

FILE

RECEIVED-DOCKETING DIV
2012 JAN 20 AM 11:04

Public Utilities
Commission of Ohio

PUCO

Memo

To: Docketing Division
From: George Martin, Grade Crossing Planner, Rail Division
Re: In the matter of the authorization of CSX Transportation to install an active grade crossing warning device in Rush Creek Township, Logan County
Date: January 20, 2012

The Ohio Rail Development Commission (ORDC) has secured funding and approved the plan and estimate for a flashing light and roadway gate project located in Rush Creek Township, Logan County, TR 110, DOT# 518365S. The crossing was surveyed on March 16, 2011, under the Commission's hazard elimination program, and was found to warrant the upgrade.

This project is actual cost and will be paid for with federal funds. As the plan and estimate have already been submitted and approved, staff requests an Entry with completion of the project in nine months. Construction may commence at once. Staff requests that the following language be incorporated in the Entry:

It is expected that all work necessary for FHWA acceptance of the warning devices will be completed by the in-service due date and that the railroad will be responsible for this work. This work includes, but is not limited to:

Any ancillary work to make the warning devices function as designed and visible to the roadway user, and

MUTCD compliance, including minor roadway work if necessary.

A suggested case coding and heading would be:

PUCO Case No. 12- 0388 -RR-FED In the matter of the authorization of CSX Transportation to install an active grade crossing warning device in Rush Creek Township, Logan County

C: Legal Department

Please serve the following parties of record

PUCO

2012 JAN 20 AM 9:49

RECEIVED-DOCKETING DIV

Ms Susan Kirkland
Ohio Rail Development Commission
1980 West Broad St, 2nd Floor
Columbus, Oh 43223

Ms Karen Murphy
CSX Transportation
500 Water St, J-301
Jacksonville, Fl 32202

Rush Creek Township Trustees
6143 CR 20
Rushsylvania, Oh 43347

Dayton Power & Light
1065 Woodman Dr
Dayton, Oh 45432-1423

**OHIO RAIL DEVELOPMENT COMMISSION
INTER-OFFICE COMMUNICATION**

TO: Leah Thomas-Dalton, Rail Division Chief, PUCO
FROM: Susan Kirkland, Manager, Safety Section, ORDC
BY: Tim Perkins, Grade Crossing Specialist *Tim Perkins*
SUBJECT: Grade Crossing Warning Project, PID No. 90636, LOG-TR 110-CSX, AAR No. 518 365 S
DATE: January 20, 2012

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on March 16, 2011. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. Copies of the diagnostic review form and the plan and estimate are attached.

PE has already been provided by the railroad. ORDC approves the site plans and estimates as provided. Please issue a construction-only order for the project outlined above. This construction authorization is made with the stipulation and understanding that any field work needs prior approval before the work begins. This authorization is made with the stipulation and understanding that an approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit.

It is expected that all work necessary for FHWA acceptance of the warning devices will be completed by the in-service due date and that the railroad will be responsible for this work. This work includes, but is not limited to:

- any ancillary work to make warning devices function as designed and visible to the roadway user, and
- MUTCD compliance – including minor roadway work if necessary.

Thank you for your assistance with these matters.

Attachment: Diagnostic Review
Plan & Estimate

c: George Martin, PUCO
ORDC Project Manager (file)



Diagnostic Review Team Survey

Date: 3/16/11 11 AM

Location Data

Street or Road Name: TR 110

Route/Road Number (i.e. Twp., Co., SR or US): TR 110 (Include SLM if State or US route)

AAR-DOT No.: 5183655

County: LOGAN Township: RUSH CREEK City (In or Near): RUSH, ILLINOIS

Railroad Name: CSX Railroad Division: INDIANAPOLIS Branch/Line Name: COLUMBUS

Nearest RR Timetable Station: ADA GREAT LAKES RR Milepost: QI 130.29

On-Site Review Team

(Include: Name - Organization - Phone Number)

1. GEORGE MARTIN PUCO 614-752-9107
2. TIM PERKINS ORDC 614-644-0284
3. Darryl A. Forgy Trp. Employees
4. Jason Rastorfer CSX (937)-877-9013
5. Anthony Smith CSX Trk Insp. 740 375 6209
6. L. Tucker CSX Trk Insp. 740 375 6209
7. Steve Jacobs Rushcreek Twp Trustee 937-468-2052
8. Harold D. Mobley Rushcreek Twp Trustee 937-468-9909
9. _____
10. TR 208 538717A QI 147.94 REMOVE STOP SIGNS

