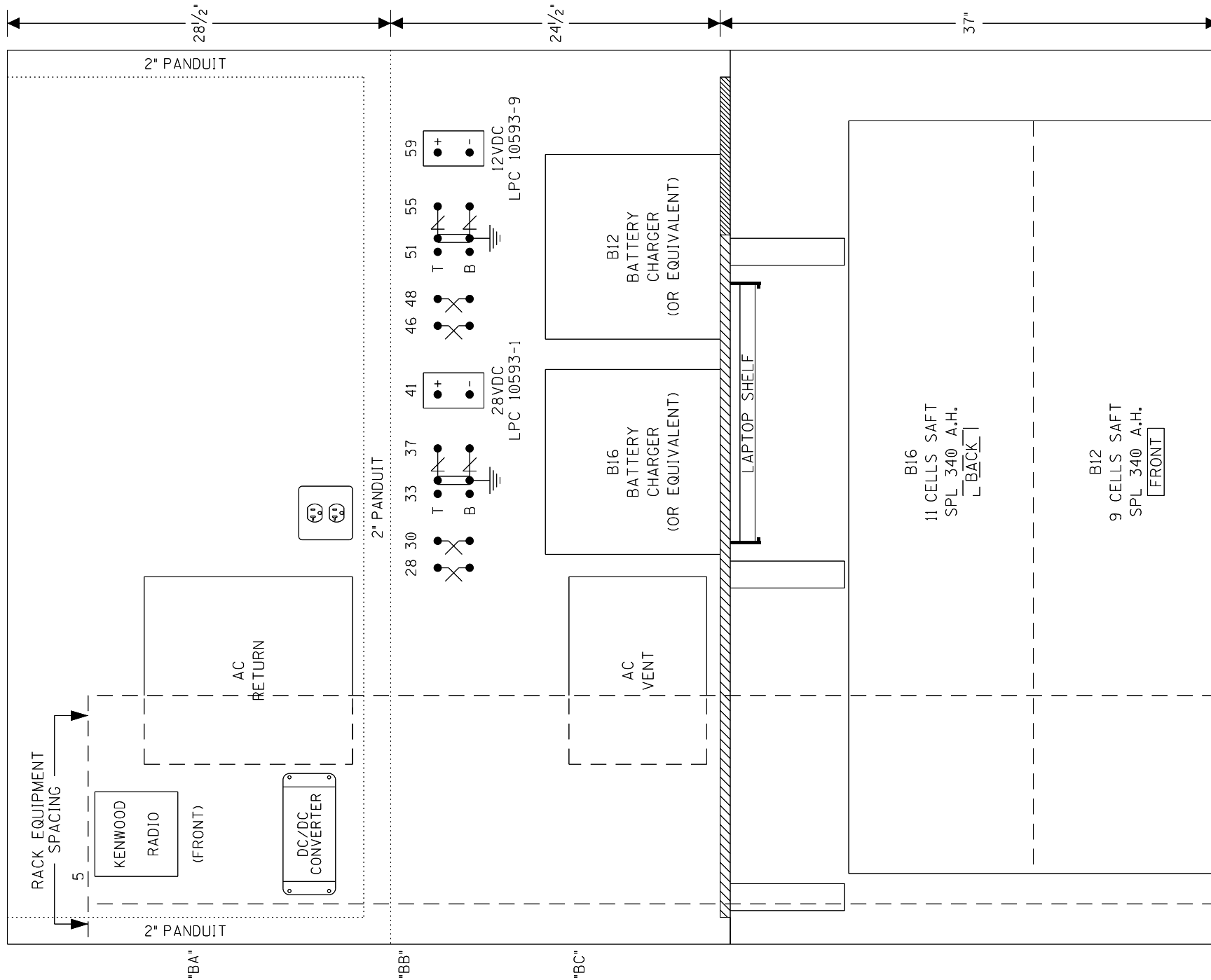
DESIGNED BY: MST 07-23-20		
DRAWN BY: PRS 07-23-20		
CHECKED BY: JMW 10-14-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: CF-18.30	
IN SERVICE:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PROPERTY NORFOLK SOUTHERN RY. CO.	NEW CASTLE DISTRICT CADD or DWG. No. NCMC01828.021	REV. 1 SHEET No. 21



