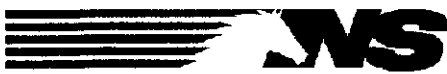


FILE

24



Norfolk Southern Corporation
Communications and Signal Department
1200 Peachtree Street, N.E., Box 123
Atlanta, Georgia 30309

RECEIVED-DOCKETING DIV

2007 NOV -9 AM 8:57

B. L. Sykes
Chief Engineer
C&S Engineering
404/529-2105

PUCO

November 6, 2007
CX0118227

Ms. Susan Kirkland
Ohio DOT
1980 W. Broad St.
Columbus, OH 43223

06-1326-RR-Fed

RE: In the Matter of the Implementation of the Norfolk Southern Corridor Safety Project
"CJ" Line from Columbus, OH to Cincinnati, OH

Dear Ms. Kirkland:

Per the ORDC letter dated November 1, 2007, regarding the above case for the upgrade of automatic grade crossing warning devices at Western Avenue in Springfield, Clark County, Ohio, DOT: 523 500T, Milepost CJ-184.16.

Attached for your review are the revised plans and estimate for the above crossing project. Please provide further authorization.

An extra copy of this letter is included with the enclosures. Please date stamp this extra copy and forward to Mr. R. S. Noe, Assistant General Attorney, Norfolk Southern Corporation, Three Commercial Place, Norfolk, Virginia, 23510.

Upon receipt of this revised material, please initial, date and confirm via fax to 404-527-2901.

Sincerely,

B. L. Sykes

Enclosure(s)

BLS/rhr/cp/rjs

Cc: Mr. R. S. Noe, NS Corporation, Norfolk, VA
Ms. Bonnie Johrendt, PUCO (w/plans, estimate and material list)
Mr. Tim Perkins (w/plans, estimate and material list)
✓ Docketing Division (w/plans, estimate and material list)
Ms. P. A. Gray, NS Corporation, Roanoke, VA (w/estimate)

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business
Technician Date Processed 11-8-07



02-Nov-07

Detailed Estimate for Grade Crossing Warning Devices

City/State: SPRINGFIELD, OH
MilePost: CJ-184.16
State Proj. No.:
S&E Proj. No.: 10.1201
Man Days: 140

Road: WESTERN AVE.
DOT/AAR: 523500T
County: CLARK
AFE: F10122
File Number: 061-10.1045

Purchases - Others		
Meals and Lodging:	\$13,172.54	
Rental of Equipment:	\$28,798.00	
(2 Trucks, 1 Backhoe w/ Trailer and 1 Pipe-Pusher for 35 Days)		
Construction Supervision Vehicle:	\$2,303.84	
Purchases - Other Total:		\$44,274.38
Material And Additives		
Material Cost:	\$65,901.00	
Sales and Use Tax:	\$0.00	
Material Handling Freight:	\$3,295.03	
Material Total:		\$69,196.03
Labor And Additives		
Labor Cost:	\$33,880.00	
(4 man crew at \$968.00 a day for: 35 days)		
Payroll Tax & Overheads:	\$33,422.62	
Preliminary Engineering:	\$8,780.69	
Construction Supervision:	\$9,564.32	
Labor Total:		\$85,647.63
Project Cost:		\$199,118.04
Scrap / Salvage Credit:		\$0.00
Project Total:		\$199,118.04

Estimated on: 02-Nov-07

Estimated by: ndr3j

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:	SPRINGFIELD
Road:	WESTERN AVE.
Mile Post:	CJ-184.16
Drawing Number:	82111842
State Project Number:	
County:	CLARK
A A R Number:	523500T
Project Number:	10.1201
File Number:	061-10.1045
New File Number:	CX0118227
A F E Number:	F10122
Store Number:	07865
Supervisor:	D.M. FRANCIS
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&E Gen. Supt. Construction w/copy of invoice	

Location: SPRINGFIELD

OH

S&E Proj. No.: 10.1201

AFE No.: F10122

Drawing No.: 82111842

Store No.: 07865

P.O.Number:

Date Required:

Date Shipped:

Vendor: SW Signal Engineering Company

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed			Quantity Returned (Credit)	Special Instructions
							Date Quan.	Date Quan.	Date Quan.		
3	670-360693-4	EA	\$5.04	\$15.12	AAR/DOT NUMBER PLATE/DECAL, ORDER 3 PER PROJECT. 60 DAY LEAD TIME. SUPPLIED BY S'TRAN.						
2	165-021636-4	EA	\$17.85	\$35.70	ARRESTER, LIGHTNING 3 POST PORCELAIN BASE SSC#022485-33X						
10	670-119241-4	EA	\$32.80	\$328.00	ARRESTOR, LIGHTNING HEAVY DUTY CLEAR VIEW SAFETRAN 022585-1X						
19	105-871901-4	EA	\$161.57	\$3,069.83	BATTERY, GNB 265AH MODEL 50A11 SINGLE CELL 2.25 VOLTS						
2	670-980689-4	EA	\$71.71	\$143.42	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 28' AND LESS						
600	465-292862-4	LF	\$1.04	\$624.00	CABLE, U-2-6 TWISTED, S-23 OKONITE 113-12-3933 SOLID TINNED CONDUCTOR						
500	465-292929-4	LF	\$3.05	\$1,525.00	CABLE, U.G. 5 COND. NO. 6 AWG SOLID COPPER CABLE TO MEET NS CORP. SPEC. FOR SIGNAL						
600	465-939422-4	LF	\$2.55	\$1,530.00	CABLE, UG 12 CONDUCTOR NO 14 AWG SOLID EACH CONDUCTOR WITH 5/64 IN INSULATION 10 MIL						
200	465-791835-4	FT	\$2.22	\$444.00	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						
1	670-477629-4	EA	\$552.20	\$552.20	CHARGER, BATTERY CRAGG MODEL 20 EC-12V 20 AMP TEMP COMPENSATED						
1	670-001454-4	EA	\$2.81	\$2.81	CLIP, CADWELD TRACK CIRCUIT RETAINER PART NO. SBA206 1/2 DIA 50 CLIPS PER PACKAGE, CR 02-729208						
140	165-544477-4	FT	\$2.55	\$357.00	CONDUIT, 4"x10' PVC, SCHEDULE 80 BELL CONNECTOR AT ONE END, 1/2 PT. GLUE IN KIT 670-123298-4						
3	165-299316-4	EA	\$16.83	\$50.49	CONDUIT, PVC CASE OUTLET 4 IN. X 29-1/2 IN. SCHEDULE-80 WITH 4 IN. COUPLING, CARLON E940N,						
4	670-090450-4	EA	\$50.38	\$201.52	CONNECTOR, WELDED FAR RAIL HARMON A1000-2W						
4	670-486646-4	EA	\$41.62	\$166.48	CONNECTOR, WELDED NEAR RAIL HARMON A1000-1W						
1	670-793404-4	EA	\$838.37	\$838.37	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: SPRINGFIELD

OH

S&E Proj. No.: 10.1201

AFE No.: F10122

Drawing No.: 82111842

Store No.: 07865

P.O.Number:

Date Required:

Date Shipped:

Vendor: SW Signal Engineering Company

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Date Date			Quantity Returned (Credit)	Special Instructions
1	670-794453-4	EA	\$854.03	\$854.03	COUNTERWEIGHT PKAGE, 25-31'GATE S'TAN S- MECH ONLY, STAINLESS TO INCLUDE HUB, SUPPORT ARMS						
8	670-760012-4	EA	\$40.02	\$320.16	COVER, FOR 1 WAY FLASHING LIGHT ASSY. 18 OZ. BLACK VINYL COATED NYLON. ====TO COVER 2 LAMPS=====						
1	670-986650-4	EA	\$375.69	\$375.69	DISPOSAL, CONSTRUCTION DEBRIS AND CLEANING X'ING EQUIPMENT CONTAINER						
2	670-228165-4	EA	\$10.73	\$21.46	EQUALIZER, SAFETRAN 022700-1X LESS BASE, MODERN NO. 700-1 SHUNT ARRESTER TRACK CIRCUITS CR 02-197950						
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, QUANTITY IS BASED ON TRUCK LOAD PLUS DELIVERY COST						
1	670-013706-4	EA	\$298.96	\$298.96	FILTER, ELECTRO CODE 114HZ REJECTION PART # TF-114						
1	670-012724-4	EA	\$289.30	\$289.30	FILTER, ELECTRO CODE 156HZ REJECTION PART # TF-156						
2	670-012732-4	EA	\$289.30	\$578.60	FILTER, ELECTRO CODE 211HZ REJECTION PART# TF-211						
1	670-011669-4	EA	\$279.36	\$279.36	FILTER, ELECTRO CODE 86HZ REJECTION PART# TF-86						
2	670-015231-4	EA	\$423.50	\$847.00	FOUNDATION,DIXIE,S-2 GATE 5'6" ASSEMBLED						
1	670-257031-4	EA	\$297.88	\$297.88	GATE, ARM FIBERGLASS-ALUMINUM 17-24 FT., INCLUDES GATE GUARD FOR GATE LIGHT CABLE, NEG P/N 8002- 244NFS/CG						
1	670-263738-4	EA	\$331.87	\$331.87	GATE, ARM FIBERGLASS-ALUMINUM 25-31 FT. INCLUDES GATE GUARD FOR GATE LIGHT CABLE, 076600-320017, NEG P/N 8002- 4NFS/CG						
2	670-996717-4	EA	\$43.57	\$87.14	INDUCTOR, SIMULATED TRACK SAFETRAN 8V617-2600						
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						
2	670-123298-4	EA	\$256.93	\$513.86	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	670-142763-4	EA	\$849.42	\$1,698.84	LAMP ASSY, 12" LIGHT, 2 WAY IND. FOR MTG ON THE TIP OF WT/F CANTILEVER ARM, SAFETRAN P/N 042003-488XNS						

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CAR NUMBER

SEAL NUMBER

Location: SPRINGFIELD

OH

S&E Proj. No.: 10.1201

AFE No.: F10122

Drawing No.: 82111842

Store No.: 07865

P.O.Number:

Date Required:

Date Shipped:

