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RECEIVED-DOCKETING DIV

**Public Utilities
Commission of Ohio**

2012 MAY -3 AM 10: 15

PUCO

Memo

To: Docketing Division
From: George Martin, Grade Crossing Planner, Rail Division
Re: In the matter of the authorization of the Wheeling & Lake Erie Railway to install an active grade crossing warning device in Wyandot County
Date: May 3, 2012

The Ohio Rail Development Commission (ORDC) has authorized funding for the Wheeling & Lake Erie Railway (WE) to install mast mounted flashing lights and roadway gates at CR 35A, near McCutchenville, DOT# 001913V. This crossing was surveyed on December 21, 2011, under the Commission's hazard ranking program and was found to warrant the upgrade.

The project will be paid for with federal funds, and is actual cost. As the plans and estimates have already been submitted and approved, staff requests an Entry with completion of the projects 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- **1473** -RR-FED In the matter of the authorization of the Wheeling & lake Erie Railway to install an active grade crossing warning device in Wyandot County

C: Legal Department

Please serve the following parties of record

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 SW Date Processed MAY 03 2012

Ms Susan Kirkland

Ohio Rail Development Commission

1980 West Broad St, 2nd Floor

Columbus, Oh 43223

Mr Dan Reinsel

Wheeling & Lake Erie Railway

100 East First St

Brewster, Oh 44613

Mr Mike Kohl

Wyandot County Engineer

350 N Warpole St

Upper Sandusky, Oh 43351

AEP

1 Riverside Plaza

Columbus, Oh 43215

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

TO: Leah Thomas-Dalton, Deputy Chief, PUCO
FROM: Susan Kirkland, Manager, Safety Section, ORDC
BY: Tod Darfus, Project Manager
SUBJECT: Wyandot County, Wheeling and Lake Erie Railroad
County Road 35-A, AAR # 001 913 V
DATE: 05/02/12

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on 12/21/11. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. A copy of the diagnostic review form is 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: 12-21-11

Location Data

Street or Road Name: CR35A			
Route/Road Number (i.e. Twp., Co., SR or US) CR35A		(include SLM if State or US route)	
US DOT No.: 001913V			
County: Wyandot	Township:	City: (In or Near)	McCutchenville
Railroad Name: Wheeling & Lake Erie	Railroad Division: Carey Sub-Division	Branch/Line Name: Main	
Nearest RR Timetable Station: Sycamore		RR Milepost: 63.48	

On-Site Review Team

(Include: Name - Organization - Phone Number - Email)

1. Joe Reinhardt, ORDC, 614-580-7728, joe.reinhardt@dot.state.oh.us *Joe Reinhardt*
2. George Martin, PUCO, 614-203-4714, George.martin@puc.state.oh.us *George Martin*
3. Dan Reinsel, WLE, 330-495-7859, dreinsel@wlerwy.com *Dan Reinsel*
4. *Paul Patterson PUCO Rail 614 466-1150*
5. *Mike Kohl Wyandot County Engineer 419-294-2330*
6. *Bart Dennis Wyandot County Deputy Engineer 419-294-2330*
7. *350 N WARPOLE ST*
8. *UPPER SAND 43451*
- 9.

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2 good
'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 (condition?)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2 good
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2 0
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
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	Number:
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 checked="" 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	1 (2/4/2009)	
Hazard Ranking	233	Date Run: 12/5/2011 <u>233</u>

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	4	<u>11</u>
< 1 per day	n/a	
Day thru trains	0	
Night thru trains	4	<u>4</u>
Daytime switching movements	0	
Nighttime switching movements	0	
Total number of tracks	1	<u>1</u>
Number of main tracks	1	<u>1</u>
Number of other tracks	0	
Maximum train speed	40 mph	<u>40</u>
Typical train speed		
Amtrak	no	

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

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

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

Can one or more tracks be eliminated through the crossing? ☐ Yes ☒ 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: Wyandoc County

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	162 (2010)	<u>162</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>24</u> ft.		
Number of highway lanes	2	<u>2</u>
Urban or Rural	Rural	<u>Rural</u>
Vehicle Speed: <u>55</u> MPH		
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <u>3</u> Amount		<u>No HAWK</u> <u>1.8</u>
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <u>?</u> Amount		
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 checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is there a 'Do not Stop on Track' sign? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, Improvement type _____ Lead Agency _____ Timeline/completion _____	
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 type="checkbox"/> Residential	<input type="checkbox"/> Institutional <input type="checkbox"/> Commercial Location of nearby schools: <div style="text-align: center; font-size: 1.2em;">6-8 miles</div>
Utility Information	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
Utility Provider (Company Name) <u>AEP</u>	Phone Number _____
Nearest Available Power Source <u>@ Crossing</u>	
What other utilities are present? <u>Telephone & Fiber Double Fiber to South</u> (add locations to sketch)	
Is(are) there potential utility conflict(s) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	
Comments:	

Potential Red Flags / Project Challenges

Traffic Signal Preemption (include traffic signal intersection name and LHA with jurisdiction over traffic signal, if known):

No

Crossing Consolidation or Closure:

No

Real Estate or ROW:

RR 66 33 each way County 60

Culverts / Drainage / Ballast Conditions:

No

Roadway and/or Sidewalks:

No

Circuitry (e.g. reaches out to other crossings, specific needs, etc.):

No

Environmental:

No

Other:

Diagnostic Team Recommendations



	Quadrants Needed
<input 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 checked="" type="checkbox"/> Bells / number	/
<input type="checkbox"/> Upgrade circuitry / type	
<input type="checkbox"/> Sidelights	
<input type="checkbox"/> Guardrail Needed	
<input type="checkbox"/> Install/Replace curb	
<input checked="" type="checkbox"/> Bungalow placement & offset from rail & highway	SE
<input type="checkbox"/> Other (define)	

Comments:

2 Weld's @ crossing @ nearby joints due to bond's

<input type="checkbox"/> Install/upgrade traffic signal preemption	
<input type="checkbox"/> No improvements needed	
<input type="checkbox"/> Other (define)	

Acknowledgement of Recommendations (each entity represented at the diagnostic must have at least one signature acknowledgements):



 Dan Reinzel




Field Dimensions

Sidewalk

Parkway

Roadway

Roadway

Parkway

Sidewalk

↑

↓

↑

↓

↑

↓

Show North
Direction

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

Measurements by: _____

UPDATED (10/2011)

6

Field Sketch

Include utilities as marked by OUPS and LHA; include ROW boundaries as indicated by railroad and LHA.

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

Sketch by: _____

TABLE I

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)

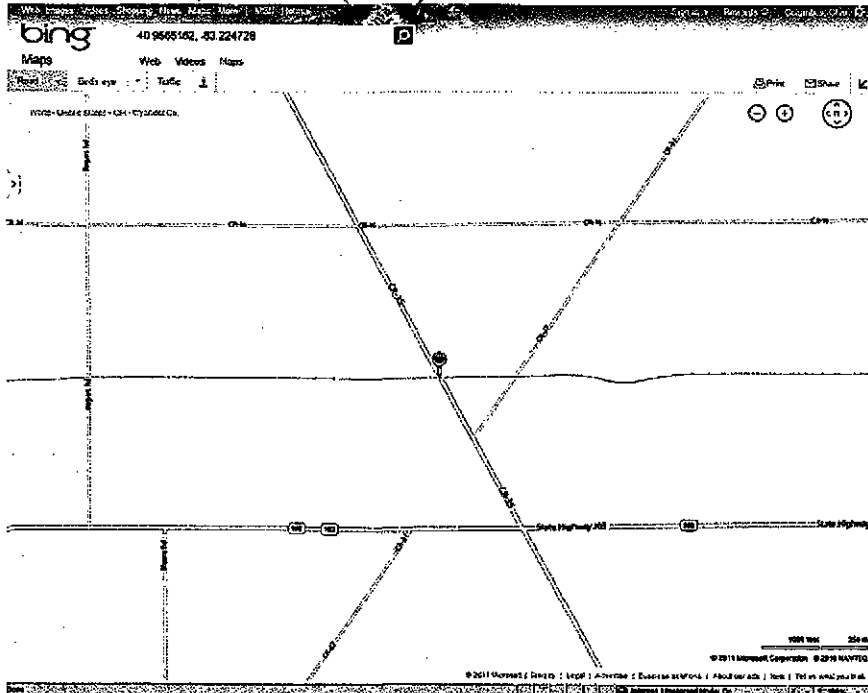
Notes:

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.

WYA CR 35A, 001913V (WLE)



