



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

ORIGINAL RECEIVED
JAN 30 2009

January 27, 2009

SUBJECT: PRELIMINARY ENGINEERING
Grade Crossing Agreement
FAU 9190 (IL 163)
Section 09R-8-P4
Project No. RRS-9190(002)
Job No. C-98-404-09
St. Clair County

Illinois Commerce Commission
RAIL SAFETY SECTION

NSRR
DOT/AAR No. 724570N
Mile Post 8.3-W
Agreement No. RR809404

Mr. Rick Ray
Norfolk Southern Railway Company
1200 Peachtree Street NE, Box 123
Atlanta, GA 30309

X-12899

Dear Mr. Ray:

As requested by your December 17, 2008 letter, we are transmitting your company's original of the fully-executed agreement for the subject project.

The detailed estimate of cost in the total amount of \$91,092.29 covering your force account work at the subject grade crossing has been reviewed and is satisfactory.

Upon approval of a form 1 or form 3 petition by the Illinois Commerce Commission, your Company is hereby authorized to assemble its materials and to proceed with its work as outlined on Exhibit A in the attached agreement.

Prior to scheduling actual construction activities, you are required to notify Mr. Lou Jethro at our District Eight office in Collinsville, Illinois, telephone (618) 346-3172, as specified on Exhibit A of the attached agreement.

This authorization to proceed is given with the condition that the NATIONAL GRADE CROSSING INVENTORY UPDATE FORM OMB-2130-0017 (FRA F-6180.71) be filed with the Director of Processing, Transportation Division, Illinois Commerce Commission within five days of the completion of the improvement at the crossing. Please also notify this office when your work is completed.

All bills for work performed at this location, are to be forwarded to our district office at the address listed above for payment. Your bills must include all identification included in the subject of this letter.

Very truly yours,

Cheryl Cathey, P.E.
Chief of Preliminary Engineering
MWM\c:S:\GEN\WPDOCS\LETTERS\413088.docx
cc: Mary C. Lamie (R-5) - Attn: Kirk Brown (D-8)
Debbie Marks- Attn: Project Control
Michael E. Stead, ICC
Design & Environment File

Unit File

Route: **FAU 9190 (IL 163)**
Section: **09R-8-P4**
County: **St. Clair**
Project: **RRS-9190(002)**
Job No: **C-98-404-09**
Agreement No: **RR809404**
DOT/AAR NO. **724 570N**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
AGREEMENT
for
Railway-Highway Grade Crossing
Improvements

THIS AGREEMENT made and entered into by and between the STATE OF ILLINOIS, Acting by and through its Department of Transportation, hereinafter referred to as the "STATE", and the **NORFOLK SOUTHERN RAILWAY COMPANY**, hereinafter referred to as the "COMPANY."

WITNESSETH:

WHEREAS, in the interest of public safety the STATE proposes to improve crossing warning signal devices at the location listed on Exhibit A, and as shown on the attached location map; and

WHEREAS, the parties mutually agree to accomplish the proposed improvements through the use of Federal and/or State funds which are provided under applicable Federal or State act, law or appropriation.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements as hereinafter contained the parties hereto agree as follows:

SECTION 1. The project covered under this agreement shall be subject to all applicable Federal laws, rules, regulations, orders and approvals pertaining to all agreements, specifications, award of contracts, acceptance of work and procedure in general. The STATE and the COMPANY shall be governed by the applicable provisions of the Federal-Aid Policy Guide, Part 646, dated December 9, 1991, and any supplements or amendments thereto hereinafter referred to as the "Policy Guide".

SECTION 2. The COMPANY shall prepare the detailed plans (including surveys and other engineering services), and detailed estimates of cost. The detailed plans shall be submitted to the Illinois Commerce Commission (ICC) in accordance with Section 5 of this agreement and estimates shall be submitted to the STATE for their approval.

SECTION 3. The completed crossing warning devices shall conform to Part VIII of the 2003 Edition of the National Manual on Uniform Traffic Control Devices (MUTCD), including any amendments which may be contained in the Illinois Supplement to the MUTCD. Barrier systems, such as guardrail and impact attenuators should not be used at railroad grade crossings except in extraordinary circumstances. Approval for the erection of any roadside barrier by the COMPANY must be obtained in writing in advance from the STATE.

SECTION 4. All required installation work at the grade crossing(s) shall be performed by the COMPANY with its own forces or in accordance with 23 CFR, part 646.216. In the event the COMPANY intends to use forces other than its own under a continuing contract or contracts, the COMPANY shall provide the Department with a list of the items of work to be accomplished under such contract or contracts and a list of the name of each contractor whose services will be used to perform the work. Such contracts shall be in compliance with the Civil Rights Act of 1964 and implementing regulations applicable to Federal-Aid Projects as well as the Illinois Fair Employment Practices Act and implementing rules and regulations.

SECTION 5. The COMPANY will not begin to work without written authorization from the STATE to proceed. The COMPANY shall file a form 1 or form 3 Petition of Illinois Administrative Code 1535 with the Illinois Commerce Commission (ICC) showing details of the automatic warning devices herein required, and shall receive approval thereof by X-Resolution before commencing with the installation. Upon receipt of authorization from the STATE and the ICC, the COMPANY shall promptly begin the work set forth in the agreement and shall notify in writing the AGENCIES listed on EXHIBIT A before commencing work.

SECTION 6. The COMPANY, for performance of its work as herein specified, may bill the STATE monthly (in sets of two) for the STATE'S 100% share of the cost of materials purchased,

delivered and stored on the COMPANY'S property but not yet installed. The materials will become the property of the STATE and must be designated for exclusive use on the project designated on EXHIBIT A.

In the event of any loss of material after payment, the COMPANY will replace the material at no cost to the STATE. The storage area of such materials shall be available for STATE inspection upon 24-hour notice. The bill shall be accompanied by a voucher from the material supplier indicating payment by the COMPANY. Payment under this paragraph shall not be claimed for any bill totaling less than \$500.

In the event the COMPANY fails to install the stored material within one year of the fully executed agreement date, the State may provide a written notice to the Company, requiring the COMPANY to promptly deliver the stored material to a location indicated in writing by the State. Upon delivery, the STATE shall then take possession of said material for the STATE'S own use. The delivery of the material to the STATE shall in no way serve to terminate this agreement or affect the other provisions of this agreement and in addition shall not affect the COMPANY'S right to claim payment for stockpiled material to replace that taken by the STATE.

SECTION 7. The COMPANY, for performance of its work as herein specified, may bill the STATE monthly (in sets of two) for the STATE'S 100% share of its expense as incurred. These progressive invoices may be rendered on the basis of the estimated percentage of the work completed, plus allowable FHWA approved additives. The STATE after verifying that the bills are reasonable and proper shall promptly reimburse the COMPANY for 100% of the amount billed. Payment under this paragraph shall not be claimed for any bill totaling less than \$500. Upon completion of the project, the COMPANY shall provide the STATE with a written notification of the date of completion. The COMPANY, upon completion of its work, shall submit a complete and detailed final bill of all incurred costs to the STATE no later than one year from the date of completion of the project. Otherwise, previous payments to the COMPANY may be considered final, except as agreed to by the STATE and the COMPANY. After the STATE has checked the final statement and agreed with the COMPANY that the costs are reasonable and

properly set up, insofar as they are able to ascertain, the STATE shall then reimburse the COMPANY an amount, less previous payments, if any, equal to 100% of the amount billed. After the STATE has audited the expenses as incurred by the COMPANY and final inspection of the installation has been made, the STATE shall reimburse the COMPANY for any amount still owed to the COMPANY or bill the COMPANY for any overpayments or items of expense found as not being eligible for reimbursement.

The COMPANY shall maintain, for a minimum of 3 years after the date of the final bill, adequate books, records, and supporting documents to verify the amounts, recipients, and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records, and supporting documents related to the contract, which may be stored on electronic files, shall be available for review and may be audited by the AUDITOR GENERAL. The COMPANY agrees to cooperate fully with any audit conducted by the AUDITOR GENERAL and to provide full access to all relevant materials. Failure to maintain the books, records, and supporting documents required by this section shall establish a presumption in favor of the STATE for the recovery of any funds paid by the STATE under the contract for which adequate books, records, and supporting documentation are not available to support their purported disbursement.

SECTION 8. The crossing warning signal system should be placed in service immediately after the installation is completed. The COMPANY shall notify the STATE in writing of the date of the completed installation. The STATE will perform a final inspection upon receiving the written notification.

SECTION 9. When construction of this project is completed, and so long as State law shall so require, the COMPANY shall maintain at its expense or, by agreement with others, provide for maintenance of the crossing warning signal devices.

SECTION 10. If at any time subsequent to the completion of this improvement, the tracks in the area of the crossing are eliminated for any reason whatsoever, then the said signal system may be removed, relocated and reinstalled at another grade crossing of the COMPANY mutually

designated and agreed to by the parties hereto and subject to the approval of the public authorities having any jurisdiction. The reinstalled signal system shall thereafter be subject to the terms of this agreement.

SECTION 11. In compliance with the Federal-Aid Policy Guide, dated December 9, 1991, Section 646.210, the railroad work as herein contemplated requires no contribution from the COMPANY.