Vendor: SW Signal Engineering Company

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Date Date Quan. Quan. Quan.			Quantity Returned (Credit)	Special Instructions
2	670-816589-4	EA	\$551.10	\$1,102.20	LAMP ASSY, 5" MAST MTG. 1W IND. 20" BKGRD, (BACK) LTS.FLX -12W/BULB S'TRAN # 042003-001493						
2	670-499171-4	EA	\$470.76	\$941.52	LAMP ASSY, 10"/12" LINCLN MAST MTG. 1W IND. 20" BKGRD, FLX- 12 W/BULB S'TRAN #042003-001509						
6	165-643547-4	EA	\$4.30	\$25.80	LAMP, 18 WATT 10 VOLT S-11 SC BAY 18S11/1SC CLEAR RWY SIGNAL UJ-71463 GE						
5	670-440826-4	EA	\$1.01	\$5.05	LINK, SAFETRAN 024620-1X INSL TESTING COMP 1 IN CENTER SIGNAL CIRCUITS CR 02-286662						
2	670-442062-4	EA	\$1.17	\$2.34	LINK, TEST SAFETRAN 024620-4X COMP FOR MTG ON AAR TERM 2-3/8" CENTER W/SPECIAL NUT & CLAMP NUT						
3	255-590880-4	EA	\$16.12	\$48.36	LOCK, AMERICAN LOCK MODEL H-10KA KEYED ALIKE TO PRIVATE KEYWAY D456 AND STAMPED "NS SIG"						
2	670-637778-4	EA	\$1,031.41	\$2,062.82	MAST, 5" ALUMINUM 13'10" WITH DOUBLE JCT. BOX BASE. S'TRAN P# 070519-11AX.						
2	670-850933-4	EA	\$3,352.65	\$6,705.30	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	MIS. UNDERGROUND BORING						
3	670-000001-4	EA	\$726.23	\$2,178.69	MISC. MATERIAL						
5	670-014233-4	EA	\$981.85	\$4,909.25	MODULE, DAX FOR 3000 GCP SAFETRAN #80016						
2	670-700469-4	EA	\$1,240.83	\$2,481.66	MODULE, MULTI FREQUENCY ISLAND SAFETRAN #80211 FOR 3000GCP						
2	670-014225-4	EA	\$1,042.23	\$2,084.46	MODULE, PROCESSOR FOR 3000 GCP SAFETRAN #80214						
1	670-514605-4	EA	\$8.45	\$8.45	PINNACLE, W-C SECT 1-11, 4" & 5" REF K1 110-8 OR SAFETRAN NO. @035045-503X						
5	670-555609-4	EA	\$45.12	\$225.60	PLUGBOARD, TYPE B-1 GRS A62-506 OR HARMON @7062-506 OR						
1	670-427136-4	EA	\$93.49	\$93.49	POWER OFF LAMP INDICATOR FOR SHELTER, SAFETRAN P/N 051958-5						
1	670-723237-4	EA	\$6,235.58	\$6,235.58	PREDICTOR, DUAL FREQ. 3000 1 TRACK, SAFETRAN #80200- 101-0 NO ISLAND, W/PROCESSOR 80214						

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CAR NUMBER

SEAL NUMBER

Location: SPRINGFIELD

OH

S&E Proj. No.: 10.1201

AFE No.: F10122

Drawing No.: 82111842

Store No.: 07865

P.O.Number:

Date Required:

Date Shipped:

Vendor: SW Signal Engineering Company

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Date Date			Quantity Returned (Credit)	Special Instructions
1	165-018451-4	EA	\$148.50	\$148.50	PROTECTOR, 12VDC, AAR MOUNT LPC 10593-9 LIGHTNING PROTECTION CORP.						
4	465-002899-4	EA	\$22.06	\$88.24	REEL, CABLE DISPOSABLE FOR CROSSING SIGNAL PACKAGES						
1	670-742096-4	EA	\$41.80	\$41.80	RELAY INTERFACE PROBE, ULTRATECH PN 16031-00						
2	670-456936-4	EA	\$150.00	\$300.00	RELAY RACK, SWING, FARADAY SHELTER FOR ONE RELAY, SSFETRAN P/N T15331						
5	670-707995-4	EA	\$313.67	\$1,568.35	RELAY, TYPE B1, NEV LINE, 900 OHMS, .008 AMPERES GRS A62-308 OR SAFETRAN @400003						
2	670-215166-4	EA	\$21.98	\$43.96	RELAY,(AC INTERRUPT FOR SEARII)POTTER & BRUMFIELD 120V AC KUMP-14A18-120 SAFETRAN P/N T18354						
2	670-218934-4	EA	\$20.62	\$41.24	RELAY,(AC INTERRUPT FOR SEARII)POTTER & BRUMFIELD 12V DC KUMP-14D18-12 SAFETRAN P/N T18353						
2	435-805560-4	EA	\$6.25	\$12.50	SAND, 25LB BAG FOR CABLE ENTRANCE INTO THE SHELTER						
1	670-816502-4	EA	\$4,903.75	\$4,903.75	SEARII AUTOMATED INSPECTOR SYSTEM KIT, w/ 1-iLOD,1-eBELL, 2-GTS, WITHOUT MTSS, 1-GFT,1-VHFC, 2- RECORDER INTERFACE MODULE, 1-ECHELON CONNECTOR						
1	670-698813-4	EA	\$409.06	\$409.06	SEARII WIRING HARNESS FOR CROSSING UNIT IN 8X8 SHELTERS, SAFETRAN P/N 099392-NSSEAR15						
1	670-119882-4	EA	\$70.51	\$70.51	SEARII, ECHELON CONNECTOR, SAFETRAN P/N A80063, 1/ GCP UNIT						
1	670-118145-4	EA	\$139.53	\$139.53	SEARII, GCP DATA RECORDER MODULES, SAFETRAN P/N A80255, 1/ NON REDUNDANT GCP, 2 / REDUNDANT GCP						
4	670-586967-4	EA	\$37.68	\$150.72	SHUNT COVER W/LAG SCREWS, 19"X19", SERRMI #40271, ORDER 1 PER SHUNT						
4	670-776912-4	EA	\$572.18	\$2,288.72	SHUNT, MULTI-FREQ. #62780-8621 SAFETRAN NARROW BAND-LOW LOADING						
2	670-397239-4	EA	\$40.23	\$80.46	SIGN CROSSING MALFUNCTION ASSEMBLY FOR 12" MAST, SAFETRAN #T17216						
1	670-330382-4	RL	\$15.68	\$15.68	TAPE, THOR 3" DURATEC, ORANGE 1000' LENGTHS. "WARNING STOP DIGGING"						

APPROVED BY STATE

APPROVED BY RAILROAD

CAR NUMBER

SEAL NUMBER

Location: SPRINGFIELD

OH

S&E Proj. No.: 10.1201

AFE No.: F10122

Drawing No.: 82111842

Store No.: 07865

P.O.Number:

Date Required:

Date Shipped:

Vendor: SW Signal Engineering Company

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Date Date Quan. Quan. Quan.			Quantity Returned (Credit)	Special Instructions
5	165-917984-4	EA	\$4.84	\$24.20	TERMINAL, TEST, TYPE B GRS A62-515 OR HARMON @32118-001 OR						
5	610-065626-4	EA	\$17.55	\$87.75	ULTRA-TECH 15206-01 CONNECTIVITY BLOCK FOR GRS B1 RELAY						
500	465-999111-4	LF	\$0.29	\$145.00	WIRE, NO.10, 1 CONDUCTOR, CASE, FLEXIBLE 37 STRAND, 3/64 IN. INSULATION-ORDER EXT.AMT. NEEDED CR 02-620502						
500	465-999161-4	LF	\$0.18	\$90.00	WIRE, NO.16, 1 CONDUCTOR, CASE, FLEXIBLE, 19 STRAND, 2/64 IN. INSULATION CR 02-620254						
1	450-986008-4	EA	\$24.84	\$24.84	WRENCH, TEST POST TYPE B DWG 55393-3, GR.1						

Total Material: \$65,900.57

APPROVED BY STATE

APPROVED BY RAILROAD

CAR NUMBER

SEAL NUMBER

HARMON ELECTRONICS, INC.

REVISIONS

1	11-13-95	NEW PLAN FROM ACCOUNT SIGNALING DEVICES UPGRADED AT WESTERN AVENUE.
		P.L.L.C. DUE DATE: 11-2-96
		NO. OF REVISIONS: 4110
		IN SERVICE: 2-27-96
		PER: NLM
2	08-25-97	PLAN REVISED ACCOUNT RCA REPEATER MOVED TO WESTERN AVE.
		NO. OF REVISIONS: 4110
		IN SERVICE:
		PER:

INDEX

SH. NO.	CONTENTS	REVISION NO.						
		1	2	3	4	5	6	7
1	TITLE, NOTES, INDEX AND REVISIONS	✓	✓					
2	LOCATION PLAN	✓	✓					
3	POWER DISTRIBUTION	✓	✓					
4	30002 SAFETRAM GRADE CROSSING PREDICTOR CIRCUITS	✓	✓					
5	3000 SAFETRAM GRADE CROSSING PREDICTOR CIRCUITS	✓	✓					
6	SEAR II	✓	✓					
7	SEAR PLUS UNIT	✓	✓					
8	GATE CONTROL, LIGHTING CIRCUITS AND CABLE TERMINATIONS	✓	✓					
9	GATE MECHANISM TYPICALS	✓	✓					
10	RELAY RACK AND CONNECTIONS - HOUSE LAYOUT	✓	✓					
11	FRONT AND LEFT WALL LAYOUT	✓	✓					
12	RIGHT SIDE OF HOUSE	✓	✓					
13	TERMINAL BOARD ARRANGEMENT	✓	✓					

