GENERAL SUMMARY

ITEM	TOTAL	UNIT	DESCRIPTION	REFERENCE SHEET NUMBER
			GENERAL	
IB.ART.VI	LUMP	LUMP	PREMIUM FOR CONTRACT PERFORMANCE BOND AND PAYMENT BOND	
SP 614	LUMP	LUMP	MAINTAINING TRAFFIC	4 / 40 THRU 6 / 40
614	4	EACH	WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)	5 / 40
SP 619	LUMP	LUMP	FIELD OFFICE	
SP 623	LUMP	LUMP	CONSTRUCTION LAYOUT SURVEY	
624	LUMP	LUMP	MOBILIZATION	40 / 40
			ROADWAY	
202	50	FT	CURB REMOVED	18 / 40
609	50	FT	ASPHALT CONCRETE CURB, TYPE 1	18 / 40
614	2	EACH	REPLACEMENT SIGNS	5 / 40
SP 614ZP	3600	HOURS	ZONE PERSON WITH ZONE VEHICLE	4 / 40
SP 614C	10.4	MILES	REMOVAL OF PAVEMENT MARKINGS	5 / 40
630	500	SF	SIGNING, MISC.: ADDITIONAL SIGNS WITH SUPPORTS, AS DIRECTED BY THE CHIEF ENGINEER	5 / 40
642	10.4	MILES	PAVEMENT MARKING MISC.: FINAL PAVEMENT MARKING PREPARATION	5 / 40
642	5.2	MILES	EDGE LINE, 6", TYPE 1	
642	5.2	MILES	LANE LINE, 6", TYPE 1	
SPECIAL	LUMP	LUMP	EXISTING CROSSOVER TO BE CLOSED/RE-OPENED	5 / 40
SPECIAL	10,050	FT	"SNAP" MILL AND FILL	5 / 40
SPECIAL	1.9	MILES	SONIC NAP ALERT PATTERN (SNAP)	5 / 40
			STRUCTURES	
SP 202	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED	32 / 40 AND 40 / 40
SP 509	447	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60	32 / 40
SP 511B	4	CY	CLASS S CONCRETE, BARRIERS AND PARAPETS, USING TYPE I CEMENT	32 / 40
512	36,286	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	30 / 40
516	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	40 / 40
SP 516A	1,000	FT	CRACK REPAIR USING EPOXY INJECTION	29 / 40 AND 37 / 40
SP 516G	89	EACH	REPLACE EXPANSION BEARING DEVICE	38 / 40 AND 40 / 40
SP 516J	1	EACH	REPLACE FIXED BEARING DEVICE	39 / 40 AND 40 / 40
SP 519	2,550	SF	PATCHING CONCRETE STRUCTURES	29 / 40 AND 37 / 40
SP 519C	5,080	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	37 / 40
SP 536	9.990	SY	CONCRETE WEATHERPROOFING, BARRIERS AND PARAPETS, AS PER PLAN	19 / 40
SP 536	345	SY	CONCRETE WEATHERPROOFING, SUBSTRUCTURE	19 / 40
601	656	CY	DUMPED ROCK FILL, TYPE D, AS PER PLAN	18 / 40 AND 19 / 40
844	68	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION	37 / 40
SPECIAL	1,264	FT	CONTINUOUS STRIP SEAL	34 / 40 AND 36 / 40
SPECIAL	8	FT	MODULAR EXPANSION JOINT	33 / 40 AND 35 / 40

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DESIGN AGENCY
AECOM
564 WHITE POND DRIVE
AKRON, OHIO 44320-1100
836-9111

NO.	REVISIONS	BY	DATE
1	ADDENDUM NO. 1	GAD	10/22
2	REVISION FOR REBID	MRW	12/22
3	REVISION FOR PRE-BID	GAD	01/23

DESIGNED JES | CHECKED MRW
DRAWN JES | IN CHARGE MRW

GENERAL SUMMARY
OHIO TURNPIKE OVER CUYAHOGA RIVER
SUMMIT COUNTY
M.P. 176.9

PROJECT 43-22-06
DATE: 9-28-22

3 / 3

3 / 40

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

ITEM 642 - PAVEMENT MARKING MISC: FINAL PAVEMENT MARKING PREPARATION

THIS ITEM SHALL CONSIST OF APPLYING A BASE LAYER OF PAVEMENT MARKING PRIOR TO THE PLACEMENT OF FINAL MARKINGS.

IF FINAL PAVEMENT MARKING WILL BE PLACED WHERE SP 614B PAVEMENT MARKINGS WERE REMOVED BY EITHER SP 614C GRINDING METHOD OR WATER-BLAST METHOD, THEN THE ASPHALT PAVEMENT MUST FIRST BE PREPPED BY APPLYING A BLACK SHADOW MARKING. THE BLACK SHADOW MARKING SHALL CREATE A 1-INCH BORDER AROUND THE FINAL MARKING BEING PLACED.

THE BLACK SHADOW MARKING SHALL BE NON-REFLECTIVE AND PLACED AT THE SAME RATE AS ITEM 642 TYPE 1 MARKINGS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER PRIOR TO THE PLACEMENT OF FINAL PAVEMENT MARKINGS.

ITEM 642-PAVEMENT MARKING ~~MISC.~~ FINAL PAVEMENT MARKING PREPARATION.....10.4 MILES 3

ITEM SPECIAL - "SNAP" MILL AND FILL

MAINTENANCE OF TRAFFIC ON THE MEDIAN SHOULDER AND PORTIONS OF THE OUTSIDE SHOULDER WILL REQUIRE THE EXISTING "SNAPS" TO BE MILLED AND FILLED OUTSIDE THE WORK LIMITS FOR TEMPORARY TRAFFIC CONTROL PURPOSES.

PAYMENT FOR THIS ITEM SHALL INCLUDE REMOVAL OF EXISTING "SNAPS" AND THE EXISTING PAVEMENT JOINT BY MILLING 1 1/2" DEEP AND 5' WIDE, COATING All EXPOSED MILLED SURFACES WITH ITEM 407 NON-TRACKING TACK COAT, AND PAVING THE MILLED AREA WITH 1 1/2" OF ITEM SP 404 - ASPHALT CONCRETE SURFACE COURSE, PG 64-22. ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE ABOVE MENTIONED WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SPECIAL - "SNAP" MILL AND FILL.

