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 the City of Alliance, Stark County

Date: February 27, 2014
The Ohio Rail Development Commission (ORDC) has authorized funding for Norfolk Southern Railway (NS) to install mast-mounted flashing lights and gates at Stark County, City of Alliance, Keystone St, 503012K.

On March 8, 2011, the crossing at Park Ave., DOT\# 503011D, was surveyed due to its hazard rank. Due to the roadway configuration of Park, Keystone, and the NS tracks, the survey team determined that five gates with flashing lights would be needed to upgrade the location.

On September 8, 2012, a second survey was conducted at the crossing. The determination was made to close Park Ave north of the tracks, and upgrade Keystone St. Park Ave was closed as of November 18, 2013.

The project will be paid for with federal funds, and is actual cost. As the plan and estimate for the project has been submitted and approved, staff requests an Entry with completion due 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. 14- 537 -RR-FED In the matter of the authorization of Norfolk Southern Railway to install an active grade crossing warning device in the City of Alliance, Stark County
C. Legal Department

Please serve the following parties of record.




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rechniciam At
- Page 1

\section*{Ms Cathy Stout}

Ohio Rail Development Commission
1980 W Broad St, Mailstop \# 3140
Columbus, Oh 43223

Ms Cayela Wimberly
Norfolk Southern Railway
1200 Peachtree St NE, Box 123
Atlanta, Ga 30309-3597

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

Mr Curtis Bungard, PE
City of Alliance Engineer
504 E Main St
Alliance, Oh 44601

Ohio Edison

\title{
OHIO RAIL DEVELOPMENT COMMISSION INTER-OFFICE COMMUNICATION
}

\author{
TO: Randall Schumacher, Rail Division Chief, PUCO \\ FROM: Cathy Stout, Manager, Safety Section, ORDC \\ BY: \\ Mike Forte', Project Manager, ORDC Wpots \\ SUBJECT: Keystone Street \\ City of Alliance, Stark County \\ Norfolk Southern \\ US DOT 503 012K \\ PID 94369 \\ DATE: February 24, 2014
}

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on March 8, 2011 and September 8, 2012. 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.

\section*{Attachment: Diagnostic Review \\ Plans \& Estimates}
c: George Martin, PUCO
Susan Arduini, ORDC
ORDC Project Manager (file)


Mail Stop \#3140, 1980 West Broad Street, Columbus OH 43223
John R. Kasich, Governor • James G. Bradley, Chairman

February 24, 2014

Ms. Cayela J. Wimberly
Norfolk Southern Railway
Public Projects Engineer
1200 Peachtree Street, Box 123
Atlanta, Ga. 30309

RE: Grade Crossing Warning Project
Keystone Street, USDOT 503 012K
City of Alliance, Stark County
PID 94369

Dear Ms. Wimberly:
The plan and estimate submitted with your November 6, 2013 letter, for the referenced project has been reviewed and is acceptable. Norfolk Southern (NS) may proceed with the construction of the proposed grade crossing waming 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 \(\$ 408,060.00\). 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. 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 Forte, Ohio Rail Development Commission (ORDC), email 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.

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 Forte 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

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

OHIO RAIL DEVELOPMENT COMMISSION
Mail Stop \#3140, 1980 West Broad Street, Columbus OH 43223
John R. Kasich, Governor • James G. Bradley, Chairman


February 26, 2013

Mr. John Gross
Director of Public Safety \& Service
City of Alliance
504 E. Main Street
Alliance, OH 44601
Norfolk Southern Railway Company
Ms. Cayela Wimberly
Administrator Highway Grade Crossing Modifications
1200 Peachtree Street
Atlanta, GA 30309-3597

Subject: Grade Crossing Consolidation, Closure and Warning Device Modifications
Stark County, City of Alliance, PID 94369
Closure: Park Avenue, DOT\# 503011D
Modifications: Keystone Street, DOT\# 503012K

Dear Ms. Wimberly and Mr. Gross:
A diagnostic review was conducted at the Park Avenue grade crossing on \(3 / 8 / 2011\). The diagnostic review indicated that both the Park Avenue and Keystone Street grade crossings should be addressed for safety modifications with one crossing being closed and one crossing being modified.

Subsequently the City agreed to the closure of Park Avenue and with modifications at the Keystone Street crossing and incentives from NS and ORDC. Following receipt of public input, the City has enacted an Ordinance number 81-12, dated August 27, 2012, that expresses its commitment to this action, the form and substance of which are acceptable to ORDC and PUCO.