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>2</u>
'Stop' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
'Stop Ahead' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Pavement Markings	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>2</u> <u>STANDARD</u>
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<u>1</u>
Inventory Tags	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Interconnected Highway Traffic Signal	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Mast-Mounted Flashing Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Cantilever Flashing Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Side Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Automatic Gates	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Bells	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Sidewalk Gate Arms	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
'No Turn' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Illumination	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Is crossing flagged by train crew?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Safety Data (Obtain crash reports, if possible, prior to review)

	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	0	
Hazard Ranking <u>251</u>	Date Run: <u>2/7/11</u>	<u>244</u> <u>3/21/11</u>

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	<u>53</u> (<u>2/4/11</u>)	
< 1 per day		
Day thru trains	<u>25</u>	
Night thru trains	<u>26</u>	
Daytime switching movements	<u>2</u>	
Nighttime switching movements		
Total number of tracks	<u>2</u>	
Number of main tracks	<u>2</u>	
Number of other tracks		
Maximum train speed	<u>55 - 60</u>	
Typical train speed		
Amtrak		

If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) ☒ Yes ☐ No

If multiple tracks, can two trains occupy crossing at the same time? ☒ Yes ☐ No Yes

Can one train block the motorists' view of another train at crossing? ☒ Yes (Explain below) ☐ No

Are there other track(s) crossing this same roadway within 100 ft of this crossing? ☒ Yes ☐ No

If yes, Crossing DOT # (if different) _____

If yes, distance _____ (take measurement between track centerlines at closest point along roadway)

Roadway Data

Local Highway Authority:
(Who maintains this roadway?)

RUSH CREEK TOWNSHIP

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	<u>150</u> (<u>2003</u>)	
Highway paved	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Roadway Surface: <input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____		
Roadway width: <u>18</u> ft		
Number of highway lanes	<u>2</u>	<u>2</u>
Urban or Rural?	<u>RURAL</u>	<u>RURAL</u>
Vehicle Speed: <u>55</u> MPH		
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <u>18</u> Amount		
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <u>5%</u> Amount <u>ANHYDROUS & PROPANE</u>		
Shoulders: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is the shoulder surfaced? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is there existing guardrail along roadway in crossing vicinity? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is stopping site distance adequate? (See Table 2) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, deficient approach(es) _____		

Quadrant _____ Curb and Gutter: <input type="checkbox"/> Functional (Curb height = 4" or more) <input type="checkbox"/> Non-functional (Curb height = Less than 4") <input checked="" type="checkbox"/> None	Quadrant _____ Curb and Gutter: <input type="checkbox"/> Functional (Curb height = 4" or more) <input type="checkbox"/> Non-functional (Curb height = Less than 4") <input checked="" type="checkbox"/> None
Pedestrians: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is sidewalk present? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is there a nearby intersection that could cause queuing over the crossing? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, Distance _____	
Is this intersection signalized? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Are the signals currently interconnected with the existing crossing warning devices? <input type="checkbox"/> No <input type="checkbox"/> Yes	
Is it the consensus of the Diagnostic Review Team that this is a potential closure project? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain reasons:	

Type of Development

- | | |
|--|---|
| <input checked="" type="checkbox"/> Open Space
<input type="checkbox"/> Industrial
<input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Institutional
<input type="checkbox"/> Commercial |
|--|---|

Location of nearby schools:

WITHIN 2 1/2 MILES

Utility Information

Is commercial power available? ☐ No ☐ Yes

Utility Provider (Company Name) DP&L OR COOP

Phone Number _____

Nearest Available Power Source NEXT XING

What other utilities are present? FIBER OPTIC UG

Is there potential utility conflict(s) ☐ Yes ☐ No ☒ Unknown

Diagnostic Team Recommendations

	Quadrants Needed
<input checked="" type="checkbox"/> Install/upgrade active devices	
<input type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input checked="" type="checkbox"/> AFLS / Gates	
<input type="checkbox"/> AFLS / Gates / Cants	
<input type="checkbox"/> Upgrade circuitry	
<input type="checkbox"/> Sidelights	
<input type="checkbox"/> Guardrail Needed	
<input type="checkbox"/> Install/Replace curb	
<input type="checkbox"/> Other (define)	
Comments:	
<input type="checkbox"/> Install/upgrade traffic signal preemption	
<input type="checkbox"/> No improvements needed	
<input type="checkbox"/> Other (define)	