SIDE C LAYOUT

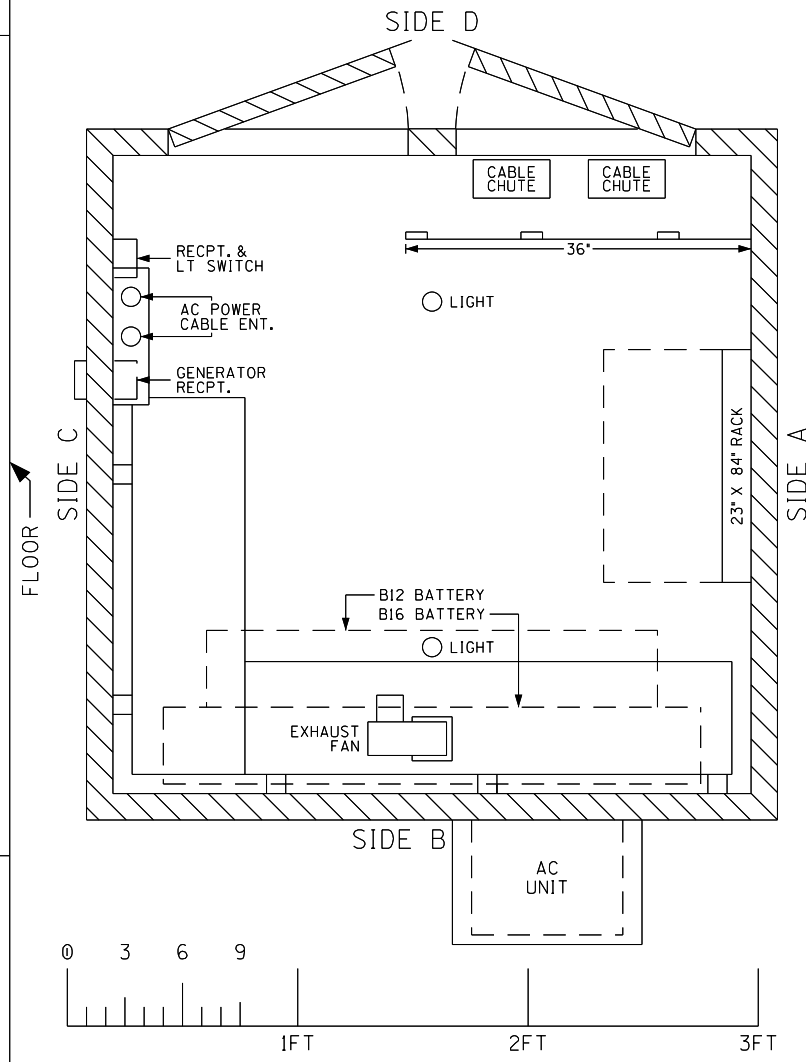
DESIGNED BY:	NS NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH	
PRS 07-23-20	CFLGS AT SHARON ROAD	
CHECKED BY:	NEW CASTLE DISTRICT	
JMW 10-14-20	CADD or DWG. No.	REV. 1
IN SERVICE:	NCMC01828.022	SHEET No. 22

PROPERTY
NORFOLK SOUTHERN RY. CO.



***TOP VIEW**

6'X6' HOUSE (INSULATED)
* = 1/2" SCALE



SIDE B LAYOUT & TOP VIEW

DESIGNED BY:	NS NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or DWG. No.	SHEET No.
JMW 10-14-20	NCMC01828.023	23
IN SERVICE:	- -	


PROPERTY
NORFOLK SOUTHERN R.WY. CO.

SH. NO.	CONTENTS
NX1	INDEX SHEET
1	LAYOUT
2	PROFILE
3	CABLE PLAN
4	GATE MECHANISMS
5	CANTILEVER SIGNAL #1
6	CANTILEVER SIGNAL #2
7	POWER & AC SURGE PANEL
8	3000D2 GCP HOOK-UP
9	CROSSING CONTROLLER, STANDBY FLASHER
10	RECTIFIER & BATTERIES
11	LIGHTING/SURGE PANEL
12	LIGHTING/SURGE PANEL
13	BATTERIES & BATTERY SURGE PANEL
14	TRACK SURGE PANEL
15	TRACK DRIVER, XTR
16	EQUIPMENT RACK
17	HOUSE - REAR WALL
18	HOUSE - RIGHT WALL

TO BE VOIDED

*10.0173
07-23-20
PRS
RED = IN
YELLOW = OUT

INDEX SHEET

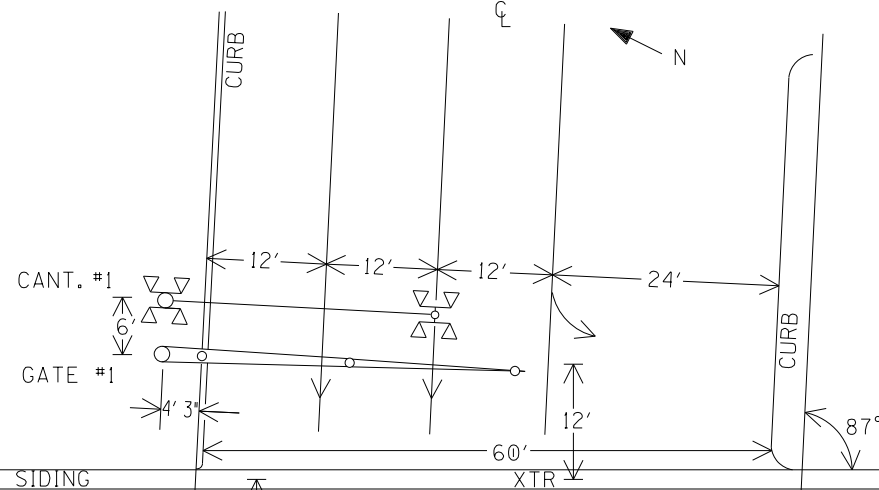
DESIGNED BY:		
NS - -	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.28
DRAWN BY:	MUNCIE TO CINCINNATI	
URL 09-18-15	SHARONVILLE, OH CFLGS AT SHARON RD.	
CHECKED BY:	NEW CASTLE DISTRICT	
- -	CADD or DWG. No.	FILE No. M-2943
IN SERVICE:	NCMC01828.NX1	SHEET 1 of 1
NS - -		