HIGHWAY-RAIL GRADE CROSSING

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of				Alphabetic Code		RR Accident/Incident No.	
1. Reporting Railroad Wheeling & Lake Erie Rwy Co. [WE]				1a. WE		1b. CA09002	
2. Other Railroad Involved In Train Accident/Incident				2a.		2b.	
3. Railroad Responsible for Track Maintenance Wheeling & Lake Erie Rwy Co. [WE]				3a. WE		3b. CA09002	
4. U.S. DOT-AAR Grade Crossing ID No. 001913V				5. Date of Accident/Incident 02/04/09		6. Time of Accident/Incident 03:35 PM	
7. Nearest Railroad Station SYCAMORE			8. Division SYSTEM		9. County WYANDOT		10. State Abbr. 39 Code OH
11. City (if in a city)			12. Highway Name or No. COUNTY ROAD 35 <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private				
Highway User Involved				Rail Equipment Involved			
13. Type C. Truck-trailer F. Bus J. Other Motor Vehicle A. Auto D. Pick-up truck G. School Bus K. Pedestrian B. Truck E. Van H. Motorcycle M. Other (specify) D				17. Equipment 1. Train (units pulling) 4. Car(s) (moving) 8. Other (specify) 2. Train (units pushing) 5. Car(s) (standing) A. Train pulling- RCL 3. Train (standing) 6. Light loco(s) (moving) B. Train pushing- RCL 7. Light loco(s) (standing) C. Train standing- RCL 1			
14. Vehicle Speed (est. mph at impact) 15				18. Position of Car Unit In Train 1			
15. Direction (geographical) 1. North 2. South 3. East 4. West 2				19. Circumstance 1. Rail equipment struck highway user 2. Rail equipment struck by highway user 1			
16. Position 1. Stalled on crossing 3. Moving over crossing 2. Stopped on Crossing 4. Trapped 3				20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither 4			
20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither 4				20c. State the name and quantity of the hazardous materials released, if any			
21. Temperature (specify if minus) 25 °F		22. Visibility (single entry) 1. Dawn 2. Day 3. Dusk 4. Dark 2		23. Weather (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow 1		Code	
24. Type of Equipment Consist 1. Freight train 4. Work train 7. Yard/switching (single entry) 2. Passenger train 5. Single car 8. Light loco(s) 3. Commuter train 6. Cut of cars 9. Main/inspect car 1				25. Track Type Used by Rail Equipment Involved 1. Main 2. Yard 3. Siding 4. Industry 1		26. Track Number or Name ACY MAIN	
27. FRA Track Class 3		28. Number of Locomotive Units 1		29. Number of Cars 4		30. Consist Speed (Recorded if available) R. Recorded 30 mph E. Estimated R	
31. Time Table Direction 1. North 2. South 3. East 4. West 4		32. Type of Crossing 1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other (specify) Warning 3. Standard FLS 6. Audible 9. Watchman 12. None Code(s) 07		33. Signaled Crossing Warning		34. Whistle Ban 1. Yes 2. No 3. Unknown 2	
35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach 2		36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown 2		37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown 2		Code	
38. Driver's Age 39		39. Driver's Gender 1. Male 2. Female 1		40. Driver Drove Behind or In Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown 2		41. Driver 1. Drove around or thru the gate 4. Stopped on crossing 2. Stopped and then proceeded 5. Other (specify) 3. Did not stop 3	
42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown 2		43. View of Track Obscured by (primary obstruction) 1. Permanent Structure 3. Passing Train 5. Vegetation 7. Other (specify) 2. Standing railroad equipment 4. Topography 6. Highway Vehicles 8. Not Obscured 8		44. Driver was 1. Killed 2. Injured 3. Uninjured 2		45. Was Driver in the Vehicle? 1. Yes 2. No 1	
46. Highway-Rail Crossing Users 0		47. Highway Vehicle Property Damage (est. dollar damage) \$3,000		48. Total Number of Highway-Rail Crossing Users (include driver) 1		Code	
49. Railroad Employees 0		50. Total Number of People on Train (include passengers and crew) 3		51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No 2		Code	
52. Passengers on Train 0		53a. Special Study Block		53b. Special Study Block		Code	
54. Narrative Description 680-04 WAS TRAVELING WESTBOUND APPROACHING COUNTY ROAD 35 WHEN A 1994 FORD F-150 FAILED TO YIELD AND WAS STRUCK BY THE 680-04 TRAIN. THE DRIVER OF THE VEHICLE WAS CITED.							
55. Typed Name and Title		56. Signature				57. Date	



OHIO RAIL DEVELOPMENT COMMISSION

1980 WEST BROAD STREET • COLUMBUS, OH 43223

JOHN R. KASICH, GOVERNOR • JAMES G. BRADLEY, ORDC CHAIRMAN

May 2, 2012

Mr. Dan Reinsel
Wheeling & Lake Erie Railway
100 East First Street
Brewster, OH 44613

RE: Wyandot County, WLE, DOT# 001 913 BV
County Road 35-A
PID 92767

Dear Mr. Reinsel:

The plan and estimate dated 04/15/2012, for the referenced project has been reviewed and is acceptable. Wheeling & Lake Erie Railway (WLE) may proceed with the construction of the proposed grade crossing warning system in accordance with the abbreviated plan. This authorization is made with the stipulation and understanding that the 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. Reimbursement of eligible actual cost is limited to \$172,911.61. Additional costs must be approved in writing by the Ohio Rail Development Commission (ORDC) prior to being incurred. Emergency verbal authorizations by ORDC may be permitted and will be confirmed by ORDC in writing within ten (10) business days of the verbal approval.

This authorization is contingent upon WLE accepting the following instructions:

1. WLE may proceed with soliciting bids for the proposed grade crossing warning system in accordance with the abbreviated plan. The bid process must be reviewed and bid tabs received prior to construction work being performed relative to the bid.
2. WLE's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Tod Darfus, ORDC, email tod.darfus@dot.state.oh.us, and to the Public Utilities Commission of Ohio, email George.martin@puc.state.oh.us. WLE's project foreman will also notify the same of any stops and re-starts of the work activity and of the date work was completed for the project.
3. WLE will arrange for utilities to be located at the project site by the Ohio Utilities Protection Service (OUPS) prior to any construction activities at the site. Utilities that are not participating members of the service must be contacted directly by WLE.
4. WLE's project foremen will notify Tod Darfus of any changes in the scope of work, cost overruns, material changes, etc. which are not included in the approved plan and estimate and secure approval of same before the work is performed.

5. WLE will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Encumbrance Estimate to reference when billing.
6. WLE will furnish two (2) copies of the final all-inclusive bill to ORDC stating the exact dates of starting and completing work, the initial and final dates of construction and location where the accounts may be audited.

The Project Manager for this project, Tod Darfus, may be reached at 614-374-9298. Thank you for your assistance with these matters.

Sincerely,

Tod Darfus
Project Manager

C: Leah Thomas-Dalton, Rail Division Chief, PUCO
George Martin, PUCO, Grade Crossing Planner
ORDC (file)



OHIO RAIL DEVELOPMENT COMMISSION

1980 WEST BROAD STREET • COLUMBUS, OH 43223
JOHN R. KASICH, GOVERNOR • JAMES G. BRADLEY, ORDC CHAIRMAN

04/02/12

Mr. Chris Layman, Real Estate Supervisor
The Ohio Central Railroad System
47849 Papermill Road
Coshocton, OH 43812

RE: DOT # 151 709 J, Guernsey County
Phillips Road, PID # 93328

Dear Mr. Layman:

A diagnostic review was held at the above grade crossing on 03/16/12. The crossing has been recommended for the installation of lights and gates.

The Columbus & Ohio Railroad (CUOH) is authorized to proceed with the site plans and cost estimates (PE) for this project. This authorization is made with the stipulation and understanding that any field work needs prior approval before work begins, and the 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.

The ORDC is not requesting that the PUCO issue an Order at this time. When the ORDC receives the PE it will be evaluated and a construction-only Order requested from PUCO. Please submit the PE to ORDC within 90 days of receipt of this letter.

The diagnostic review form is attached. Please note any recommendations (page 3), if any, made by the team with regard to requirements for this location. Any minor roadway work necessary for MUTCD compliance should be incorporated into the PE and such costs will flow through the railroad reimbursement process.

The Project Manager for this project is Tod Darfus. Tod can be reached at (614) 374-9298, or tod.darfus@dot.state.oh.us, if you have any questions.

Sincerely,

Tod Darfus
Project Manager

C: Leah Thomas-Dalton, Deputy Chief, PUCO, George Martin, PUCO, Grade Crossing Planner, File

WHEELING & LAKE ERIE RAILWAY COMPANY

Dan Reinsel
Signal & Communication Supervisor

100 East First Street
Brewster, OH 44613

Tel. 330-767-7202

dreinsel@wlerwy.com

Fax: 330-767-3213

15 April 2012

Ohio Rail Development Commission
Mr. Tod Darfus
1980 West Broad Street, Room 2B
Columbus, OH 43223

Re: Estimate for Railroad Crossing Warning System at Country Road 35, DOT 001-913V

Dear Mr. Darfus,

I am providing this estimate for the crossing package and installation at Fairgrounds Road.
Installation will be preformed under our continuing construction agreement with CTC LLC.

CTC Managed Services, Material Package, & Installation	\$38,510.16
Materials	\$104,419.95
Fill Materials	\$1,500.00
Fill Material Transport & Disposal	\$2,700.00
Two Gate Foundations (note 1)	\$918.00
Electric Service	\$3,500.00
Transformer work by electric company	\$600.00
Site Preparation (foundations, bores)	\$16,263.50
WLE Direct Labor	\$4,500.00
Estimated Total	\$172,911.61

Please contact me if additional details are required.

Respectfully,



Dan Reinsel

Notes

1: Direct purchase from Fabricated Metals, 60' galvanized gate foundation, \$459 ea.

Crosier Industrial Construction
8938 Peck Road
Ravenna, OH 44266

Date: 4/9/2012
WLE Project

Cost Estimate for CR 35, Wyandot Co.

<u>Labor Estimate</u>	<u>Rate/hr</u>	<u>Est Hours</u>	<u>Totals</u>
Project Manager	\$50.00	60	\$3,000.00
Operator backhoe, excavator)	\$22.00	60	\$1,320.00
Laborer	\$22.00	60	\$1,320.00
Accounting	\$185.00	1	\$185.00
Administrative	\$30.00	2	\$60.00
Sub-Total			\$5,885.00
G&A Burden for Labor	160%		\$ 9,416.00

<u>Equipment Estimate</u>	<u>Rate/hr</u>	<u>Est. Hours</u>	<u>Totals</u>
Case Backhoe	\$ 42.33	20	\$846.60
Excavator Bobcat E32	\$ 31.20	50	\$1,560.00
Directional Drill	\$ 59.62	10	\$596.20
Tamper	\$ 4.25	20	\$85.00
Truck, 4 wd	\$ 21.35	60	\$1,281.00
Traffic control cones	\$ 0.13	60	\$7.80
Traffic control signs	\$ 0.23	60	\$13.80
Sub-total			\$4,390.40

<u>Material Estimate</u>	<u>Quantity</u>	<u>Price/ea</u>	<u>Totals</u>
Stone 20 ton/load	10 loads	WLE	WLE
Pull Box	1 box	\$295.00	\$295.00
Conduit 4"	125'	\$1.95	\$ 243.75
Conduit 2"	200'	\$0.80	\$160.00
PVC 45 degree 4" bend	5	\$11.50	\$ 57.50
PVC 4" coup	10	\$2.10	\$21.00
PVC 22 degree 4" bend	1	\$16.50	\$ 16.50
PVC 90 degree long sweep 4"	2	\$25.20	\$50.40
PVC 2" 45 degree	3	\$1.95	\$5.85
PVC 2" long sweep 90 degree	2	\$17.95	\$ 35.90
Glue	1	\$8.20	\$8.20
Ground rods	2	\$16.25	\$32.50
Pull Rope	400'	\$0.13	\$52.00
Sub-total			\$978.60
Subtotal			\$ 14,785.00
Profit Addition 10%			\$ 1,478.50
Total Project Estimate			\$ 16,263.50

Scope of Work Estimate:

- Day 1 Excavate ditch for 600' on north side of rail to improve drainage. Install AC pole
- Day 2 Excavate ditch for 600' on south side of rail to improve drainage
- Day 3 Locate, expose and verify all utilities, culverts and fiber optic. Bore road and tracks
Place 4" and 2" conduits for far gate for track wire and AC
- Day 4 Excavate and install near foundation and conduit to pull box location. Excavate and install
far side conduit to pull box location. Backfill and tamp. Spread and tamp limestone

