

## OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

#### ADDENDUM NO. 1

#### PROJECT NO. 43-19-04

BRIDGE DECK REPAIR AND REHABILITATION
RIVER ROAD (T.R. 126) OVER OHIO TURNPIKE M.P. 120.0,
WIKEL ROAD (T.R. 127) OVER OHIO TURNPIKE M.P. 121.9,
CHAPIN ROAD (T.R. 131) OVER OHIO TURNPIKE M.P. 123.1,
STATE ROUTE 60 OVER OHIO TURNPIKE M.P. 131.6,
GIFFORD ROAD (T.R. 46) OVER OHIO TURNPIKE M.P. 135.4
ERIE AND LORAIN COUNTIES, OHIO

OPENING DATE: 2:00 P.M. (EASTERN TIME), DECEMBER 5, 2018

## ATTENTION OF BIDDERS IS DIRECTED TO: ANSWERS TO QUESTIONS RECEIVED THROUGH 1:00 PM ON NOVEMBER 20, 2018

### **MODIFICATIONS TO THE CONTRACT DOCUMENTS**

Plan Sheets: 8, 22, 69

Bid Schedule of Items and Estimated Quantities Worksheet Ref. Nos. 19, 26, 27

Issued by the Ohio Turnpike and Infrastructure Commission by Anthony D. Yacobucci, Chief Engineer, and Mark R. Musson, Director of Contracts Administration.

Anthony D. Yacobucci

Date

Mark R. Musson

Date

#### ANSWERS TO QUESTIONS RECEIVED THROUGH 1:00 P.M. ON NOVEMBER 20, 2018:

- Q#1 The rebar quantities for Ref. 26 and 27 appear to be reversed on the bid form. The note on Sheet 15/74 indicates that there is 500 LBS set up for Item 509--Reinforcing Steel, Replacement of Existing Reinforcing Steel. Please review and/or revise this as needed.
- A#1 The Bid Schedule of Items and Estimated Quantities Worksheet incorrectly recited the amount and revised accordingly through this Addendum No. 1 to match the estimated quantities specified in the Plans.
- Q#2 Note 4 on sheet 22/74 and 69/74 say to see item SP 514A for payment for painting of the bearings. Item SP 514A does not exist. How will painting of the bearings be made and paid for?
- A#2 Painting of the bearings (and associated items specified in the plans) shall be considered incidental to the bearing pay item(s). Plan Sheet Nos. 22 and 69 of 74 are revised through this Addnedum No. 1 to reflect this clarification.
- Q#3 It appears the description for reference 26 and 27 are switched.
- A#3 See the response to Q#1.
- Q#4 Plan sheets 49 and 50: there are 2 catch basins north of the SR 60 bridge which are to be removed and replaced per sheet 50 detail (bid items 8 and 20). The general summary on plan sheet 8 calls out a total of 12 catch basins to be reconstructed including 2 at the SR 60 bridge. There are only 2 existing catch basins as is at the SR 60 bridge. Please review the catch basin reconstructed summary and quantity (bid item 19).
- A#4 The two catch basins in question at the S.R. 60 bridge were originally intended to be reconstructed; however, based on the scope of the work shown in the Plans, the catch basis are designated for removal and replacement. The General Summary on Plan Sheet 8 of 74, the Bid Schedule of Items and the Estimated Quantities Worksheet are revised through this Addendum No. 1 to reflect this change in scope.

#### MODIFIED CONTRACT DOCUMENTS

With this Addendum No. 1, the Commission substitutes the enclosed material for the following Contract Documents:

Plan Sheets: 8, 22 and 69

with additions to the Plan Drawings are called out with a cloud and a revision triangle as thus:



ADDENDUM NO. 1 PROJECT NO. 43-19-04 PAGE 3

With this Addendum No. 1, the Commission modifies the Bid Schedule of Items for the following Reference Numbers: 19, 26 and 27

Receipt of Addendum No. 1 Project No. 43-19-04 is hereby acknowledged:	
(Firm Name)	
(Signature)	
(Printed Name)	
(Date)	
BIDDERS MUST RETURN THE ABOVE ACKNOWL	EDGEMENT

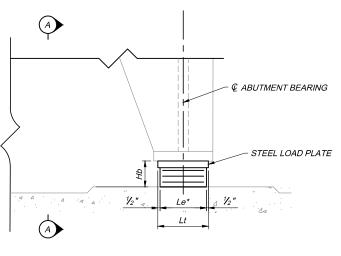
OF RECEIPT OF ADDENDUM NO. 1 WITH THEIR BID.

