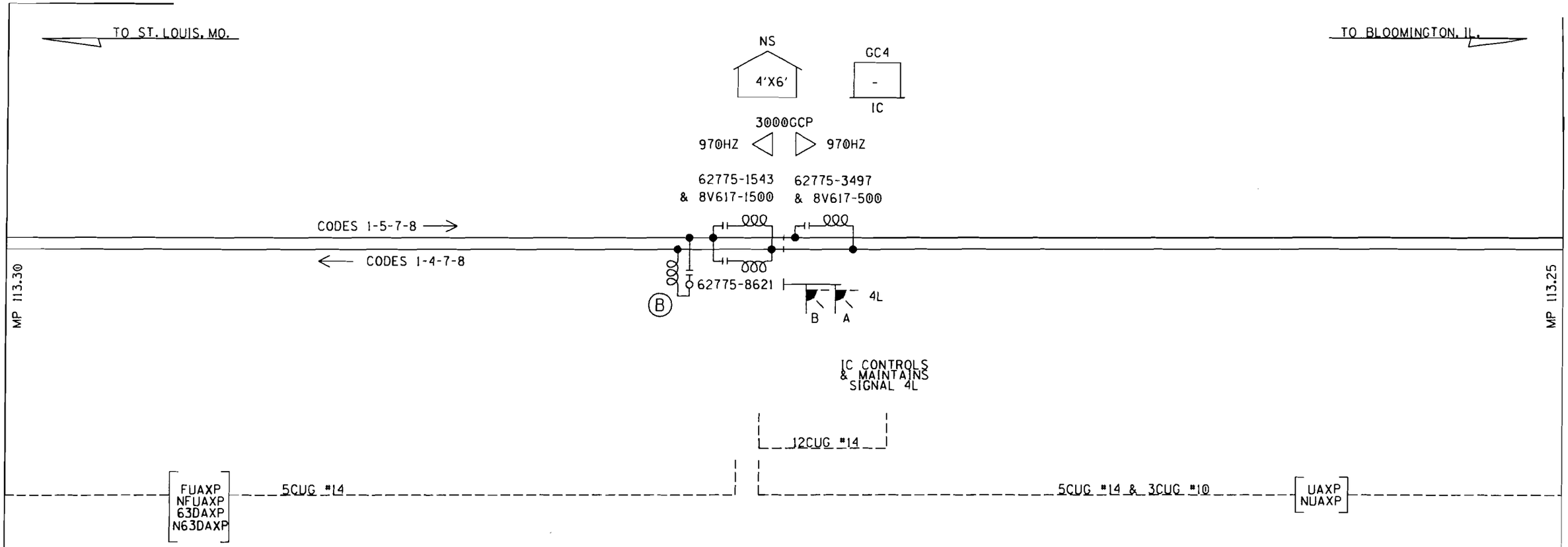

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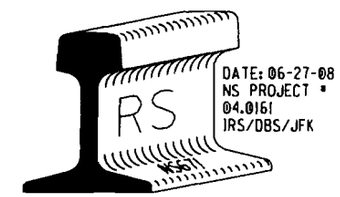


RECEIVED
NOV 5 2008
Illinois Commerce Commission
RAIL SAFETY SECTION

IN SERVICE_____ _____
SIGNED DATE

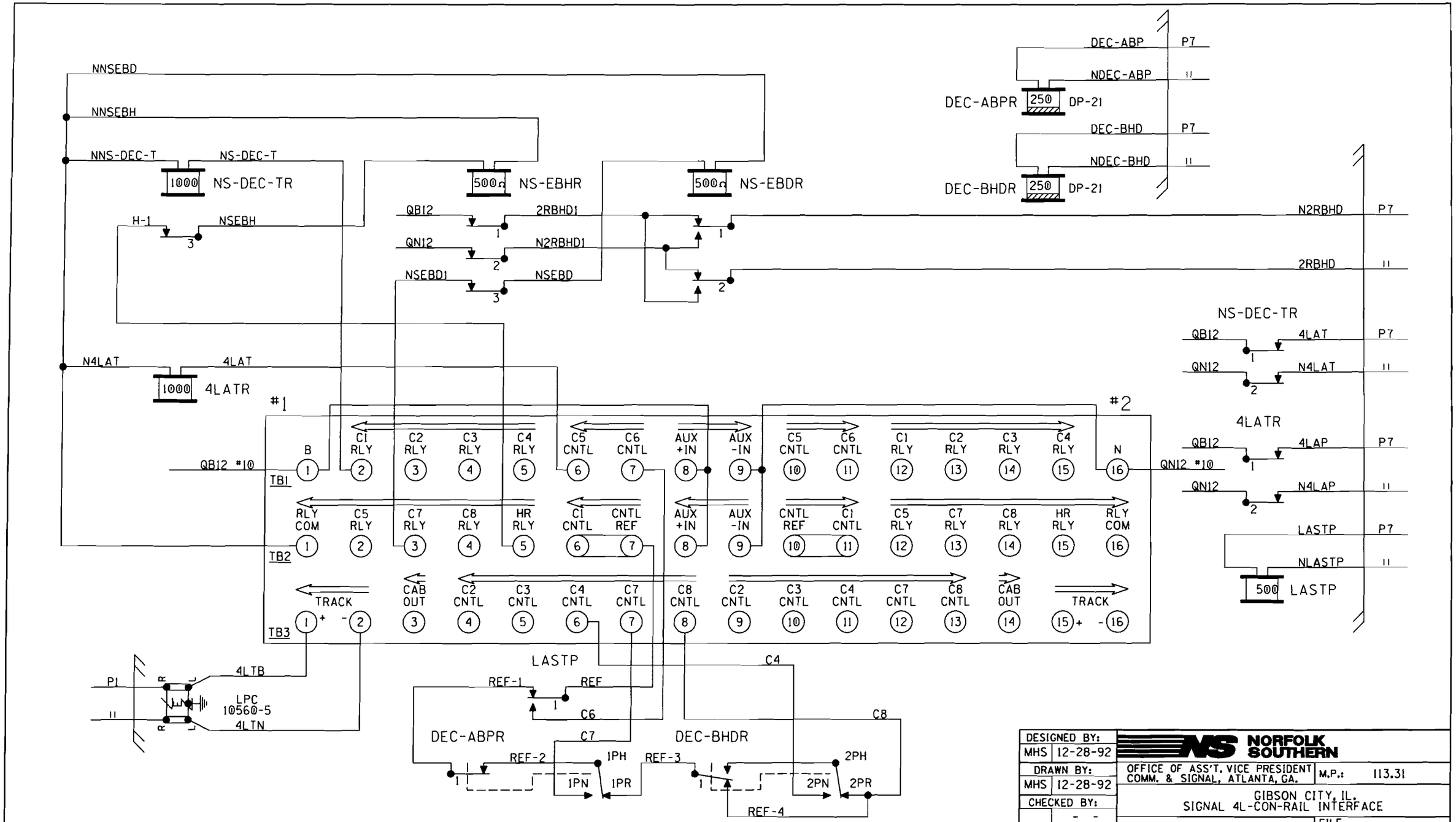
☐ S&E ENGINEERING COPY
☐ CONSTRUCTION OFFICE COPY
RETURN TO S&E ENG. AFTER COMPLETION
☐ FIELD COPY
RETURN TO CASE AFTER COMPLETION
☐ PROJECT ENGINEER COPY

