OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

## ADDENDUM NO. 2

## PROJECT NO. 43-16-06

## BRIDGE DECK REPLACEMENT AND REHABILITATION STATE ROUTE 83 OVER OHIO TURNPIKE M.P. 150.5 LORAIN COUNTY, OHIO

## OPENING DATE: 2:00 P.M. (EASTERN), NOVEMBER 4, 2015

ALL BIDS MUST BE ELECTRONICALLY SUBMITTED THROUGH BID EXPRESS

# ATTENTION OF BIDDERS IS DIRECTED TO:

## QUESTIONS AND ANSWERS THROUGH 1:00 PM ON OCTOBER 30, 2015

Issued by the Ohio Turnpike and Infrastructure Commission on October 30, 2015. Issuance authorized by Anthony D Yacobucci, Chief Engineer, and Mark R. Musson, Director of Contract Administration.

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Anthony D Yacobucci

Mark R. Musson

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## OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION ADDENDUM NO. 2 PROJECT NO. 43-16-06

## QUESTIONS AND ANSWERS THROUGH 1:00PM ON OCTOBER 30, 2015

- Q#7 Under specification SP614, proposal page SP-125 calls for a zone person and zone vehicle. Will this be a 24 hour per day, 7 day per week requirement throughout the project or only whenever the contractor closes a lane or two lanes on the turnpike? Please verify since this is not shown as a by-the-hour bid item in the proposal (per page SP-129).
- A#7 A zone person and zone vehicle is required only when a lane or shoulder closure is in place on the Ohio Turnpike mainline.
- Q#8 Item SP 536 General Notes on sheet 9/21 calls for weatherproofing shall be applied to the "NEW" exposed concrete surfaces, Bid Item #38 Weatherproofing Substructure = 379 SY, please advise/verify where the total quantity is calculated from as I am unsure how there is 379 SY of "NEW" substructure concrete to be weatherproofed.
- A#8 The project intent is to weatherproof all exposed surfaces of the bridge, not just "new" concrete surfaces Accordingly, this Addendum No. 2 revises the note on Plan Sheet 9/21 to delete the reference to "new" exposed concrete.

## MODIFICATIONS TO THE CONTRACT DOCUMENTS

## The following changes are made to the Contract Documents for Contract No. 43-16-06:

Deletions are shown with strikethrough text. Changes/Additions are shown with bold italicized text.

Modifications to the Plan Drawings: Additions are called out with a cloud and deletions are marked with a revision triangle as thus:

The Note on Plan Sheet 9 of 21 under ITEM SP 536 - CONCRETE WEATHERPROOFING is modified as follows:

ITEM SP 536 - CONCRETE WEATHERPROOFING SHALL BE APPLIED TO THE FOLLOWING NEW EXPOSED CONCRETE SURFACES OF THE BRIDGE:

Addendum No. 2 to Contract 43-16-06:

(Firm Name)

(Signature)

(Printed Name)

Date: \_\_\_\_\_

### STRUCTURE - GENERAL NOTES

### PROPOSED WORK

THE STATE ROUTE 83 BRIDGE OVER THE OHIO TURNPIKE SHALL BE REHABILITATED UNDER THIS CONTRACT. MAJOR WORK INCLUDES REPLACING THE BRIDGE DECK, ABUTMENT SLABS, BEARING DEVICES AND DECK JOINTS, MISCELLANEOUS PATCHING OF SUBSTRUCTURE, SEALING OF CONSTRUCTION JOINTS, PERFORMING CONCRETE WEATHERPROOFING, MAINTENANCE OF TRAFFIC, AND INSTALLING FENCING. DETAILS OF THIS WORK ARE SHOWN IN THE PLANS.

#### DESIGN SPECIFICATIONS

STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, DATED 2002, AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS. THE DESIGN LOADING IS HS 20-44 CASE II AND THE ALTERNATE MILITARY LOADING.

