GENERAL

Project Description

This project consists of the painting of structural steel on six overpasses along Interstate 271 in the cities of Beachwood, Lyndhurst, and Mayfield Heights.

Refer Standard Bridge Drawings:

None.

And to Supplemental Specifications:

Listed on the Title Sheet.

Right of Way

All work will be performed within the existing right of way or easements or within State property.

Existing Structure Verification

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work but shall be considered tentative and approximate. The Contractor is referred to sections 102.05, 105.02, and 513.04 of the 2019 Construction and Material Specifications.

Base contract bid prices upon a recognition of the uncertainties described above and upon a pre-bid examination of the existing structure by the contractor.

The existing structure plans may be reviewed at the:

Ohio Department of Transportation
District 12 Office
5500 Transportation Boulevard
Garfield Heights, OH 44125
Or
http://www.dot.state.oh.us/divisions/contractadmin/contracts/pages/designfiles.aspx

Limits of Operations

The contractor's activities and work schedule shall be constrained by the following limitations:

1. Maintenance of Traffic Restrictions (Refer to the Maintenance of Traffic sheets in this plan)

Cooperation Between Contractors

The Contractor shall cooperate and coordinate her/his operations with the contractors on other projects that may be in force during the life of the contract. No waiver of any provisions of 105.08 of the 2019 Construction and Material Specifications is intended.

Utility Ownership

The following utilities and owners are located within the work limits of this project. The Ohio Department of Transportation has used the best available information to determine the utility companies serving this area but cannot guarantee the utility list is complete.

AT&T (Formerly SBC)
13630 Lorain Ave. – 2nd Floor
Cleveland, Ohio 44111
Attn: James Janis
Design Manager
Phone: (216) 476-6142
Fax: (216) 476-6013

The Illuminating Company
John M. Zassick, FirstEnergy
6896 Miller Rd, Suite 101
Brecksville, OH 44141
Office 440-546-8706
Cell 216-538-1580

Dominion Energy Ohio
320 Springside Dr.
Suite 320, Akron, Ohio 44333
Attn: Michael R. Antonius
Phone: 330-664-2481

There are no underground utilities shown on this plan. The nature of the work required by this project will not affect any known underground utilities that exist under or adjacent to the work area.

The Contractor shall exercise caution while performing work activities near utility conduits located in the superstructure beam bays. If any utilities are damaged during construction activities, the Contractor shall immediately notify the engineer and the appropriate utility owner(s).

Refer to original structure plans for locations of utilities within the superstructure beam bays. No utilities are to be disturbed throughout the course of this project.

Temporary Vertical Clearance Reduction

The contractor is permitted to reduce the vertical clearance of the portions of a bridge over roadways and shoulders by a maximum of 1'-0".

Notification of Vertical Clearance Reduction

The contractor shall notify the Special Hauling Permit Section of the Ohio Department of Transportation at (614) 728-4099 and the Engineer:

1. at least 14 days prior to reducing the vertical clearance of a bridge, and

2. within 14 days after restoring the vertical clearance to its original vertical clearance.

Staging Areas

There are no specific areas given in the plans for the contractor to use as staging area(s). If the contractor wants to use an area(s) for staging, regardless if it falls within the project limits or not, the contractor is to contact Melvin Safford at 216-584-2137 at District 12 in order to apply for a permit per Section 107.02 of the CMS. If a permit is granted, all conditions of the permit shall be met in addition to the requirements of 104.04 of the CMS, at no cost to the State. If the project engineer deems that all the conditions of the permit were not met, then 10% of the contract bid amount for mobilization shall be withheld until all conditions of the permit are satisfied.

Contractor's Equipment – Operation and Storage

Vehicles and equipment shall always move with, and not across or against the flow of traffic. Vehicles and other equipment shall not park or stop except within designated work areas; and shall not enter and leave work areas in a manner which will be hazardous to or interfere with the normal traffic flow. Personal vehicles will not be permitted to park within the right of way except in specific areas designated by the engineer.

Equipment, vehicles and materials shall not be stored or parked within 30 feet of the traveled way unless 6 feet behind portable barrier or guardrail.

All work vehicles and equipment that enters the work zone more than once a day must be equipped with at least one flashing, rotating, or oscillating amber light that is visible in all directions of traffic for at least one quarter of a mile, day or night.

Item 614 - Law Enforcement Officer (With Patrol Car) For Assistance During Construction Operations

Use of law enforcement officers (LEOs) by contractors other than the uses specified below will not be permitted at project cost. LEOs should not be used where the OMUTCD intends that flaggers be used.