ITEM SPECIAL - "SNAP" MILL AND FILL.....10,050 FT 3

ITEM SPECIAL - SONIC NAP ALERT PATTERN (SNAP)

THIS ITEM SHALL CONSIST OF THE INSTALLATION OF THE SONIC NAP ALERT PATTERN (SNAP) TO REPLACE THE "SNAPS" THAT WERE MILLED DURING THE MAINTENANCE OF TRAFFIC PHASES OF THE PROJECT. THE INSTALLATION OF THE SONIC NAP ALERT PATTERN SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISION AS WELL AS STANDARD DRAWING TCR-13.

ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO INSTALL THE SONIC NAP ALERT PATTERN SHALL BE INCLUDED IN THE UNIT PRICE BID PER MILE FOR ITEM SPECIAL - SONIC NAP ALERT PATTERN (SNAP).

ITEM SPECIAL - SONIC NAP ALERT PATTERN (SNAP).....1.9 MILES 3

ITEM SPECIAL - EXISTING CROSSOVER TO BE CLOSED / RE-OPENED

THIS ITEM SHALL CONSIST OF CLOSING AND RE-OPENING EXISTING MEDIAN CROSSOVER AT MP 177.7 IN ACCORDANCE WITH OTIC STANDARD DRAWING TCB-3. ALL SECTIONS OF CONCRETE PORTABLE BARRIER SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE NCHRP-350 BARRIER WALL. ALL SECTIONS OF CONCRETE PORTABLE BARRIER PROVIDED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION AT THE END OF THE PROJECT. PAYMENT FOR ALL EQUIPMENT, MATERIALS, LABOR AND INCIDENTALS NECESSARY TO CLOSE AND RE-OPEN THE MEDIAN BARRIER SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM SPECIAL - EXISTING CROSSOVER TO BE CLOSED/RE-OPENED.

THE EXISTING MAINTENANCE CROSSOVER PORTABLE BARRIER SHALL ONLY BE USED IF IT IS NCHRP-350 COMPLIANT. IF THE BARRIER WALL NEEDS TO BE REPLACED THEN IT SHALL BE DONE BEFORE IT IS CLOSED FOR PHASE 1. ALL COSTS AND MATERIALS ASSOCIATED WITH REPLACING THE EXISTING PORTABLE BARRIER SHALL BE INCIDENTAL TO AND INCLUDED WITH THE LUMP SUM CONTRACT BID ITEM FOR SP 614 - MAINTAINING TRAFFIC.

ITEM 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED WITH CONTRACT BID ITEM FOR SP 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL) AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL) .....4 EACH 3

INTERIM MAINTENANCE OF TRAFFIC PHASES AND OPERATIONS

THE MAINTENANCE OF TRAFFIC DETAILS AND SPECIFICATIONS SHOWN WITHIN THE PLANS DEMONSTRATE THE DIFFERENT PHASES OF CONSTRUCTION REQUIRED TO COMPLETE THE PROJECT. THERE ARE PERIODS DURING THE CONSTRUCTION OF THIS PROJECT WHERE THE CONTRACTOR SHALL BE REQUIRED TO PERFORM WORK TO ESTABLISH THESE MAJOR CONSTRUCTION PHASES OR TO TRANSITION INTO THE NEXT PHASE OF CONSTRUCTION WHICH SHOULD BE CONSIDERED AS INTERIM MAINTENANCE OF TRAFFIC PHASES.

DURING INTERIM MAINTENANCE OF TRAFFIC PHASES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LABOR, MATERIALS, EQUIPMENT AND TEMPORARY TRAFFIC CONTROL DEVICES, REQUIRED TO ESTABLISH THESE MAJOR PHASES OF CONSTRUCTION.

PAYMENT OF THE ABOVE NOTED WORK FOR INTERIM MAINTENANCE OF TRAFFIC PHASES AND OPERATIONS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM SP 614- MAINTAINING TRAFFIC, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE WORK AS SPECIFIED ABOVE.

SP 614C - REMOVAL OF PAVEMENT MARKINGS

ALL PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH THE PROPOSED MAINTENANCE OF TRAFFIC PAVEMENT MARKINGS ARE TO BE REMOVED AS PER SP 614C-REMOVAL OF PAVEMENT MARKINGS.

REMOVAL OF EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY EITHER GRINDING OR WATER BLAST AS APPROVED BY THE CHIEF ENGINEER, IN ACCORDANCE WITH SP 614C. BLACKOUT TAPE MAY BE USED PER SP 614A AND CMS 614.

MEASUREMENT OF THIS ITEM SHALL BE IN ACCORDANCE WITH SP 614C AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO REMOVE CONFLICTING PAVEMENT MARKINGS TO THE SATISFACTION OF THE CHIEF ENGINEER.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE UTILIZED AS DIRECTED BY THE CHIEF ENGINEER.

SP 614C - REMOVAL OF PAVEMENT MARKING.....10.4 MILES 3

ITEM 614 - REPLACEMENT SIGN

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE CHIEF ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE USED, BUT IN GOOD CONDITION, SUBJECT TO APPROVAL BY THE CHIEF ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614 - REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 2 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

WORK ZONE PAVEMENT MARKINGS 3

THE WORK ZONE PAVEMENT MARKINGS SHALL BE AS SHOWN ON THE PLANS OR OTIC/ODOT STANDARD DRAWING(S). REMOVAL METHODS LISTED IN SP 614C SHALL ALSO BE USED TO REMOVE ITEM SP 614B - WORK ZONE PAVEMENT MARKINGS.

THE PRISMATIC RETRO-REFLECTOR WITHIN THE EXISTING RAISED PAVEMENT MARKERS THAT IS IN CONFLICT WITH THE WORK ZONE PAVEMENT MARKINGS SHALL BE REMOVED AND REPLACED AS PER CMS 614.11.G.2 AND SHALL BE INCLUDED FOR PAYMENT WITH ITEM SP 614 - MAINTENANCE OF TRAFFIC. 3

ALL COSTS FOR THE PLACEMENT OF WORK ZONE PAVEMENT MARKINGS INCLUDING EQUIPMENT. LABOR AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM SP 614 - MAINTAINING TRAFFIC.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE WORK ZONE PAVEMENT MARKING QUANTITIES TO BE USED FOR INFORMATIONAL PURPOSES.

ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (6" - WHITE) .....0.7 MILES
ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (6" - YELLOW) .....0.7 MILES
ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (8" - WHITE) .....1.9 MILES
ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (8" - YELLOW) .....1.9 MILES
ITEM SP 614B - WORK ZONE CHANNELIZED LINE, CLASS 1, 642 PAINT (8" WHITE) .....1.9 MILES
ITEM SP 614B - WORK ZONE LANE LINE, 4 INCH (PREFORMED TAPE - STRUCTURE) .... 2.1 MILES
ITEM SP 614B - WORK ZONE WHITE EDGE LINE,
4 INCH (PREFORMED TAPE - STRUCTURE) ..... 2.1 MILES
ITEM SP 614B - WORK ZONE YELLOW EDGE LINE,
4 INCH (PREFORMED TAPE - STRUCTURE) ..... 2.1 MILES 3

ITEM 630 - SIGNING, MISC.: ADDITIONAL SIGNS WITH SUPPORTS, AS DIRECTED BY THE CHIEF ENGINEER

WHEN ADDITIONAL SIGNING IS NEEDED TO MAINTAIN TRAFFIC, THE CONTRACTOR SHALL FURNISH THE SIGN OR SIGNS AS DIRECTED BY THE CHIEF ENGINEER. THESE SIGNS SHALL BE GROUND OR BARRIER MOUNTED AND MEET ALL THE SPECIFICATIONS OF THE PLAN, PROPOSAL AND CURRENT YEAR ODOT CMS. SIGN SUPPORTS AND HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 630 - SIGNING, MISC.: ADDITIONAL SIGNS WITH SUPPORTS, AS DIRECTED BY THE CHIEF ENGINEER.

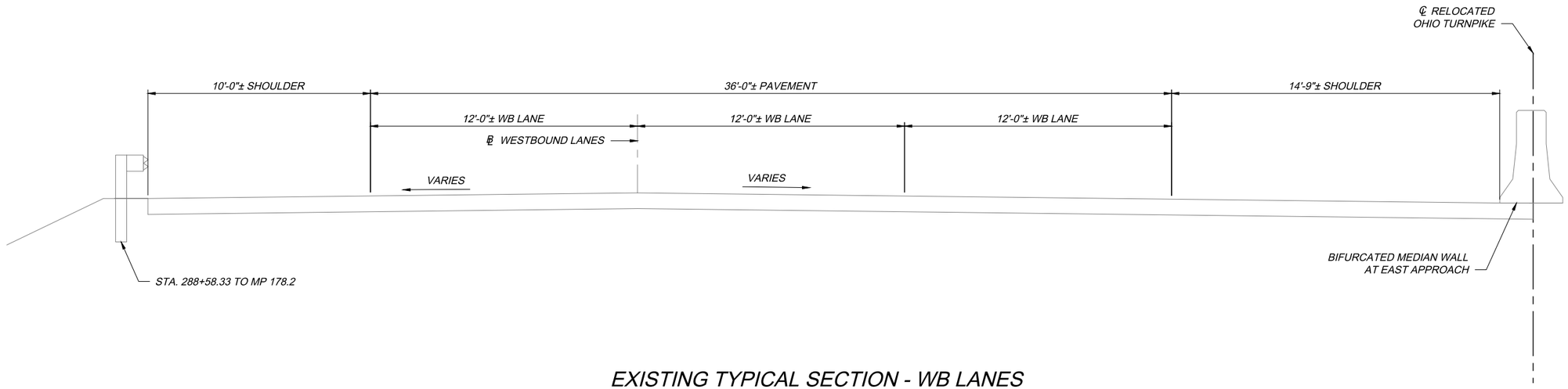
ITEM 630 - SIGNING, MISC.: ADDITIONAL SIGNS WITH SUPPORTS, AS DIRECTED BY THE CHIEF ENGINEER..... 500 SQ FT

SIGN COVERS AND OVERLAYS

THE CONTRACTOR SHALL COVER ALL PERMANENT SIGNS, OR PORTIONS THEREOF, AS REQUIRED BY THE NOTES. SIGN COVERS SHALL BE FURNISHED BY THE COMMISSION. THE CONTRACTOR SHALL RETURN THE SIGN COVERS TO THE COMMISSION AT THE END OF THE CONTRACT.

SIGN OVERLAYS FOR OVERHEAD SIGNS SHALL BE OF THE SAME COLOR AS THE BACKGROUND OF THE SIGN OR BE IN ACCORDANCE WITH ODOT OR OTIC MAINTENANCE OF TRAFFIC SIGNING. THE SIGN OVERLAYS SHALL BE HIGH INTENSITY GRADE SHEETING (TYPE G) ON 0.080 INCH THICK ALUMINUM SECURELY RIVETED TO THE SIGN FACE, AND SHALL BE FURNISHED, INSTALLED AND REMOVED BY THE CONTRACTOR.