THE CLASS OF CONCRETE AND THE GRADES OF REINFORCING STEEL FOR THE CONSTRUCTION ARE AS FOLLOWS:

CONCRETE CLASS S - COMPRESSIVE STRENGTH 4,500 P.S.I. CONCRETE CLASS HP4 - COMPRESSIVE STRENGTH 4,500 P.S.I. REINFORCING STEEL - ASTM A615, A616, A617 - GRADE 60

### ORIGINAL CONSTRUCTION PLANS

ORIGINAL CONSTRUCTION PLANS, SHOWING THE ORIGINAL ALIGNMENT, PROFILE AND DETAILS OF THE BRIDGE ARE AVAILABLE FOR INSPECTION AT THE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION HEADQUARTERS

682 PROSPECT STREET BEREA, OHIO 44017 (440) 234-2081

#### EXISTING STRUCTURE VERIFICATION

DETAILS, DIMENSIONS, AND ELEVATIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTION 501.02 OF THE SPECIFICATIONS AND OTIC INSTRUCTION TO BIDDERS ARTICLE 2.1 AND GENERAL CONDITIONS ARTICLE 1.5.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS, DIMENSIONS, ELEVATIONS, AND SKEW ANGLES WHICH HAVE BEEN FIELD VERIFIED BY THE CONTRACTOR. THE STRUCTURAL STEEL AND STRUCTURAL STEEL DECK JOINTS SHALL NOT BE FABRICATED UNTIL ACTUAL DETAILS, DIMENSIONS, ELEVATIONS, AND SKEW ANGLES HAVE BEEN FIELD VERIFIED BY THE CONTRACTOR.

ANY ADDITIONAL COSTS RESULTING FROM VARIATIONS FROM PLAN DIMENSIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL PAYMENT OVER THE UNIT PRICE BID WILL BE AWARDED BY THE COMMISSION.

### REMOVAL

#### GENERAL:

THE CONTRACTOR SHALL REMOVE THE DESIGNATED PORTIONS OF THE EXISTING STRUCTURE TO THE LIMITS SHOWN ON THE PLANS OR TO THE LIMITS AS DIRECTED BY THE ENGINEER. WHEN SO DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL WET DOWN THE CONCRETE THOROUGHLY DURING REMOVAL OPERATIONS TO PREVENT SPREAD OF DUST. ALL NECESSARY LABOR, EQUIPMENT AND MATERIAL SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED WITH ITEM SP 202, PORTIONS OF STRUCTURE REMOVED, FOR PAYMENT.

#### CONCRETE REMOVAL:

CONCRETE SHALL BE REMOVED BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL EDGED TOOLS AND/OR BY SAW CUTTING THE CONCRETE DECKS AND REMOVING IN SECTIONS.

CARE SHALL BE TAKEN TO ENSURE AGAINST DAMAGE TO THE STEEL AND CONCRETE MEMBERS WHICH ARE TO BE RETAINED AND TO PRESERVE THE BOND OF THE RETAINED REINFORCEMENT TO THE EXISTING CONCRETE. HESE BARS SHALL BE CLEANED OF ALL CONCRETE FRAGMENTS AND FOREIGN MATTER. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH THE BARS; HAND TOOLS SHALL BE EMPLOYED FOR FINAL CLEANING. DAMAGED AREAS OF REINFORCEMENT THAT ARE TO REMAIN SHALL BE CUT AND STRESS TRANSFER ACCOMPLISHED BY EITHER A LAPPED OR MECHANICAL SPLICE. ANY ADDITIONAL REINFORCEMENT OR MECHANICAL SPLICES SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE COMMISSION. OTHER EXISTING REINFORCEMENT WITHIN THE REMOVAL LIMITS SHALL BE REMOVED AND DISPOSED OF.

### DISPOSAL OF REMOVED MATERIAL:

THE CONTRACTOR SHALL NOT PERMIT ANY REMOVED MATERIAL TO DROP TO THE GROUND. MEANS SHALL BE PROVIDED FOR CATCHING REMOVED MATERIAL. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL DETAILS OF THE METHODS TO BE USED FOR REMOVING AND COLLECTING THE MATERIAL. ALL CONCRETE, STEEL, REINFORCING STEEL, ASPHALT, ETC. REMOVED FROM THE STRUCTURE, UNLESS SPECIFIED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROMPTLY REMOVED BY HIM FROM THE SITE.

