

FILE

215



RECEIVED-DOCKETING DIV

2014 JUN 27 AM 9:49

PUCO

# Memo

**To:** Docketing Division

**From:** George Martin, Grade Crossing Planner, Rail Division

**Re:** In the matter of the authorization of the Indiana & Ohio Railway and Norfolk Southern Railway to install active grade crossing warning device in Shelby and Holmes Counties

**Date:** June 27, 2014

The Ohio Rail Development Commission (ORDC) has authorized funding for the Indiana & Ohio Railway (IORY) and Norfolk Southern Railway (NS) to install **mast-mounted flashing lights and gates** as follows:

IORY, Shelby County, near Jackson Center, Salem Township, Meranda Rd/TR 57, DOT# 258673D

NS, Homes County, near Loudonville, Washington Township, CR 385, DOT# 503086C

These crossings were surveyed due to their hazard ranking and were found to warrant the upgrades.

The projects will be paid for with federal funds, and are actual cost. The plans and estimates for these projects, in the amount of \$223,697.11 for IORY, and \$316,109.00 for NS, have been submitted and approved. 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. 14- 1159 -RR-FED In the matter of the authorization of the Indiana & Ohio Railway and Norfolk Southern Railway to install active grade crossing warning devices in Shelby and Holmes Counties

C: Legal Department

Please serve the following parties of record.

This is to certify that the images represent a true and accurate copy of the original document delivered in the regular course of business.

Technician SM Date Processed JUN 27 2014

Ms Cathy Stout

Ohio Rail Development Commission

1980 W Broad St, Mailstop # 3140

Columbus, Oh 43223

Mr Stephen Klinger

Norfolk Southern Railway

1200 Peachtree St, Box 123

Atlanta, Ga 30309

Mr John Hilborn, VP Engineering

Genesee & Wyoming

Ohio Valley Region Railroads

4349 Easton Way, Ste 110

Columbus, Oh 43219

Salem Township Trustees

PO Box 187

Port Jefferson, Oh 45360

Holmes County Engineer

7191 SR 39

Millersburg, OH 44654

Pioneer Rural Electric Coop

AEP

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

**TO:** George Martin, Rail Division, PUCO  
**FROM:** Cathy Stout, Manager, Safety Section, ORDC  
**BY:** Tim Perkins, Project Manager *Tim Perkins*  
**SUBJECT:** SHE-T.R. 57, Meranda Road, I&O, DOT No. 258 673 D, PID No. 96176  
**DATE:** June 27, 2014

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The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on May 17, 2013. 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 plan and estimate 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

# OHIO RAIL DEVELOPMENT COMMISSION INTER-OFFICE COMMUNICATION

**TO:** Randall Schumacher, Rail Division Chief, PUCO  
**FROM:** Cathy Stout, Manager, Safety Section, ORDC  
**BY:** Mike Forte', Project Manager, ORDC *MDF*  
**SUBJECT:** County Road 385/Norfolk Southern Grade Crossing  
Holmes County  
US DOT 503 086C  
**DATE:** June 26, 2014

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The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on November 13, 2013. 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 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  
Plans & Estimates

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



# OHIO RAIL DEVELOPMENT COMMISSION

Mail Stop #3140, 1980 West Broad Street, Columbus OH 43223

John R. Kasich, Governor • Mark Policinski, ORDC Chairman

June 26, 2014

Mr. Stephen Klinger  
Norfolk Southern Railway  
Public Projects Engineer  
1200 Peachtree Street, Box 123  
Atlanta, Ga. 30309

RE: Grade Crossing Warning Project  
County Road 385, USDOT 503 086C  
Holmes County  
PID 97294

Dear Mr. Klinger:

The plan and estimate submitted May 20, 2014 for the referenced project has been reviewed and is acceptable. Norfolk Southern (NS) 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 \$316,109.00. Additional costs must be approved in writing by the 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 NS accepting the following instructions:

1. NS's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to the Public Utilities Commission of Ohio at [George.martin@puc.state.oh.us](mailto:George.martin@puc.state.oh.us). NS'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.
2. NS's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Mike Fortè, Ohio Rail Development Commission (ORDC), email [Mike.forte@dot.state.oh.us](mailto:Mike.forte@dot.state.oh.us) or telephone 614- 374-9287. NS'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.



[www.rail.ohio.gov](http://www.rail.ohio.gov)

phone: 614.644.0306

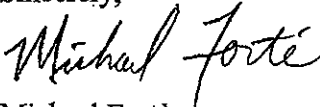
IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

Page 2

3. NS 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 NS.
4. NS's project foremen will notify Mike Fortè 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. NS will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Purchase Order to reference when billing.
6. NS 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.

Thank you for your assistance with these matters.

Sincerely,



Michael Fortè  
Project Manager

Attachments: letter agreement, purchase order

C: Randall Schumacher, Rail Division Chief, PUCO  
George Martin, Grade Crossing Planner, PUCO  
Susan Arduini, ORDC  
ORDC (file)



**Diagnostic Review Team Survey**

Reason for Survey: Formula Pick  
(e.g. formula, accident, constituent, etc.)

