

Memo

To: Docketing Division
From: Jill Henry, Rail Specialist, Rail Division
Cc: PUCO Legal Department
Date: 11/21/16



Re: PUCO Case No. 16- 2203-RR-FED- In the Matter of a Request for the Installation of Active Warning Devices at the RJ Corman Railroad Crossings, Zeltman Avenue NE DOT# 142-584M & 12th Street NE DOT#142-583F, in Tuscarawas County, Ohio.

On November 3, 2016, the Ohio Rail Development Commission (ORDC) authorized funding for RJ Corman Railroad to install lights and gates at Zeltman Avenue NE DOT# 142-584M & 12th Street NE DOT#142-583F, in Tuscarawas County, Ohio. The crossings were surveyed on October 19, 2015 and were found to warrant the upgrades. The electric utility provider for these crossings is American Electric Power-Ohio Power.

The projects will be paid for with federal funds and are actual cost. The plans and estimates for the projects in the amount of \$124,360.52 for Zeltman Avenue NE and \$121,516.87 for 12th Street NE have been approved. Construction may commence at once. **Staff requests a Finding & Order with completion of the projects in nine months.** Staff requests that the following language be incorporated in the Finding & Order:

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.

Please serve the following parties of record:

RJ Corman Railroad
James Kelley
Funded Projects Coordinator
P.O. Box 788
101 RJ Corman Drive
Nicholasville, KY 40356

RJ Corman Railroad
Deborah Hawley
Funded Projects Coordinator
P.O. Box 788
101 RJ Corman Drive
Nicholasville, KY 40356

Ohio Rail Development Commission
Cathy Stout
Safety Manager
1980 West Broad Street
Mail Stop #3140
Columbus, Ohio 43223

Village of Strasburg
Ron Lambert
Administrator
358 5th Street SW
Strasburg, Ohio 44680

American Electric Power- Ohio Power

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

TO: Randall Schumacher, Supervisor, Rail Division, PUCO
FROM: Cathy Stout, Manager, Safety Section, ORDC
BY: James Tucker, Project Manager, ORDC
SUBJECT: Tuscarawas County, 12th St. NE. DOT#142583F, PID#101962.
DATE: November 3, 2016

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on October 19, 2015. 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
Plan & Estimate

c: Jill Henry, 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

November 3, 2016

Mr. James Kelley
Funded Projects Coordinator
RJ Corman Railroad Group LLC
PO Box 788
101 RJ Corman Drive
Nicholasville, Ky 40356

RE: Tuscarawas County, 12th Street NE, DOT#142583F, PID#101962.

Dear Mr. Kelley:

The bid process for the referenced project has been reviewed and is acceptable. RJ Corman 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 \$121,516.87. 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 but must be confirmed in writing within ten (10) business days of the verbal approval.

This authorization is contingent upon RJ Corman accepting the following instructions:

1. RJ Corman's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to James Tucker, ORDC, email james.tucker@dot.ohio.gov, and to the Public Utilities Commission of Ohio, email jill.henry@puc.state.oh.us. RJ Corman'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. RJ Corman 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 RJ Corman.
3. RJ Corman's project foremen will notify James Tucker at 614-398-6897 (telephone) or james.tucker@dot.ohio.gov (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.



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

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. RJ Corman will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Purchase Order to reference when billing.
6. RJ Corman 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,



James Tucker
Project Manager

Attachment: ODOT P.O.

C: Randall Schumacher, Supervisor, Rail Division, PUCO
Jill Henry, Grade Crossing Planner, PUCO
ORDC (file)

APPROACH DISTANCE 1,139' = 30 SEC + 1 SEC CL @ 25MPH

RAILROAD TIMETABLE NORTH TO CSXT WARWICK TERMINAL

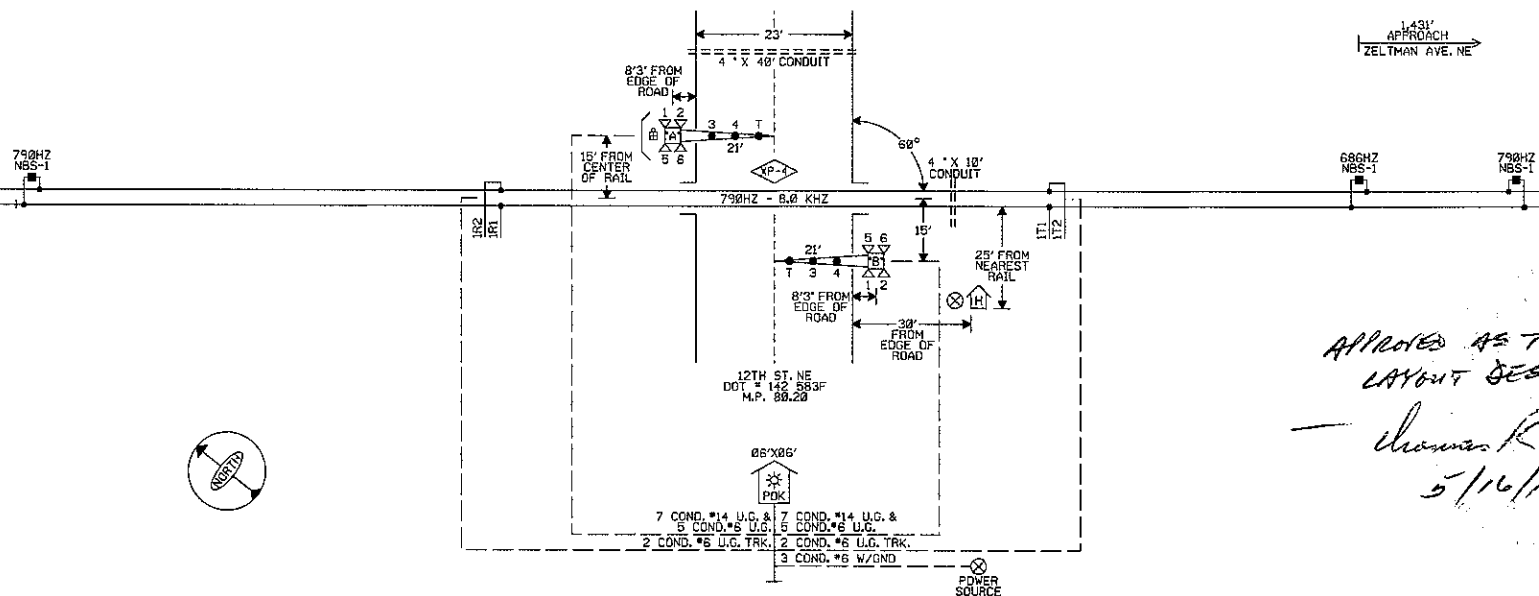
50' MIN. FROM EDGE OF ROAD

120' MIN.

50' MIN. FROM EDGE OF ROAD

APPROACH DISTANCE 1,139' = 30 SEC + 1 SEC CL @ 25MPH

RAILROAD TIMETABLE SOUTH TO WARRICKSVILLE



APPROVED AS TO SIGNAL LAYOUT DESIGN ONLY

— Charles R. Young

5/16/14

CONSTRUCTION NOTES:

1. INSTALL T-RX7100 RAIL SHUNT AUGMENTER. CANNOT INSTALL INSULATED JOINT ON SOUTH SIDE OF XING DUE TO OVER LAPPING SHUNTS.
2. ADD BERM WALL AND FILL DIRT FOR SIGNAL "A".

NOTES:

1. TRANSMITTER WIRE T1 & T2 MUST BE RUN TO THE TRACK BUNGALOW SIDE OF THE CROSSING.
 2. APPROACH DISTANCES ARE TO BE MEASURED FROM CIRCUIT FEED POINTS.
 3. = HOUSE LOCATION
 4. = POWER SOURCE LOCATION
 5. ALL LAMPS ARE 12" LED.
 6. ALL DIMENSION OFFSETS ARE PER AREMA SPECIFICATIONS TO MEET MINIMUM STANDARDS.
- = BERM WALL, 4 FT.

REV: 6

REV: 5

REV: 4

REV: 3

REV: 2

REV: 1

Rj Corman Signaling, LLC

101 RJ CORMAN DRIVE
NICHOLASVILLE, KY 40358

RJ CORMAN RAILROAD

DESIGNED BY: RJC
DIGITIZED BY: RJC
CHECKED BY: RJC

12TH STREET NE
STRASBURG, OH
TRACK LAYOUT

DATE: 02/22/16
FILE: CL0020.01
SHEET 01 OF 01



RJ CORMAN RAILROAD GROUP

A LIMITED LIABILITY HOLDING COMPANY
101 RJ Corman Drive • PO Box 788 • Nicholasville, KY 40340-0788
(859) 881-7521 • Fax: (859) 885-7804 • www.rjcorman.com



September 28, 2016

Vendors,

You are invited to submit a quote to provide and install new pre-wired and shop-tested signal bungalows, flashing lights and gates, with associated materials and equipment for the highway grade crossings listed below:

Zeltman Avenue NE, Tuscarawas County, OH, DOT 142584M, as shown on attached Preliminary Sheet CL7980.01

12th Street NE, Tuscarawas County, OH, DOT 142583F, as shown on attached Preliminary Sheet CL8020.01

Enclosed bid package also includes material requirements, as well as bidding guidelines. All bids must be submitted on company letterhead and received by **5:00 pm EST, Thursday, October 13, 2016**. Please submit via email to James.Kelley@RJCorman.com or by mail to PO Box 788, Nicholasville KY 40340, Attn: Jimmy Kelley.

If you have any questions regarding this bid request, please don't hesitate to contact me.

Scope:

Vendor will provide engineering, design services, materials, freight, labor and equipment for installation of a pre-wired 6' x 6' bungalow, flashing light signals and roadway gates. All circuit plans for the new highway crossing warning system will be done in Micro Station V8i unless otherwise compatible software. Other existing drawings that require circuit changes associated with the installation will be revised or redrawn using Micro Station V8i unless otherwise approved. On project completion, vendor is to supply a copy of all Micro Station design files on CD, and three sets of as built prints.

Bungalow shall be PTMW, Inc. aluminum and have drop-down style foundations. Bungalow shall be fully insulated and include the following:

- AC breaker panel (100 AMP, 220VAC, single phase service).
- Main terminal board.
- 4" PVC pipe cable risers.
- Wire chases per
- Plug-in relay rack (if needed).
- Fluorescent lighting.
- Wall shelf for plans and user reference manuals.
- Adjustable resistors as required.
- Lightning arresters
- ERICO EPD 120/240TDFL surge protection
- LED Power off indicator, and LED crossing activation indicator.
- Train detection equipment as specified.
- Crossing control as specified.
- Rail shunt augments if required.
- Battery chargers and batteries as specified.

Vendor will provide all necessary equipment, inside and outside, of bungalow. Vendor is to provide material delivery to each location. Once awarded a Purchase Order will be issued. Shipping to begin as soon as possible but no later than 90 days.

General Guidelines:

1. Signal design guidelines, enclosure, equipment, materials, wiring practices and installation shall comply with all applicable MUTCD, FRA and state regulations, and follow current AREMA C&S Manual for Recommended Practices.
2. Only new materials will be provided.
3. Daily work reports should be prepared by Contractor and presented when complete.
4. Payment will be made after work is inspected by the Railroad's authorized representative.
5. Project shall be completed within 150 days from purchase order date.
6. Contractor and personnel must wear personal protective equipment (hard hats, steel-toed boots, safety glasses, reflective vests and other job appropriate equipment).

Insurance Requirements:

Prior to commencing the Work, Contractor shall obtain and maintain during the term of this Agreement, in addition to any other form of insurance or bond required by statute, the following types of insurance:

- Commercial general liability, including bodily injury, property damage, personal and advertising injury liability, and contractual liability covering operations, independent contractor and products/completed operations hazards, with limits of not less than \$10,000,000 combined single limit per occurrence and \$10,000,000 annual aggregate. There should not be an exclusion for work within 50 feet of a railroad track;
- Workers' compensation as provided for under any workers' compensation or similar law in the jurisdiction where work is performed;
- Automobile Liability Insurance, including coverage for coverage for both personal injury and property damage, with limits of not less than \$2,000,000 per occurrence and \$5,000,000 annual aggregate.