UNDER NO CIRCUMSTANCES SHALL THE MATERIAL BE PERMITTED TO REMAIN ON THE PREMISES, RIGHT OF WAY OR STREETS PENDING DISPOSAL OF SAME OR FOR ANY OTHER PURPOSES, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

### CUTTING OR BENDING OF REINFORCING BARS

ANY CUTTING OR BENDING OF BARS NECESSARY TO ACCOMMODATE ANY ESSENTIAL ELEMENT OF WORK RELATED TO THE PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL AND/OR ITEM SP 509 EPOXY COATED REINFORCING STEEL UNLESS OTHERWISE NOTED.

#### DIMENSIONS

DIMENSIONS GIVEN ARE MEASURED HORIZONTALLY AND AT 60° F UNLESS OTHERWISE NOTED. DIMENSIONS GIVEN FOR THE EXISTING STRUCTURE ARE FROM THE ORIGINAL CONSTRUCTION PLANS. SOME VARIATION FROM PLAN DIMENSIONS ARE EXPECTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER FIT-UP BETWEEN THE PROPOSED AND EXISTING CONSTRUCTION. ADEQUATE MEASUREMENTS SHALL BE MADE IN THE FIELD PRIOR TO THE FABRICATION OR INSTALLATION OF ANY PART TO ENSURE THAT ALL PARTS CAN BE PROPERLY ASSEMBLED AS SPECIFIED IN THE FLANS. ANY ADDITIONAL COST RESULTING FROM VARIATIONS FROM PLAN DIMENSIONS IS THE RESPONSIBILITY OF THE COMTRACTOR AND NO ADDITIONAL PAYMENT WILL BE AWARDED BY THE COMMISSION.

#### REPAIR OF EXISTING CONCRETE ELEMENTS

EXISTING REINFORCED CONCRETE STRUCTURE ELEMENTS WHICH ARE INCORPORATED IN THIS CONSTRUCTION PROJECT ARE TO BE MODIFIED AND/OR REPAIRED. A CONDITION SURVEY WAS PERFORMED IN DECEMBER 2014. REPAIR AREAS WERE DETERMINED BY VISUAL INSPECTION. THE STRUCTURAL ELEMENTS INSPECTED INCLUDE CONCRETE ABUTMENTS AND PIERS (EXPOSED SURFACES ONLY). THE RECORDS OF THIS INSPECTION ARE THE BASIS FOR THE REPAIR RECOMMENDATIONS AS DETAILED IN THE PLANS.

#### ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE COMMISSION WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. AN ESTIMATED QUANTITY OF 100 POUNDS HAS BEEN INCLUDED FOR THIS WORK. REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE COMMISSION.

### ITEM SP 536 - CONCRETE WEATHERPROOFING

- ITEM SP 536 CONCRETE WEATHERPROOFING SHALL BE APPLIED TO THE FOLLOWING EXPOSED CONCRETE SURFACES OF THE BRIDGE: - THE TOP OF NEW ABUTMENT SLABS AND NEW SUPERSTRUCTURE
- SLABS.
- ALL NEW PARAPET SURFACES AND SLAB SIDE EDGES.
- THE BOTTOM SURFACE OF THE NEW SUPERSTRUCTURE SLAB FROM THE SLAB SIDE EDGE TO THE EXTERIOR STRINGER FLANGE.
- ALL EXPOSED CONCRETE SURFACES OF ALL ABUTMENTS AND PIERS. SEALING SHALL NOT BE DONE UNTIL ALL CONCRETE PATCHING REPAIRS HAVE BEEN COMPLETED AND CURED.

CARE SHALL BE TAKEN NOT TO APPLY WEATHERPROOFING ON CONSTRUCTION JOINT SURFACES, SURFACES TO RECEIVE JOINT SEALER OR FASCIA BEAM PAINT.