Date: 11/13/13

**Location Data**

Street or Road Name:

Route/Road Number (I.e. Twp., Co., SR or US) CR 385

US DOT No.: 503086C

County: HOL

Township: WASHINGTON

City: (In or Near) Loudonville

Railroad Name: Norfolk Southern

Railroad Division: Pittsburgh

Branch/Line Name: Fort Wayne, LI

Nearest RR Timetable Station: Loudonville

RR Milepost: 153.95

**On-Site Review Team**

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

1. MIKE FORTE ORDC 614-374-9287
2. SHAWN ZURFAN PUCO 614-466-1150
3. GEORGE MARTIN PUCO 614-752-9107
4. Steve Sommers Holmes Co. 330-674-1856
5. JOSH GALBRATH HOLMES COUNTY 330-674-1856
6. W.D. Sewell Norfolk Southern 330-705-0159
7. \_\_\_\_\_
8. \_\_\_\_\_
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	
'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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2 w/ fields
Number of Tracks Signs	<input type="checkbox"/> Yes	<input type="checkbox"/> No	NA
Inventory Tags	<input type="checkbox"/> Yes	<input checked="" 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	0 (6/10/2001)	
Hazard Ranking	821	Date Run: 10/9/2013

**Railroad Data**

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	10	
< 1 per day		
Day thru trains	5	
Night thru trains	5	
Daytime switching movements	0	
Nighttime switching movements	0	
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks	0	
Maximum train speed	50	
Typical train speed	50	
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

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: **Holmes County**

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	140 (2013)	
Highway paved	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Roadway Surface: <input type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other	<i>CHIP &amp; SEAL</i>	
Roadway width: <i>10</i> ft.		
Number of highway lanes	2	
Urban or Rural	Rural	
Vehicle Speed: <i>55</i> MPH		
School Bus Operation: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Amount	
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	Amount	
Shoulders: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is the shoulder surfaced? <input type="checkbox"/> No <input type="checkbox"/> Yes		
Is there existing guardrail along roadway in crossing vicinity? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<i>(A) BRIDGE</i>	
Is stopping site distance adequate? (See Table 2) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If no, deficient approach(es) <i>S. BOUND</i>	



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
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Pedestrians:  No  Yes

Is sidewalk present?  No  Yes

Is there a nearby intersection that could cause queuing over the crossing?  No  Yes

If yes,  
Distance \_\_\_\_\_

Is this intersection signalized?  No  Yes

Are the signals currently interconnected with the existing crossing warning devices?  No  Yes

Is there a 'Do not Stop on Track' sign?  No  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?  No  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:  No  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:  <p style="text-align: center; font-size: 1.2em;">IN LOUDENVILLE</p>
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**Utility Information**

Is commercial power available?  No  Yes

Utility Provider (Company Name) AEP Phone Number \_\_\_\_\_

Nearest Available Power Source AT ROUTE

What other utilities are present? (add locations to sketch)

<input type="checkbox"/> Gas	<input type="checkbox"/> Cable	<input type="checkbox"/> Telephone	<input checked="" type="checkbox"/> Fiber Optic Cable
<input type="checkbox"/> Petroleum	<input type="checkbox"/> Water	<input type="checkbox"/> Sanitary Sewer	
<input type="checkbox"/> Other _____			

Is(are) there potential utility conflict(s)  Yes  No  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:

No

Culverts / Drainage / Ballast Conditions:

No

Roadway and/or Sidewalks:

No

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

No

Environmental:

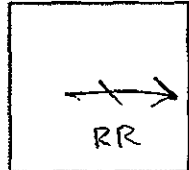
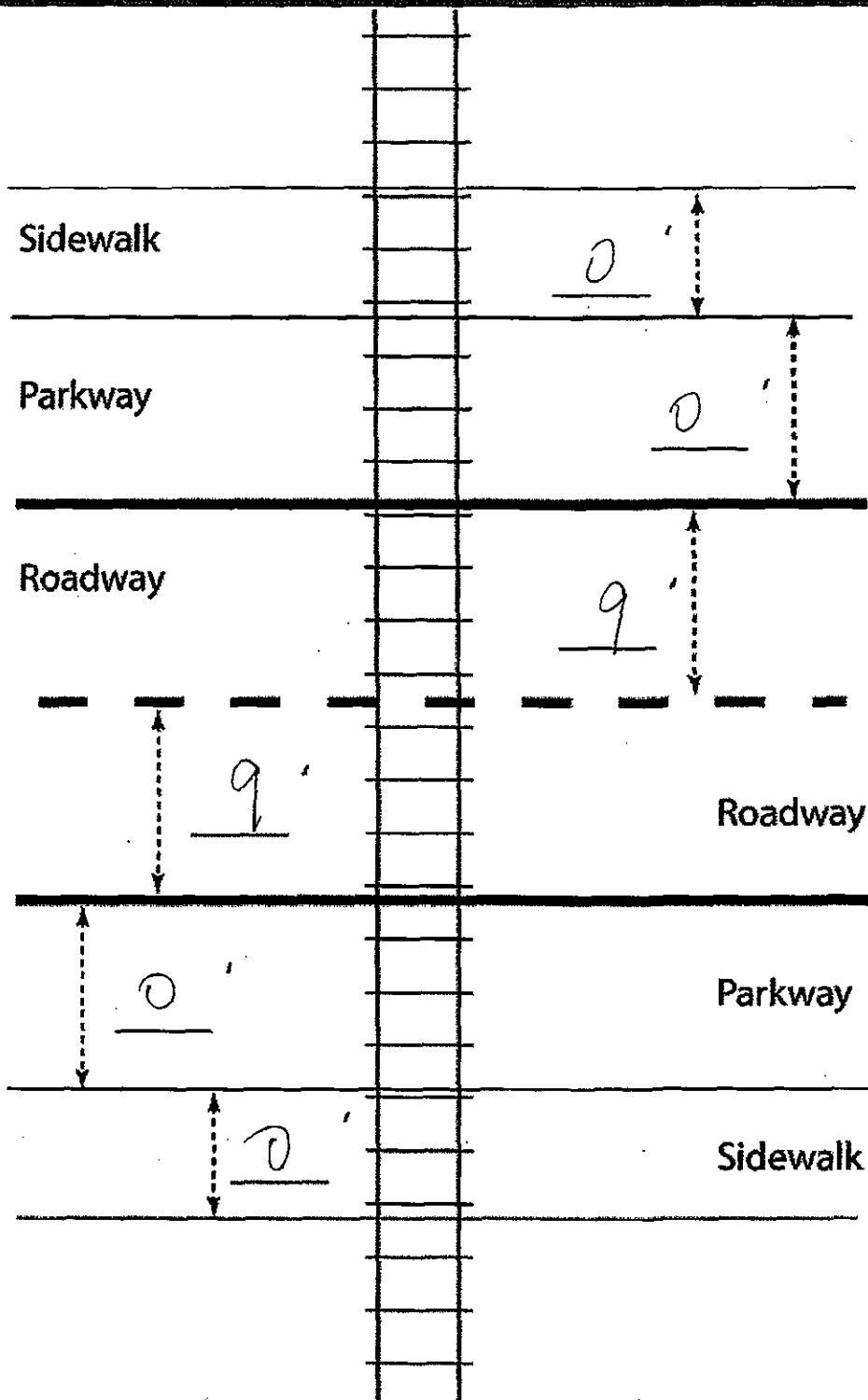
No

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	NW						
<input checked="" type="checkbox"/> AFLS / Gates / Cants	SE						
<input checked="" type="checkbox"/> Bells / number	NW RINGS ON DESCENT						
<input type="checkbox"/> Upgrade circuitry / type							
<input type="checkbox"/> Sidelights							
<input type="checkbox"/> Guardrail Needed							
<input type="checkbox"/> Install/Replace curb							
<input type="checkbox"/> Bungalow placement & offset from rail & highway							
<input type="checkbox"/> Other (define)							
<p>Comments: BACK LIGHTS ON <sup>CANT</sup> MAST FOCUS'D UP THE HIGHWAY            " " ON " MAST " AT XING</p>							
<input type="checkbox"/> Install/upgrade traffic signal preemption							
<input type="checkbox"/> No improvements needed							
<input type="checkbox"/> Other (define)							
<p>Acknowledgement of Recommendations (each entity represented at the diagnostic must have at least one signature acknowledgement):</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-bottom: 1px solid black; text-align: center;">MDK</td> <td style="width: 33%; border-bottom: 1px solid black; text-align: center;">JNG</td> <td style="width: 33%; border-bottom: 1px solid black; text-align: center;">JNG</td> </tr> <tr> <td style="width: 33%; border-bottom: 1px solid black; text-align: center;">WDS</td> <td style="width: 33%; border-bottom: 1px solid black; text-align: center;">CJM</td> <td style="width: 33%; border-bottom: 1px solid black; text-align: center;">SBS</td> </tr> </table>		MDK	JNG	JNG	WDS	CJM	SBS
MDK	JNG	JNG					
WDS	CJM	SBS					