LOAD PLATE AND EXISTING BEARING									
HEIGHTS									
	tc	Hb							
	Α	2 3/8"	3 7/8"						
REAR	В	2 1/2"	4"						
ABUTMENT	С	2 5/8"	4 1/8"						
	D	2 1/2"	4"						
	Α	2 3/4"	4 1/4"						
PIER 1 (SPAN	В	2 7/8"	4 3/8"						
1)	С	2 5/8"	4 1/8"						
	D	3"	4 1/2"						
	Α	2"	4 1/8"						
PIER 1 (SPAN	В	1 7/8"	4 1/8"						
2)	С	1 3/4"	4"						
	D	1 7/8"	4"						
	Α	2 1/8"	4 1/4"						
PIER 3 (SPAN	В	1 7/8"	4 1/8"						
3)	С	2"	4 1/4"						
	D	2"	4 1/8"						
	Α	2 3/4"	4 1/8"						
PIER 3 (SPAN	В	2 5/8"	4"						
4)	С	2 3/4"	4 1/8"						
	D	2 5/8"	4"						
	Α	2 5/8"	4"						
FORWARD	В	2 3/4"	4 1/8"						
ABUTMENT	С	2 1/2"	3 7/8"						
	D	2 5/8"	4"						

#### NOTES:

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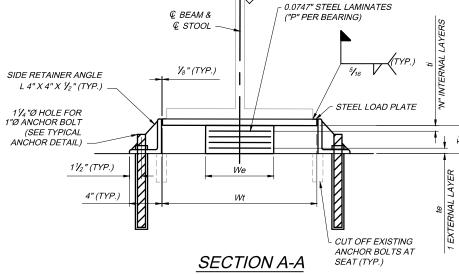
- ELASTOMERIC BEARINGS: THE BEARINGS HAVE BEEN DESIGNED UNDER DIVISION I, SECTION 14.6.6. METHOD A, OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION. ELASTOMERIC BEARINGS SHALL COMPLY WITH ODOT CMS ITEM 516 AND SECTION 18, BEARINGS. DIVISION II, CONSTRUCTION OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD A. THE TESTING SHALL BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. THE MANUFACTURER SHALL FURNISH CERTIFIED TEST DATA. THE MANUFACTURER SHALL SUPPLY A SAMPLE BEARING OF EACH DESIGN, AS SHOWN IN THE PLANS, FOR DESTRUCTIVE TESTING AND APPROVAL PURPOSES. SAMPLE BEARINGS SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM.
- WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER
- BEARING REPOSITIONING: IF THE BEARINGS ARE SET AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, THE GIRDERS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ± 10°F.
- THE STEEL LOAD PLATE, SIDE RETAINER ANGLES AND PEDESTALS SHALL BE ASTM A709 GRADE 50 STEEL AND SHALL BE PAINTED IN ACCORDANCE WITH SP 514A. PAINTING SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM.
- THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE
- SUPERSTRUCTURE SUPPORT, AND/OR JACKING AND RESETTING OF BEARINGS AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED IN ACCORDANCE WITH ITEM 516 AND SP 516G. SEE STRUCTURE NOTES AND SPECIAL PROVISIONS.
- BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING STEEL PLATES AND BEARING RETAINERS. SAMPLE BEARINGS SHALL NOT BE MEASURED FOR PAYMENT.
- ANCHOR BOLTS SHALL BE PLACED AS PER ODOT CMS 510.
- CONTRACTOR IS TO VERIFY EXISTING BEARING HEIGHTS PRIOR TO FABRICATION OF NEW BEARINGS AND LOAD PLATES. SEE GENERAL NOTES ON SHEET 15 OF 74 FOR EXISTING STRUCTURE VERIFICATION NOTE. FURNISH STEEL SHIM PLATES, FULL WIDTH OF BEAM FLANGE AND FULL LENGTH OF LOAD PLATE, AS REQUIRED BETWEEN THE BEAM FLANGE AND THE LOAD PLATE, TO PROVIDE THE REQUIRED STRUCTURE DEPTH AND PROPERLY ALIGN THE DECK JOINTS. CONTRACTOR IS RESPONSIBLE FOR PROPER EXPANSION JOINT FIT-UP. THE CONTRACTOR SHALL FURNISH SHIM PLATES WITH EACH BEARING DEVICE EVEN THOUGH THE CONTRACTOR MEASURED THE EXISTING BEARING HEIGHTS AND THE ENGINEER CONCURRED WITH THE MEASUREMENTS. INCLUDE STEEL SHIMS WITH ITEM SP 516 FOR PAYMENT. INCLUDE SHIM PACK WITH BEARINGS DELIVERED TO THE SITE FOR FINAL FIELD **ADJUSTMENTS**
- ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INDICATE THE BEARING LOCATION ON THE BRIDGE AND A DIRECTION ARROW THAT POINTS UP STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
- TEMPORARILY REMOVE EXISTING END DIAPHRAGMS WHICH INTERFERE WITH ANCHOR BOLT INSTALLATION. END DIAPHRAGMS SHALL BE IN PLACE DURING CONCRETE DECK POURS AND DURING DECK CURING. RIVETS REMOVED DURING THESE OPERATIONS SHALL BE REPLACED WITH 7/8" Ø A325, TYPE 1 BOLTS. PAYMENT FOR TEMPORARY REMOVAL AND REERECTION OF END DIAPHRAGMS SHALL BE INCLUDED IN ITEM SP 516 AND WILL NOT BE PAID FOR SEPARATELY, DIAPHRAGMS, STIFFENERS. AND/OR BEAMS DAMAGED DURING REMOVAL AND REERECTION SHALL BE REPAIRED AT NO COST TO THE COMMISSION
- IF THE BRIDGE SEAT AREA IS HIGH OR UNEVEN, PROPER ELEVATION AND A LEVEL SURFACE SHALL BE SECURED BY GRINDING THE AREA. GRINDING SHALL BE INCLUDED WITH ITEM SP 516 FOR PAYMENT.



BEARING PAD

**€** BEARING

**ELEVATION** 



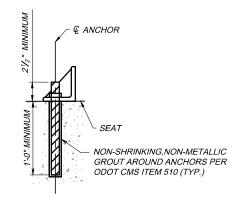
## ABUTMENT BEARING DETAIL

# LEGEND

- DENOTES PROPOSED BEARING SHALL BE CENTERED ON CENTERLINE OF BEARING AND NOT BOTTOM OF STOOL

## NOTE:

SEE SHEET 70 FOR REMOVAL DETAILS.



