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**Public Utilities  
Commission of Ohio**

PUCO

# Memo

**To:** Docketing Division

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

**Re:** In the matter of the authorization of Norfolk Southern Railway to install an active grade crossing warning device in Ashtabula County

**Date:** June 2, 2009

The Ohio Rail Development Commission (ORDC) has authorized funding for Norfolk Southern Railway (NS) to install flashing lights and roadway gates in Ashtabula County, near Andover, US RT 6, DOT# 503-124J. This crossing was surveyed (attached) on April 3, 2009 and found to warrant the upgrade.

This project will be actual cost and will be paid for with federal funds. Staff requests an Entry with plans and estimates to be submitted to the Commission and ORDC within 90 days and completion of the project within one year. Upon approval of the plans and estimates by ORDC construction may commence. A suggested case coding and heading would be:

PUCO Case No. 09- 467 -RR-FED In the matter of the authorization of Norfolk Southern Railway to install an active grade crossing warning device in Ashtabula County

C: Legal Department

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Technician Am Date Processed 6/2/09

Please serve the following parties of record.

Ms Susan Kirkland

Ohio Rail Development Commission

50 W Broad St, 15<sup>th</sup> Floor

Columbus, Oh 43215

Mr Rick Ray

Norfolk Southern Railway

1200 Peachtree St NE, Box 123

Atlanta, Ga 30309


Mr Mark Thomas

ODOT District 4

705 Oakwood St

Ravenna, Oh 44266

## OHIO RAIL DEVELOPMENT COMMISSION INTER-OFFICE COMMUNICATION

**TO:** George Martin, Planner, Railroad Division, PUCO  
**FROM:** Susan Kirkland, Manager, Safety Section, ORDC   
**BY:** Mike Forte', Project Manager, Safety Section, ORDC  
**SUBJECT:** Grade Crossing Warning Device Project  
Ashtabula County, US 6-18.97  
Norfolk Southern Railroad (NS)  
AAR # 503 124J  
**DATE:** June 2, 2009

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The Public Utilities Commission of Ohio (PUCO) selected the subject crossing as a priority selection for warning device improvement in March, 2009. PUCO conducted a diagnostic review on April 3, 2009. The ORDC attended the review.

The ORDC will fund the project at a 100% reimbursement to NS.

Please issue an Order for the upgrade of the crossing with improvements made as directed on the diagnostic form. Please have a copy of the review form added to the PUCO formal docket and distribute copies of the form to both railroads with the PUCO Order.

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.

Thank you for your assistance with these matters.

Attachment (Diagnostic Review)

c: Mike Forte' (file)



## Diagnostic Review Team Survey

Date: 4/3/09 11 AM

Street or Road Name: US 6			
Route/Road Number (i.e. Twp., Co., SR or US) (include SLM if State or US route) 18.97		AAR-DOT No.: 503-124 J	
County: ASHTABULA	Township: CHERRY VALLEY	City: (In or Near) NEAR ANDOVER	
Railroad Name: NS	Railroad Division: PITTSBURGH	Branch/Line Name: YOUNGSTOWN LINE	
Nearest RR Timetable Station: ANDOVER		RR Milepost: 21.14	

(Include: Name - Organization - Phone Number)

1. GEORGE MARTIN PUCO 614-752-9107
2. MIKE FORTÉ ORDC 614-641-0283
3. MARK THOMAS ODOT 330-786-8840
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

### Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs	<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	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Crossbucks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2
Number of Tracks Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2
Cantilever Flashing Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Side Lights	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Automatic Gates	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Number: Length:
Bells	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Sidewalk Gate Arms	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
'No Turn' Signs	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Illumination	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Is crossing flagged by train crew?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Safety Data (Obtain in crash reports, if possible, prior to review)		
	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	1 7/3/08	
Hazard Ranking	Date Run:	
Railroad Data		
Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	21	
< 1 per day		
Day thru trains	10	
Night thru trains	9	
Daytime switching movements	2	
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	40	
Typical train speed		
Amtrak	NO	
If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) <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 checked="" 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 SINGLE MAIN		
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: STATE OF OHIO (Who maintains this roadway?)		
Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	3502 (2006)	
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: <del>24</del> ft. 24 ft 20 ft (26 ft with SHOULDERS)		
Number of highway lanes	2	
Urban or Rural?	RURAL	
Vehicle Speed: 55 MPH		
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes _____ Amount		
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes _____ Amount PROPANE & SEMI'S		
Shoulders: <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes		
Is the shoulder surfaced? <input checked="" type="checkbox"/> No <input checked="" 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
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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 it the consensus of the Diagnostic Review Team that this is a potential closure project? ☒ No ☐ Yes  
 Explain reasons:  