Day 5 Excavate and install far foundation and conduit. Backfill, tamp and spread gravel.
 Excavate and install far track wire conduit. Excavate and install AC conduit
Day 6 Spread and tamp limestone. Place pull rope in conduits. Finish grade and clean up site

Additional Duties Performed Throughout the Project:

- * Coordinate delivery of fill material
- * Transport foundations, conduit, pull box to site
- * Remove spoils and debris
- * Supply and erect traffic control devices for work zone safety
- * Call Ohio Protection Service as required by Ohio law
- * Establish Railroad Roadway Worker Protection daily to comply with Federal regulation

Wheeling & Lake Erie Railway Co.
Sycamore, Ohio - Wyandot County Road 35 DOT# 001 913V
Project Estimate - CT12006

ENGINEERING					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SIGNAL DESIGNER	40	HR	31.25		\$1,250.00
SIGNAL CHECKER, LEVEL 1	4	HR	36.06		\$144.24
SIGNAL CHECKER, LEVEL 2/FIELD ENGINEER		HR	36.06		\$0.00
SUBTOTAL					\$1,394.24
G&A BURDEN FOR LABOR					\$2,551.46
FIXED FEE					\$394.57
ENGINEERING TOTAL					\$4,340.27

PROJECT MANAGEMENT					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SENIOR SIGNAL ENGINEER	12	HR	\$72.11		\$865.32
PROJECT MANAGER	24	HR	\$31.25		\$750.00
CONSTRUCTION MANAGER	40	HR	\$36.06		\$1,442.40
ACCOUNTING, LEVEL1	16	HR	\$39.81		\$636.96
ADMINISTRATIVE	4	HR	\$25.48		\$101.92
SUBTOTAL					\$3,796.60
G&A BURDEN FOR LABOR					\$6,947.78
FIXED FEE					\$1,074.44
PROJECT MANAGEMENT TOTAL					\$11,818.82

CONSTRUCTION LABOR					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
SIGNAL FOREMAN	80	HR	\$28.50		\$2,280.00
SIGNALMAN	80	HR	\$19.50		\$1,560.00
SIGNAL HELPER	80	HR	\$19.00		\$1,520.00
SUBTOTAL					\$5,360.00
G&A BURDEN FOR LABOR					\$9,808.80
FIXED FEE					\$1,516.88
CONSTRUCTION LABOR TOTAL					\$16,685.68

CONSTRUCTION LABOR EXPENSES					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
EMPLOYEE MEALS (PER DIEM)	24	EA	\$30.00		\$720.00
EMPLOYEE TRAVEL & LODGING	24	EA	\$60.00		\$1,440.00
SUBTOTAL					\$2,160.00
CONSTRUCTION LABOR EXPENSES TOTAL					\$2,160.00

Wheeling & Lake Erie Railway Co.
Sycamore, Ohio - Wyandot County Road 35 DOT# 001 913V
Project Estimate - CT12006

CONSTRUCTION EQUIPMENT					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
TRUCK, PU, 1 TON CREW CAB	80	HR	\$11.78		\$942.40
TRUCK, BOOM, ART, TELESCOPING	20	HR	\$55.95		\$1,119.00
TRAILER, UTILITY, 4 TIRE, 12,000lbs SC410	80	HR	\$7.55		\$604.00
RENTAL EQUIPMENT (FORK LIFT/BACKHOE/SKYTRAK)	1	WK	\$690.00		\$690.00
EQUIPMENT DELIVERY/PICKUP	1	LS	\$150.00		\$150.00
SUBTOTAL					\$3,505.40
CONSTRUCTION EQUIPMENT TOTAL					\$3,505.40

MATERIAL					
<i>Description</i>	<i>Qty</i>	<i>UOM</i>	<i>Unit Price</i>		<i>Amount</i>
HOUSE MATERIAL (SEE ATTACHED DETAIL)	1	LS			\$53,287.38
FIELD MATERIAL(SEE ATTACHED DETAIL)	1	LS			\$39,132.56
HOUSE AND SIGNAL WIRING	1	LS			\$8,000.00
FILL DIRT		TN	\$7.50		\$0.00
CONCRETE		YD	\$500.00		\$0.00
COVER ROCK		TN	\$26.50		\$0.00
BORING 4"		FT	\$35.00		\$0.00
ELECTRICAL PERMITS		EA	\$3,500.00		\$0.00
METER POLE ASSY AND INSTALLATION		EA	\$2,500.00		\$0.00
FREIGHT & CONTAINER PRICE	1	LS			\$4,000.00
SUBTOTAL					\$104,419.95
MATERIAL TOTAL					\$104,419.95

TOTAL PROJECT ESTIMATE	\$142,930.11
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HOUSE MATERIALS					
Description	QTY	UOM	MANUFACTURER PN	Unit Price	Total Price
HOUSE 6X6 AL WLE W/2-23" RKS	1	EA	PTMW	\$10,700.00	\$10,700.00
ASSY HXP-3R W/IDK/(2)4KHZ/RSI/RMM	1	EA	250811-2B01	\$20,063.60	\$20,063.60
ASSY MDSA-1A	1	EA	250204-001C	\$301.43	\$301.43
CHARGER 40A 12V CRAGG 40ETC12V	2	EA	017061-203	\$673.27	\$1,346.53
RECTIFIER POWER CORD 14/4 SJE BLK	70	FT		\$1.00	\$70.00
BATTERY NICAD 250 AH SPL-250	19	EA		\$310.00	\$5,890.00
TRAY BATTERY 12 X 27" POLYETHYLE	4	EA	7438-01	\$32.96	\$131.82
THERMOSTAT SPDT REMOTE BULB 8A	1	EA	009186-004	\$73.94	\$73.94
RLY DPDT 12VDC 5A OCT	4	EA	007192-032	\$13.22	\$52.89
SCKT RLY 8-PIN OCT SCREW PNLMT	4	EA	132246-001	\$4.48	\$17.91
ASSY AGA-1 ARRESTOR	16	EA	202216-001	\$20.76	\$332.11
ASSY AGE-1 EQUALIZER	8	EA	202217-000	\$21.75	\$173.98
POWER OFF LIGHT KIT	1	EA	LC2-005WD	\$116.40	\$116.40
NUT INSULATED HARMON	20	EA	013986-000	\$2.97	\$59.40
SSCCIII PLUS 40 AMP 19" BASE	1	EA	91190-0101	\$5,628.00	\$5,628.00
PANEL LTG SURGE SSCC 91170-01	1	EA	201756-015	\$608.75	\$608.75
MICRO DATA ANALYZER II WLE PK	1	EA	072113-100	\$3,450.00	\$3,450.00
MDA CURRENT SENSOR	2	EA		\$220.00	\$440.00
BATTERY GROUND DETECTOR	1	EA	NAS	\$1,250.00	\$1,250.00
WIRE 16AWG/19 TC EPR/PVC BLU	300	FT	012092-002	\$0.22	\$66.00
WIRE 10AWG/19 TC EPR/PVC BLU	350	FT	012092-000	\$0.62	\$215.60
WIRE 6AWG/19THHN BLK	50	FT	012253-000	\$0.79	\$39.60
WIRE 6AWG/19 THHN RED	50	FT	012253-003	\$0.84	\$41.80
WIRE 6AWG/19 THHN GRN	30	FT	012253-002	\$0.75	\$22.44
CABLE RAW 3/14AWG PWR 300V	30	FT	012690-010	\$0.77	\$23.10
RES ADJ WW 15W 5.69 OHM PNLMT	1	EA	002238-101	\$26.09	\$26.09
CONN PLUG L6-15 250V 15A 2P3W	2	EA	132286-001	\$11.53	\$23.06
ASSY 2WAY TERM BLK W/AAR HARD	6	EA	202810-000	\$15.82	\$94.91
ASSEMBLY, 4 POST TERMINALBLOCK	10	EA	203032-000	\$43.48	\$434.83
ASSY TERM STRIP DBL POST 12	5	EA	250094-300	\$19.77	\$98.84
GROUND POST P5-162	4	EA	113047-000	\$25.94	\$103.75
WRENCH AAR TERMINAL	1	EA	095058-001	\$15.28	\$15.28
KIT APRVD SM PARTS/SL XING	1	EA	180394-590	\$1,058.90	\$1,058.90
LABEL, DANGER 240 V, 1.75 X 2.	1	EA	SQS109	\$3.86	\$3.86
NOTIFICATION SIGN HSE	1	EA	HSE SIGN	\$312.55	\$312.55