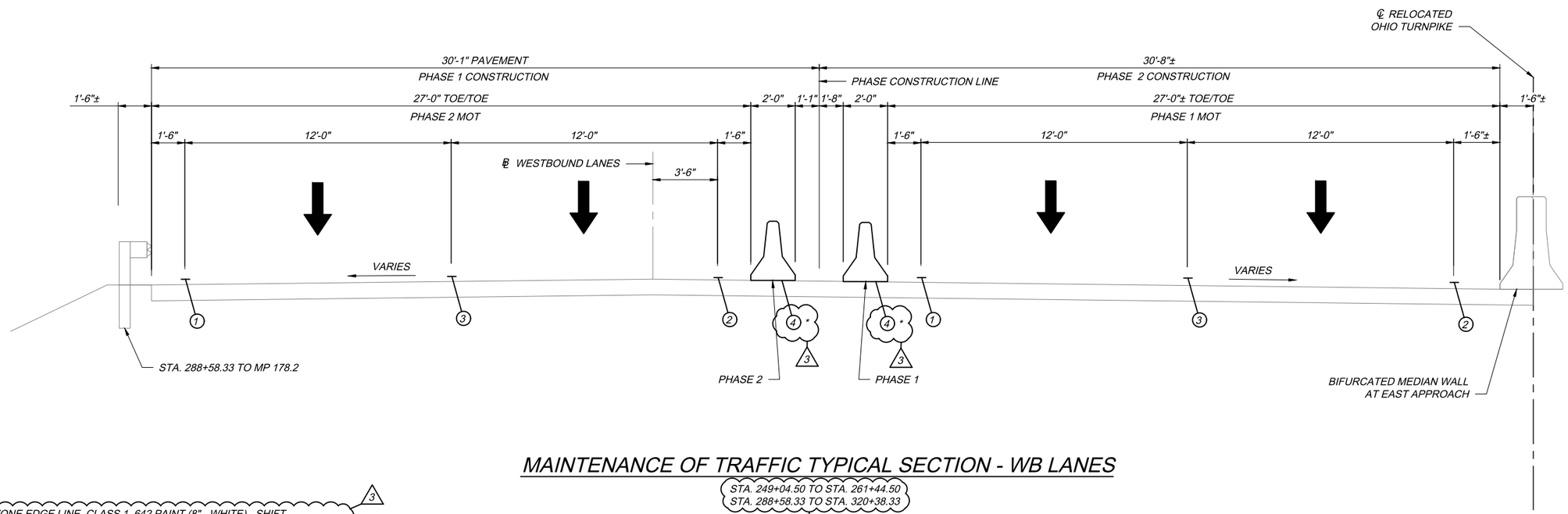
PAYMENT FOR LABOR, MATERIAL AND EQUIPMENT ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM SP 614-MAINTAINING TRAFFIC.



EXISTING TYPICAL SECTION - WB LANES

STA. 249+04.50 TO STA. 261+44.50
STA. 288+58.33 TO STA. 320+38.33

3



MAINTENANCE OF TRAFFIC TYPICAL SECTION - WB LANES

STA. 249+04.50 TO STA. 261+44.50
STA. 288+58.33 TO STA. 320+38.33

3

LEGEND

3

1. ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (8" - WHITE) - SHIFT
   OR
   ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (6" - WHITE) - LANE CLOSURE
2. ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (8" - YELLOW) - SHIFT
   OR
   ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (6" - YELLOW) - LANE CLOSURE
3. ITEM SP 614B - WORK ZONE CHANNELIZED LINE, CLASS 1, 642 PAINT (8" - WHITE)
4. ITEM SP 622 - PORTABLE BARRIER (WITHOUT GLARE SCREEN)

* WB PCB STA. 253+40.00 TO STA. 295+60.00 = 4,220 LF (ESTIMATED) 3

(FOR ADDITIONAL INFORMATION, SEE WORK ZONE PAVEMENT MARKINGS NOTE ON SHEET 2 / 7)

NOTES:

1. WORK ZONE PAVEMENT MARKINGS TO BE PLACED IN ACCORDANCE WITH THE TYPICAL SECTIONS. THE CONTRACTOR SHALL REFERENCE THE MAINTENANCE OF TRAFFIC NOTES FOR ADDITIONAL INFORMATION REGARDING THE APPROPRIATE PLACEMENT AND DESCRIPTION OF ITEMIZED WORK ZONE PAVEMENT MARKINGS USED FOR MAINTENANCE OF TRAFFIC OPERATIONS.
2. FOR DETAILS OF SIDE MOUNTED DELINEATORS ON PORTABLE BARRIER SEE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION STANDARD DRAWINGS TCR-4 AND TCR-14.
3. THE CONTRACTOR SHALL COVER OR REMOVE EXISTING CONFLICTING SIGNING AND/OR PAVEMENT MARKING PRIOR TO CONSTRUCTION. CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED, PER SP 614C, UNLESS COVERED WITH NEW PAINTED LINES.
4. ROAD CLOSURE USING TYPE 3 BARRICADES, INCLUDING ADVANCE WARNING SIGNS, SHALL BE SET AS SHOWN ON ODOT STANDARD CONSTRUCTION DRAWING MT-101.90.
5. FOR BRIDGE MOT TRANSVERSE SECTIONS, SEE SHEETS 20 / 30 AND 21 / 30 . 3

