

OHIO TURNPIKE AND  
INFRASTRUCTURE COMMISSION

ADDENDUM NO. 2

CONTRACT NO. 43-14-08

BRIDGE DECK REPAIR AND REHABILITATION  
OHIO TURNPIKE OVER NORFOLK SOUTHERN RAILROAD M.P. 147.9  
LORAIN COUNTY, OHIO

OPENING DATE: 2:00 P.M. (E.D.T.), JULY 3, 2014

ATTENTION OF BIDDERS IS DIRECTED TO:

ANSWERS TO QUESTIONS RECEIVED THROUGH 12:00 P.M. JUNE 30, 2014

MODIFICATIONS TO THE CONTRACT DOCUMENTS

PLAN DRAWINGS:

SHEETS 3, 7, AND 11 OF 12

BID FORM:

Pages OTC-BF-2 and OTC-BF-3

SPECIAL PROVISIONS:

Table of Contents

Pages SP-154 and SP-155

Issued by the Ohio Turnpike and Infrastructure Commission on June 30, 2014. Issuance authorized by Robin Carlin, Deputy Executive Director, and Tommie Jo Marsilio, Director, Contracts Administration.

  
Robin Carlin  
6/30/14  
Date

  
Tommie Jo Marsilio  
6/30/14  
Date

**OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION  
ADDENDUM NO. 2  
CONTRACT NO. 43-14-08**

**ANSWERS TO QUESTIONS RECEIVED THROUGH 12:00 P.M., JUNE 30, 2014**

**Q#1** Please clarify if the intent is to perform Hydro Demolition and the Class S Concrete Overlay on both the East & West bound structures. It appears that the only ½ the structure is quantified.

*A#1 The intent, as shown on the General Plan and Elevation and Superstructure Details sheets, is to perform the Hydro Demolition and Class S Concrete Overlay on both the Eastbound and Westbound structures. The SP516B, SP536 and SP848 quantities have been revised on plan sheets 3 and 7 of 12, as well as the bid form.*

**Q#2** Will the future track shown on the revised plan sheet be in place prior to construction?

*A#2 The future track will not be in place prior to construction.*

**Q#3** Is the contractor required to provide false work throughout the entire span over the Rail Road or just over the tracks?

*A#3 The falsework is required to be placed over the entire railroad, from pier to pier.*

**Q#4** Is the contractor required to replace the snaps? If so, what is the method of payment?

*A#4 The SNAPS are required to be replaced, in accordance with Item "Special," – Sonic Nap Alert Pattern. The quantity has been added to plan sheet 3 of 12 and the bid form.*

**MODIFICATIONS VIA ADDENDUM NO. 2 TO THE CONTRACT DOCUMENTS FOR CONTRACT NO. 43-14-08**

**Modifications to the Plan Drawings**

Additions and deletions on Plan Drawings are indicated with a cloud and revision triangle thus:



The following plan sheets have been updated and the new plan sheets shall be substituted for:  
- Sheet numbers 3, 7, and 11 of 12.

**Modifications to the Special Provisions**

Deletions in are shown with ~~strikethrough~~ text.

Changes/Additions are shown with ***bold italicized*** text.

The following Contract Documents have been updated and the respective pages shall be substituted for:

- Bid Form pages OTC-BF-2 and OTC-BF-3
- Special Provision - Table of Contents
- Special Provision - Page SP-154 and SP-155 (Added)

Addendum No. 2 to Contract No. 43-14-08 is hereby acknowledged:

\_\_\_\_\_  
(Firm Name)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name)