Ⓐ - MF-NBS 62775-3497 (430HZ)
W/INDUCTOR 8V617-1200

DESIGNED BY: MHS 12-28-92	NORFOLK SOUTHERN	
DRAWN BY: MHS 12-28-92	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: 113.31
CHECKED BY: - -	GIBSON CITY, IL. SIGNAL 4L-CON-RAIL INTERFACE	
IN SERVICE: TKF 02-19-93	CB 11325-11330	FILE No. R-9505
	CADD or DWG. No. FTLB11331.1	SHEET No. 1 of 10

REVISION INITIALS										
	TKF 2/19/93	MSS 9/9/93	MSS 5/27/94							

PROPERTY
NORFOLK AND WESTERN RWY. CO.



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IN SERVICE: TKF 02-19-93	CB 11325-11330 — FILE No. R-9505
	CADD or DWG. No. FTLB11331.2 — SHEET No. 2 of 10

REVISION	TKF 2/19/93
INITIALS	MSS 9/9/93

PROPERTY
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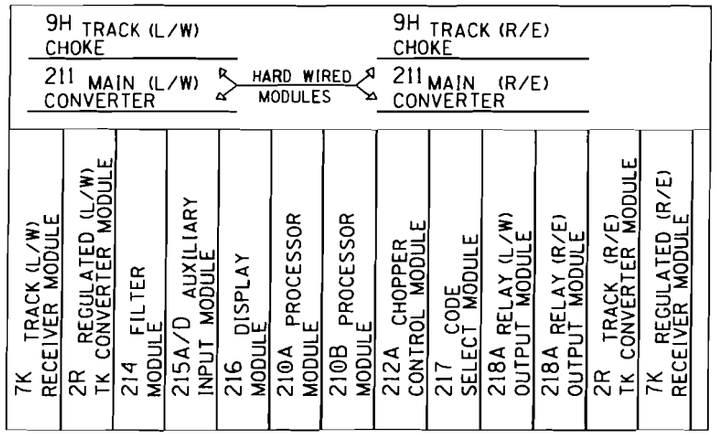
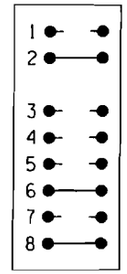


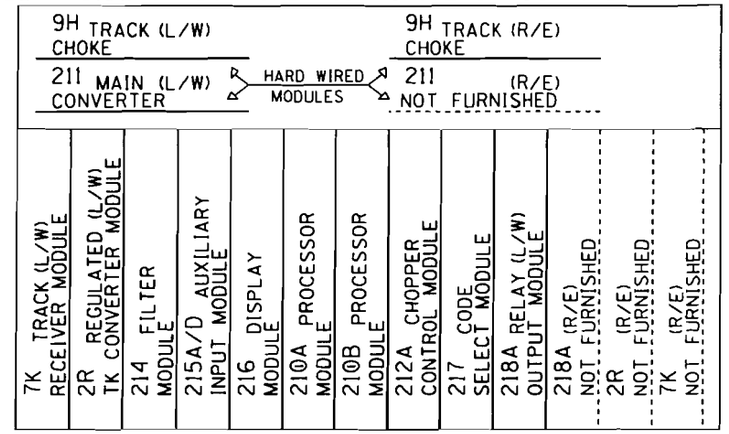
ELECTRO CODE MODEL 4H
CONFIGURATION "A"

CHASSIS ID
(LOCATED BETWEEN THE 210A AND 210B MODULES.)

PROGRAM "NS4H"



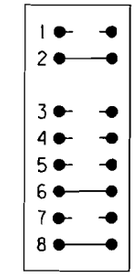
LEFT SIDE OF BOX ONLY IS ACTIVE ON CONF. "B"



ELECTRO CODE MODEL 4H
CONFIGURATION "B"

CHASSIS ID
(LOCATED BETWEEN THE 210A AND 210B MODULES.)

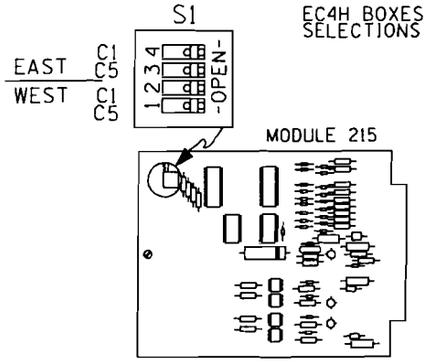
PROGRAM "NS4H"



215 MODULE

THE 215 MODULE CONTROLS AUXILIARY INPUTS AND CODE 5 OPERATION.