FIELD MATERIALS

Description	QTY	UOM	MANUFACTURER PN	Unit Price	Total Price
KIT TORQUE WRENCH S/T 070981X	1	EA	2587-01	\$256.38	\$256.38
SO CORD 10/3	60	FT		\$0.90	\$54.00
GATE ARM 16-32' UHI LED LGHTS	2	EA	076045-014	\$613.73	\$1,227.47
SLEEVE 4 ALUMINUM REC #92958	2	EA	14187-01	\$44.33	\$88.66
LED INSERT DIALIGHT FLX4000	8	EA	076048-109	\$247.76	\$1,982.11
DECAL, DOT STRIP	2	EA		\$16.00	\$32.00
BELL ELECTRONIC CROSSING 4/5"	1	EA	6147-01	\$210.03	\$210.03
ASSY WLE STANDARD FLASHER/GATE W/O ARM, GATE ARM LIGHTS, GATE KEEPER	2	ASSY	CTC	\$13,500.00	\$27,000.00
TAPE MARKER BURIED RR CABLE	1	EA	029989-000	\$21.43	\$21.43
CABLE UG 3 COND #6 AWG SOLID	150	FT	1013-02	\$4.06	\$608.85
CABLE UG 7 COND #6 AWG SOLID	400	FT	1077-02	\$6.29	\$2,516.80
CABLE UG 7 COND #14 AWG SOLID	400	FT	1023-02	\$2.22	\$888.80
WIRE UG TRK #6 AWG DUPLEX	250	FT	1094-02	\$1.46	\$365.75
PVC CONDUIT 4 IN. SCH 80	40	FT		\$5.50	\$220.00
PVC CEMENT, 1QT W/BRUSH TOP	1	EA		\$7.15	\$7.15
GRINDING WHEEL 6IN X 1IN	4	EA		\$30.00	\$120.00
BOOTLEG KIT/1 PR TRACKWIRE WLE STANDARD	2	EA	HAX001BLXW2-KT	\$42.10	\$84.20
BOND JOINT 5/16" X 7" TAB ERICO #SB-	300	EA	2161-01	\$5.41	\$1,623.60
WIRE #6 SOFT BARE COPPER	60	FT	1436-01	\$0.40	\$23.76
CARTRIDGE SB25 POWDER W/ATTACHMETAL FOR	300	EA	1026-39	\$1.55	\$465.30
ROD 5/8 X 8 NS GRD***USE-02***	6	EA	1357-01	\$14.72	\$88.31
CONNECTION SBNT1-161G ONE-SHOTFOR 5/8 IN	6	EA	1029-01	\$6.17	\$37.03
CADWELD TYPE GR 5/8GRDX#6WIRE	6	EA	005755-002	\$7.10	\$42.57
BOND STRAND 8-STR 3/16" TINNEDSBS8TINSUL	100	FT	4133-01	\$1.21	\$121.00
PLATE SHUNT 24"X26"X1/4" GALV.	2	EA	6193-01	\$67.06	\$134.11
SCREW LAG 3/4" X 6" BLACK GRIMLET PO	8	EA	2000-01	\$0.81	\$6.51
TAPE ELECTRICAL 3M #33+ 3/4" PLASTIC	2	RL	1190-01	\$3.62	\$7.24
DUCTSEAL 1LB BLOCK	10	EA		\$3.30	\$33.00
FOAM INSULATING SPRAY	4	EA		\$12.25	\$49.00
STAPLE GROUND WIRE 1-1/16"X3"	50	EA	113005-000	\$0.32	\$15.95
TIE CABLE .184 X 7.31" HIG TEMSELF LOCKI	100	EA	4125-01	\$0.04	\$4.40
LUG RNG 1/4" 12-10AWG INS BLK	100	EA	032114-008	\$0.01	\$1.10
TAG ST-5 SNAPOUT 11 TAGS/CARD MI# 010301	50	EA	2090-01	\$2.28	\$113.85
STAPLE COPPERWELD 3/8 X 1-3/4 144 IN. RO	50	EA	1148-01	\$0.26	\$13.20
GREASE RUST PREVENTIVE NO OXID"A SPECIAL	1	EA	1906-01	\$9.83	\$9.83
SLEEVE NICO 3/16"-#6 AWG REDUC#2363-J	20	EA	1145-01	\$0.89	\$17.82
CLIP TRACK WIRE RETAINER - ERICO #SBA	10	EA	1118-01	\$1.97	\$19.69
COMPOUND DUCT SEAL 5 LB PLUG PERMAGUM #	5	PK	1179-01	\$10.68	\$53.41
LOCK MASTER	6	EA	MLCK	\$28.41	\$170.48
EMERGENCY SIGN SIGNAL	2	EA	SIG SIGN	\$113.65	\$227.30
FIELD TAG KIT	1	EA	FLDTGKT	\$170.48	\$170.48

FOR REVIEW

- [illegible]

W&LE	Wheeling & Lake Erie Railway	
LOCATION WYANDOT COUNTY ROAD 35 CROSSING WEST OF SYCAMORE, OHIO		
ORDER DATE	TIME	CONSTRUCTION NOTES
03/29/12	SUN	CAREY
REORDER	CTC	CTI2006
DISPATCH	CTC	POST
NOTES	N - 63.5	M.T.S.
	POST NO.	001-913V
		O.A. or 19

SITE LAYOUT NOTES

- 1.) NEAREST ADDRESS IS 2363 COUNTY ROAD 35
- 2.) NO OVERLAPPING APPROACHES ON EITHER APPROACH
- 3.) DUAL HARDWIRE SHUNTS TO BE USED FOR BOTH TERMINATION SHUNTS.
- 4.) LATITUDE 40.9565162 LONGITUDE -83.2247280

1HXP

SHUNT RECORDS									
APPROACH 1 (EAST)	NO SHUNT		100% SHUNT		50% SHUNT		L/A ADDED		± 1 to ±9
	Rx	PHASE	Rx	PHASE	Rx	PHASE			
Track 1	Normal								
Track 2	Standby								
Track 1	Normal								
Track 2	Standby								
APPROACH 2 (WEST)									
Track 1	Normal								
Track 2	Standby								
Track 1	Normal								
Track 2	Standby								

INITIAL VALUES WHEN PLACED IN SERVICE

FOR REVIEW

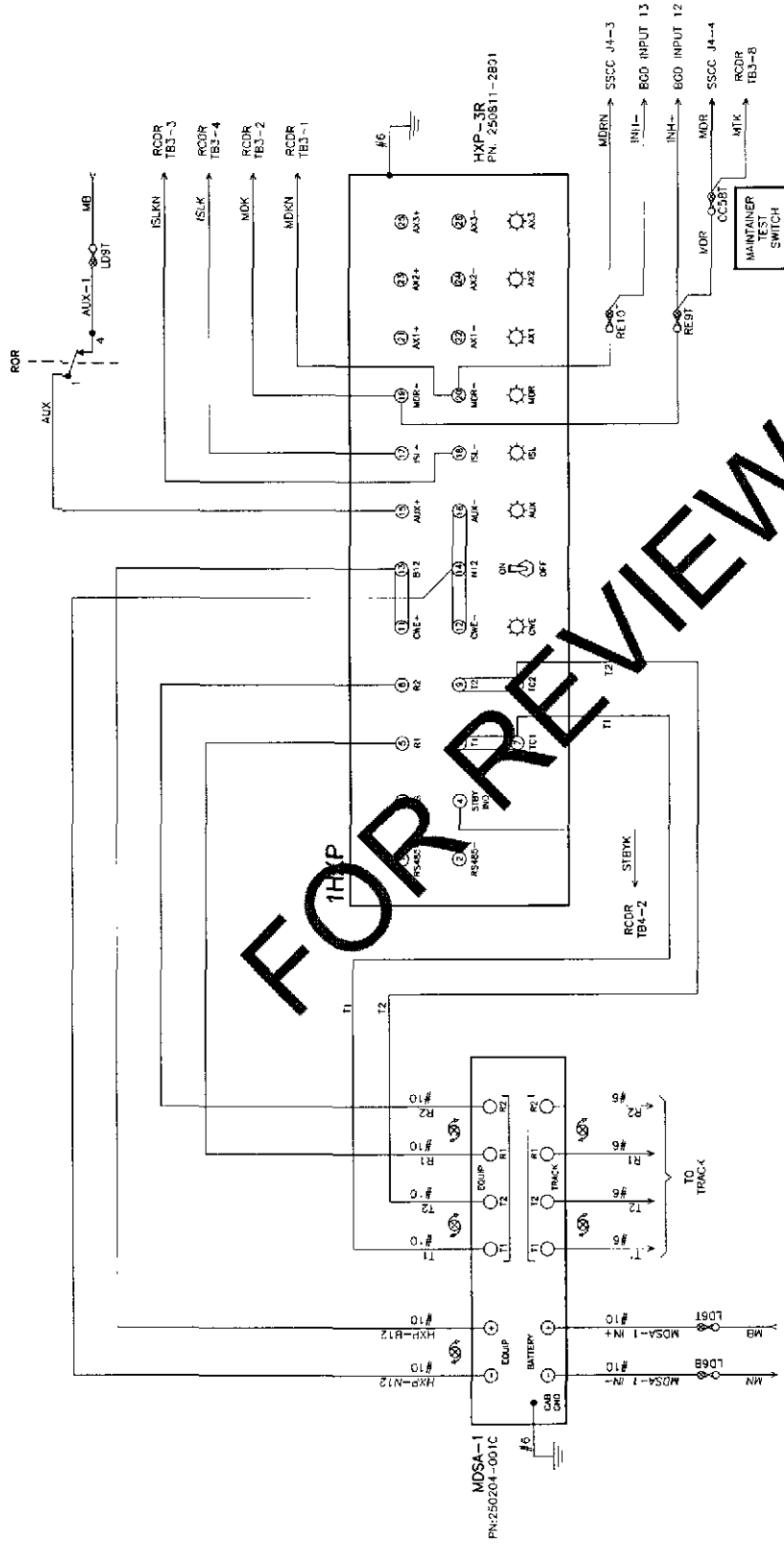
Wheeling & Lake Erie
Railway

W&LE

Location: WYANDOT COUNTY ROAD 35 CROSSING
WEST OF SYCAMORE, OHIO

DATE				TIME			
03/26/12	03/26/12	03/26/12	03/26/12	03/26/12	03/26/12	03/26/12	03/26/12
CTC	CTC	CTC	CTC	CTC	CTC	CTC	CTC
CTC	CTC	CTC	CTC	CTC	CTC	CTC	CTC

REVISION
BLOCK



NOTE ALL WIRING THIS SHEET #14 AWG
UNLESS NOTED OTHERWISE.

**Wheeling & Lake Erie
Railway**

LOCATION: WYANDOT COUNTY ROAD 35 CROSSING
WEST OF STAMORE, OHIO

W&LE

CROSSING CONTROL CIRCUITS			
DATE	03/26/12	BY	CTC
DESIGNED	CTC	CHECKED	CTC
REVISION	1	DATE	03/26/12
BY	CTC	DATE	03/26/12

CHANGING FROM TYPICAL N

REVISION
BLOCK

* = FIELD ADJUSTMENT TO BE MADE ACCORDING TO THE HXP-3 INSTRUCTION MANUAL.