## THREADED ANCHOR BOLT

### TYPICAL ANCHOR DETAIL

COST OF ANCHOR, NON-SHRINKING AND NON-METALLIC GROUT SHALL BE INCLUDED WITH ITEM SP 516 FOR PAYMENT

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**PROJECT** 

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BEARING DETAILS GIFFORD ROAD OVER OHIO TURNPIKE

BEARING ORIENTATION PLAN

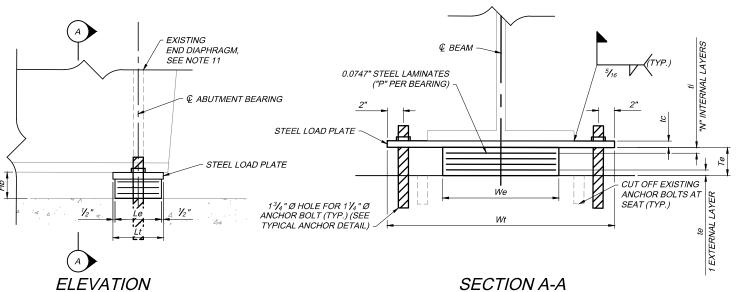
STEEL LOAD

#### NOTES:

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- BEARING REPOSITIONING: IF THE BEARINGS ARE SET AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, THE GIRDERS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ± 10°F.
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- 11. TEMPORARILY REMOVE EXISTING END DIAPHRAGMS WHICH INTERFERE WITH ANCHOR BOLT INSTALLATION. END DIAPHRAGMS SHALL BE IN PLACE DURING CONCRETE DECK POURS AND DURING DECK CURING. RIVETS REMOVED DURING THESE OPERATIONS SHALL BE REPLACED WITH 1/8" Ø A325, TYPE 1 BOLTS. PAYMENT FOR TEMPORARY REMOVAL AND REERECTION OF END DIAPHRAGMS SHALL BE INCLUDED IN ITEM SP 516 AND WILL NOT BE PAID FOR SEPARATELY. DIAPHRAGMS, STIFFENERS, AND/OR BEAMS DAMAGED DURING REMOVAL AND REERECTION SHALL BE REPAIRED AT NO COST TO THE COMMISSION
- 12. IF THE BRIDGE SEAT AREA IS HIGH OR UNEVEN, PROPER ELEVATION AND A LEVEL SURFACE SHALL BE SECURED BY GRINDING THE AREA. GRINDING SHALL BE INCLUDED WITH ITEM SP 516 FOR PAYMENT.

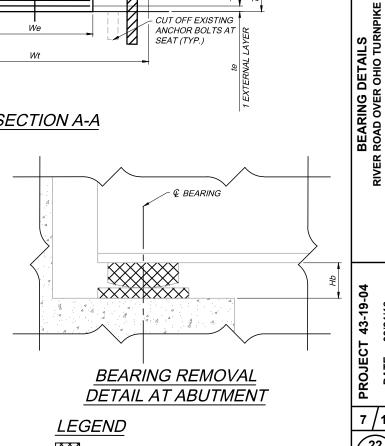
ELASTOMERIC BEARING DIMENSIONS																
BEARING LOCATION			DEADING TYPE	DESIGN LOADS (KIPS) NO.		NO. REQ'D.	ELASTOMER					STEEL LAMINATES		TOP/LOAD P2		
SUBSTRUCTURE	SPANS	BEAMS	BEARING TYPE			BEARINGS	Le	We	Te	ti	te	N	Р	t	Lt	Wt
REAR ABUTMENT	1	A & D	FIXED	18.8	32.1	2	71/2"	8"	1.250"	0.202"	0.142"	4	4	0.0747"	81/2"	1'-11"
REAR ABUTMENT	1	B & C	FIXED	18.3	39.4	2	71/2"	8"	1.250"	0.202"	0.142"	4	4	0.0747"	81/2"	1'-10"
PIER 1	1	A & D	EXPANSION	18.8	32.1	2	8"	81/2"	1.375"	0.229"	0.160"	4	4	0.0747"	9"	1'-2"
PIER 1	1	B & C	EXPANSION	18.3	39.4	2	8"	81/2"	1.375"	0.229"	0.160"	4	4	0.0747"	9"	1'-0"
PIER 1	2	A & D	EXPANSION	33.3	38.9	2	9"	11"	1.625"	0.282"	0.197"	4	4	0.0747"	10"	1'-2"
PIER 1	2	B & C	EXPANSION	34.4	46.7	2	9"	11"	1.625"	0.282"	0.197"	4	4	0.0747"	10"	1'-2"
PIER 3	3	A & D	EXPANSION	33.3	38.9	2	9"	11"	1.625"	0.282"	0.197"	4	4	0.0747"	10"	1'-2"
PIER 3	3	B & C	EXPANSION	34.4	46.7	2	9"	11"	1.625"	0.282"	0.197"	4	4	0.0747"	10"	1'-2"
PIER 3	4	A & D	EXPANSION	18.8	32.1	2	8"	81/2"	1.375"	0.229"	0.160"	4	4	0.0747"	9"	1'-2"
PIER 3	4	B & C	EXPANSION	18.3	39.4	2	8"	81/2"	1.375"	0.229"	0.160"	4	4	0.0747"	9"	1'-0"
FORWARD ABUTMENT	4	A & D	FIXED	18.8	32.1	2	71/2"	8"	1.250"	0.202"	0.142"	4	4	0.0747"	81/2"	1'-11"
FORWARD ABUTMENT	4	B & C	FIXED	18.3	39.4	2	71/2"	8"	1.250"	0.202"	0.142"	4	4	0.0747"	8½"	1'-6"



