

FILE

15-1151-RR-FED

Public Utilities  
Commission of Ohio

# Memo

**To:** Docketing Division  
**From:** George Martin, Grade Crossing Planner, Rail Division  
**Re:** In the matter of the authorization of Norfolk Southern Railway to install an active grade crossing warning devices in Ashtabula and Stark Counties  
**Date:** June 19, 2015

PUCO

2015 JUN 19 PM 1:02

RECEIVED-DOCKETING DIV

The Ohio Rail Development Commission (ORDC) has authorized funding for Norfolk Southern Railway (NS) to install mast-mounted flashing lights and roadway gates at the following locations:

Ashtabula County, Denmark Township, Netcher Rd/TR 292, DOT# 503115K, approved cost \$324,631.00. This crossing was surveyed on May 12, 2014 due to its hazard ranking and was found to warrant the upgrade.

Stark County, Washington Township, Parks Ave/TR 96, DOT# 502740S, approved cost \$345,724.00. This crossing was surveyed October 27, 2014 due to its hazard ranking and was found to warrant the upgrade.

The projects will be paid for with federal funds, and are actual cost. As the plans and estimates in the above referenced amounts have already been approved, staff requests a Finding & Order with completion 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. 15- 1151 -RR-FED In the matter of the authorization of Norfolk Southern Railway to install an active grade crossing warning devices in Ashtabula and Stark Counties

C: Legal Department

Please serve the following parties of record

Ms Cathy Stout  
Ohio Rail Development Commission  
1980 West Broad St, Mailstop #3140  
Columbus, Oh 43223

Mr Stephen Klinger  
Norfolk Southern Railway  
1200 Peachtree St, Box 123  
Atlanta, Ga 30309

Mr D Casey Talbot  
Eastman & Smith Ltd  
One Seagate, 24th Floor  
PO Box 10032  
Toledo, Oh 43699-0032

Ohio Power Company  
Cleveland Electric Illuminating (The Illuminating Company)

Washington Township Trustees  
5843 Beechwood Ave  
Alliance, Oh 44601

Denmark Township Trustees  
1909 SR 193 N  
Jefferson, Oh 44047

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

**TO:** George Martin, Rail Division, PUCO  
**FROM:** Cathy Stout, Manager, Safety Section, ORDC  
**BY:** Joe Reinhardt, Project Manager, ORDC  
**SUBJECT:** Stark County, Park Avenue, DOT 502740S  
Norfolk Southern, PID 99461  
**DATE:** June 17, 2015

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

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

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

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

Thank you for your assistance with these matters.

Attachment: Diagnostic Review  
Plan & Estimate

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



# OHIO RAIL DEVELOPMENT COMMISSION

Mail Stop #3140, 1980 West Broad Street, Columbus OH 43223  
John R. Kasich, Governor • Mark Policinski, ORDC Chairman

June 17, 2015

Mr. Stephen Klinger  
Public Projects Engineer  
1200 Peach Street NE, Box 123  
Atlanta, Ga. 30309

RE: Stark County, Park Avenue, DOT 502740S  
PID# 99461, NS Project 10.0670

Dear Mr. Klinger:

The plan and estimate dated May 20, 2015, for the referenced project has been reviewed and is acceptable. 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 \$345,724.00. 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 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 Joe Reinhardt, ORDC, email [joe.reinhardt@dot.state.oh.us](mailto:joe.reinhardt@dot.state.oh.us) and 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 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.
3. NS's project foremen will notify Joe Reinhardt at 614-580-7728 (telephone) or [joe.reinhardt@dot.state.oh.us](mailto:joe.reinhardt@dot.state.oh.us) (email) 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. Open cut of roadways is not permitted except in unusual circumstances and must be coordinated with the local highway authority and preapproved by ORDC.
5. NS will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.



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

phone: 614.644.0306

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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.
7. This installation will include any ancillary work to make the warning devices function as designed and meet MUTCD.

Thank you for your assistance with these matters.