Contractor may utilize an umbrella or excess liability policy to meet the minimum policy limits set forth above, provided such policy must "follow form" and afford no less coverage than the primary policy.

Each policy must be issued by financially reputable insurers licensed to do business in all jurisdictions where work is performed during the term of the Agreement. Each policy will name the R.J. Corman Railroad Company as an additional insured and, to the fullest extent allowed under law, will contain a waiver of subrogation in favor of the Railroad.

If Contractor utilizes subcontractors in performance of this Agreement, the subcontractors must meet the same insurance requirements as the Contractor. If a subcontractor does not meet the coverage requirements of this Section, subcontractor must either supplement the deficient areas of coverage or Contractor must certify that Contractor has acquired sufficient coverage to supplement any deficiency of subcontractor.

Material Requirements:

1. Train detection will be Siemens MS4000 dual single track unit, or as engineering specifies.
2. Flasher control will be provided by solid state crossing controller Siemens SSCCIII A 40 Amp.
3. Associated Lightning/Surge Arrester panels to be included for Siemens equipment.
4. All electronic equipment to have a 24 hour power up period and be tested before shipping. Any manufacturer provided manuals and documentation is to be included.
5. No equipment or terminals, excluding the ground bus, will be mounted lower than 12" above the housing's floor.
6. A "lever knob" normal-emergency switch is to be mounted on back of the main terminal board.
7. Relays (if required) will be GRS or Safetran Style "B" and include the plug base, terminals and associated hardware.
8. Chargers will be provided by NRS (ELC 12/20 MD or 12/40MD) as design specified.
9. Batteries – GNB Absolyte. Amp hour rating to be specified.
10. An electronic loud tone crossing bell without sensor.
11. Gate mechanisms as required are to be WCH model 3593B.
12. Locations requiring walkout cantilevers and masts are to use Fabricated Metals products.
13. Foundations to be Dixie Precast auger or precast concrete as field conditions require.
14. Flashing light signals to be 12" LED heads (Miller Felpax) with aluminum visors and backgrounds.
15. "Railroad Crossing" signs shall be high-intensity reflective material. Mounting hardware included
16. Bungalow wiring is to be point-to-point checked, and shop tested prior to shipment.
17. Two sets of As-in-Service prints with field markups are to be provided and sent to RJ Corman upon completion of project.
18. All field materials are to be provided by vendor. This material includes:
 - a. Cabling and track wire.
 - b. Grounding materials.
 - c. Narrow Band or Multi-frequency shunts, as required and specified by design.
 - d. Rail connectors, risers ("boot legs") and bonding materials as needed.
 - e. Train detection equipment's terminations and couplers as design specified.
 - f. AC Service with pole, as required.
 - g. Miscellaneous hardware, wiring, sealant, touch up and other supplies as necessary

Performance & Bidding Guidelines:

Bids should be detailed in the following format:

LOCATION: _____

Engineering/Design Cost \$ _____

Material Cost \$ _____

Shop Wiring/Testing Cost \$ _____

Estimated Freight/Shipping Cost \$ _____

Field Installation Cost \$ _____

Estimated Taxes Cost \$ _____

Total Cost \$ _____

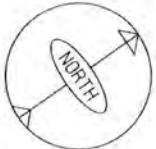
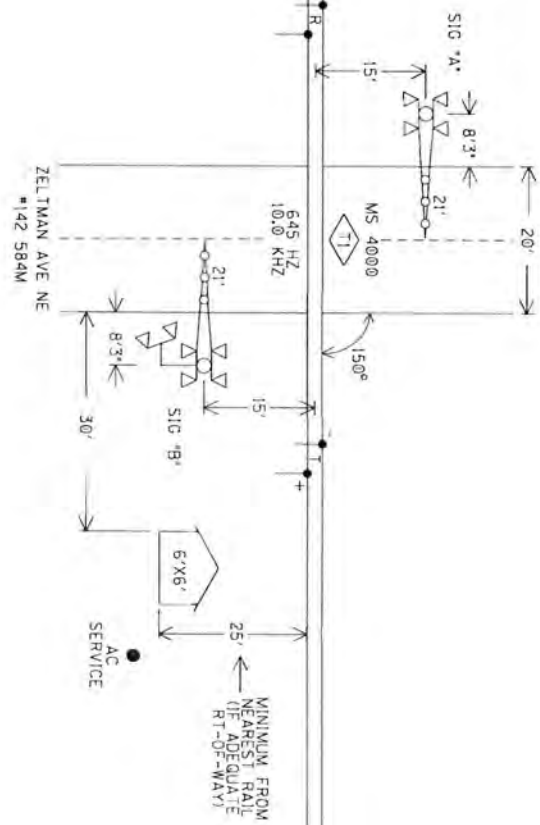
Preliminary Engineering for Review and Approval _____ days ARO

Bungalow & Other Material Shipping Date _____ days ARO

Field Installation Completion Date _____ days ARO

TO CSXI WARREN TERMINAL
(NORTH)
M.P. (INCREASING)

TO LEBACHVILLE
(SOUTH)
M.P. (DECREASING)



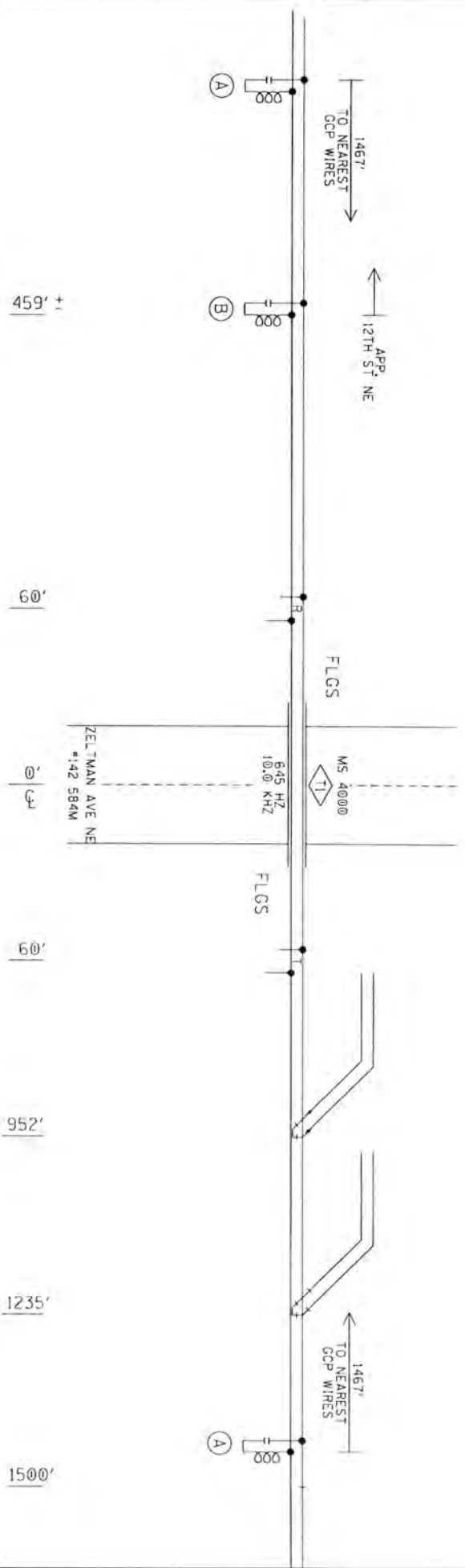
NOTES:
1. MAX. TRAIN SPEED 25 MPH
2. SIGNAL 'A' TO HAVE BELL



TRACK PLAN		
RJ CORMAN RAILROAD		
DESIGNED BY: DE#	ZELTMAN AVE. NE	DATE: 08/10/16
DIGITIZED BY: DE#	STRASBURG, OH	FILE: CL7986.01
CHECKED BY: DBA	CLEVELAND LINE	SHEET 01

TO CSXI WARNICK TERMINAL
(NORTH)

TO UHRICHVILLE
(SOUTH)



- (A) - MF-NBS 62775-3497 (645HZ)
- (B) - MF-NBS 62775-3497 (790HZ)

NOTES:
1. MAX TRAIN SPEED 25 MPH
2. SIGNAL "A" TO HAVE BELL



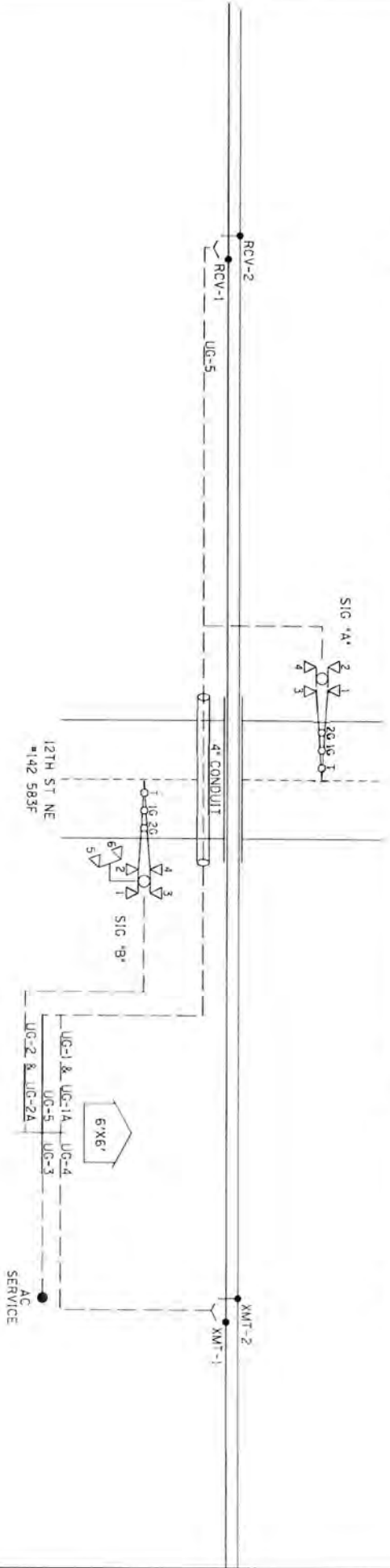
PROFILE			
RJ CORMAN RAILROAD			
DESIGNED BY: DEW	ZELTMAN AVE NE	DATE: 08/28/15	
DIGITIZED BY: JAC	STRASBURG, OH	FILE: CL7906.02	
CHECKED BY: DGA	CLEVELAND LINE	SHEET 02	

TO CSXT WARREN TERMINAL
(NORTH)

120' MINIMUM

TO UHRICHVILLE
(SOUTH)

50' MINIMUM 50' MINIMUM



UC-1-5CUC #6 UC-1A-5CUC #14 UC-3-3CUC #6 W/ #8 GND UC-4-TW, PR, #6

AC
B16-A
N16-A
IGC-A
IGC-A
GPI-A
SPARE 1
B1128-A
B1128-B
N1128
GND
RCV-1
RCV-2
UC-5-TW, PR, #6
XMT-1
XMT-2

UC-2-5CUC #6 UC-2A-5CUC #14

IGC-B
IGC-B
SPARE 1
SPARE 2
SPARE 3
N16-B

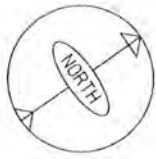
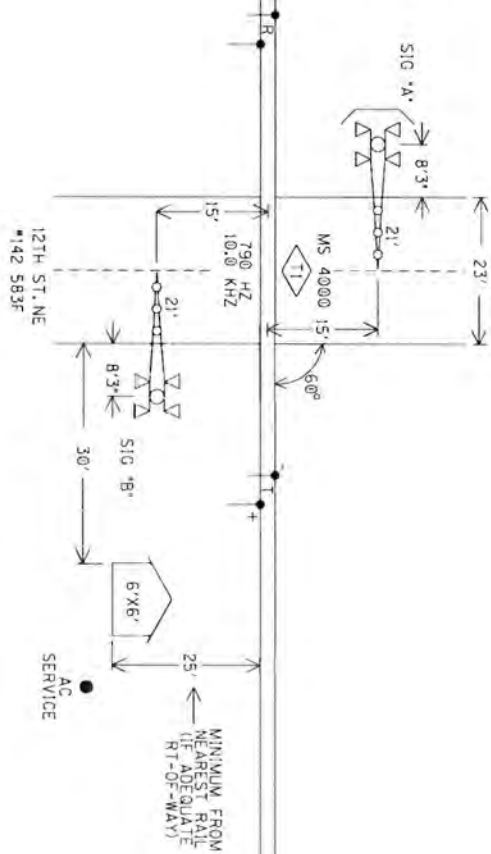
TRACK LAYOUT