REVISION R-3615
INITIALS NRI/08-01-17
URL/10-04-17

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

TO HAMILTON
(WEST)
M.P. INCREASING

TO MILL
(EAST)
M.P. DECREASING



100'

100'

[B-R

SINGING

XTR

RING 10

3000D2GCP

348HZ-4.9KHZ



15'

40'

AC SERVICE

OPERATION
25 SEC.-WARNING TIME
5 SEC.-GCP ACTION
30 SEC. AT 60 M.P.H.=2628' APPROACH

U.G. CABLE

SHARON ROAD
M.P. CF-18.28
DOT #524 882U

EVANDALE RD.

TO BE VOIDED

*10.0173
07-23-20
PRS
RED = IN
YELLOW = OUT

- [B
- [N
- [WNWP2
- [NWNWP2
- [SPARE
- [SPARE
- [SPARE
- [SPARE
- [SPARE

061-10.170

PROJECT #10.173

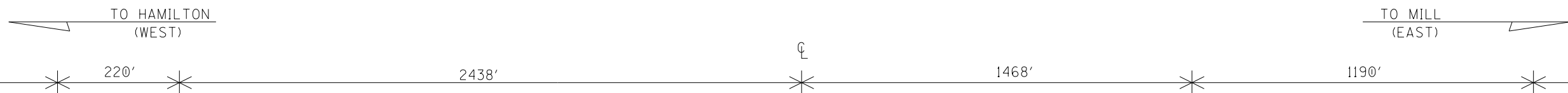
LAYOUT

DESIGNED BY: SSC 06-27-94	NS NORFOLK SOUTHERN	
DRAWN BY: SSC 06-27-94	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF18.28
CHECKED BY: SSC 06-28-94	MUNCIE TO CINCINNATI SHARONVILLE, OH. CFLGS AT SHARON RD.	
IN SERVICE: JF 02-23-95	NEW CASTLE DISTRICT	FILE No. R-9579
	CADD and DWG. No. NCMC01828.01	SHEET No. 1 of 18

SCALE 1:20

REVISION INITIALS	AS IN SERVICE																			
	06-01-04	8/01/07	M-2943	R-3615	TLD/02-20-15	NRI/08-01-17	URL/09-18-15	URL/10-04-17												
	RSD/SAH																			

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



SHARON RD.
2628'

← SHARON RD.
2628'



SIDING

MAIN

HARMON
348HZ

HARMON
348HZ

H.T.
SWITCH
(NO UNLOCK)

CFLGS
SHARON RD
3000D2 GCP
348HZ.-4.9KHZ (MAIN)
1TK AC/DC (SIDING)