NOTES

- FOR MATERIAL REFERENCE SEE PLAN S-1002
- ⊗ DENOTES TWISTED PAIR
- GROUND IN ACCORDANCE WITH CS-9881-A

REVISION 2
P.L.L.C.
NLM/SEC
08-25-97
RED IN
YELLOW OUT
CHECKED BY SEC
09-28-97

NAV/DOT-523588T

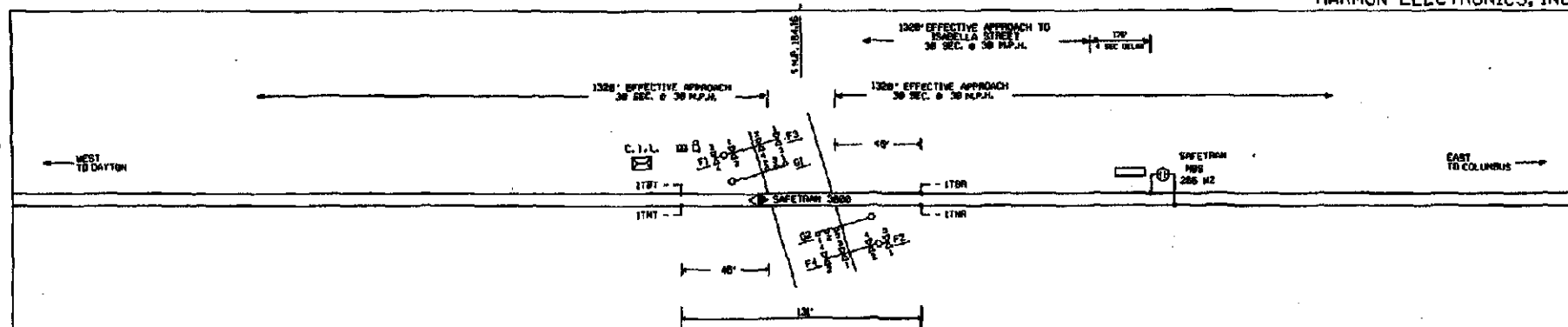
UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

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

NS NORFOLK SOUTHERN	
INDIANAPOLIS DIVISION	CINCINNATI LINE
SPRINGFIELD, OHIO	
WESTERN AVENUE	
TITLE, NOTES, INDEX AND REVISIONS	
PHILADELPHIA, PA.	APPROVED: <i>[Signature]</i> REC'D
ISSUE DATE: 11-13-95	0211-10-42
REV. 2	08-25-97
SHEET 1 OF 13 10	

086 CAD

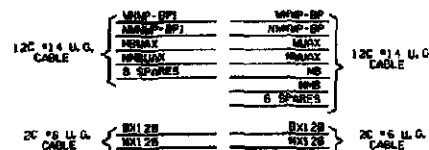
103088C1.TBC



WESTERN AVENUE

WARNING DEVICES TO BE INSTALLED IN
ACCORDANCE WITH THE M.U.T.C.D.

AAR/DDT 523588T



8X8 HOUSE CABLES

- 2 12 COND. #14 TWISTED U.S. CABLES TO TRACKS
- 2 12 COND. #14 U.S. CABLES TO GATES/FLASHERS
- 2 12 COND. #12 W/ROUND U.S. CABLES TO HEATERS
- 2 14 COND. #14 U.S. CABLES TO CANTILEVER LIGHTS
- 1 14 COND. #14 U.S. CABLES TO TRAFFIC CONTROLLER
- 1 14 COND. #14 U.S. CABLE EAST
- 1 04 COND. #14 U.S. CABLE WEST

REVISION 2
11-13-85
11-13-85
85-25-87
YELLOW: OUT
THEN VOID THIS SHEET
CHECKED BY SEX
85-26-87

NOTES: EACH PAIR OF TRACK WIRES (TRANSMIT AND RECEIVE) SHOULD BE
TWISTED AT LEAST TWO TURNS PER FOOT. THE TRANSMITTER PAIR
SHOULD BE SEPARATED TO THE MAXIMUM EXTENT POSSIBLE FROM
THE GCP RECEIVER PAIR BELOW GROUND AND IN INSTRUMENT HOUSING.
TRANSMITTER WIRES MUST BE RUN TO THE NEAR SIDE OR BUNGALOW
SIDE OF THE CROSSING.

WESTERN AVENUE SPRINGFIELD, OHIO

MEDIANWAY CROSSING
LOCATION PLAN

ISSUE DATE: 11-13-85 0211-1042

REV. 2 85-25-87 SHEET 2X

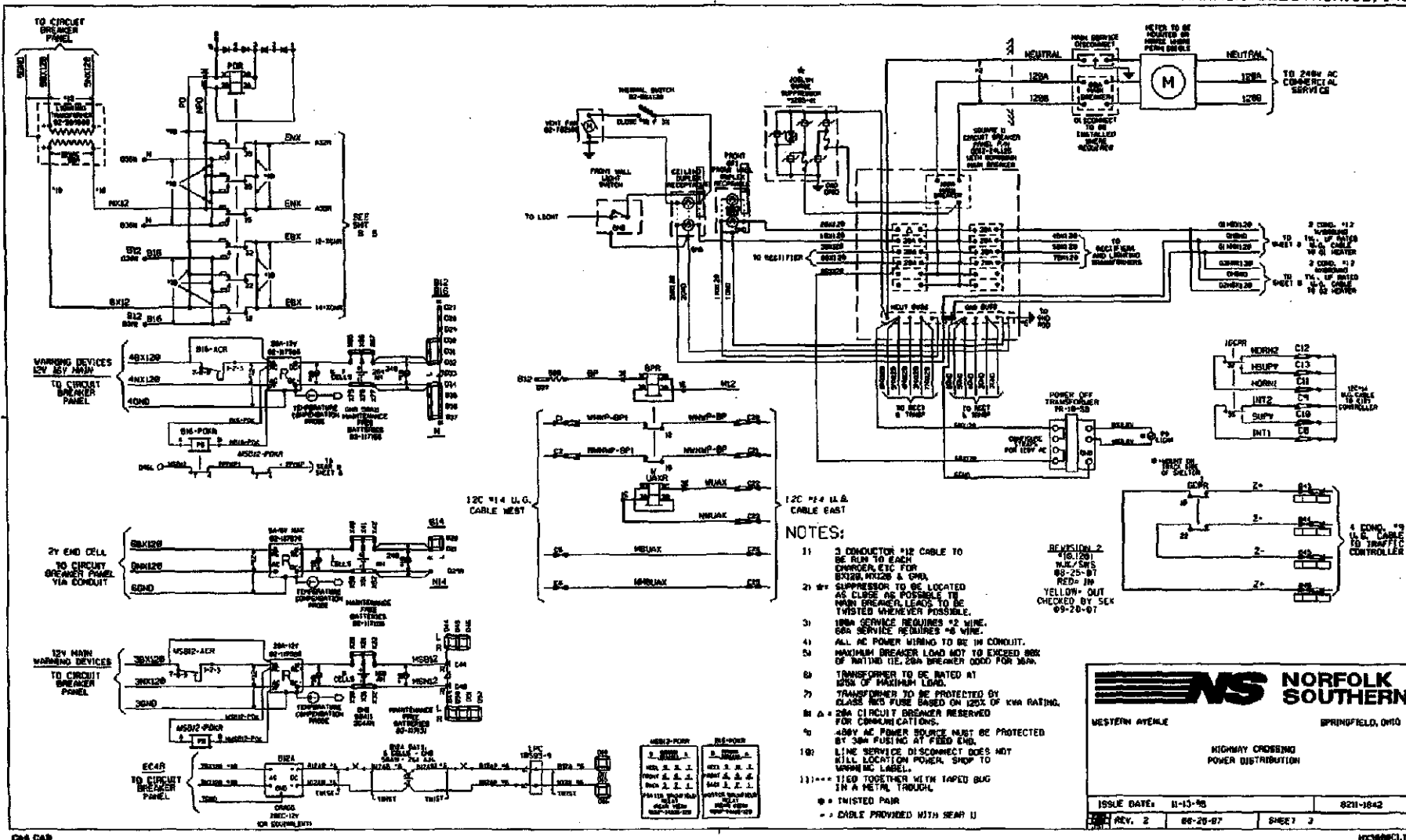
HX3000C178C

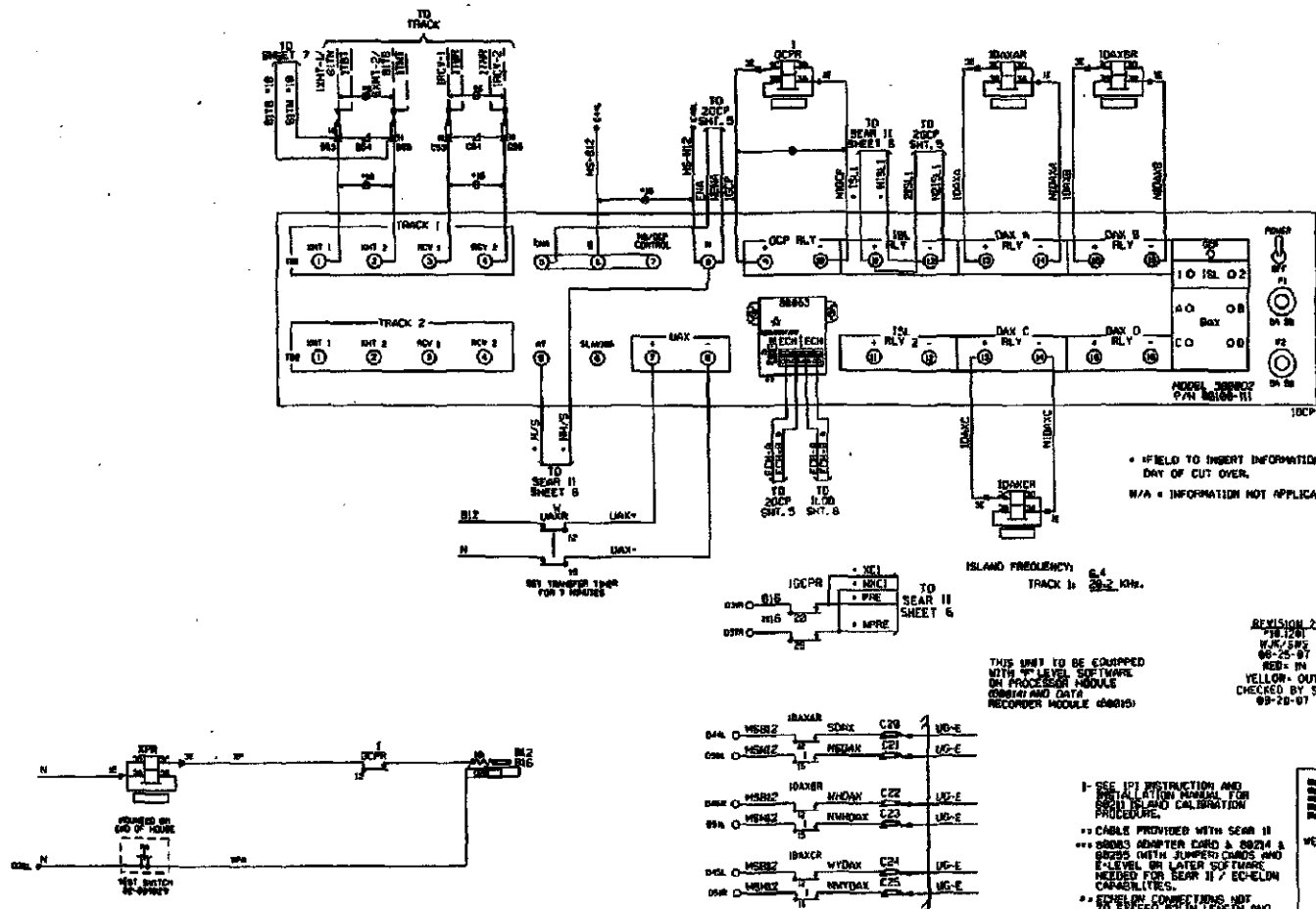
(A)	MF-HSS 62700-0821 (114KZ) W/AVS1-1000 LBP-LOADING SHALTER	(E)	MF-HSS 62700-0621 (104KZ) W/AVS1-1000 LBP-LOADING SHALTER
(B)	MF-HSS 62700-1543 (214KZ) W/AVS1-1000 LBP-LOADING SHALTER	(F)	MF-HSS 62700-1543 (348KZ) W/AVS1-1000 LBP-LOADING SHALTER
(C)	MF-HSS 62700-1049 (348KZ) W/AVS1-1000 LBP-LOADING SHALTER	(G)	MF-HSS 62700-1543 (214KZ) W/AVS1-1000 LBP-LOADING SHALTER
(D)	MF-HSS 62700-0621 (104KZ) W/AVS1-1000 LBP-LOADING SHALTER	(H)	MF-HSS 62700-0621 (114KZ) W/AVS1-1000 LBP-LOADING SHALTER