RJ CORMAN RAILROAD

DESIGNED BY: CEM
DIGITIZED BY: DAC
CHECKED BY: DBA
ZELTMAN AVE. NE
STRASBURG, OH
CLEVELAND LINE
DATE: 08/28/16
FILE: CL/986.03
SHEET 03



TO LHRICHSVILLE
(SOUTH)
M.P. (DECREASING)

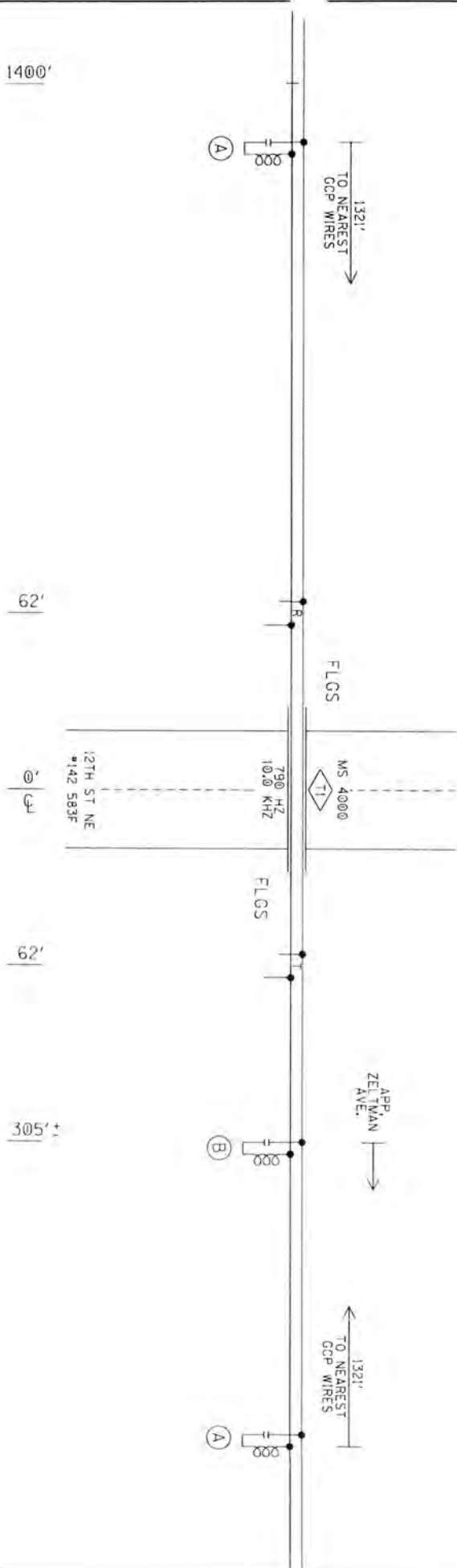


NOTES:
1. MAX TRAIN SPEED 25 MPH
2. SIGNAL "A" TO HAVE BELL

TRACK PLAN
RJ CORMAN RAILROAD

DESIGNED BY: DWM	DATE: 08/20/16
DIGITIZED BY: JAC	FILE: CLB026.0
CHECKED BY: DBA	SHEET 01

TO WIRCHSVILLE
(SOUTH)
M.P. (DECREASING)



(A) - MF-NBS 62775-3497 (790HZ)
(B) - MF-NBS 62775-3497 (645HZ)

NOTES:
1. MAX TRAIN SPEED 25 MPH
2. SIGNAL "A" TO HAVE BELL

RJ CORMAN RAILROAD

DESIGNED BY: DEW
DIGITIZED BY: NJC
CHECKED BY: DBA

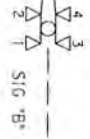
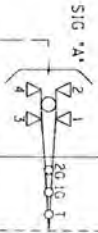
12TH STREET NE
STRASBURG, OH
CLEVELAND LINE

DATE: 08/30/16
FILE: 028020.01
SHEET 02

TO CSXT WARNICK TERMINAL
(NORTH)

TO UHRICHSVILLE
(SOUTH)

120' MINIMUM
50' MINIMUM
50' MINIMUM



12TH ST NE
#142 5B3F



AC
SERVICE

RCV-2
RCV-1

UG-5

4" CONDUIT

XMT-2
XMT-1

UG-1-5CUG #6
AEC
AEB
B16-A
N16-A

UG-1A-5CUG #14
IGC-A
IGBELL-A
CP-A
SPARE 1

UG-3-3CUG #6
W/7B GND
BX120-B
NX120
GND

UG-4-1W, PR, #6
RCV-1
RCV-2

UG-2-5CUG #6
BEC
BEB
B16-B
N16-B

UG-2A-5CUG #14
IGC-B
IGBELL-B
CP-B
SPARE 2
SPARE 3

UG-5-1W, PR, #6
XMT-1
XMT-2

TRACK LAYOUT

RJ CORMAN RAILROAD



DESIGNED BY: DSW
DIGITIZED BY: DAC
CHECKED BY: DBA

12TH STREET NE
STRASBURG, OH
CLEVELAND LINE

DATE: 08/20/78
FILE: CL0828.03
SHEET 03

About Us
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History
News & Events
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R. J. Corman Bidding Opportunities

Signal Warning Systems - Due 10/13/2016

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© R. J. Corman Railroad Group, P.O. Box 788, 101 R. J. Corman Drive
Nicholasville, KY 40356 859-881-7521



RJ Corman Signaling, LLC



October 13th, 2016

James Kelley
R.J. Corman Railroad Company
P.O. Box 788
Nicholasville, KY 40340

Re: 12 St. NE, DOT # 142583F, MP 80.20

We are pleased to offer the proposal below for your consideration:

Dear Mr. Kelley,

Material	\$ 73,062.87
Engineering	\$ 5,509.00
Shop Wiring	\$ 4,740.00
Field Installation	\$ 37,072.50
Distribution	\$ 1,132.50
Sales Tax	
Total	\$ 121,516.87

Notes:

- Installation, including boring, berm wall, conduit and dress stone, are included in this proposal.
- All materials to be provided as specified in invitation to bid.
- Local Sales Tax is not included, and to be added if required.
- Payment Terms: Net 30

Sincerely,

Dan Jenkins
RJ Corman Signaling, LLC

T 859-881-6647

E dan.jenkins@rjcorman.com



Rj Corman

Signaling, LLC



401 Enterprise Drive
Nicholasville, KY 40356

Vendor Part Number	RJC Part Number	Description	UOM	Order Qty
HOUSE MATERIAL - POWER				
91000539 C-1	70-1000-A2348	ENCLOSURE, HOUSE, 6'X6' ALUMINUM, RJC 3	1 ea	1
LC2-001WB	70-1000-A2053	LIGHT, POWER INDICATOR, 2 EYE, 4 WIRE	1 ea	1
3A900436	70-1000-A2540	ROTARY SWITCH BOX, ASSY, 2-POSITION, "NORMAL-EMERGENCY", 2NO/2NC CONTACTS	1 ea	1
EPD120/240TDFL	70-1000-A1881	ERICO PROTECTION DEVICE, PRIMARY,120/240V, EPD	1 ea	1
202217-000	70-1000-A1330	EQUALIZER, AIR GAP, AGE-1 (18V)	1 ea	4
SBB2700A2B10	70-1000-A1866	ARRESTOR, BASE, 4 POST	1 ea	8
202216-001	70-1000-A1002	ARRESTOR, AIR GAP , AGA-1, HEAVY DUTY	1 ea	8
9A2231	70-1000-A1830	TERMINAL BLOCK, AAR, 1" CENTERS, 2X6, WITH NUT AND WASHER ONLY	1 ea	5
9A2230	70-1000-A1826	TERMINAL BLOCK, AAR, 1" CENTERS, 1X12, WITH FLAT NUT AND WASHER ONLY	1 ea	1
9A2233	70-1000-A1832	TERMINAL BLOCK, AAR, 2-3/8" CENTERS, 1X2, WITH NUT AND WASHER ONLY	1 ea	6
252-11-1019	70-1000-A1775	WIRE, CASE, T.C. RED, #10	1 ft	400
252-11-1619	70-1000-A1776	WIRE, CASE, T.C. RED, #16	1 ft	200
27550-10	70-1000-A1957	BATTERY CHARGER, 115/230V IN, 10-17V OUT, 20A OUT MAX, CURRENT MONITOR, ELC-12/20 MD	1 ea	1
27560-10	70-1000-A1958	BATTERY CHARGER, 115/230V IN, 10-17V OUT, 40A OUT MAX, CURRENT MONITOR, ELC-12/40 MD	1 ea	1
50LF13-RR	70-1000-A2565	BATTERY CELL, VRLA, 2V, 310 AH, 50LF13	1 ea	6
50LF17-RR	70-1000-A2566	BATTERY CELL, VRLA, 2V, 414 AH, 50LF17	1 ea	7
82687-3-P	70-1000-A2186	BATTERY TRAY, 12"X38"	1 ea	2
HOUSE MATERIAL - ELECTRONICS/RELAYS				
8421-80490-0001	70-1000-A1569	ELECTRONICS, MS 4000, SINGLE, 1 TRK UNIT, REDUNDANT	1 ea	1
9000-91160-0101	70-1000-A1744	ELECTRONICS, SOLID STATE CROSSING CONTROLLER, 40 AMP, (SSCC IIIA)	1 ea	1

2 of 4

RJ Corman Aircraft Maintenance, LLC • RJ Corman Aviation Services, LLC • RJ Corman (Aviation) Services, LLC • RJ Corman Distribution Centers, LLC • RJ Corman Equipment Company, LLC
RJ Corman Railroad Company/Allentown Lines, Inc. • RJ Corman Railroad Company/Bartlett Line • RJ Corman Railroad Company/Central Kentucky Lines, LLC
RJ Corman Railroad Company/Cleveland Line • RJ Corman Railroad Company/Material Sites • RJ Corman Railroad Company/Memphis Line • RJ Corman Railroad Company/Pennsylvania Lines, Inc.
RJ Corman Railroad Company/Tennessee Terminal, LLC • RJ Corman Railroad Company/Western Ohio Lines • RJ Corman Railroad Construction, LLC • RJ Corman Railroad Property, LLC
RJ Corman Signaling, LLC • RJ Corman Railroad Switching Company, LLC • RJ Corman Real Estate Company, LLC • RJ Corman Restaurant Corporation