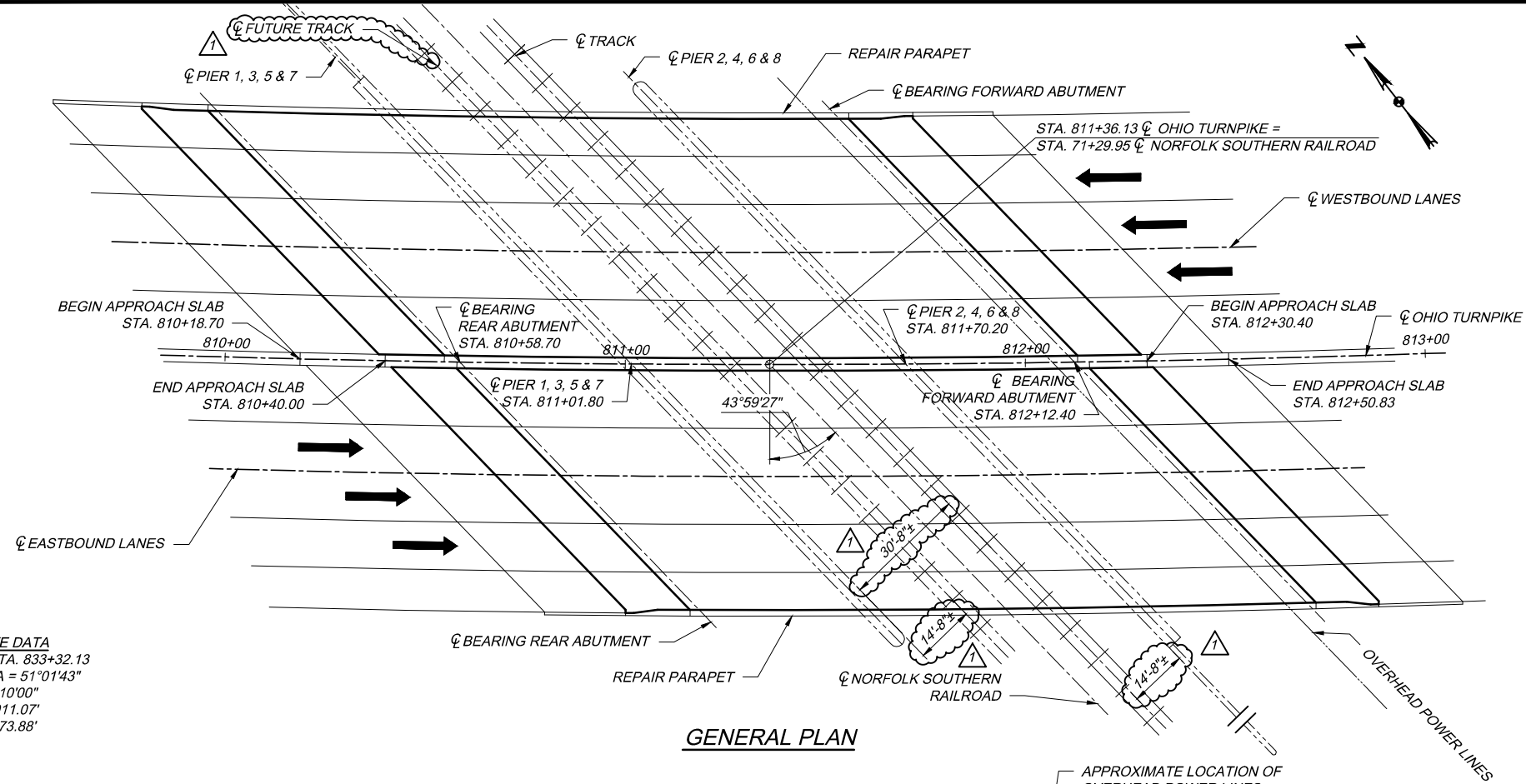
Date: \_\_\_\_\_

GENERAL SUMMARY			
ITEM	TOTAL	UNIT	DESCRIPTION
<b>GENERAL</b>			
IB.ART.6	LUMP	LUMP SUM	PREMIUM FOR CONTRACT PERFORMANCE BOND AND PAYMENT BOND
SP 115	LUMP	LUMP SUM	RAILROAD PROTECTIVE LIABILITY INSURANCE
SP 614	LUMP	LUMP SUM	MAINTAINING TRAFFIC
SP 619	LUMP	LUMP SUM	FIELD OFFICE
SP 623	LUMP	LUMP SUM	CONSTRUCTION LAYOUT SURVEY
624	LUMP	LUMP SUM	MOBILIZATION
SPECIAL	LUMP	LUMP SUM	TEMPORARY ACCESS
<b>ROADWAY</b>			
254	7920	S.Y.	PAVEMENT PLANING, ASPHALT CONCRETE (T=2")
SP 404	441	C.Y.	ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE (PG 64-22)
SP 407	800	GAL.	TACK COAT
604	3	EACH	CATCH BASIN, ADJUSTED TO GRADE, LESS THAN 4", AS PER PLAN
604	12	EACH	CATCH BASIN, ADJUSTED TO GRADE, 4" - 12", AS PER PLAN
604	3	EACH	CATCH BASIN, ADJUSTED TO GRADE, GREATER THAN 12", AS PER PLAN
604	2	EACH	CATCH BASIN GRATE AND CASTING, AS PER PLAN
614	6	MILE	WORK ZONE EDGE LINE, CLASS 1, 740.02 TYPE 1
614	3	MILE	WORK ZONE LANE LINE, CLASS 1, 740.02 TYPE 1
614	3785	FOOT	WORK ZONE EDGE LINE, CLASS 1, 740.06 TYPE 1
614	1895	FOOT	WORK ZONE LANE LINE, CLASS 1, 740.06 TYPE 1
SP 622A	1	LUMP SUM	TEMPORARY PORTABLE BARRIER (WITHOUT GLARE SHIELD)
SP 641C	12	MILE	REMOVAL OF PAVEMENT MARKINGS
642	1.50	MILE	WHITE EDGE LINE, 6", TYPE 1
642	1.50	MILE	YELLOW EDGE LINE, 6" TYPE 1
642	3.00	MILE	WHITE LANE LINE, 6", TYPE 1
SPECIAL	1.35	MILE	"SNAP" MILL AND FILL
SPECIAL	2.70	MILE	SONIC NAP ALERT PATTERN (SNAP)
SPECIAL	2	EACH	SECURING MANHOLE LID
<b>STRUCTURES</b>			
SP 202	LUMP	LUMP SUM	PORTIONS OF STRUCTURE REMOVED
SP 509	100	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60 (**)
513	10	EACH	WELDED STUD SHEAR CONNECTORS, AS PER PLAN (**)
SP 516A	50	LIN. FT.	CRACK REPAIR USING EPOXY INJECTION (**)
SP 516B	2140	LIN. FT.	SEALING OF CONSTRUCTION JOINTS
SP 519	50	SQ. FT.	PATCHING CONCRETE STRUCTURES
SP 527	LUMP	LUMP SUM	FALSEWORK, TEMPORARY BRACING AND PROTECTIVE STRUCTURES
SP 533	340	LIN. FT.	CONTINUOUS STRIP SEAL IN STRUCTURAL STEEL JOINT
SP 536	2532	SQ. YD.	CONCRETE WEATHERPROOFING, DECK, ABUTMENT SLABS AND APPROACH SLABS
SP 536	550	SQ. YD.	CONCRETE WEATHERPROOFING, PARAPETS
SP 848	2532	SQ. YD.	CLASS S CONCRETE OVERLAY, USING SHRINKAGE COMPENSATING CEMENT, USING HYDRODEMOLITION
SP 848	2532	SQ. YD.	SURFACE PREPARATION USING HYDRODEMOLITION
SP 848	49	CU. YD.	CLASS S CONCRETE OVERLAY, USING SHRINKAGE COMPENSATING CEMENT, (VARIABLE THICKNESS), MATERIAL ONLY
SP 848	3	CU. YD.	CLASS S CONCRETE, USING SHRINKAGE COMPENSATING CEMENT, FOR PREPLACEMENT TESTING
SP 848	1	CU. YD.	FULL DEPTH REPAIR
SP 848	9	SQ. YD.	HAND CHIPPING
SPECIAL	378	LIN. FT.	REPLACEMENT OF PARAPET REINFORCING STEEL