In addition to the requirements of CMS 614 and the OMUTCD, a uniformed LEO with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) shall be provided for the following traffic control tasks:

- During the entire advance preparation and closure sequence where complete blockage of traffic is required.
- During a traffic signal installation when impacting the normal function of the signal or the flow of traffic or when traffic needs to be directed through an energized traffic signal contrary to the signal display (e.g., directing motorists through a red light).

In addition to the requirement of CMS 614 and the OMUTCD, a uniformed LEO with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) should be provided for the following traffic control tasks:

- For lane closures: during initial set-up periods, tear down periods, substantial shifts of a closure point or when new lane closure arrangements are initiated for long-term lane closures/shifts (for the first and last day of major changes in traffic control setup). In general, LEOs should be positioned at the point of lane restriction or road closure and to manually control traffic movements through intersections in work zones.
- When construction vehicles are entering/exiting the zone directly from/into an open lane of traffic. If a lane has been closed to provide an acceleration/deceleration lane for the vehicle, the LEO will not be required.

LEOs should not forgo their traffic control responsibilities to apprehend motorists for routine traffic violations. However, if a motorist's actions are considered to be reckless, then pursuit of the motorist is appropriate.

The LEOs work at the direction of the contractor. The contractor is responsible for securing the services of the LEOs with the appropriate agencies and communicating the intentions of the plans with respect to duties of the LEOs. The engineer shall have final control over the LEOs' duties and placement and will resolve any issues that may arise between the two parties.

The LEO shall report in to the contractor prior to the start of the shift, in order to receive instructions regarding specific work assignments during his/her shift. The LEO is expected to stay at the project site for the entire duration of his/her shift. The LEO shall report to the contractor at the end of his/her shift. Once the LEO has completed the duties described above and still has time remaining on his/her shift, the LEO may be asked to patrol through the work zone (with flashing lights off) or be placed at a location to deter motorists from speeding. Should it be necessary to leave the project site, the LEO shall notify the engineer. The contractor shall provide the LEO with a two-way communication device which shall be returned to the contractor at the end of his/her shift.

LEOs (with patrol car) required by the traffic maintenance tasks above shall be paid for on a unit price (hourly) basis under Item 614, Law Enforcement Officer (with Patrol Car) for Assistance. The following estimated quantities have been carried to the General Summary:

Item 614 - Law Enforcement Officer (With Patrol Car) For Assistance During Construction Operations..... **2000 Hours**

The hours paid shall include any minimum show-up time required by the law enforcement agency involved. Any additional costs (administrative or otherwise) incurred by the contractor to obtain the services of a LEO are included with the bid unit price for Item 614, Law Enforcement Officer (With Patrol Car) for Assistance During Construction Operations.

Item 614, Portable Changeable Message Signs, As Per Plan

The Contractor shall furnish, install, maintain and remove, when no longer needed, a changeable message sign. The sign shall be of a type shown on a list of approved PCMS units available on the Office of Materials Management web page. The list contains Class A and B units with minimum legibility distances of 800 feet and 650 feet, respectively.

Each sign shall be trailer-mounted and equipped with a functional dimming mechanism, to dim the sign during darkness, and a tamper and vandal proof enclosure. Each sign shall be provided with appropriate training and operation instructions to enable on-site personnel to operate and troubleshoot the unit. The sign shall also be capable of being powered by an electrical service drop from a local utility company. The PCMS shall be delineated in accordance with C&MS 614.03.

The probable PCMS locations and work limits for those locations are shown on sheet 9 of the plan. Placement, operation, maintenance and all activation of the signs by the Contractor shall be as directed by the Engineer. The PCMS shall be located in a highly visible position yet protected from traffic. The Contractor shall, at the direction of the Engineer, relocate the PCMS to improve visibility or accommodate changed conditions. When not in use, the PCMS shall be turned off. Additionally, when not in use for extended periods of time, the PCMS shall be turned away from all traffic.

The Engineer shall be provided access to each sign unit and shall be provided with appropriate training and operation instructions to enable ODOT personnel to operate and troubleshoot the unit, and to revise sign messages, if necessary.

All messages to be displayed on the sign will be provided by the Engineer. A list of all required pre-programmed messages will be given to the Contractor at the project preconstruction conference. The sign shall have the capability to store up to 99 messages. Message memory or pre-programmed displays shall not be lost as a result of power failures to the on-board computer. The sign legend shall be capable of being changed in the field. Three-line presentation formats with up to six message phases shall be supported. PCMS format shall permit the complete message for each phase to be read at least twice.

The PCMS shall contain an accurate clock and programming logic which will allow the sign to be activated, deactivated or messages changed automatically at different times of the day for different days of the week.

