LEGEND

- WORK AREA
- ITEM 630 - COVERING OF SIGN
- ××× REMOVAL OF PAVEMENT MARKING
- • • • DRUMS

- WZCL — WORK ZONE CENTER LINE
- WZEL — WORK ZONE EDGE LINE, WHITE
- WZTL — WORK ZONE TRANSVERSE LINE, WHITE
- WZGR — TEMPORARY GUARDRAIL

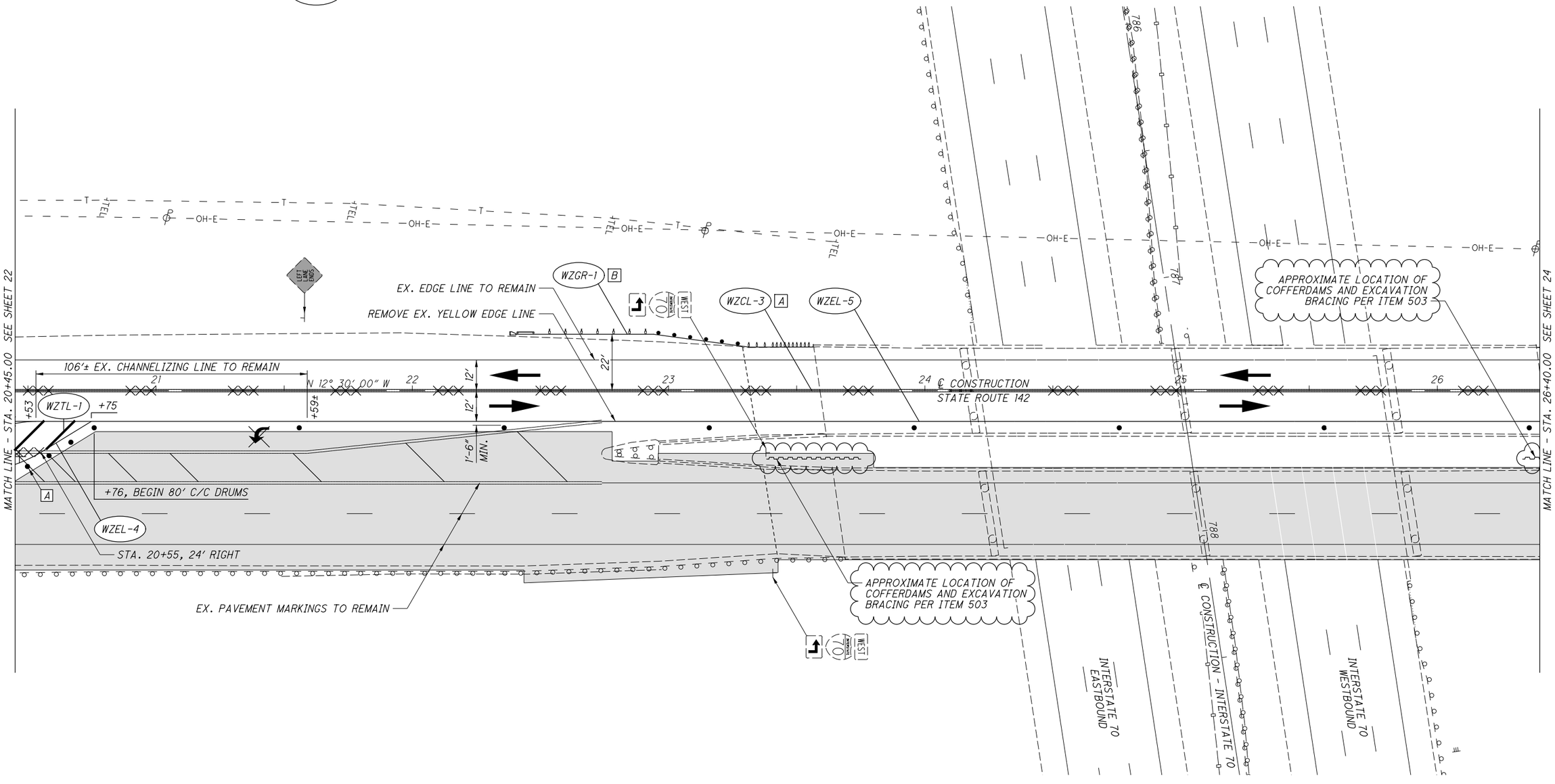
- [A] WORK ZONE RAISED PAVEMENT MARKERS AT 80′ C/C SPACING
- [B] GUARDRAIL TO BE REMOVED UPON COMPLETION OF PHASE