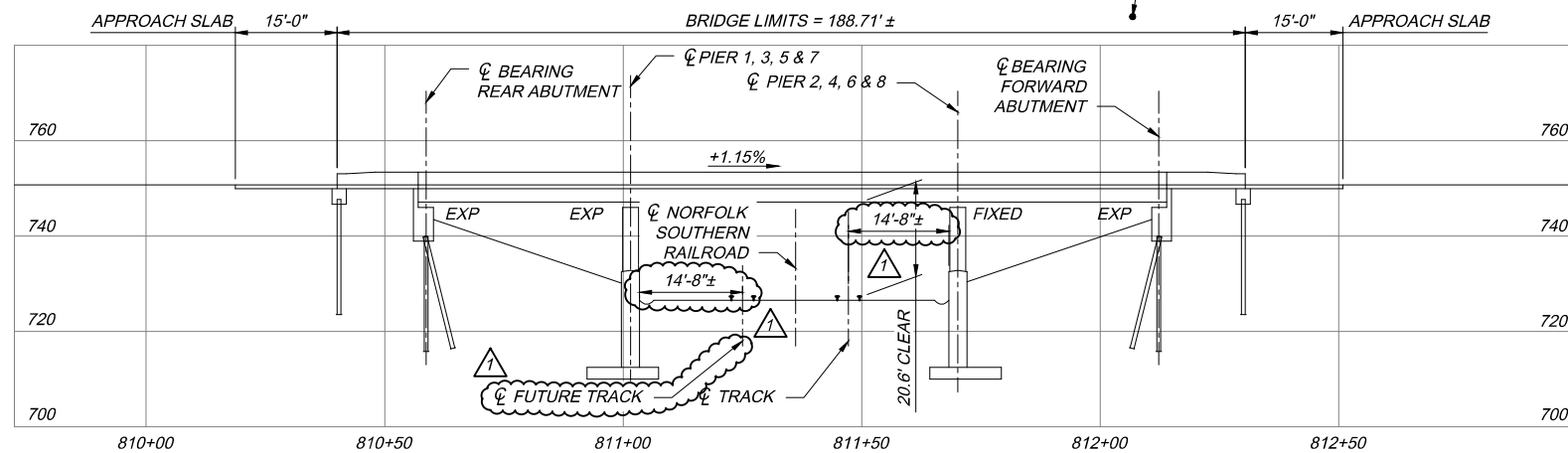
**NOTES:**

- FOR GENERAL NOTES, SEE SHEET 2.
- SPECIFIC STRUCTURE REHABILITATION SCOPE OF WORK AND ESTIMATED QUANTITIES ARE SHOWN ON THE GENERAL PLAN AND ELEVATION SHEET FOR EACH STRUCTURE.
- (\*\*) DESIGNATES A CONTINGENCY QUANTITY, TO BE USED AT THE DIRECTION OF THE ENGINEER.