TO BE VOIDED

#10.0173
07-23-20
PRS
RED = IN
YELLOW = OUT

∇ = TERMINATION SHUNT

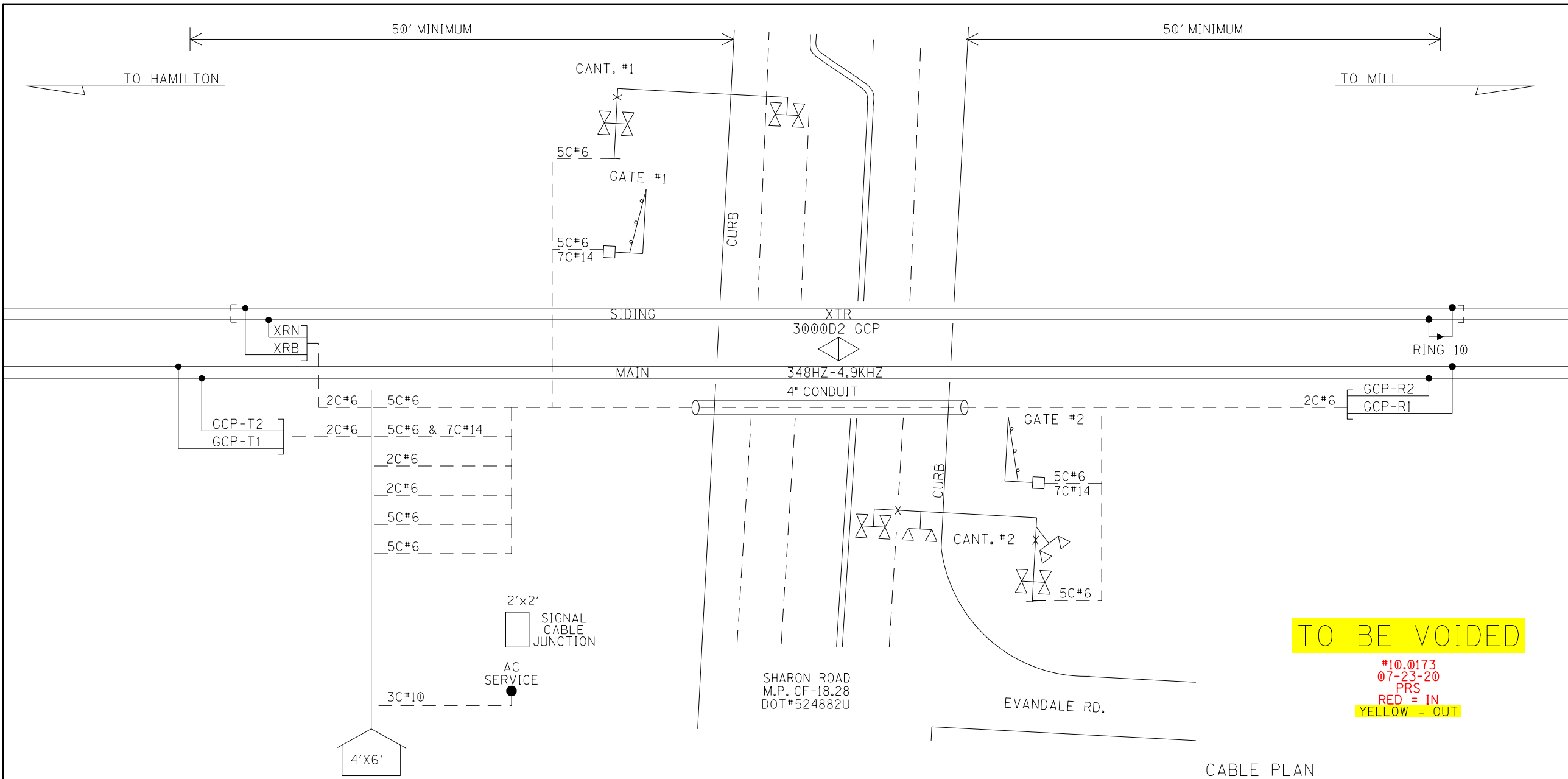
◊ = BI-DIRECTIONAL UNIT

CROSSING START PLAN

DESIGNED BY: SSC 12-04-92		
DRAWN BY: SSC 12-04-92	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF18.28
CHECKED BY: SSC 12-07-92	MUNCIE TO CINCINNATI SHARONVILLE, OH. CFLGS AT SHARON RD.	
IN SERVICE: JF 02-23-95	NEW CASTLE DISTRICT	FILE NO. R-9579
	CADD and DWG. No. NCMC01828.02	SHEET No. 2 of 18

REVISION	AS IN SERVICE									
INITIALS	06-01-04 RSD/SAH	8/01/07	M-2943 TLD/02-20-15 URL/09-18-15	R-3615 NRI/08-01-17 URL/10-04-17						

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



CABLE PLAN

DESIGNED BY: SSC 12-04-92	NS NORFOLK SOUTHERN	
DRAWN BY: SSC 12-04-92	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF18.28
CHECKED BY: SSC 12-07-92	MUNCIE TO CINCINNATI SHARONVILLE, OH. CFLGS AT SHARON RD.	
IN SERVICE: JF 02-23-95	NEW CASTLE DISTRICT	FILE No. R-9579
	CADD and DWG. No. NCMC01828.03	SHEET No. 3 of 18

REVISION	AS IN SERVICE									PROPERTY
INITIALS	06-01-04 RSD/SAH	8/01/07	M-2943 TLD/02-20-15 URL/09-18-15	R-3615 NRI/08-01-17 URL/10-04-17						NORFOLK SOUTHERN RAILWAY CO.