Sincerely,



Joseph Reinhardt  
Project Manager

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



## Diagnostic Review Team Survey

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

Date: 10/27/2014

### Location Data

Street or Road Name: Parks Avenue			
Route/Road Number (i.e. Twp., Co., SR or US) TR 96		US DOT No.: 502740S	
County: STA	Township: Washington	City: (In or Near) Near Louisville	
Railroad Name: Norfolk Southern	Railroad Division: Pittsburgh	Branch/Line Name: Fort Wayne LI	
Nearest RR Timetable Station: Alliance		RR Milepost: 90.83	

### On-Site Review Team

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

1. MIKE FORTE	ORDC	614-374-9287
2. Ron Frank	Washington Twp	330-821-2112
3. GEORGE MARTIN	PUCO	614-752-9107
4. Bud Mohr	WASHINGTON Twp	
5. Paul Paul Pappo	Washington Twp	330-823-1291
6. DAVE MCINTYRE	NS CORP	330-221-6811
7. RANIX JOHL	PACP	330-495-3010
8. Mark DeHoff	Wash. Twp Trustee	330-823-1455
9. W.D. Smith	MS	330-705-0159

### 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	VERY GOOD
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2 w/YIELD
Number of Tracks Signs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2
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 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 (2/5/96)	
Hazard Ranking	1321 Date Run: 9/5/2014	
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	10	12
< 1 per day		
Day thru trains	3	
Night thru trains	7	
Daytime switching movements	2	
Nighttime switching movements		
Total number of tracks	2	
Number of main tracks	2	
Number of other tracks		
Maximum train speed	60	
Typical train speed	60	
Amtrak		NO
If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table I) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If multiple tracks, can two trains occupy crossing at the same time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Can one train block the motorists' view of another train at crossing? <input checked="" type="checkbox"/> Yes (Explain below) <input type="checkbox"/> No		
Can one or more tracks be eliminated through the crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Are there other track(s) crossing this same roadway within 100 ft of this crossing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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: Washington Township		
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	200 (2009)	100 TOTAL? 66 NB 63 SB 7012
Highway paved	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input 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: 14 ft		
Number of highway lanes	2	
Urban or Rural		
Vehicle Speed: 52 MPH		
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <u>4</u> 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 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 type="checkbox"/> No <input type="checkbox"/> Yes													
Are the signals currently interconnected with the existing crossing warning devices? <input type="checkbox"/> No <input type="checkbox"/> Yes													
Is there a 'Do not Stop on Track' sign? <input 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 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="font-size: 1.2em; margin-top: 10px;">WASHINGTON ELM. 3 MI.</div>												
Utility Information													
Is commercial power available? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes													
Utility Provider (Company Name) <u>1ST ENERGY</u> Phone Number _____													
Nearest Available Power Source <u>SOUTH AT HOUSE (KENMORIS)</u>													
What other utilities are present? (add locations to sketch) <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Gas</td> <td><input type="checkbox"/> Cable</td> <td><input type="checkbox"/> Telephone</td> <td><input type="checkbox"/> Fiber Optic Cable</td> </tr> <tr> <td><input type="checkbox"/> Petroleum</td> <td><input type="checkbox"/> Water</td> <td><input type="checkbox"/> Sanitary Sewer</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Other _____</td> <td></td> <td></td> <td></td> </tr> </table>		<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 _____			
<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) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input 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):

Crossing Consolidation or Closure:

Real Estate or ROW:

TWP ?