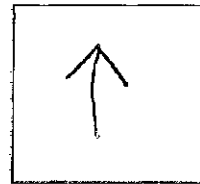
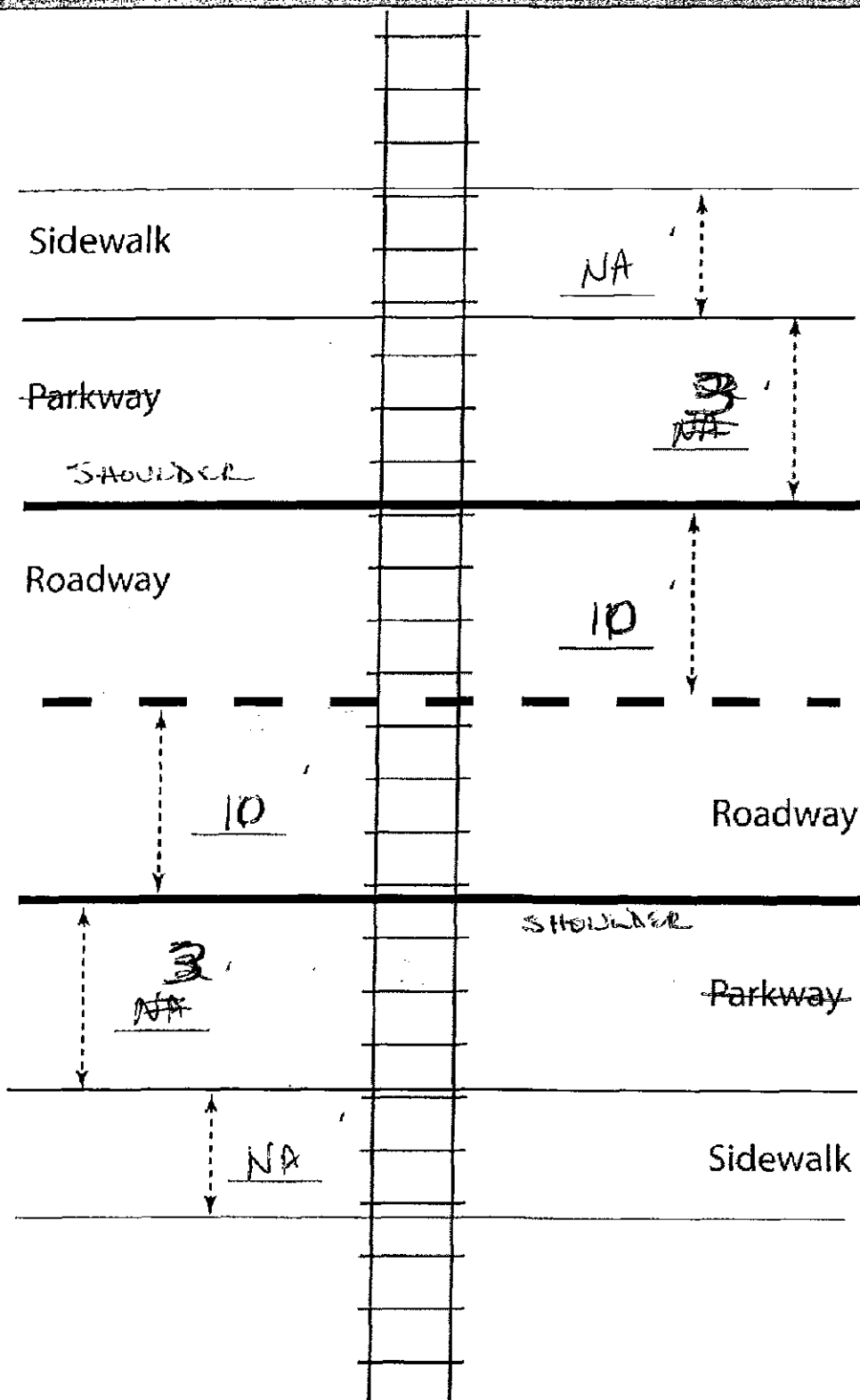
STATE ROUTE