HX2-3R ADJUSTMENT

NO.	ADJUSTMENT NAME	TRACK 1	TRACK 2
1	APP. LENGTH	2000'	
2	WARNING TIME	26 SEC	
3	LIA		
4	TC		
5	MD RESTART	0	

OPTION ADJUSTMENTS

NO.	ABBREVIATION	TRACK 1	TRACK 2
1	TK-CHN	UP	
2	TK FC	430 HZ	
3	CW/WD	C	
4	JW-BI	b (BI)	
5	NBS-C	*	
6	CWENT	DL (40 SEC.)	
7	LOS	DL (16 SEC.)	
8	U-LCS	DL (5 SEC.)	
9	BC	133	
10	P-COMP	*	
11	AX1	N/A	
12	AX2	N/A	
13	AX3	N/A	
17	MOR-AX	0m	
OF TK 1 OR 2			
	CI-LOS	DL (0)	
	PJ-DET	DL (15)	
	PJ-RX	DL (15)	
18	MD-TMR	DL (10)	
19	MIN-WT	DL (0)	
20	FS-DET	0m	
	FS-RX	DL (0)	
	FS-TM	DL (10)	
21	POS-SI	0m	
	POS-RX	DL (0)	
	POS-TM	DL (0)	
22	AR-TMR	0m	
	AR-RX	DL (0)	
	AR-TM	DL (10)	
47	ATD-RX	UP	
48	EC-RNA	0m	

NOTES FOR S6 AND S7:

- 1) ACTUATOR 1 SELECTS NORMAL APPROACH WHEN SET TO ON POSITION
- 2) WITH ACTUATOR 1 IN OFF POSITION ACTUATOR 2 SELECTS SHORT APPROACH WHEN OFF AND SELECTS VERY SHORT WHEN ON
- 3) ACTUATOR 3 AND 4 RESERVED FOR FUTURE USE

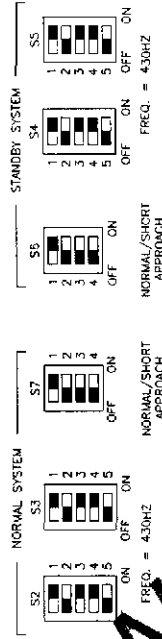
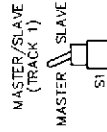
AX ADJUSTMENTS

NO	ABBREVIATION	AX 1	AX 2	AX 3
1	YC-ASN			
2	OF-TK1			
3	OF-TK2			
4	WT			
5	MO-REST			
6	CW/MD			
7	LGIS			
8	PD-DET			
9	PD-EX			
10	PCOOS-SI			

SEARCH INFORMATION

	SWITCH	TRACK 1	TRACK 2
MASTER/SLAVE		MASTER	
RES. FAULT JUMPER		0	
RS-LOS JUMPER		1	
T.M. W1 JUMPER		PINS 1-2	
T.M. W2 JUMPER		PINS 2-3	
T.M. W3 JUMPER		5 MIN	
MINUTE TIMEOUT		CW	
CW/MD		AUTO	
STANDBY/AUTO/NORMAL			

NOTE: DL= DEFAULT LEVEL
NA= NON APPL CABLE



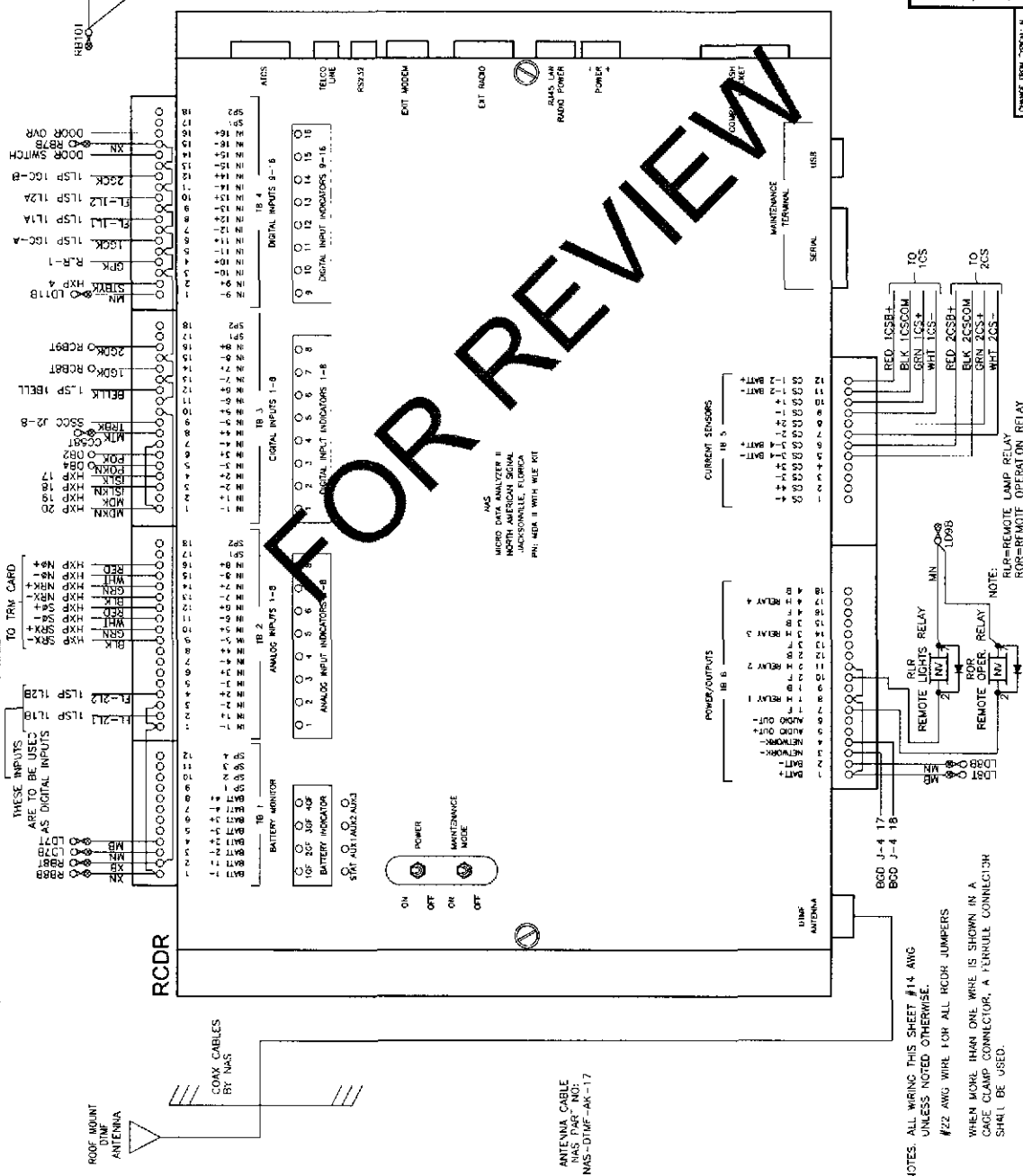
**Wheeling & Lake Erie
Railway**

W81E

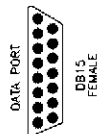
LOCATION
WYANDOT COUNTY ROAD 35 CROSSING
WEST OF SYCAMORE, OHIO

ORIGINAL DATE	03/26/12	TITLE	HX# PROGRAM INFORMATION		
DESIGNER	CTC	SIR	CAREY	DWG NO	C112006
DRAWN BY	CTC	REVISION	N = 63.5	SCALE	N.T.S.
CHECKED	CTC	DWG NO	001-313W	SHEET	04 OF 18

REVISION
BLOCK



VHF ACTIVATION CODES:
 LIGHTS ON = 9131#
 LIGHTS OFF = 9131*
 GATES DOWN = 913#
 GATES UP = 913*



15

DB15
FEMALE

WAGGEL, J. S. L. M.

INTERNAL ON MDA UNIT
DTMF RADIO
FRONT VIEW

**Whooling & Lake Erie
Railway**

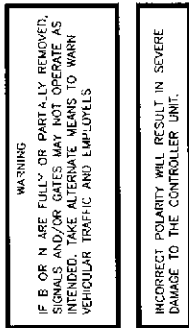
WYANDOT COUNTY ROAD 35 CROSSING
WEST OF SYCAMORE, OHIO

ISSUING DATE	03/26/12	TITLE	RECORDER
BOOK	88-04808	SUB	CAREY
DATE	03/26/2009	REMARKS	N - 63.5
BY	001-913V	DATE	03/26/12
BY	001-913V	DATE	03/26/12

3784

CHANGE FROM TYPICAL: N

NEWSNOW
BLACK



CONFIGURE	
INPUT xLOS	0
ATCS ADDRESS	700000000000
LCW BATTERY	DISABLED
AUX I/O	INV OUTPUT
SELECT LAMP	NEUTRAL 00000000

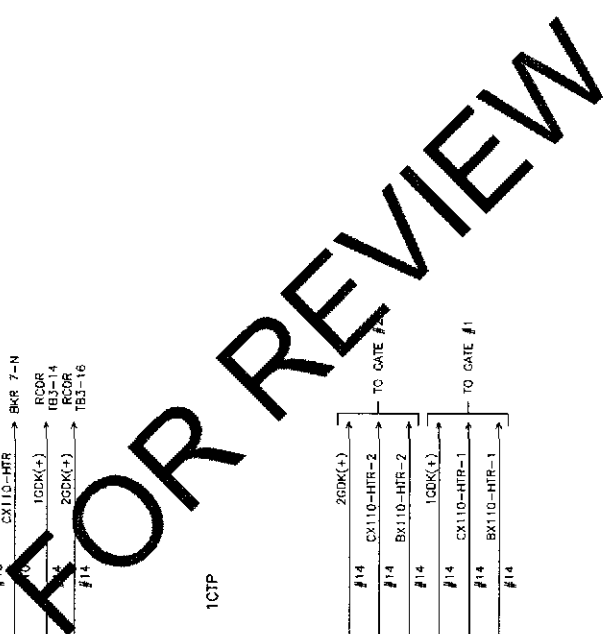
WHEN MORE THAN ONE WIRE IS SHOWN IN A CAGE CLAMP CONNECTOR, A FERRULE CONNECTOR SHALL BE USED

**Wheeling & Lake Erie
Railway**

LOCATION
WYANDOT COUNTY ROAD 35 CROSSING
WEST OF SYCAMORE, OHIO

RECORD DATE	03/28/12	FILE	SSCC IIIA
DESIGNER	CTC	SUB	CRC IN
DESCRIPTION	CTC	MISC	N - 63.5
REORDER	200	DOT NO	201-013
		SCALE	N.T.S.
		UNIT	MM