4 42 COND. #24 TWISTED U.G. CABLES TO TRACKS
2 66 COND. #24 U.G. CABLES TO GATES/FLASHERS
2 62 COND. #24 U.G. CABLES TO GATES
1 62 COND. #24 U.G. CABLES TO TRAFFIC CONTROLLER
1 62 COND. #24 U.G. CABLE EAST
1 7 COND. #24 U.G. CABLE WEST

REVISION 2
*10.12.01
WJK/SWS
08-26-07
RED: IM
CHECKED BY SEK
09-20-07

ISSUE DATE: 11-13-98		8211-1042
REV. 2	08-28-97	SHEET 2





1- SEE IPI INSTRUCTION AND
INSTALLATION MANUAL FOR
SOUND ISLAND CALIBRATION
PROCEDURE.

- CABLE PROVIDED WITH SEAR II
- 80083 ADAPTER CARD & 80214 & 80295 (WITH JUMPER) CARDS AND E-LEVEL OR LATER SOFTWARE NEEDED FOR SEAR II / ECHOLON

• ETCHELON CONNECTIONS NOT TO EXCEED 45" IN LENGTH AND TOTAL LENGTH NOT TO EXCEED 425' WITH A MAXIMUM OF 8 KNOTS. RECOMMEND USE BELDEN WIRE CABLE *SAB* OR EQUIVALENT.

☆ = 88863 ECHELON RJ45 CONNECTOR TERMINATION
J3 TO BE SET "IN" WHEN AT END OF ECHELON
NETWORK.



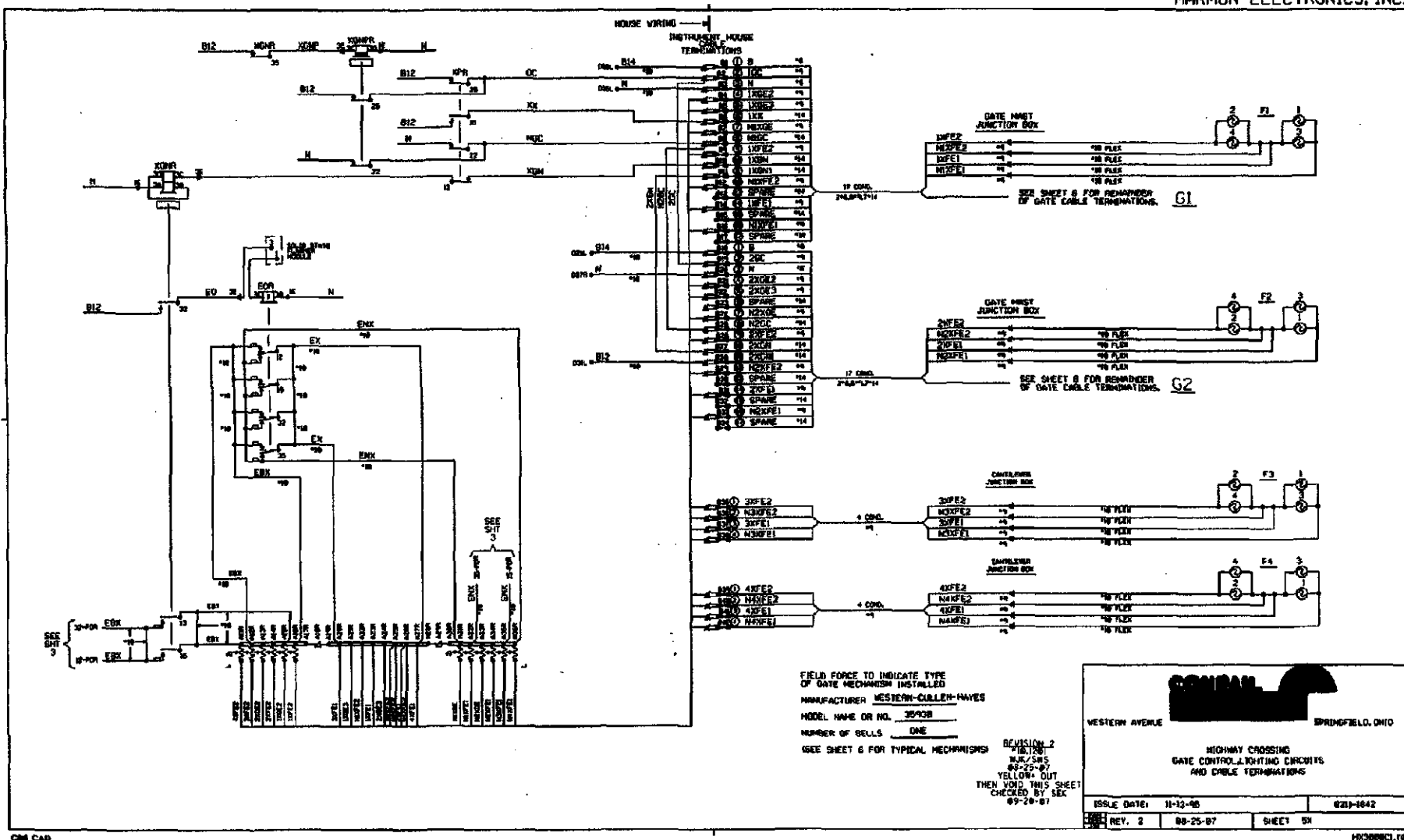
NORFOLK SOUTHERN

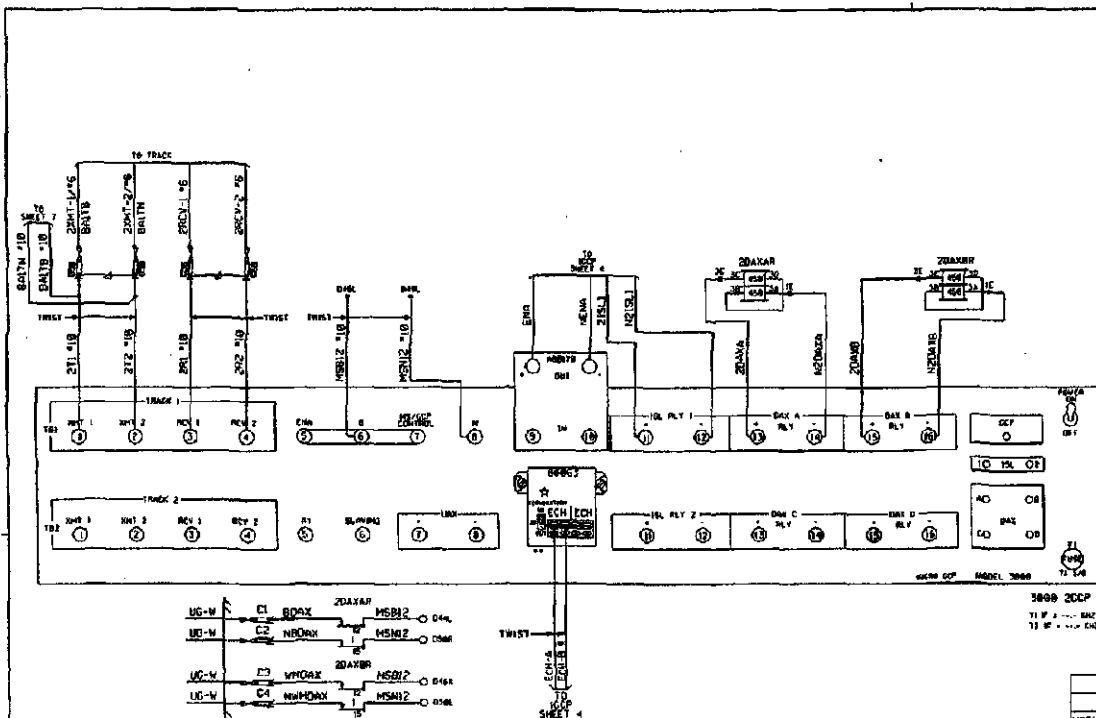
WESTERN AVENUE **SPRINGFIELD, OHIO**

HIGHWAY CROSSING
DATA: BIDIRECTIONAL, VEP
MODEL 300002 82-806788

ISSUE DATE: 11-13-95		6211-1842
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Age Group	Percentage of Respondents
18-29	85%
30-49	80%
50-69	75%
70+	70%