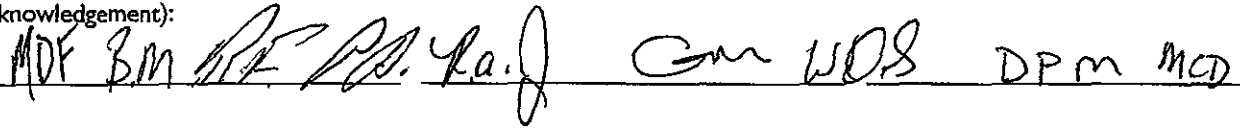
Culverts / Drainage / Ballast Conditions:

Roadway and/or Sidewalks:

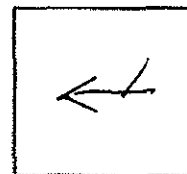
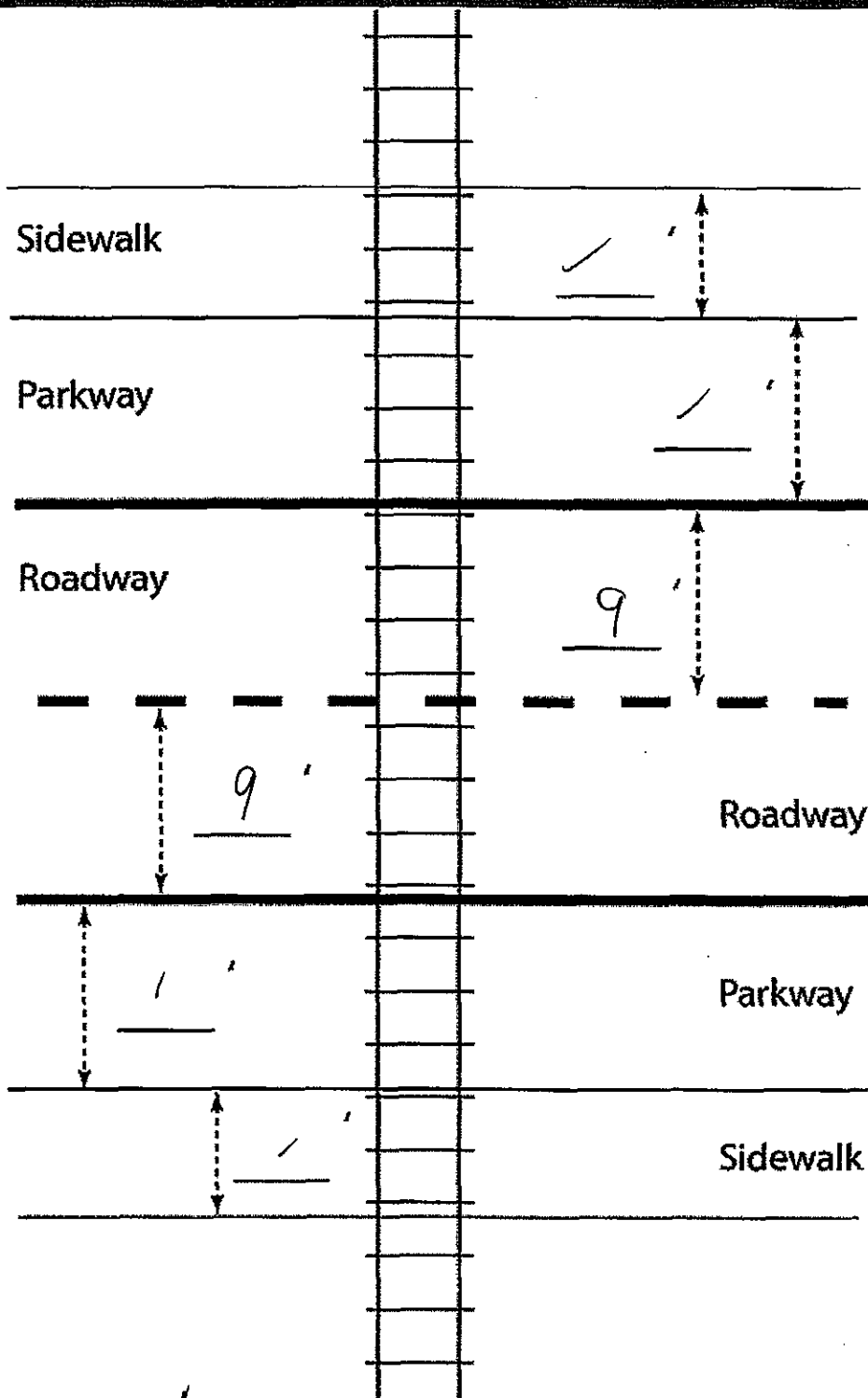
Circuitry (e.g. reaches out to other crossings, specific needs, etc.):