EC4H BOXES SHOULD HAVE ALL SWITCHES SET TO OPEN AS ALL CODE 5 SELECTIONS ARE DONE WITH THE FRONT TERMINALS



CODE 5 WILL NOT BE TRANSMITTED "OUT" TO ANY TRACK CIRCUIT UNLESS CODE 1 IS RECIEVED "IN" FROM THE SAME TRACK CIRCUIT

FOR THIS LOCATION
SET SWITCHES AS FOLLOWS:

EAST	C1	OPEN
	C5	OPEN
WEST	C1	OPEN
	C5	OPEN

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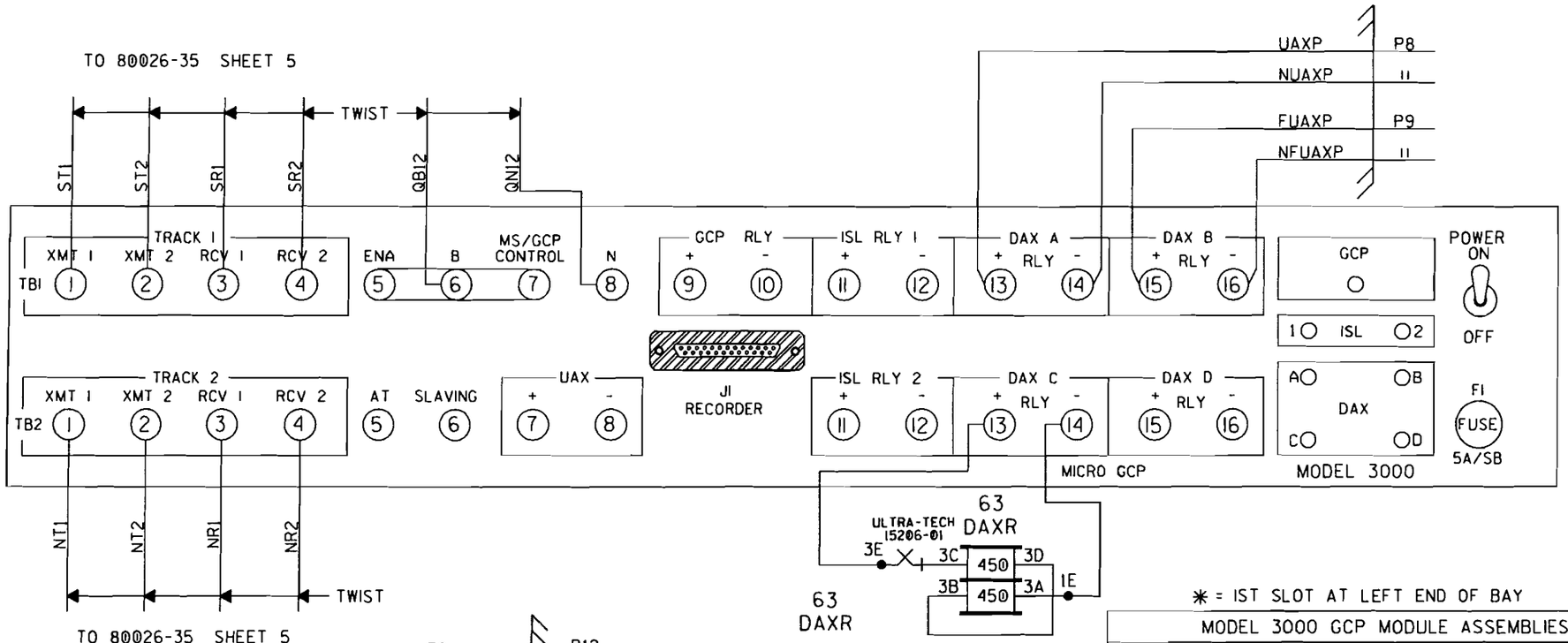
IN SERVICE: TKF 02-19-93	CB 11325-11330	FILE No. R-9505	
	CADD or DWG. No. FTLB11331.3	SHEET No. 3 of 10	

REVISION INITIALS

PROPERTY
NORFOLK AND WESTERN RWY. CO.



✳ = 1ST SLOT AT LEFT END OF BAY

MODEL 3000 GCP MODULE ASSEMBLIES											
UPPER BAY											
MODULES POSITION	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	
MODULE NUMBERS	80011-f(1) ✳	80011-f(2)	80012	80012	80013	80214 80014		80015	80016 (1)	80016 (2)	80020
MODULES USED			x	x	x	x		x	x		

INSTALL NEW 80214 PROCESSOR CARD W/LATEST SOFTWARE

DRAFTING ERROR M8 DAX CARD EXISTING

RED = IN
YELLOW = OUT

DATE: 06-27-08
NS PROJECT # 04.0161
IRS/DBS/JFK

3000 PROGRAMMING	
# OF TKS/TRANCEIVERS	2
BASIC FREQUENCY	970Hz
T1 UNI/-DIRECTIONAL	UNI
T2 UNI/-DIRECTIONAL	UNI
T1 POWER-HI/MED/LOW	MED
T2 POWER-HI/MED/LOW	MED
T1 PRED/MS	GCP
T2 PRED/MS	GCP
T1 WARNING TIME	30 Sec
T2 WARNING TIME	30 Sec
T1 APPROACH DIST	1000 Ft
T2 APPROACH DIST	1000 Ft
UAX PU DELAY(0=OFF)	0 Sec
# OF DAX'S	33 Ea
T1 ISL DIST	0 Ft
T2 ISL DIST	0 Ft

DAX A = T1/T2?	TRACK= 1
DAX A DIST	350 Ft
DAX A WARN TIME	Sec
DAX B = T1/T2?	TRACK= 2
DAX B DIST	500 Ft
DAX B WARN TIME	Sec
DAX C = T1/T2?	TRACK= 2
DAX C DIST	1405 Ft
DAX C WARN TIME	30 Sec
DAX D = T1/T2?	TRACK=
DAX D DIST	Ft
DAX D WARN TIME	Sec
MASTER?/SLAVE?	MASTER
PASSWORD NO/YES	NO
RECORDER NO/YES	NO