SECTION 12. In the event that delays or difficulties arise in securing necessary federal or state approvals, or in acquiring rights-of way, or in settling damage claims, or for any other cause which in the opinion of the STATE render it impracticable to proceed with the construction of the project, then at any time before construction is started, the STATE may serve formal notice of cancellation upon the COMPANY and this agreement shall thereupon terminate. In the event of cancellation, the STATE shall reimburse the COMPANY for all eligible cost and expense incurred by the COMPANY prior to receipt of notice of cancellation and payment by the STATE.

SECTION 13. The COMPANY, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. The COMPANY shall carry out applicable requirements of 49 CFR part 26 in the award and administration of STATE-assisted contracts. Failure by the COMPANY to carry out these requirements is a material breach of this Agreement, which may result in the termination of this contract or such other remedy as deemed appropriate.

In the event any work is performed by other than COMPANY forces, the provisions of "an act regulating wages of laborers, mechanics and other workers employed in public works by the State, County, City or any public body or any political subdivision or by any one under contract for public works" (Illinois Compiled Statutes, 820 ILCS 130/1) shall apply.

SECTION 14. This agreement shall be binding upon the parties hereto, their successors or assigns.

SECTION 15. The COMPANY shall complete all work or shall be responsible that all work is completed by other forces within one year of the date of the fully executed agreement. In the event that all work cannot be completed within one year, the COMPANY shall notify the STATE in writing the cause for the delay before the one-year deadline has expired. Otherwise, the STATE will consider petitioning the Illinois Commerce Commission to order the work to be completed.

SECTION 16. At the time this Agreement was executed, there were funds available for the project; however, obligations assumed by the STATE under this Agreement shall cease immediately, without penalty or payment beyond that which the COMPANY has already accumulated, should the Illinois General Assembly or the Federal Highway Administration fail to appropriate or otherwise make available funds for the project.

SECTION 17. The "State Required Ethical Standards Governing Contract Procurement" attached hereto as Attachment A, is hereby made a part of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed in duplicate by their duly authorized officers as of the dates below indicated.

By execution of this agreement and under penalties of perjury, the COMPANY certifies that its correct Federal Taxpayer Identification Number (TIN) is **53-6002016** and the COMPANY is doing business as a corporation.

Executed by the COMPANY this 17th
day of November, 2008.

**NORFOLK SOUTHERN
RAILWAY COMPANY**

By: M. J. Wheeler
Name: M. J. Wheeler
Title: General Manager

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Executed by the STATE this 21st
day of January, 2009.

By: Christine M. Reed
Christine M. Reed, P.E.
Director of Highways
Chief Engineer

By: Milton R. Sees
Milton R. Sees, P.E.
Secretary of Transportation

Date: 1/21/09

Date: 1/21/09

ATTACHMENT A

STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT

The certifications hereinafter made by the COMPANY are each a material representation of fact. The STATE may terminate the agreement if it is later determined that the COMPANY rendered a false or erroneous certification.

Bribery. Section 50-5 of the Illinois Procurement Code provides that: (a) no person or business shall be awarded a contract or subcontract under this Code who: (1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or (2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

No business shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business, and: (1) the business has been finally adjudicated not guilty; or (2) the business demonstrates to the governmental entity with which it seeks to contract, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

Every bid submitted to and contract executed by the State shall contain a certification by the COMPANY that it is not barred from being awarded a contract or subcontract under this Section. A COMPANY who makes a false statement, material to the certification, commits a Class 3 felony. The COMPANY certifies that it is not barred from being awarded a contract under Section 50-5.

Educational Loan. The Educational Loan Default Act provides that no State agency shall contract with an individual for goods or services if that individual is in default, as defined by Section 2 of this Act, on an educational loan. Any contract used by a State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.

Bid Rigging/Bid Rotating. Section 33E-11 of the Criminal Code of 1961 provides: (a) that every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the COMPANY that it is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of the Code. The state and units of local government shall provide appropriate forms for such certification.

A COMPANY that makes a false statement, material to the certification, commits a Class 3 felony.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation, and: (1) it has been finally adjudicated not guilty, or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer, or a high managerial agent in behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty, or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer, or a high managerial agent in behalf of the corporation.

The COMPANY certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

International Anti-Boycott. Section 5 of the International Anti-Boycott Certification Act provides that every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or \$10,000, whichever is less, shall contain certification, as a material condition of the contract, by which the COMPANY agrees that neither it nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act. The COMPANY makes the certification set forth in Section 5 of the Act.

Drug Free Workplace. The Illinois Drug Free Workplace Act applies to this contract and it is necessary to comply with the provisions of the Act if the COMPANY is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

The COMPANY certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace by: (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance, including cannabis, is prohibited in the COMPANY's workplace; specifying the actions that will be taken against employees for violations of such prohibition; and notifying the employee that, as a condition of employment on such contract, the employee shall abide by the terms of the statement, and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction; (b) Establishing a drug free awareness program to inform employees about the dangers of drug abuse in the workplace; the COMPANY's policy of maintaining a drug free workplace; any

available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug violations; (c) Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace; (d) Notifying the Department within ten (10) days after receiving notice from an employee or otherwise receiving actual notice of the conviction of an employee for a violation of any criminal drug statute occurring in the workplace; (e) Imposing or requiring, within thirty (30) days after receiving such notice from an employee of a conviction or actual notice of such a conviction, an appropriate personnel action, up to and including termination, or the satisfactory participation in a drug abuse assistance program approved by a federal, state, or local health, law enforcement, or other appropriate agency; (f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place; (g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the actions and efforts stated in this certification.

Delinquent Payment. The COMPANY certifies that it, or any affiliate, is not barred from being awarded a contract under 30 ILCS 500. Section 50-11 prohibits a person from entering into a contract with a State agency if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency if it, or any affiliate, has failed to collect and remit Illinois Use tax on all sales of tangible property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The COMPANY further acknowledges that the contracting State agency may declare the contract void if this certification is false or if the COMPANY, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

Felony Convictions. The COMPANY certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or of a Class 3 or Class 2 felony under the Illinois Security Law of 1953 for a period of five years prior to the date of the AGREEMENT. The COMPANY acknowledges that the DEPARTMENT shall declare the contract void if this certification is false.

Environmental Protection Act. The COMPANY certifies in accordance with 30 ILCS 500/50-14 that the COMPANY is not barred from being awarded a contract under this Section. The COMPANY acknowledges that the DEPARTMENT may declare the contract void if this certification is false.

Route **FAU 9190 (IL 163)**
Section **09R-8-P4**
County **St. Clair**
Project **RRS-9190(002)**
Job No **C-98-404-09**
Agreement No **RR809404**

EXHIBIT A

CROSSING IDENTIFICATION:

Railroad: **NORFOLK SOUTHERN RAILWAY COMPANY**

DOT/AAR # **724 570N**

Roadway : **IL Route 163**

Location: **Centreville, Illinois**

DESCRIPTION OF WORK TO BE DONE BY RAILROAD FORCE ACCOUNT:

- 1. Install new gate mechanisms.**
- 2. Provide all Traffic Control necessitated by the project.**
- 3. Incidental work necessary to complete the items hereinabove specified.**

DESCRIPTION OF WORK TO BE DONE BY THE STATE:

- 1. Provide construction engineering**
- 2. Incidental work necessary to complete the items hereinabove specified.**

ATTACHMENTS:

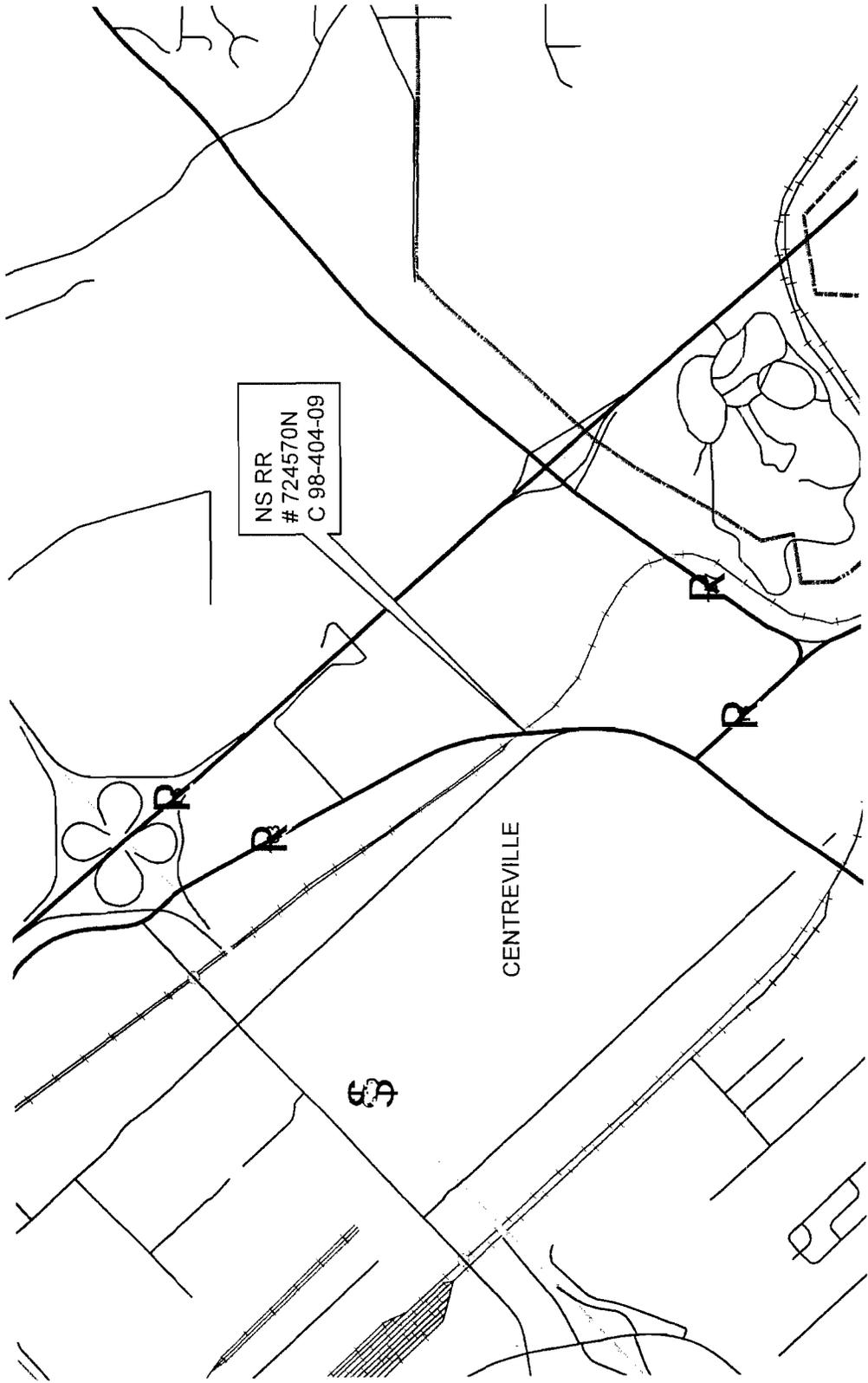
Location Map; COMPANY's Estimate

RAILROAD ESTIMATED COST: \$ 91,092.29
100% Federal participation

AGENCIES TO BE NOTIFIED BEFORE COMMENCING WORK:

Mr. Lou Jethro (618) 346-3172
IDOT – District 8
1102 East Port Plaza
Collinsville, IL 62234

SUBMIT ALL BILLS FOR THE STATE'S 100% SHARE TO THE ABOVE ADDRESS



NS RR
724570N
C 98-404-09

CENTREVILLE

637

R

R

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12-Jan-09

Detailed Estimate for Grade Crossing Warning Devices

City/State: EAST ST. LOUIS, IL
MilePost: 8.3-W
State Proj. No.: RRS-9190(002)
S&E Proj. No.: 04.0173
Man Days: 48

Road: MISSOURI RD.
DOT/AAR: 724570N
County: ST. CLAIR
AFE: F11144
File Number: 061-04.0006

Purchases - Others	
Meals and Lodging:	\$6,151.68
Rental of Equipment:	\$10,893.60
(2 Trucks, 1 Backhoe w/ Trailer and 1 Pipe-Pusher for 12 Days)	
Construction Supervision Vehicle:	\$3,802.51
Purchases - Other Total:	\$20,847.79
Material And Additives	
Material Cost:	\$27,017.00
Sales and Use Tax:	\$1,351.00
Material Handling Freight:	\$1,350.87
Material Total:	\$29,718.87
Labor And Additives	
Labor Cost:	\$12,816.00
(4 man crew at \$1,068.00 a day for: 12 days)	
Payroll Tax & Overheads:	\$17,024.77
Preliminary Engineering:	\$3,505.34
Construction Supervision:	\$7,179.52
Labor Total:	\$40,525.63
Project Cost:	\$91,092.29
Scrap / Salvage Credit:	\$0.00
Project Total:	\$91,092.29

Estimated on: 12-Jan-09

Estimated by: ndney

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:	EAST ST. LOUIS
Road:	MISSOURI RD.
Mile Post:	8.3-W
Drawing Number:	XW0929P
State Project Number:	RRS-9190(002)
County:	ST. CLAIR
A A R Number:	724570N
Project Number:	04.0173
File Number:	061-04.0006
New File Number:	CX0104863
A F E Number:	F11144
Store Number:	08379
Supervisor:	J.E. BROWNE
Tax Code:	
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: EAST ST. LOUIS

IL

S&E Proj. No.: 04.0173

AFE No.: F11144

Drawing No.: XW0929P

Store No.: 08379

P.O.Number:

Date Required:

Date Shipped:

Vendor: Interrail Engineering, INC

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed			Quantity Returned (Credit)	Special Instructions
							Date	Date	Date		
3	670-360693-4	EA	\$5.28	\$15.84	AAR/DOT NUMBER PLATE/DECAL, ORDER 3 PER PROJECT. 60 DAY LEAD TIME. SUPPLIED BY S'TRAN.						
1	105-871901-4	EA	\$183.96	\$183.96	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 38' AND LESS						
1	670-186155-4	EA	\$6.00	\$6.00	CABLE, ECHELON 2C/18AWG 40' LONG, FOR SEARII SAFETRAN P/N T15514						
2	670-793404-4	EA	\$865.17	\$1,730.34	COUNTERWEIGHT PKAGE, 17-24'GATE S'TRAN S- MECH ONLY, STAINLESS, TO INCLUDE HUB, SUPPORT ARMS						
4	670-760012-4	EA	\$40.02	\$160.08	COVER, FOR 1 WAY FLASHING LIGHT ASSY. 18 OZ. BLACK VINYL COATED NYLON. =====TO COVER 2 LAMPS=====						
1	670-986650-4	EA	\$380.95	\$380.95	DISPOSAL. CONSTRUCTION DEBRIS AND CLEANING X'ING EQUIPMENT CONTAINER						
1	670-000004-4	EA	\$700.00	\$700.00	FCC LICENSE FOR MONITOR/RADIO						
12	670-000003-4	EA	\$255.85	\$3,070.20	FILL/STONE #57, QUANTITY IS BASED ON TRUCK LOAD PLUS DELIVERY COST						
2	670-257031-4	EA	\$339.19	\$678.38	GATE, ARM FIBERGLASS-ALUMINUM 17-24 FT., INCLUDES GATE GUARD FOR GATE LIGHT CABLE, NEG P/N 8002-244NFS/CG						
1	670-923649-4	EA	\$44.23	\$44.23	INDUCTOR, SIMULATED TRACK SAFETRAN 8V617-0800						
1	670-123298-4	EA	\$287.93	\$287.93	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...						
1	670-814027-4	EA	\$136.29	\$136.29	LAMP ASSY, POWER OFF INDICATOR, S'TRAN #18510						
6	165-643547-4	EA	\$5.86	\$35.16	LAMP, 18 WATT 10 VOLT S-11 SC BAY 18S11/1SC CLEAR RWY SIGNAL UJ-71463 GE						
2	255-590880-4	EA	\$17.08	\$34.16	LOCK, AMERICAN LOCK MODEL H-10KA KEYED ALIKE TO PRIVATE KEYWAY D456 AND STAMPED "NS SIG"						

APPROVED BY STATE

APPROVED BY RAILROAD

CAR NUMBER

SEAL NUMBER

Location EAST ST. LOUIS IL S&E Proj No.: 04.0173 AFE No.: F11144 Drawing No.: XW0929P

Store No.: 08379 P.O.Number: Date Required: Date Shipped: Vendor: Interrail Engineering, INC

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed			Quantity Returned (Credit)	Special Instructions
							Date	Date	Date		
2	670-850933-4	EA	\$3,401.21	\$6,802.42	MECHANISM, GATE MODEL S-60, WITH DEFROSTER AND MINI TRACKSIDE SENSOR S'TRAN # 0740007-X002B3						
3	670-014225-4	EA	\$1,047.45	\$3,142.35	MODULE, PROCESSOR FOR 3000 GCP SAFETRAN #80214						
1	255-646807-4	EA	\$21.84	\$21.84	PADLOCK, SAFETRAN PART NO. 030399-29X SCREW TYPE FOR CIR CONTROLLER AND BTY. BOX						
1	670-015265-4	EA	\$210.95	\$210.95	PANEL, SAFETRAN# 80026-34 1 TRACK SURGE PANEL						
0	670-456936-4	EA	#Error	\$0.00	RELAY RACK, SWING, FARADAY SHIELTER FOR ONE RELAY, SSFETRAN P/N T15331						
2	670-215166-4	EA	\$22.00	\$44.00	RELAY,(AC INTERRUPT FOR SEARIII)POTTER & BRUMFIELD 120V AC KUMP-14A18-120 SAFETRAN P/N T18354						
2	670-218934-4	EA	\$21.00	\$42.00	RELAY,(AC INTERRUPT FOR SEARIII)POTTER & BRUMFIELD 12V DC KUMP-14D18-12 SAFETRAN P/N T18353						
1	670-102061-4	EA	\$350.88	\$350.88	SEARIII, (EBELL) - CROSSING BELL INCLUDES BELL SENSOR FOR SEAR MONITORING SAFETRAN 8000-80301-0002						
2	670-119882-4	EA	\$71.05	\$142.10	SEARIII, (ECHELON CONNECTOR) - SAFETRAN P/N A80063, 1/ GCP UNIT						
1	670-111783-4	EA	\$521.18	\$521.18	SEARIII, (GFT) - GROUND FAULT DETECTOR, SAFETRAN P/N A80297, 1 PER TWO SETS OF BATTERY						
1	670-085858-4	EA	\$377.01	\$377.01	SEARIII, (ILOD) - INTELLIGENT LAMP OUT DETECTOR, SAFETRAN P/N A80271, 1 / 20 AMP SSCC , 2 / 40 AMP SSCC						
1	670-113448-4	EA	\$1,162.24	\$1,162.24	SEARIII, (VHFC w/ANTENNA) - VHF COMMUNICATOR, SAFETRAN P/N A80276, 1/ PER CROSSING						
1	670-513908-4	EA	\$32.77	\$32.77	SEARIII, ECHELON TERMINATION UNIT						
3	670-118145-4	EA	\$140.23	\$420.69	SEARIII, GCP DATA RECORDER MODULES, SAFETRAN P/N A80255, 1/ NON REDUNDANT GCP, 2/ REDUNDANT GCP						
1	670-084877-4	EA	\$2,018.00	\$2,018.00	SEARIII, WITH LATEST EXECUTIVE SOFTWARE (NS004) NS CROSSING SAFETRAN P/N A80273, 1/ CROSSING						
3	670-586967-4	EA	\$40.45	\$121.35	SHUNT COVER W/LAG SCREWS, 19"X19", SERRMI #40271, ORDER 1 PER SHUNT						
2	670-652773-4	EA	\$475.66	\$951.32	SHUNT, MULTI-FREQ. #62775-1543 SAFETRAN NARROW BAND						