## LOAD PLATE & EXISTING **BEARING HEIGHTS**

DEAINING HEIGHTS								
	BEAM	tc	Hb					
	Α	2 5/8"	3 7/8"					
REAR	В	2 3/8"	3 5/8"					
<b>ABUTMENT</b>	С	2 5/8"	3 7/8"					
	D	2 5/8"	3 7/8"					
	Α	2 1/4"	3 5/8"					
PIER 1	В	2 3/8"	3 3/4"					
(SPAN 1)	С	2 1/2"	3 7/8"					
	D	2 3/8"	3 3/4"					
	Α	2 1/4"	3 7/8"					
PIER 1	В	2 1/4"	3 7/8"					
(SPAN 2)	С	2 1/8"	3 3/4"					
	D	2 1/8"	3 3/4"					
	Α	2 1/8"	3 3/4"					
PIER 3	В	2 1/4"	3 7/8"					
(SPAN 3)	С	2"	3 5/8"					
	D	2"	3 5/8"					
	Α	2 1/2"	3 7/8"					
PIER 3	В	3"	4 3/8"					
(SPAN 4)	С	3 1/8"	4 1/2"					
	D	2 5/8"	4"					
	Α	2 5/8"	3 7/8"					
FORWARD	В	2 5/8"	3 7/8"					
<b>ABUTMENT</b>	С	2 5/8"	3 7/8"					
	D	2 7/8"	4 1/8"					