INDISCOVER

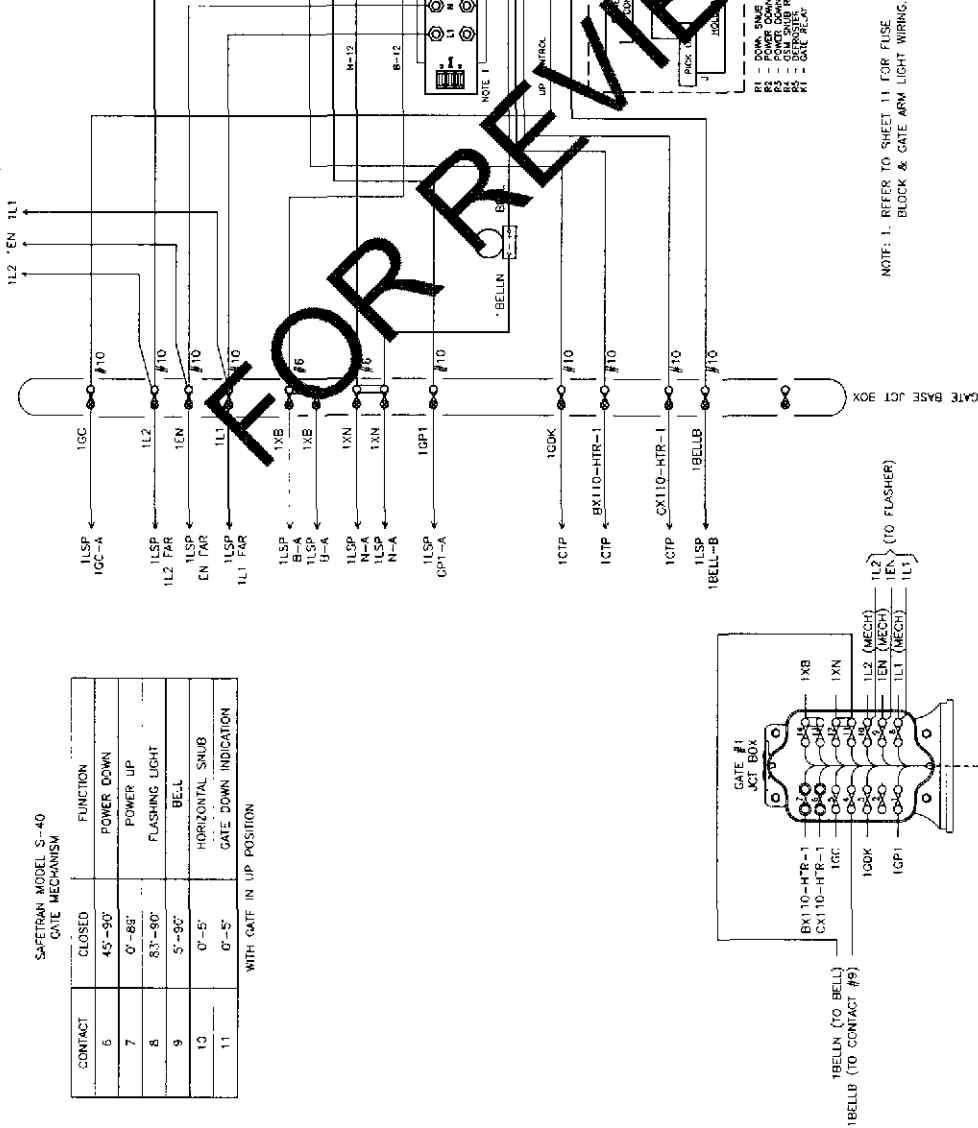
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SAFETRAN MODEL S-40
GATE MECHANISM

CONTACT	CLOSED	FUNCTION
6	45°-90°	POWER DOWN
7	0°-88°	POWER UP
8	83°-90°	FLASHING LIGHT
9	5°-90°	BELL
10	0°-5°	HORIZONTAL SNUB
11	0°-5°	GATE DOWN INDICATION

WITH GATE IN UP POSITION

TO MATE MOUNTED FLASHERS
(SHEET 11 FOR DETAILS)



GATE #1

MODEL S-40. GATE WIRING DIAGRAM

S-40 PN. 074000-W00172
INCLUDES. ZINC PLATED HARDWARE PKG., MAINT. PANEL
& SWITCH, GO CONTACT, 115V HEATER AND GATE ARM
FUSE BLOCK

NOTE: 1. REFER TO SHEET 11 FOR FUSE
BLOCK & GATE ARM LIGHT WIRING.

TO FLASHER

CABLES TO CASE

Wheeling & Lake Erie
Railway

W&LE

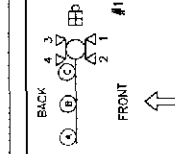
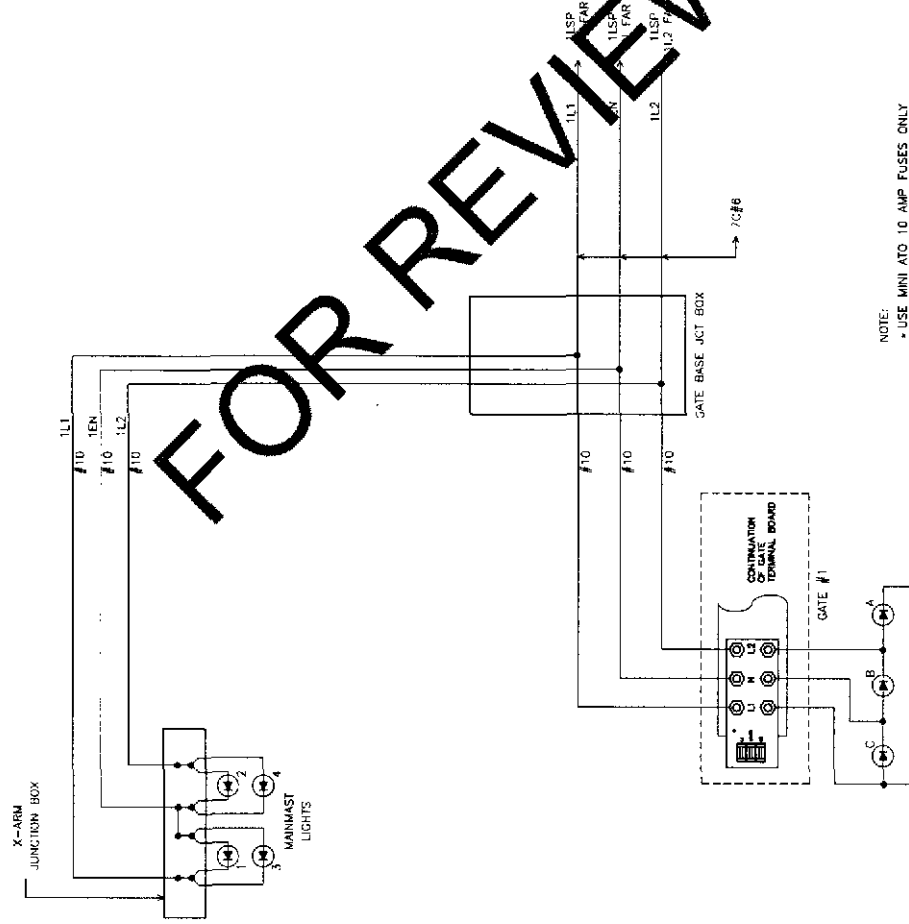
WHYNOT COUNTY ROAD 35 CROSSING
WEST OF SYCAMORE, OHIO

CHANGE FROM TYPICAL N

DESIGNER	DATE	TIME	GATE #1 MECHANISM (NEAR SHEET)
CTC	03/26/12	10:00	CT12006
REVISOR	CTC	04/05	CT12006
REVISION	CTC	04/05	CT12006
REVISION	CTC	04/05	CT12006
REVISION	CTC	04/05	CT12006

PROJ. BLOCK

GATE #1



**Wheeling & Lake Erie
Railway**

WYANDOT COUNTY ROAD 35 CROSSING
WEST OF SYCAMORE, OHIO

DATE	03/26/12	FILE	GATE #1 LIGHTS (NEW 500)
DESIGNED BY	CTC	CHKD BY	CTC
DRAWN BY	CTC	APP'D BY	CTC
CHECKED BY	CTC	NOTED BY	CTC

W&LE

PROJECT NO.	11-001-913V
DATE	11-001-913V
BY	CTC
CHECKED BY	CTC
APP'D BY	CTC
NOTED BY	CTC
FILE NO.	CT12006
SCALE	NTS
11 OF 19	



FRONT

BACK

#2

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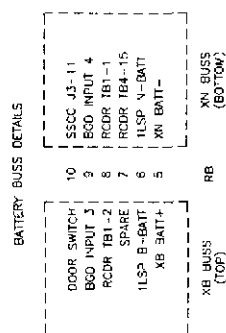
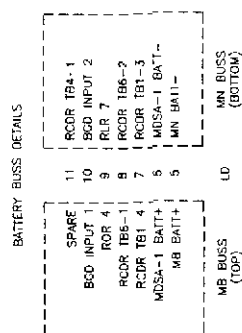
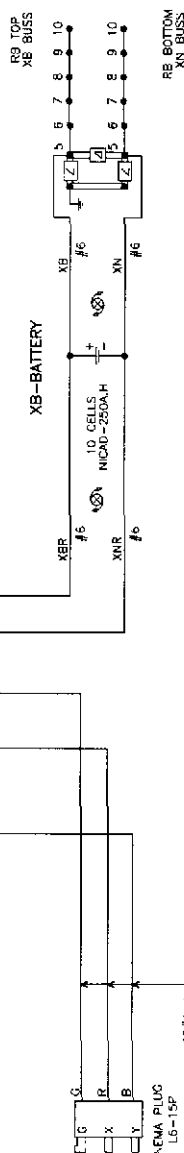
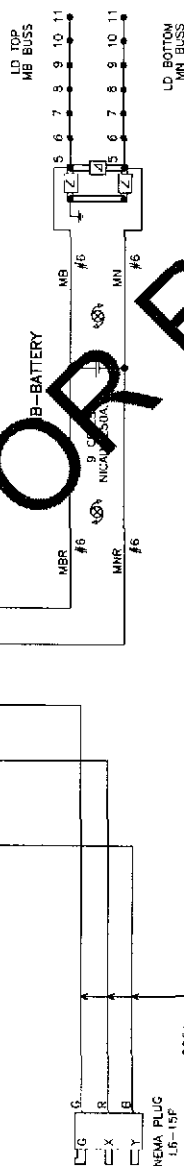
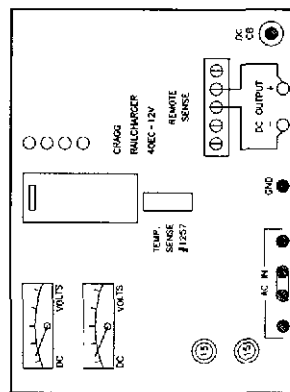
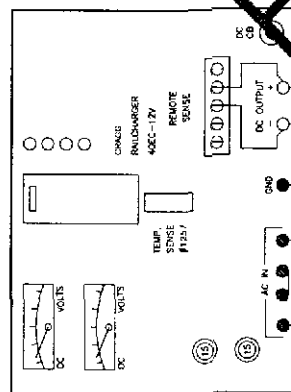


Diagram illustrating the B-BATTERY assembly and its connection to the MB BUSS (Main Bus) and LB BUSS (Load Bus).

The B-BATTERY is connected to the MB BUSS via a 9 CELL NICA SUBA (Nickel-Cadmium Submersible Battery).