Rj Corman

Signaling, LLC



9000-91170-0001	70-1000-A1549	ELECTRONICS, GCP 4000, LIGHTNING SURGE PANELS, 91170-01	1 ea	1
HOUSE MATERIAL - MISC				
9A2200	70-1000-A1803	CONNECTOR, FLAT STRAP, 1" CENTER, 2 HOLE	1 ea	70
9A2211	70-1000-A1836	CONNECTOR, TEST LINK, STRAIGHT, 2-3/8"	1 ea	25
9A2201	70-1000-A1810	CONNECTOR, FLAT STRAP, 2-3/8" CENTER, 2 HOLE	1 ea	8
9A2208	70-1000-A1815	NUT, AAR, TEST, GOLD, #14-24	1 ea	50
9A2204	70-1000-A1813	NUT, AAR, BINDING, BRASS, #14-24	1 ea	70
9A2202	70-1000-A1814	NUT, AAR, CLAMP, #14-24 HEX	1 ea	100
013986-000	70-1000-A1493	NUT, AAR, INSULATED	1 ea	12
9A2203	70-1000-A1816	WASHER, AAR, BEVELED, FLAT, 1/4" STUD	1 ea	300
92470A247	70-1000-A1907	SCREW, #10 PHILLIPS, SHEET METAL, 1", PKG 100	100 pk	1
7130k41	70-1000-A1900	CABLE TIE, NYLON, 6" L, 1-1/2" BUNDLE DIA., PKG 100	100 pk	1
9A2258	70-1000-A1799	EYELET, NON-INSULATED, RING TONGUE, #6 WIRE, 5/16" STUD	1 ea	16
9A2261	70-1000-A1795	EYELET, INSULATED, RING TONGUE, #6-#8 WIRE, 1/4" STUD	1 ea	26
9A2243	70-1000-A1791	EYELET, INSULATED, RING TONGUE, #10-#12 WIRE, 1/4" STUD	1 ea	150
9A2242	70-1000-A1794	EYELET, INSULATED, RING TONGUE, #14-#16 WIRE, 1/4" STUD	1 ea	150
FIELD MATERIAL - MISC				
ZB1772	70-1000-A1844	DUCT SEAL, 5LB BAG	1 ea	2
561185	70-1000-A1854	TAPE, SCOTCH® SUPER 33+ VINYL ELECTRICAL, 3/4x66FT	1 ea	2
974102	70-1000-A1855	TAPE, SCOTCH® LINERLESS RUBBER SPLICING, 3/4x30FT	1 ea	2
NA1658-0	70-1000-A1846	GREASE, NO-OXIDE, 14 OZ CAN	1 ea	2
SBTBBU4A	70-1000-A1868	GROUNDING, BOOTLEG, W/COUPLER, BOX 100	1 ea	4
998031-T06938	70-1000-A1726	HOSE, RUBBER, 3/4"	1 ft	50
BA2363J	70-1000-A1847	GROUNDING, SLEEVE, REDUCING, 3/16", #6, TINNED	1 ea	4
A248B	70-1000-A1879	GROUNDING, CLIP, RAIL BOND, (1) 3/8 PERPENDICULAR, BOX 50	1 ea	4
SBNT1161G	70-1000-A1875	GROUNDING, CONNECTOR, ONE SHOT, CABLE TO GRD ROD, HORZ TEE W/CABLETAP	1 ea	4

3 of 4

RJ Corman Aircraft Maintenance, LLC • RJ Corman Aviation Services, LLC • RJ Corman Drilling Services, LLC • RJ Corman Distribution Centers, LLC • RJ Corman Equipment Company, LLC
 RJ Corman Railroad Company/Allentown Lines, Inc. • RJ Corman Railroad Company/Baltimore Line • RJ Corman Railroad Company/Central Kentucky Lines, LLC
 RJ Corman Railroad Company/Cleveland Line • RJ Corman Railroad Company/Material Sales • RJ Corman Railroad Company/Memphis Line • RJ Corman Railroad Company/Pennsylvania Lines, Inc.
 RJ Corman Railroad Company/Tennessee Terminal, LLC • RJ Corman Railroad Company/Western Ohio Lines • RJ Corman Railroad Construction, LLC • RJ Corman Railroad Property, LLC
 RJ Corman Signaling, LLC • RJ Corman Railroad Switching Company, LLC • RJ Corman Real Estate Company, LLC • RJ Corman Restaurant Corporation



Rj Corman

Signaling, LLC



FIELD MATERIAL - CABLE				
106-11-6050	70-1000-A1788	CABLE, SIGNAL, SOLID, BLACK, #6, 5 CONDUCTOR	1 ft	300
250-12-6020	70-1000-A1780	CABLE, TRACK, DUPLEX, BLACK/RED, #6, 2 CONDUCTOR	1 ft	250
106-11-6037	70-1000-A1782	CABLE, POWER, AC SERVICE, #6, 3 CONDUCTOR	1 ft	100
106-11-1450	70-1000-A1787	CABLE, SIGNAL, SOLID, BLACK, #14, 5 CONDUCTOR	1 ft	300
SW-BG-SOL6	70-1000-A1785	WIRE, BARE, SOLID, #6	1 ft	50
615880	70-1000-A1860	GROUNDING, ROD, 5/8" X 8'	1 ea	4
SW-BS-3160	70-1000-A1789	WIRE, BONDSTRAND, INSULATED, 3/16" & 4/64	1 ft	100
FIELD MATERIAL - SIGNALS/GATE/CANT				
M-10-RJC-32-2-BL	70-1000-A2002	GATE MECHANISM, 3593-E-131, 19' - 32' GATE W/ LED LIGHTS, 5" BASE & MAST, 2-WAY LED, COUNTERWEIGHT, X-BUCK SIGN, CONVERSION BRACKET, HIGH WIND BRACKET, ELECTRONIC BELL	1 ea	2
40409-20	70-1000-A2090	BERM WALL, GALVANIZED STEEL, 20 FT LONG, 4 FT HIGH, W/ HANDRAILS	1 ea	1
DPS-2A	70-1000-A2006	FOUNDATION, PRECAST, GATES, 11-11/16" BOLT SPACING, 5'-7" HEIGHT	1 ea	2
RJC-ENS-1	70-1000-A2000	SIGNS, CROSSING, EMERGENCY NOTIFICATION, 9"x12", HI-INTENSITY	1 ea	2
TRS6040S10-12	70-1000-A2221	SIGNS, BRACKET, CLAMP, ENS, 10 IN & 12 IN	1 ea	2
6E00-62775-3497	70-1000-A2309	SHUNT, NARROW BAND, MULTI-FREQUENCY, ERICO BONDSTRAND, 348 - 970HZ	1 ea	2

ALSTOM SIGNALING OPERATION, LLC
Krista Justice, Bid Manager

2712 S. Dillingham Road
Grain Valley, MO 64029
Tel: 816.858.4411
Fax: 816.858.4411
Email: krista.justice@alstom.com
www.alstom.com

ALSTOM

October 13, 2016

Mr. James Kelley
RJ Corman Railroad Group
PO Box 788
Nicholasville, KY 40340
Email: james.Kelley@RJCorman.com

REF: 12th Street NE, Tuscarawas County, OH, DOT 142583F Project
QN: 2016-398256

Dear Mr. James Kelley,

In response to the RJ Corman Railroad Group request, Alstom Signaling Operation, LLC (Alstom) is pleased to provide a proposal for the 12th Street NE, Tuscarawas County, OH, DOT 142583F Project.

Alstom's Total Quoted Price is as listed on the attached Bid Form. Please review the accompanying material list that indicates the items we propose to furnish at the stated price.

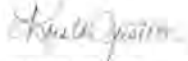
Alstom's total quoted price for your solution is set out herein in U.S. Dollars, shipment shall be per Incoterms 2010 FOB jobsite, and is exclusive of all taxes, tariffs, licenses, bonds, and permits as stated in the Standard Terms and Conditions of Sale. This proposal will remain valid for sixty (60) days from the date of this letter.

Delivery is as shown in the attached Bid Form, however, Alstom's proposed Turnkey Delivery as noted could be adversely affected by winter weather in the area of the country these projects are being installed in. Payment terms are net thirty (30) days. Please reference 2016-398256 when ordering this equipment. Purchase orders should be sent to Eduardo Luckie at:

Alstom Signaling Operation, LLC
Attention: Eduardo Luckie
2712 S. Dillingham Rd.
Grain Valley, MO 64029
Eduardo.luckie@alstom.com

Alstom welcomes the opportunity to provide a solution to your transportation needs. If you have any questions or require any further assistance, please feel free to contact us.

Thank you,



Krista Justice
Bid Manager

Enc. Bid Form
Material List

cc: Paul Kleinhenz
Eduardo Luckie
Melissa Weiler

General Proposal Terms:

1. This quotation is a financial proposal only and does not contain language suitable for a legal offer or a contract. Any eventual contract based on this proposal shall be pursuant to Alstom's current Conditions of Sale or as mutually agreed to in separate writing between the parties.
2. Equipment will be invoiced at the quoted price when shipped, and/or Services will be invoiced at the quoted price when delivered.
3. Alstom reserves the right to subject orders to a credit limit or other approved terms of payment.
4. In the event there are any discrepancies between your specification and the proposed solution, Alstom agrees to work with you in an effort to find a mutually satisfactory solution to your transportation needs.
5. Please note that whenever Alstom is referred to in this proposal, it is understood to mean Alstom and/or one or more of Alstom's affiliated entities, and Alstom have one or more of Alstom's affiliated entities enter into relevant contractual documentation and/or provide some or all of the products and services to be provided.

Performance & Bidding Guidelines:

Bids should be detailed in the following format:

LOCATION:

12th Street NE

Engineering/Design Cost	\$ <u>10,872</u>
Material Cost	\$ <u>66,164</u>
Shop Wiring/Testing Cost	\$ <u>6,123</u>
Estimated Freight/Shipping Cost	\$ <u>2,906</u>
Field Installation Cost	\$ <u>43,760</u>
Estimated Taxes Cost *	\$ <u>8,763</u>
Total Cost	\$ <u>138,588</u>

*6.75% rate has been applied to the total for estimating purposes but tax may not be applicable to the freight and installation.

Preliminary Engineering for Review and Approval	<u>45</u>	<u>days ARO</u>
Bungalow & Other Material Shipping Date	<u>100</u>	<u>days ARO</u>
Field Installation Completion Date	<u>145</u>	<u>days ARO</u>

Description	QTY		ALSTOM PN
12th Street			
House Material			
HSE 6X6 AL S/L SKR101 L/EPD/KY	1	Each	028633-020
PROTECTOR SURGE 120/240V W/IND	1	Each	010132-005
PMD-4R LIMITED PREDICTOR SELECTIVE FUNCTION ACTIVATION PROCEDURE	1	Each	300911-031
ASSY BSA-4	1	Each	250597-000
SSCCIII DUAL 40A 19" BASE	1	Each	201772-200
PANEL LTG SURGE SSCC 91170-01	1	Each	201756-015
RAIL SHUNT AUGMENTER T-RX7100	1	Each	076102-100
ELC 12/20 W/10' LEAD	1	Each	017258-001-30
ELC 12/40 W/10' LEAD	1	Each	017258-002-30
PROT AC LINE 230V SP20-1B	2	Each	010059-001
XFMR, VPS24-7300	1	Each	016206-24-V
RLY DPDT 12VDC 5A OCT	1	Each	007192-032
SCKT RLY 8-PIN OCT SCREW PNLMT	1	Each	132246-001
SPRING RLY HOLD DOWN 20C176	1	Each	132246-011
EMERGENCY SWITCH ASSY	1	Each	009315-22X
ASSEMBLY, 4 POST TERMINALBLOCK	4	Each	203032-000
ASSY AGA-1	4	Each	202216-001
ASSY AGE-1	2	Each	202217-000
ASSY AGE-2 HD	2	Each	202217-001
NUT INSULATED HARMON	12	Each	013986-000
TEST LINK W/PLT & INSUL	76	Each	032257-002
TEST LINK 2.375" CNTR FL INSUL	1	Each	032258-003
LABEL RK PNL-MAINTAINER TST SW	1	Each	125372-000
WIRE 16AWG/19 TFZL BLK AREMA	700	Foot	012774-500
WIRE 10AWG/37 TFZL BLK AREMA	550	Foot	012774-200
WIRE 6AWG/133 TFZL BLK 600V	120	Foot	012744-000
WIRE 6AWG/133 TFZL RED 600V	120	Foot	012744-002
WIRE 6AWG/133 TFZL GRN 600V	40	Foot	012744-005
CABLE RAW 3/14AWG PWR 300V	16	Foot	012690-010
CONN PLUG L6-15 250V 15A 2P3W	2	Each	132286-001
ASSY 2WAY TERM BLK W/AAR HARD	10	Each	202810-000
ASSY TERM STRIP DBL POST 12	13	Each	250094-300
GROUND POST P5-162	3	Each	113047-000
LIGHT POWER OFF LED W/WAGO CON	2	Each	023180-100
KIT SM PRTS GENERIC	1	Each	180394-SPT7
LABEL, DANGER 240 V, 1.75 X 2.	1	Each	SQS109
THERMOSTAT SPDT REMOTE BULB 8A	1	Each	009186-004
ASSY SINGLE ROW TERM 12 POST	1	Each	250084-212
Field Material			
FOUND SIGNAL 60"DEPTH 11 11/16	2	Each	1322-01
GATE ASSY 3593B CTWT 16-32'	2	Each	076037-018
HEATER GATE MECH 24VDC 50W WCH	2	Each	017155-007
MAST AL 5" X 14' M90R X-NONE	2	Each	51105-01
BASE 5" JCT BOX 32 TERM	2	Each	022603-011
CROSSARM 2W L/LED 24"H/B 5" 06	2	Each	076048-303
BRACKET CONVERSION W/CAST ADPT	2	Each	1082-01
HIGH WIND BKT W/5"HDW LINCOLN	2	Each	54-55981