NO.	REVISIONS	BY	DATE
2	REVISION FOR REBID	MRW	12/22
3	REVISION FOR PRE-BID	GAD	01/23
-	-	-	-

DESIGNED JES | CHECKED MRW | DRAWN JES | IN CHARGE MRW

DESIGN AGENCY: AECOM, 564 WHITE POND DRIVE, AKRON, OHIO 44320-1100, 836-9111

MOT TYPICAL SECTIONS
OHIO TURNPIKE OVER CUYAHOGA RIVER
SUMMIT COUNTY
M.P. 176.9

PROJECT 43-22-06
DATE: 9-28-22

5 / 7

8 / 40

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

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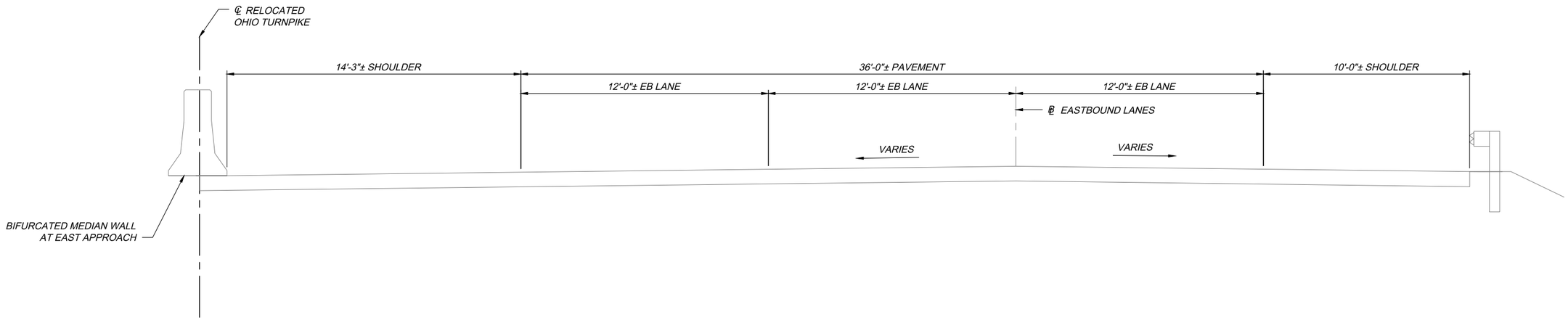
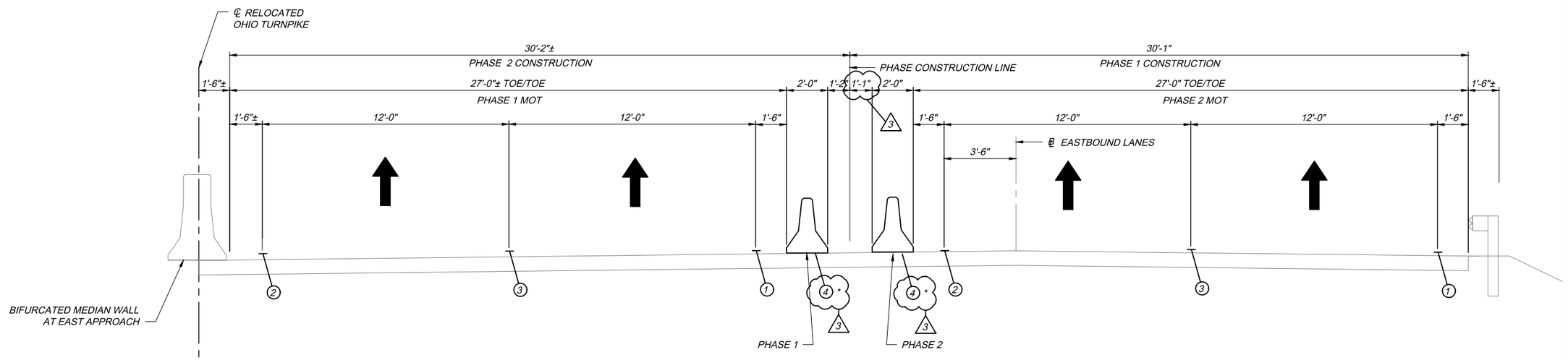


EXISTING TYPICAL SECTION - EB LANES

STA. 229+64.50 TO STA. 261+44.50
STA. 288+58.33 TO STA. 300+98.33

3



MAINTENANCE OF TRAFFIC TYPICAL SECTION - EB LANES

STA. 229+64.50 TO STA. 261+44.50
STA. 288+58.33 TO STA. 300+98.33

3

LEGEND

3

1. ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (8" - WHITE) - SHIFT
   OR
   ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (6" - WHITE) - LANE CLOSURE
2. ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (8" - YELLOW) - SHIFT
   OR
   ITEM SP 614B - WORK ZONE EDGE LINE, CLASS 1, 642 PAINT (6" - YELLOW) - LANE CLOSURE
3. ITEM SP 614B - WORK ZONE CHANNELIZED LINE, CLASS 1, 642 PAINT (8" - WHITE)
4. ITEM SP 622 - PORTABLE BARRIER (WITHOUT GLARE SCREEN)

* EB PCB STA. 254+40.00 TO STA. 296+60.00 = 4,220 LF (ESTIMATED) 3

(FOR ADDITIONAL INFORMATION, SEE WORK ZONE PAVEMENT MARKINGS NOTE ON SHEET 2 / 7)

NOTES:

1. WORK ZONE PAVEMENT MARKINGS TO BE PLACED IN ACCORDANCE WITH THE TYPICAL SECTIONS. THE CONTRACTOR SHALL REFERENCE THE MAINTENANCE OF TRAFFIC NOTES FOR ADDITIONAL INFORMATION REGARDING THE APPROPRIATE PLACEMENT AND DESCRIPTION OF ITEMIZED WORK ZONE PAVEMENT MARKINGS USED FOR MAINTENANCE OF TRAFFIC OPERATIONS.
2. FOR DETAILS OF SIDE MOUNTED DELINEATORS ON PORTABLE BARRIER SEE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION STANDARD DRAWINGS TCR-4 AND TCR-14.
3. THE CONTRACTOR SHALL COVER OR REMOVE EXISTING CONFLICTING SIGNING AND/OR PAVEMENT MARKING PRIOR TO CONSTRUCTION. CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED, PER SP 614C, UNLESS COVERED WITH NEW PAINTED LINES.
4. ROAD CLOSURE USING TYPE 3 BARRICADES, INCLUDING ADVANCE WARNING SIGNS, SHALL BE SET AS SHOWN ON ODOT STANDARD CONSTRUCTION DRAWING MT-101.90.
5. FOR BRIDGE MOT TRANSVERSE SECTIONS, SEE SHEETS 20 / 30 AND 21 / 30 . 3

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DESIGN AGENCY
AECOM
564 WHITE POND DRIVE
AKRON, OHIO 44320-1100
836-9111