**Field Dimensions**



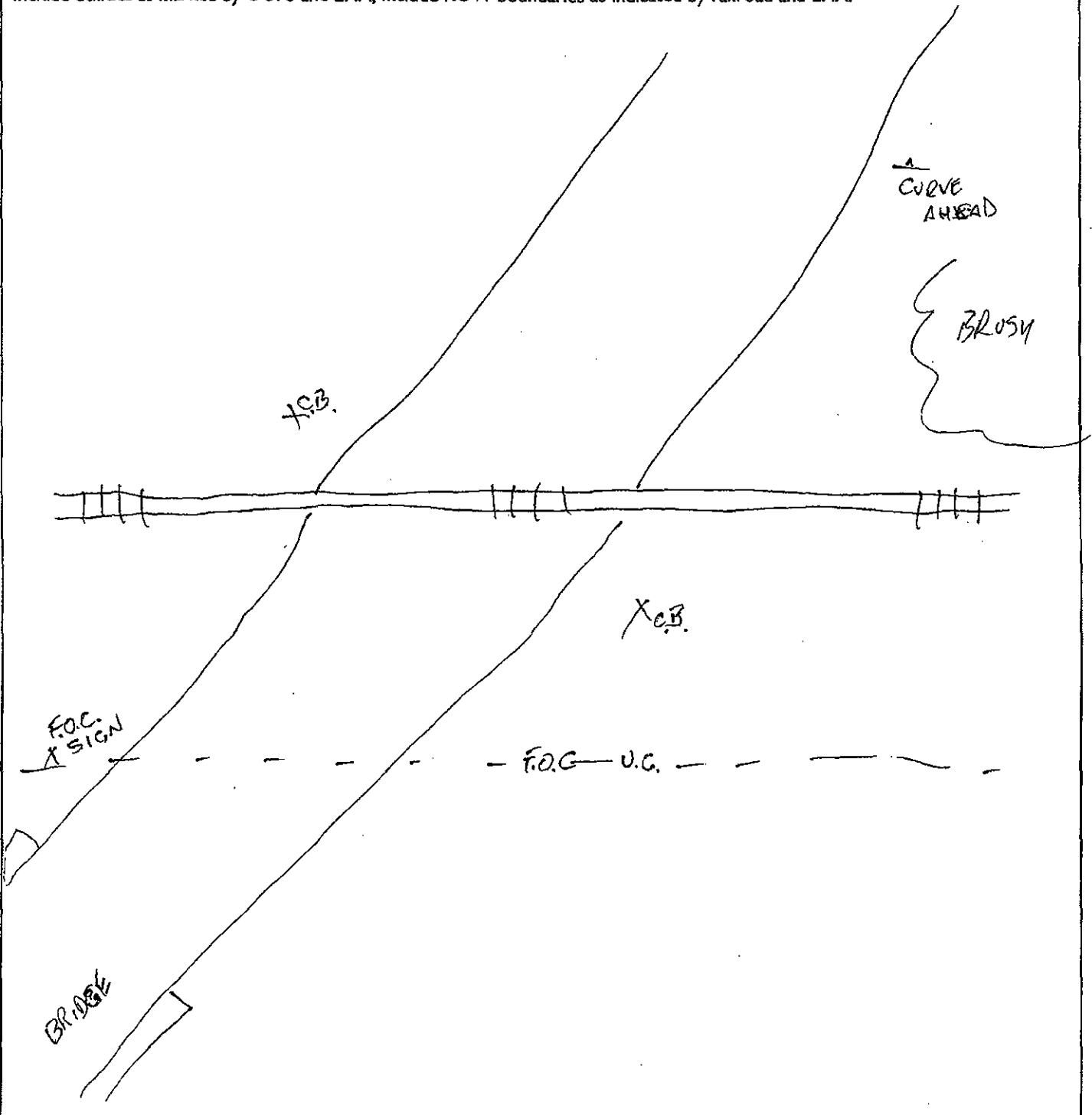
Show North Direction

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

Measurements by: MDF

# 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 NE Quadrant?

Sketch by: MDF

**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.



# OHIO RAIL DEVELOPMENT COMMISSION

Mail Stop #3140, 1980 West Broad Street, Columbus OH 43223

John R. Kasich, Governor • Mark Policinski, ORDC Chairman



June 27, 2014

John Hilborn, P.E.  
Genesee & Wyoming  
Vice President – Engineering  
Ohio Valley Region Railroads  
4349 Easton Way, Suite 110  
Columbus, Ohio 43219

RE: SHE-TR 57, Meranda-I&O, DOT No. 258 673 D, PID No. 96176, RR Mile Post: 157.21,  
RR Project No. 12MMRR11R

Dear Mr. Hilborn:

The Bid process for the referenced project has been reviewed and is acceptable. Indiana and Ohio (I&O) 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 \$150,181.00, and is broken down as \$115,781.00 for TCR Rail Systems, LLC, \$6,610.00 Xorail, and a balance of \$27,790.00 to Patrick Engineering. This estimate from Xorail is broken down as Preliminary Engineering (Phase 1) \$13,400.00, Agreements and Approvals (Phase 2) \$5,000.00, Construction Engineering (Phase 3) \$10,000.00, Construction Engineering Inspection \$6,000.00. Additional costs must be approved in writing by the 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 I&O accepting the following instructions:

1. I&O's project foreman will furnish FAX or written notification five (5) working days prior to the date work will start at the project site to Tim Perkins, Ohio Rail Development Commission (ORDC), 1980 West Broad Street, Columbus, Ohio 43223, email [Tim.Perkins@dot.state.oh.us](mailto:Tim.Perkins@dot.state.oh.us) or FAX (614) 728-4520, (telephone number 614-644-0284), and to the Public Utilities Commission of Ohio at 180 East Broad Street, Columbus, Ohio 43215, email [George.martin@puc.state.oh.us](mailto:George.martin@puc.state.oh.us), (telephone number 614-752-9107). I&O'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.
2. I&O 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 I&O.