3000 PROGRAMMING CHART		LEVEL 1
NUMBER OF TRACK TRANSCEIVERS	1	1
T1 FREQUENCY	800	1
T2 FREQUENCY	800	1
T3 UNIDIRECTIONAL/BIDIRECTIONAL	BI	1
T4 UNIDIRECTIONAL/BIDIRECTIONAL	BI	1
T5 XMIT LEVEL (MAX/MED)	MAX	1
T6 XMIT LEVEL (MAX/MED)	MAX	1
T7 PROXIMITY/STATION SENSING	PROX	1
T8 PROXIMITY/STATION SENSING	PROX	1
T9 WARMING TIME	30 SEC	1
T10 WARMING TIME	30 SEC	1
T11 APPROACH DISTANCE	2475 FT	1
T12 APPROACH DISTANCE	2475 FT	1
T13 PICKUP DELAY (MAX/D = OFF)	0 SEC	1
T14 PICKUP DELAY (MAX/D = OFF)	0 SEC	1
T15 ISLAND DISTANCE	0 FT	1
T16 ISLAND DISTANCE	0 FT	1
T17 ISLAND DISTANCE	0 FT	1
T18 ISLAND DISTANCE	0 FT	1
T19 ISLAND DISTANCE	0 FT	1
T20 ISLAND DISTANCE	0 FT	1
T21 ISLAND DISTANCE	0 FT	1
T22 ISLAND DISTANCE	0 FT	1
T23 ISLAND DISTANCE	0 FT	1
T24 ISLAND DISTANCE	0 FT	1
T25 ISLAND DISTANCE	0 FT	1
T26 ISLAND DISTANCE	0 FT	1
T27 ISLAND DISTANCE	0 FT	1
T28 ISLAND DISTANCE	0 FT	1
T29 ISLAND DISTANCE	0 FT	1
T30 ISLAND DISTANCE	0 FT	1
T31 ISLAND DISTANCE	0 FT	1
T32 ISLAND DISTANCE	0 FT	1
T33 ISLAND DISTANCE	0 FT	1
T34 ISLAND DISTANCE	0 FT	1
T35 ISLAND DISTANCE	0 FT	1
T36 ISLAND DISTANCE	0 FT	1
T37 ISLAND DISTANCE	0 FT	1
T38 ISLAND DISTANCE	0 FT	1
T39 ISLAND DISTANCE	0 FT	1
T40 ISLAND DISTANCE	0 FT	1
T41 ISLAND DISTANCE	0 FT	1
T42 ISLAND DISTANCE	0 FT	1
T43 ISLAND DISTANCE	0 FT	1
T44 ISLAND DISTANCE	0 FT	1
T45 ISLAND DISTANCE	0 FT	1
T46 ISLAND DISTANCE	0 FT	1
T47 ISLAND DISTANCE	0 FT	1
T48 ISLAND DISTANCE	0 FT	1
T49 ISLAND DISTANCE	0 FT	1
T50 ISLAND DISTANCE	0 FT	1
T51 ISLAND DISTANCE	0 FT	1
T52 ISLAND DISTANCE	0 FT	1
T53 ISLAND DISTANCE	0 FT	1
T54 ISLAND DISTANCE	0 FT	1
T55 ISLAND DISTANCE	0 FT	1
T56 ISLAND DISTANCE	0 FT	1
T57 ISLAND DISTANCE	0 FT	1
T58 ISLAND DISTANCE	0 FT	1
T59 ISLAND DISTANCE	0 FT	1
T60 ISLAND DISTANCE	0 FT	1
T61 ISLAND DISTANCE	0 FT	1
T62 ISLAND DISTANCE	0 FT	1
T63 ISLAND DISTANCE	0 FT	1
T64 ISLAND DISTANCE	0 FT	1
T65 ISLAND DISTANCE	0 FT	1
T66 ISLAND DISTANCE	0 FT	1
T67 ISLAND DISTANCE	0 FT	1
T68 ISLAND DISTANCE	0 FT	1
T69 ISLAND DISTANCE	0 FT	1
T70 ISLAND DISTANCE	0 FT	1
T71 ISLAND DISTANCE	0 FT	1
T72 ISLAND DISTANCE	0 FT	1
T73 ISLAND DISTANCE	0 FT	1
T74 ISLAND DISTANCE	0 FT	1
T75 ISLAND DISTANCE	0 FT	1
T76 ISLAND DISTANCE	0 FT	1
T77 ISLAND DISTANCE	0 FT	1
T78 ISLAND DISTANCE	0 FT	1
T79 ISLAND DISTANCE	0 FT	1
T80 ISLAND DISTANCE	0 FT	1
T81 ISLAND DISTANCE	0 FT	1
T82 ISLAND DISTANCE	0 FT	1
T83 ISLAND DISTANCE	0 FT	1
T84 ISLAND DISTANCE	0 FT	1
T85 ISLAND DISTANCE	0 FT	1
T86 ISLAND DISTANCE	0 FT	1
T87 ISLAND DISTANCE	0 FT	1
T88 ISLAND DISTANCE	0 FT	1
T89 ISLAND DISTANCE	0 FT	1
T90 ISLAND DISTANCE	0 FT	1
T91 ISLAND DISTANCE	0 FT	1
T92 ISLAND DISTANCE	0 FT	1
T93 ISLAND DISTANCE	0 FT	1
T94 ISLAND DISTANCE	0 FT	1
T95 ISLAND DISTANCE	0 FT	1
T96 ISLAND DISTANCE	0 FT	1
T97 ISLAND DISTANCE	0 FT	1
T98 ISLAND DISTANCE	0 FT	1
T99 ISLAND DISTANCE	0 FT	1
T100 ISLAND DISTANCE	0 FT	1

EXPANDED PROGRAMMING		LEVEL 2
T1 SWITCH TO MS (ENTER EX VALUE)	10	1
T2 SWITCH TO MS (ENTER EX VALUE)	10	1
T3 TRANSFER DELAY MS TO DEP (0 = OFF)	0 SEC	1
T4 TRANSFER DELAY MS TO DEP (0 = OFF)	0 SEC	1
T5 TRANSFER MS TO DEP (ON/OFF)	---	1
T6 TRANSFER MS TO DEP (ON/OFF)	---	1
T7 TRANSFER MS TO DEP (ON/OFF)	---	1
T8 TRANSFER MS TO DEP (ON/OFF)	---	1
T9 TRANSFER MS TO DEP (ON/OFF)	---	1
T10 TRANSFER MS TO DEP (ON/OFF)	---	1
T11 TRANSFER MS TO DEP (ON/OFF)	---	1
T12 TRANSFER MS TO DEP (ON/OFF)	---	1
T13 TRANSFER MS TO DEP (ON/OFF)	---	1
T14 TRANSFER MS TO DEP (ON/OFF)	---	1
T15 TRANSFER MS TO DEP (ON/OFF)	---	1
T16 TRANSFER MS TO DEP (ON/OFF)	---	1
T17 TRANSFER MS TO DEP (ON/OFF)	---	1
T18 TRANSFER MS TO DEP (ON/OFF)	---	1
T19 TRANSFER MS TO DEP (ON/OFF)	---	1
T20 TRANSFER MS TO DEP (ON/OFF)	---	1
T21 TRANSFER MS TO DEP (ON/OFF)	---	1
T22 TRANSFER MS TO DEP (ON/OFF)	---	1
T23 TRANSFER MS TO DEP (ON/OFF)	---	1
T24 TRANSFER MS TO DEP (ON/OFF)	---	1
T25 TRANSFER MS TO DEP (ON/OFF)	---	1
T26 TRANSFER MS TO DEP (ON/OFF)	---	1
T27 TRANSFER MS TO DEP (ON/OFF)	---	1
T28 TRANSFER MS TO DEP (ON/OFF)	---	1
T29 TRANSFER MS TO DEP (ON/OFF)	---	1
T30 TRANSFER MS TO DEP (ON/OFF)	---	1
T31 TRANSFER MS TO DEP (ON/OFF)	---	1
T32 TRANSFER MS TO DEP (ON/OFF)	---	1
T33 TRANSFER MS TO DEP (ON/OFF)	---	1
T34 TRANSFER MS TO DEP (ON/OFF)	---	1
T35 TRANSFER MS TO DEP (ON/OFF)	---	1
T36 TRANSFER MS TO DEP (ON/OFF)	---	1
T37 TRANSFER MS TO DEP (ON/OFF)	---	1
T38 TRANSFER MS TO DEP (ON/OFF)	---	1
T39 TRANSFER MS TO DEP (ON/OFF)	---	1
T40 TRANSFER MS TO DEP (ON/OFF)	---	1
T41 TRANSFER MS TO DEP (ON/OFF)	---	1
T42 TRANSFER MS TO DEP (ON/OFF)	---	1
T43 TRANSFER MS TO DEP (ON/OFF)	---	1
T44 TRANSFER MS TO DEP (ON/OFF)	---	1
T45 TRANSFER MS TO DEP (ON/OFF)	---	1
T46 TRANSFER MS TO DEP (ON/OFF)	---	1
T47 TRANSFER MS TO DEP (ON/OFF)	---	1
T48 TRANSFER MS TO DEP (ON/OFF)	---	1
T49 TRANSFER MS TO DEP (ON/OFF)	---	1
T50 TRANSFER MS TO DEP (ON/OFF)	---	1
T51 TRANSFER MS TO DEP (ON/OFF)	---	1
T52 TRANSFER MS TO DEP (ON/OFF)	---	1
T53 TRANSFER MS TO DEP (ON/OFF)	---	1
T54 TRANSFER MS TO DEP (ON/OFF)	---	1
T55 TRANSFER MS TO DEP (ON/OFF)	---	1
T56 TRANSFER MS TO DEP (ON/OFF)	---	1
T57 TRANSFER MS TO DEP (ON/OFF)	---	1
T58 TRANSFER MS TO DEP (ON/OFF)	---	1
T59 TRANSFER MS TO DEP (ON/OFF)	---	1
T60 TRANSFER MS TO DEP (ON/OFF)	---	1
T61 TRANSFER MS TO DEP (ON/OFF)	---	1
T62 TRANSFER MS TO DEP (ON/OFF)	---	1
T63 TRANSFER MS TO DEP (ON/OFF)	---	1
T64 TRANSFER MS TO DEP (ON/OFF)	---	1
T65 TRANSFER MS TO DEP (ON/OFF)	---	1
T66 TRANSFER MS TO DEP (ON/OFF)	---	1
T67 TRANSFER MS TO DEP (ON/OFF)	---	1
T68 TRANSFER MS TO DEP (ON/OFF)	---	1
T69 TRANSFER MS TO DEP (ON/OFF)	---	1
T70 TRANSFER MS TO DEP (ON/OFF)	---	1
T71 TRANSFER MS TO DEP (ON/OFF)	---	1
T72 TRANSFER MS TO DEP (ON/OFF)	---	1
T73 TRANSFER MS TO DEP (ON/OFF)	---	1
T74 TRANSFER MS TO DEP (ON/OFF)	---	1
T75 TRANSFER MS TO DEP (ON/OFF)	---	1
T76 TRANSFER MS TO DEP (ON/OFF)	---	1
T77 TRANSFER MS TO DEP (ON/OFF)	---	1
T78 TRANSFER MS TO DEP (ON/OFF)	---	1
T79 TRANSFER MS TO DEP (ON/OFF)	---	1
T80 TRANSFER MS TO DEP (ON/OFF)	---	1
T81 TRANSFER MS TO DEP (ON/OFF)	---	1
T82 TRANSFER MS TO DEP (ON/OFF)	---	1
T83 TRANSFER MS TO DEP (ON/OFF)	---	1
T84 TRANSFER MS TO DEP (ON/OFF)	---	1
T85 TRANSFER MS TO DEP (ON/OFF)	---	1
T86 TRANSFER MS TO DEP (ON/OFF)	---	1
T87 TRANSFER MS TO DEP (ON/OFF)	---	1
T88 TRANSFER MS TO DEP (ON/OFF)	---	1
T89 TRANSFER MS TO DEP (ON/OFF)	---	1
T90 TRANSFER MS TO DEP (ON/OFF)	---	1
T91 TRANSFER MS TO DEP (ON/OFF)	---	1
T92 TRANSFER MS TO DEP (ON/OFF)	---	1
T93 TRANSFER MS TO DEP (ON/OFF)	---	1
T94 TRANSFER MS TO DEP (ON/OFF)	---	1
T95 TRANSFER MS TO DEP (ON/OFF)	---	1
T96 TRANSFER MS TO DEP (ON/OFF)	---	1
T97 TRANSFER MS TO DEP (ON/OFF)	---	1
T98 TRANSFER MS TO DEP (ON/OFF)	---	1
T99 TRANSFER MS TO DEP (ON/OFF)	---	1
T100 TRANSFER MS TO DEP (ON/OFF)	---	1