T1-SW TO MS AT 10 % OF EZ		
T2-SW TO MS AT 10 % OF EZ		
T1-DELAY MS TO GCP		Sec
T2-DELAY MS TO GCP		Sec
T1 PRIME PRE. OFFSET		Ft
T2 PRIME PRE. OFFSET		Ft
PRIME PU TIME DELAY		Sec
DAX A PU DELAY	16	Sec
DAX B PU DELAY	16	Sec
DAX C PU DELAY	25	Sec
DAX D PU DELAY		Sec

DESIGNED BY: MHS	12-28-92
DRAWN BY: MHS	12-28-92
CHECKED BY:	- -
IN SERVICE: TKF	02-19-93

NORFOLK SOUTHERN

OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. — M.P.: 113.31

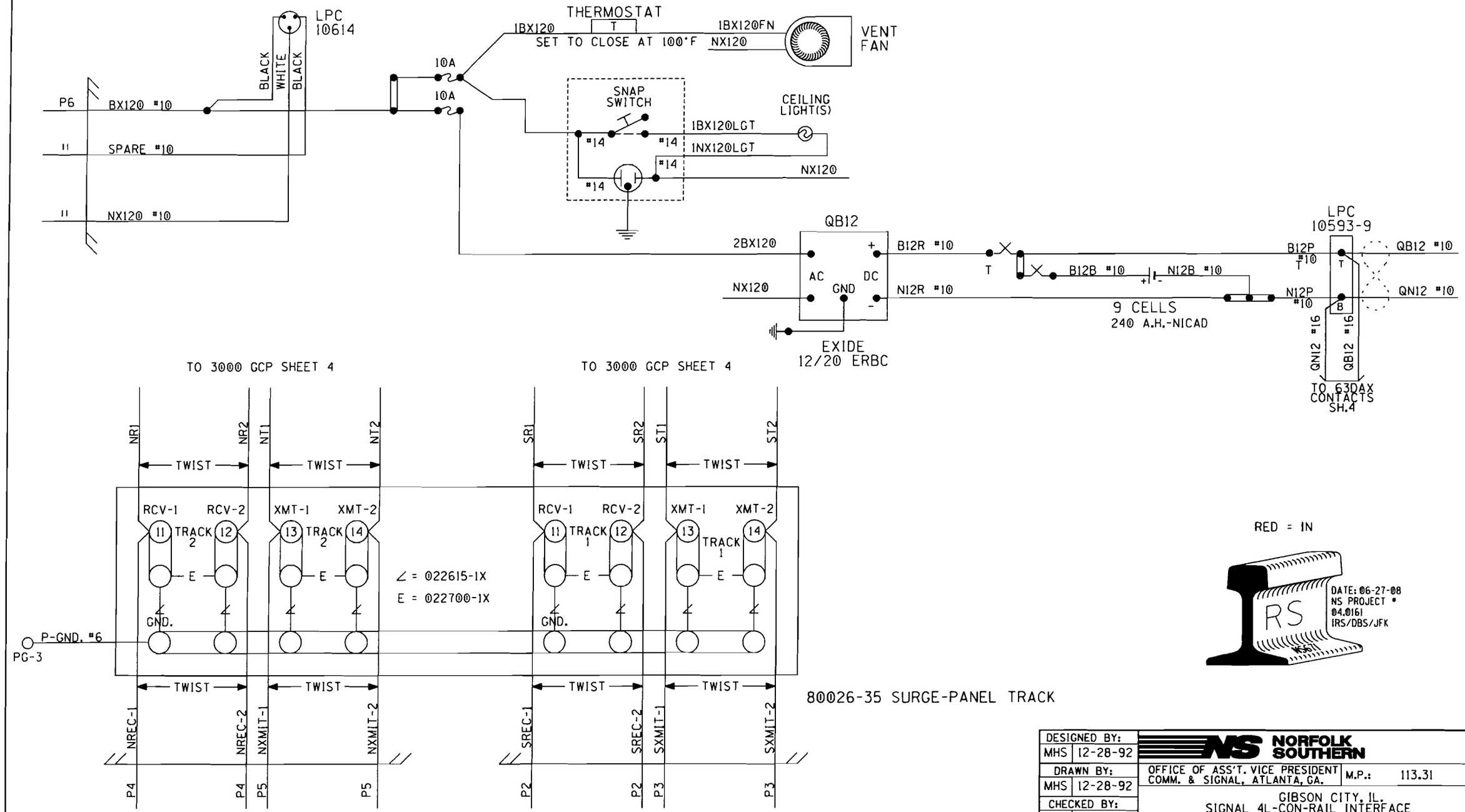
GIBSON CITY, IL.
SIGNAL 4L-CON-RAIL INTERFACE

CB 11325-11330 — FILE No. R-9505

CADD or DWG. No. FTLB11331.4 — SHEET No. 4 of 10

REVISION INITIALS	
TKF	2/19/93
MSS	9/9/93

PROPERTY
NORFOLK AND WESTERN RWY. CO.



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DRAWN BY:	MHS 12-28-92
CHECKED BY:	- -
IN SERVICE:	TKF 02-19-93

NORFOLK SOUTHERN

OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.