NOTE

FOR MAINTENANCE OF TRAFFIC ON INTERSTATE 70, SEE PHASES A, B, AND C.

CROSS REFERENCE

SHEETS	DESCRIPTION
16	MAINTENANCE OF TRAFFIC SUBSUMMARY
29	PHASE 2 MAINTENANCE OF TRAFFIC
36	PHASE A MAINTENANCE OF TRAFFIC
45-46	PHASE B MAINTENANCE OF TRAFFIC
56	PHASE C MAINTENANCE OF TRAFFIC



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED BCK
CHECKED JTH

PHASE 1 MAINTENANCE OF TRAFFIC PLAN
STATE ROUTE 142

MAD-142-13.41

23
119

LEGEND

- WORK AREA
- ITEM 630 - COVERING OF SIGN
- CURB ISLAND REMOVED PRIOR TO PHASE 1
- TYPE III BARRICADE
- ××× REMOVAL OF PAVEMENT MARKING
- • • • DRUMS
- WZCL — WORK ZONE CENTER LINE
- WZEL — WORK ZONE EDGE LINE, WHITE
- WZTL — WORK ZONE TRANSVERSE LINE, WHITE
- WZSL — WORK ZONE STOP LINE
- WZTP — WORK ZONE TEMPORARY PAVEMENT