Description	QTY		ALSTOM PN
GATEARM 16-24' UHI VERT W/LED	2	Each	076045-031
SLEEVE 4 ALUMINUM REC #92958	2	Each	14187-01
LENS LED FLASHING 12" RED -H7	8	Each	180572-011
SIGN XING DIAMOND NO MTG HDW	2	Each	125617-107
PINNACLE 5" MACHINED W/SETSCRW	1	Each	54-11305
BELL ELECTRONIC XING 4"/5" XL	1	Each	076008-001
ASSY NBS-1 W/10' LEADS 790HZ	2	Each	250250-G12B
PLATE SHUNT 22"X26"X1/4" GAL	2	Each	6193-01
SCREW LAG 1/2X4 JOSLYN J8754P	8	Each	14512-01
CABLE UG 3 COND #6 AWG SOLID	100	Foot	1013-02
CABLE UG 5 COND #6 AWG SOLID	325	Foot	1076-02
CABLE UG 5 COND #14 AWG SOLID	325	Foot	1022-02
WIRE UG TRK #6 AWG DUPLEX	325	Foot	1094-02
TAPE MARKER BURIED RR CABLE	1	Roll	029989-000
BATT GNB 50A13 1 CELL 320AH	6	Each	017134-105
BATT GNB 50G15 1 CELL	7	Each	017134-106
WIRE #6 SOFT BARE COPPER	140	Foot	1436-01
ROD 3/4 X 8 NON-SECT COP GRD	4	Each	1132-01
CONNECTION SBNT1-181G ONE-SHOT	4	Each	2531-01
BOND STRAND 8-STR 3/16" TINNED	75	Foot	4133-01
BOOTLEG BOND W/COUPLER KIT	8	Each	3522-01
TAPE ELECTRICAL 3M #33+ 3/4"	3	Each	1190-01
TAPE ELECTRICAL 3M #130-C	3	Each	1321-01
COMPOUND INSULATING ELECTRICAL	1	Each	4123-01
HOSE RUBBER 3/4"	50	Foot	005360-015
STAPLE GROUND WIRE 1-1/16"X3"	12	Each	113005-000
TIE CABLE .184 X 7.31" HIG TEM	20	Each	4125-01
CABLE TIE 14-1/2L NAT	20	Each	005019-022
LUG RNG 1/4" 12-10AWG INS BLK	45	Each	032114-008
WIRE DIESEL 10AWG 2000 VOLTS	350	Foot	2125-01
WIRE DIESEL 6AWG 600V	50	Foot	012033-001
LUG RNG 1/4" 6AWG AMP ONLY	8	Each	032063-005
STAPLE COPPERWELD 3/8 X 1-3/4	65	Each	1148-01
GREASE RUST PREVENTIVE NO OXID	1	Each	1906-01
SLEEVE NICO 3/16"-#6 AWG REDUC	4	Each	1145-01
CLIP TRACK WIRE RETAINER	12	Each	1118-01
COMPOUND DUCT SEAL 5 LB PLUG	3	Each	1179-01
PADLOCK SIGNAL CASE	5	Each	013043-000
Sign, ENS	2	Each	SIGN-ENS-SP
SIGN HDW F/5"MAST RIBBED XING	4	Each	60-11330-05
Field Cable Tag Kit	1	Each	FLDTG-2
TRAY PVC BATTERY FOR RLY CSE	4	Each	9549-01
WRENCH TORQUE WCH 3590-K-9	1	Each	095936-001
WRENCH RLY TST E-POST	1	Each	095605-000
WRENCH AAR TERMINAL	1	Each	095905-000

Progress Rail

A Caterpillar Company

10-13-16

James (Jimmy) Kelley
R.J. Corman Railroad Group, LLC
101 R.J. Corman Drive
PO Box 788
Nickolasville, KY 40340-0788
859-881-7521
James.kelley@rjcorman.com

Mr. Kelley,
Please accept our bid of **\$122,839.00** for 12th Street NE, Tuscarawas County, OH
DOT # 142583F
Per attached Bill of Materials.

Price Includes the following:

Wired / Tested 6 x 6 House
(2) Gate flasher Assemblies
Engineering Services
Installation Services
AC Meter Services
Dress Stone / Fill Materials
Retaining Wall (10FT)
Conduits
Misc. Ground Materials – Ref. Cost Sheet
Freight

Price Excludes the following:

Rail Bonding Materials
Insulated Joints / Switch Materials
Railroad Flagging
Pull Boxes
Taxes

The above price is based on the following:

1. For sales order terms and conditions please go to www.progressrail.com
2. Terms: Net 30 Days.
3. Acceptance of order based on mutually agreeable terms and conditions.
4. Price does not include any pavement markings or restoration materials.
5. Price does not include underground obstructions such as rock, culverts, utilities or pipes.
6. The above price is firm for 30 days and delivery is estimated to be 60-90 days from the date order is received and credit is approved. All efforts will be made to

Progress Rail

A Caterpillar Company

meet the requested delivery date; however, the delivery will depend on the specified supplier's delivery response.

Please do not hesitate to contact me if you have any questions or concerns regarding this quote.

Jamie Barnes
Progress Rail Services
Cell 502-592-2315

Factory Wired Instrument Shelter

12th St. NE			
ITEM DESCRIPTION	BAAN Item #	QTY	U/M
Alum. 6' x 6, Shelter GETS Crossing	9485000019	1	EA
Power Off Light, LED, 4 Wire	9430500215	1	EA
(MS-4000) Chassis w/ (2) CPU II+ Module, (2) Track Module, (1) Transfer Module and SPI ECD Module	TBD	1	EA
SSCC-III Lighting Surge Panel	9409010529	1	EA
(1) Track, w/ Equalizers And Arresters	9409010541	1	EA
SSCC-III Plus Crossing Controller, 40-Amp	9429000111	1	EA
DC Shunting Enhancer	9429000089	1	EA
Lightning Arrester, Clearview	9409020353	28	EA
Heavy Duty Equalizer	9409020300	2	EA
Fuse Block, Single	9409050403	2	EA
Fuse, 20A, NON-20	9409054500	2	EA
AC Line Surge Protector, Model SP-20A	9409010617	2	EA
Nema Plug	9474107524	3	EA
SJ00W Cable for Nema Plug	9422001160	30	FT
Panduit Duct, 2' X 3', 2 inch	9422040105	30	FT
Panduit Cover, 2' X 3', 2 inch	9422040106	30	FT
Panduit Duct, 2' X 3', 3 inch	9422040103	18	FT
Panduit Cover, 2' X 3', 3 inch	9422040108	18	FT
#10 TC Blue Flex Wire	9450030600	700	FT
#16 TC Blue Flex Wire	9422010201	700	FT
#10/12 AMP Eyelets	9422020300	150	EA
#14/16 AMP Eyelets	9422020342	150	EA
Insulated Nut	9409050504	12	EA
Relay, NV, 12V, 2FB	9409020273	1	EA
Relay, NV, 120V, 2FB	9409020328	2	EA
Socket, Relay 8-PIN OCT Screw	9409020329	3	EA
Plugboard Complete, B1 Relay Mtg. Kit	94A62-586	5	EA
Voltage Test Post Complete	9409010745	5	EA
B1N Relay, 4FB-2F-1B, 500 ohm	94A62-277	2	EA
B1N Relay, 4FB-2F-1B(HD), 500 ohm	94A62-310	1	EA
B1SR Relay, 4FB, 194 ohm 3-4 sec SR	94A62-360	1	EA
Rly X-Pak Mod Kit (48-54,985-1) (Relay and Flash Pak Combined)	94A62-673	1	EA
Terminal Flag #16-#20	9410006146	20	EA
Terminal Flag #10-#14	9422022500	20	EA
Battery Charger, 12V / 20A	9409080111	1	EA
Battery Charger, 12V / 40A	9409080113	1	EA
4 Post Terminal Block w/ Hardware	9409020380	28	EA
Buss Strap Grd Assy.	9465000105	3	FT
Crossing Cut-Out Switch (Double Throw Triple Pole)	9410002025	1	EA
Tags, Slip On	9422990050	0.25	Roll
Stick-On Stencil	9400000078	2	EA
Bond Strand, Erico# SBS8TLINS664	9422030010	200	FT
Test Link, 1" Offset w/Gold Nut	9409021104	50	EA
Terminal Block, 2 x 6 w/flat nut only	9473000102	6	EA
Terminal Block, 2 post 2-3/8" w/flat nut only	9473000104	4	EA
1/4" Bevel Washer	9473000700	100	EA
1/4-24 Clamp Nut Nickel	9473000705	50	EA
#6 Non-Insulated Terminal Eye 1/4 stud	9422020200	30	EA
#6 Non-Insulated Terminal Eye 5/16 stud	9422020210	8	EA
Binding (Barrel) Nuts	9401037900	150	EA
Maintainer Test Switch, 3 post test terminal	9410002070	1	EA
Strap, Solid, 1" Centers	9473000110	10	EA
Strap, Solid, 2-3/8" Centers	9473000120	4	EA
Buss Strap, 1" Centers 12 Hole	9473005100	2	EA
Circuit Plan Holder	9401001050	1	EA

Gate/Flasher Material

12th St. NE

ITEM DESCRIPTION	BAAN Item #	QTY	U/M
12" Head w/24" Background & Hood (Painted AL)			
Terminal For LED Hook-up (For larger RDG & GE LED)	9451000610	10	EA
EVERRAY LED Flashing Light Unit (12") w/Sidelights	9451900056	10	EA
Pinnacle 5" End Cap	9463100105	1	EA
4" or 5" Custom Flashing Light Standoff Bracket	9451060126	1	EA
5" U Bolt for Mounting Crossarms assembly to Mast (2 per Standoff Bracket)	9401074647	2	EA
Alum. Mast, 5" x 16' Base Hole 0 Degrees & Main Hole 90 Degrees right	9413022506	1	EA
Alum. Mast, 5" x 18', Base Hole 0 Degrees & Main Hole 90 Degrees right	9413022552	1	EA
JCT. Box Base, 5" W/2"NPT Cap	9420001102	2	EA
2-Way Cross Arm Assembly Less Heads (Gate Flasher)	9451050304	2	EA
1-Way Cross Arm Assembly Less Heads Side Light	9451050414	1	EA
4" Crossarms Assembly Mounting Kit	9451080004	1	EA
5" Crossarms Assembly Mounting Kit	9451080005	2	EA
Railroad Crossing Sign, HI	9460001104	2	EA
5" Mounting Kit for Railroad Crossing Signs w/Extension Bracket	9460005050	2	EA
Gate 3593B Mechanism Assembly, including the 5" Mast Mounting Hardware, Flex			
Conduit, with fittings, Long Arm Supports & Counterweight kit for 16' - 24' Arms W/Gate Heaters	9450010100	2	EA
Insulated Nut	9409050504	8	EA
Wiring Harness 20'6" Bell	9454100134	1	EA
Wiring Harness 12' Light	9454100135	3	EA
Wiring Harness 8' Mech (STD)	9454100136	2	EA
Gate Arm Wind Bracket, 36"	9450030203	2	EA
Conversion Bracket Plain w/hardware	9459001132	2	EA
Gate/Flasher Pallet	9441001350	2	EA