APPROVED BY STATE APPROVED BY RAILROAD CAR NUMBER SEAL NUMBER

Location: EAST ST. LOUIS

IL

S&E Proj. No.: 04.0173

AFE No.: F11144

Drawing No.: XW0929P

Store No.: 08379

P.O.Number:

Date Required:

Date Shipped:

Vendor: Interrail Engineering, INC

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed			Quantity Returned (Credit)	Special Instructions
							Date Quan.	Date Quan.	Date Quan.		
1	670-688850-4	EA	\$375.13	\$375.13	SHUNT, MULTI-FREQ. #62775-3497 SAFETRAN NARROW BAND						
3	670-393331-4	EA	\$37.43	\$112.29	SIGN CROSSING MALFUNCTION ASSEMBLY FOR 4" AND 5" MAST, SAFETRAN #T17215						
40	165-918750-4	EA	\$0.17	\$6.80	TERMINAL, AMP 35492 PIDG RING, 12-10 1/4 STUD NO 12 FLEXIBLE & NO 9-7 STRAND						
30	165-937023-4	EA	\$0.41	\$12.30	TERMINAL, PLASTIBOND RING WIRE RANGE 20-16 STUD 14 AMP 320699						
300	465-999111-4	LF	\$0.34	\$102.00	WIRE, NO.10, 1 CONDUCTOR, CASE, FLEXIBLE 37 STRAND, 3/64 IN. INSULATION-ORDER EXT.AMT. NEEDED CR 02-620502						
250	465-999161-4	LF	\$0.18	\$45.00	WIRE, NO.16, 1 CONDUCTOR, CASE, FLEXIBLE, 19 STRAND, 2/64 IN. INSULATION CR 02-620254						

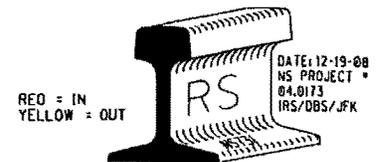
Total Material: \$27,017.36

APPROVED BY STATE

APPROVED BY RAILROAD

CAR NUMBER

SEAL NUMBER



RED = IN
YELLOW = OUT

3000D2 GCP "A2"

T1 IF=7.1KHZ
T2 IF= N/A

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

☆ = 80063 ECHELON RJ45 CONNECTOR TERMINATION J3 TO BE SET "IN" WHEN AT END OF ECHELON NETWORK.

X = 1ST SLOT AT LEFT END OF BAY * = CABLE PROVIDED WITH SEAR II

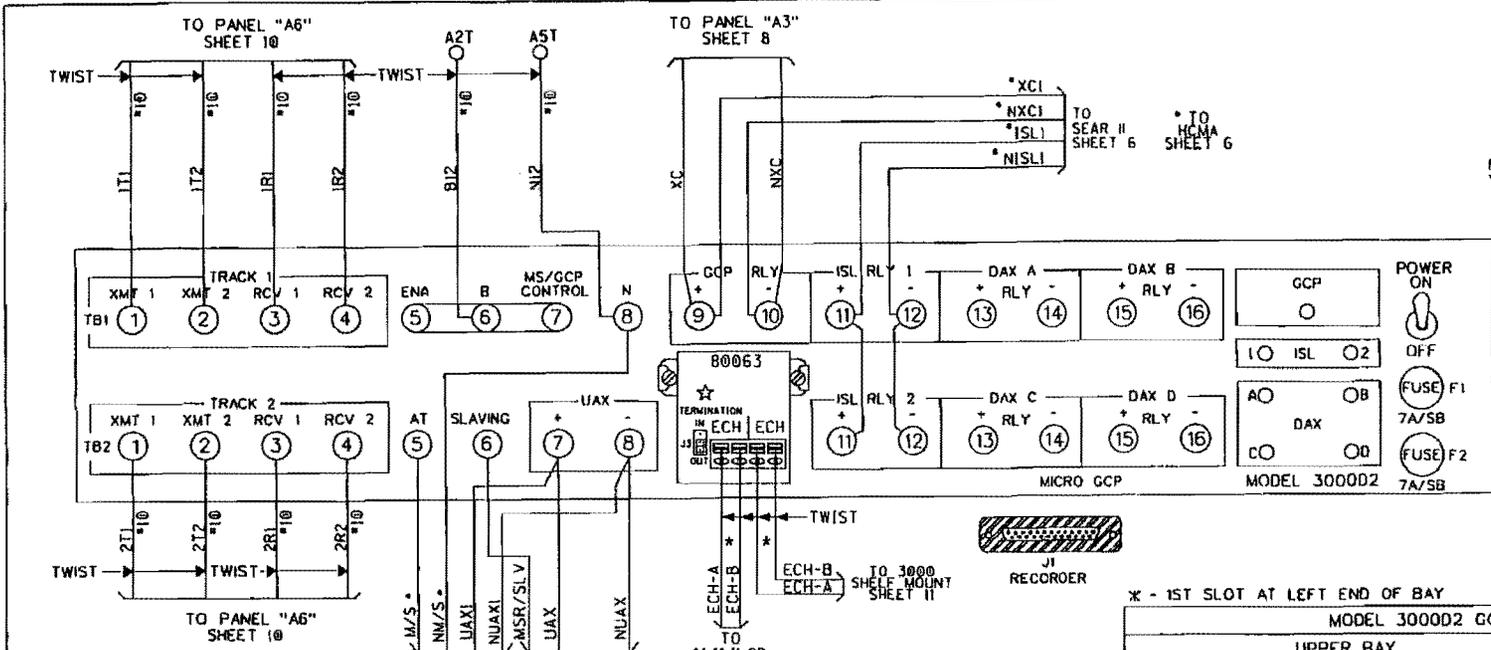
		MODEL 3000D2 GCP MODULE ASSEMBLIES																				
		UPPER BAY										LOWER BAY										
MODULES POSITION		M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21
	MODULE NUMBERS	80211-(1) *	80211-(2)	80012 T/R 1	80012 T/R 2	80013 RLY DRV	80014 PROCS	80255	80016 (1) DAX	80016 (2) DAX	80020-80017	80211-(1) *	80211-(2)	80012 T/R 1	80012 T/R 2	80013 RLY DRV	80214 PROCS	80255	80016 (1) DAX	80016 (2) DAX	80020-80017	80228 XFTRMR
	MODULES USED	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X

*CABLE PROVIDED WITH MONITOR

NOTES:
1 - SEE IPI INSTRUCTION AND INSTALLATION MANUAL FOR 80211 AND CALIBRATION PROCEDURE.
2 - TOGGLE SWITCH ON MOTHERBOARD: UP=DIAL FREQ. DOWN=SINGLE FREQ.

ALL WIRE #16 AWG UNLESS SPECIFIED.

DESIGNED BY: SWB 12-21-88		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.:	8.3-W	
DRAWN BY: HII 12-22-88		FLS	E. ST. LOUIS, IL		
CHECKED BY: CEB 01-04-01		FLGS AT OLD MISSOURI ROAD			
IN SERVICE: RLF 08-28-82		PROFILE # 7C	FILE No. R-16		
PROPERTY NORFOLK SOUTHERN RAILWAY CO.	CADD or DWG. No.	XW929P.05		SHEET 5 of 18	



3000 PROGRAMMING

# OF TKS/TRANSCIVERS	2
T1 FREQUENCY	430KHz
T2 FREQUENCY	430KHz
T1 UNI/BIDIRECTIONAL	B1
T2 UNI/BIDIRECTIONAL	UNI
T1 POWER-HI/MED	MED
T2 POWER-HI/MED	MED
T1 PRED/MS	MS
T2 PRED/MS	PRE
T1 WARNING TIME	30 Sec
T2 WARNING TIME	30 Sec
T1 APPROACH DIST	180 Ft
T2 APPROACH DIST	1460 Ft
UAX PU DELAY(0=OFF)	25 Sec
ENA/UAX2 PU DY(0=OFF)	0 Sec
T1 ISL DIST	180 Ft
T2 ISL DIST	0 Ft
# OF DAX'S	0 Eq