ADDENDUM 2		CAC	6/2014
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION</b>			
<b>ESTIMATED QUANTITIES STRUCTURE M.P. 147.9 LORAIN COUNTY</b>			
DESIGNED:	CAC	CHECKED:	CMM
DRAWN:	CAC	IN CHARGE:	ADY
DATE:		4/01/2014	
SCALE:		N.T.S.	
<b>PROJECT 43-14-08 SHEET 3 OF 12</b>			



**GENERAL PLAN**



**ELEVATION**

**M.P. 147.9 - OHIO TURNPIKE OVER NORFOLK SOUTHERN RAILROAD ESTIMATED QUANTITIES**

ITEM	TOTAL	UNIT	DESCRIPTION
SP 202	LUMP	LUMP SUM	PORTIONS OF STRUCTURE REMOVED
SP 509	100	LBS.	EPOXY COATED REINFORCING STEEL, GRADE 60
513	10	EACH	WELDED STUD SHEAR CONNECTORS, AS PER PLAN
SP 516A	50	LIN. FT.	CRACK REPAIR USING EPOXY INJECTION
SP 516B	2140	LIN. FT.	SEALING OF CONSTRUCTION JOINTS
SP 519	50	SQ. FT.	PATCHING CONCRETE STRUCTURES
SP 527	LUMP	LUMP SUM	FALSEWORK, TEMPORARY BRACING AND PROTECTIVE STRUCTURES
SP 533	340	LIN. FT.	CONTINUOUS STRIP SEAL IN STRUCTURAL STEEL JOINT
SP 536	2532	SQ. YD.	CONCRETE WEATHERPROOFING, DECK, ABUTMENT SLABS AND APPROACH SLABS
SP 536	550	SQ. YD.	CONCRETE WEATHERPROOFING, PARAPETS
SP 848	2532	SQ. YD.	CLASS S CONCRETE OVERLAY, USING SHRINKAGE COMPENSATING CEMENT, USING HYDRODEMOLITION
SP 848	2532	SQ. YD.	SURFACE PREPARATION USING HYDRODEMOLITION
SP 848	49	CU. YD.	CLASS S CONCRETE OVERLAY, USING SHRINKAGE COMPENSATING CEMENT (VARIABLE THICKNESS), MATERIAL ONLY
SP 848	3	CU. YD.	CLASS S CONCRETE, USING SHRINKAGE COMPENSATING CEMENT, FOR PRE-PLACEMENT TESTING
SP 848	1	CU. YD.	FULL-DEPTH REPAIR
SP 848	9	SQ. YD.	HAND CHIPPING
SPECIAL	378	LIN. FT.	REPLACEMENT OF PARAPET REINFORCING STEEL

**EXISTING/PROPOSED STRUCTURE**

TYPE: 3 SPAN NON-COMPOSITE STEEL BEAMS WITH REINFORCED CONCRETE DECK, REINFORCED CONCRETE ABUTMENTS, CAP AND COLUMN TYPE PIERS.  
 SPANS: 42'-4 5/16" ±, 67'-10 1/16" ±, AND 42'-4 5/16" ± C/C BEARINGS  
 ROADWAY: 59'-10" TOE/TOE OF PARAPETS  
 SKEW: 46°26'52" RIGHT FORWARD  
 WEARING SURFACE: MONOLITHIC CONCRETE  
 APPROACH SLABS: 15'-0" LONG  
 ALIGNMENT: 1°10'00" CURVE LEFT  
 BUILT: 1954 (REHABILITATED IN 1986, THIRD LANE ADDED IN 1996)  
 SFN: 4729587  
 OTIC MILEPOST: 147.9  
 COORDINATES: LATITUDE: 41°22'54" N, LONGITUDE: 82°04'07" W

**REQUIRED MINIMUM CLEARANCES:**  
 OHIO TURNPIKE OVER NORFOLK SOUTHERN RAILROAD M.P. 147.9

- VERTICAL  
 EXISTING = 20.6'  
 REQUIRED = 20.6'
- HORIZONTAL  
 EXISTING = 14'-8"  
 REQUIRED = 13'-0"