Field Dimensions

Sidewalk

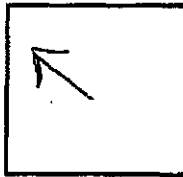
Parkway

Roadway

Roadway

Parkway

Sidewalk



Show North
Direction

NA

NA

9

9

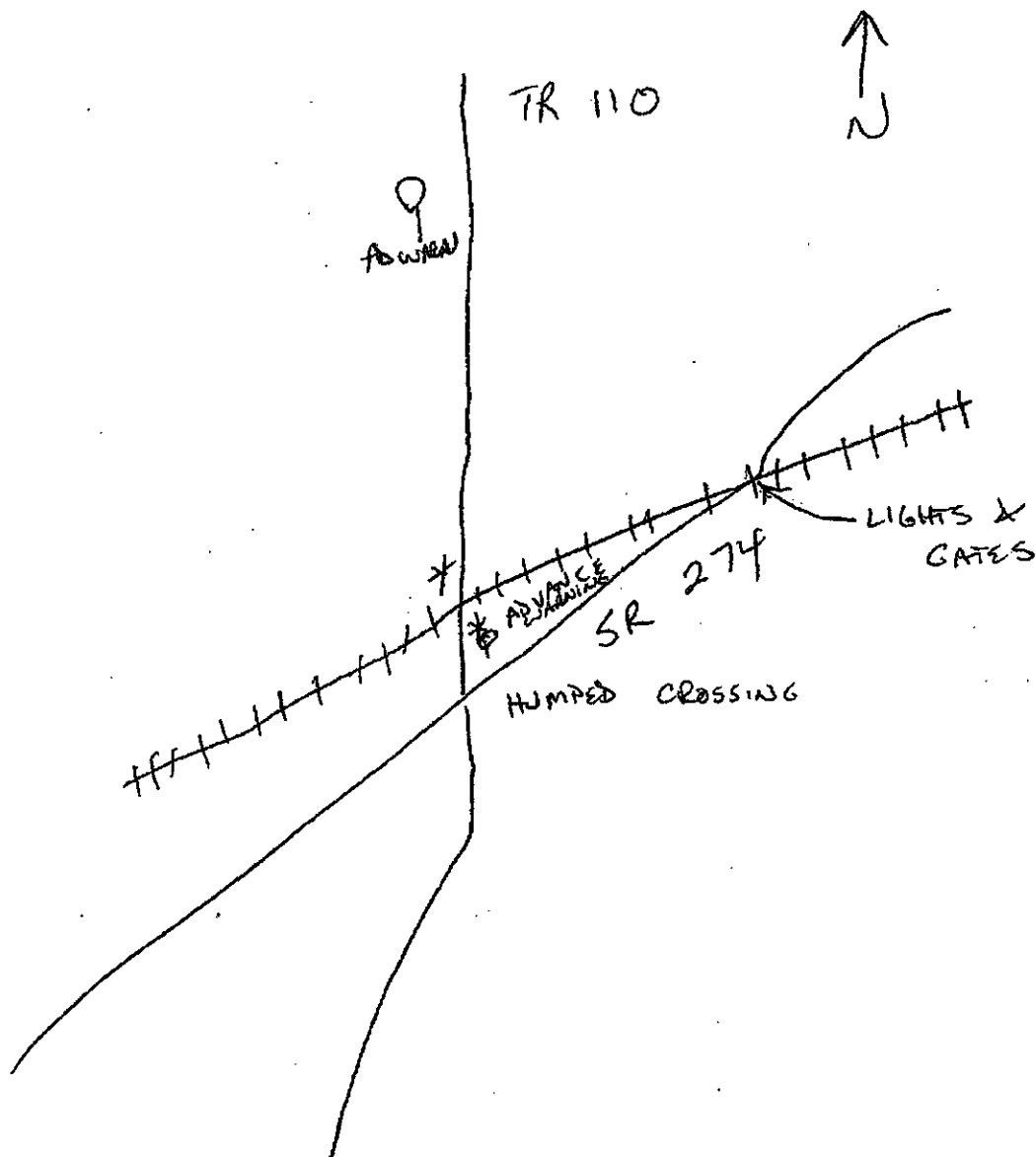
NA

NA

Crossing Angle ☐ 0-29° ☐ 30-59° ☒ 60-90° Measured in Qm Quadrant?