Environmental:

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, SE
<input type="checkbox"/> AFLS / Gates / Cants	
<input checked="" type="checkbox"/> Bells / number	1
<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:	
<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): 	

# Field Dimensions



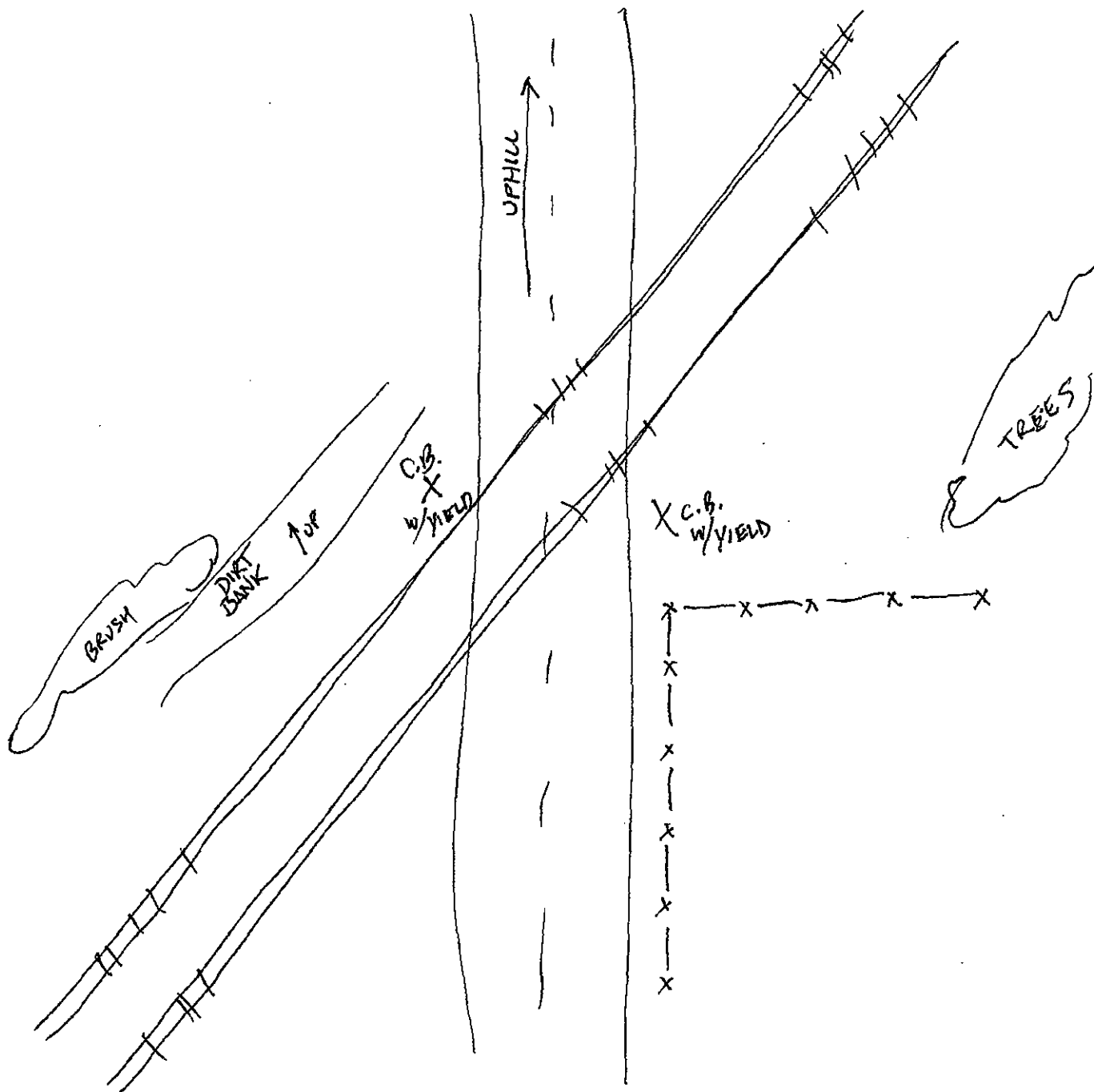
Show North  
Direction

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

Measurements by: MJK

## 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 SW Quadrant?

Sketch by: MDX

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  
INTER-OFFICE COMMUNICATION**