EXPANDED PROGRAMMING

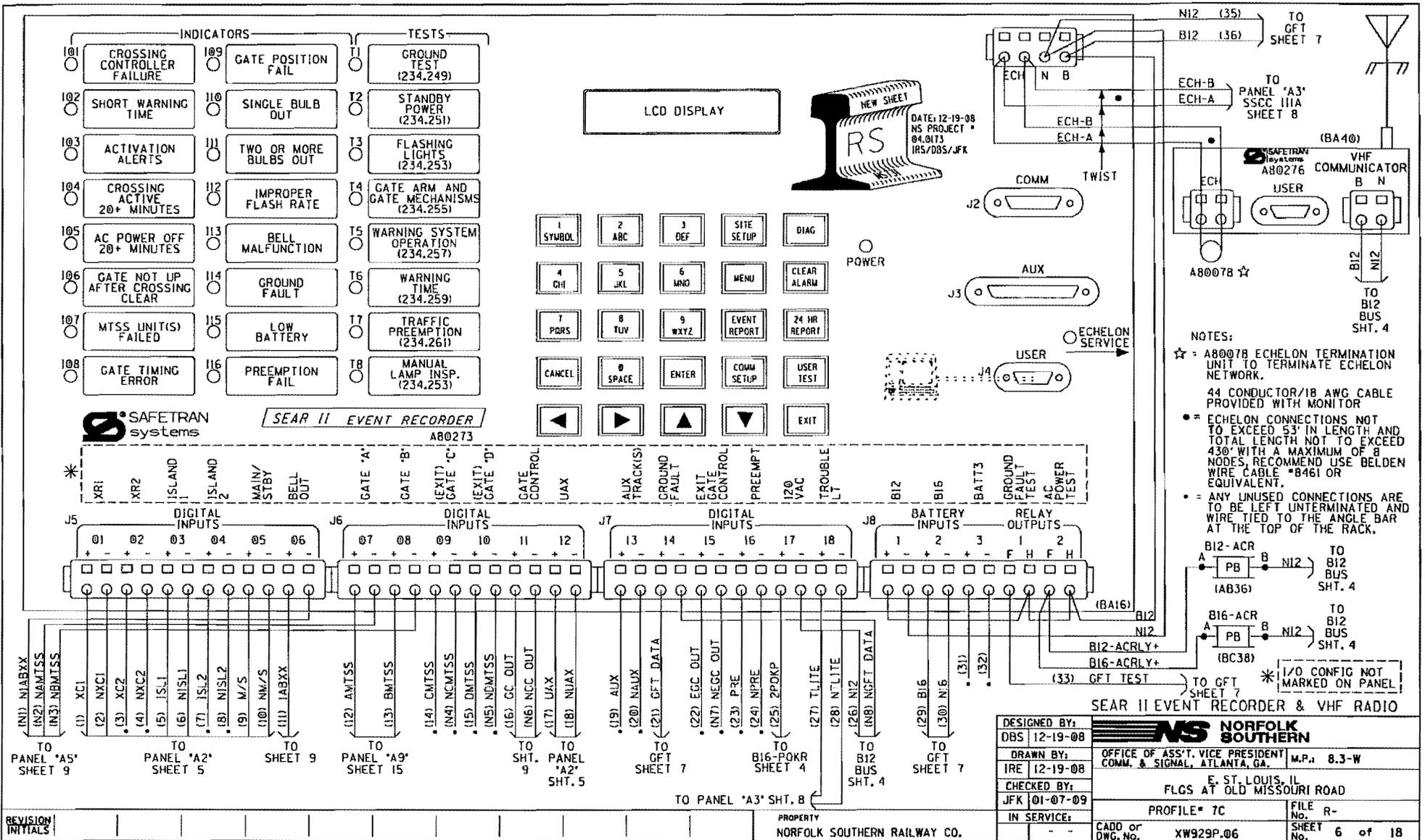
DAX A = T1/T2?	TRACK=
DAX A DIST	Ft
DAX A WARN TIME	Sec
DAX B = T1/T2?	TRACK=
DAX B DIST	Ft
DAX B WARN TIME	Sec
DAX C = T1/T2?	TRACK=
DAX C DIST	Ft
DAX C WARN TIME	Sec
DAX D = T1/T2?	TRACK=
DAX D DIST	Ft
DAX D WARN TIME	Sec
MASTER?/SLAVE?	MASTER
PASSWORD NO./YES	NO
RECORDER NO./YES	NO

EXPANDED PROGRAMMING

T1-SW TO MS AT 10% OF EZ	
T2-SW TO MS AT 10% OF EZ	
T1-DELAY MS TO GCP	0 Sec
T2-DELAY MS TO GCP	0 Sec
T1 PRIME PRE. OFFSET	0 Ft
T2 PRIME PRE. OFFSET	0 Ft
PRIME PU TIME DELAY	15 Sec
DAX A PU DELAY	Sec
DAX B PU DELAY	Sec
DAX C PU DELAY	Sec
DAX D PU DELAY	Sec
ENHANCED DETECT MODE	OFF
BACK-TO-BACK	OFF
STATION STOP TIMER	10 Sec
T1 # OF TRK. WIRES 4/6	4
T2 # OF TRK. WIRES 4/6	4
LOW EX ADJUSTMENT	0

REVISION INITIALS

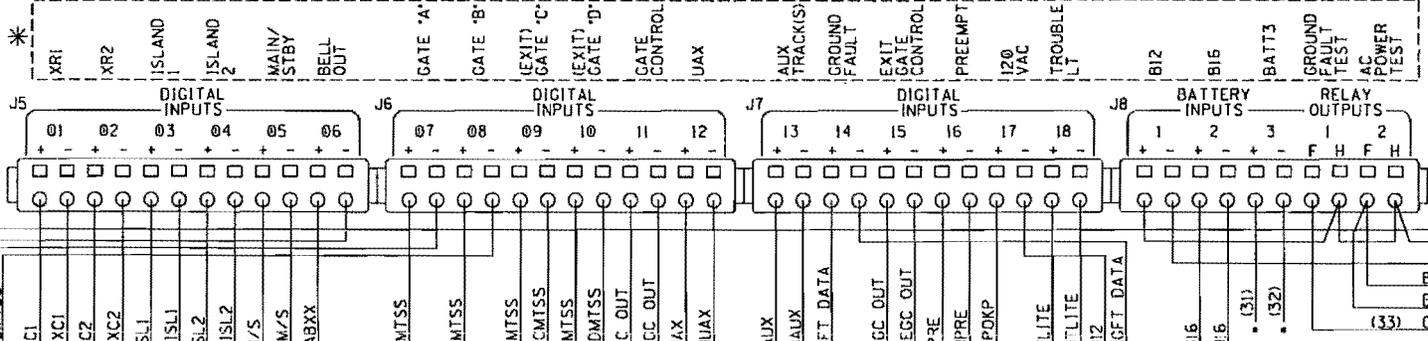
PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



INDICATORS		TESTS	
101	CROSSING CONTROLLER FAILURE	11	GATE POSITION FAIL
102	SHORT WARNING TIME	110	SINGLE BULB OUT
103	ACTIVATION ALERTS	111	TWO OR MORE BULBS OUT
104	CROSSING ACTIVE 20+ MINUTES	112	IMPROPER FLASH RATE
105	AC POWER OFF 20+ MINUTES	113	BELL MALFUNCTION
106	GATE NOT UP AFTER CROSSING CLEAR	114	GROUND FAULT
107	MTSS UNIT(S) FAILED	115	LOW BATTERY
108	GATE TIMING ERROR	116	PREEMPTION FAIL
11	GROUND TEST (234,249)	12	STANDBY POWER (234,251)
12	FLASHING LIGHTS (234,253)	13	GATE ARM AND GATE MECHANISMS (234,255)
13	WARNING SYSTEM OPERATION (234,257)	14	WARNING TIME (234,259)
14	TRAFFIC PREEMPTION (234,261)	15	MANUAL LAMP INSP. (234,253)
15		16	
16		17	
17		18	



SEAR II EVENT RECORDER
A80273



- NOTES:
- ☆ - A80078 ECHELON TERMINATION UNIT TO TERMINATE ECHELON NETWORK.
 - 44 CONDUCTOR/18 AWG CABLE PROVIDED WITH MONITOR
 - ECHELON CONNECTIONS NOT TO EXCEED 53' IN LENGTH AND TOTAL LENGTH NOT TO EXCEED 430' WITH A MAXIMUM OF 8 NODES, RECOMMEND USE BELDEN WIRE CABLE #8461 OR EQUIVALENT.
 - ANY UNUSED CONNECTIONS ARE TO BE LEFT UNTERMINATED AND WIRE TIED TO THE ANGLE BAR AT THE TOP OF THE RACK.

DESIGNED BY:		DBS 12-19-08	
DRAWN BY:		OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	
CHECKED BY:		JFK 01-07-09	
IN SERVICE:		-	
PROFILE= 7C		FILE NO. R-	
CADD or DWG. No. XW929P.06		SHEET No. 6 of 18	

REVISION	INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

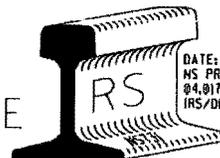
SITE SET UP PROCEDURE	
FUNCTION	LED DISPLAY
DATE	01-01-98
TIME	13:41
DAYLIGHT SAVINGS TIME	YES
SITE NAME	OLD MISSOURI ROAD
DOT#	724570N
MILE POST #	8.3W
HOP ALARMS?	NO HOP ALARMS
# OF TRACKS	1

CONTROL SYSTEM CONFIGURATION MENU QUESTION	
THE QUESTION	MENU DISPLAY OPTION
GATES INSTALLED	NO GATES INSTALLED
AC/DC/ LAMPS?	DC POWERED LAMPS
CROSSING CONTROLLER?	CROSSING CONTROLLER
MAIN/STANDBY GCP?	MAIN/STANDBY
# OF CURRENT SENSOR LOOPS USED?	C1,C2 USED
# OF BATTERY BANKS MONITORED?	2 BATTERY BANKS
UAX INPUTS (IS D9 WIRED?)	UAX INSTALLED
ALARMS BROADCAST ON RADIO?	DO NOT TALK ALARMS
ARE AUXILIARY TRACKS MONITORED (IS D10 WIRED?)	NO AUXILIARY TRACKS
IS UNIT A FRA TESTER?	NO FRA TESTER
LAMP CONFIGURATION	SIMPLE
IS BELL DETECTOR INSTALLED?	NO BELL DETECTOR INSTALLED
IS PRE-EMPT CIRCUIT USED?	NO PRE-EMPT CIRCUIT
DOUBLE TRACK ONLY # OF XR INPUTS?	