Ground Material			
12th St. NE			
ITEM DESCRIPTION	BAAN Item #	QTY	U/M
Insulated Terminal Wrench, 1/2" / Triangle	9473000518	1	EA
Plugboard Terminal Wrench	9473000508	1	EA
Battery Tray (12" x 38")	9409060108	2	EA
Battery Tray (12" x 24")	9409060102	2	EA
Battery, 264 Amp Hour	9429005100	6	EA
Battery, 312 Amp Hour	9429005145	7	EA
Electronic Bell, 4/5" MTG.	9465000155	1	EA
Gate Arm Light Kit w/LED Bulbs and wire, 3 per set	9450030494	2	EA
Gate Arm 20' HWP, Al butt sec, Fg 2nd/3rd sec (HI Intensity)	9450030195	2	EA
Cast Adapter	9450020520	2	EA
Gate Foundation, Pre-cast Concrete, 5'7" With Extended Bolts	9417001613	2	EA
5" Jct. Box Base Shroud	9454030094	2	EA
Track Cable, #6 Tw. Pr. (150-12-3933)	9422001106	350	FT
Signal Cable, 5/C # 14 AWG (206-11-6885)	9422001557	350	FT
Signal Cable, 5/C # 6 AWG (206-11-6245)	9422001556	350	FT
AC Cable, 3/C # 6 AWG w/GRD (206-11-6070)	9422001218	100	FT
Railroad Emergency Contact Sign - Reference Spec Prior to Ordering	9400000079	2	EA
5" Mounting Kit for Railroad Crossing Signs w/Extension Bracket	9460005050	2	EA
Hex. Railroad Lock	9463001200	6	EA
Copperweld Ground Rod, 5/8" X 8'	9409050512	4	EA
Cadweld One Shot, 5/8" (HALO) Triple	9410001231	4	EA
Track Connector, Web, 12"	9410003012	4	EA
Track Connection Kits	9410002051	2	EA
Track Wire Retainer Clip, Erico #SBA248B	9410006111	4	EA
Narrow Band Shunt, Multi Frequency (348-970 Hz)	9410004000	2	EA
4" PVC Sch. 80 Conduit	TBD	80	FT
Hose, Red Ruber 3/4 Inch Hose (15' Per Track Connection Pair)	9469023011	30	FT
AC Meter Base, Breaker Box, W.H. & Pole	TBD	1	EA
Retaining Wall with Handrails 4' High (5' Increments - Overall Length Divided by 5)	9417001625	2	EA
Dress Stone	N/A	1	EA
Fill Dirt	N/A	1	EA
Sleeve, 3/16 - 3/16 & 3/16 - #6 Tinned	9410001010	4	EA
Duct Seal	9410000502	10	LB
Bond Strand, Erico# SBS8TLINS664	9422030010	75	FT
No Oxide Grease	9410006010	1	EA
#6 Bare Copper	9422000010	50	FT



<https://wabtec.com/business-units/xorail>

October 13, 2016

Jimmy Kelley
RJ Corman Railroad Group

**Subject: Tuscarawas County, OH - Install Zeltman Ave NE & 12th Street NE
highway grade crossings**

Mr. Kelley:

Xorail is pleased to provide RJ Corman with a quote for the subject Grade Crossings as outlined in this letter.

This quote is based on the scope of work summarized below:

1. Complete Design Services as detailed in bid package dated September 28, 2016,
2. Provide detailed signal design packages.
3. Provide wired/factory tested signal enclosures per final As-Build Design. Includes signal enclosures and all components within enclosure.
4. Provide all field materials delivered to the sites.
5. Provide complete installation and pre-testing of both systems.
6. Provide support and coordination for System Integration and Testing.

Attachments;

Exhibit A Project assumptions

Exhibit B Estimate for Zeltman Avenue NE

Exhibit C Estimate for 12th Street NE

These prices are valid for 90 days and contingent upon execution of a mutually acceptable subcontract with RJ Corman.

Kindest regards,

Robert E. Milazzo
Vice President and General Manager of Xorail

5011 Gate Parkway, Bldg. 100 Suite 400 • Jacksonville, FL 32256 • 904-443-0083 (main) • www.xorail.com

Exhibit A

Assumptions:

1. RJ Corman will provide up-to-date Track Charts, Val maps and Timetables indicating limits of Maximum Authorized Speeds and any changes to subsequent time tables as well as the limits of Permanent Speed Restrictions.
2. All required surveys and Diagnostic Field Reviews will be conducted by others. Xorail will not be held responsible for the accuracy of survey or Diagnostic Field Reviews information supplied. Xorail will provide "Verification of Existing Conditions" as needed for signal engineering.
3. Xorail engineering design services are based on the provided bid package and any changes to the concept signal plans or method of operation could require additional funding and or change orders.
4. As-Built Plans to be completed sixty (60) days after receiving Construction verified plans. Xorail will not be responsible for the information supplied and or accuracy of Construction verified plans.
5. All signal engineering to be developed in accordance to RJ Corman Signal Standards supplied to Xorail prior to design.
6. Typical, fonts, color table and cells to be provided to Xorail by others.
7. No field Survey to be performed by Railroad Controls (RC) or Xorail.
8. Material and equipment will be furnished by Xorail.
9. RC & Xorail will mobilize men and equipment to the site.
10. AC Power will be supplied by others.
11. Utility relocation will be performed by others.
12. Permits required will be supplied by others.
13. Insulated Joints will be supplied by and installed by others.
14. Flagging will be provided by others.
15. Salvaged equipment will be removed and transported by others.
16. Construction signs will be supplied by others.
17. Clearing, grubbing, and disposing of any vegetation or the protection from injury or defacement of vegetation or objects designated by RJ Corman will be performed by others.
18. Hazardous waste will be removed by others.
19. This quote assumes that RC crews will be working continuously and does not account for any work stoppages (catastrophic weather, curfews, delays related to civil, fiber, track work or acts of God. If work stoppages occur additional mobilization charges may occur.
20. This quote does not include any taxes.
21. This quote does not include any taxes.

Exhibit B

LOCATION: Zeltman Avenue NE, Tuscarawas County, OH, DOT 142584M

Engineering/Design Cost	\$ <u>12,239.98</u>
Material Cost	\$ <u>129,222.93</u>
Shop Wiring/Testing Cost	\$ <u>25,952.68</u>
Estimated Freight/Shipping Cost	\$ <u>4,635.80</u>
Field Installation Cost	\$ <u>32,310.28</u>
Estimated Taxes Cost	\$ _____
Total Cost	\$ <u>204,361.67</u>

Preliminary Engineering for Review and Approval 45 days ARO

Bungalow & Other Material Shipping Date 90 days ARO

Field Installation Completion Date 140 days ARO

Exhibit C

LOCATION: 12th Street NE, Tuscarawas County, OH, DOT 142583F

Engineering/Design Cost	\$ <u>12,239.98</u>
Material Cost	\$ <u>126,609.64</u>
Shop Wiring/Testing Cost	\$ <u>32,441.73</u>
Estimated Freight/Shipping Cost	\$ <u>4,542.05</u>
Field Installation Cost	\$ <u>33,629.06</u>
Estimated Taxes Cost	\$ <u></u>
Total Cost	\$ <u>209,462.47</u>

Preliminary Engineering for Review and Approval 45 days ARO

Bungalow & Other Material Shipping Date 90 days ARO

Field Installation Completion Date 140 days ARO

Comments on Zeltman Ave and 12th St bids:

Xorail's-

1. They are excluding AC power service, which will be required at both locations.
2. They didn't provide a detailed list of material to know what is included or not.
3. Their complete date is 140 days.

Alstom/GE-

1. Need to confirm that the aluminum house is PTMW manufacturer.
2. Need to confirm the gate mechanisms are Western Cullen Hays.
3. They aren't providing MS4000 per bid documents.
4. Complete date is 140 days.

Progress Rail-

1. Need to confirm their aluminum house is PTMW manufacturer.
2. They are excluding insulated joints and switch materials which is needed for Zeltman Ave.

Kelley, James

From: KLamb@diamondbacksignal.com
Sent: Monday, October 03, 2016 1:53 PM
To: Kelley, James
Cc: JBrunner@diamondbacksignal.com
Subject: RE: Request for Bid - RJ Corman

James,

Thank you for the opportunity to bid on your signal projects, but we will pass at this time on these projects.

Thank You
Kevin Lamb
Vice President Engineering
Diamondback Signal, LLC
5965 Exchange Drive, Suite D
Sykesville, MD 21784
Office: (410) 795-9601
Office: (855) 267-3090
Cell: (240) 444-6698
Fax: (410) 795-9607
klamb@diamondbacksignal.com



From: Kelley, James [mailto:James.Kelley@RJCorman.com]
Sent: Monday, October 03, 2016 1:16 PM
To: KLamb@diamondbacksignal.com
Subject: FW: Request for Bid - RJ Corman

Kevin,

Your information was passed on to me from someone within our company. Please see attached invitation to bid for 2 separate signal warning system projects in Ohio. These are due by October 13th at 5PM. If you have any questions, email is probably the best way to get in touch with me.

Thanks for the help on this.

Jimmy Kelley
Funded Projects Coordinator
RJ Corman Railroad Group, LLC
PO Box 788, 101 RJ Corman Dr



OHIO RAIL DEVELOPMENT COMMISSION

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

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

June 17, 2016

Ms. Deborah J. Hawley
RJ Corman Railroad Group LLC
101 RJ Corman Dr.
PO Box 788
Nicholasville, Ky 40356

RE: Tuscarawas County, 12th St NE, DOT#142583F, PID#101962

Dear Ms. Hawley:

The plan and estimate transmitted March 15th 2016, for the referenced project has been reviewed and is acceptable. RJ Corman may proceed with soliciting bids for 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.

A construction authorization will be sent once the bid documents have been received and approved. No field work may be started without a construction authorization from this office.

Sincerely,

James Tucker, Project Manager
Ohio Railroad Development Commission

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



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



OHIO RAIL DEVELOPMENT COMMISSION

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

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

January 11, 2016

Ms. Deborah J. Hawley
RJ Corman Railroad Group LLC
101 RJ Corman Dr
PO Box 788
Nicholasville, Ky 40356

RE: Tuscarawas County, 12th St NE, DOT# 142583F

Dear Ms. Hawley:

A diagnostic review was held at the above grade crossing on October 19th 2015. The crossing has been recommended for the installation of lights and gates.

RJ Corman is authorized to proceed with the site plans and cost estimates (PE) or bid package for this project. This authorization is made with the stipulation and understanding that any field work needs prior approval before 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.

The diagnostic review form is attached. Please note any recommendations (page 5), if any, made by the team with regard to requirements for this location. Any minor roadway work necessary for MUTCD compliance should be incorporated into the PE and such costs will flow through the railroad reimbursement process.

The Project Manager for this project is James Tucker. James can be reached at (614) 398-6897, or james.tucker@dot.ohio.gov, if you have any questions.