**TO:** George Martin, Rail Division, PUCO  
**FROM:** Cathy Stout, Manager, Safety Section, ORDC  
**BY:** Joe Reinhardt, Project Manager, ORDC  
**SUBJECT:** Ashtabula County, Netcher Road, DOT 503115K  
Norfolk Southern, PID 98264  
**DATE:** June 17, 2015

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

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

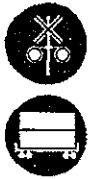
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- any ancillary work to make warning devices function as designed and visible to the roadway user, and
- MUTCD compliance – including minor roadway work if necessary.

Thank you for your assistance with these matters.

Attachment: Diagnostic Review  
Plan & Estimate

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



# OHIO RAIL DEVELOPMENT COMMISSION

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

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

June 17, 2015

Mr. Stephen Klinger  
Public Projects Engineer  
1200 Peach Street NE, Box 123  
Atlanta, Ga. 30309

RE: Ashtabula County, Netcher Road, DOT 503115K  
PID# 98264, NS Project 10.2128

Dear Mr. Klinger:

The plan and estimate dated July 9, 2015, for the referenced project has been reviewed and is acceptable. 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 \$324,631.00. 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 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 Joe Reinhardt, ORDC, email [joe.reinhardt@dot.state.oh.us](mailto:joe.reinhardt@dot.state.oh.us) and 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 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.
3. NS's project foremen will notify Joe Reinhardt at 614-580-7728 (telephone) or [joe.reinhardt@dot.state.oh.us](mailto:joe.reinhardt@dot.state.oh.us) (email) 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.
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5. NS will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.



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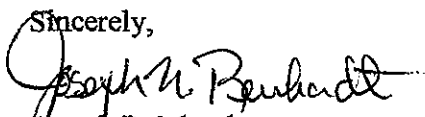
phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

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.
7. This installation will include any ancillary work to make the warning devices function as designed and meet MUTCD.

Thank you for your assistance with these matters.

Sincerely,



Joseph Reinhardt  
Project Manager

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





## Diagnostic Review Team Survey

Reason for Survey:

(e.g. formula, accident, constituent, etc.)

Formula Pick

Date: 5/12/2014

### Location Data

Street or Road Name: Netcher Road			
Route/Road Number (i.e. Twp., Co., SR or US) TR 292		US DOT No.: 503115K	
County: ATB	Township: Denmark	City: (In or Near)	Near Jefferson
Railroad Name: Norfolk Southern	Railroad Division: Pittsburgh	Branch/Line Name: Youngstown LI	
Nearest RR Timetable Station: <u>Jefferson</u> <b>DENMARK</b>		RR Milepost: 11.41	

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

1. MIKE FORTE ORDC 614-374-9287
2. DAVE MIGLETS NORFOLK SO. CVS 330-831-7410
3. Chad Fenstermaker Norfolk So - CVS 330-719-1259
4. GEORGE MARTIN PUCO 614-752-9107
5. DAVE MCILTYRE NES 330-221-6811
6. John Diaz NS 330-314-4433
7. JOE DIAMON PUCO 440-213-5366
8. Frank Williams TRUSTEE 440-858-2418
9. Mark Pichler TRUSTEE 440-858-7773

SEE BACK OF PAGE

### 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
'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 type="checkbox"/> No	NA
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	AGGREGATE
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2 W/YIELD
Inventory Tags	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2
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	

Bob Zink Denmark Iowa Frazier  
Daryl Smith Denmark top Rd. Dept.