3000 PROGRAMMING NOTES

1. AVAILABLE WHEN TRANSFER DELAY MS TO DEP AND PRIME PREDICTION OFFSET IS ON

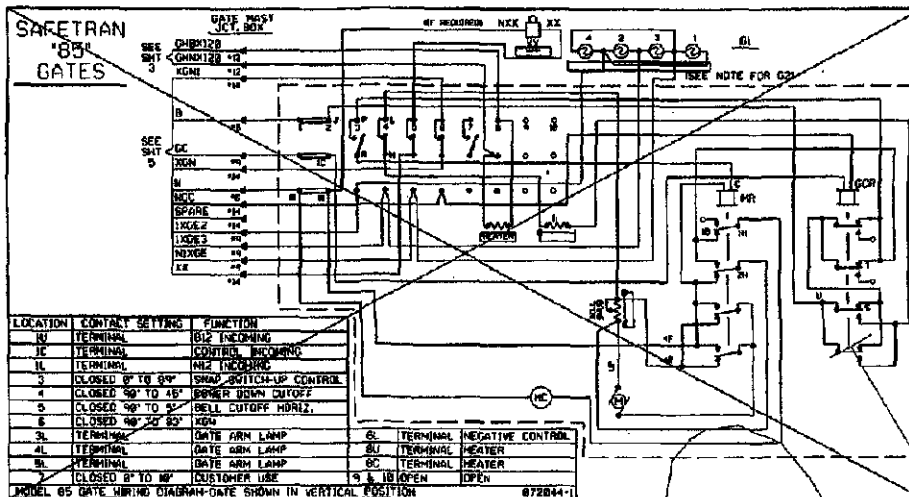
2. AVAILABLE WHEN TRANSFER DELAY MS TO DEP AND DAX DISTANCE IS GREATER THAN ZERO

3. AVAILABLE WHEN ENHANCED DETECTION IS ON

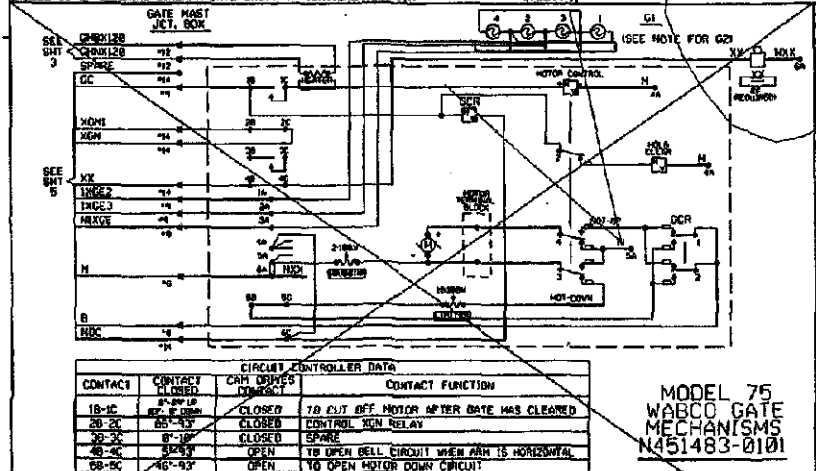
4. AVAILABLE WHEN LOW EZ DETECTION IS ON

5. AVAILABLE WHEN POSITIVE START IS ON

MODULE 3000 GCP MODULE ASSEMBLIES	
MODULE DAY	
MODULE POSITION	MODULE DAY
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	1

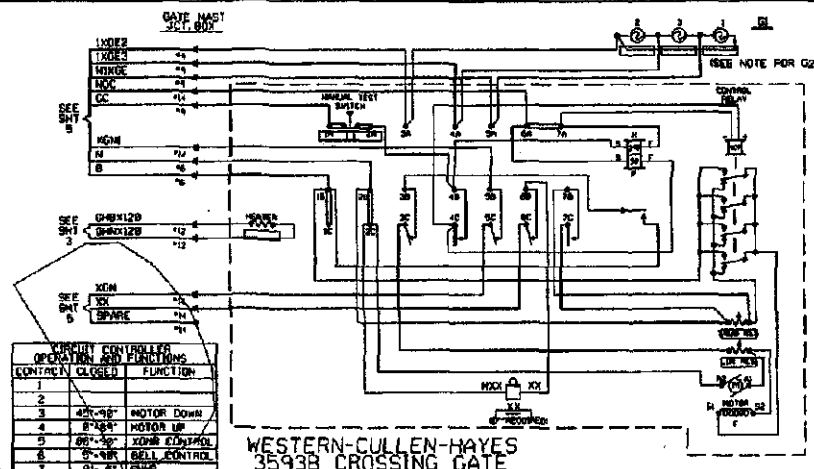
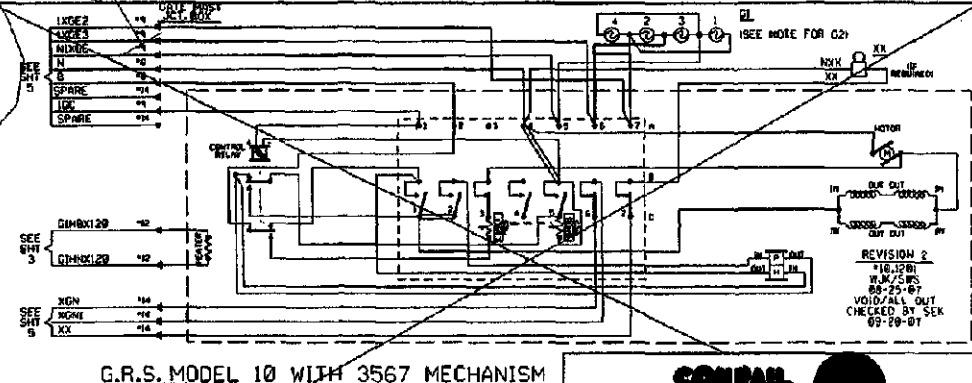
SAFETRAN
831
GATES

MODEL 65 GATE WIRING DIAGRAM-GATE SHOWN IN VERTICAL POSITION



NOTE: MECHANISMS SHOWN FOR GATE ARMS IN VERTICAL POSITION. EACH HIGHWAY GATE TO BE WIRED SAME AS SHOWN, EXCEPT FOR LIGHTS (SEE DIAGRAM G2). SIDEWALK ARMS ON HIGHWAY GATES TO HAVE STEADY-LIT LIGHT. XN21 IN G2 WILL BECOME B22.