The PCMS unit shall be maintained in good working order by the Contractor in accordance with the provisions of C&MS 614.07. The Contractor shall, prior to activating the unit, make arrangements, with an authorized service agent for the PCMS, to assure prompt service in the event of failure. Any failure shall not result in the sign being out of service for more than 12 hours, including weekends. Failure to comply may result in an order to stop work and open all traffic lanes and/or in the Department taking appropriate action to safely control traffic. The entire cost to control traffic, accrued by the Department due to the Contractor's noncompliance, will be deducted from moneys due, or to become due the Contractor on his contract.

The Contractor shall be responsible for 24-hour-per-day operation and maintenance of these signs on the project for the duration of the phases when the plan requires their use.

Payment for the above described item shall be at the contract unit price. Payment shall include all labor, materials, equipment, fuels, lubricating oils, software, hardware and incidentals to perform the above described work.

Item 614, Portable Changeable Message Sign, as per plan..... **15 SNMT**
Assuming 3 PCMS Sign(s) for 5 Month(s)

Construction Traffic

All construction traffic shall use acceptable truck routes to access the construction area. Use of local residential streets is strictly prohibited unless allowed in writing by the local enforcement authority.

Lane Value Contract Table

Description of Critical Lane/Ramp to be Maintained	Restricted Time Period	Time Unit	Disincentive $ per Time Unit per Lane
IR-271 NB at CUY-422-11.22 (Chagrin)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$200
IR-271 SB at CUY-422-11.22 (Chagrin)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$200
IR-271 NB Express Lanes at CUY-422-11.22	As per the D12 Permitted Lane Closure Schedule	Each Minute	$100
IR-271 SB Express Lanes at CUY-422-11.22	As per the D12 Permitted Lane Closure Schedule	Each Minute	$100
IR-271 NB at CUY-271-9.72 & 9.74 (Fairmount)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$250
IR-271 SB at CUY-271-9.72 & 9.74 (Fairmount)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$250
IR-271 NB Express Lanes at CUY-271-9.72 & 9.74 (Fairmount)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$65
IR-271 SB Express Lanes at CUY-271-9.72 & 9.74 (Fairmount)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$65
IR-271 NB at CUY-271-10.86 (Cedar)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$185
IR-271 SB at CUY-271-10.86 (Cedar)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$175
IR-271 NB Express Lanes at CUY-271-10.86 (Cedar)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$100
IR-271 NB at CUY-271-11.11 (Brainard)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$175
IR-271 SB at CUY-271-11.11 (Brainard)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$175
IR-271 NB Express Lanes at CUY-271-11.11 (Brainard)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$100
IR-271 SB Express Lanes at CUY-271-11.11 (Brainard)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$100
IR-271 NB at CUY-271-11.89 (Lander)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$200
IR-271 SB at CUY-271-11.89 (Lander)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$200
IR-271 NB Express Lanes at CUY-271-11.89 (Lander)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$100
IR-271 SB Express Lanes at CUY-271-11.89 (Lander)	As per the D12 Permitted Lane Closure Schedule	Each Minute	$100

The Contractor shall be assessed a disincentive equal to the largest disincentive within all sections impacted by the physical lane restriction, including the Transition Area, Activity Area, and Termination Area as defined by the OMUTCD. Holiday disincentives shall be applied per section per lane per time unit.

Continuous Access

The contractor shall maintain safe and adequate driveways and walkways in order to provide continuous access for pedestrians, passenger vehicles, trucks, and safety equipment to all adjoining properties. The cost for all materials, equipment and labor necessary to provide continuous access shall be included in the lump sum price bid for Item 614 - Maintaining Traffic.

Maintenance of Traffic Scheme

The Contractor shall devise a simple maintenance of traffic scheme for each location, which shall be stamped by a professional engineer (scheme may be a hand sketch) and presented to the district work zone traffic control engineer and project engineer for approval at least three weeks prior to implementation.

The maintenance of traffic scheme shall present, in general, the methods for maintaining traffic that the contractor proposes to use for conducting the required work in a safe and efficient manner. The maintenance of traffic scheme for the mainline lane closures shall show the appropriate shifts and lane closures per the appropriate maintenance of traffic standard drawing. The maintenance of traffic scheme for exit and entrance ramps closures shall show the proposed detour and all signing needed for the detour. The maintenance of traffic scheme shall be in conformance with the Ohio Manual of Uniform Traffic Control Devices (OMUTCD), latest revision, the referenced standard construction drawings, the attached maintenance of traffic sheets, and the specifications. The contractor shall not commence work until the maintenance of traffic scheme has been approved by ODOT.