**PROPOSED REHABILITATION SCOPE OF WORK:**  
 OHIO TURNPIKE OVER NORFOLK SOUTHERN RAILROAD M.P. 147.9

- INSTALL TEMPORARY FALSEWORK BENEATH PORTIONS OF THE STRUCTURE TO BE REPAIRED OVER THE NORFOLK SOUTHERN RAILROAD IN ACCORDANCE WITH SP 527 AND SP 827B.
- REMOVE EXISTING CONCRETE WEARING SURFACE OF BRIDGE DECK AND ABUTMENT SLABS USING HYDRODEMOLITION AS PER SP 848.
- REPLACE REAR ABUTMENT AND FORWARD ABUTMENT EXPANSION JOINTS PER 533. SEE SHEET 11 FOR ADDITIONAL JOINT REPAIR DETAILS.
- EPOXY INJECT ALL CRACKS 1/8" WIDE OR LARGER PER SP 516A.
- PLACE CONCRETE OVERLAY PER SP 848.
- SEAL ALL TRANSVERSE JOINTS, CONSTRUCTION JOINTS, AND TOE OF PARAPET WITH HMWM RESIN PER SP 516B.
- REPAIR OUTSIDE PARAPETS IN ACCORDANCE WITH ITEM SPECIAL - REPLACEMENT OF PARAPET REINFORCING STEEL.
- REPAIR AREAS OF DETERIORATED PARAPET CONCRETE AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH SP 519.
- WEATHERPROOF SUPERSTRUCTURE CONCRETE AS SHOWN IN THE PLANS.
- PAINT EDGE AND LANE LINES PER ODOT CMS 642, AS PER PLAN.

**NOTES:**  
 • THE PLAN DETAILS SHOWN ARE FROM THE ORIGINAL CONSTRUCTION AND REHABILITATION PLANS, WHICH MAY NOT BE DRAWN TO SCALE AND ARE FOR INFORMATION ONLY.

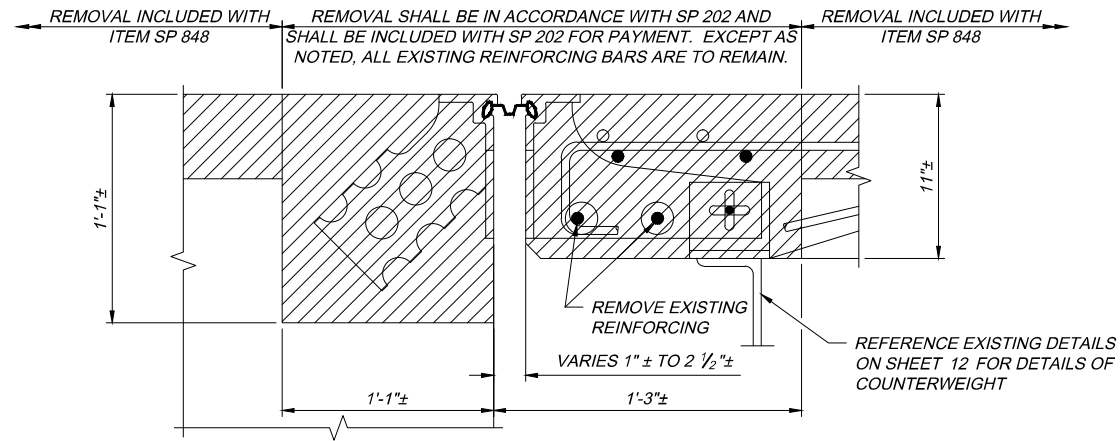
2	ADDENDUM 2	CAC	6/2014
1	ADDENDUM 1	CAC	6/2014
NO.	REVISIONS	BY	DATE

**OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION**

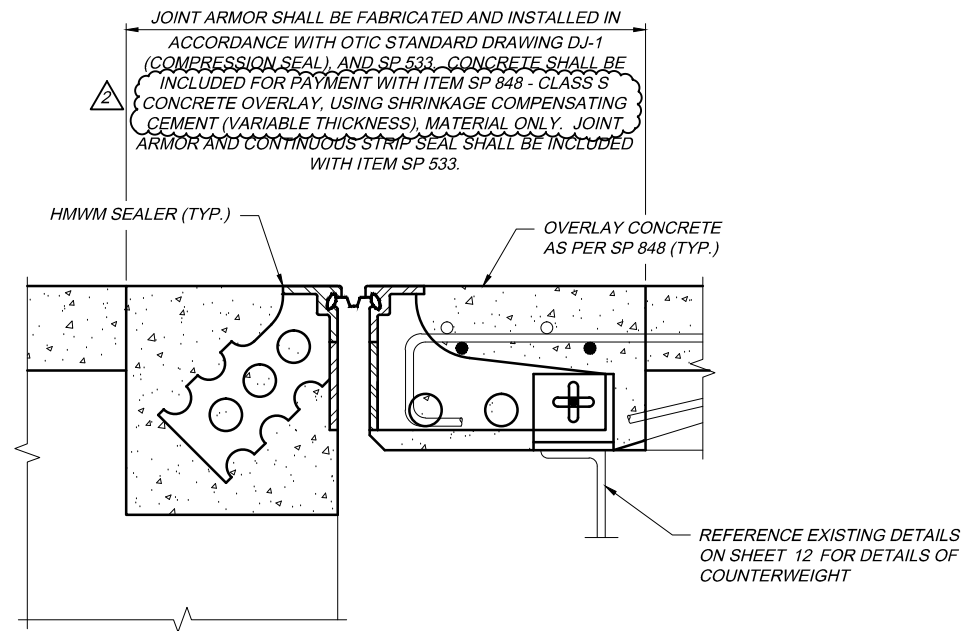
**GENERAL PLAN AND ELEVATION**  
 OHIO TURNPIKE OVER NORFOLK SOUTHERN RR  
 M.P. 147.9 LORAIN COUNTY

DESIGNED:	CAC	CHECKED:	CMM	DATE:	4/01/2014
DRAWN:	CAC	IN CHARGE:	ADY	SCALE:	N.T.S.