#### CONCRETE PARAPETS

#### DEFLECTION JOINTS:

DEFLECTION JOINTS SHALL BE CONSTRUCTED BY SAWING THE CONCRETE AFTER IT HAS TAKEN ITS INITIAL SET AND BEFORE ANY CRACKS DEVELOP. THE USE OF AN EDGE GUIDE, FENCE OR JIG SHALL BE USED TO ENSURE THAT THE CUT JOINTS SHALL BE STRAIGHT, TRUE AND ALIGNED ON BOTH FACES OF THE PARAPET. THE JOINT SHALL BE THE WIDTH OF THE SAW BLADE, NOT TO EXCEED ONE QUARTER (0.25) INCH, AND SHALL BE ONE AND ONE-HALF (1.5) INCHES DEEP. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK, EXCEPT AS NOTED ON THE PLANS AND SHALL BE CAULKED WITH A ONE (1) INCH THICKNESS OF MATERIAL CONFORMING TO FEDERAL SPECIFICATION TT-S-00227E. THE BOTTOM HALF (0.5) INCH OF THE SAWED JOINT AT THE OUTSIDE FACE OF THE PARAPET SHALL BE LEFT UNSEALED TO ALLOW ANY WATER WHICH MAY ENTER THE JOINT TO ESCAPE.

#### PARAPET FORMS:

FORMS FOR THE BRIDGE PARAPETS AND SLAB EDGES SHALL BE IN ACCORDANCE WITH 508.02 OF THE SPECIFICATIONS AND THE FOLLOWING:

WHEN WOOD FORMS ARE USED THEY SHALL PROVIDE A SMOOTH SURFACE OF UNIFORM TEXTURE AND COLOR SUBSTANTIALLY EQUAL TO THAT WHICH WOULD BE OBTAINED WITH THE USE OF NEW PLYWOOD CONFORMING TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY PRODUCT STANDARD PSI FOR EXTERIOR B-B CLASS I PLYWOOD.

FORMS SHALL BE OF A CONSTRUCTION WHICH WOULD ALLOW FOR THEIR REMOVAL WITHIN 24 HOURS OF THE CONCRETE PLACEMENT WITHOUT CAUSING DAMAGE TO THE CONCRETE.

### CONSTRUCTION JOINTS

CONSTRUCTION JOINT SURFACES SHALL BE FREE FROM OIL, LAITANCE, FORM RELEASE AGENT, OR ANY OTHER MATERIAL THAT WOULD PREVENT BONDING TO THE CONCRETE SURFACE. ALL LAITANCE AND OTHER CONTAMINANTS SHALL BE REMOVED BY HIGH PRESSURE WATER BLASTING WITH A MINIMUM PRESSURE OF 5,000 P.S.I. HOWEVER, WATER BLASTING SHALL NOT BE REQUIRED WHERE EXISTING CONCRETE HAS BEEN ROUGHENED BY JACKHAMMERS DURING CONCRETE HAS BEEN ROUGHENED BY JACKHAMMERS DURING CONCRETE REMOVAL OPERATIONS. SURFACES SHALL BE THOROUGHLY DRENCHED WITH CLEAN WATER AND ALLOWED TO DRY TO A DAMP CONDITION FREE OF STANDING WATER BEFORE PLACING CONCRETE. PREPARATION OF CONSTRUCTION JOINT SURFACES SHALL NOT BE MEASURED FOR PAYMENT. THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACT PRICE OF THE PERTINENT CONCRETE ITEMS.

### EXISTING RIGHT OF WAY FENCE

IT IS THE INTENT OF THE PROJECT FOR THE EXISTING RIGHT OF WAY FENCE NEAR THE BRIDGE TO REMAIN, HOWEVER IF THE CONTRACTOR DEEMS IT NECESSARY TO REMOVE THE FENCE FOR HIS OPERATIONS AS APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL CAREFULLY REMOVE THE FENCE AND REINSTALL THE FENCE IN ACCORDANCE WITH ITEM 607. IF THE FENCE BECOMES DAMAGED DUE TO THE CONTRACTORS OPERATIONS THE FENCE SHALL BE REPLACED AT NO COST TO THE COMMISSION.

ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE GRANTED.

### EROSION CONTROL

IT IS THE INTENT OF THE PROJECT TO NOT DISTURB ANY SEEDED AREAS AND/OR DRAINAGE ELEMENTS. ANY WORK INVOLVING SEEDED AREAS, DRAINAGE ELEMENTS OR EROSION CONTROL SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT COST AND SHALL BE REPAIRED/PROTECTED AS DIRECTED BY THE ENGINEER

ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE GRANTED.

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OHIO	OHIO TURNPIKE	JRNPIK	AND I	NFRAST	RU	CTL	JR	<b>RASTRUCTURE COMMISSION</b>	Σ	SSION		OHIO