## ABUTMENT BEARING DETAIL



- DENOTES PORTIONS OF BEARINGS TO BE REMOVED

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PROJECT 43-19-04

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	GENERAL SUMMARY										
ITEM	GRAND TOTAL	UNIT	DESCRIPTION	MP 120.0	MP 121.9	MP 123.1	MP 131.6	MP 135.4			
GENERAL											
B.ART.6	LUMP	LUMP SUM	PREMIUM FOR CONTRACT PERFORMANCE BOND AND PAYMENT BOND								
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								
			ROADWAY	•							
202	411	FOOT	CURB REMOVED	139	128	29	49	66			
202	1,003	FOOT	GUARDRAIL REMOVED	201	200	200	200	202			
202	2	EACH	CATCH BASIN REMOVED	-	-	-	2	-			
204	24	SQ. YD.	SUBGRADE COMPACTION	-	-	-	24	-			
254	1,421	SQ. YD.	PAVEMENT PLANING, ASPHALT CONCRETE, T=3"	279	464	43	351	284			
304	4	CU. YD.	AGGREGATE BASE	-	-	-	4	-			
407	225	GAL.	NON-TRACKING TACK COAT	51	65	6	51	52			
441	60	CU. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) PG64-22 (T=1 ½")	12	19	2	15	12			
441	112	CU. YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) PG64-22 (VARIABLE THICKNESS LEVELING COURSE, 1 $\frac{1}{2}$ " MINIMUM)	20	49	3	22	18			
606	500	FOOT	GUARDRAIL, TYPE MGS WITH LONG POSTS	100	100	100	100	100			
606	2	EACH	ANCHOR ASSEMBLY, TYPE T	-	-	-	2	-			
606	20	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	4	4	4	4	4			
609	436	FOOT	CURB, TYPE 4-C	141	124	29	76	66			
611 👍	10	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	4	4	- 1	کست	2			
611	سيسا	EACH	CATCH BASIN, NO. 3A	_	-	-	سيسر	_			
614	5	EACH	REPLACEMENT SIGN	1	1	1	1	1			
630	300	SQ. FT.	SIGNING, MISC.: ADDITIONAL SIGNS, GROUND MOUNTED	60	60	60	60	60			
642	0.38	MILE	EDGE LINE, 4", TYPE 1	0.12	0.12	_	0.14				
642	0.26	MILE	CENTER LINE. TYPE 1	0.06	0.06	0.07	0.07	_			
			STRUCTURES		1						
SP 202	LUMP	LUMP SUM	PORTIONS OF STRUCTURE REMOVED	LUMP	LUMP	LUMP	LUMP	LUMP			
SP 509	320,337	LBS.	EPOXY COATED REINFORCING STEEL, GRADE 60	57,855	62,586	62,856	79,432	57,608			
509	500	LBS.	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL	100	100	100	100	100			
SP 511B	905	CU. YD.	CLASS HP4 CONCRETE, SUPERSTRUCTURE DECK SLAB	175	165	166	229	170			
SP 511B	345	CU. YD.	CLASS S CONCRETE, BARRIERS AND PARAPETS, USING TYPE 1 CEMENT	68	63	64	84	66			
SP 511B	126	CU. YD.	CLASS HP4 CONCRETE, ABUTMENT SLABS	24	22	22	34	24			
SP 511B	15	CU. YD.	CLASS HP4 CONCRETE, FOR PREPLACEMENT TESTING	3	3	3	3	3			
513	8	EACH	TRIMMING OF BEAM END	-	-	-	-	8			
513	8,232	EACH	WELDED STUD SHEAR CONNECTORS	2,156	1,680	1,696	710	1,990			
516	17	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER	-,.00	-			17			
SP 516B	2,310	FOOT	SEALING OF CONSTRUCTION JOINTS	452	425	427	564	442			
SP 516G	84	EACH	REPLACE EXPANSION BEARING DEVICE	16	16	16	20	16			
SP 516J	42	EACH	REPLACE FIXED BEARING DEVICE	8	8	8	10	8			
SP 519	407	SQ. FT.	PATCHING CONCRETE STRUCTURES	85	47	11	137	127			
526	136	SQ. YD.	REINFORCED CONCRETE APPROACH SLABS (T=12")	-	-	-	136	-			
	LUMP	LUMP SUM	FALSEWORK, TEMPORARY BRACING AND PROTECTIVE STRUCTURES	LUMP	LUMP	LUMP	LUMP	LUMP			
SP 527	360	FOOT	3" CONTINUOUS STRIP SEAL IN STRUCTURAL STEEL JOINT	60	54	54	76	116			
SP 527	300	FOOT	3 CONTINUOUS STRIP SEAL IN STRUCTURAL STEEL JOINT 1 1/2" ELASTOMERIC COMPRESSION SEAL IN STRUCTURAL STEEL JOINT	60	54 54	54 54	76 76	110			
SP 533	211		1 1/2 LLAG FOWILTIE CONFRESSION SEAL IN STRUCTURAL STEEL JUINT	00	34	54	70				
SP 533 SP 533A	244		CONORETE WEATHERDROOFING DECK ARITMENT SLARS AND ARROACH SLARS	005	E0.4	E01	020	700			
SP 533 SP 533A SP 536	3,700	SQ. YD.	CONCRETE WEATHERPROOFING, DECK, ABUTMENT SLABS, AND APPROACH SLABS	805	584	584	939	788			
SP 533			CONCRETE WEATHERPROOFING, DECK, ABUTMENT SLABS, AND APPROACH SLABS  CONCRETE WEATHERPROOFING, SUBSTRUCTURE  TYPE II FENCE, ALL ALUMINUM (6'-0" CHAIN LINK WITH SPECIALS)	805 311 438	584 314	584 314 404	939 343 478	788 331 429			

COMMISSION

DATE	11/18						
АВ	NBL						
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CHECKED

NBL

IN CHARGE DESIGNED SAM

DATE: 08/13/18 M.P. 120.0, 121.9, 123.1, 131.6 AND 135.4 ERIE AND INFRASTRUCTURE

OHIO TURNPIKE AND INFRASTRUCTURE

GENERAL SUMMARY

PROJECT 43-19-04



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