NO.	REVISIONS	BY	DATE
2	REVISION FOR REBID	MRW	12/22
3	REVISION FOR PRE-BID	GAD	01/23
-	-	-	-

DESIGNED	CHECKED
JES	MRW
DRAWN	IN CHARGE
JES	MRW

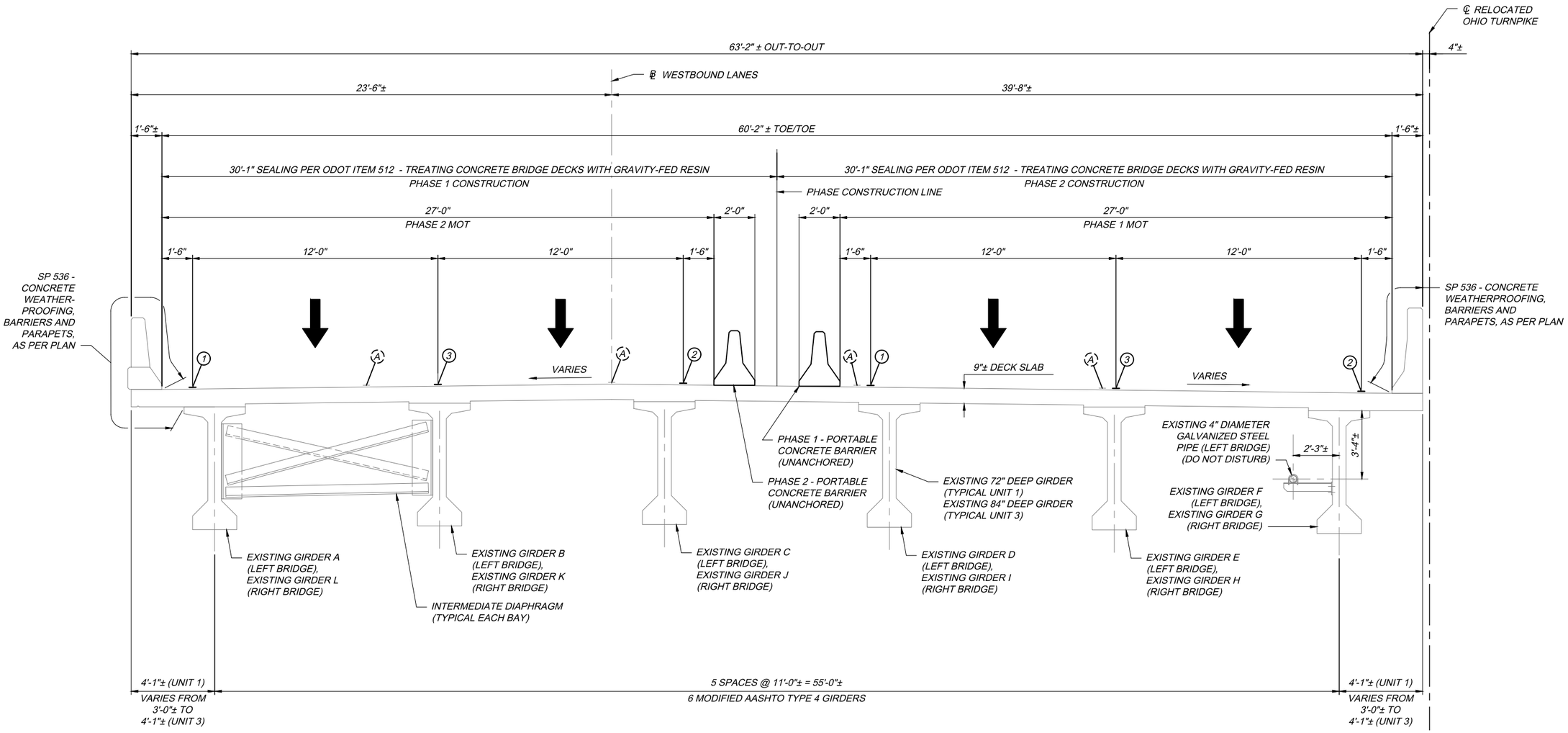
MOT TYPICAL SECTIONS
OHIO TURNPIKE OVER CUYAHOGA RIVER
SUMMIT COUNTY
M.P. 176.9

PROJECT 43-22-06
DATE: 9-28-22

6 / 7

9 / 40

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION



TYPICAL TRANSVERSE SECTION (UNITS 1 AND 3)

(LEFT BRIDGE SHOWN, RIGHT BRIDGE SYMMETRICAL ABOUT ℄ RELOCATED OHIO TURNPIKE, EXCEPT AS SHOWN IN SUPERELEVATION TRANSITION DIAGRAM IN ORIGINAL CONSTRUCTION PLANS)

LEGEND:

- (A) EXISTING PAVEMENT MARKINGS
- (1) ITEM 614B - WORK ZONE WHITE EDGE LINE, 4 INCH (PREFORMED TAPE - STRUCTURE)
- (2) ITEM 614B - WORK ZONE YELLOW EDGE LINE, 4 INCH (PREFORMED TAPE - STRUCTURE)
- (3) ITEM 614B - WORK ZONE LANE LINE, 4 INCH (PREFORMED TAPE - STRUCTURE)

NOTE:

1. BEAM PATCHING, POST TENSION CAP PATCHING AND PARAPET PATCHING SHALL NOT BE PERFORMED UNDER MAINTENANCE OF TRAFFIC TEMPORARY LANES. THESE REPAIRS SHALL COINCIDE WITH MOT ON OPPOSITE HALF OF BRIDGE.

