

Memo

To: Docketing Division
From: Jill Henry, Chief, Rail Division
Cc: PUCO Legal Department
Date: 6/9/2021

Re: PUCO Case No. 21-683-RR-FED- In the Matter of a Request for the Installation of New Active Warning Devices at Michigan Southern Railway Grade Crossing, DOT# 477-808K, on US 127 in Paulding County, Ohio.

On April 13, 2021, the Ohio Rail Development Commission (ORDC) authorized funding for Michigan Southern Railway (MSO) to new install lights and gates at US 127, DOT#477-808K, grade crossing in Paulding County, Ohio. The crossing was surveyed, on August 5, 2020, and was found to warrant the upgrades. The electric utility provider for this crossing is Paulding-Putnam Electric Cooperative.

The project will be paid for with federal funds (90%) and Railroad Funds (10%) and is actual cost. The plans and estimates for the project in the amount of \$295,098.00 have been approved. Construction may commence at once. **Staff requests a Finding & Order with completion of the project 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:

Michigan Southern Railway
Brice Travis
Regional General Manager
817 Fifth Street
Defiance, OH 43512

ODOT District #1
Kris Osterhage
Transportation Engineer
1885 N McCullough St.
Lima, OH 45801-0040

Ohio Rail Development Commission
Alan Bell
Manager, Grade Crossing Program
1980 West Broad Street
Mail Stop #3140
Columbus, OH 43223

Paulding-Putnam Electric Cooperative
401 McDonald Pike
Paulding, OH 45879

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

TO: John Williams, Director, Transportation Department, PUCO

FROM: Allen Bell, Manager, Grade Crossing Safety Programs, ORDC

BY: Don Damron, ORDC Safety Section

SUBJECT: US 127 in Paulding County
DOT# 477808K
PID# 114019

DATE: May 11, 2021

The Ohio Rail Development Commission (ORDC) established a diagnostic survey at the subject location on August 8, 2020. The Public Utilities Commission of Ohio (PUCO) attended the review. The ORDC recommends the upgrade of the warning devices to flashing lights, roadway gates and a single cantilever. Copies of the diagnostic review form and the plan and estimate are attached.

PE has already been provided by the railroad. ORDC accepts the site plans and estimates as provided. Please issue a construction-only order for the project outlined above. ORDC recommends a nine (9) month construction timeline. 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.

Attachments: CDL Railroad Signal Division Proposal
Crossing Layout
PUCO Letter Agreement
Diagnostic Review Team Survey
State of Ohio Purchase Orders

c: Jill Henry, Rail Specialist, PUCO
ORDC Project Manager (file)



Rail Development Commission

Mike DeWine, Governor
Jon Husted, Lt. Governor

Mark Policinski, Chair

May 11, 2021

Michigan Southern Railway
Mr. Brice Travis
Regional General Manager
Napoleon, Defiance & Western Railway
817 Fifth Street
Defiance, Ohio 43512

RE: Construction Authorization, US 127 in Paulding County
DOT# 477808K
PID# 114019

Dear Mr. Brice:

The plan and estimate dated 10/5/2020 for the referenced project has been reviewed and is acceptable. The Napoleon, Defiance & Western Railway (NDW) may proceed with the construction of the proposed grade crossing warning system in accordance with the abbreviated plan. Construction may include but is not limited to circuitry design, installation of service poles, procurement of materials and signal construction.

The estimated total project cost of \$295,098.00 is acceptable and reimbursement is limited to 90% State share or \$265,098.00.20. 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. Additional costs must be approved in writing by the Ohio Rail Development Commission (ORDC) prior to being incurred. Emergency verbal authorizations by ORDC may be permitted and will be confirmed by ORDC in writing within ten (10) business days of the verbal approval.

This authorization is contingent upon the IORY accepting the following instructions:

1. NDW's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Michael Lynch, ORDC, email Michael.lynch@dot.ohio.gov, and to the Public Utilities Commission of Ohio at Jill.henry@puc.state.oh.us. CFER'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. NDW 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 CFER.



3. NDW's project foremen will notify Michael Lynch 614-395-1824 (mobile) or Michael.lyncy@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.
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. NDW will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed ODOT Purchase Order to reference when billing.
6. NDW 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.