Safety Data (Obtain crash reports, if possible, prior to review)		
	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	1 (12/14/2013)	
Hazard Ranking	237 Date Run: 4/9/14	
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	21	<del>12</del> 13
< 1 per day		
Day thru trains	10	3
Night thru trains	9	10
Daytime switching movements	2	0
Nighttime switching movements	0	
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks	0	
Maximum train speed	40	50
Typical train speed		45
Amtrak		No
If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table I) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If multiple tracks, can two trains occupy crossing at the same time? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Can one train block the motorists' view of another train at crossing? <input type="checkbox"/> Yes (Explain below) <input type="checkbox"/> No		
Can one or more tracks be eliminated through the crossing? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Are there other track(s) crossing this same roadway within 100 ft of this crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: Denmark Twp.		
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	96 (2005)	
Highway paved	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Roadway Surface: Blacktop <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Other _____		
Roadway width: 16 ft.		
Number of highway lanes		2
Urban or Rural		
Vehicle Speed: _____ MPH		35
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes 12 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		
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 type="checkbox"/> No <input type="checkbox"/> Yes Are the signals currently interconnected with the existing crossing warning devices? <input type="checkbox"/> No <input type="checkbox"/> Yes Is there a 'Do not Stop on Track' sign? <input 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: _____	
<b>Type of Development</b>	
<input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Institutional <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	Location of nearby schools: <div style="font-size: 1.5em; font-family: cursive;">2 or 3 MILES</div>
<b>Utility Information</b>	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Utility Provider (Company Name) <u>1ST ENERGY / CEI</u> Phone Number _____ Nearest Available Power Source _____	
What other utilities are present? (add locations to sketch) <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Gas  <input type="checkbox"/> Petroleum  <input type="checkbox"/> Other _____         </div> <div> <input type="checkbox"/> Cable  <input type="checkbox"/> Water         </div> <div> <input type="checkbox"/> Telephone  <input type="checkbox"/> Sanitary Sewer         </div> <div> <input type="checkbox"/> Fiber Optic Cable         </div> </div>	
Is(are) there potential utility conflict(s) <input type="checkbox"/> Yes <input type="checkbox"/> No <input 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:

~~TOWNSHIP~~

Real Estate or ROW:

60' Hwy

RR ?

Culverts / Drainage / Ballast Conditions:

No

Roadway and/or Sidewalks:

No

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

No

Environmental:

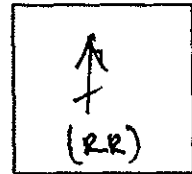
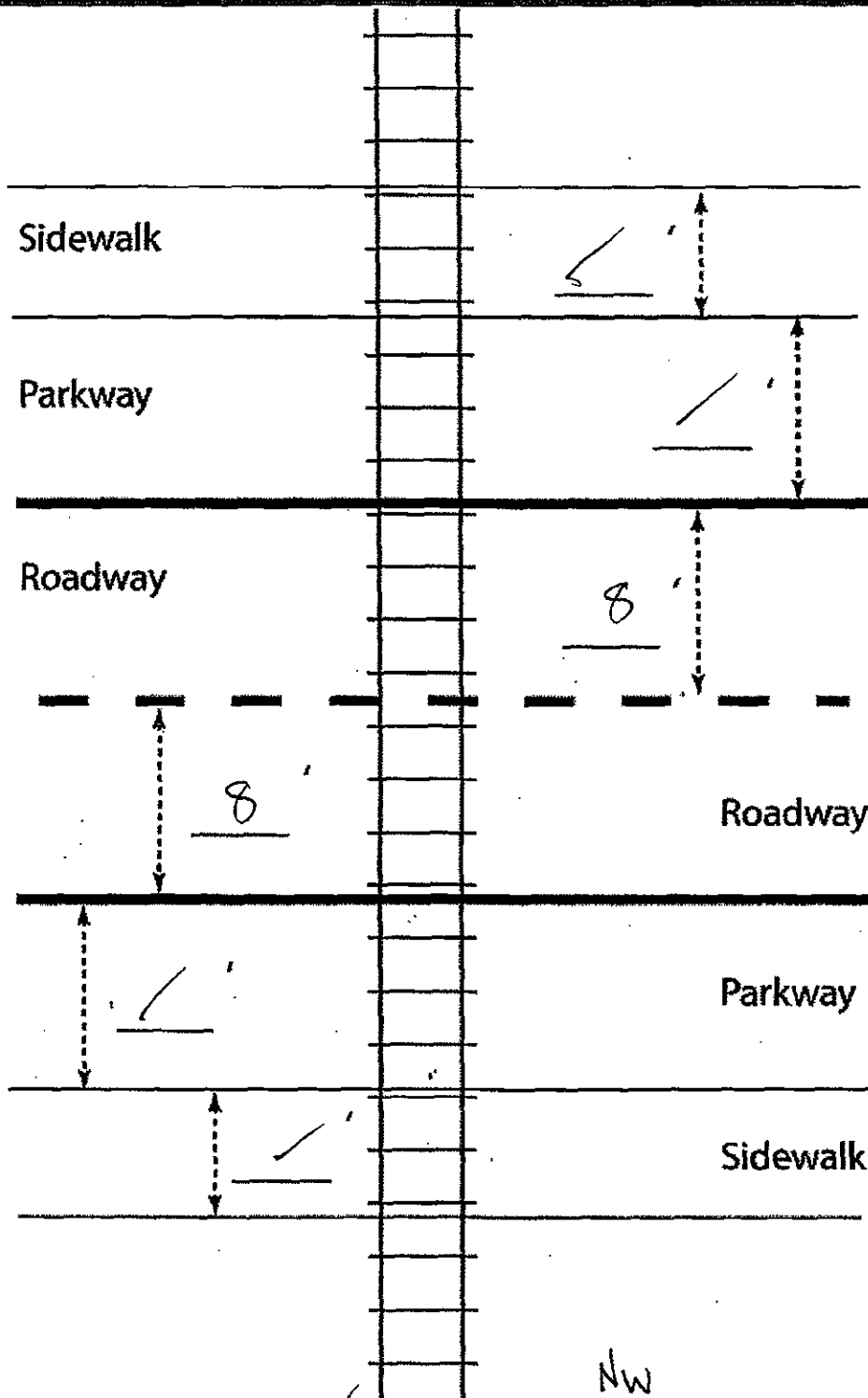
No

Other:

Diagnostic Team Recommendations	
<input checked="" type="checkbox"/> Install/upgrade active devices	Quadrants Needed
<input type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input checked="" type="checkbox"/> AFLS / Gates	NE, SW
<input type="checkbox"/> AFLS / Gates / Cants	
<input checked="" type="checkbox"/> Bells / number	1
<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: USE LED	
<input type="checkbox"/> Install/upgrade traffic signal preemption	
<input type="checkbox"/> No improvements needed	
<input checked="" type="checkbox"/> Other (define)	* EXTEND CULVERT IN SE QUAD ADD ROCK FILL ABOVE TO
Acknowledgement of Recommendations (each entity represented at the diagnostic must have at least one signature SHOULD OF ROAD)	
MDF <i>[Signature]</i> <i>[Signature]</i> <i>[Signature]</i> <i>[Signature]</i> OS <i>[Signature]</i> <i>[Signature]</i> <i>[Signature]</i> JRD <i>[Signature]</i> <i>[Signature]</i> <i>[Signature]</i>	

\* TEAM WAS CONCERNED WITH DEPTH OF DITCH AT  
LOCATION ~~OPPOSING~~ ~~ROAD~~ ROAD EDGE, ACROSS FROM  
NE GATE TIP (WHEN DOWN)