[www.rail.ohio.gov](http://www.rail.ohio.gov)

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

\$223,697.11

3. I&O's project foremen will notify Tim Perkins 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.
4. I&O will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Encumbrance Estimate to reference when billing.
5. I&O 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.

Thank you for your assistance with these matters.

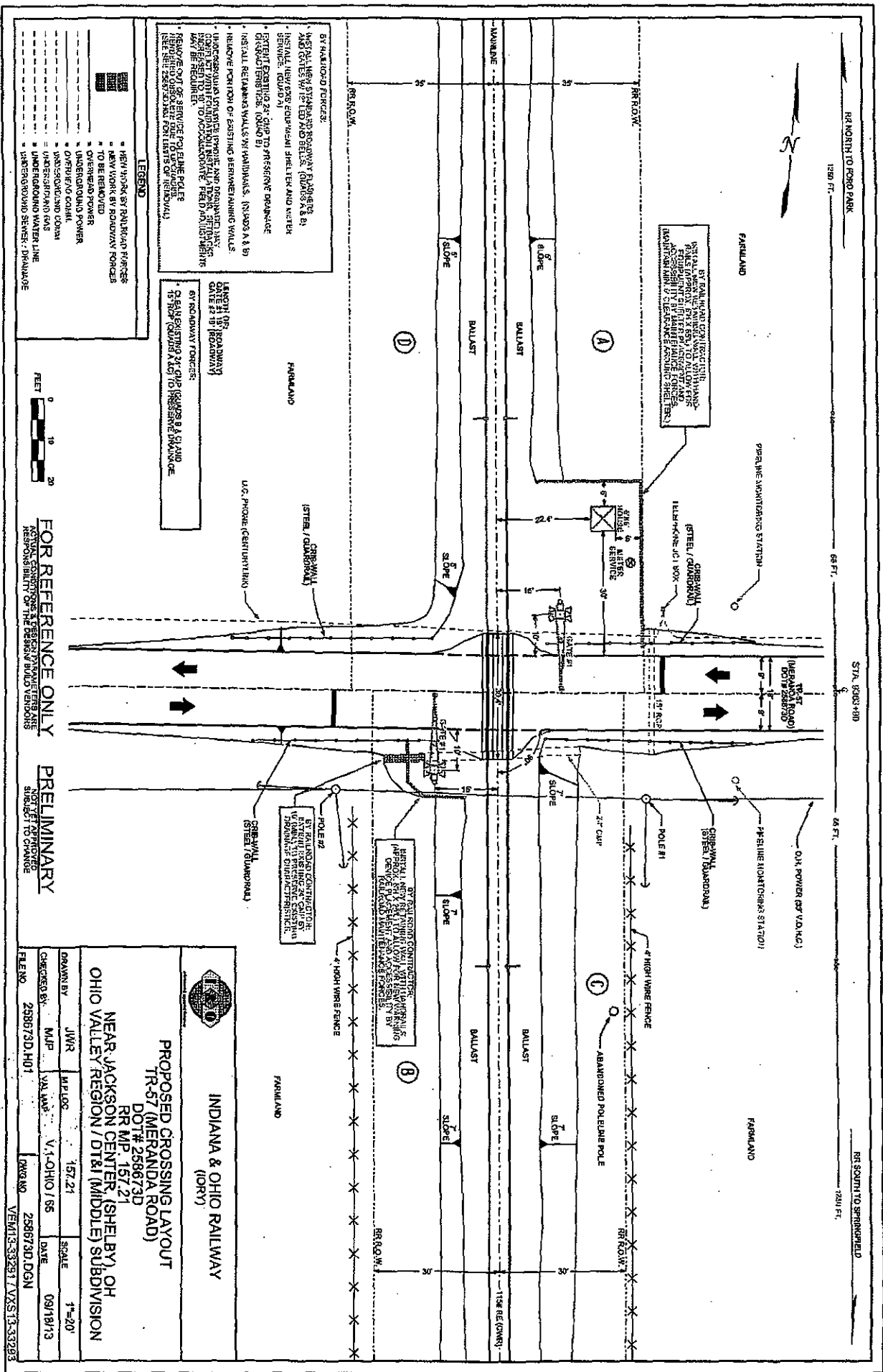
Sincerely,

A handwritten signature in cursive script that reads "Tim Perkins".