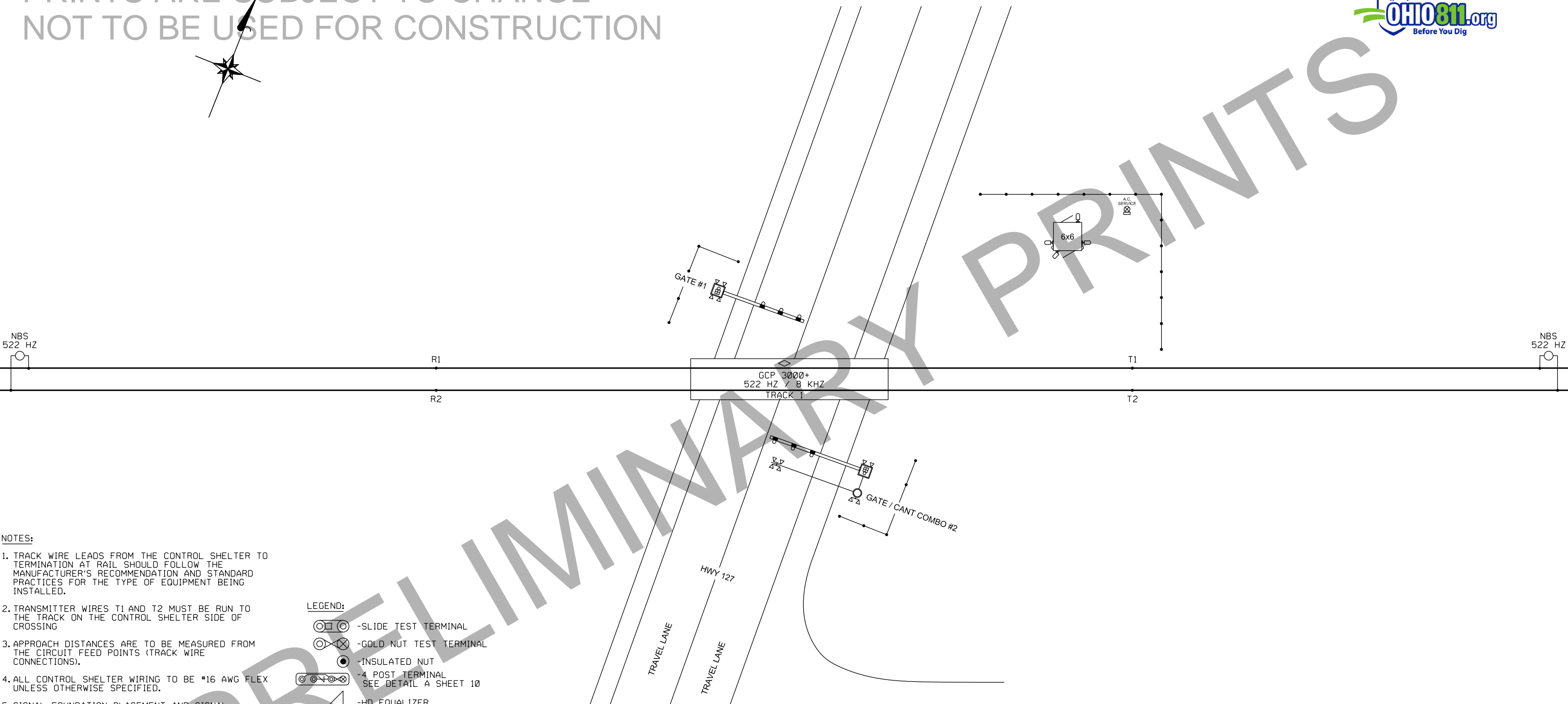
Sincerely,



Donald J Damron
Project Manager

C: Randall Schumacher, Chief, Motor Carrier & Rail Enforcement, PUCO
Jill Henry, Rail Specialist, PUCO
Heather Hamilton, ORDC
ORDC (file)

PRINTS ARE PRELIMINARY
PRINTS ARE SUBJECT TO CHANGE
NOT TO BE USED FOR CONSTRUCTION



NOTES:

- 1. TRACK WIRE LEADS FROM THE CONTROL SHELTER TO TERMINATION AT RAIL SHOULD FOLLOW THE MANUFACTURER'S RECOMMENDATION AND STANDARD PRACTICES FOR THE TYPE OF EQUIPMENT BEING INSTALLED.
- 2. TRANSMITTER WIRES T1 AND T2 MUST BE RUN TO THE TRACK ON THE CONTROL SHELTER SIDE OF CROSSING
- 3. APPROACH DISTANCES ARE TO BE MEASURED FROM THE CIRCUIT FEED POINTS (TRACK WIRE CONNECTIONS).
- 4. ALL CONTROL SHELTER WIRING TO BE #16 AWG FLEX UNLESS OTHERWISE SPECIFIED.
- 5. SIGNAL FOUNDATION PLACEMENT AND SIGNAL STANDARDS ARE TO BE PER THE MOST CURRENT M.U.T.C.D., STATE AND LOCAL REQUIREMENTS WHEN APPLICABLE. THE TOP OF THE SIGNAL FOUNDATION SHOULD BE NO MORE THAN 4 INCHES ABOVE THE GROUND AND SHOULD BE AT THE SAME ELEVATION AS THE CROWN OF THE ROADWAY. IN THE EVENT THESE MEASUREMENTS ARE NOT OBTAINABLE CONSULT THE CURRENT M.U.T.C.D. MANUAL, STATE AND LOCAL REQUIREMENTS.
- 6. ALL LIGHT UNITS TO BE LED TYPE.

LEGEND:

- SLIDE TEST TERMINAL
- GOLD NUT TEST TERMINAL
- INSULATED NUT
- 4 POST TERMINAL SEE DETAIL A SHEET 10
- HD EQUALIZER
- HD ARRESTER TO GROUND
- TWISTED WIRE (2 TURNS PER FOOT)
- RIGID CONDUIT
- GUARD RAIL
- RETAINING WALL

REVISIONS

THE OPERATION OF THE CIRCUITS AND EQUIPMENT REPRESENTED HEREIN CANNOT BE FULLY CHECKED UNTIL ALL CIRCUITS AND DEVICES ARE CONNECTED TO FORM A COMPLETE SYSTEM, OR AN EFFECTIVE SUBSYSTEM. SUCH SYSTEM OR SUBSYSTEM MUST BE GIVEN COMPLETE CIRCUIT AND OPERATIONAL TESTS BEFORE BEING PLACED IN REGULAR OPERATION.