CALCULATING	
CURR 1, LAMP SET UP	4 BULBS
CURR 2, LAMP SET UP	4 BULBS
CURR 3, LAMP SET UP	
CURR 4, LAMP SET UP	
SIMPLE OR COMPLEX LAMP CALIBRATION	SIMPLE

VERIFY THE BATTERY SUPPLY VOLTAGES	
BATTERY VOLTAGE AT INPUT DC1	VOLT 1:
BATTERY VOLTAGE AT INPUT DC2	VOLT 2:
BATTERY VOLTAGE AT INPUT DC3	VOLT 3:
BATTERY VOLTAGE AT INPUT DC4	VOLT 4:

ALL OUT
VOID THIS SHEET
UPON AS-IN-SERVICE



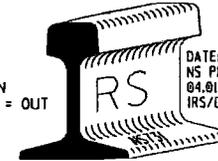
DATE: 12-19-98
NS PROJECT #
04,0173
IRS/DBS/JFK

HCMA SET UP CHART

DESIGNED BY:	NS NORFOLK SOUTHERN		
SWB 12-21-00	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.:	8.3-W
DRAWN BY:	E. ST. LOUIS, IL.		
HII 12-22-00	FLS AT OLD MISSOURI ROAD		
CHECKED BY:	PROFILE# 7C	FILE No.	R-
CEB 01-04-01		SHEET No.	7 of 16
IN SERVICE:	CADD or DWG. No.	XW929P.07	
RLF 08-28-02			

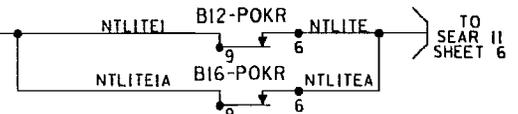
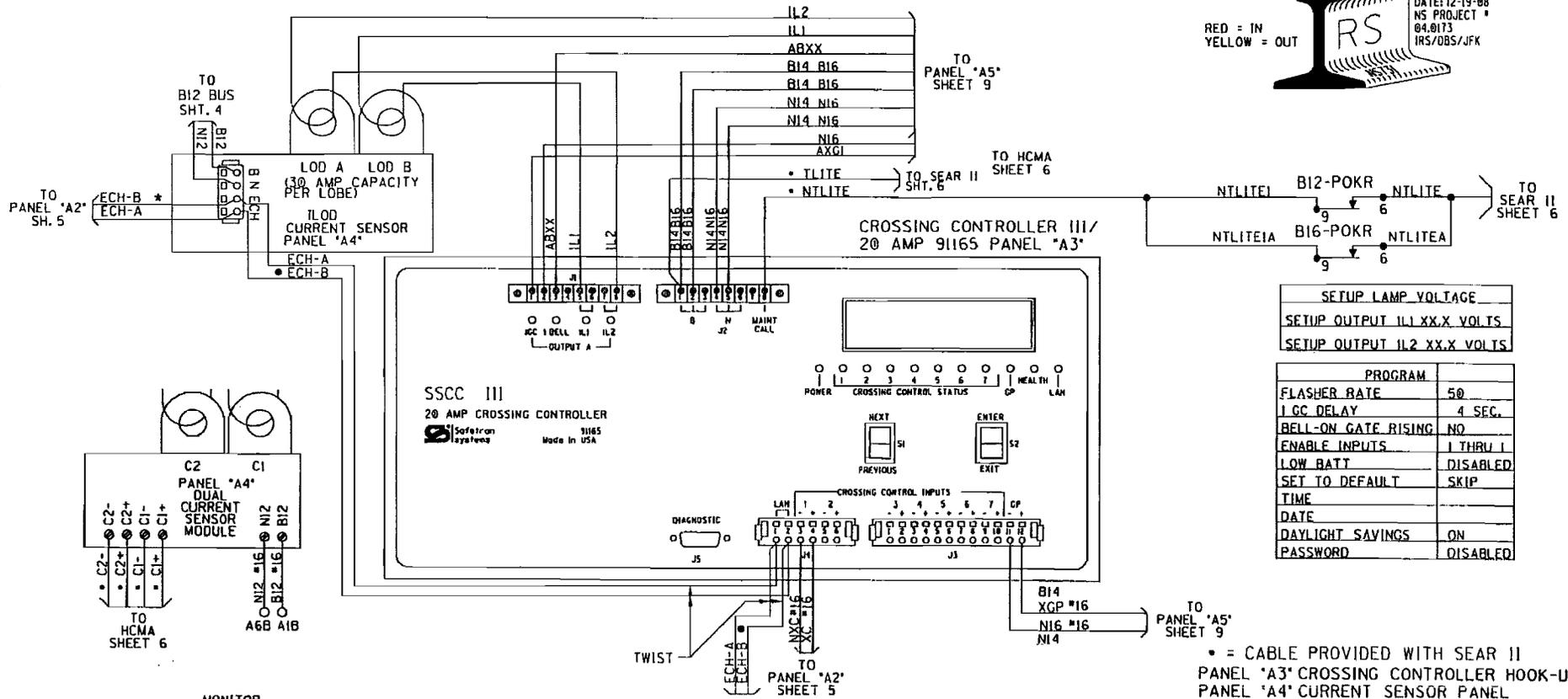
REVISION
INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



DATE: 12-19-88
NS PROJECT #
04.0173
IRS/OBS/JFK

RED = IN
YELLOW = OUT



SETUP LAMP VOLTAGE
SETUP OUTPUT IL1 XX.X VOLTS
SETUP OUTPUT IL2 XX.X VOLTS

PROGRAM	
FLASHER RATE	50
1 GC DELAY	4 SEC.
BELL-ON GATE RISING	NO
ENABLE INPUTS	1 THRU 1
LOW BATT	DISABLED
SET TO DEFAULT	SKIP
TIME	
DATE	
DAYLIGHT SAVINGS	ON
PASSWORD	DISABLED

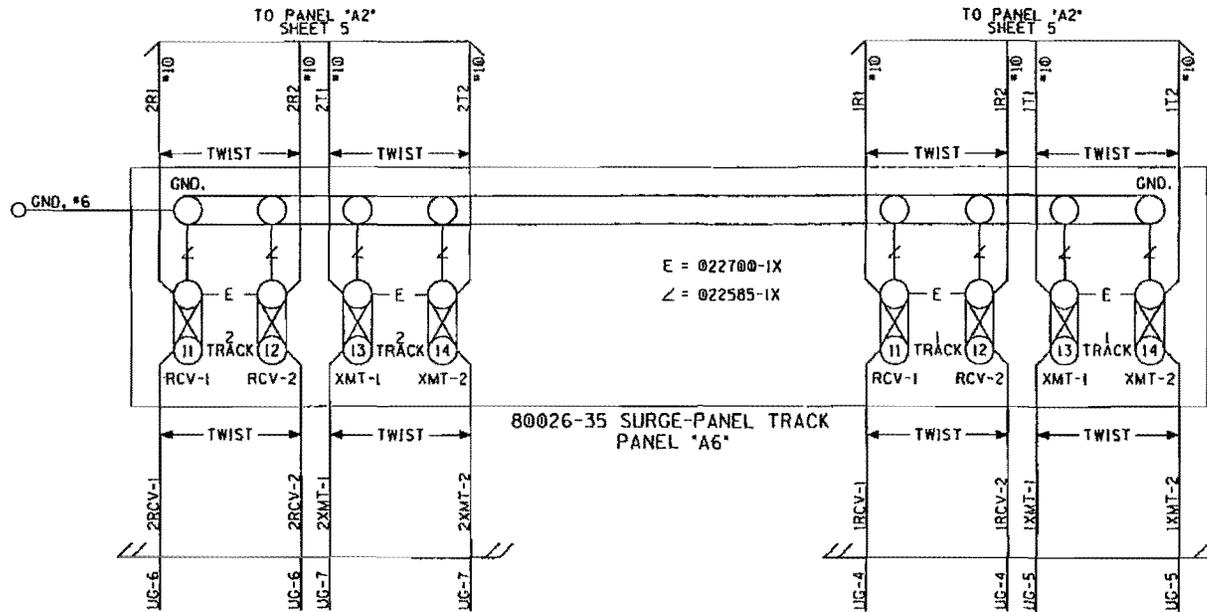
MONITOR
• CABLE PROVIDED WITH SEAR II

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

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

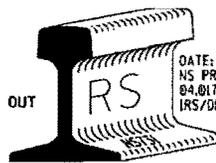
• = CABLE PROVIDED WITH SEAR II PANEL 'A3' CROSSING CONTROLLER HOOK-UP PANEL 'A4' CURRENT SENSOR PANEL