Sincerely,

Project Manager

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

Attachment: 1 (diagnostic review form)



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



Diagnostic Review Team Survey

Reason for Survey:

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

Constituent

Date:

10-19-15

Location Data

Street or Road Name: 12th Street NE

Route/Road Number
(i.e. Twp., Co., SR or US)

US DOT No.: 142583F

County: TUS

Township: Vil. Of Strasburg

City:
(In or Near) Strasburg

Railroad
Name: R.J. Corman

Railroad
Division: AK

Branch/Line
Name:

Nearest RR
Timetable Station: Justus

RR Milepost: 80.2

On-Site Review Team

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

1. JAMES TUCKER ORDC 614-398-6897
2. SHAWN ZURFEL PUCO 614-466-1150
3. GEORGE MARIN PUCO 614-752-9187
4. JANE IVKOVICH R.J. CORMAN 859-221-5147
5. Ken Lambert Village of Strasburg 330-878-3038 klambert@villageofstrasburg.org
6. _____
7. _____
8. _____
9. _____

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs (condition?)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Gave LHA PUCO Paper
'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 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	
Hazard Ranking	3488	Date Run: 8/18/15 2777 10/29/15

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	4	
< 1 per day		
Day thru trains	4	
Night thru trains		
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks	1	
Maximum train speed	25	
Typical train speed	25	
Amtrak		

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

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: Village of Strasburg

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	528 (2010)	1000 +
Highway paved	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Roadway Surface: <input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____		
Roadway width: 25 ft.		
Number of highway lanes	2	
Urban or Rural	Rural	
Vehicle Speed: 35 MPH 25		25
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes 2 Amount 4		
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes .05 Amount		
Shoulders: <input type="checkbox"/> No <input checked="" 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 <u>NE</u> 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 <u>SW</u> Curb and Gutter: <input type="checkbox"/> Functional (Curb height = 4" or more) <input type="checkbox"/> Non-functional (Curb height = Less than 4") <input checked="" type="checkbox"/> None
---	---

Pedestrians: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is sidewalk present? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is there a nearby intersection that could cause queuing over the crossing? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
If yes, Distance _____	
Is this intersection signalized? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Are the signals currently interconnected with the existing crossing warning devices? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is there a 'Do not Stop on Track' sign? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
If yes, Improvement type _____ Lead Agency _____ Timeline/completion - _____	

Is it the consensus of the Diagnostic Review Team that this is a potential closure project? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Explain reasons:	

Type of Development		
<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential	Location of nearby schools: <u>Strasburg Schools</u> <u>Approx 1 mile</u>	

Utility Information	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
Utility Provider (Company Name) <u>AEP</u>	Phone Number _____
Nearest Available Power Source <u>West of tracks from power pole</u>	
What other utilities are present? <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Cable <input type="checkbox"/> Telephone <input type="checkbox"/> Fiber Optic Cable (add locations to sketch) <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 type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	
Comments:	

Potential Red Flags / Project Challenges

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

N/A

Crossing Consolidation or Closure:

N/A

Real Estate or ROW:

N/A

Culverts / Drainage / Ballast Conditions:

N/A

Roadway and/or Sidewalks:

N/A

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

Zeltman St. Circuitry would be interconnected

Environmental:

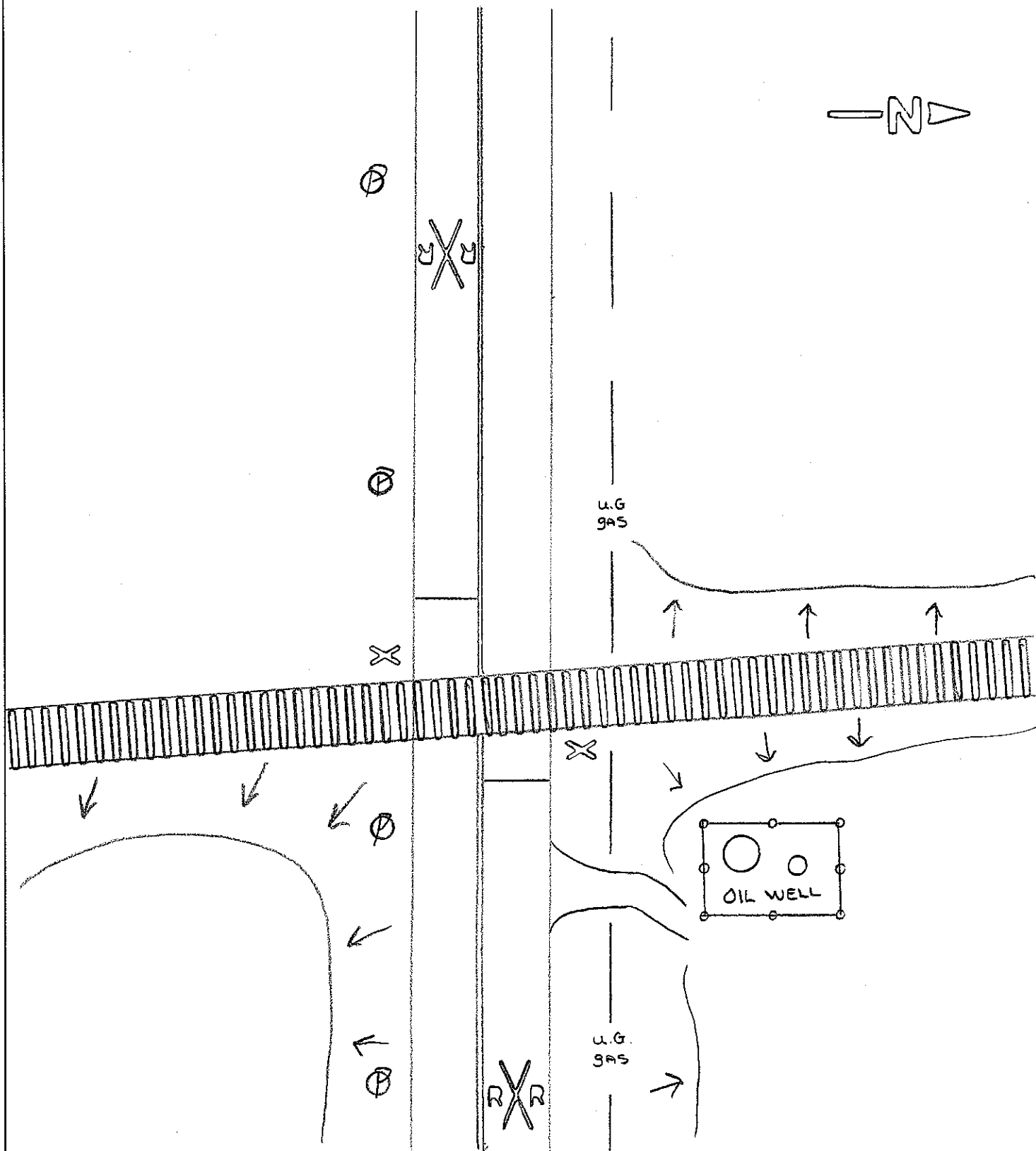
N/A

Other:

J. F.

10-19-15

Field Sketch



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

Sketch by: J.T.

Diagnostic Team Recommendations

	Quadrants Needed
<input checked="" type="checkbox"/> Install/upgrade active devices	
<input checked="" type="checkbox"/> Automatic Flashing Lights (AFLS)	
<input type="checkbox"/> AFLS / Cants	
<input checked="" type="checkbox"/> AFLS / Gates	SW + NE Quad
<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	SW Quad
<input type="checkbox"/> Other (define)	

Comments: prefab wall w/ stone Backfill in NE Quad.

☐ Install/upgrade traffic signal preemption

☐ No improvements needed

☐ Other (define)

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

[Signatures]

Field Dimensions

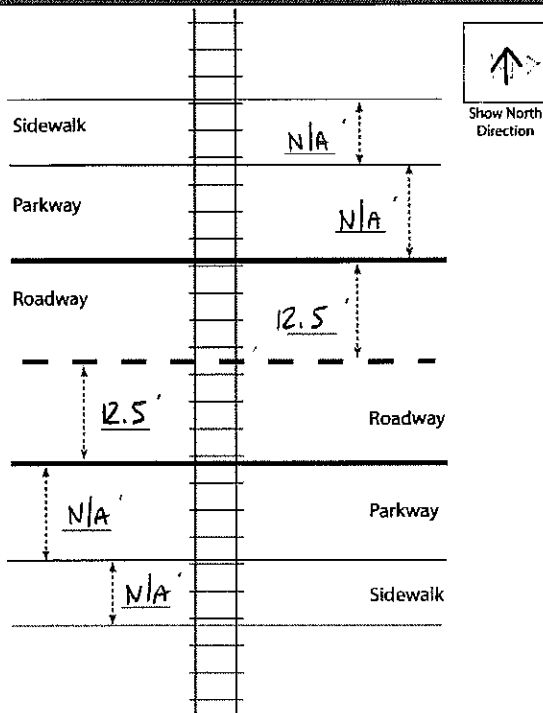


TABLE 1

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: Randall Schumacher, Supervisor, Rail Division, PUCO
FROM: Cathy Stout, Manager, Safety Section, ORDC
BY: James Tucker, Project Manager, ORDC
SUBJECT: Tuscarawas County, Zeltman Ave, DOT#142584M, PID#101957
DATE: November 3, 2016

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on October 19, 2015. 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
Plan & Estimate

c: Jill Henry, 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

November 1, 2016

Mr. James Kelley
Funded Projects Coordinator
RJ Corman Railroad Group LLC
PO Box 788
101 RJ Corman Drive
Nicholasville, KY 40356

RE: Tuscarawas County, Zeltman Ave NE, DOT#142584M, PID#101957.

Dear Mr. Kelley:

The bid process for the referenced project has been reviewed and is acceptable. RJ Corman 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 \$124,360.52. 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 but must be confirmed in writing within ten (10) business days of the verbal approval.

This authorization is contingent upon RJ Corman accepting the following instructions:

1. RJ Corman's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to James Tucker, ORDC, email james.tucker@dot.ohio.gov, and to the Public Utilities Commission of Ohio, email jill.henry@puc.state.oh.us. RJ Corman'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. RJ Corman 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 RJ Corman.
3. RJ Corman's project foremen will notify James Tucker at 614-398-6897 (telephone) or james.tucker@dot.ohio.gov (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.



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY

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. RJ Corman will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Purchase Order to reference when billing.
6. RJ Corman 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,



James Tucker
Project Manager

Attachment: ODOT P.O.

C: Randall Schumacher, Supervisor, Rail Division, PUCO
Jill Henry, Grade Crossing Planner, PUCO
ORDC (file)

APPROACH DISTANCE 1,431' = 30 SEC + 5 SEC CL @ 25MPH

RAILROAD TIMETABLE NORTH TO CSXT WARWICK TERMINAL

50' MIN. FROM EDGE OF ROAD

120' MIN.

50' MIN. FROM EDGE OF ROAD

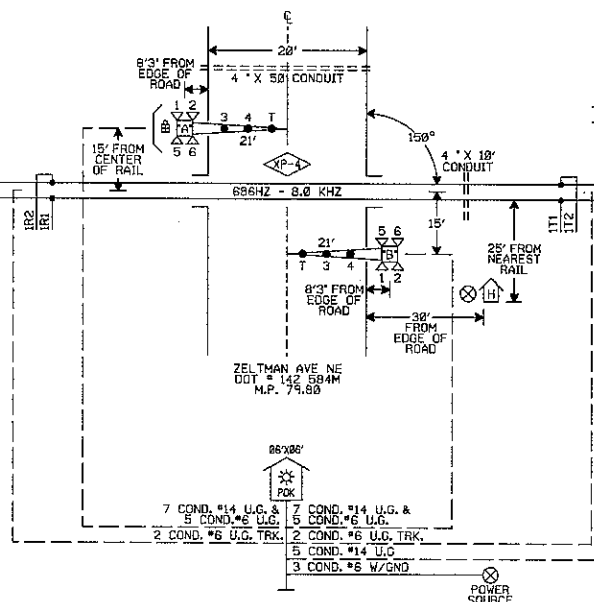
APPROACH DISTANCE 1,431' = 30 SEC + 5 SEC CL @ 25MPH

RAILROAD TIMETABLE SOUTH TO HATCHESVILLE

1,139' APPROACH
12TH STREET NE

686HZ
NBS-1

790HZ
NBS-1



CONSTRUCTION NOTES:

1. SW. LOCATED 1290 FT FROM XING WILL NEED INSULATED RODS AND CLEARANCE JOINTS INSTALLED BY FIELD FORCES.
2. RAIL SECTION WILL NEED BONDING FROM NORTHBOUND APPROACH SHUNT TO SW. LOCATED 960 FT FROM XING. (APPROX 20 BONDS)
3. INSTALL T-RX7100 RAIL SHUNT AUGMENTER. CANNOT INSTALL INSULATED JOINT ON NORTH SIDE OF XING DUE TO OVER LAPPING SHUNTS.
4. ADD 2 SWITCH CIRCUIT CONTROLLERS AND 1 SWITCH REPEATER RELAY.