Tim Perkins  
Project Manager

C: George Martin, PUCO, Grade Crossing Planner – ORDC File





BY RAILROAD FORCES:

- INSTALL NEW STEEL-GUARDRAIL BRIDGES AND GATES BY TR-100 AND BELLS (GATES A & B)
- INSTALL NEW 600' POLYESTER SHEET PILE AND WATER SERVICE (GATE A)
- EXTEND EXISTING 24" CIP TO PRESERVE DRAINAGE
- INSTALL EXISTING WALLS BY HANDMADE (ISLANDS A & B)
- REMOVE PORTION OF EXISTING BERM/RETAINING WALLS
- UNDERSTAND CONTACTS (GATE A) AND BERM/RETAINING WALLS (GATE B) WITH FOUNDATION (SEE PLAN) AND REINFORCEMENT TO BE TO ACCOMMODATE FIELD RAILROADS BY BEING BUILT BY HANDMADE
- REMOVE EXISTING POLYESTER SHEET PILE
- REMOVE EXISTING 24" CIP (GATES A & B) AND REINFORCEMENT TO BE TO ACCOMMODATE FIELD RAILROADS BY BEING BUILT BY HANDMADE

LEGEND

- RAILROAD FORCES
- HAND-DRAWN FORCES
- TO BE REMOVED
- OVERLAP POWER
- UNDERSTANDING POWER
- OVERLAP COIL
- UNDERSTANDING COIL
- UNDERSTANDING GAS
- UNDERSTANDING WATER LINE
- UNDERSTANDING SHOWER DRAINAGE

LEGEND FOR RAILROAD FORCES

- RAILROAD FORCES
- HAND-DRAWN FORCES
- TO BE REMOVED
- OVERLAP POWER
- UNDERSTANDING POWER
- OVERLAP COIL
- UNDERSTANDING COIL
- UNDERSTANDING GAS
- UNDERSTANDING WATER LINE
- UNDERSTANDING SHOWER DRAINAGE

FOR REFERENCE ONLY

NOT TO BE CONSIDERED AS A DESIGN OR SPECIFICATION

RESPONSIBILITY OF THE DESIGN BUILDS VENDORS

PRELIMINARY

NOT TO BE CONSIDERED AS A DESIGN OR SPECIFICATION

RESPONSIBILITY OF THE DESIGN BUILDS VENDORS

**INDIANA & OHIO RAILWAY (IOR)**

**PROPOSED CROSSING LAYOUT**

TR-57 (MERANDA ROAD)

DOT# 258673D

RR MP. 157.21

NEAR JACKSON CENTER (SHELBY) OH

OHIO VALLEY REGION / DT&I (MIDDLE) SUBDIVISION

DRAWN BY: JWR  
 CHECKED BY: MJP  
 DATE: 09/18/73  
 FILE NO: 258673D.H01  
 SCALE: 1"=50'  
 V.1-OH/O/65  
 VEM13-33281 / VZS13-33283

Approved As To Signic Layout.

*John J. Lane* 12/10/13



### Diagnostic Review Team Survey

**Reason for Survey:** Formula  
(e.g. formula, accident, constituent, etc.)

**Date:** 5/17/13

#### Location Data

Street or Road Name: Meranda Rd.		US DOT No.: 258673D	
Route/Road Number (i.e. Twp., Co., SR or US): TR 57	County: SHE Township: Salem City: (In or Near) Jackson Center		
Railroad Name: Indiana & Ohio Railway	Railroad Division: IORY	Branch/Line Name: DTI Middle	
Nearest RR Timetable Station: Quincy	RR Milepost: 157.21		

#### On-Site Review Team

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

1. Dan Knoop Salem Township Trustee 937-726-1395
2. GEORGE MATERN PULCO 614-752-9107
3. Don Clark GWR 859-391-5535
4. Steve Lowe ITO RR 513-505-0613
5. Cathy Stout ORDB 614 644 0313
6. Jeff Clark Salem Twp. 937.530.0537
7. \_\_\_\_\_
8. \_\_\_\_\_
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		
'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		
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
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 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	1 (9/18/12)	
Hazard Ranking	206	Date Run: 4/8/13

**Railroad Data**

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	2 ✓	
< 1 per day		
Day thru trains	2 ✓	
Night thru trains	0	
Daytime switching movements	0	
Nighttime switching movements	0	
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks	0	
Maximum train speed	25	
Typical train speed	25	
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

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: Salem Township

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	975 (2012)	Could be less - but fast
Highway paved	X Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Roadway Surface: Blacktop <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____		
Roadway width: 16 ft.		
Number of highway lanes	2	
Urban or Rural	Rural	
Vehicle Speed: 55 MPH		
School Bus Operation: <input type="checkbox"/> No <input type="checkbox"/> Yes _____ Amount		
Hazardous Materials Trucks: <input type="checkbox"/> No <input type="checkbox"/> Yes _____ Amount		
Shoulders: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Is the shoulder surfaced? <input 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:  No  Yes

Is sidewalk present?  No  Yes

Is there a nearby intersection that could cause queuing over the crossing?  No  Yes