REVISION INITIALS	PROPERTY NORFOLK SOUTHERN RAILWAY CO.	DESIGNED BY: GET 10-14-02	
		DRAWN BY: GET 10-14-02	
		CHECKED BY: GET 10-14-02	
		IN SERVICE: RLF 00-22-02	
		CADD or DWG. No. XW929F.08	
			OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: 8.3-W FLS E. ST. LOUIS IL FLOS AT OLD MISSOURI ROAD PROFILE # 7C FILE No. R- 16 SHEET 8 of 18



PANEL 'A6' TRACK SURGE PANEL HOOK-UP

RED = IN
YELLOW = OUT



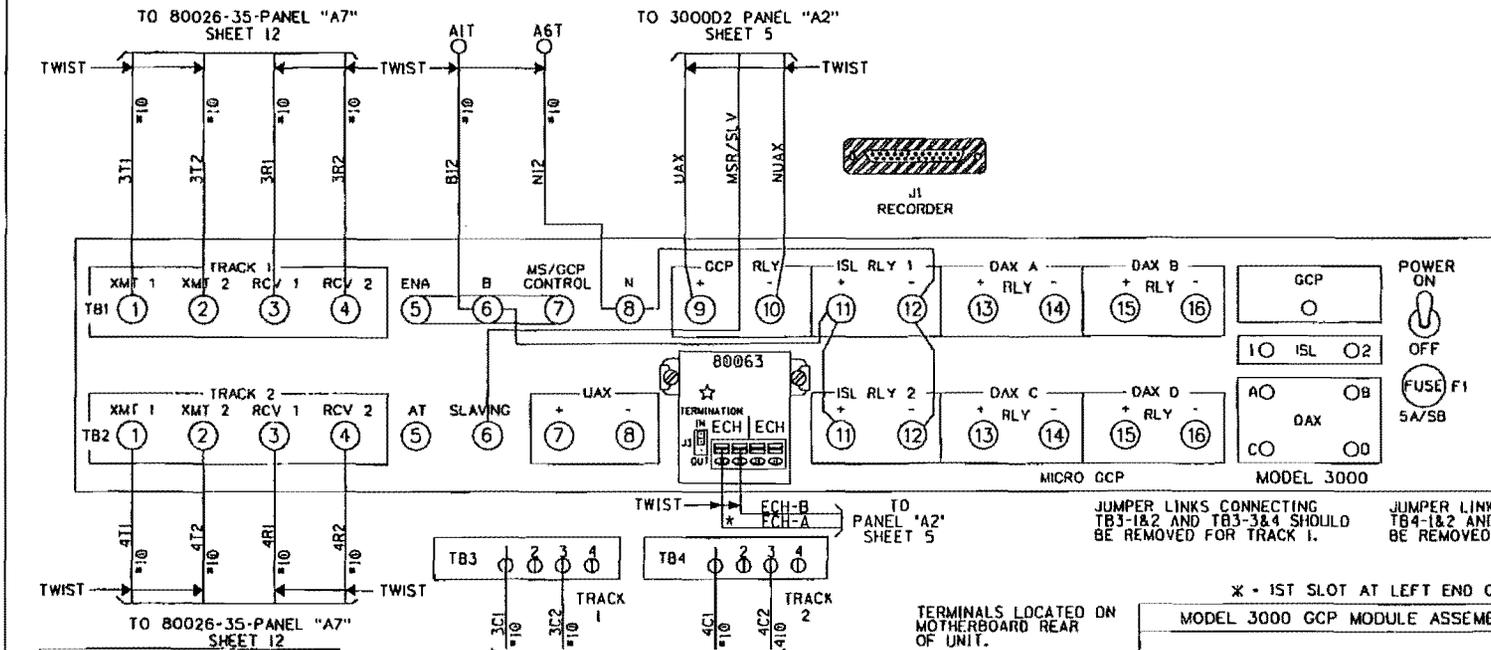
DATE: 12-19-08
NS PROJECT #
84-0173
IRS/DBS/JFK

ALL WIRE #16 AWG
UNLESS SPECIFIED.

DESIGNED BY: SWB 12-21-00	NS NORFOLK SOUTHERN	
DRAWN BY: HII 12-22-00	OFFICE OF ASST. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: 8.3-W
CHECKED BY: CEB 01-04-01	FLS E. ST. LOUIS, IL. FLGS AT OLD MISSOURI ROAD	
IN SERVICE: RLF 08-28-02	PROFILE# 7C	FILE R- 16
	CADD or DWG. No. XW929P.10	SHEET 10 of 18

REVISION
INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



3000 GCP
 MF - 430 HZ.
 T1 IF = N/A
 T2 IF = N/A

JUMPER LINKS CONNECTING TB3-1&2 AND TB3-3&4 SHOULD BE REMOVED FOR TRACK 1.
 JUMPER LINKS CONNECTING TB4-1&2 AND TB4-3&4 SHOULD BE REMOVED FOR TRACK 2.

3000 PROGRAMMING

* OF TRK'S/TRANSCIVERS	2
T1 FREQUENCY	430Hz
T2 FREQUENCY	430Hz
T1 UNI/BIDIRECTIONAL	UNI
T2 UNI/BIDIRECTIONAL	UNI
T1 POWER-HI/MED	MED
T2 POWER-HI/MED	MED
T1 PRED/MS	PRE
T2 PRED/MS	MS
T1 WARNING TIME	30 Sec
T2 WARNING TIME	30 Sec
T1 APPROACH DIST	1200 Ft
T2 APPROACH DIST	242 Ft
UAX PU DELAY(0-OFF)	0 Sec
ENA/UAX2 PU DLY(0-OFF)	0 Sec
T1 ISL DIST	0 Ft
T2 ISL DIST	0 Ft
* OF DAX'S	0 Ea

TO 30026-34 PANEL "A8" SHEET 13

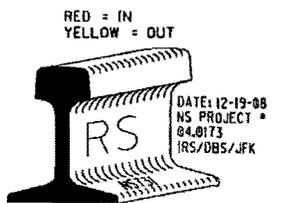
DAX A = T1/T2?	TRACK=
DAX A DIST	Ft
DAX A WARN TIME	Sec
DAX B = T1/T2?	TRACK=
DAX B DIST	Ft
DAX B WARN TIME	Sec
DAX C = T1/T2?	TRACK=
DAX C DIST	Ft
DAX C WARN TIME	Sec
DAX D = T1/T2?	TRACK=
DAX D DIST	Ft
DAX D WARN TIME	Sec
MASTER?/SLAVE?	SLAVE
PASSWORD NO/YES	NO
RECORDER NO/YES	NO

EXPANDED PROGRAMMING

T1-SW TO MS AT @ % OF E2	
T2-SW TO MS AT @ % OF E2	
T1-DELAY MS TO GCP	0 Sec
T2-DELAY MS TO GCP	0 Sec
T1 PRIME PRE. OFFSET	180 Ft
T2 PRIME PRE. OFFSET	180 Ft
PRIME PU TIME DELAY	15 Sec
DAX A PU DELAY	Sec
DAX B PU DELAY	Sec
DAX C PU DELAY	Sec
DAX D PU DELAY	Sec
ENHANCED DETECT MODE	OFF
BACK-TO-BACK	OFF
STATION STOP TIMER	10 Sec
T1 * OF TRK. WIRES 4/6	6
T2 * OF TRK. WIRES 4/6	6
LOW EX ADJUSTMENT	0

* - 1ST SLOT AT LEFT END OF BAY

MODEL 3000 GCP MODULE ASSEMBLIES										
MODULES POSITION	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
MODULE NUMBERS	80211-1(1) *	80211-1(2)	80012 T/R 1	80012 T/R 2	80013 RLY DRV	80014 PROCS	80015 LOGG	80016 (1)DAX	80016 (2)DAX	80020-80017
MODULES USED			x	x	x	x	x			x