M.P.: 113.31

GIBSON CITY, IL.
SIGNAL 4L-CON-RAIL INTERFACE

CB 11325-11330

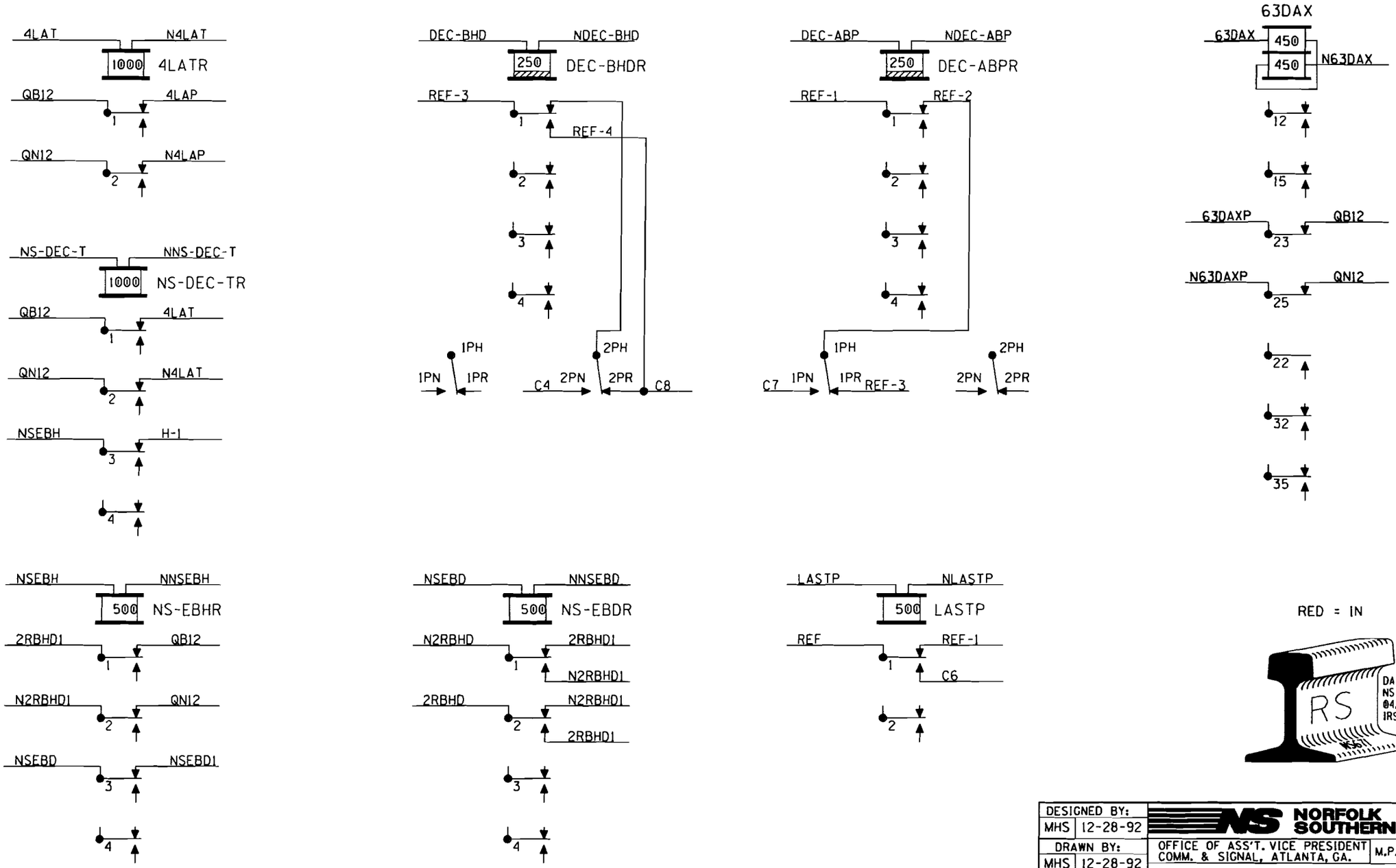
FILE No. R-9505

CADD or DWG. No. FTLB11331.5

SHEET No. 5 of 10

REVISION INITIALS TKF 2/19/93 MSS 9/9/93

PROPERTY
NORFOLK AND WESTERN RWY. CO.



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DRAWN BY: MHS 12-28-92	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: 113.31	
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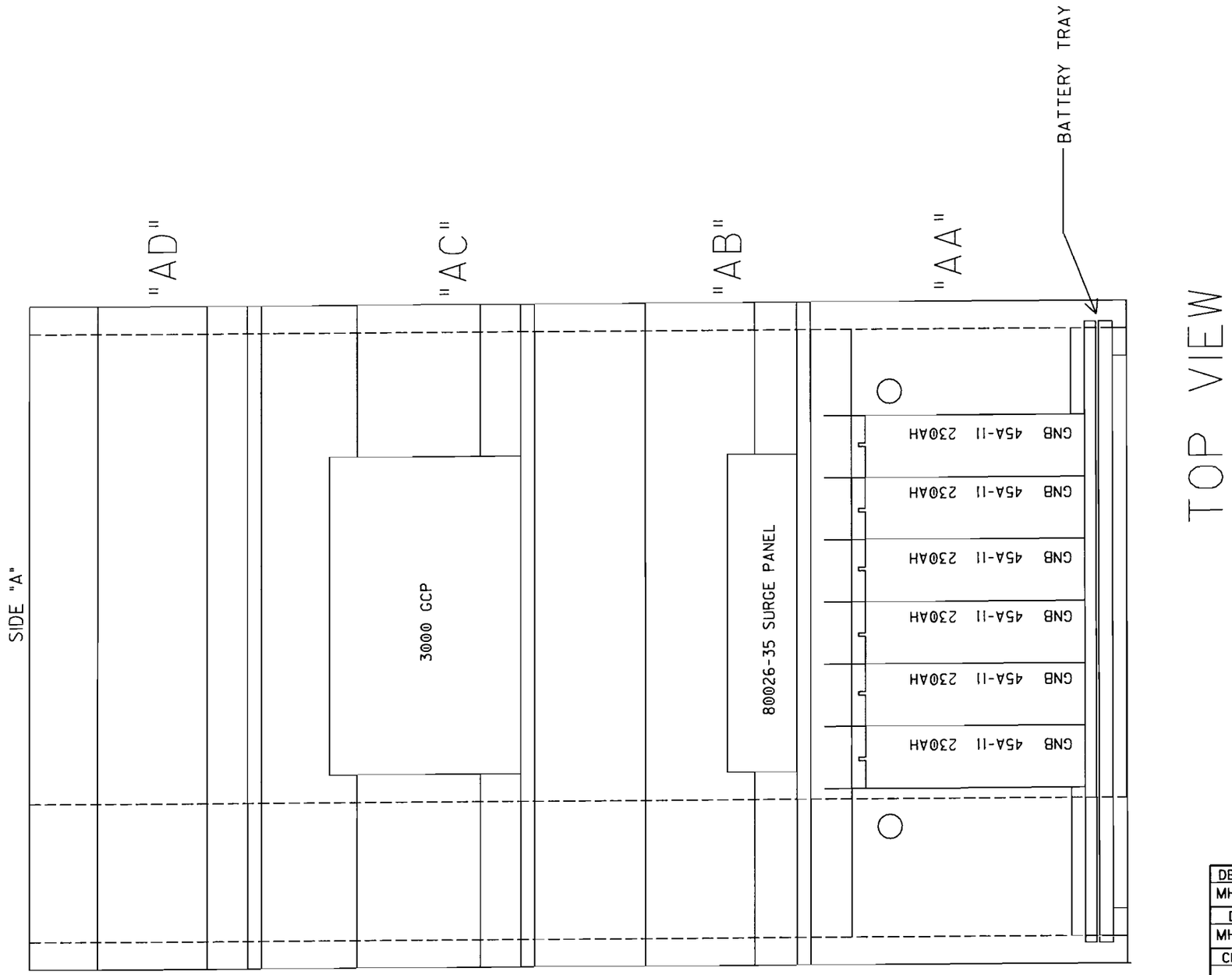
IN SERVICE: TKF 02-19-93	CB 11325-11330	FILE No. R-9505	
	CADD or DWG. No. FTLB11331.6	SHEET No. 6 of 10	