The BATTERY is connected to the LB BUSS via a 9 CELL NICA SUBA (Nickel-Cadmium Submersible Battery).

The diagram shows the internal wiring and connections between the battery packs and the busbars.

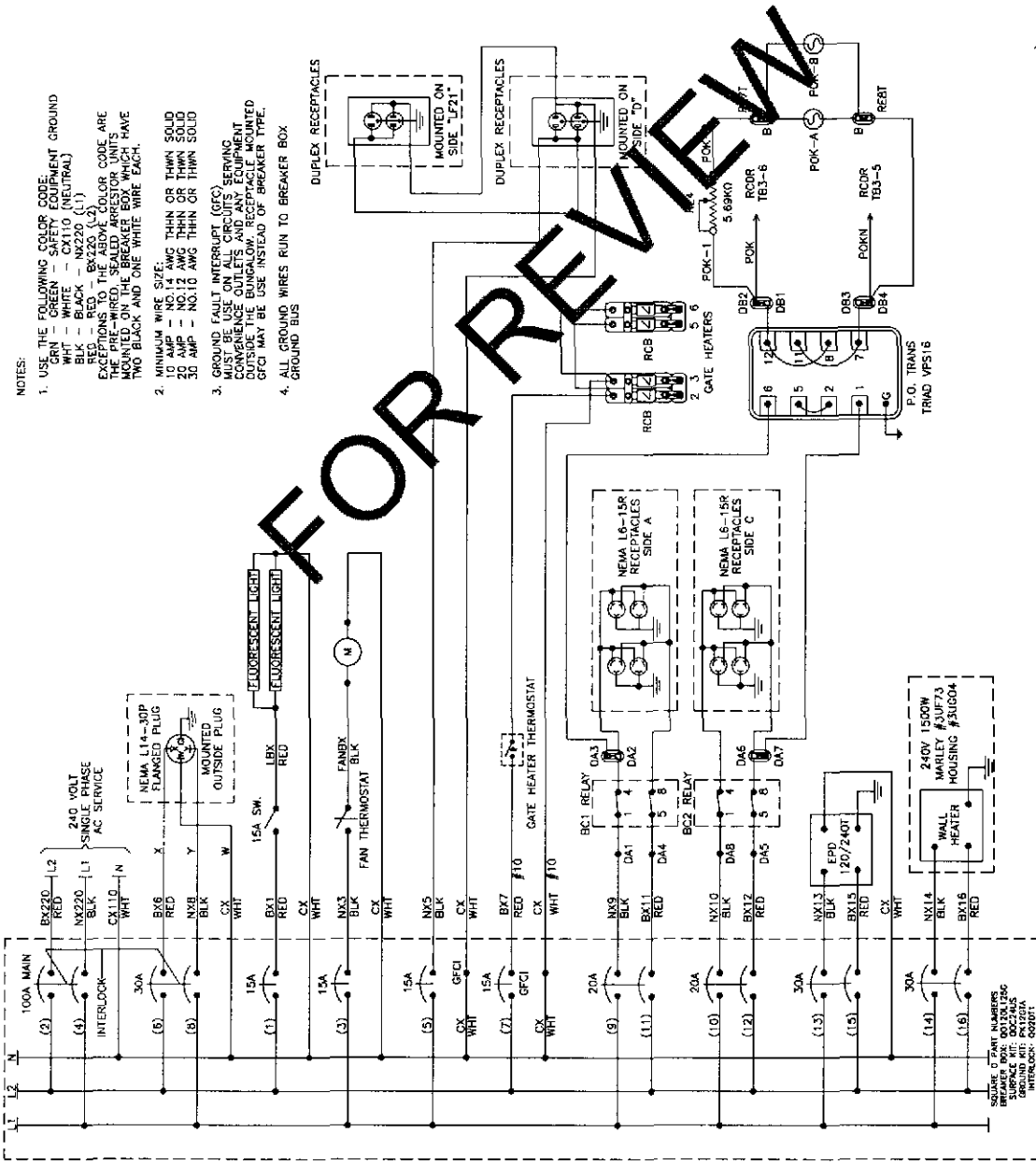
**Wheeling & Lake Erie
Railway**

1784

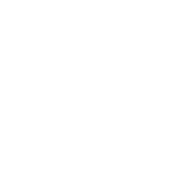
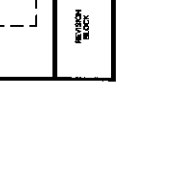
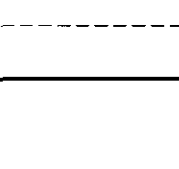
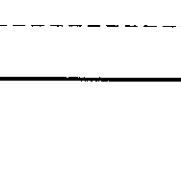
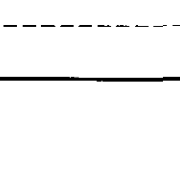
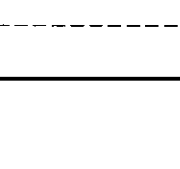
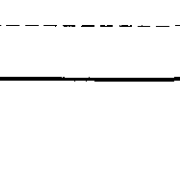
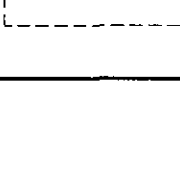
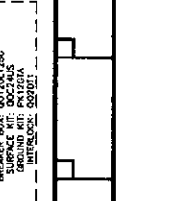
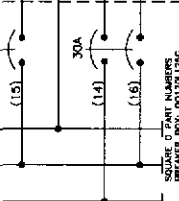
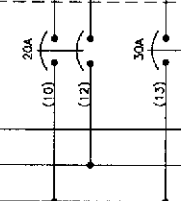
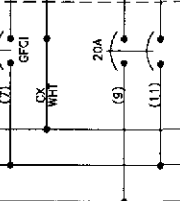
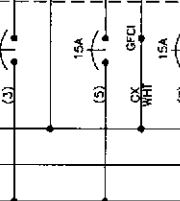
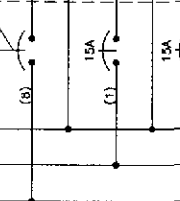
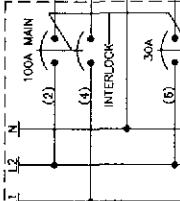
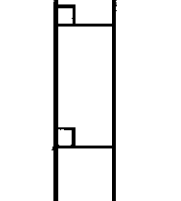
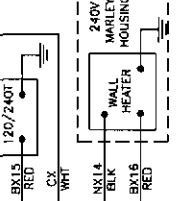
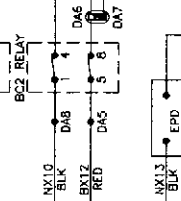
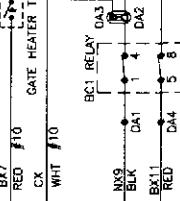
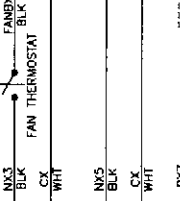
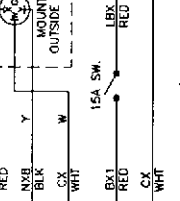
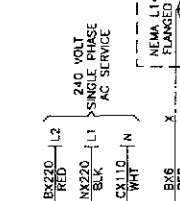
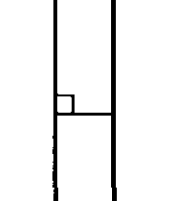
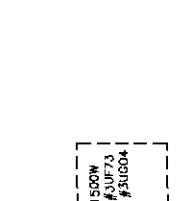
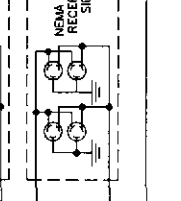
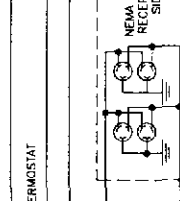
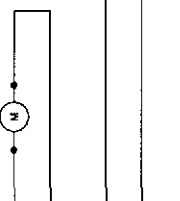
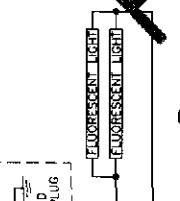
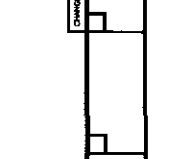
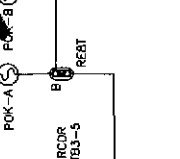
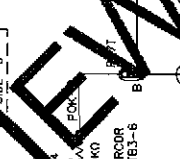
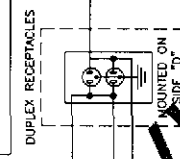
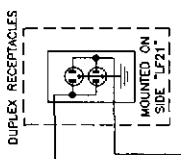
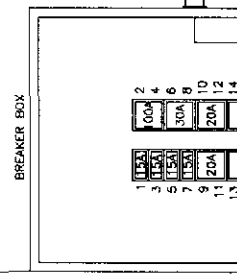
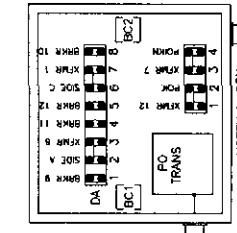
LOCATION	WYANDOT COUNTY ROAD 35 CROSSING WEST OF SYCAMORE, OHIO				
	TITLE BATTERY CHARGER				
FORMING DATE	03/28/12	FILE	NO	NO	CT12006
DESCRIPT	CTC	FOR	CAREY		
DEPT/UNIT	CTC	RESP	N	63.5	DOLE
INCIDENT	CTC	DOT	NO	0.01-9.3W	PERCY
					1.4 62 19

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

SIDE 0



- NOTES:
1. USE THE FOLLOWING COLOR CODE:
GRN - GREEN - SAFETY EQUIPMENT GROUND
WHT - WHITE - C-110 (NEUTRAL)
BLK - BLACK - C-110 (L1)
RED - RED - BX220 (L2)
EXCEPTIONS TO THE ABOVE COLOR CODE ARE:
THE PRE-WIRED, SEALED APRESTOR UNITS
MOUNTED ON THE BREAKER BOX WHICH HAVE
TWO BLACK AND ONE WHITE WIRE EACH.
 2. MINIMUM WIRE SIZE:
NO. 12 AWG THIN OR THIN SOLID
30 AMP - NO. 12 AWG THIN OR THIN SOLID
35 AMP - NO. 10 AWG THIN OR THIN SOLID
 3. GROUND FAULT INTERRUPT (GFI) SERVING
CONVENIENCE OUTLETS AND ANY EQUIPMENT
OUTSIDE THE BUNGALOW. RECEPTACLE MOUNTED
GFI MAY BE USED INSTEAD OF BREAKER TYPE.
 4. ALL GROUND WIRES RUN TO BREAKER BOX