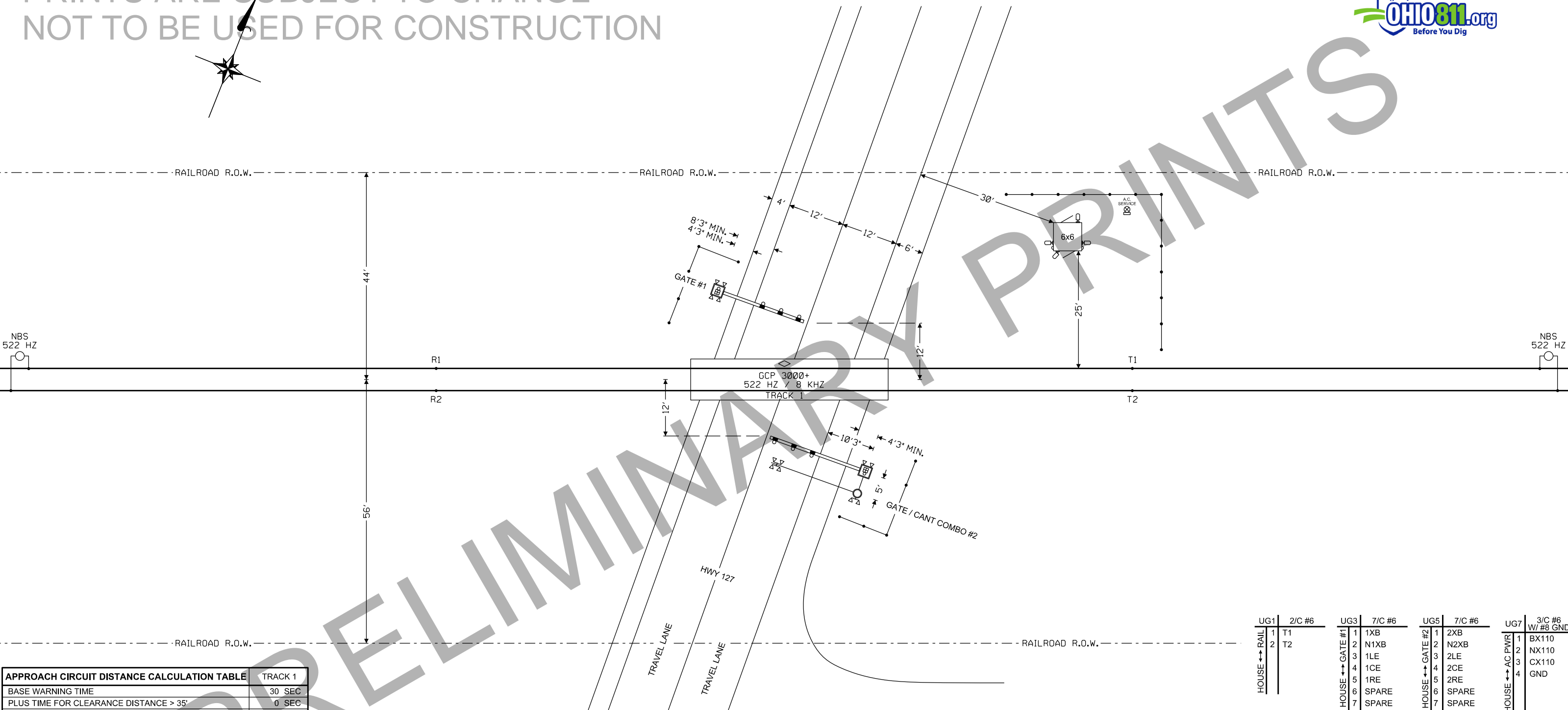
NAPOLEON, DEFIANCE & WESTERN RAILWAY

-NDW-

DOT# 477 808 K		GPS: 41.2227044, -84.5827650	MILEPOST# 62.87
DRAWN: P.B.	HWY 127 - GRADE CROSSING		PRELIMINARY
CHECKED: C.D.L.	CECIL, OH		DRAWING NO.
APPROVED: C.D.L.	NDW SUB-DIVISION		PRJ-000
DATE: 09-30-20	DRAWN BY CDL ELECTRIC INC.		SHEET 1 OF 2

600' 50' MIN. 120' MIN. 50' MIN. 600'

PRINTS ARE PRELIMINARY
PRINTS ARE SUBJECT TO CHANGE
NOT TO BE USED FOR CONSTRUCTION



APPROACH CIRCUIT DISTANCE CALCULATION TABLE	
BASE WARNING TIME	30 SEC
PLUS TIME FOR CLEARANCE DISTANCE > 35'	0 SEC
EQUALS PLANNED WARNING TIME	30 SEC
PLUS TIME FOR EQUIPMENT RESPONSE	5 SEC
PLUS TIME FOR TRAFFIC SIGNAL PRE-EMPTION	0 SEC
EQUALS CIRCUIT APPROACH TIME	35 SEC
TIMES MAXIMUM PLANNED TRAIN SPEED	10 MPH
TIMES RATIO OF FEET PER SECOND TO MILES PER HOUR	1.467
EQUALS APPROACH CIRCUIT DISTANCE	514 FT
ACTUAL MEASURED APPROACH CIRCUIT DISTANCE	FT

ANY FRACTIONAL VALUE INCREASED TO FULL UNIT
MINIMUM APPROACH DISTANCE TO BE 600' IF CALCULATION IS <600'

UG1 2/C #6		UG3 7/C #6		UG5 7/C #6		UG7 3/C #6 W/ #8 GND	
RAIL	1 T1	GATE #1	1 1XB	GATE #2	1 2XB	AC PWR	1 BX110
HOUSE	2 T2	2 N1XB	2 N2XB	2 N2XB	2 NX110	3	3 CX110
		3 1LE	3 2CE	3 2CE	3 CX110	4	4 GND
		4 1CE	4 2RE	4 2RE			
		5 1RE	5 SPARE	5 SPARE			
		6 SPARE	6 SPARE	6 SPARE			
		7 SPARE	7 SPARE	7 SPARE			

UG2 2/C #6		UG4 7/C #14		UG6 7/C #14	
RAIL	1 R1	GATE #1	1 1GH	GATE #2	1 2GH
HOUSE	2 R2	2 1GPX	2 1GPX	2 N2GPX	2 N2GPX
		3 1BELL	3 1BELL	3 2BELL	3 2BELL
		4 SPARE	4 SPARE	4 SPARE	4 SPARE
		5 SPARE	5 SPARE	5 SPARE	5 SPARE
		6 SPARE	6 SPARE	6 SPARE	6 SPARE
		7 SPARE	7 SPARE	7 SPARE	7 SPARE

REVISIONS

THE OPERATION OF THE CIRCUITS AND EQUIPMENT REPRESENTED HEREIN CANNOT BE FULLY CHECKED UNTIL ALL CIRCUITS AND DEVICES ARE CONNECTED TO FORM A COMPLETE SYSTEM, OR AN EFFECTIVE SUBSYSTEM. SUCH SYSTEM OR SUBSYSTEM MUST BE GIVEN COMPLETE CIRCUIT AND OPERATIONAL TESTS BEFORE BEING PLACED IN REGULAR OPERATION.