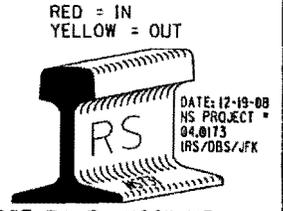
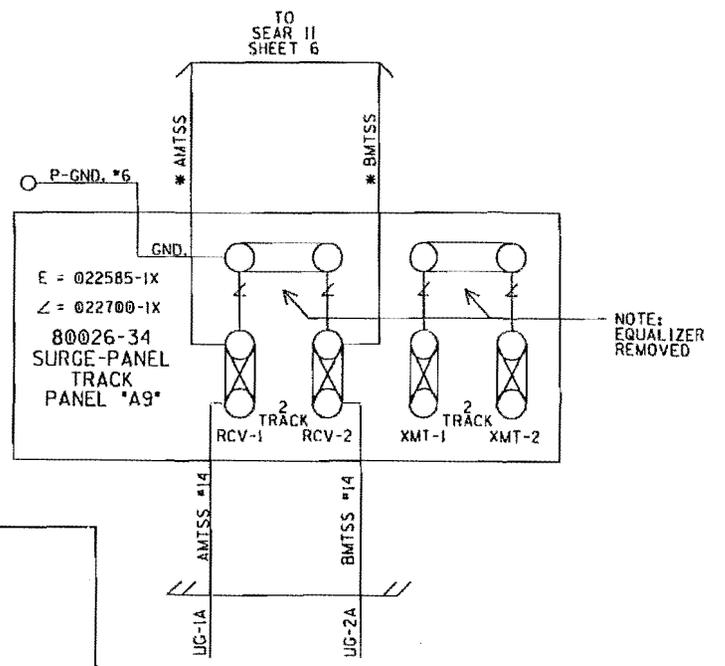
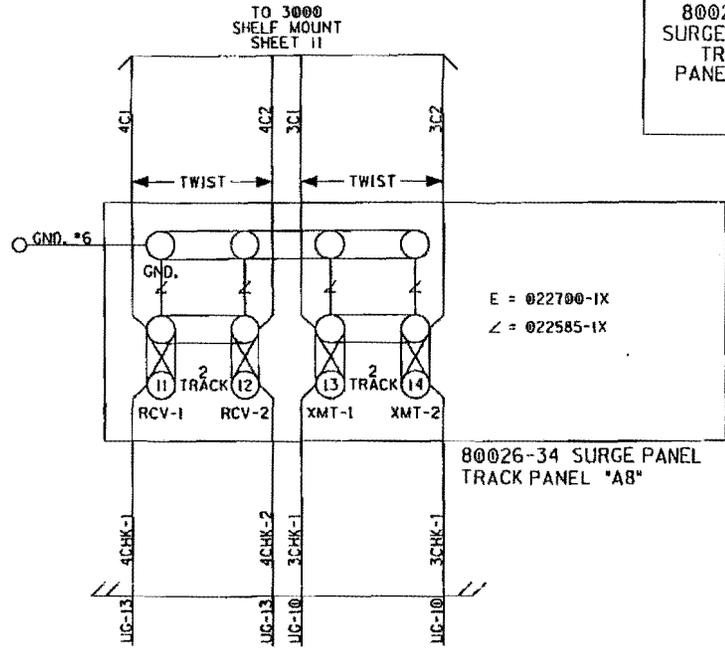
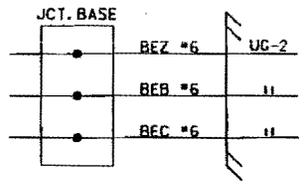
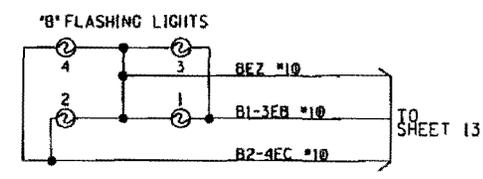
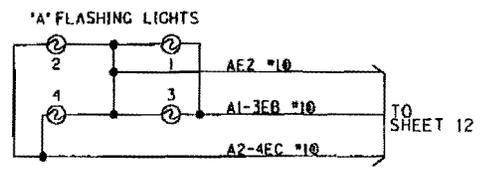
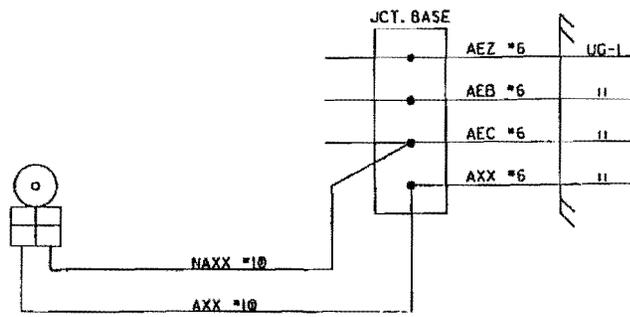
SHELF MOUNT
 3000 GCP HOOK-UP

REVISION (INITIALS)																				
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PROPERTY NORFOLK SOUTHERN RAILWAY CO.	DESIGNED BY: SWB 12-21-00	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.:	8.3-W
	DRAWN BY: HII 12-22-00	FLS E. ST. LOUIS, IL. FLGS AT OLD MISSOURI ROAD	PROFILE #	7C
	CHECKED BY: CEB 01-04-01	FILE No.	R-	16
	IN SERVICE: RLF 08-28-02	CADD or DWG. No.	XW929P.11	SHEET No.

ALL WIRE #16 AWG UNLESS SPECIFIED.

NOTE:
SEE IPI INSTRUCTION AND INSTALLATION MANUAL FOR 80211 ISLAND CALIBRATION PROCEDURE.



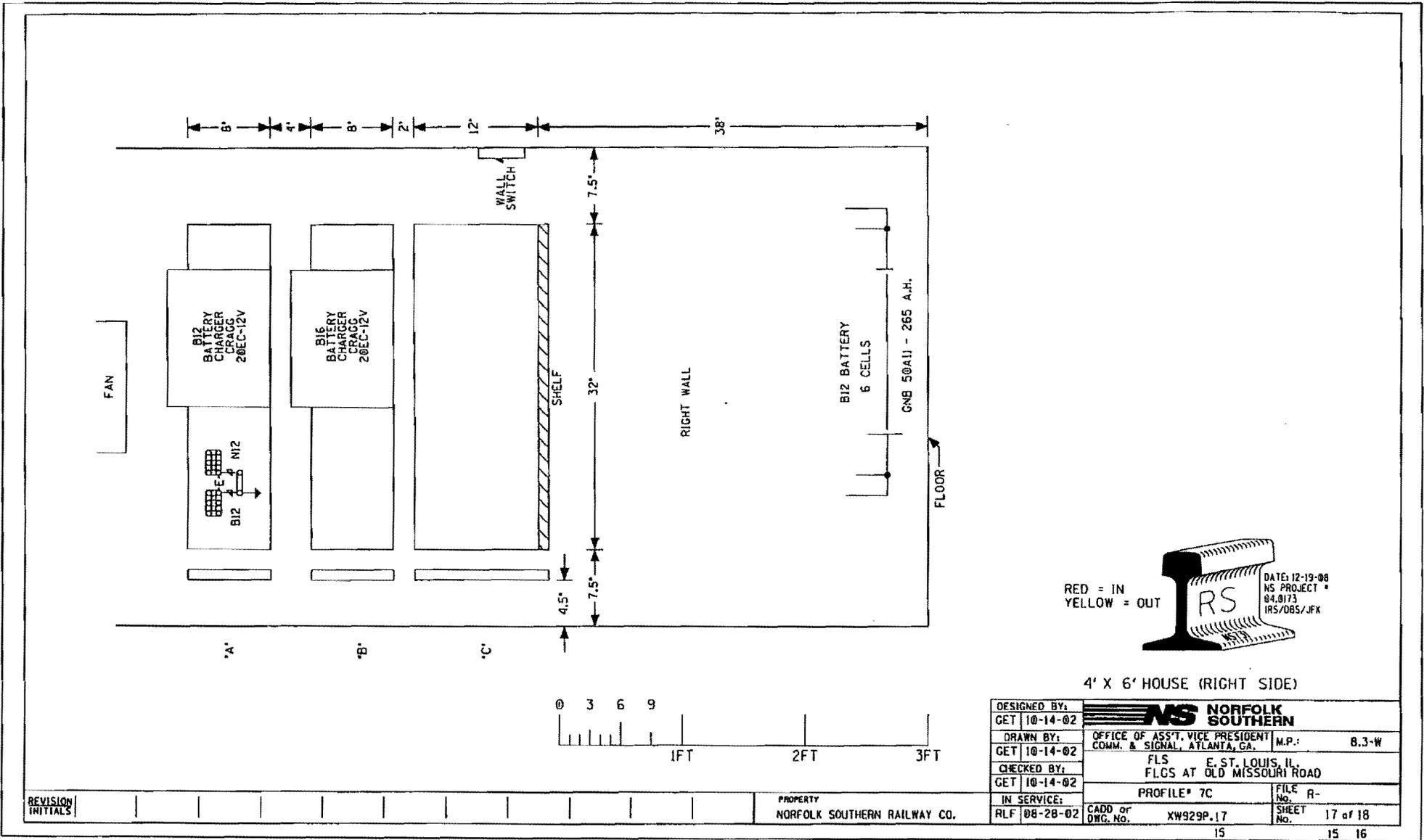
PANEL 'A8' TRACK SURGE PANEL HOOK-UP FLASHER LIGHTS

DESIGNED BY:	NS NORFOLK SOUTHERN	
GET 10-14-02	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: 8.3-W
DRAWN BY:	FLS E. ST. LOUIS, IL.	
GET 10-14-02	FLGS AT OLD MISSOURI ROAD	
CHECKED BY:	PROFILE # 7C	
GET 10-14-02	CADD or DWG. No.	FILE No. R-
IN SERVICE:	XW929P.15	SHEET No. 15 of 18
RLF 08-28-02		13 16

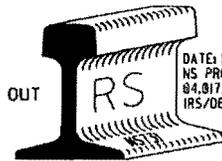
* CABLE PROVIDED WITH MONITOR ALL WIRE #16 AWG UNLESS SPECIFIED.

PROPERTY NORFOLK SOUTHERN RAILWAY CO.

REVISION INITIALS



RED = IN
YELLOW = OUT



DATE: 12-19-08
NS PROJECT # 04,8173
IRS/D85/JFX

4' X 6' HOUSE (RIGHT SIDE)

DESIGNED BY: GET 10-14-02	NS NORFOLK SOUTHERN	
DRAWN BY: GET 10-14-02	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: 8.3-W
CHECKED BY: GET 10-14-02	FLS E. ST. LOUIS, IL. FLCS AT OLD MISSOURI ROAD	
IN SERVICE: RLF 08-28-02	PROFILE# 7C	FILE No. R-
CADD or DWG. No.	XW929P.17	SHEET No. 17 of 18

REVISION INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