Type of Development		
<input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Commercial FARM'S	Location of nearby schools:

Utility Information	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
Utility Provider (Company Name) <u>OHIO EDISON</u>	Phone Number _____
Nearest Available Power Source <u>117 KING</u>	
What other utilities are present? <u>OH ELECTRIC</u>	
Is there potential utility conflict(s) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	

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

# Field Dimensions

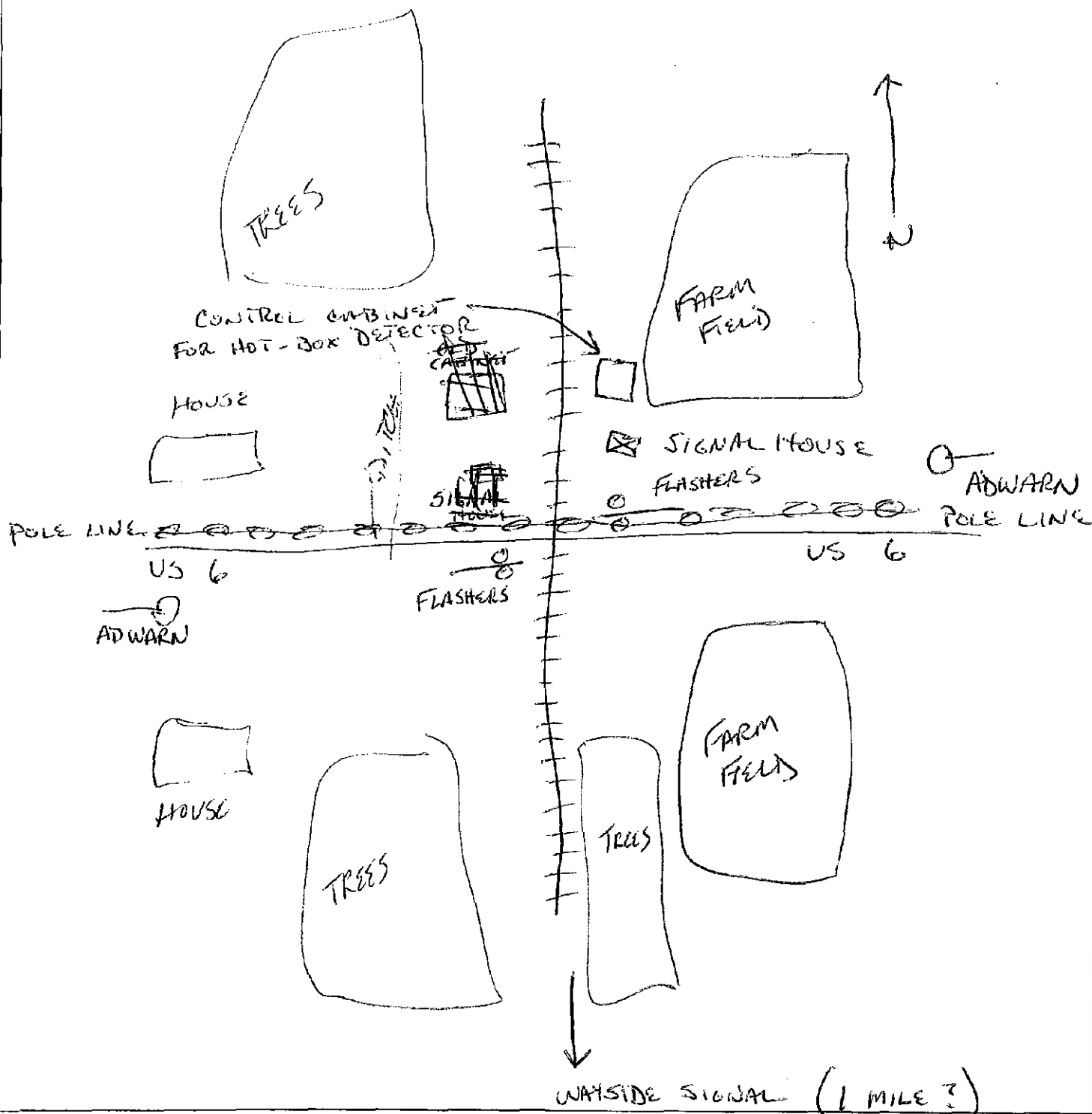


Show North Direction

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

Measurements by: GM

# Field Sketch



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

Sketch by: Gm



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.

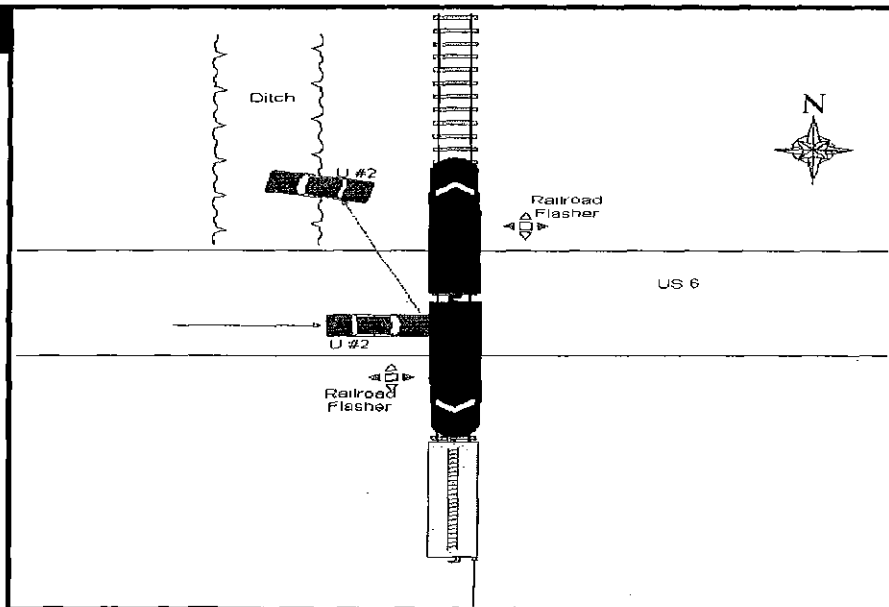
Local Report # 04-0767-04	Crash Severity Injury	Private Property N	Hit/Skip Not Hit/Skip	Photos Taken Y	NCIC # OHP04
Reporting Agency OHIO STATE HIGHWAY P	# Units 2	Unit Error 2	Date and Time of Crash 7/3/2008 12:30:00 PM		
Day of Week THU	City Village Township Township	Name (of City, Village or Township) Cherry Valley	County # 4	Latitude 41 36 24.90	Longitude 80 38 15.14
Crash Occurred On Prefix 0006			Local Information Type Loc Numbered Route		
At / Reference Dist Reference DR Prefix Reference 019.00			Ref Point Mile Post		
Type of Intersection Railway Grade Crossing	Occurrence On Roadway	Road Contour Straight Grade	Road Conditions Primary Wet Secondary Unknown	** Secondary Road Conditions ONLY	

## Police Action

Date and Time Crash Reported 7/3/2008 12:00:00 AM	Dispatch 7/3/2008 12:35:00 PM	Arrived 7/3/2008 1:07:00 PM	Cleared 7/3/2008 2:10:00 PM	Other 230	Total Minutes 325
Officer's Name* PALMER, KEITH	Badge # * 0544	Checked By MAHARMON	Date Report Filed * 9/4/2008 12:00:00 AM		
Report Taken By Police Agency	Report Taken At Scene				