Measurements by: SW

Field Sketch



Crossing Angle ☐ 0-29° ☐ 30-59° ☒ 60-90° Measured in SW Quadrant?

Sketch by: SW

TABLE 1

Clearing Sight Distances

Maximum Authorized Train Speed	Distance (dT) Along Railroad from Crossing (ft)
1 - 10	240
15	360
20	480
25	600
30	720
35	840
40	960
45	1080
50	1200
55	1320
60	1440
65	1560
70	1680
75	1800
80	1920
85	2040
90	2160

Source: R-H Grade Crossing Handbook Table 36 (pp. 132-133)

Notes:

All calculated distances are rounded up to the next higher 5-foot increment.

Distances indicated are for 65-ft double bottom semi-tractor trailers and level single track 90 degree crossings; and may need to be adjusted for multiple tracks, skewed crossings or approaches on grades.

Clearing Sight Distance is to be measured in each vehicle travel direction at non-gated crossings as viewed from a point 25 feet from centerline of nearest track in the center of whichever travel lane is nearest the direction along track being measured.

Table 2

Stopping Sight Distances

Highway Vehicle Speed	Distance (dH) Along Roadway from Crossing (ft)
0	n/a
5	50
10	70
15	105
20	135
25	180
30	225
35	280
40	340
45	410
50	490
55	570
60	660
65	760
70	865

Source: R-H Grade Crossing Handbook Table 36 (pp. 132-133)

Notes:

All calculated distances are rounded up to the next higher 5-foot increment.

Distances indicated are for 65-ft double bottom semi-tractor trailers on dry level pavements.

Stopping Sight Distance is to be measured on each roadway approach to crossing from stop bar.



Karen E. Murphy, P. E.
Project Manager - Public Projects
500 Water Street (S/C J301)
Jacksonville, FL 32202
Tel. 904-359-1650
Karen_Murphy@csx.com

RECEIVED
ORDC

2012 JAN 11 AM 11:35

January 5, 2012

Mr. Tim Perkins
Manager, Safety Programs
Ohio Rail Development Commission
1980 West Broad Street, Second Floor
Columbus, OH 43223

Subject: Rushsylvania, Logan County, OH - Install FLS&G- TR 110 (Kennedy Road);
DOT 518365S; Milepost QI-130.29; PID 90636; OH0851

Dear Mr. Perkins:

Enclosed for your review and approval are the circuit plans and Signal Force Account Estimate in the amount of \$ 256,101.00 for the above referenced project.

We await receipt of your further advice and /or approval of the project cost and authority to proceed.

If I can be of further assistance, please do not hesitate to call.

Very truly yours,

Karen E. Murphy, P.E.
Project Manager, Public Projects

Cc: Jill Henry
Leah Dalton
Susan Kirkland
Susan Arduini
George Martin

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 1

ACCT. CODE : 709 - OH0851

ESTIMATE SUBJECT TO REVISION AFTER:		5/8/2012	DOT NO.: 518365S
CITY: Rushsylvania	COUNTY: Logan		STATE: OH
DESCRIPTION: Install Warning System- TR 110 (Kennedy Road)			
DIVISION: Great Lakes	SUB-DIV: Mount Victory	MILE POST: QI-130.29	
AGENCY PROJECT NUMBER: PID 90636			

PRELIMINARY ENGINEERING:

200 Labor (Non Contract)	\$ -
200 Additive 31.34%	\$ -
230 Expenses	\$ -
212 Contracted & Administrative Engineering Services	\$ 4,200
Subtotal	\$ 4,200

CONSTRUCTION ENGINEERING/INSPECTION:

200 Labor (Non Contract)	\$ -
200 Additive 31.34%	\$ -
230 Expenses	\$ -
212 Contracted & Administrative Engineering Services	\$ 3,700
Subtotal	\$ 3,700

FLAGGING SERVICE: (Contract Labor)