**PROJECT 43-14-08 SHEET 7 OF 12**

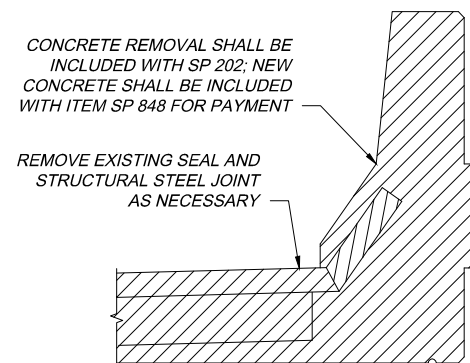


**REMOVAL DETAILS**  
 (ALL REINFORCING NOT SHOWN.  
 EXISTING REINFORCING TO REMAIN,  
 EXCEPT AS NOTED)



**PROPOSED CONSTRUCTION DETAILS**  
 (ALL REINFORCING NOT SHOWN.  
 EXISTING REINFORCING TO REMAIN)

**ITEM SP 533 - CONTINUOUS STRIP SEAL  
 IN STRUCTURAL STEEL JOINT**



**ITEM SP 533 - CONTINUOUS STRIP SEAL  
 IN STRUCTURAL STEEL JOINT - REMOVAL DETAIL**

**NOTES:**

1. THE CONTRACTOR IS TO FIELD VERIFY JOINT OPENING DIMENSIONS (WITH TEMPERATURE AT MEASUREMENT) AT A SUFFICIENT NUMBER OF LOCATIONS ALONG ITS LENGTH SO THAT THE JOINT MANUFACTURER CAN PROPERLY DESIGN THE JOINT.
2. TRIM BEAM ENDS, AS NECESSARY, AND AS DIRECTED/APPROVED BY THE CHIEF ENGINEER. INCLUDE WITH ITEM SP 202 FOR PAYMENT.

**LEGEND**

-  REMOVAL LIMITS
-  EXPANSION JOINT MATERIAL

ADDENDUM 2		CAC	6/2014
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION</b>			
<b>DECK JOINT DETAILS STRUCTURE M.P. 147.9</b>			
LORAIN COUNTY			
DESIGNED:	CAC	CHECKED:	CMM
DATE:	4/01/2014	SCALE:	N.T.S.
DRAWN:	CAC	IN CHARGE:	ADY
PROJECT 43-14-08		SHEET 11 OF 12	

**BID FORM PROJECT NO. 43-14-08**

Ref. No.	Item No.	Item Description	Approx. Quantity	Unit	Unit Cost	Extended Bid Amount
<b>GENERAL (Ref. Nos. 1 - 7)</b>						
1	IB.ART.6	PREMIUM FOR CONTRACT PERFORMANCE BOND AND PAYMENT BOND	1	LUMP		
2	SP 115	RAILROAD PROTECTIVE LIABILITY INSURANCE	1	LUMP		
3	SP 614	MAINTAINING TRAFFIC	1	LUMP		
4	SP 619	FIELD OFFICE	1	LUMP		
5	SP 623	CONSTRUCTION LAYOUT SURVEY	1	LUMP		
6	624	MOBILIZATION	1	LUMP		
7	SPECIAL	TEMPORARY ACCESS	1	LUMP		
<b>TOTAL - GENERAL</b>						

<b>ROADWAY (Ref. Nos. 8 - 25)</b>						
8	254	PAVEMENT PLANING, ASPHALT CONCRETE (T=2")	7920	SQ. YD.		
9	SP 404	ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE (PG 64-22)	441	CU. YD.		
10	SP 407	TACK COAT	800	GAL.		
11	604	CATCH BASIN, ADJUSTED TO GRADE, LESS THAN 4", AS PER PLAN	3	EACH		
12	604	CATCH BASIN, ADJUSTED TO GRADE, 4" - 12", AS PER PLAN	12	EACH		
13	604	CATCH BASIN, ADJUSTED TO GRADE, GREATER THAN 12", AS PER PLAN	3	EACH		
14	604	CATCH BASIN GRATE AND CASTING, AS PER PLAN	2	EACH		
15	614	WORK ZONE EDGE LINE, CLASS 1, 740.02 TYPE 1	6	MILE		
16	614	WORK ZONE LANE LINE, CLASS 1, 740.02 TYPE 1	3	MILE		
17	614	WORK ZONE EDGE LINE, CLASS 1, 740.06 TYPE 1	3785	FOOT		
18	614	WORK ZONE LANE LINE, CLASS 1, 740.06 TYPE 1	1895	FOOT		
19	SP 622A	TEMPORARY PORTABLE BARRIER (WITHOUT GLARE SHIELD)	1	LUMP		
20	SP 641C	REMOVAL OF PAVEMENT MARKINGS	12	MILE		
21	642	WHITE EDGE LINE, 6", TYPE 1	1.50	MILE		
22	642	YELLOW EDGE LINE, 6", TYPE 1	1.50	MILE		
23	642	WHITE LANE LINE, 6", TYPE 1	3.00	MILE		
24	SPECIAL	"SNAP" MILL AND FILL	1.35	MILE		
<b>24A</b>	<b>SPECIAL</b>	<b>SONIC NAP ALERT PATTERN (SNAP)</b>	<b>2.70</b>	<b>MILE</b>		
25	SPECIAL	SECURING MANHOLE LID	2	EACH		
<b>TOTAL - ROADWAY</b>						