Sharon Road-Material

Qty.	Class-Item-CD	UI	Item Description
3	670-360693-4	EA	AAR/DOT NUMBER PLATE/DECAL, ORDER 3 PER PROJECT. 60 DAY LEAD TIME. SUPPLIED BY S'TRAN.
1	165-006505-4	EA	AC SERVICE, COMPLETE LESS METER BASE, ASSEMBLED ON 30' POLE
39	670-001196-4	EA	ARRESTER, LIGHTNING SOLID STATE ERICO P/N EPD2050F
20	105-002620-4	EA	BATTERY, NICAD 340AH, MODEL SPL340
2	670-503047-4	EA	BELL, CROSSING ELECTRONIC GENERL SIGNAL, EB-3-360-5 CR 02-044350
3	670-005125-4	EA	BLOCK, TERMINAL BAKELITE FOR MOUNTING LIGHTING ARRESTOR EQUALIZER OR RESISTANCE UNIT
4	670-980689-4	EA	BRACKET HIGH WIND, (RIGID 3'), WIG- 191036, WALRUS TUSK TYPE
2	670-811781-4	ea	BRACKET, OFFSET HIGHWAY/PEDESTRIAN SAFTRAN 076227-44X FOR S-20 OR S-40 COMBO GATE MECH W/HARDWARE & PLUG RETAINER
2	670-561375-4	EA	BRACKET, GATE SAVER, NEG385102GS, SPRING LOADED SWING AWAY ADAPTER FOR FIBERGLASS/ALUMINUM GATES, USE WITH GATE 38' AND LESS
1	165-001612-4	EA	BREAKER, 20 AMP 120-240V SQUARE D Q0120 SINGLE POLE
500	465-939422-4	LF	CABLE, UG 12 CONDUCTOR NO 14 AWG SOLID EACH CONDUCTOR WITH 5/64 IN INSULATION 10 MIL
700	465-292862-4	LF	CABLE, UG 2-6 TWISTED, S-23 OKONITE 113-12-3933 SOLID TINNED CONDUCTOR
500	465-292929-4	LF	CABLE, UG 5 COND. NO. 6 AWG SOLID COPPER CABLE TO MEET NS CORP. SPEC. FOR SIGNAL
350	465-791835-4	FT	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
1	670-708686-4	EA	CANTILEVER, COMBO,32'LINCOLN WITH MAST/WIND BRACKET/DEFLECTOR BRACKET/JCT BOX. P/N 59091032. NO GATE MECH,
1	670-715394-4	EA	CANTILEVER, COMBO,34'LINCOLN WITH MAST/WIND BRACKET/DEFLECTOR BRACKET/JCT BOX. P/N 59091034. NO GATE MECH.
1	670-010671-4	EA	CHARGER, BATTERY CRAGG MODEL 40 DTC-12V, 40 AMP, P/N 520940
1	670-010672-4	EA	CHARGER, BATTERY CRAGG MODEL 60 DTC-12V, 60 AMP, P/N 520960
4	670-664917-4	EA	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
4	670-632520-4	EA	CONNECTOR KIT, WELDED NEAR RAIL, CONSISTING OF, RUBBER HOSE PROPERLY DRILLED, BONDSTRAND, SPLICING SLEEVE, 1 REDUCING SLEEVE, 5 CLAMPS, 1 TRACK CLIP, 1 WEB
1	670-319294-4	EA	COUNTERWEIGHT, KIT 33'- 36' STAINLESS FOR S-MECH ON GATE/CANT COMBOS W/ARMS AND HUBS SAFETRAN 070755-3336BX
1	670-340164-4	EA	COUNTERWEIGHT, KIT 37'- 40' STAINLESS FOR S-MECH ON GATE/CANT COMBOS W/ARMS AND HUBS SAFETRAN 070755-3740BX
9	670-760012-4	EA	COVER, FOR 1 WAY FLASHING LIGHT ASSY. 18 OZ. BLACK VINYL COATED NYLON. =====TO COVER 2 LAMPS=====
1	670-986650-4	EA	DISPOSAL, CONSTRUCTION DEBRIS AND CLEANING X'ING EQUIPMENT CONTAINER
1	670-007684-4	EA	DRIVER, TRACK, MODEL TD-4 ELECTRO PHEUMATIC CORP. FOUR OUTPUTS