3

DESIGN AGENCY: AECOM, 564 WHITE POND DRIVE, AKRON, OHIO 44320-1100, 836-9111

NO.	REVISIONS	BY	DATE
2	REVISION FOR REBID	MRW	12/22
3	REVISION FOR PRE-BID	GAD	01/23
-	-	-	-

DESIGNED	CHECKED
JDM	MRW
DRAWN	IN CHARGE
VFG	MRW

TRANSVERSE SECTION - UNITS 1 AND 3
OHIO TURNPIKE OVER CUYAHOGA RIVER
SUMMIT COUNTY
M.P. 176.9

PROJECT 43-22-06
DATE: 9-28-22

20 / 30

30 / 40

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

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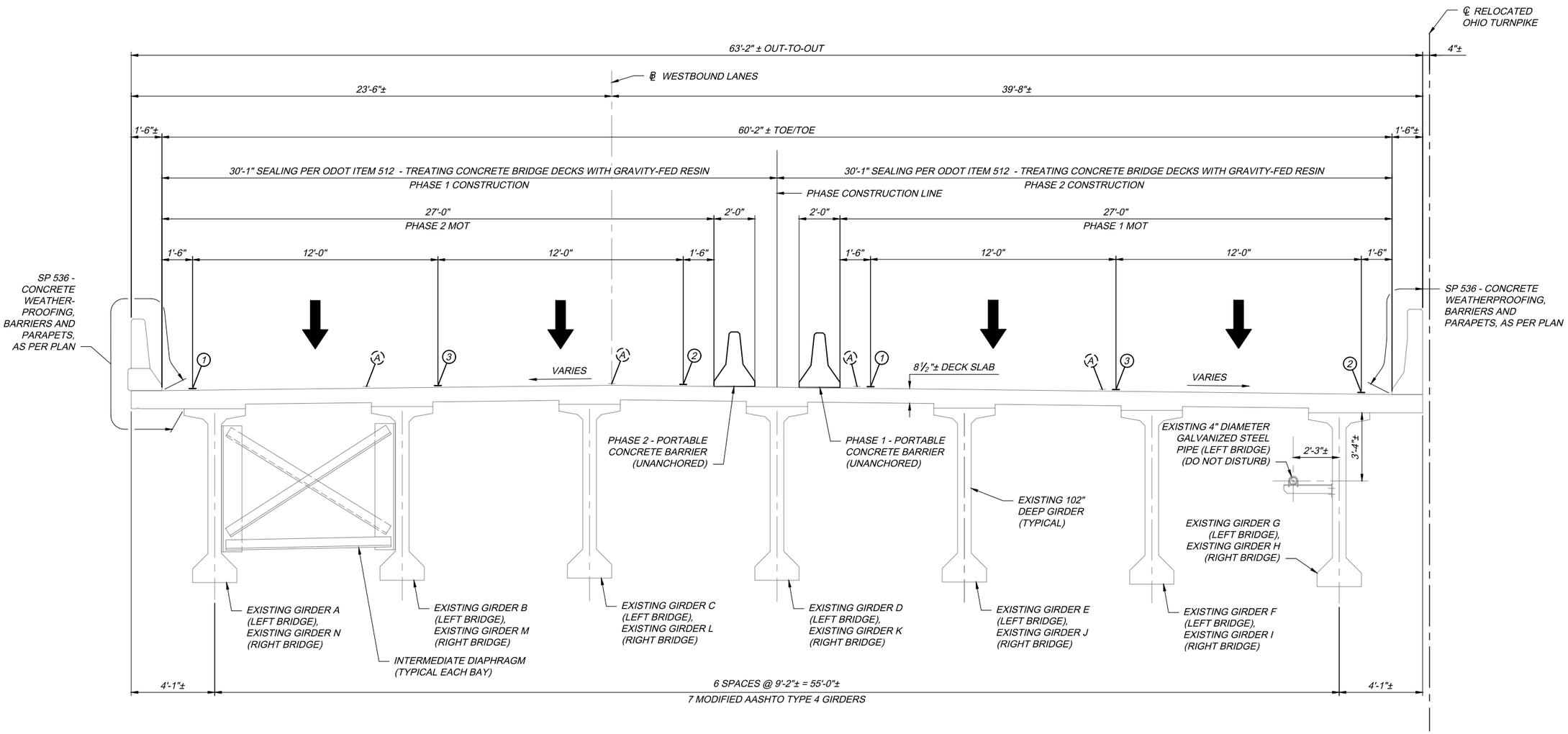

TYPICAL TRANSVERSE SECTION (UNIT 2)

(LEFT BRIDGE SHOWN, RIGHT BRIDGE SYMMETRICAL ABOUT ℄ RELOCATED OHIO TURNPIKE, EXCEPT AS SHOWN IN SUPERELEVATION TRANSITION DIAGRAM IN ORIGINAL CONSTRUCTION PLANS)

LEGEND:

- (A) EXISTING PAVEMENT MARKINGS
- (1) ITEM 614B - WORK ZONE WHITE EDGE LINE, 4 INCH (PREFORMED TAPE - STRUCTURE)
- (2) ITEM 614B - WORK ZONE YELLOW EDGE LINE, 4 INCH (PREFORMED TAPE - STRUCTURE)
- (3) ITEM 614B - WORK ZONE LANE LINE, 4 INCH (PREFORMED TAPE - STRUCTURE)

NOTE:

1. BEAM PATCHING, POST TENSION CAP PATCHING AND PARAPET PATCHING SHALL NOT BE PERFORMED UNDER MAINTENANCE OF TRAFFIC TEMPORARY LANES. THESE REPAIRS SHALL COINCIDE WITH MOT ON OPPOSITE HALF OF BRIDGE.

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DESIGN AGENCY: AECOM, 564 WHITE POND DRIVE, AKRON, OHIO 44320-1100, 836-9111

NO.	REVISIONS	BY	DATE
2	REVISION FOR REBID	MRW	12/22
3	REVISION FOR PRE-BID	GAD	01/23
-	-	-	-

DESIGNED JDM | CHECKED MRW | DRAWN VFG | IN CHARGE MRW

TRANSVERSE SECTION - UNIT 2
OHIO TURNPIKE OVER CUYAHOGA RIVER
SUMMIT COUNTY
M.P. 176.9

PROJECT 43-22-06
DATE: 9-28-22

21 / 30

31 / 40

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

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NOTES:

1. THE TOP SURFACE OF THE BEVELED STEEL LOAD PLATE SHALL BE FABRICATED PARALLEL TO THE INSTANTANEOUS SLOPE OF THE GIRDER UNDER EXISTING DEAD LOAD. THE CONTRACTOR SHALL FIELD MEASURE THE SLOPE OF THE GIRDERS AT THE BEARING LOCATIONS IMMEDIATELY AFTER CONTRACT AUTHORIZATION AND PRIOR TO BEARING FABRICATION BY MEANS OF USING AN UNDER BRIDGE INSPECTION TRUCK. PAYMENT FOR THE ACCESS AND MEASUREMENTS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 624 - MOBILIZATION. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC AND OBTAIN ACCESS FOR MEASUREMENTS. ALL BEVELED PLATE DIMENSIONS SHALL BE PROVIDED IN THE SHOP DRAWINGS.

2. FOR REPAIR LOCATIONS, SEE SHEETS 10 / 30 THRU 18 / 30 .

3. THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DURAMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.

4. THE STEEL LOAD PLATES AND SUBSTRATE PLATES SHALL BE ASTM A709 GRADE 50 STEEL AND GALVANIZED IN ACCORDANCE WITH ITEM 516.

5. THE STEEL SUBSTRATE PLATES SHALL BE BONDED BY VULCANIZATION DURING THE MOLDING PROCESS. CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

6. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE AND A DIRECTION ARROW POINTING UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARINGS ARE INSTALLED.

7. PTFE SURFACE:
FINISHED UNFILLED DIMPLED LUBRICATED PTFE SHEETS SHALL BE MADE FROM 100 PERCENT VIRGIN PTFE RESIN AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

- TENSILE STRENGTH ASTM D4894 - 2800 PSI (MINIMUM)
- ELONGATION ASTM D4894 - 200 PERCENT (MINIMUM)
- SPECIFIC GRAVITY ASTM D792 - 2.13 (MINIMUM)
- MELTING POINT ASTM D4894 - 623°F (± 2°F)

THE SHEET SHALL BE RECESSED AND EPOXY BONDED INTO THE STEEL SUBSTRATE. THE SHOULDERS OF THE RECESS SHALL BE SHARP AND SQUARE AND THE DEPTH SHALL BE EQUAL TO ONE-HALF OF THE PTFE THICKNESS.