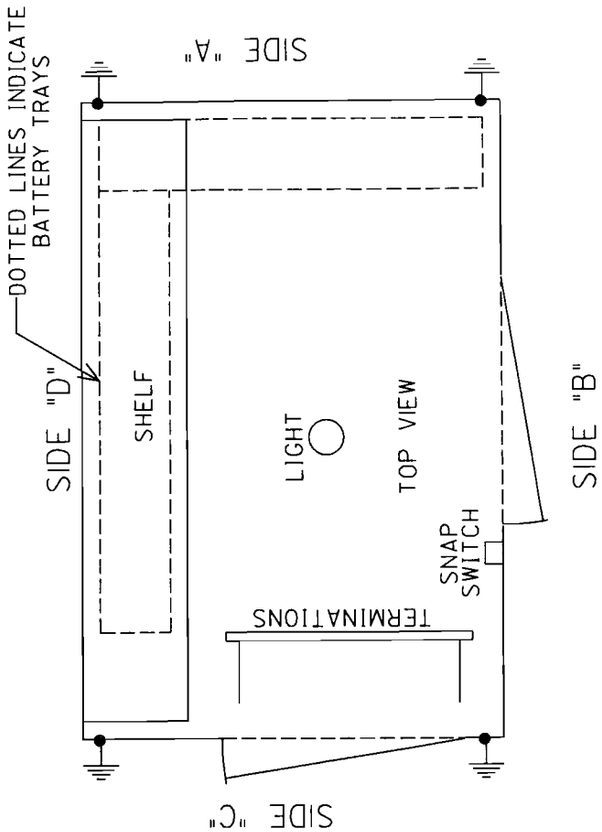
REVISION	TKF 2/19/93							
INITIALS	MSS 9/9/93							

PROPERTY
NORFOLK AND WESTERN RWY. CO.

NOTE: HOLES FOR WIRES AND CABLE CONDUCTORS SHALL BE 1/2" IN. DIAMETER.



TOP VIEW



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DRAWN BY: MHS 12-29-92	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: 113.31	
CHECKED BY: - -	GIBSON CITY, IL. SIGNAL 4L-CON-RAIL INTERFACE		
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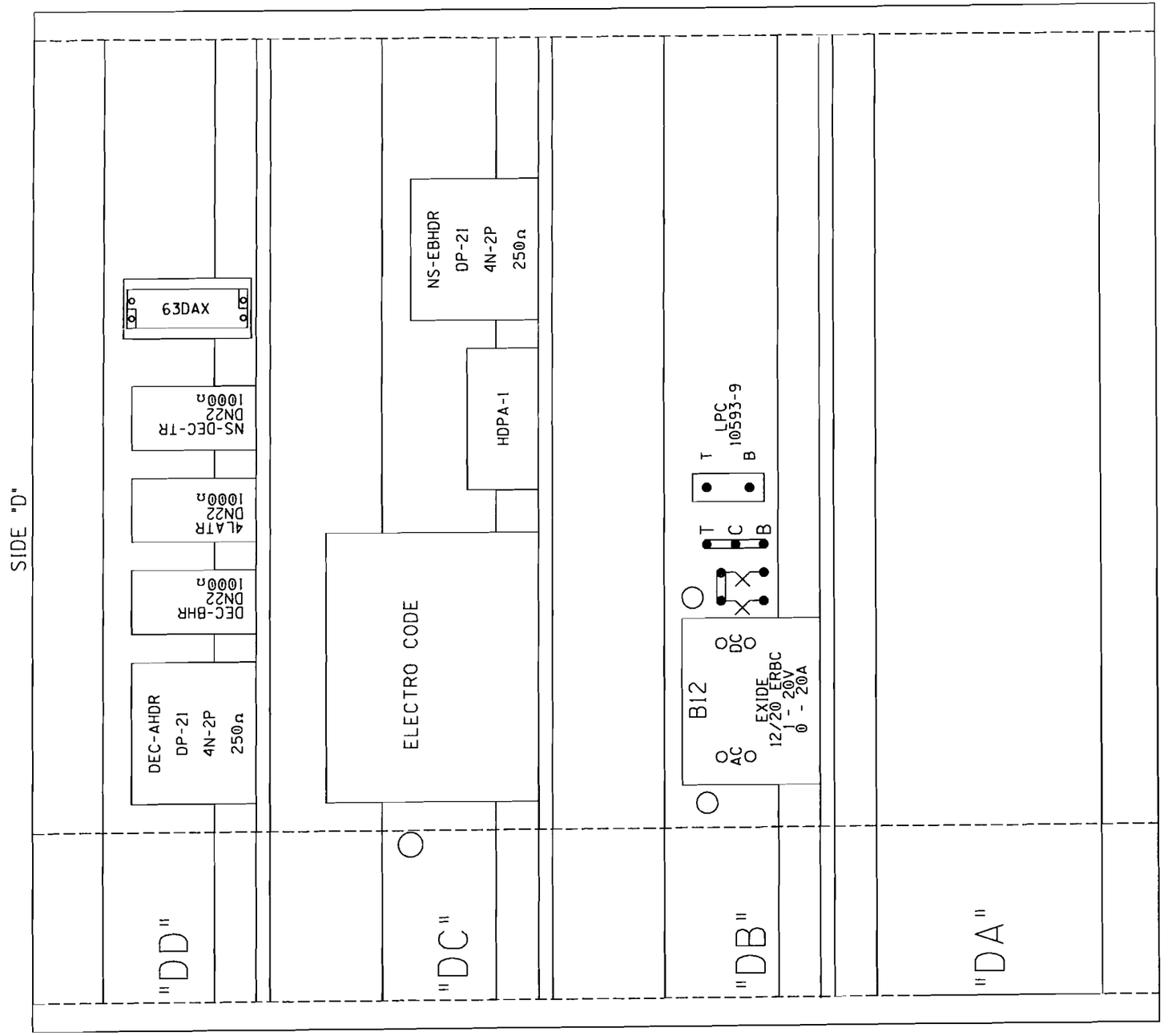
	CADD or DWG. No. FTLB11331.7	SHEET No. 7 of 10	