This Letter Agreement sets forth the scope of the project and the understanding of all parties to the Letter Agreement.

This project shall be completed in accordance with Agreement Number 17450, Master Agreement for the Modification of Warning Devices between NS and State of Ohio, dated December 19, 2012 (attached) and incorporated as if fully rewritten herein. The City agrees to
the meet the provisions of Agreement Number 17450 as they pertain to any work to be performed or caused to be performed by the CITY unless otherwise provided for in this Letter Agreement.

The work to be performed, incentives and cost allocations are as follows:
\begin{tabular}{lll} 
Highway ID & DOT \(\#\) & Modification \\
Park Avenue & 503011 D & \begin{tabular}{l} 
Permanent closure of the roadway to all vehicular \\
and pedestrian traffic of any kind
\end{tabular}
\end{tabular}

The CITY shall install guardrails on each side of the tracks, at the grade crossing to be closed. This work must be completed within ninety (90) days of a Construction Authorization being issued by ORDC. Construction Authorization will be issued upon execution of this Agreement and the securing of federal funds by the ORDC. The guardrails shall be in conformance with the Manual on Uniform Traffic Control Devices ("MUTCD").

The application of barricades on public right of way at the NS right-of-way and removal of roadway surface approaching the closed Park Avenue crossing may be accomplished by CITY forces or contracted out by the CITY. Appropriate MUTCD signage shall be installed by the CITY in conjunction with the guardrails. The cost of this work shall be on a reimbursement basis from ORDC to CITY and is limited to \(\$ 4,000\).

The CITY shall remove the advance warning signs and pavement markings from the crossing to be closed. The actual costs for the removal of advance warning signs and pavement markings for the grade crossings to be closed will be borne one hundred percent ( \(100 \%\) ) by the CITY

NS shall remove all pavements from the crossing area within NS right-of-way and remove all existing warning devices from the crossing to be closed. The actual costs for the removal of warning devices at the grade crossing to be closed will be borne one hundred percent ( \(100 \%\) ) by NS.
\begin{tabular}{lll} 
Highway ID & DOT \# & Modifications \\
Keystone Street & 503012 K & Installation of Flashing Lights and Roadway Gates
\end{tabular}

The Modifications to the Keystone Street warning devices will be borne one hundred percent ( \(100 \%\) ) by ORDC using federal funds. The total actual cost of these Modifications borne by the ORDC shall not be greater than three hundred and eighty thousand dollars \((\$ 380,000.00)\) without prior written authorization.

\section*{Incentives}

NS and ORDC will provide the following incentives to the CITY:
1) The payment of funds in the amount of \(\$ 28,500\) solely from NS to the CITY which may be used in any manner desired by the CITY. The \(\$ 28,500.00\) payment from NS will be delivered to the CITY following the permanent closure of the Park Avenue crossing unless otherwise agreed between NS and the CITY.
2) The payment of incentive funds the amountof \(\$ 5000\) beng comprised of \(\$ 500\) from the OROCand \(\$ 7,500\) from NS, to the CHY These fugs must bemused for highway softy. improvement project preaphoved by ORDC. The CIX Shall provide witter certification to the ORDC flat the Improvements have been complied whin ono (i) year of payment of the incentive funds. If the safety improvements are no completed with one (1) year of the incentive payment the CIS shill promptly return fie ficentive payment of \(\$ 7,50000\) to the ORDO.

In total the actual costs to tome by ORDC se forth this Letter Agreement shall not be greater than three hundred and ninety one thousand, five hundred dollars \((391,50000)\) unless an ORDC-4Broved change order is issued for the Modifications to the Keystone Street waring devices:

This Letter Agreementand the approved plans constitute the scope of the project NS shill notify ORDC in writing of any changes in the scope of work which ie not in the approved plans and estimates and secure approval in writing of same before the work is performed.

PE will not be commenced by NS Dior to OADC iSsuing a P authorization PE will be submitted by NS Lo OROC within ninety \((90)\) days or otter time specified by OROC in the PE authorization Construction vilinot be commenced by NS prior to OR EC Ssuinpa construction authorization Constaction will be completed by NS within nile ( \()\) ) months or other the specified un the time specified by ORDE in the construction authorization.

Please indicate your acceptance of the terms and conditions of this Letter Agreement by signing and retuning one (1) copy to me at the address listed above and retain a copy for your files. This Agreement may be executed in one or more counterparts, each of which shall bo deemed to be a duplicate of gina but all of which taken together shall be deemed to constitute a single Agreement.