070 Labor (Conductor-Flagman)	\$ -
050 Labor (Foreman/Inspector)	\$ -
070 Additive 73.76% (Transportation Department)	\$ -
050 Additive 97.95% (Engineering Department)	\$ -
230 Per Diem (Engineering Department)	\$ -
230 Expenses	\$ -
Subtotal	\$ -

SIGNAL & COMMUNICATIONS WORK: (Details Attached) \$ 220,191

TRACK WORK: (Details Attached) \$ -

ACCOUNTING & BILLING:

040 Labor	\$ 2,900
040 Additive 63.03%	\$ 1,828
Subtotal	\$ 4,728

PROJECT SUBTOTAL

900 <u>CONTINGENCIES:</u> 10.00%	\$ 232,819
	\$ 23,282

GRAND TOTAL *** \$ 256,101**

DIVISION OF COST:

Agency	100.00%	\$ 256,101
Railroad		\$ -
TOTAL *****		\$ 256,101

NOTE: Estimate is based on FULL CROSSING CLOSURE during work by Railroad Forces.

This estimate has been prepared based on site conditions, anticipated work duration periods, material prices, labor rates, manpower and resource availability, and other factors known as of the date prepared. The actual cost for CSXT work may differ based upon the agency's requirements, their contractor's work procedures, and/or other conditions that become apparent once construction commences or during the progress of the work

Office of Assistant Chief Engineer Public Projects-Jacksonville, Florida

Estimated prepared by:

Deb Baldino

Approved by:

CSXT Public Project Group

DATE: 11/8/2011

REVISED:

DATE:

Form Revised 03-02-2010-LLS

Project Summary Sheet

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 1 of 3

ACCT. CODE : 709 - OH0851
Pub EB - OH EB3 (OH)

ESTIMATE SUBJECT TO REVISION AFTER:

5/6/2012

DOT NO.: 518365S

CITY: Rushsylvania

COUNTY: Logan

STATE: OH

DESCRIPTION: Install Warning System- TR 110 (Kennedy Road)

DIVISION: Great Lakes

SUB-DIV: Mount Victory

MILEPOST: QI-130.29

DRAWING NO.: Q113029.H01

DRAWING DATE: 10/15/2011

AGENCY PROJECT NUMBER: PID 90636

PRELIMINARY ENGINEERING:

200	Labor (Non Contract)	0	Days @	\$ 270.00	\$	-
200	Additive 31.34%				\$	-
230	Expenses				\$	-
212	Contracted & Administrative Engineering Services				\$	4,200
	Subtotal				\$	4,200

CONSTRUCTION ENGINEERING/INSPECTION:

200	Labor (Non Contract)	0	Days @	\$ 270.00	\$	-
200	Additive 31.34%				\$	-
230	Expenses				\$	-
212	Contracted & Administrative Engineering Services				\$	3,700
	Subtotal				\$	3,700

FLAGGING SERVICE: (Contract Labor)

70	Labor (Conductor-Flagman)	0	Days @	\$ 350.00	\$	-
50	Labor (Foreman/Inspector)	0	Days @	\$ 336.00	\$	-
70	Additive 73.76% (Transportation Department)				\$	-
50	Additive 97.95% (Engineering Department)				\$	-
230	Expenses (Engineering Department)	0	Days @	\$ 75.00	\$	-
230	Expenses (Transportation Department)	0	Days @	\$ 45.00	\$	-
	Subtotal				\$	-

COMMUNICATIONS WORK:

	Temporary (Details Attached)				\$	-
	Permanent (Details Attached)				\$	-
	Subtotal				\$	-

TRACK: LABOR

50	Traffic Control	0	MAN-HRS	\$ 24.00	\$	-
50	Remove Existing Crossing	0	MAN-HRS	\$ 24.00	\$	-
50	Renew Cross Ties	0	MAN-HRS	\$ 24.00	\$	-
50	Renew Rail	0	MAN-HRS	\$ 24.00	\$	-
50	Install OTM	0	MAN-HRS	\$ 24.00	\$	-
50	Install Field Welds	0	MAN-HRS	\$ 24.00	\$	-
50	Install Geo-Textile Fabric	0	MAN-HRS	\$ 24.00	\$	-
50	Install Sub-Drains	0	MAN-HRS	\$ 24.00	\$	-
50	Install Ballast	0	MAN-HRS	\$ 24.00	\$	-
50	Line and Surface	0	MAN-HRS	\$ 24.00	\$	-
50	Install Crossing Materials	0	MAN-HRS	\$ 24.00	\$	-
50	Install Bituminous Pavement	0	MAN-HRS	\$ 24.00	\$	-
50		0	MAN-HRS	\$ 24.00	\$	-
50		0	MAN-HRS	\$ 24.00	\$	-
50		0	MAN-HRS	\$ 24.00	\$	-