REVISION INITIALS

PROPERTY
NORFOLK AND WESTERN RWY. CO.



RED = IN

DATE: 06-27-08
NS PROJECT #
04.0161
IRS/DBS/JFK

DESIGNED BY: MHS 12-29-92	NORFOLK SOUTHERN		
DRAWN BY: MHS 12-28-92	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: 113.31	
CHECKED BY: - -	GIBSON CITY, IL. SIGNAL 4L-CON-RAIL INTERFACE		
IN SERVICE: TKF 02-19-93	CB 11325-11330	FILE No. R-9505	
	CADD or DWG. No. FTLB11331.8	SHEET No. 8 of 10	

REVISION INITIALS

PROPERTY
NORFOLK AND WESTERN RWY. CO.

NOTE:

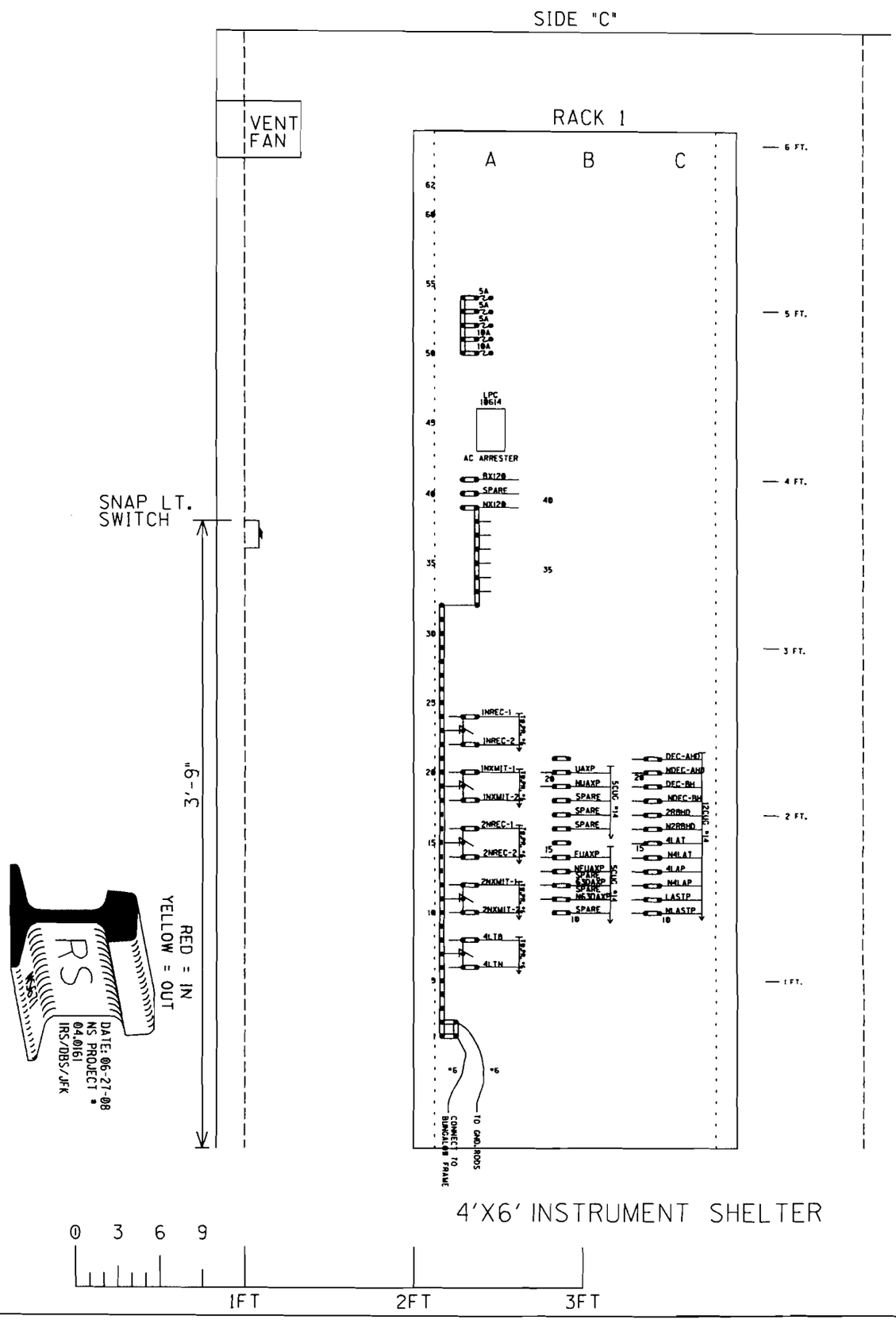
KEEP GROUND CONNECTION OF LINE ARRESTERS AS SHORT AS POSSIBLE WITH SLIGHT BEND IN GROUND CONNECTION WIRE OFF ARRESTER TO COPPER BUSS BAR.