NAPOLEON, DEFIANCE & WESTERN RAILWAY
-NDW-

DOT# 477 808 K	GPS: 41.2227044, -84.5827650	MILEPOST# 62.87
DRAWN: P.B.	HWY 127 - GRADE CROSSING	PRELIMINARY
CHECKED: C.D.L.	CECIL, OH	DRAWING NO.
APPROVED: C.D.L.	NDW SUB-DIVISION	PRJ-000
DATE: 09-30-20	DRAWN BY CDL ELECTRIC INC.	SHEET 2 OF 2



Proposal

Railroad Signal Division

1308 N. Walnut Street, Pittsburg, KS 66762
Ph: (620) 231-6420 www.cdl-electric.com

PROPOSAL SUBMITTED TO: Napolean, Defiance & Western Railway	PHONE: (419) 408-5434	DATE: October 5, 2020
STREET: 5619 DTC Parkway Suite 560	JOB NAME: Hwy 127 (477 808 K)	
CITY, STATE and ZIP CODE: Greenwood Village, CO 80111	JOB LOCATION: Cecil, OH	
CONTACT: Brice Travis, GM- btravis@pioneer-railcorp.com	JOB NUMBER: RCP-216	

We hereby submit specifications and estimates for:

RCP-216, HWY 127, Cecil OH (477 808 K)

A new railroad/highway grade crossing warning signal system will be designed and installed specifically for the location listed above. It will include a new pre-wired grade crossing control shelter with prediction type circuitry, an 18' gate/cantilever combo, and a flashing light/gate signal assembly as outlined in the Preliminary plans which have been prepared.

Warning signals will include two each automatic gate assemblies; each with 12" LED light units, signs and swing-away gate arm saving devices, and each signal assembly will include a bell. Underground signal cable, rail bonds, track connection items, foundations, and grounding components will be included as well. New conduits will be furnished under the road and track as required. Also, a new AC meter service will be installed for this automatic warning system. After the installation of the proposed signal system is complete, dress stone and grass seed will be placed, as needed, to properly finish the installation.

Commercial AC power (220V) must be readily available within 75' of the control shelter location. Any additional cost(s) associated with labor or material(s) to get 220-volt commercial power to the proposed AC meter service location is not included in this proposal and will be the responsibility of others at their expense.

Any overhead or underground utilities that may interfere with the installation or proper operation of the proposed signal system must be relocated at the expense of others. C.D.L. Electric, Incorporated will not be responsible for any cost(s) associated with labor or material(s) required to relocate utilities at this location.

If concrete, asphalt or any other type of roadway/walkway material must be removed for the proper installation and operation of the proposed signal system, then additional charges may apply. C.D.L. Electric, Incorporated will not be responsible for any cost(s) associated with labor or material(s) to replace concrete, asphalt or any other type of roadway/walkway material removed during the installation process of the proposed signal material.

We hereby propose to furnish material and labor — complete in accordance with above specifications, for the sum of \$295,098.00

Two Hundred Ninety-Five Thousand, Ninety-Eight Dollars and 00/100 (\$295,098.00) includes estimated sales tax of 7.25%

Continued on next page

RCP-216, HWY 127, Cecil, OH (477 808 K) – continued

The price breakdown is as follows:

Preliminary Engineering Services with Plan Preparation	\$2,000.00
Signal Material, Refer to Accompanying Material List (w/ Handling):	\$201,730.00
Labor w/ Expenses:	\$44,605.00
Equipment:	\$26,815.00
Total Sell Price	\$275,150.00
Sales Tax 7.25% (Est.)	\$19,948.00
 Grand Total with estimated Sales Tax	 <u>\$295,098.00</u>

Please Note the following:

1. Proposed Pricing is valid for One Hundred Eighty (180) days from the date of this Proposal, beyond 180 days prices are subject to change
2. Proposed pricing is based on Lump Sum invoicing and includes estimated sales tax
3. Preliminary Engineering Services may be invoiced separately
4. Terms: Net Due 30 Days from Invoice Date
5. This proposal may be withdrawn by us if not accepted within One Hundred Eighty (180) days
6. Pricing is based on one crew mobilization for this project only
7. Crew labor will be paid per their standard pay wages with overtime when applicable, and include standard benefit package as outlined in their employee handbook
8. Pricing is based on crew being allowed to work unrestricted hours seven days per week
9. Any planned road and/or curb work must be completed prior to the arrival of our installation crews
10. If traffic control for the public roadway, other than typical "Crew Working" type signage is mandated by a third party, then other charges may apply
11. When applicable, existing automatic warning system will be removed and transported to nearest railroad yard

Authorized Signature:



Josh Shamhart

Senior Director of Railroad Construction

Josh.Shamhart@cdl-electric.com

(620) 417-6420

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Acceptance of Proposal — the above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Date of Acceptance: _____