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 2 of 3

ACCT. CODE : 709 - OH0851
Pub EB - OH EB3 (OH)

50	Clean-Up		0	MAN-HRS	\$ 24.00	\$ -
50	Additive	97.95%				\$ -
230	Per Diem		0	MAN-DAY	\$ 90.00	\$ -
	Subtotal					\$ -

TRACK: MATERIAL

220	Cross Ties, Main Line		0	EA	\$ 39.00	\$ -
220	Cross tie - pre-plated		0	EA	\$ 83.50	\$ -
220	Cross-tie - Borate		0	EA	\$ 56.00	\$ -
220	Crossties, 10' Length		0	EA	\$ 46.00	\$ -
220	Tie plates		0	EA	\$ 10.51	\$ -
220	Rail, 136RE, New		0	LF	\$ 21.00	\$ -
220	Misc. OTM		1	LOT	\$ -	\$ -
210	Geo-Textile Fabric		0	RL	\$ 930.00	\$ -
210	Sub-Drains		0	LF	\$ 6.00	\$ -
220	Ballast - Car load		0	NT	\$ 12.00	\$ -
220	Ballast - Trucked in		0	NT	\$ 45.00	\$ -
220	Field Welds		0	EA	\$ 100.00	\$ -
			0		\$ -	\$ -
			0		\$ -	\$ -
210	Concrete Full Width		0	TF	\$ 250.00	\$ -
210	Concrete/Rubber Xing (CSX)		0	TF	\$ 200.00	\$ -
210	Rubber Crossing, Full Depth		0	TF	\$ 325.00	\$ -
210	Timber/Asphalt Crossing (CSX Standard)		0	TF	\$ 42.00	\$ -
210	Bituminous Material		0	NT		\$ -
210	Sales Tax on Material	0.00%				\$ -
210	Material Handling	5.00%				\$ -
	Subtotal					\$ -

CONTRACT:

215	Asphalt Paving (In Place)		0	NT		\$ -
241	Disposal of Waste Materials		0	TF	\$ 15.00	\$ -
215	Maintenance of Traffic		0	DAY	\$ 350.00	\$ -
	Subtotal					\$ -

241 EQUIPMENT RENTAL:

Subtotal						\$ -
-----------------	--	--	--	--	--	------

50 WORK TRAIN:

			0	DAY	\$ 2,100.00	\$ -
Subtotal						\$ -

SALVAGE:

228	Rail		0	NT	\$ 65.00	\$ -
228	OTM		0	NT	\$ 75.00	\$ -
Subtotal						\$ -

SIGNAL WORK:

210	Material - Field & Consumables					\$ 77,260
210	Material - Sales Tax					\$ -
220	Material - Shop					\$ -
60	Construction Labor	(116 man-days)				\$ 34,919
65	Shop Labor	(6 man-days)				\$ 1,260
230	Per Diem	(116 man-days)				\$ 15,080
200	RR Engineering, Preliminary					\$ 4,678
200	RR Engineering, Construction					\$ 5,238

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 3 of 3

ACCT. CODE : 709 - OH0851
Pub EB - OH EB3 (OH)

60	Additives to Construction Labor			\$	32,443
65	Additives to Shop Labor			\$	1,117
200	Additives to Engineering			\$	3,107
241	Equipment Expense	(25 work days)		\$	16,250
241	Waste Management	(25 work days)		\$	300
212	Contract Engineering			\$	21,540
211	Freight			\$	4,500
216	AC Power Service			\$	2,500
228	Salvage			\$	(1)
900	Other			\$	
	Subtotal			\$	220,191

ACCOUNTING & BILLING:

40	Labor		14.5 Days @	\$ 200.00	\$	2,900
40	Additive	63.03%			\$	1,828
	Subtotal				\$	4,728

PROJECT SUBTOTAL:

900	<u>CONTINGENCIES:</u>	10.00%			\$	232,819
					\$	23,282

GRAND TOTAL ***** \$ 256,101

DIVISION OF COST:

Agency	<u>100.00%</u>	\$	256,101
Railroad	<u>0.00%</u>	\$	
TOTAL *****		\$	256,101

NOTE: Estimate is based on FULL CROSSING CLOSURE during work by Railroad Forces.