NOTES:

1. TRANSMITTER WIRE T1 & T2 MUST BE RUN TO THE TRACK BUNGALOW SIDE OF THE CROSSING.
2. APPROACH DISTANCES ARE TO BE MEASURED FROM CIRCUIT FEED POINTS.
3. = HOUSE LOCATION
4. = POWER SOURCE LOCATION
5. ALL LAMPS ARE 12" LED.
6. ALL DIMENSION OFFSETS ARE PER AREMA SPECIFICATIONS TO MEET MINIMUM STANDARDS.

APPROVED AS TO SIGNAL
DISPLAY LAYOUT ONLY

Thomas R. [Signature]

5/16/11

REV: 6

REV: 5

REV: 4

REV: 3

REV: 2

REV: 1

Rj Corman
Signaling, LLC

101 RJ CORMAN DRIVE
NICHOLASVILLE, KY 40356

RJ CORMAN RAILROAD

DESIGNED BY: RJC
DIGITIZED BY: RJC
CHECKED BY: RJC

ZELTMAN AVE NE
STRASBURG, OH
TRACK LAYOUT

DATE: 02/22/16
FILE: CL7986.01
SHEET 01 OF 01



OHIO RAIL DEVELOPMENT COMMISSION

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

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

June 17, 2016

Ms. Deborah J. Hawley
RJ Corman Railroad Group LLC
101 RJ Corman Dr.
PO Box 788
Nicholasville, Ky 40356

RE: Tuscarawas County, Zeltman Ave, DOT#142584M, PID#101957

Dear Ms. Hawley:

The plan and estimate transmitted March 15, 2016, for the referenced project has been reviewed and is acceptable. RJ Corman may proceed with soliciting bids for 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.

A construction authorization will be sent once the bid documents have been received and approved. No field work may be started without a construction authorization from this office.

Sincerely,

James Tucker, Project Manager
Ohio Railroad Development Commission

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



www.rail.ohio.gov

phone: 614.644.0306

IMPROVING RAIL TODAY FOR TOMORROW'S ECONOMY



OHIO RAIL DEVELOPMENT COMMISSION

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

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

January 11, 2016

Ms. Deborah J. Hawley
RJ Corman Railroad Group LLC
101 RJ Corman dr.
PO Box 788
Nicholasville, KY 40356

RE: Tuscarawas County, Zeltman Ave NE, DOT# 142584M

Dear Ms. Hawley:

A diagnostic review was held at the above grade crossing on October 19th 2015. The crossing has been recommended for the installation of lights and gates.

RJ Corman is authorized to proceed with the site plans and cost estimates (PE) or bid package for this project. This authorization is made with the stipulation and understanding that any field work needs prior approval before 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.

The diagnostic review form is attached. Please note any recommendations (page 5), if any, made by the team with regard to requirements for this location. Any minor roadway work necessary for MUTCD compliance should be incorporated into the PE and such costs will flow through the railroad reimbursement process.

The Project Manager for this project is James Tucker. James can be reached at (614) 398-6897, or james.tucker@dot.ohio.gov, if you have any questions.

Sincerely,

Project Manager

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

Attachment: 1 (diagnostic review form)



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Diagnostic Review Team Survey

Reason for Survey:

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

Formula

Date:

10-19-15

Location Data

Street or Road Name:

Zeltman Ave NE

Route/Road Number

(i.e. Twp., Co., SR or US)

US DOT No.:

142584M

County:

TUS

Township:

Vil. Of Strasburg

City:

(In or Near)

Strasburg

Railroad

Name:

R.J. Corman

Railroad

Division:

AK

Branch/Line

Name:

Nearest RR

Timetable Station:

Justus

RR Milepost:

79.8

On-Site Review Team

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

1. JAMES TUCKER ORDC 614-398-6897 JAMES.TUCKER@dot.ohio.gov

2. SHAWN LURLEY PUCO 614-466-1150

3. GEORGE MARTIN PUCO 614-752-9107

4. RON LAMBERT - Village of Strasburg 330-878-3038 rlambert@villageofstrasburg.org

5. DANE IVKOVICH - SIGNAL MAINTAINER R.J. CORMAN.

6. _____

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
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 checked="" type="checkbox"/> Yes	<input 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	
Hazard Ranking	1424	Date Run: 8/18/15

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	4	
< 1 per day		
Day thru trains	4	
Night thru trains		
Daytime switching movements		
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	25	
Typical train speed	25	
Amtrak		

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

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

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: Village of Strasburg

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	779 (2010)	
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: 20 ft.		
Number of highway lanes	2	
Urban or Rural	Rural	
Vehicle Speed: 25 MPH		
School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes 1 Amount 4		
Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes 10 ⁷ Amount		
Shoulders: <input type="checkbox"/> No <input checked="" 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 <u>DW</u> 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 <u>SE</u> 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 type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
Is sidewalk present? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is there a nearby intersection that could cause queuing over the crossing? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, Distance _____	
Is this intersection signalized? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Are the signals currently interconnected with the existing crossing warning devices? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is there a 'Do not Stop on Track' sign? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, Improvement type _____ Lead Agency _____ Timeline/completion - _____	
Is it the consensus of the Diagnostic Review Team that this is a potential closure project? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Explain reasons: _____	
Type of Development	
<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential	Location of nearby schools: <u>Stansburg Schools</u> <u>Approx 1 mile</u>
Utility Information	
Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	
Utility Provider (Company Name) <u>AEP</u> Phone Number _____	
Nearest Available Power Source _____	
What other utilities are present? (add locations to sketch) <input checked="" type="checkbox"/> Gas <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Telephone <input type="checkbox"/> Fiber Optic Cable <input type="checkbox"/> Petroleum <input checked="" type="checkbox"/> Water <input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Other _____	
Is(are) there potential utility conflict(s) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	
Comments: _____	

Potential Red Flags / Project Challenges

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

N/A

Crossing Consolidation or Closure:

N/A

Real Estate or ROW:

N/A

Culverts / Drainage / Ballast Conditions:

N/A

Roadway and/or Sidewalks:

N/A

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

12th street would be interconnected

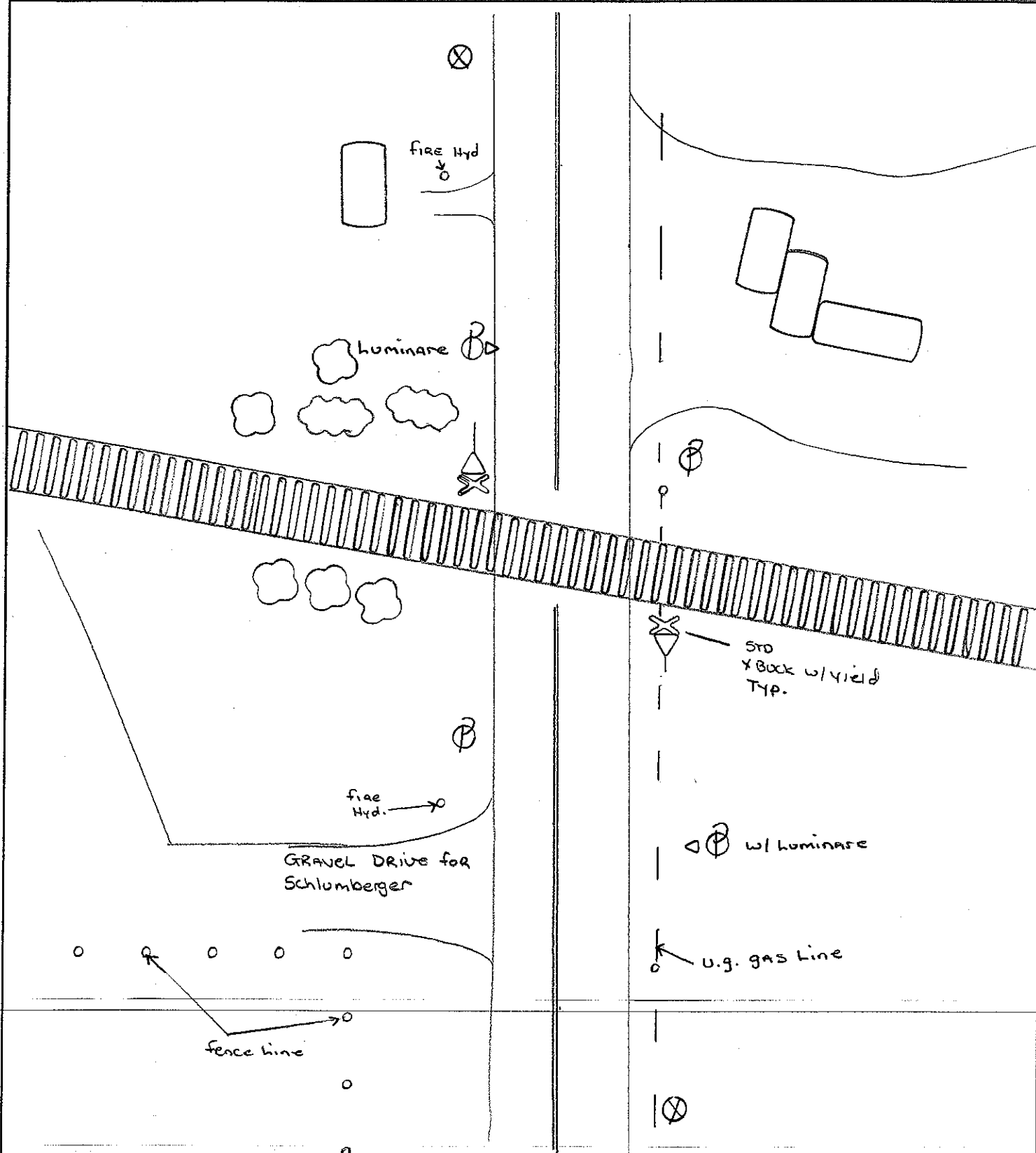
Environmental:

N/A

Other:

J.T.
10-19-15

Field Sketch



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

Sketch by: JS

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	NW + SE Quad.
<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	SE Quad if Row permits
<input type="checkbox"/> Other (define)	

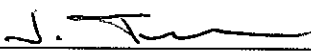
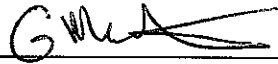
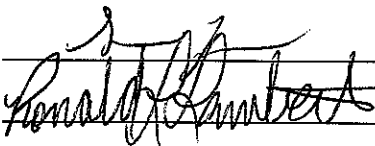

Comments:

☐ Install/upgrade traffic signal preemption

☐ No improvements needed

☐ Other (define)

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

Field Dimensions

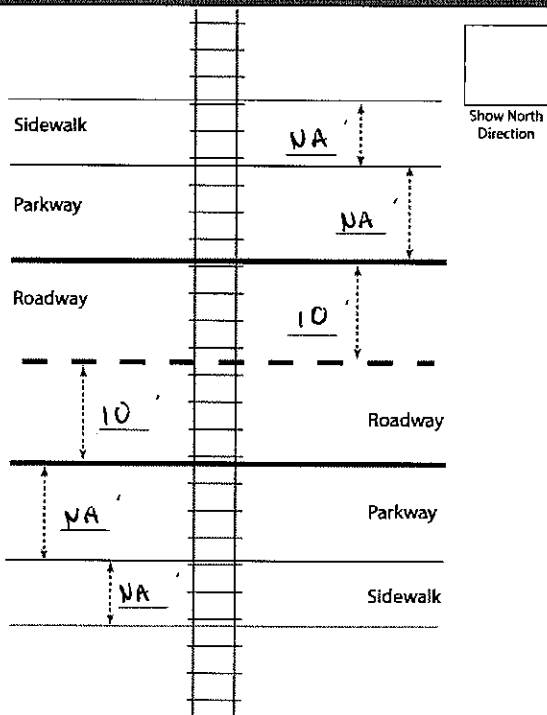


TABLE 1

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.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

11/21/2016 11:55:35 AM

in

Case No(s). 16-2203-RR-FED

Summary: Application In the Matter of a Request for the Installation of Active Warning Devices at the RJ Corman Railroad Crossings, Zeltman Avenue NE DOT#142-584M and 12th Street NE DOT#142-583F in Tuscarawas County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division