3	670-228165-4	EA	EQUALIZER, SAFETRAN 022700-1X LESS BASE, MODERN NO. 700-1 SHUNT ARRESTER TRACK CIRCUITS CR 02-197950
1	670-000004-4	EA	FCC LICENSE FOR MONITOR/RADIO
2	670-001486-4	EA	FERRITE BEAD (USED IN INSTALLATION OR RCL LOCATIONS) IPN: Z590-00016-0000
1	670-000003-4	EA	FILL/STONE #57, QUANTITY IS BASED ON TRUCK LOAD PLUS DELIVERY COST
2	670-780292-4	EA	FOUNDATION, CFLS FOR LINCOLN DBL. AS WELL SAFETRAN WT/F MAST WALKOUT CANT. 31'- 40' 8 BOLT, DIXIE# DP8B-DM27-40-5
2	670-698769-4	EA	GATE ARM DEFLECTOR FOR WTF 21-40' ARMS, 076203-X78
2	670-005375-4	EA	GATE ARM, ALUMI-LITE (HIGH WIND), 34-40 FT, ARM ASSEMBLY, INCLUDES GATE GUARD FOR GATE LIGHT CABLE. HIGH INTENSITY VERTICAL STRIPES.
1	670-293365-4	EA	GCP4000 - 1 TRK (2TC) - REDUNDANT (INCL. 2 TRK CHASSIS A80465, 2 TRK MODS. A80418, 1-SSCC A80405, 2 CPU A80403, 1 SEAR A80410, 1 DISPLAY A80407, 1 TRANS MOD. A80468)
1	670-402504-4	EA	GCP4000 - MODULE - SSCC3I MODULE - IPN: A80405
2	670-075133-4	EA	GCP4000/GEO - MODULE - RIO MODULE - IPN: A80413
4	670-324266-4	EA	GUARD, HIGH WIND LIGHT DEFLECTOR FOR COMBO CANTILEVER GATE SAFETRAN 076203-66X1
1	670-477991-4	EA	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	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
2	670-092155-4	EA	LAMP ASSY, LED GATE ARM KIT (INCLUDES 3 LAMPS COMPLETE WITH CABLES AND MTG. HARDWARE) REC #: 9298-1120
3	670-005054-4	EA	LAMP ASSY, LED, 12" MAST 1 WAY FRONT LIGHTS (IPN: 042003-L489XNS)
1	670-005063-4	EA	LAMP ASSY, LED, 4" MAST 1 WAY LIGHTS (IPN: 042003-L484XNS)
2	670-005065-4	EA	LAMP ASSY, LED, 4" MAST BACK TO BACK LIGHTS (IPN: 042003-L485XNS)
2	670-005066-4	EA	LAMP ASSY, LED, 5" MAST 1 WAY BACK LIGHTS (IPN: 042003-L001493)
1	670-439956-4	EA	LAPTOP DRAWER, 5X5
40		EA	LINK, SAFETRAN 023839-2 CONNECTOR 1 IN CENTER SIGNAL CIRCUITS
40	670-440826-4	EA	LINK, SAFETRAN 024620-1X INSL TESTING COMP 1 IN CENTER SIGNAL CIRCUITS CR 02-286662
7	670-442062-4	EA	LINK, TEST SAFETRAN 024620-4X COMP FOR MTG ON AAR TERM 2-3/8" CENTER W/SPECIAL NUT & CLAMP NUT
7	255-590880-4	EA	LOCK, AMERICAN LOCK MODEL H-10KA KEYED ALIKE TO PRIVATE KEYWAY D456 AND STAMPED "NS SIG"
1	670-339854-4	EA	MAST, (WT/F) , SIDELIGHT BRACKET FOR WT/F CANTILEVER, SAFETRAN 041442-1031X,
2	670-000431-4	EA	MAST, 12" CANTILEVER/GATE COMBO, FOR 31'-40' WT/F ARMS, GATE OFFSET TOWARD TRACK, INCL. LADDER KIT (IPN: 071292-40NS)
2	670-521147-4	EA	MECHANISM, GATE MODEL S-40, WITH CONTACT HEATER, COMPLETE W/RELAY S'TRAN # 074000-W00090
1	000-000011-4	EA	MISC. EXPENSE, ALL OHIO CROSSINGS, PE AND ATTORNEY CHARGES @ \$1,200