If during the project the engineer determines that the approved maintenance of traffic plan is not performing as desired, the work shall be suspended until the problem is resolved to the satisfaction of the engineer and the maintenance of traffic plan is revised accordingly. Any costs or delays incurred as a result of the failure of the satisfaction of the engineer shall be the full responsibility of the contractor.

During non-working hours, all lanes shall be in full operation with all traffic control signs, except OW-124 (road construction ahead) signs, removed or covered and all channelizing devices removed from the pavement surfaces. All detour signing shall be removed or appropriately covered. Channelizing devices may be stored or deployed temporarily adjacent to the shoulder to minimize the nightly traffic control set-up time.

Payment for all the items required to maintain traffic in accordance with these requirements is included in the lump sum bid price for Item 614 – Maintaining Traffic.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

CUY-271-8.13/ VAR PAINT

8
16

SHEET NUM.												PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
											GENERAL	01/NFP/BR						
																	EROSION CONTROL	
											1,000	1,000	832	30000	1,000	EACH	EROSION CONTROL	
																	STRUCTURE OVER 20 FOOT SPAN (CUY-422-1122; SFN 1811258) - LOCATION 1	
												79,600	514	00050	79,600	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
												79,600	514	00056	79,600	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
												79,600	514	00060	79,600	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
												79,600	514	00066	79,600	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
												79	514	00504	79	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
												47	514	10000	47	EACH	FINAL INSPECTION REPAIR	
												2	630	97700	2	EACH	SIGNING, MISC.: OVERPASS NAME INSTALLATION	5
																	STRUCTURE OVER 20 FOOT SPAN (CUY-271-0972; SFN 1811401) - LOCATION 2	
												21,600	514	00050	21,600	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
												21,600	514	00056	21,600	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
												21,600	514	00060	21,600	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
												21,600	514	00066	21,600	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
												33	514	00504	33	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
												20	514	10000	20	EACH	FINAL INSPECTION REPAIR	
												1	630	97700	1	EACH	SIGNING, MISC.: OVERPASS NAME INSTALLATION	5
																	STRUCTURE OVER 20 FOOT SPAN (CUY-271-0974; SFN 1811436) - LOCATION 3	
												21,600	514	00050	21,600	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
												21,600	514	00056	21,600	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
												21,600	514	00060	21,600	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
												21,600	514	00066	21,600	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
												33	514	00504	33	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
												20	514	10000	20	EACH	FINAL INSPECTION REPAIR	
												1	630	97700	1	EACH	SIGNING, MISC.: OVERPASS NAME INSTALLATION	5
																	STRUCTURE OVER 20 FOOT SPAN (CUY-271-1086; SFN 1811460) - LOCATION 4	
												115,700	514	00050	115,700	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
												115,700	514	00056	115,700	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
												115,700	514	00060	115,700	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
												115,700	514	00066	115,700	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
												116	514	00504	116	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
												69	514	10000	69	EACH	FINAL INSPECTION REPAIR	
												2	630	97700	2	EACH	SIGNING, MISC.: OVERPASS NAME INSTALLATION	5
																	STRUCTURE OVER 20 FOOT SPAN (CUY-271-1113; SFN 1811495) - LOCATION 5	
												47,800	514	00050	47,800	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
												47,800	514	00056	47,800	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
												47,800	514	00060	47,800	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
												47,800	514	00066	47,800	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
												68	514	00504	68	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
												30	514	10000	30	EACH	FINAL INSPECTION REPAIR	
												2	630	97700	2	EACH	SIGNING, MISC.: OVERPASS NAME INSTALLATION	5
																	STRUCTURE OVER 20 FOOT SPAN (CUY-271-1189; SFN 1811525) - LOCATION 6	
												25,200	514	00050	25,200	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
												25,200	514	00056	25,200	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
												25,200	514	00060	25,200	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
												25,200	514	00066	25,200	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
												36	514	00504	36	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
												18	514	10000	18	EACH	FINAL INSPECTION REPAIR	
												2	630	97700	2	EACH	SIGNING, MISC.: OVERPASS NAME INSTALLATION	5
																	MAINTENANCE OF TRAFFIC	
											2,000	2,000	614	11110	2,000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	7
											LUMP	LUMP	614	12420	LS		DETOUR SIGNING	
											15	15	614	18601	15	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	7
																	INCIDENTALS	
												LUMP	614	11000	LS		MAINTAINING TRAFFIC	6
											6	6	619	16011	6	MNTH	FIELD OFFICE, TYPE B, AS PER PLAN	5
											LUMP	LUMP	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	5
											LUMP	LUMP	624	10000	LS		MOBILIZATION	

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GENERAL SUMMARY

CUY-271-8.13/VAR
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10
16