Manner of Collision or Impact Angle	
School Bus Related No	Work Zone Related No
Weather Rain	
Type of Work Zone	Workers Present
Location of Crash in Work Zone	
Light Conditions Primary Daylight Secondary Unknown	

## Diagram



## Narrative

UNIT #1, A TRAIN, WAS NORTHBOUND ON THE RAILROAD TRACKS. UNIT #2 WAS EASTBOUND ON US 6. UNIT #2 FAILED TO STOP AND STRUCK THE SIDE OF THE TRAIN. UNIT #2 THEN SPUN OFF THE LEFT SIDE OF THE ROAD AND INTO A DITCH.



## Traffic Crash Report

Unit #	Owner First	Owner Middle	Owner Last	LP State	LP #
2	VIOLET	M	EVANS	OH	EKM7788
Owner Address		Owner City	Owner State	Owner Zip	Owner Phone #
6758 PYMATUNING LAKE		ANDOVER	OH	44003	4402934866
Year	Make	Model	Color	VIN	
1993	CHEV	CRS			
Insurance Company		In Emergency Response	Speed Detected	Speed	Posted Speed
PROGRESSIVE INSURANC		Unknown			55
Non-Motorist Location		Action	Towing Service	Damage Scale	Direction
UnKnown		Striking	HART'S TOWING	Disabling Damage	West
Type of Unit		Point of Impact	Most Damaged Area	Vehicle Defect	
Mid Size		Center Front	Center Front		
Pre-Crash Actions		Striking Vehicle O/U	Contributing Circumstances	First Harmful Event	Most Harmful Event
Movements Essentially Straight Ahead		No Underride or Override	Failure to Yield	1	1
Traffic Control		Sequence of Events 1	Sequence of Events 2	Sequence of Events 3	Sequence of Events 4
Railroad Flashes		Railway Vehicle	Ran Off Road Left	Ditch	Unknown
Company (From Shipping Papers)		Company Phone	US DOT	ICC MC	PUCO
Address		City	State	Zip	
Trailer LP St.		Trailer LP Year	Trailer LP #	Placard #	# DIA.
Cargo Body Type		CDL Class	Weight (GVWR)	Haz Material Placard	Haz Material Release
Not Applicable				Unknown	Not Applicable

Unit #	First	Middle	Last	Type
2	Violet	M	Evans	Driver
Address		City	State	Zip
6758 PYMATUNING LAKE		ANDOVER	OH	44003
Date of Birth		Age	Sex	Home Phone #
02/17/1972		36	F	4402934866
DL State		DL #	Offense Charged	Injured Taken By
OH		TL274510	4511.62	EMS
Seating Position		Ejection	Offense Description	Air Bag
Front Left (MC Driver)		Not Ejected	DRIVER'S DUTIES RELA	Deployed Front
Citation #				
Y195487				
Condition		Trapped	Safety Equipment	Injuries
Apparently Normal		Not Trapped	Shoulder Lap/Belt	Non-Incapacitating
Air Bag Switch		Not Present		
Alcohol Test Status		Alcohol/Drug Suspected	Alcohol Test Type	Alcohol Test Result
None		None	None	
Drug Test Status		Drug Test Type	Drug Test Result 1	Drug Test Result 2
None		None	None	None