This estimate has been prepared based on site conditions, anticipated work duration periods, material prices, labor rates, manpower and resource availability, and other factors known as of the date prepared. The actual cost for CSXT work may differ based upon the agency's requirements, their contractor's work procedures, and/or other conditions that become apparent once construction commences or during the progress of the work

Office of Assistant Chief Engineer Public Projects--Jacksonville, Florida

Estimated prepared by: Deb Baldino

DATE: 11/8/2011

REVISED:

Approved by:

DATE:

CSXT Public Project Group

Form Revised 05-05-2011-LLS

ESTIMATE SUBJECT TO REVISION AFTER: 5/6/12 DOT NO.: 518365S
 CITY: Rushsylvania COUNTY: Logan STATE: OH
 DESCRIPTION: Install Warning System- TR 110 (Kennedy Road)
 DIVISION: Great Lakes SUB-DIV: Mount Victory MILEPOST: QI-130.29
 DRAWING NO.: QI13029.H01 DRAWING DATE: 10/15/2011
 AGENCY PROJECT NUMBER: PID :

Amount		
Task	Task Desc	Total
40	Labor General Office	\$4,728
50	Labor Roadway	
60	Labor Signal	\$67,362
65	Labor Signal1	\$2,377
70	Labor Transportation	
200	Labor NonContract	\$13,023
210	Invoice Material	
	Material - Field & Consu	\$77,260
211	Invoice Freight	\$4,500
212	Invoice Contract Eng	\$29,440
215	Invoice Misc	
216	Invoice Utilities	\$2,500
220	Material New	
	Material - Shop	
228	Scrap Credit	-\$1
230	ExpenseRpts	\$15,080
241	Invoice Rental	\$16,550
900	Other	
900	Contingencies	\$23,282
	Material New	
Grand Total		\$256,101

Estimate No. 119355
CSX Transportation
TR 110 (Kennedy Rd.)- Install FLS&G.
Rushsylvania, OH

DOT: 518365S

OP: OH0851

CSX Project: OH2011073

Summary

Material	\$ 77,260
Sales Tax	\$ 0
Labor:	
Construction Labor (116 man-days).....	\$ 34,919
Shop Labor (6 man-days).....	\$ 1,260
Subsistence (116 man-days).....	\$ 15,080
Railroad Engineering, Preliminary	\$ 4,678
Railroad Engineering, Construction	\$ 5,238
Additives to Construction Labor	\$ 32,443
Additives to Shop Labor	\$ 1,117
Additives to Track Labor	\$ 0
Additives to Engineering	\$ 3,108
Equipment Expenses (25 work days).....	\$ 16,250
Waste Management (25 work days).....	\$ 300
Contract Engineering	\$ 21,540
Freight	\$ 4,500
Poleline Removal	\$ 0
AC Power Service	\$ 2,500
Salvage	\$ -1
TOTAL ESTIMATE COST	\$ 220,191

Date: 11/07/2011

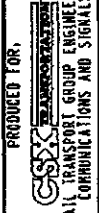
Estimated By: John Morrison

NOTE: This estimate should be considered void one year from date of estimate.

Shop Material List for CSX Project: OH2011073 (Effective: 11/07/2011)
Install FLS&G w/GCP-3000D2
Rushsylvania, OH - QI 130.29