Signature: _____

Signature: _____

Continued on next page

RCP-216, HWY 127, Cecil, OH (477 808 K) – continued

<u>ITEM DESCRIPTION</u>	<u>QTY.</u>	<u>U/M</u>
PRELIMINARY ENGINEERING SERVICE (SUBJECT TO SEPARATE INVOICE)	1	LT
CONTROL SHELTER, ALUM., W/ FNDS, FAN, AC ITEMS & ACCESSORIES	1	EA
WIRE KIT PACKAGE INCLUDING:		
SSCCIII-A, 40 AMP	1	EA
EVENT RECORDER, ARGUS	1	EA
WRENCH, AAR TERMINAL TYPE	1	EA
PREDICTOR UNIT, GCP 3000+	1	EA
ARRESTER	1	LT
EQUALIZER	1	LT
ARRESTER BASE, 4-POST	1	LT
TEST LINK, 1"	1	LT
TEST LINK, 2-3/8"	1	LT
PLUG, TWIST-LOCK TYPE FOR CHARGER	3	EA
RELAY, BMR (NON-VITAL)	1	EA
POWER-OFF LIGHTS	2	EA
STICKER, LOCATION/CONTACT INFORMATION	1	EA
MDSA-1X, MOTION DETECTOR SURGE ARRESTER	1	EA
SHUNT, NBS, NARROW BAND	2	EA
CHARGER, BATTERY 12/20, 20 AMP	1	EA
CHARGER, BATTERY 12/40, 40 AMP	1	EA
BATTERY, GNB, 264 A.H., 50G11	6	CL
BATTERY, GNB, 368 A.H., 50G15	7	CL
SHOP WIRING HDW., WIRE, TERM. EYES, TAGS, ETC.	1	LT
VIDEO MONITORING/RECORDING PACKAGE, 4 CAM4TB	1	EA
SERVICES, SHOP WIRING & TESTING SERVICES	1	LT
GATE ASSEMBLY, JCT. BOX, MAST, MECH., SIGN, CWTS. & 12" 2W LEDS	2	EA
BELL, ELECTRONIC 12V TYPE FOR 4"/5" MTG.	2	EA
GATE ARM, HI STRIPING, RED/WHITE ALTERNATING, (ADJ) W/ HDW	2	EA
LIGHT KIT FOR GATE ARM 4" LED TYPE	2	EA
GATEKEEPER, SWING-A-WAY GATE ARM DEVICE	2	EA
FOUNDATION, GALVANIZED STEEL 48" DEEP W/ 36" SQ. PLATE	1	EA
CANTILEVER, COMBO W/ 5' OFFSET, 18' WALKOUT	1	EA
FOUNDATION, POUR IN PLACE	1	EA
WIRE, #10 AWG T.C. BLUE FOR WIRING SIGNALS	1	LT
CABLE, U.G. SIGNAL 7 COND. NO. 14 AWG SOLID	1	LT
CABLE, U.G. SIGNAL 7 COND. NO. 6 AWG SOLID	1	LT
CABLE, U.G. SIGNAL 3 COND. NO. 4 / GND FOR AC POWER	1	LT
TRACK WIRE NO. 6 TW. PR. DUPLEX	1	LT
GROUND ROD, COPPER, 5/8" DIAMETER, 8' LENGTH - POINTED	4	EA
RETENTION WALL, GALV. STEEL	1	LT
TRACK CONNECTOR "BOOTLEG", WELD-WEB, 3/16" DIA., W/ 1" TAB, 4"	1	LT
RETAINER CLIP, CABLE (3/8" MAX. DIA.) TO RAIL - PERPENDICULAR	8	EA
LOCK, RAILROAD STD.	5	EA
BOND, CADWELD TYPE, 3/16" X 7-1/2", TAB STYLE	1	LT
MISC. MATERIAL FOR FIELD INSTALLATION	1	LT
ENGINEERING SERVICES / CIRCUIT PLANS / AS-IN-SERVICE PLANS	1	LT



Rail Development Commission

Mike DeWine, Governor
Jon Husted, Lt. Governor

Scott Corbitt, Chair

April 13, 2021

Michigan Southern Railway
Mr. Brice Travis
Regional General Manager
Napoleon, Defiance & Western Railway
817 Fifth Street
Defiance, Ohio 43512

RE: Authorization for Design, Plans and Estimates
Grade Crossing Warning Device Upgrade
US 127, Paulding County
DOT# 477808K; PID# 114019

Dear Mr. Travis:

A diagnostic review was held at the above grade crossing on 8/5/2020. The existing active warning devices (flashing lights only) have been recommended for an upgrade to an all new system including flashing lights and roadway gates, a cantilever in the SE quadrant for better visibility for north bound traffic, a new bungalow and motion circuitry, retaining walls, one bell, and a new power drop.

The Napoleon, Defiance & Western Railroad is authorized to proceed with the design, site plans and cost estimates 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. Please note that Napoleon, Defiance & Western Railroad must provide ORDC with a plan stamped by a professional engineer licensed in the State of Ohio prior to acceptance and close out of the project.

The ORDC is not requesting that the PUCO issue an Order at-this-time. Please submit the preliminary engineering plans and or the bid package to ORDC within 90 days of receipt of this letter.

The diagnostic review form is attached. Please note any recommendations made by the team about requirements for this location. Any minor roadway work necessary for MUTCD compliance should be incorporated into the plans and estimates and such costs will flow through the CSX reimbursement process.

The Project Manager for this project is Don Damron. I can be reached at (614) 917-8466 (cell), or don.damron@dot.ohio.gov, if you have any questions.



Sincerely,

A handwritten signature in black ink, appearing to read "Donald J. Damron". The signature is fluid and cursive, with the first name "Donald" and last name "Damron" clearly distinguishable.