# Field Dimensions



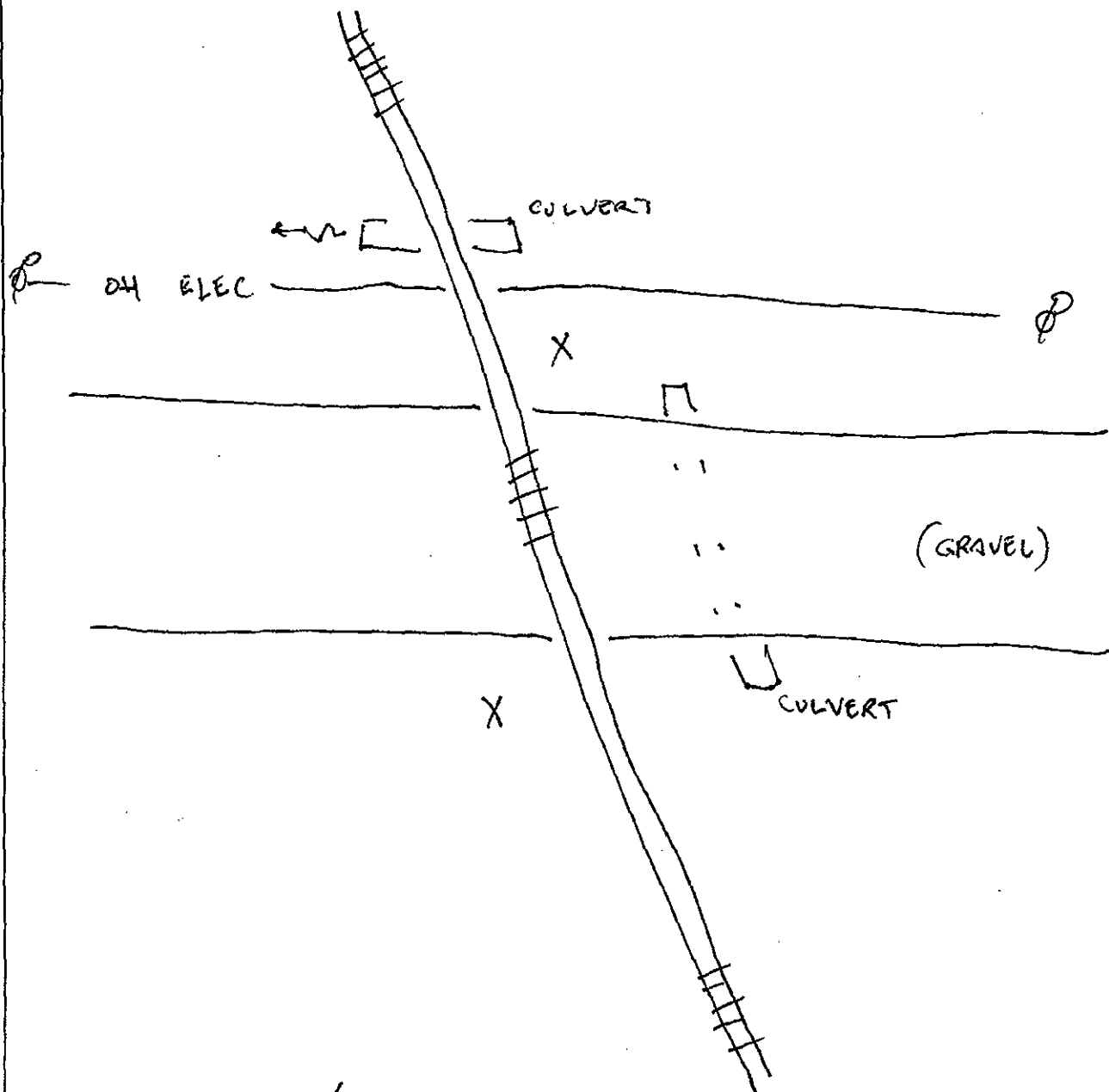
Show North Direction

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

Measurements by: MDF

# Field Sketch

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



X - CROSSBUCK w/YIELD

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

Sketch by: \_\_\_\_\_



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.