OTC-BF-2

OTC-BF-3

Ref. No.	Item No.	Item Description	Approx. Quantity	Unit	Unit Cost	Extended Bid Amount
<b>STRUCTURES (Ref. Nos. 26 - 42)</b>						
26	SP 202	PORTIONS OF STRUCTURE REMOVED	1	LUMP		
27	SP 509	EPOXY COATED REINFORCING STEEL, GRADE 60	100	LBS.		
28	513	WELDED STUD SHEAR CONNECTORS, AS PER PLAN	10	EACH		
29	SP 516A	CRACK REPAIR USING EPOXY INJECTION	50	LIN. FT.		
30	SP 516B	SEALING OF CONSTRUCTION JOINTS	<del>1470</del> <b>2140</b>	LIN. FT.		
31	SP 519	PATCHING CONCRETE STRUCTURES	50	SQ. FT.		
32	SP 527	FALSEWORK, TEMPORARY BRACING AND PROTECTIVE STRUCTURES	1	LUMP		
33	SP 533	CONTINUOUS STRIP SEAL IN STRUCTURAL STEEL JOINT	340	LIN. FT.		
34	SP 536	CONCRETE WEATHERPROOFING, DECK, ABUTMENT SLABS AND APPROACH SLABS	<del>1044</del> <b>2532</b>	SQ. YD.		
35	SP 536	CONCRETE WEATHERPROOFING, PARAPETS	<del>515</del> <b>550</b>	SQ. YD.		
36	SP 848	CLASS S CONCRETE OVERLAY, USING SHRINKAGE COMPENSATING CEMENT USING HYDRODEMOLITION	<del>1267</del> <b>2532</b>	SQ. YD.		
37	SP 848	SURFACE PREPARATION USING HYDRODEMOLITION	<del>1267</del> <b>2532</b>	SQ. YD.		
38	SP 848	CLASS S CONCRETE OVERLAY, USING SHRINKAGE COMPENSATING CEMENT (VARIABLE THICKNESS), MATERIAL ONLY	<del>9</del> <b>49</b>	CU. YD.		
39	SP 848	CLASS S CONCRETE, USING SHRINKAGE COMPENSATING CEMENT, FOR PREPLACEMENT TESTING	3	CU. YD.		
40	SP 848	FULL DEPTH REPAIR	1	CU. YD.		
41	SP 848	HAND CHIPPING	9	SQ. YD.		
42	SPECIAL	REPLACEMENT OF PARAPET REINFORCING STEEL	378	LIN. FT.		
<b>TOTAL - STRUCTURES</b>						

### BID SUMMARY

The total amount of the preceding Bid, based upon the approximate quantities given above, and the Unit Prices and Lump Sum specified by the undersigned, amounts to the sum of:

TOTAL BASE BID (INCLUDES REF. NO. 1 THRU REF. NO. 42) ----->

THE BID, FOR PROJECT No. 43-14-08, OF UNIT PRICE EXTENSIONS IS ALL LABOR, EQUIPMENT AND MATERIALS, FOR THE SUM OF:

(Sum in words) \_\_\_\_\_ DOLLARS

Item No.'s that do not have an IB or SP designation are items drawn from the 2010 ODOT CMS. Bidders should refer to the 2010 ODOT CMS for information and guidance concerning these items.



**OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION**  
**SPECIAL PROVISIONS FOR**  
**PROJECT NO. 43-14-08**

<b>Provision No.</b>	<b>Description</b>	<b>Page No.</b>
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SP 101	PLANS AND DESCRIPTION OF THE WORK.....	1
SP 102	SPECIFICATIONS .....	1
SP 103	CONSTRUCTION PHASING AND TIME OF COMPLETION.....	2
SP 104	ACCESS TO TURNPIKE AND RESTRICTIONS.....	2
SP 105	DISPOSAL OF EXCESS MATERIALS .....	4
SP 106	HOURS OF WORK .....	4
SP 107	TIME OF THE ESSENCE - LIQUIDATED DAMAGES .....	4
SP 108	CONCRETE PLANT CERTIFICATION.....	4
SP 109	HAULING OVER LOCAL ROADS .....	5
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SP 509	EPOXY COATED REINFORCING STEEL .....	50
SP 511A	CLASS S CONCRETE, FOR SUPERSTRUCTURES.....	51
SP 514A	FIELD PAINTING OF EXISTING STRUCTURES - SYSTEM OZEU .....	57
SP 516A	CRACK REPAIR .....	76
SP 516B	SEALING OF CONSTRUCTION JOINTS.....	79
SP 519	PATCHING CONCRETE STRUCTURES.....	80
SP 527	FALSEWORK, TEMPORARY BRACING AND PROTECTIVE STRUCTURES.....	82
SP 533	CONTINUOUS STRIP SEAL IN STRUCTURAL STEEL JOINT .....	85
SP 536	CONCRETE WEATHERPROOFING.....	88
SP 614	MAINTAINING TRAFFIC .....	93
SP 619	FIELD OFFICE .....	102
SP 622A	TEMPORARY PORTABLE BARRIER .....	105
SP 623	CONSTRUCTION LAYOUT SURVEY .....	107
SP 626	RAISED PAVEMENT MARKERS .....	109
SP 641C	REMOVAL OF PAVEMENT MARKING .....	115
SP 730	TRAFFIC SIGN AND SUPPORT MATERIAL .....	119
SP 802	BARRIER REFLECTORS.....	121
SP 827B	PROTECTION OF NORFOLK SOUTHERN RAILWAY INTEREST.....	124
SP 848	BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRODEMOLITION.....	144
SP 952	NON-SHRINK, NON-METALLIC EPOXY GROUT .....	153
<b>SPECIAL</b>	<b>SONIC NAP ALERT PATTERN (SNAP).....</b>	<b>154</b>

**OHIO DEPARTMENT OF TRANSPORTATION – SUPPLEMENTAL SPECIFICATIONS**

- SS 821 – ARROW BOARD
- SS 921 – ARROW BOARD
- SS 1021 – ARROW BOARD PRE-QUALIFICATION PROCEDURE

**APPENDIX**

- APPENDIX A – STANDARD CONSTRUCTION RIGHT OF ENTRY AGREEMENT
- APPENDIX B – TEMPORARY TRAFFIC CONTROL ON THE OHIO TURNPIKE

**SPECIAL**

**SONIC NAP ALERT PATTERN (SNAP)**

(12/10)

A. Description

This Item shall consist of the installation of the Sonic Nap Alert Pattern (SNAP).

B. Construction Methods

Construct the SNAP grooves to the dimensions and spacing as shown on the Ohio Turnpike and Infrastructure Commission Standard Drawing TCR-13 and at the locations shown in the Plans.

The method of cutting shall be either milling or grinding. The cutting head shall be capable of producing a sixteen (16) inch wide cut in one (1) pass. If the milling method is used, the outer drum shall have a maximum diameter of twenty-four (24) inches with a minimum of fifty (50) carbide cutting tips or sufficient diamond blades to provide a smooth surface. The rotation speed of the drum shall be at a cutting rate of three thousand (3,000) SNAP grooves per hour of operation.

The cutting machine shall be equipped with guides or a guidance system, clearly visible to the operator, to provide for consistent alignment of each SNAP groove at the offset from the edge line as indicated on the Plans.

Where Work is required at a location that abuts an already grooved area, the Contractor shall adjust the alignment and spacing of new grooves to blend with that of the existing grooves. SNAP grooves shall not be installed on concrete bridge decks, abutment slabs or approach slabs.

The Contractor may dispose of millings or grinding slurry outside the edge of the paved shoulder. Grinding slurry shall not be discharged within fifty (50) feet of a stream or local road crossing and where streams are adjacent to the toe of an embankment. The shoulder area shall be returned to a debris-free state prior to reopening for traffic.

Traffic control procedures shall be as stated on the Plans and Special Provisions and as shown on the Standard Drawings.

The Contractor shall perform a test section prior to performing any Work, at a location and time set forth by the Chief Engineer. The test section will be performed to insure that the machine is capable of milling or diamond grinding the SNAP in accordance with the Ohio Turnpike and Infrastructure Commission Standard Drawing TCR-13.

C. Method of Measurement

The quantity of SNAP grooves shall be the actual number of miles (to the nearest hundredth) of completed grooves to the satisfaction of the Chief Engineer.

SPECIAL – SONIC NAP ALERT PATTERN (SNAPS)

D. Basis of Payment

Payment for all labor and equipment necessary to accomplish the Work shall be made at the Contract unit bid price for each mile of SNAP grooves completed to the satisfaction of the Chief Engineer. No separate payment shall be made for the removal and disposal of millings or grindings. No separate payment shall be made for the test strip.

Payment will be made under:

<u>Item</u>	<u>Unit</u>	<u>Description</u>
Special	Mile	Sonic Nap Alert Pattern (SNAP)

SPECIAL – SONIC NAP ALERT PATTERN (SNAPS)