2	670-000002-4	EA	MISC. EXPENSE, CONCRETE WORK
2	670-000014-4	EA	MISC. EXPENSE, CURB WORK (BY ROAD AUTHORITY)
1	670-000001-4	EA	MISC. EXPENSE, MATERAIL/FILL
1	000-000000-4	EA	MISC. EXPENSE, UNDERGROUND BORING
2	670-001355-4	EA	PACKAGE, HARDWARE SIGN 12 IN. (USE WITHWT/F MAST) MOUNTING, SERRMI A1250-8, HARMON @180004/0007,
2	670-001347-4	EA	PACKAGE, HARDWARE SIGN 5 IN. MOUNTING, SERRMI A1250-5, HARMON @200965-000, OR
2	670-207365-4	EA	PACKAGE, HARDWARE SUPPORT FOR MOUNTING CROSSING SIGN ON WT/F CANTILEVER ARM 21'-40', SAFETRAN P/N 071279-X11
1	255-646807-4	EA	PADLOCK, SAFETRAN PART NO. 030399-29X SCREW TYPE FOR CIR CONTROLLER AND BTY. BOX
2	670-514605-4	EA	PINNACLE, W-C SECT 1-11, 4"& 5" REF K1 110-8 OR SAFETRAN NO. @035045-503X
6	670-259211-4	EA	PLUG BOARD KIT, TYPE B-1 & VOLTAGE TEST TERMINAL, SAFETRAN 420000-75X
1	670-602559-4	EA	RECTIFIER, ELECTRO-PNEUMATIC TRACK MODEL NO RING-10 TYPE C TRACK CIRCUIT
4	465-002899-4	EA	REEL, CABLE DISPOSABLE FOR CROSSING SIGNAL PACKAGES
1	670-707755-4	EA	RELAY, TYPE B1, BLASED NEUTRAL, 2 OHMS, .15 AMPERES, FOR OS TK. per RTM. GRS A62-120
5	670-707995-4	EA	RELAY, TYPE B1, NEV LINE, 900 OHMS,.008 AMPERES GRS A62-308 OR SAFETRAN @400003
1	670-507443-4	EA	RESISTOR, ADJUSTABLE 029603-7X, 1.53 OHM - 16 OHM INVENSYS
1	180-662001-4	EA	RESISTOR, SAFETRAN 029258-50-A2X SEALED TAP TYPE 2.5 OHMS 4.47 MAXIMUM AMPS (LIGHTING)
2	670-001493-4	EA	ROD, RELAY MOUNTING BARS FOR 24" RACK (USED IN INSTALLATION OR RCL LOCATIONS) IPN: 003242-T10800
2	435-805560-4	EA	SAND, 25LB BAG FOR CABLE ENTRANCE INTO THE SHELTER
1	019623-4	EA	SHELTER, ALUM, 6X6 , PTMW SHELTER W/HVAC, STANDARD TO BE USED AT GRADE CROSSING
3	670-586967-4	EA	SHUNT COVER W/LAG SCREWS, 19"X19", SERRMI #40271, ORDER 1 PER SHUNT
2	670-016314-4	EA	SHUNT, MULTI-FREQ. #250849-003 FSS-1D NARROW BAND-LOW LOADING (86, 114, 156, 172, 211)
2	670-393331-4	EA	SIGN CROSSING MALFUNCTION ASSEMBLY FOR 4" AND 5" MAST, SAFETRAN #T17215
2	670-554843-4	EA	SIGN, 2 TRACK SIGN, HIGH INTENSITY, SAFETRAN #035207-2HX
4	670-016346-4	EA	SIGN, X-BUCK, HI-INTENSIVE REFLECTIVE FRT. & BACK FOR ALL STATES, SAFETRAN# 035200-91X
1	670-330382-4	RL	TAPE, THOR 3" DURATEC, ORANGE 1000' LENGTHS. "WARNING STOP DIGGING"
48	670-478560-4	EA	TERMINAL BLOCK, ERICO 4 POST P/N B2700A2C1WH W/HARDWARE LESS LIGHTNING ARRESTOR
6	670-007238-4	EA	UNIT, THE INSTALLATION AND WIRING OF A DEVICE WHICH REQUIRE A MINIMUM OF FOUR WIRE CONNECT-

1	450-986008-4	EA	WRENCH, TEST POST TYPE B DWG 55393-3, GR.1
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SUBJECT: Request for Commercial Power Service

File: CX0101588
Date: October 14, 2020

Mr. R. A. McGrath - Northern Region
Superintendent C&S Construction
4882 Trabue Rd. Bldg T4
Columbus, Oh 43288

Mr. R. D. Duncan - Southern Region
Superintendent C&S Construction
1200 Peachtree St. NE, Box 123, 8th Floor
Atlanta, GA 30309

Mr. D.L. Etherton – Western Region
Superintendent C&S Construction
110 Franklin Road – Box 2
Roanoke, Virginia 24042

Please arrange to furnish a commercial power service at:

Sharonville, OH M.P.– CF-18.30 For CFLGS at Sharon Road DOT# 524882U
(Location) (Project Description)

Size of service needed 240 VAC at 100 Amps

Branch circuit breaker size needed 30 Amps.

Attached is a sketch showing proposed power source location in the vicinity of our signal instrument case.

Use the following information for accounting on this project:

_____	_____	_____	_____	_____	<u>F-01720</u>
RIN/CC	NEC	Function	Settlement Code	Dept.	Special Capture No. Tax Code

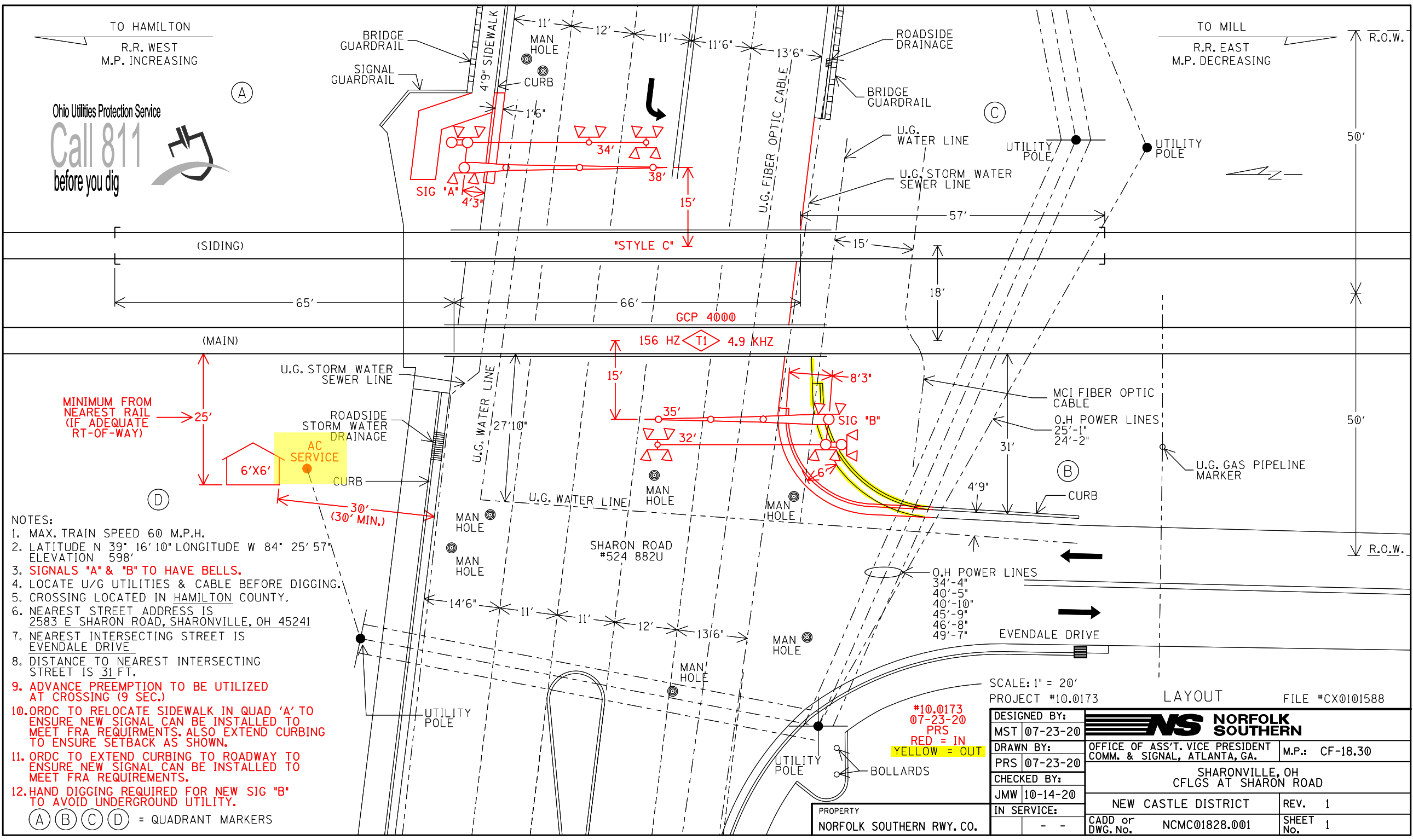
Form NS-11123 (formerly MW-134) is required: Yes No

Start of construction is anticipated for _____, 2016. Please advise if there will be any problems securing power at the proposed site.

T.A. Phillips
Chief Engineer
C&S Construction

TO HAMILTON
R.R. WEST
M.P. INCREASING

TO MILL
R.R. EAST
M.P. DECREASING



- NOTES:
1. MAX. TRAIN SPEED 60 M.P.H.
 2. LATITUDE N 39° 16' 10" LONGITUDE W 84° 25' 57" ELEVATION 598'
 3. **SIGNALS "A" & "B" TO HAVE BELLS.**
 4. LOCATE U/G UTILITIES & CABLE BEFORE DIGGING.
 5. CROSSING LOCATED IN HAMILTON COUNTY.
 6. NEAREST STREET ADDRESS IS 2583 E SHARON ROAD, SHARONVILLE, OH 45241
 7. NEAREST INTERSECTING STREET IS EVENDALE DRIVE
 8. DISTANCE TO NEAREST INTERSECTING STREET IS 31 FT.
 9. **ADVANCE PREEMPTION TO BE UTILIZED AT CROSSING (9 SEC.)**
 10. **ORDC TO RELOCATE SIDEWALK IN QUAD 'A' TO ENSURE NEW SIGNAL CAN BE INSTALLED TO MEET FRA REQUIREMENTS. ALSO EXTEND CURBING TO ENSURE SETBACK AS SHOWN.**
 11. **ORDC TO EXTEND CURBING TO ROADWAY TO ENSURE NEW SIGNAL CAN BE INSTALLED TO MEET FRA REQUIREMENTS.**
 12. **HAND DIGGING REQUIRED FOR NEW SIG "B" TO AVOID UNDERGROUND UTILITY.**
- (A) (B) (C) (D) = QUADRANT MARKERS

SCALE: 1" = 20'
PROJECT #10.0173 LAYOUT FILE #CX0101588

DESIGNED BY:	NS NORFOLK SOUTHERN	
MST 07-23-20	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: CF-18.30
DRAWN BY:	SHARONVILLE, OH CFLGS AT SHARON ROAD	
PRS 07-23-20	NEW CASTLE DISTRICT	REV. 1
CHECKED BY:	CADD or DWG. No.	SHEET No. 1
JMW 10-14-20	NCMC01828.001	
IN SERVICE:		

PROPERTY
NORFOLK SOUTHERN RWY. CO.

#10.0173
07-23-20
PRS
RED = IN
YELLOW = OUT