DA

DB

DC

Wheeling & Lake Erie
Railway

LOCATION: WYANDOT COUNTY ROAD 35 CROSSING
WEST OF STAMORE, OHIO

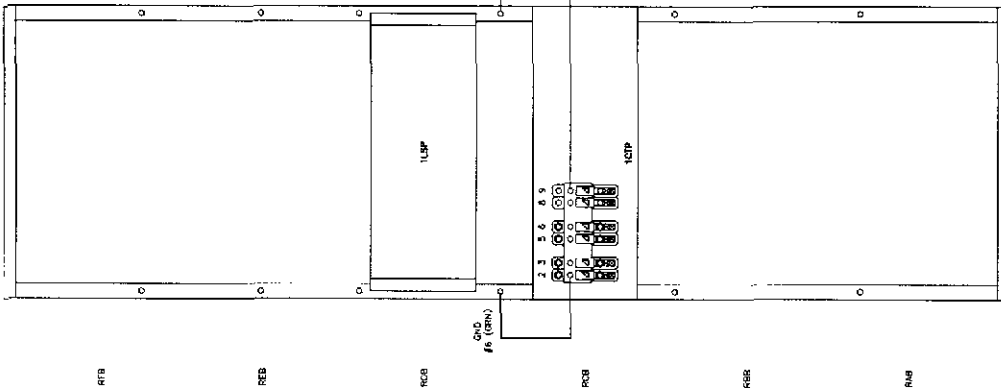
W&LE

DATE	03/26/12	BY	AC POWER DISTRIBUTION
DESIGN	CTC	CHKD	CTC
REVISION	CTC	DATE	01/20/08
SCALE	1"=2'		
PROJECT	CTC	DATE	001-913V
			15 OF 19

DATE	03/26/12	BY	AC POWER DISTRIBUTION
DESIGN	CTC	CHKD	CTC
REVISION	CTC	DATE	01/20/08
SCALE	1"=2'		
PROJECT	CTC	DATE	001-913V
			15 OF 19

BACK OF RIGHT SIDE

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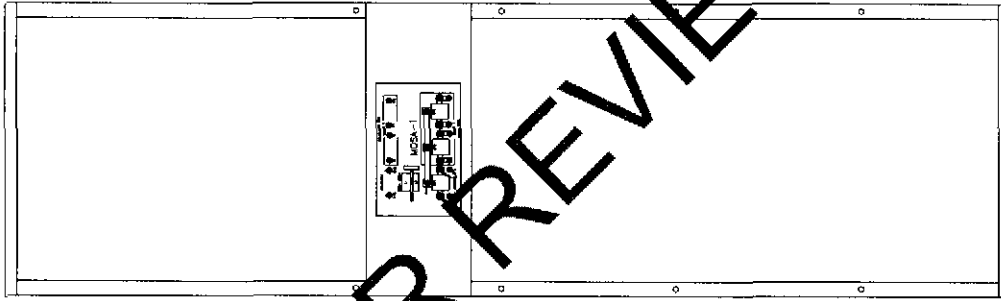


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SIDE 'B' BACK

BACK OF LEFT SIDE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

FOR REVIEW

W&LE

**Wheeling & Lake Erie
Railway**

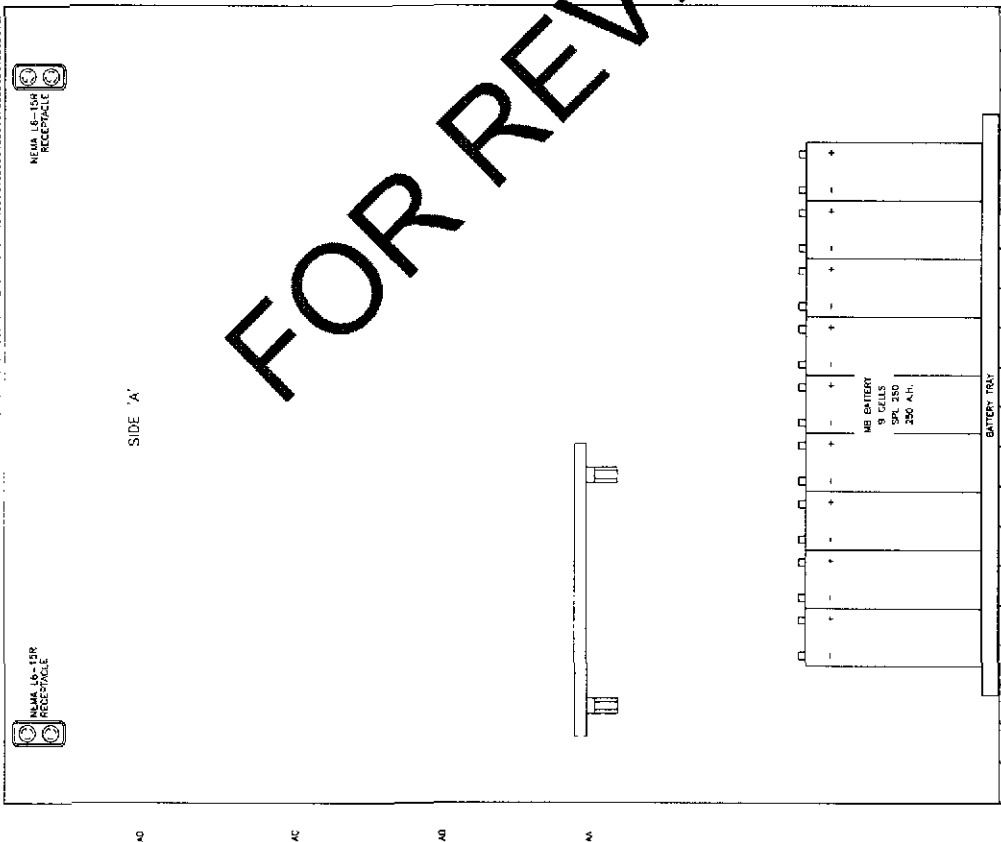
LOCATION

WYANDOT COUNTY ROAD 35 CROSSING
WEST OF SYCAMORE, OHIO

CHANGE FROM PREVIOUS N

ORIGINAL DATE	03/26/12	REV	BACK BACK VIEW	DATE	01/20/06
DESIGNED BY	CIC	CHK	CAREY	DATE	11-27
APPROVED BY	CIC	CHK	N - 63.5	DATE	11-27
PROJECT NO	001-313V	DATE	11-27	DATE	11-27

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65



Aspirin Wholesale & Retail

WILEY

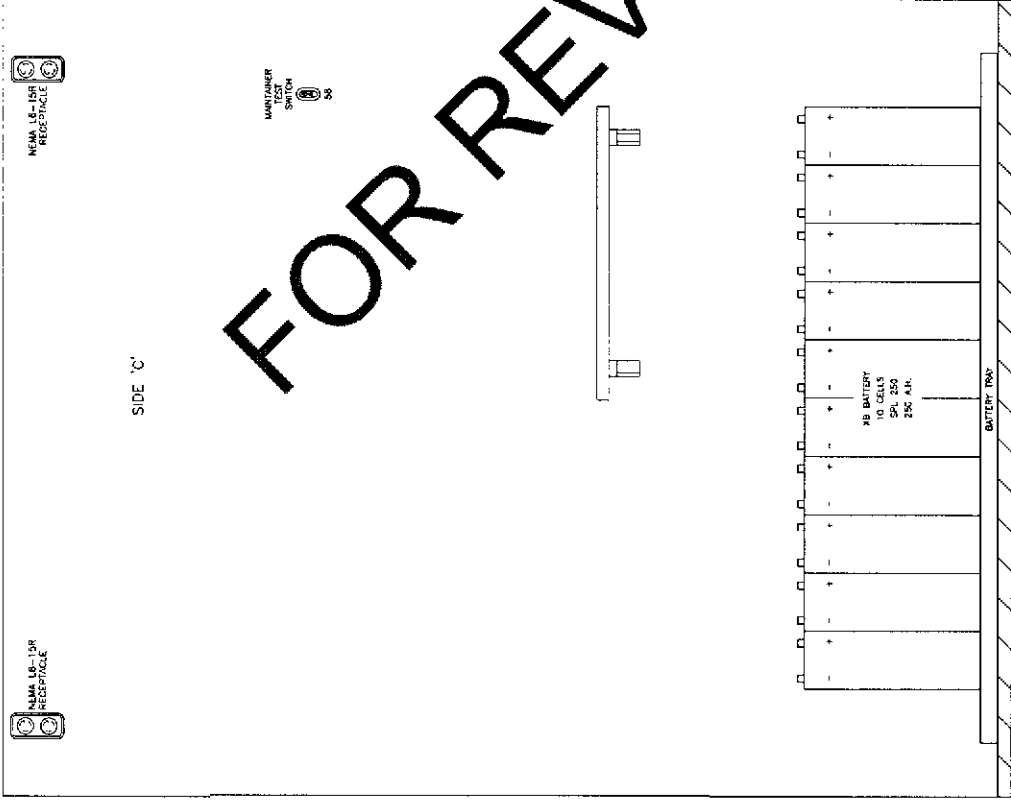
WYANDOT COUNTY ROAD 35 CROSSING
WEST OF SYCAMORE, OHIO

ORIGINAL DATE	03/26/12	TYPE	SIDE "A"		
DESIGNER	CTC	SUB	CAREY	CTC NO	CT12006
CONTRACTOR	CTC	PRIP	N - B3.5	SCALE	1"=2'
REVISION	CTC	DO# NO.	001-913V	SHEET	1 OF 10

<p> NAME _____ DATE _____ PERIOD _____ </p>
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1000

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65



SIDE 'C'

MAINTAINER
ACCESS
SWITCH

GROUND
STUD

6" X 6" ALUMINUM
BUNGALOW
PTWV P-15208 A

SIDE "B"

SIDE "A"

THIS SIDE TO TRACKS

THIS SIDE TO FIELD
SIDE "C"

SIDE "D"

W&LE

**Wheeling & Lake Erie
Railway**

LOCATION

WYANDOT COUNTY ROAD 35 CROSSING
WEST OF SYCAMORE, OHIO

DESIGN DATE	03/25/12	FILE	SIDE "C"	DATE	01/20/06
DESIGNER	CIC	SUR	CARS	DATE	01/20/06
APPROVED	CIC	W&LE	N - 63.5	SCALE	1"=2'
PROJECT	CIC	DATE	001-913V	BY	13 OF 19

REVISION
BLOCK

CHANCE FROM TRACK, N