Donald J Damron
Project Manager

C: John Williams, Director, Transportation Department, PUCO
Jill Henry, Rail Specialist, PUCO
Heather Hamilton, ORDC
ORDC (file)

Attachments: 3 (diagnostic review team survey form, letter agreement, purchase order)



Rail Development Commission

Mike DeWine, Governor
Jon Husted, Lt. Governor

Scott Corbitt, Chair

December 8, 2020

Napoleon, Defiance & Western Railway
Mr. Todd Marklin
VP Engineering
5619 DTC Parkway, Suite 650
Greenwood Village, CO 80111

Subject: Grade Crossing Warning Device Improvements
Paulding County, US 127, DOT # 477808K, PID 114019

Dear Mr. Marklin:

A diagnostic review was conducted at the subject grade crossing on August 5, 2020. As a result of the review, the grade crossing will be upgraded with flashing lights and roadway gates.

This project shall be completed in compliance with Agreement No. 19387, dated December 8, 2015, entered into by the State of Ohio and Michigan Southern Railway Company DBA Napoleon, Defiance & Western Railway (NDW) and incorporated as if fully rewritten herein. This construction shall also meet the general terms and conditions under the Fixing America's Surface Transportation Act and subsequent amendments and the State of Ohio's Federally Funded Warning Device Program.

Preliminary engineering (PE) and construction costs shall be borne ninety percent (90%) by ORDC and ten percent (10%) by NDW. Reimbursable costs will be limited by the ORDC based on approved estimates and bid tabulations, if applicable. These limits will be quantified by the ORDC in its construction authorization to NDW and may be amended by the ORDC based on revised estimates and bid tabulations.

This Letter Agreement and the approved plans constitute the scope of the project. NDW shall notify ORDC in writing of any changes in the scope of work which are 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 NDW prior to ORDC issuing a PE authorization. PE will be submitted by NDW to ORDC within ninety (90) days or other time specified by ORDC in the PE authorization. Construction will not be commenced by NDW prior to ORDC issuing a construction authorization. Construction will be completed by NDW within nine (9) months or other time specified by ORDC in the construction authorization.



Please indicate your acceptance of the terms and conditions of this Letter Agreement by signing and returning 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 be deemed to be a duplicate original, but all of which taken together shall be deemed to constitute a single Agreement.

Sincerely,



Matthew Dietrich
Executive Director

Napoleon, Defiance & Western Railway:

By:  (type text here)

Title: VP Engineering

Date: 12/14/2020

PAU US 127 ND&W PID 114019

8/5/2020

Crossing at a glance:

PAV

US 127

DOT#

4778081C

ORDC Notes:

Please Sign In

Cathy Stout		ORDC	
Name	Title	Organization	
Phone Number		Email	Signature
614 917 8466			Cathy Stout
Don Darnon		ORDC	
Name	Title	Organization	
614 917 8466		Email	Signature
Tim Klessner		PUCO	
Name	Title	Organization	
Phone Number		Email	Signature
419-966-3597			Brice Travis
Brice Travis		Pioneer Railcar	
Name	Title	Organization	
419-966-3597		Email	Signature
419-966-3597		travis@pioneer-railcar.com	B-T
Josh Shambert		CDL Electric	
Name	Title	Organization	
417-208-7862		Email	Signature
417-208-7862		josh.shambert@cdl-electric.com	
Todd Osment		CDL ELECTRIC CO.	
Name	Title	Organization	
313-590-0493		Email	Signature
313-590-0493		Todd.Osment@cdl-electric.com	
Shea McLaughlin		CDL Electric	
Name	Title	Organization	
620-704-6388		Email	Signature
620-704-6388		Shea.McLaughlin@cdl-electric.com	
Name		Title	
Phone Number		Email	Signature

Location Data

Street or Road Name: US 127-16.34

County: Paulding

Township:

US DOT No.: 477808K

City (in or near): Cecil

Railroad Name: MSO

RR Milepost: 62.87

Safety Data (Obtain crash reports, if possible)

	Initial Information (from database)	Revised
Number & dates of vehicle crashes in previous 5 years:	0	
Number & dates of pedestrian/bicycle crashes in previous 5 years:	0	
Hazard Ranking: 3758	Date Run: 8/3/2020	Calculated rank rev. train count = 2092

Existing Traffic Control Devices

Type of Warning Devices	Installed?	Quantity/Comments
HIGHWAY		
Advance Warning Signs (condition?)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
'Stop' Signs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
'Stop Ahead' Signs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pavement Markings (condition?)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Dynamic Envelope Markings (condition?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Illumination	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
'No Turn' Signs (highway/passive)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Barriers/fencing (pedestrian/bicycle)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
LOOK Sign	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Do Not Stop On Track Sign	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
RAILROAD		
Crossbucks	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Crossbucks – assembly with Stop	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Crossbucks – assembly with Yield	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Mast-Mounted Flashing Lights	<input checked="" type="checkbox"/> Yes <input 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	
LED or Incandescent Lights? Size?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Incandescent
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/Pedestrian Gate Arms	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Number: Length:
'No Turn' Signs (railroad/active)	<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	

Railroad DataType of Train: ☒ Freight ☐ Intercity Passenger ☐ Transit ☐ Shared Use Transit ☐ Commuter ☐ Tourist/Other

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	1	4
<1 per day? Trains per week		
Day thru trains	1	2
Night thru trains		
Switching		2
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	10	
Typical train speed	5-10	6-7
Amtrak	No	
Are there other track(s) crossing this same roadway within 100ft of this crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If yes, Crossing DOT# (if different) _____		
If yes, distance _____ (take measurement between track centerlines at closest point along roadway)		
If multiple tracks, can two trains occupy crossing at the same time? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Can one train block the motorists' view of another train at the crossing? <input type="checkbox"/> Yes (explain below) <input type="checkbox"/> No		
Can one or more tracks be eliminated through the crossings? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Comments: Train count is expected to increase in the near future.		
Circuitry: <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input checked="" type="checkbox"/> Other _____ ACDC _____		