If yes,  
 Distance \_\_\_\_\_

Is this intersection signalized?  No  Yes

Are the signals currently interconnected with the existing crossing warning devices?  No  Yes

Is there a 'Do not Stop on Track' sign?  No  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?  No  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:  No  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: <i>est 10 school buses/day</i> <i>Jackson Center Smi.</i>
---	---	--

**Utility Information**

Is commercial power available?  No  Yes

Utility Provider (Company Name) DPAL Pioneers Phone Number \_\_\_\_\_

Nearest Available Power Source Either side of crossing

What other utilities are present? (add locations to sketch)

<input type="checkbox"/> Gas	<input type="checkbox"/> Cable	<input type="checkbox"/> Telephone	<input type="checkbox"/> Fiber Optic Cable
<input type="checkbox"/> Petroleum	<input type="checkbox"/> Water	<input type="checkbox"/> Sanitary Sewer	
<input type="checkbox"/> Other _____			

Is(are) there potential utility conflict(s)  Yes  No  Unknown

Comments: *Platform, rip-rap or berm wall will be necessary for each light and gate. House placement may require platform or culvert to keep drainage flowing along track.*

**Potential Red Flags / Project Challenges**

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

N/A

Crossing Consolidation or Closure:

No

Real Estate or ROW:

N/A

Culverts / Drainage / Ballast Conditions:

House placement may require platform or culvert to keep drainage flowing along tracks

Roadway and/or Sidewalks:

N/A

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

N/A

Environmental:

N/A

Other:

AC power should be available by adding transformer to existing pole on either side of crossing.

## 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 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 type="checkbox"/> Bungalow placement & offset from rail & highway	
<input type="checkbox"/> Other (define)	
Comments: <i>Each light and gate should be located 8'3" from roadway. SW quadrant for house placement.</i>	
<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 acknowledgement):	
<i>CMS</i>	<i>DAK</i>
<i>Gm</i>	<i>DEC</i>

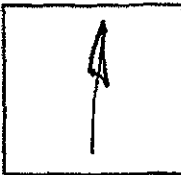
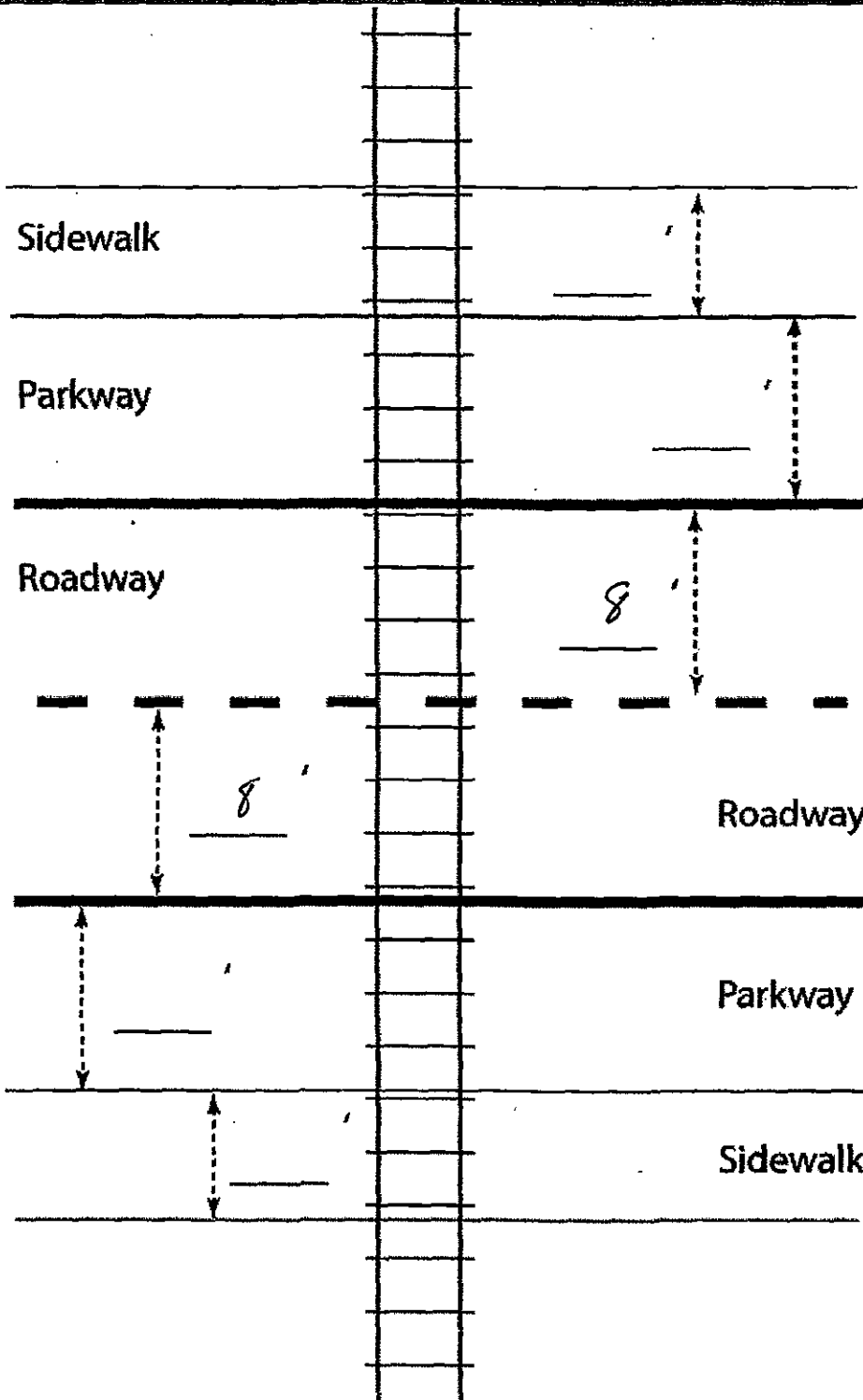
- Jackson / Salen Twp -