PTFE SHEET SHALL BE COMMERCIALLY ETCHED ON ITS BONDING SIDE.

THE BONDING SURFACE OF THE SUBSTRATE PLATE SHALL BE CLEANED OF RUST, SCALE, OIL, AND GREASE BY BLAST CLEANING AND WIPED CLEAN WITH A CLEANING SOLVENT. BLAST CLEANING SHALL BE PERFORMED WITHIN A MAXIMUM OF FOUR HOURS PRIOR TO BONDING.

THE ADHESIVE MATERIAL, THE BONDING PROCEDURES TO BE USED, AND SURFACE PREPARATION SHALL CONFORM TO THE REQUIREMENTS OF FEDERAL SPECIFICATION MMM-A-134 AND THE MANUFACTURER'S RECOMMENDATIONS. THE ADHESION BETWEEN THE PTFE AND STEEL SUBSTRATE PLATE SHALL BE TESTED IN ACCORDANCE WITH ASTM D429, METHOD B. THE MINIMUM PEEL STRENGTH SHALL BE 25 POUNDS PER INCH.

AFTER COMPLETION OF THE BONDING OPERATION, THE PTFE SURFACE SHALL BE FREE FROM BUBBLES.

8. STAINLESS STEEL PLATES :
THE STAINLESS STEEL SHEET SURFACE SHALL CONFORM TO ASTM A167 OR A240 TYPE 304 AND SHALL HAVE A #8 MINIMUM FINISH OR BETTER.

STAINLESS STEEL SHALL BE ATTACHED TO THE LOAD PLATE BY A CONTINUOUS WELD AROUND ITS ENTIRE PERIMETER. WELDS SHALL CONFORM TO THE AWS REQUIREMENTS FOR STAINLESS STEEL. THE WELDER SHALL BE PRE-QUALIFIED BY TEST WELDS PREPARED, WELDED, AND TESTED IN ACCORDANCE WITH 6.7 OF ANSI/AWS D1.3, STRUCTURAL WELDING CODE - SHEET STEEL. AFTER WELDING, THE STAINLESS STEEL SHEET SHALL BE FLAT, FREE FROM WRINKLES, AND IN CONTINUOUS CONTACT WITH ITS BACKING PLATE. NO ROUGHNESS FROM THE WELD PROTRUDING ABOVE THE SURFACE OF THE STAINLESS STEEL WILL BE PERMITTED.

9. LUBRICANT:
LUBRICANT SHALL BE SILICONE GREASE WHICH SATISFIES MILITARY SPECIFICATION MIL-S-8660.

10. INSTALLATION OF FIXED AND SLIDING BEARINGS:
A REPRESENTATIVE FROM THE BEARING MANUFACTURER SHALL BE PRESENT ON SITE FOR A SUFFICIENT PERIOD OF TIME TO ENSURE THAT THE CONTRACTOR IS INSTALLING THE BEARINGS PROPERLY.

11. THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, REMOVAL OF EXISTING BEARINGS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS WITH AND WITHOUT SLIDING PLATES. PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER EACH FOR THE APPROPRIATE OTIC ITEM 516.

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12. JACKING SHALL BE PAID FOR SEPARATELY UNDER ITEM 516 - JACKING AND TEMPORARY SUPPORT FOR SUPERSTRUCTURE, AS PER PLAN. ALL BRIDGE BEAMS AT A SPECIFIC PIER SHALL BE JACKED UNIFORMLY TO PRECLUDE DIFFERENTIAL VERTICAL TRANSLATION BETWEEN BEAMS DURING BEARING REMOVAL AND REPLACEMENT. JACKING AND BEARING REPLACEMENT WILL BE PERFORMED UNDER LIVE LOAD. BEARING LOAD PLATE SHALL BE IN FIRM CONTACT WITH BEAM EMBEDDED PLATE PRIOR TO WELDING. POSITION BEARING SLIDING PLATES TO ACCOMMODATE SETTING TEMPERATURE. FOR ADDITIONAL INFORMATION, SEE MAINTENANCE OF TRAFFIC NOTES, SHEETS 1 / 7 THRU 4 / 7 .

13. THE DIAPHRAGMS AT FIXED BEARING REPLACEMENT LOCATIONS SHALL BE SAWCUT AND PARTIALLY REMOVED IN ACCORDANCE WITH SP202 - PORTIONS OF STRUCTURE REMOVED, AS REQUIRED, TO ACCESS AND RELEASE/REMOVE THE EXISTING $^{5}/_{16}$" FILLET WELD ON THE EXISTING BEVELED LOAD PLATE TO EXISTING EMBEDDED SOLE PLATE. CARE SHOULD BE TAKEN TO NOT DAMAGE THE EXISTING DIAPHRAGM REINFORCEMENT. THE DIAPHRAGM IS TO BE REPAIRED AFTER THE FIXED BEARING IS REPLACED IN ACCORDANCE WITH SP519 - PATCHING CONCRETE STRUCTURES. ALL MATERIAL AND LABOR USED SHALL BE PAID FOR UNDER ITEM SP516J - REPLACE FIXED BEARING DEVICE AS REQUIRED.

14. TESTING OF SLIDING SURFACES:
IN ADDITION TO THE TEST REQUIRED FOR METHOD A DESIGN, A MATERIAL FRICTION TEST FOR THE SLIDING SURFACES SHALL BE PERFORMED PER DIVISION II, SECTION 18.7.2.2 AND 18.7.4.2 OF THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES.

DESIGNED	CHECKED	NO.	REVISIONS	BY	DATE
AMA	MRW	2	REVISION FOR REBID	MRW	12/22
DRAWN	IN CHARGE	3	REVISION FOR PRE-BID	GAD	01/23
BL	MRW	-	-	-	-

DESIGN AGENCY: AECOM 564 WHITE POND DRIVE AKRON, OHIO 44320-1100 836-9111

REPAIR DETAIL C - BEARING NOTES
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