CAB CAB

GATE HAST
831-800WESTERN-CULLEN-HAYES
3543B CROSSING GATE

G.R.S. MODEL 10 WITH 3567 MECHANISM

CONTACT SPACE NO.	CIRCUIT CONTROLLER OPERATION AND FUNCTIONS		FUNCTION OF CONTACT	
	CLOSING	OPENING	CLOSING	OPENING
1	70	70	70	70
2	70	70	70	70
3	70	70	70	70
4	70	70	70	70
5	70	70	70	70
6	70	70	70	70
7	70	70	70	70



WESTERN AVENUE

SPRINGFIELD, OHIO

HIGHWAY CROSSING
GATE MECHANISM TYPICALS

ISSUE DATE: 11-12-95

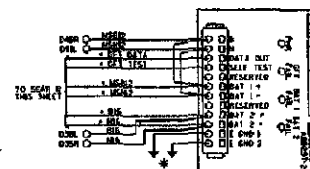
8211-1942

REV. 2

88-25-87

SHEET 6X

HX380C1.18C



KNOWING SYSTEM CONFIGURATION FROM MENU OPTIONS		
THE QUESTION	SELECT FROM MENU OPTION	
METRIC NAMES AND UNITS/LABELS?	YES	
NUMBER OF TRACKS?	1	
NUMBER OF AIR INPUTS?	1	
CONSTANT WINDING DEVEL.	GCP	
CROSSING CONTROLLABLE	YES	
WIND UP STATION	NONE	
AUXILIARY TRACKS?	NO	
AUX TRACK	LAST # AUX TRACKS + YES	
CHARTS?	NO	
ENTRY GAMES?	0	
MAX?	8	
NATURAL BANKS?	2	
PREDOMINANT?	NORMAL	
W/O MODIFIERS?	1	
LAMP TYPES	NORMAL	
AUTO INSPECTIONS?	YES	
BELL SEQUENCE?	---I-	
BELL SEQUENC INPUT 1	---YES	
BELL SEQUENC INPUT 2	---	
BELL SEQUENC INPUT 3	---NO	
BELL SEQUENC INPUT 4	---NO	
BELL ONLY	CAPES LORANGE	
GATE TIP SENSORS?	YES	
CROWDED FAULTY OUTCROAST?	YES	
CROWDING ?	16-17% NO	
CROWDING ?	10%	
TOTAL APPROACH NOD ALARM	ACTIVATE	
SPEC RETG ADDRESS	00000000000000000000	

VERIFY THE BATTERY SUPPLY VOLTAGES	
OUT BATTERY VOLTAGE AT INPUT DC1	VOLT 1: .
DIS BATTERY VOLTAGE AT INPUT DC2	VOLT 2: .

REVISION 2
ALL NEW
#10.1201
WJK/SMS
08-25-07
CHECKED BY SEM
08-29-07

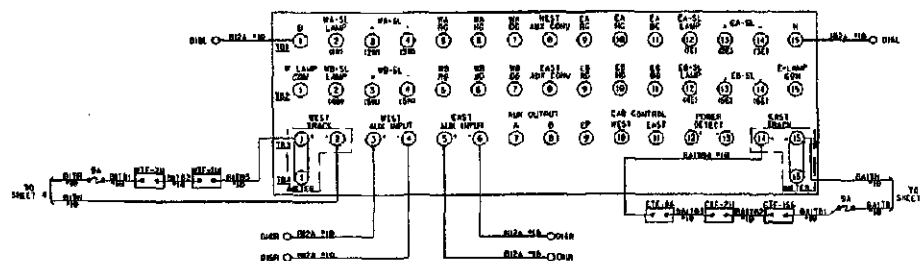


HIGHWAY CROSSING
SEAR II

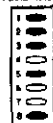
ISSUE DATE: 00-30-87	0211-1043
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REV. 2	08-25-07	SHEET 6
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ALL CODES RECEIVED FROM THE EAST TO BE
REPEATED TO THE WEST AND ALL CODES
RECEIVED FROM THE WEST TO BE REPEATED
TO THE EAST.
ABSENCE OF ANX INPUT TO DISABLE ALL
CODES FOR RESPECTIVE DIRECTIONS.

[illegible]ELECTRO CODE MODEL OR PLUS
CONFIGURATION W/ REGENERATIVE REPEATER

CHASSIS ID
LOCATED ON THE MOTHER
BOARD BETWEEN THE 730
PROCESSOR MODULES.
PROGRAM "MCC-85"



 = PUNCHED
 = NOT PUNCHED

215 MOOLE
THE 215 MODULE CONTAINS MULTIPLE INPUTS AND CODE 5 OPERATION
POSITION FOR FLASHING YELLOW ASPECTS IS PROVIDED ONLY WHEN
A 215 MODULE IS USED. WHEN A 215 MODULE IS USED AND
A 215 MODULE IS USED, THE 215 MODULE WILL JUMP AND
BE FOLLOWED IN PLACE. DOES NOT JUMP.
IF FLASHING YELLOW ASPECTS ARE NOT DESIRED, EITHER A
215A-12 OR 215B-12 MAY BE USED. A 215B-12 MODULE
MAY BE CONNECTED TO EITHER A 215A OR 215B BY CONNECTING
ONLY JUMPER 2. NOTE: OPERATING AND 215B (APPROACH) BLOW

CODE B SELECTION
CODE B OPERATION IS PROGRAMMED BY SETTING

SWITCHES ON THE 215 MODULE AS FOLLOWS:

CASE CI	CASE C6	TRANSLAT CASE 5 CASE WHEN
OPEN	OPEN	NEVER
OPEN	CLOSED	BEST CASE I RECEIVED
CLOSED	OPEN	BEST CASE I RECEIVED
CLOSED	CLOSED	ALWAYS

WEST C	WEST C	TRANSLAT CODE 6 WEST UNCL
--------	--------	---------------------------

OPEN	OPEN	RECEIVED
OPEN	CLOSED	EAST CODE 5 RECEIVED
CLOSED	OPEN	EAST CODE 1 RECEIVED
CLOSED	CLOSED	ALL WAYS

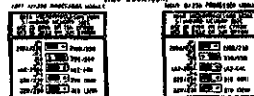
CODE B WILL NOT BE TRANSMITTED UNTIL YOU
ACT TRACK CIRCUIT UNLESS GOOD IN RECEIVING
IN FROM THE SAME TRACK CIRCUIT

FOR THIS LOCATION
SET SWITCHES ON THIS
MODULE AS FOLLOWS:

	C1 - OPEN
EAST	C5 - CLOSED
WEST	C6 - OPEN
	C8 - CLOSED



220 MODEL CULLATION
SUPER SECTIONS FOR
YMS LOCATION.



Model	1990	1991
1990	1990	1991
1990	1990	1991
1990	1990	1991
1990	1990	1991

REVISION 2
ALL NEW
P# 1201
WJK/SWS
08-25-07
CHECKED BY SEK
09-20-07



NORFOLK SOUTHERN

WESTERN AVENUE

SPRINGFIELD, OHIO

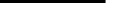
**HIGHWAY CROSSING
E-CAR PLUS**

ISSUE DATE: 08-26-87	8211-1042
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REV. 2	08-25-07	SHEET 7
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REVISION 2
18.1201
MJK/SWS
08-25-07
FED- IN
CHECKED BY SEK
09-20-07