Road fully maintained by Salen Twp

Look at Maplewood Rd - accident & similar  
(Shelby Cty maintains)

Railroad & Twp believe Maplewood should be considered as well.

**Field Dimensions**



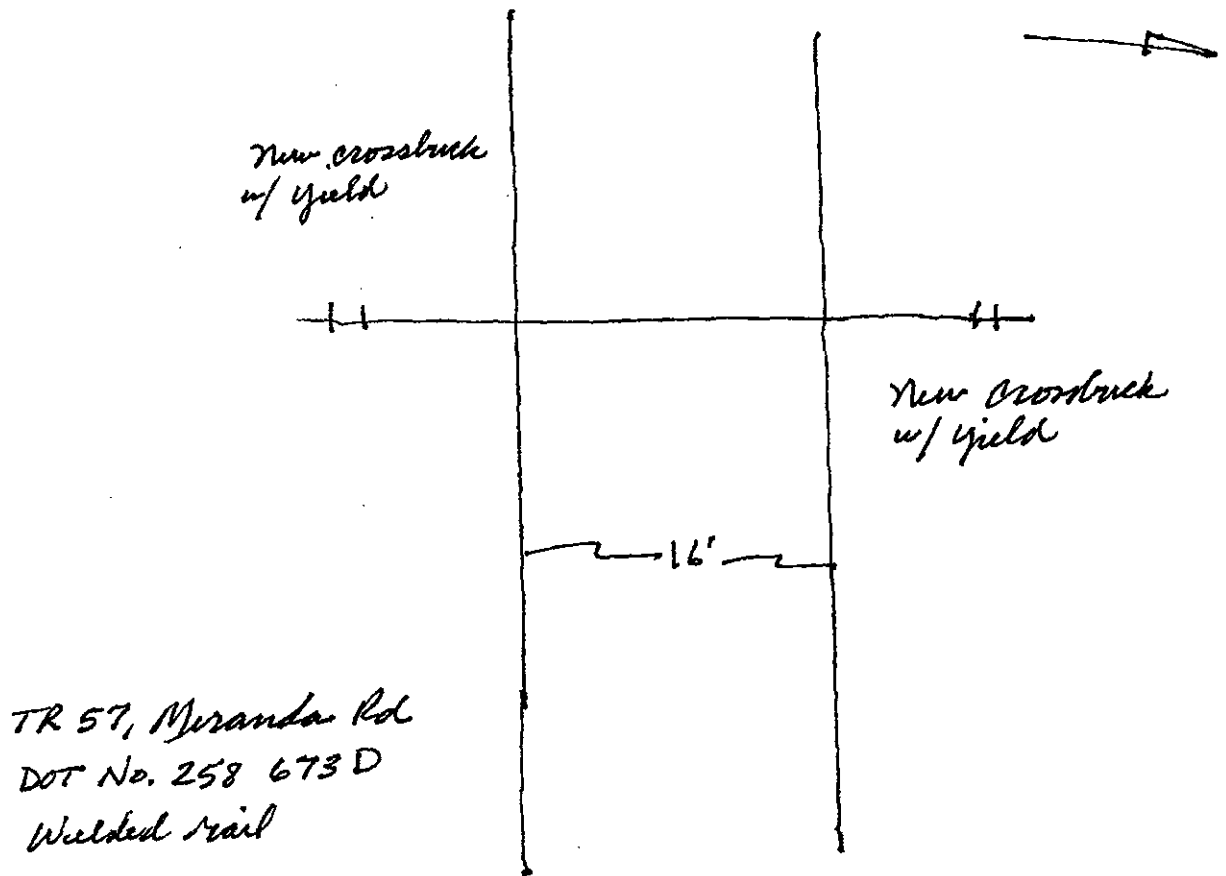
Show North Direction

Crossing Angle  0-29°  30-59°  60-90° Measured in \_\_\_\_\_ Quadrant?

Measurements by: SP

**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: 28



**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.