Catalog Num	Cond	Unit Price	Qty	Cost	Description
020-0003386	1	6781.00	1	6781.00	HOUSE 6X6L ALUM INCLUDES 5 SHELF, FARADAY CLOSET, 240V
020-0017120	1	11.52	6	69.12	BLOCK TERMINAL 12 POST SINGLE STRIP AAR 14.1.6 WITH 1 AAR
020-0017125	1	3.54	6	21.24	BLOCK TERMINAL 2 POST AAR 14.1.8 WITH 1 AAR 14.1.11
020-0017211	1	627.20	1	627.20	TRANSFORMER LIGHT 750VA 010520-50X MODEL SLT-50
020-0017385	1	59.27	1	59.27	CABLE RJ45 TO RJ4 15' GETS P/N 075061-015
020-0021965	1	8.96	1	8.96	EXTRACTOR DWG 59688-4 TERMINAL GRS CAT P3-308 REF
020-0022651	1	55.89	7	391.23	PLUGBOARD KIT TYPE B1 OR ST1 RELAY ASSEMBLY WITH 12 EACH
020-0022701	1	68.00	33	2244.00	ARRESTER LPC 15012-1 0-30V DC OR 0-24V AC RATED AT 15 AMP
020-0025595	1	20.72	1	20.72	WRENCH DWG 55393-3 GR1 "E" TERMINAL POST NUT GRS CAT
020-0053360	1	406.56	3	1219.68	CHARGER BATTERY ELC 12/20 S 20 AMP 10-19.9 VDC ROTARY SW
020-0053510	1	233.11	1	233.11	KIT 240V AC EMERGENCY GENERATOR CABLE AND
020-0055608	1	17.88	1	17.88	RELAY POTTER BRUMFIELD KRP11AG12 OR STRUTHERS-DUNN
020-0056515	1	3.07	1	3.07	SOCKET RELAY 8 PIN OCTAL FOR NON VITAL RELAY CSX SS705 REF
020-0064060	1	16.12	1	16.12	PLATE RELAY MOUNTING FOR 2 EACH TYPE KHAU OR OCTAL RELAY
020-0660077	1	597.41	1	597.41	ARRESTER GE 9L10KAC213 FOR 240 VOLT SINGLE PHASE 3 WIRE
020-0750090	1	0.09	3	0.27	NUT INSULATED USE ON AAR BINDING POST TERMINAL FOR
020-0770060	1	13.44	12	161.28	ARRESTER US&S N451552-0201 TRACK SERIES RED LABEL USGA
020-0770105	1	22.40	4	89.60	ARRESTER HARMON 202217-000 AGE-1 TRACK AIR GAP EQUALIZER
020-1940055	1	14.22	1	14.22	CONTAINER CIRCUIT PRINT 24" SCHEDULE 20 4" PVC PIPE WITH
020-2501400	1	1043.84	1	1043.84	CONTROLLER DTMF RADIO KEY DOWN MODE 6 SET TIMER TO 60
020-2550075	1	12002.90	1	12002.90	PREDICTOR SAFETRAN GCP-3000D2 REDUNDANT TWO TRK SYS W/CASE
020-3430110	1	321.84	3	965.52	RELAY SAFETRAN 400004 500 OHMS CONTACTS 4FB-2F-1B CSX
020-3430115	1	421.20	1	421.20	RELAY SAFETRAN 400005 500 OHMS CONTACTS 4FB HEAVY DUTY
020-3430135	1	513.30	1	513.30	RELAY SAFETRAN 400213 460 OHMS CONTACTS 2FB CSX
020-3430170	1	413.95	1	413.95	RELAY SAFETRAN 400800-CSX 100/100 OHMS CONTACTS 6FB

11/2



APPROACH LENGTHS TABLE		EASTWARD MAIN-2 CUT	EASTWARD MAIN-2 CUT	EASTWARD MAIN-2 CUT
STANDARD MINIMUM WARNING TIME IN SECONDS		25	25	25
ROADWAY GATE TIME IN SECONDS		5	5	5
CLEARANCE TIME IN SECONDS		2	2	2
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS/M		0	0	0
DESIGNATED WARNING TIME FOR TRAINS AT TIME TABLE SPEED		32 SEC.	32 SEC.	32 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS X CONTROL EQUIPMENT DECISION TIME IN SECONDS		0	0	0
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED		35 SEC.	35 SEC.	35 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR		50	50	50
BUFFER SPEED IN MILES PER HOUR		5	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR		55	55	55
APPROACH DISTANCE TO ISLAND GORE IN FEET		2148	2660	2600
HALF WIDTH OF ISLAND IN FEET		60	60	60
APPROXIMATE MILE PHASES FOR APPROACH CIRCUIT		134.85	129.73	129.73