Roadway Data		
Local Highway Authority: State		
Roadway Characteristics	Initial Information (from database)	Revised
Average Daily Traffic	3400 (2011)	
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 Other _____		
Roadway width (paved/travelled way): _____ ft		
Number of Highway Lanes	2	
Urban or Rural	Rural	
Vehicle Speed: _____ 55 _____ MPH		
School Bus Operation: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount _____		
Location of nearby schools:		
Hazardous Materials Trucks: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Amount (from FRA) _____ 3% _____ LHA verified/changed?		
Shoulders: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Is the Shoulder Surfaced? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, shoulder width: _____ ft.		
Is there existing guardrail along the roadway in crossing vicinity? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Crossing Angle <input type="checkbox"/> 0-29° <input type="checkbox"/> 30-59° <input checked="" type="checkbox"/> 60-90° Measured in _____ Quadrant?		
Quadrant _____ Curb & Gutter:	Quadrant _____ Curb & Gutter:	
<input type="checkbox"/> Functional (Curb height = 4" or more)	<input type="checkbox"/> Functional (Curb height = 4" or more)	
<input type="checkbox"/> Non-functional (Curb height = less than 4")	<input type="checkbox"/> Non-functional (Curb height = less than 4")	
<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> None	
Is there a nearby intersection that could cause queuing over the crossing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If yes, distance _____ 50-100' _____ Minor STOP controlled side roads.		
Is this intersection signalized? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Are there signals currently interconnected with the existing crossing warning devices? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a 'Do Not Stop on Track' sign? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
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 type="checkbox"/> Yes <input type="checkbox"/> No		
If yes:		
Improvement type _____ Lead Agency _____ Timeline/completion _____		

Pedestrian & Bicycle Data

Regular pedestrian usage: ☐ Yes ☒ No Volumes: ☐ Occasional ☐ <20 ☐ 20-60 ☐ >60

Is sidewalk present in the approach? ☐ Yes ☒ No Quadrants:

Does crossing surface accommodate pedestrians? ☒ Yes ☐ No

Both sides of roadway? ☒ Yes ☐ No If no, which side is paved?

Pedestrian generators in close proximity (e.g. schools, sports/entertainment venues)? ☐ Yes ☒ No

Comments:

Regular bicycle usage: ☐ Yes ☒ No

☐ Roadway ☐ Dedicated Lane (on street) ☐ Dedicated Path (off street) ☐ Shared Use (pedestrian/bicycle) Path
☐ Bikes must use sidewalk

Future plans for pedestrian or bicycle routes? ☐ Yes ☐ No

Comments:

Utility Information

Is commercial power available? ☒ Yes ☐ No

Utility Provider (Company Name)

Nearest Available Power Source ____

What other utilities are present? ☐ Gas ☐ Cable ☐ Telephone ☐ Fiber Optic Cable (add locations to sketch)
☐ Petroleum ☐ Water ☐ Sanitary Sewer ☐ Other

Comments:

Current active warning devices.

Surface

Surface review form completed? ☐ Yes ☒ No

Sight Preview (REFER TO TABLES)

If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) ☐ Yes ☐ No

Is stopping sight distance adequate? (See Table 2) ☐ Yes ☐ No If no, which quadrant? _____

When considering recommendations for bicycle treatments:

Bicycle sight distance adequate? ☐ Yes ☐ No If no, which quadrant? _____

When considering recommendations for pedestrian treatments:

Pedestrian sight distance adequate? ☐ Yes ☐ No If no, which quadrant? _____

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:

Unknown

Culvert / Drainage / Ballast Conditions:

N/A

Roadway and/or Sidewalks:

N/A

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

N/A

Environmental:

N/A

Utilities:

N/A

Other:

Potential Closure

Is it the consensus of the Diagnostic Review Team that this is a potential closure project?

Explain reasons:

No - access to Hwy 24

Diagnostic Team Recommendations

☐ No improvements needed

Quadrants Needed

☐ Install/upgrade active devices

☐ Automatic Flashing Lights (AFLS)

☐ AFLS / Cants

☐ AFLS / Gates

☒ AFLS / Gates / Cants

SE quad cant
1 bell

☒ Bells / number

☐ Upgrade circuitry / type

☐ Sidelights

☐ LED Upgrades

☐ Guardrail Needed

☐ Install/Replace curb

☐ Bungalow placement & offset from rail & highway

same quad / retaining wall.

☐ Other (define)

Comments:

new power drop needed. double bond tracks
motion circuitry due to train speed.

☐ Install/upgrade traffic signal preemption

Other (define):

Diagnostic Team Recommendations (cont.)

PEDESTRIAN/BICYCLE Treatments (additional, not included above)

☐ Crossing Surface (specify)

☐ Sidewalk (specify)

☐ Detectable warning surfaces

☐ LOOK Sign (R15-8)

☐ Stop lines

☐ Illumination

☐ Dynamic envelop markings

☐ Channelization

☐ Path delineation

☐ Fencing/barriers

☐ Other

Comments:

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

CMS

SRM

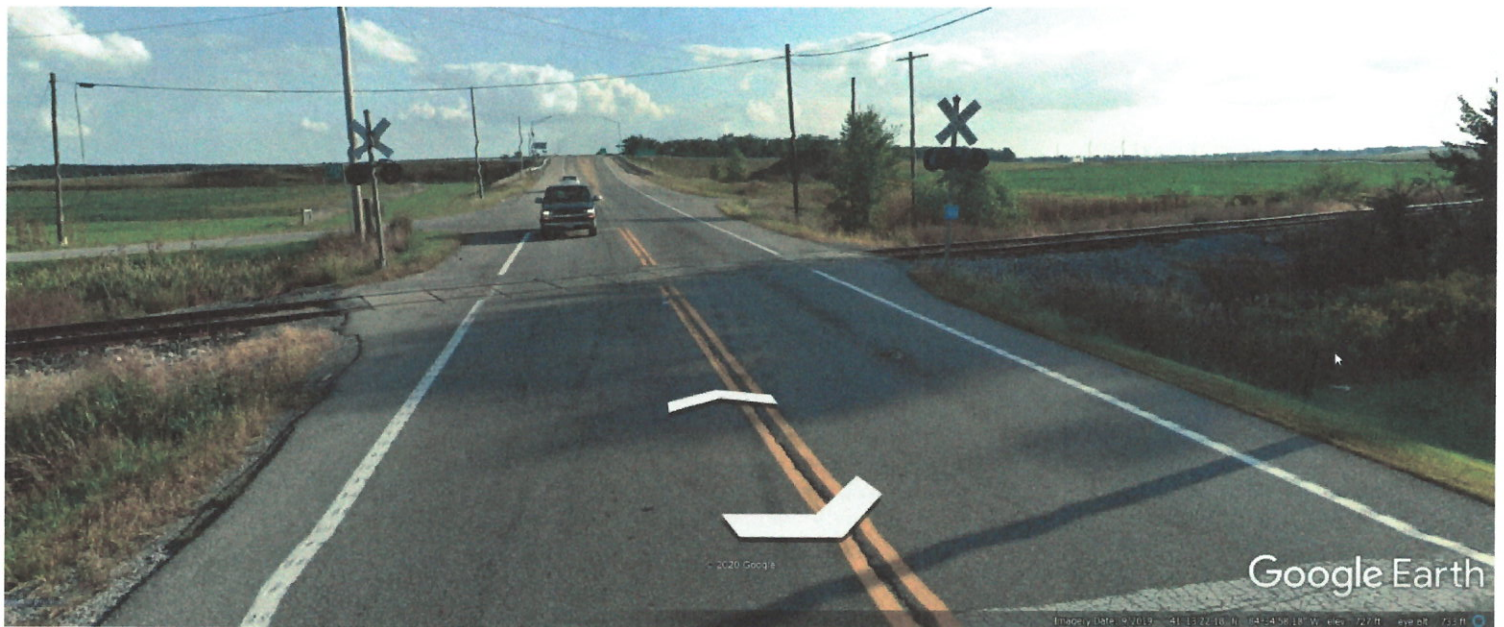
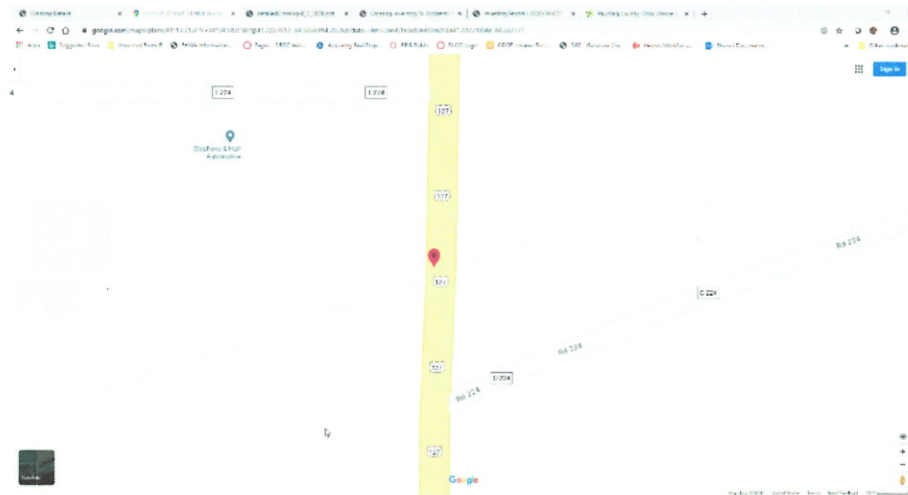
TF

QJA

BT

Field Sketch (optional)

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



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.

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.

Bicycle & Pedestrian Clearing Sight Distances

Clearing Sight Distance from Stop Position*											
Crossing of one track								Crossing 2 Tracks		Crossing 3 Tracks	
Train Speed	Car	Single-unit Truck	Bus	WB-50 Semitruck	65-foot Double Truck	Pedestrian ¹	Bicyclist ²	Pedestrian ¹	Bicyclist ²	Pedestrian ¹	Bicyclist ²
10	105	185	200	225	240	120	100	180	120	240	140
20	205	365	400	450	485	240	200	360	240	480	270
25	255	455	500	560	605	300	250	450	290	590	340
30	310	550	600	675	725	360	290	530	350	710	410
40	410	730	795	895	965	480	390	710	470	950	540
50	515	910	995	1,120	1,205	590	490	890	580	1180	670
60	615	1,095	1,195	1,345	1,445	710	580	1060	700	1420	810
70	715	1,275	1,395	1,570	1,680	830	680	1240	810	1650	940
80	820	1,460	1,590	1,790	1,925	950	780	1420	930	1890	1080
90	920	1,640	1,790	2,015	2,165	1060	870	1590	1040	2120	1210

*A single track, 90-degree, level crossing

¹ Walking 3.5 feet per second across tracks 15 feet apart, with a 2-second reaction time to reach a decision point 10 feet before the center of the first track, and clearing 10 feet beyond the centerline of the second track.

² Bicycling 8 miles per hour across tracks 15 feet apart, from a stopped position 10 feet before the center of the first track with an acceleration of 2.5 feet per second, and clearing 10 feet beyond the centerline of the second track on a bike of 6 feet length.

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in

Case No(s). 21-0683-RR-FED

Summary: Application In the Matter of a Request for the Installation of New Active Warning Devices at Michigan Southern Railway Grade Crossing, DOT# 477-808K, on US 127 in Paulding County, Ohio. electronically filed by Mrs. Jill A Henry on behalf of PUCO/Rail Division