Mathew R Dietrich
Executive Director


Milan Orbovich
Director of Transportation
Public Utilities Cominuission of Ohio


Title: prang sure gent kaveraton

City of Alliance
By:
Title:
\(\qquad\)
\(\qquad\)

\title{
Diagnostic Review Team Survey
}

Date: 318 Ill 10 Am
Location Data
Street or Road Name:
PARK AVE



\section*{On-Site Review Team}


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


\section*{Roadway Data}

Local Highway Authority: (Who maintains this roadway)

\begin{tabular}{|c|c|}
\hline \begin{tabular}{l}
Quadrant \(\qquad\) \\
Curb and Gutter: \(\square\) Functional (Curb height \(\approx 4^{\prime \prime}\) or more)
Non-functional (Curb height \(=\) Less than 4")
None
\end{tabular} & \begin{tabular}{l}
Quadrant \(\qquad\) \\
Curb and Gutter: \(\square\) Functional (Curt height \(=4^{\prime \prime}\) or more)
Non-functional (Curb height = Less than 4") None
\end{tabular} \\
\hline Pedestrians: \(\square \mathrm{No}\) Q Yes & \\
\hline is sidewalk present? \(\square\) No QYes BUT off & \(x \ln 6\) \\
\hline \begin{tabular}{l}
Is there a nearby intersection that could cause queuing over the If yes, \\
Distance \(\qquad\) \\
Is this intersection signalized? \\
8 No Yes \\
Are the signals currendy interconnected with the existing cros
\end{tabular} & \begin{tabular}{l}
ossing: \(\square\) To \(\square\) Yes \\
g warning devices? \(\square\) 18 No Yes
\end{tabular} \\
\hline Is it the consensus of the Diagnostic Review Team that this is a p Explain reasons:
POIENTAL IS FOR & tential closure project \(X\) No \(\square\) Yes Sure of k\&HSTON ST. \\
\hline Type of Development & \\
\hline \begin{tabular}{ll|l}
\hline Open Space & \(\square\) Insticutional & Location of nearty \\
\(\square\) industrial & \(\square\) Commercial & \\
\(\mathbb{X}\) Residential & & \\
\hline
\end{tabular} & schools: \\
\hline Utility Information & \\
\hline \begin{tabular}{l}
is commercial power available? \(\square\) No XYes \\
Utility Provider (Company Name) \(\qquad\) OHio Enisons \\
Nearest Available Power Source \(\qquad\) AT Xinto \\
What other utiities are present? \(\qquad\) \(U \underline{1}\) 6 Fibse \\
Is there potential utility conflict(s) \(\square\) Yes
\end{tabular} & \begin{tabular}{l}
Phone Number \(\qquad\)
设 \\
own
\end{tabular} \\
\hline Diagnostic Team Recommendations & \\
\hline / & Quadrants Needed \\
\hline -7 Install/upgrade active devices & \\
\hline \(\square\) Automatic Flashing Lights (AFLS) & \\
\hline \(\square\) AFLS/Cants & \\
\hline 2 AFLS/Gates & 5 Gtics \\
\hline \(\square\) AFLS / Gates / Cants & \\
\hline \(\square\) Upgrade circuity & \\
\hline \(\square\) Sidelights & \\
\hline \(\square\) Guardrail Needed & \\
\hline \(\square\) Install/Replace curb & \\
\hline [ Other (define) & \\
\hline Comments: & \\
\hline & \\
\hline & \\
\hline \(\square\) Instaif/upgrade traffic signal preemption & \\
\hline \(\square\) No improvements needed & \\
\hline \(\square\) Other (define) & \\
\hline
\end{tabular}



TABIE I
Clearing Sight Distances
\begin{tabular}{|c|c|}
\hline \begin{tabular}{c} 
Maximum Authorized Train \\
Speed
\end{tabular} & \begin{tabular}{c} 
Discance (dT) Along \\
Rairoad from Crossing (ft)
\end{tabular} \\
\hline \(1-10\) & 240 \\
\hline 15 & 360 \\
\hline 20 & 480 \\
\hline 25 & 600 \\
\hline 30 & 720 \\
\hline 35 & 840 \\
\hline 40 & 960 \\
\hline 45 & 1080 \\
\hline 50 & 1200 \\
\hline 55 & 1320 \\
\hline 60 & 1440 \\
\hline 65 & 1560 \\
\hline 70 & 1680 \\
\hline 75 & 1800 \\
\hline 80 & 1920 \\
\hline 85 & 2040 \\
\hline 90 & 2160 \\
\hline
\end{tabular}