ALL ARRESTERS AND TERMINATION BLOCKS SHOWN ON ILLUSTRATION ARE TO BEGIN FROM CENTER OF BOARD. THE ILLUSTRATION SHOWS MAXIMUM POSSIBLE ON TERMINATION BOARD. ALL MAY NOT BE REQUIRED.

BOLTED GROUND CONNECTIONS TO SHELTER FLOORS AND TO WALLS ARE TO USE STAR WASHERS ON INTERIOR AND EXTERIOR SIDES.

HOLES FOR WIRE AND CABLE CONDUCTORS SHALL BE 1/2" DIAMETER.

ALL TERMINALS FOR CIRCUITS ABOVE 50 V. AS REFERANCED TO GROUND MUST BE PROTECTED BY INSULATED NUT (CLASS #670, ITEM #440826).



REVISION	INITIALS
TXF 2/19/93	MSS 9/9/93

PROPERTY
NORFOLK AND WESTERN RWY. CO.

DESIGNED BY:	MHS	12-29-92
DRAWN BY:	MHS	12-29-92
CHECKED BY:	-	-
IN SERVICE:	TKF	02-19-93

NORFOLK SOUTHERN

OFFICE OF ASS'T. VICE PRESIDENT
COMM. & SIGNAL, ATLANTA, GA.

M.P.: 113.31

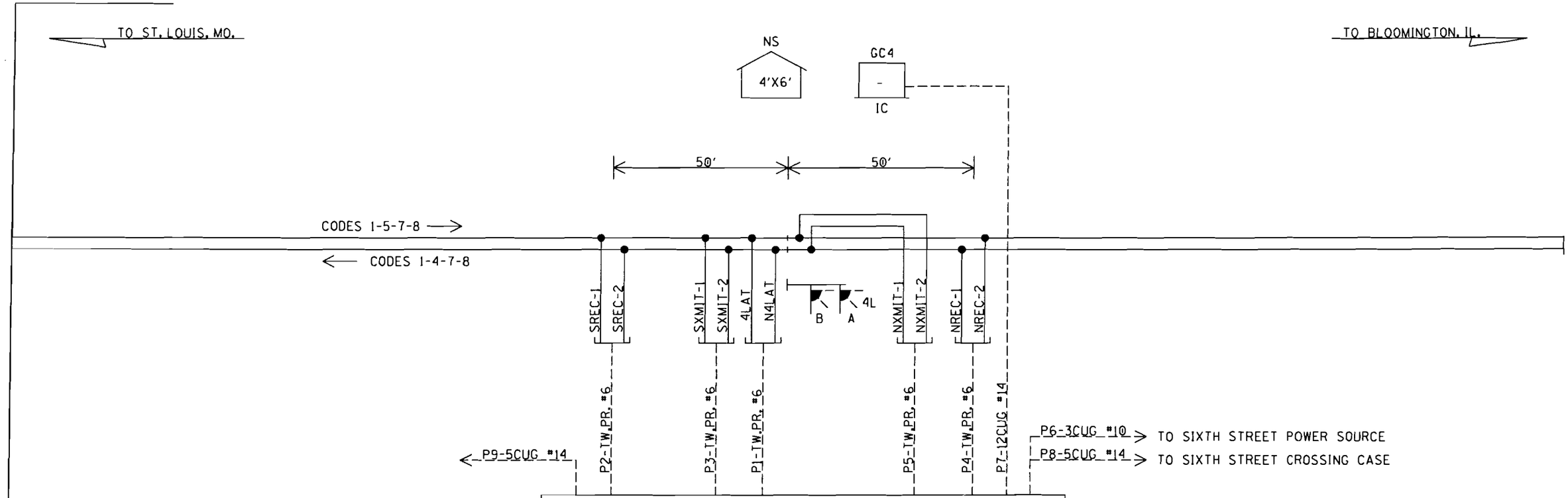
GIBSON CITY, IL.
SIGNAL 4L-CON-RAIL INTERFACE

CADD or DWG. No. FTLB11331.9

CB 11325-11330

FILE No. R-9505

SHEET No. 9 of 10



P1-TW.PR. #6
- 4LTB
- 4LTN

P2-TW.PR. #6
- SREC-1
- SREC-2

P3-TW.PR. #6
- SXMIT-1
- SXMIT-2

P4-TW.PR. #6
- NREC-1
- NREC-2

P5-TW.PR. #6
- NXMIT-1
- NXMIT-2

P6-3CUG #10
- BX120
- SPARE
- NX120

P7-12CUG #12
- DEC-AHD
- NDEC-AHD
- DEC-BHD
- NDEC-BHD
- 2RBHD
- N2RBHD
- 4LAT
- N4LAT
- 4LAP
- N4LAP
- LASTP
- NLASTP

P8-5CUG #14
- UAXP
- NUAXP
- SPARE
- SPARE
- SPARE

P9-5CUG #14
- FUAXP
- NFUAXP
- 63DAXP SPARE
- N63DAXP SPARE
- SPARE

RED = IN
YELLOW = OUT

DATE: 06-27-08
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REVISION INITIALS TKF 2/19/93 MSS 9/19/93

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