NORFOLK SOUTHERN

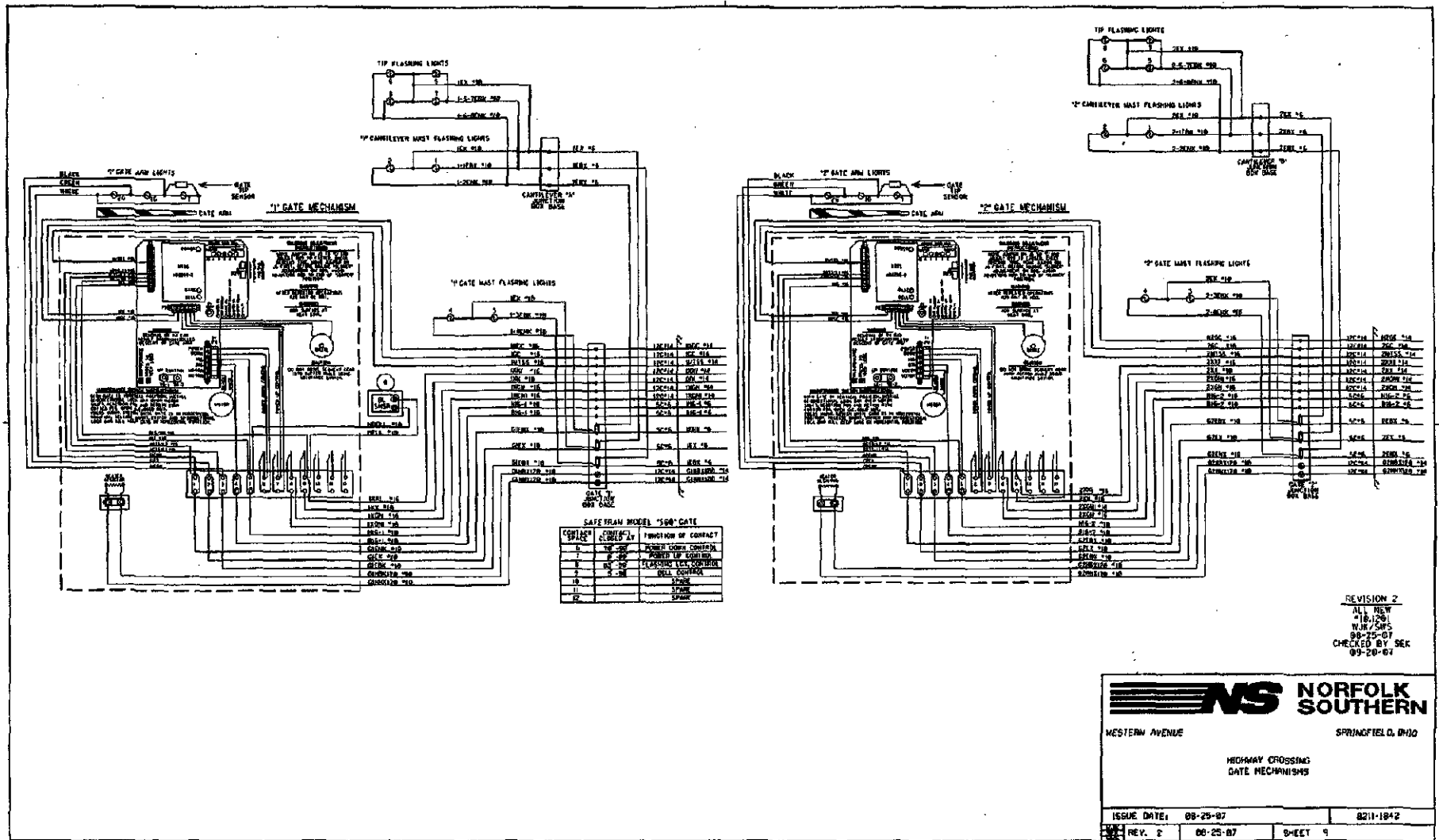
SPRINGFIELD, OHIO

HIGHWAY CROSSING GATE CONTROLLING LIGHTING CIRCUITS AND CABLE TERMINATIONS

B21-DE-42

46-25-87

HX3908C1.FBI





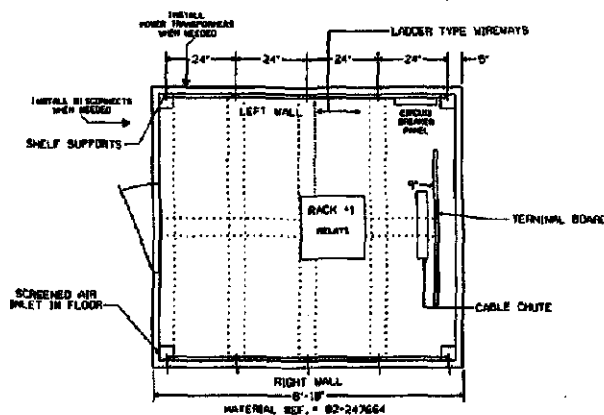
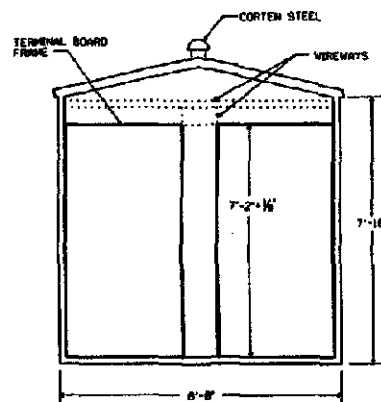
82-038794 - MESSIAH
82-029860 - AMSTERSION
82-032531 - AMSTERSION
82-025358 - AMSTERSION
82-037967 - 3 POST PORCELAIN GAGE
82-036975 - THERMAL BLOCK FOR EQUALIZER
82-046767 - THERMAL STOP
82-036969 - ROSE LINK ASSEMBLY
82-036970 - TIGHT LINK ASSEMBLY
82-029759 - AMSTERSION, HEAVY DUTY
82-025565 - AMSTERSION
82-037968 - EQUALIZER
EQUIPMENT TO BE IN ACCORDANCE WITH STANDARDS IN POWER CABLE EAST AND WEST STOPS HERE

REVISION 2
*181241
WJM/SWS
08-25-01
YELLOW= OUT
THEN VOID THIS SHEET
CHECKED BY SEK
09-20-01

WESTERN AVENUE		SPRINGFIELD, OHIO	
HIGHWAY CROSSING TERMINAL BOARD ARRANGEMENT			
ISSUE DATE: 11-13-65		821-1042	
REV. 2	00-20-67	SHEET 10K	

HX3200C1-TBC

1

La

FOR	FOR	KPR	XPR	XPR
12-EX	12-EX	12-XB	10B12-LBX	22-MC
13-LV	13-LV	13-XZ	10B13-LBX	23-OC
22-EB	22-EB	15-XC	12-ED	
23-EB	23-EB	16-OC	25-XMP	
24-EB	24-EB	25-XC		
25-EB	25-EB	30-XC		
30-EB	30-EB	30-XC		

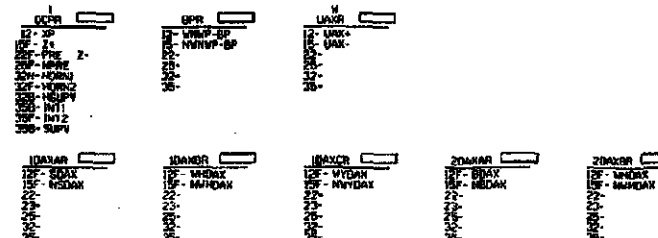
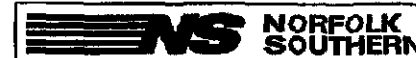


Figure 1 shows two schematic representations of a 1.2 kb DNA fragment. The top part shows the BamHI (B) and SmaI (S) sites, with a 1.2 kb scale bar. The bottom part shows the HindIII (H) and SmaI (S) sites, with a 1.2 kb scale bar. The DNA fragment is labeled with 'B' and 'S' sites, and the scale bar is labeled '1.2 kb'.

A62-467 = 62-41542 B1-P1, 878-H2, 188-188
 A62-195 = 62-41526 B1, FLASHER 4F8-10
 A62-285 = 62-41582 B1, 2F8, 28-40, 218
 A62-383 = 62-41589 B1-R, C1 SEC-A, 2F8, 468
 A62-262 = 62-41583 B1H, 6F8, 588
 A62-385 B1H, 4F8, 2F, 10, 388

REVISION 2
#10.1201
MJK/SMS
08-25-07
RED IN
YELLOW OUT
CHECKED BY SEN
08-28-07



WESTERN AVENUE

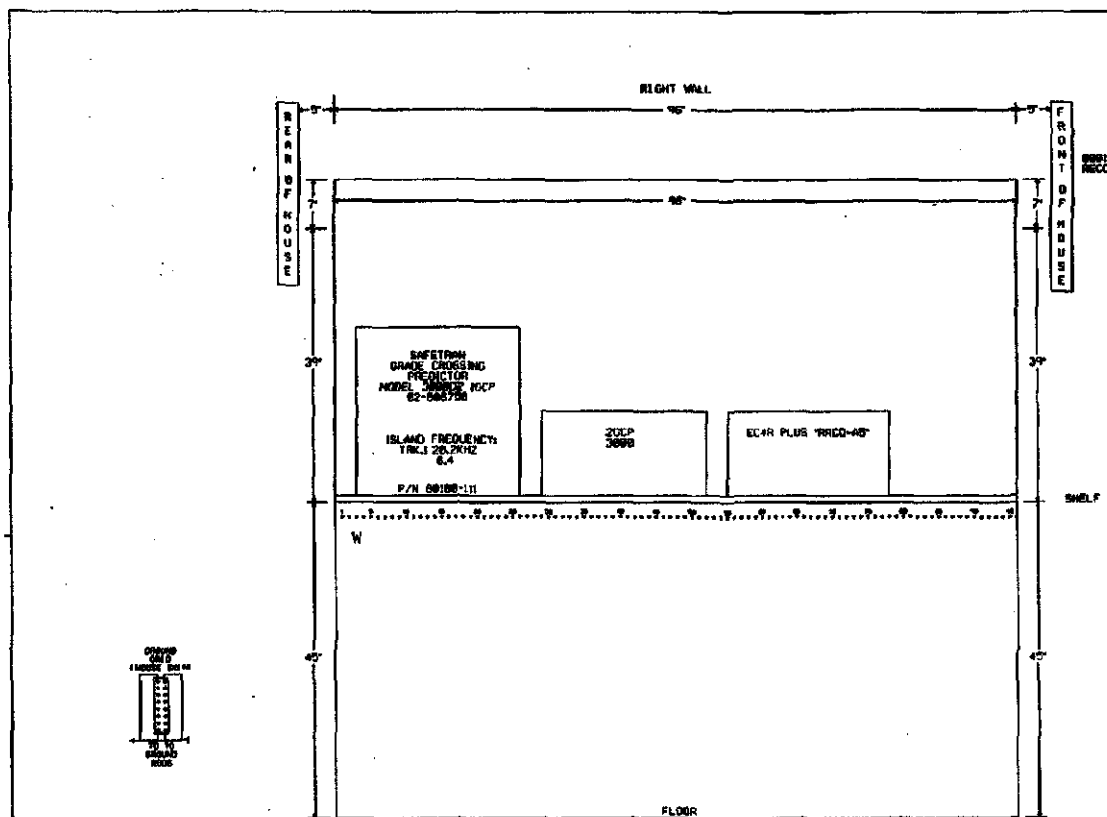
SPRINGFIELD, OHIO

HIGHWAY CROSSING RELAY RACK AND FUNCTIONS HOUSE LAYOUT

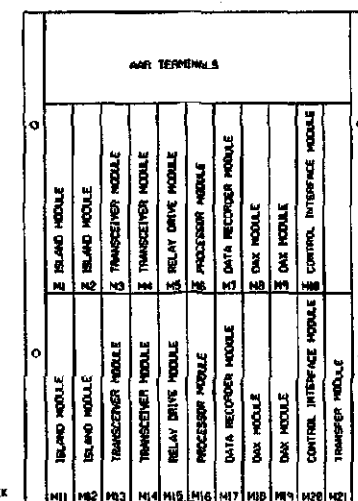
ISSUE DATE: 4-13-95	8211-1842
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REV. 2	88-28-07	SHEET 10
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HX3800AC1.100



REQUIRED MODULES			
PART NUMBER AND MODULE NAME		UPPER BAY	LOWER BAY
80011-F	80211 CH2 ISLAND MODULE	M1	M11
	80012 TRANSMITTER MODULE	M3	M13
	80013 RELAY DRIVE MODULE	M5	M15
80014	80214 PROCESSOR MODULE	M6	M16
	80250 REC-INTF	M7	M17
80015 DATA RECORDER MODULE	80015-1-2 DAX MODULE	NONE	M18, M19
	80015 CONTROL MODULE (RELAYS)		M18, M19
	80015 CONTROL DISPLAY INTERFACE	M18	M20
	80020 TRANSFER MODULE		M21



REVISION 2
 10-12-91
 W.H./S.H.
 89-25-87
 RED IN
 YELLOW- OUT
 CHECKED BY SEX
 89-25-87

REAR PROFILE LAYOUT

NS NORFOLK SOUTHERN	
WESTERN AVENUE	SPRINGFIELD, OHIO
HIGHWAY CROSSING RIGHT SIDE OF HOUSE	
ISSUE DATE: 11-13-95	8211-1042
REV. 2	89-25-87
SHEET 12	9

HX2000C1.TOC



NOTES
1. NOJ.
2. NOJ.
18. FIXED
502. FIXED

62-425749 • REGISTRATION
62-425807 • REGISTRATION
62-425848 • REGISTRATION
62-425871 • REGISTRATION

62-197989 - EQUALIZER
GROUND CONNECTION TO BE IN ACCORDANCE WITH STANDARD PLAN CS-9021-A

CHECKED BY SER
89-26-97



SPRINGFIELD, OHIO

HIGHWAY CROSSING TERMINAL BOARD ARRANGEMENT

8211-1842

SHEET 13

Abstract

FD-302a (Rev. 1-25-60)