Unit # 1	Owner First	Owner Middle	Owner Last	LP State	LP #
			NORFOLK SOUTHERN RAILWAY	NS	2643
	Owner Address	Owner City	Owner State	Owner Zip	Owner Phone #
	425 HOLIDAY DR 300	PITTSBURGH	PA	15220	
	Year	Make	Model	Color	VIN
	2005	UNK	UNK		
	Insurance Company	In Emergency Response	Speed Detected	Speed	Posted Speed
	SELF INSURED	Unknown	Stated	40	40
	Non-Motorist Location	Action	Towing Service	Damage Scale	Direction
	UnKnown	Struck	NONE	None	South
	Type of Unit	Point of Impact	Most Damaged Area	Vehicle Defect	
	Train	Right Front	None		
	Pre-Crash Actions	Striking Vehicle O/U	Contributing Circumstances	First Harmful Event	Most Harmful Event
	Movements Essentially Straight Ahead	Unknown	None	1	1
	Traffic Control	Sequence of Events 1	Sequence of Events 2	Sequence of Events 3	Sequence of Events 4
	Railroad Flashes	Motor Vehicle in Transport	Unknown	Unknown	Unknown
	Company (From Shipping Papers)	Company Phone	US DOT	ICC MC	PUCO
	Address	City	State	Zip	
	Trailer LP St.	Trailer LP Year	Trailer LP #	Placard #	# DIA.
	Cargo Body Type	CDL Class	Weight (GVWR)	Haz Material Placard	Haz Material Release
	Not Applicable			Unknown	Not Applicable

Unit # 1	First	Middle	Last	Type
	Address	City	State	Zip
	Date of Birth	Age	Sex	Home Phone # #Error
	DL State	DL #	Offense Charged	Injured Taken By Transported By
	Seating Position	Ejection	Offense Description	Air Bag Citation #
	Condition	Trapped	Safety Equipment	Injuries Air Bag Switch
	Alcohol Test Status	Alcohol/Drug Suspected	Alcohol Test Type	Alcohol Test Result
	Drug Test Status	Drug Test Type	Drug Test Result 1	Drug Test Result 2

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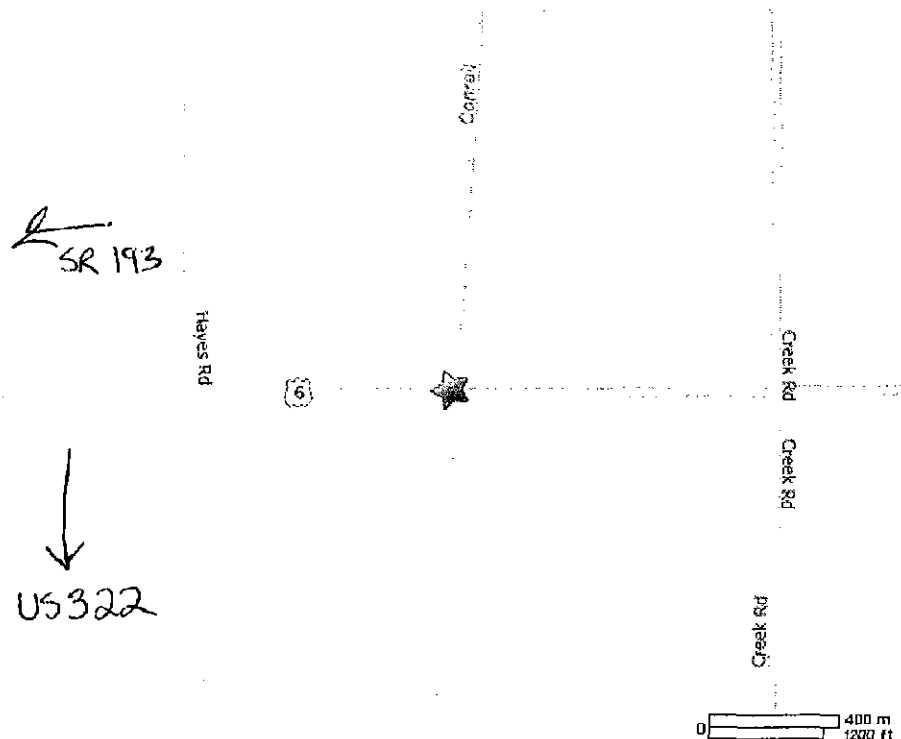
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Longitude: -80.6375229

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4/3/09

11 AM

ASHTABULA

~~677~~ NS

US 6

503-1245

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71-271- US 322 - SR193 N-  
TURN RIGHT ON US 6

MARK THOMAS- ODOT

330-472-7968

CENTRAL 330-786-4840

11 AM