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

\section*{Notes:}

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

Distances indicated are for 65-ft double botrom semi-tractor trailers and level single track 90 degree erossings; 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
\begin{tabular}{|c|c|}
\hline Highway Vehicle Speed & \begin{tabular}{c} 
Distance (dH) Along Roadway \\
from Crossing (ft)
\end{tabular} \\
\hline 0 & na \\
\hline 5 & 50 \\
\hline 10 & 70 \\
\hline 15 & 105 \\
\hline 20 & 180 \\
\hline 25 & 285 \\
\hline 30 & 280 \\
\hline 35 & 340 \\
\hline 40 & 410 \\
\hline 45 & 490 \\
\hline 50 & 570 \\
\hline 55 & 660 \\
\hline 60 & 760 \\
\hline 65 & 865 \\
\hline 70 & \\
\hline
\end{tabular}

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

\section*{Notes:}

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

Discances 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.
\[
\text { SIPTKK, ND, KAOZK AVE, } 303011 D
\]



\section*{Narrative}

Unit 1 was travelling northbound on N. Park and stopped on the railroad tracks at the intersection of E. Keystone. Unit 2. was travelling eastbound on the railroad tracks. Unit 1 attempted to back off the railroad tracks and was struck by Unit 2. OH-2 completed.

\begin{tabular}{ll} 
From: & Forte, Mike \\
Sent: & Monday, September 24, 2012 2:21 PM \\
To: & Curtis Bungard (bungardcd@allianceoh.gov); Cayela Wimberly; Casey Talbott, Rob \\
Cc; & Reustle \\
Subject: & Leah Dalton; George Martin; Stout, Catherine; Kirkland, Susan \\
& Follow Up Diagnostic at the Keystone/Park-NS Grade Crossing 503 011D, City of \\
& Alliance
\end{tabular}

Among those attending the on-site meeting September 18, 2012 were:
Rob Rustle (PUCO)
Curtis Bungard (City of Alliance)
Wayne McCauley (NS)
Cathy Stout (ORDC)
Mike Forte' (ORDC)
Other persons from the city also attended.
The Diagnostic Team recommended the following:
In the northeast quadrant of Keystone Ave. \& NS: NS will install a flashing light signal and roadway gate at NS/MUTCD standard offsets with the gate perpendicular to the highway. The city will remove vegetation in the Keystone Ave. right of way that reduces preview of the flashing lights for west bound traffic. NS should place an obstruction in the railroad right of way to discourage improper vehicle movement between Keystone Ave. and Park Ave (the flat ground in this area is largely stone and pavement).

In the southwest quadrant Keystone Ave. \& NS (east of Park Ave.): NS will install a flashing light signal, including an auxiliary set of one way flashers, and roadway gate with a circular guardrail about \(16^{\prime}\) from the center of near NS track. The warning device will be offset from the highway travel way about \(9^{\prime}\). There is a \(4^{\prime}\) paved shoulder; \(2^{\prime}\) of the shoulder will need to be removed to comply with MUTCD offset requirement. The auxiliary lights will be positioned for preview by north bound traffic on Park Ave.

Park Ave. north of the NS tracks: The city will install guardrail, signs, and make highway pavement modifications. This will be north of NS right of way.

Park Ave, between Keystone Ave, and NS tracks: During the meeting the Team marked a line on the pavement from the north edge of Keystone Ave., east of the tracks to a point west of Park Ave between the north edge of Keystone Ave. and the sidewalk. This line should be considered the proposed edge of highway pavement dthe new north edge of pavement of Keystone Ave., after Park Ave. in closed). NS should consider the edge of Keystone Ave. crossing a few feet north of this line (crossing are normally a little wider then highways). The city will install guardrail a few feet north of the edge of pavement line. The east terminus of the guardrail will not be cioser than \(8^{\prime}\) from the center of the near track (measured perpendicular). The west terminus will be west of the Park Ave. pavement edge.

Park Ave. railroad crossing: NS will remove the Park Ave. crossing and pavement within NS right of way. NS should make a saw cut at the Keystone crossing edge before removing the pavement.

I request that all Diagnostic Team participants confirm that the above is an accurate summation of the Team's recommendation.

Mike Forte'
Ohio Rail Development Commission
Cell 614.374.9287```