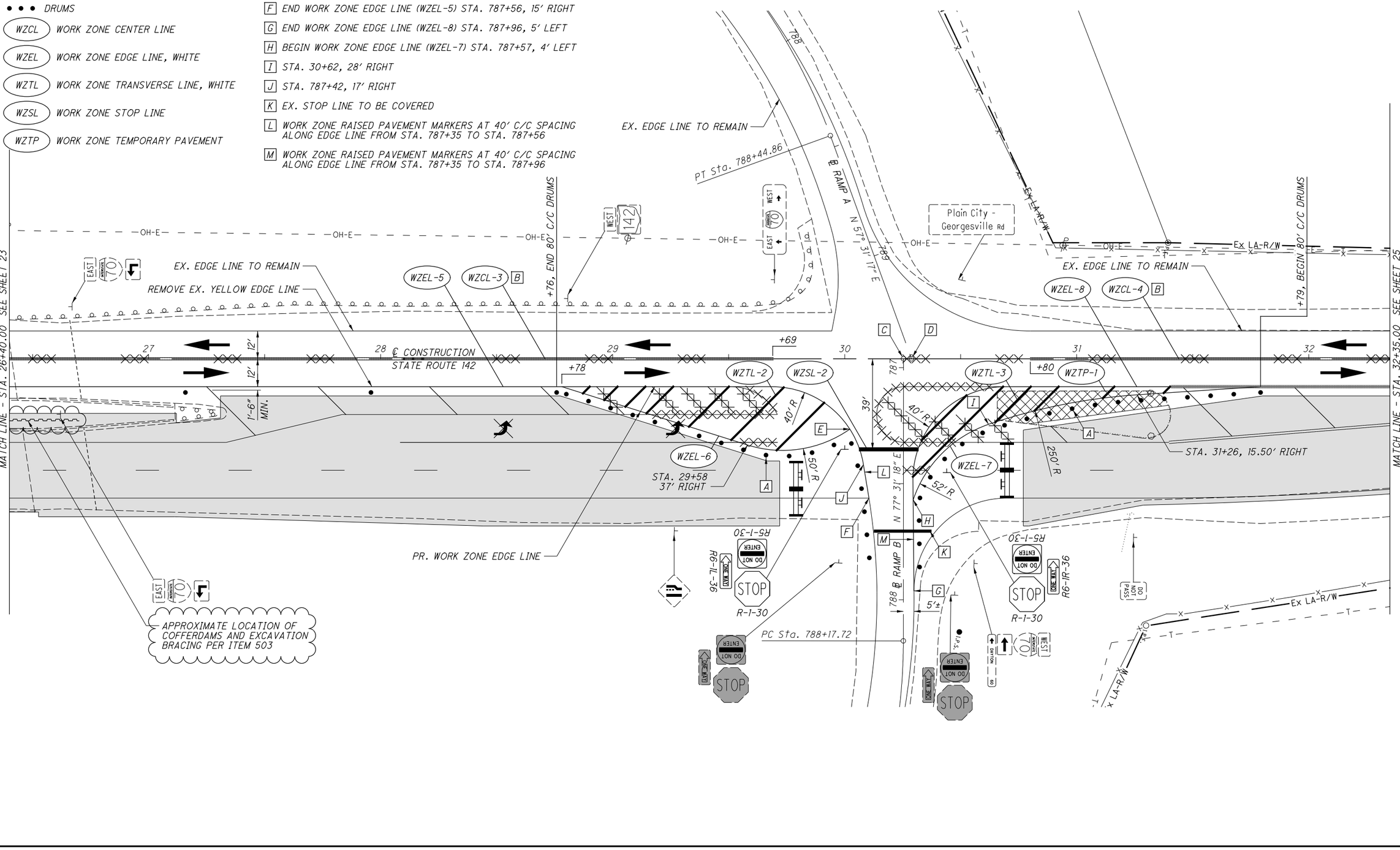
- A 10′ C/C DRUMS ALONG RADIUS
- B WORK ZONE RAISED PAVEMENT MARKERS AT 80′ C/C SPACING
- C STA. 30+25.34 STATE ROUTE 142, STA. 786+96.21 RAMP B
- D STA. 30+28.80 STATE ROUTE 142, STA. 789+47.19 RAMP A
- E END WORK ZONE EDGE LINE (WZEL-6) STA. 30+02, 30′ RIGHT
- F END WORK ZONE EDGE LINE (WZEL-5) STA. 787+56, 15′ RIGHT
- G END WORK ZONE EDGE LINE (WZEL-8) STA. 787+96, 5′ LEFT
- H BEGIN WORK ZONE EDGE LINE (WZEL-7) STA. 787+57, 4′ LEFT
- I STA. 30+62, 28′ RIGHT
- J STA. 787+42, 17′ RIGHT
- K EX. STOP LINE TO BE COVERED
- L WORK ZONE RAISED PAVEMENT MARKERS AT 40′ C/C SPACING ALONG EDGE LINE FROM STA. 787+35 TO STA. 787+56
- M WORK ZONE RAISED PAVEMENT MARKERS AT 40′ C/C SPACING ALONG EDGE LINE FROM STA. 787+35 TO STA. 787+96

NOTE

FOR MAINTENANCE OF TRAFFIC ON INTERSTATE 70, SEE PHASES A, B, AND C.

CROSS REFERENCE

SHEETS	DESCRIPTION
16	MAINTENANCE OF TRAFFIC SUBSUMMARY
30	PHASE 2 MAINTENANCE OF TRAFFIC
57	PHASE C MAINTENANCE OF TRAFFIC



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HORIZONTAL SCALE IN FEET: 0, 10, 20, 40

CALCULATED BCK CHECKED JTH

PHASE 1 MAINTENANCE OF TRAFFIC PLAN STATE ROUTE 142

MAD-142-13.41

LEGEND

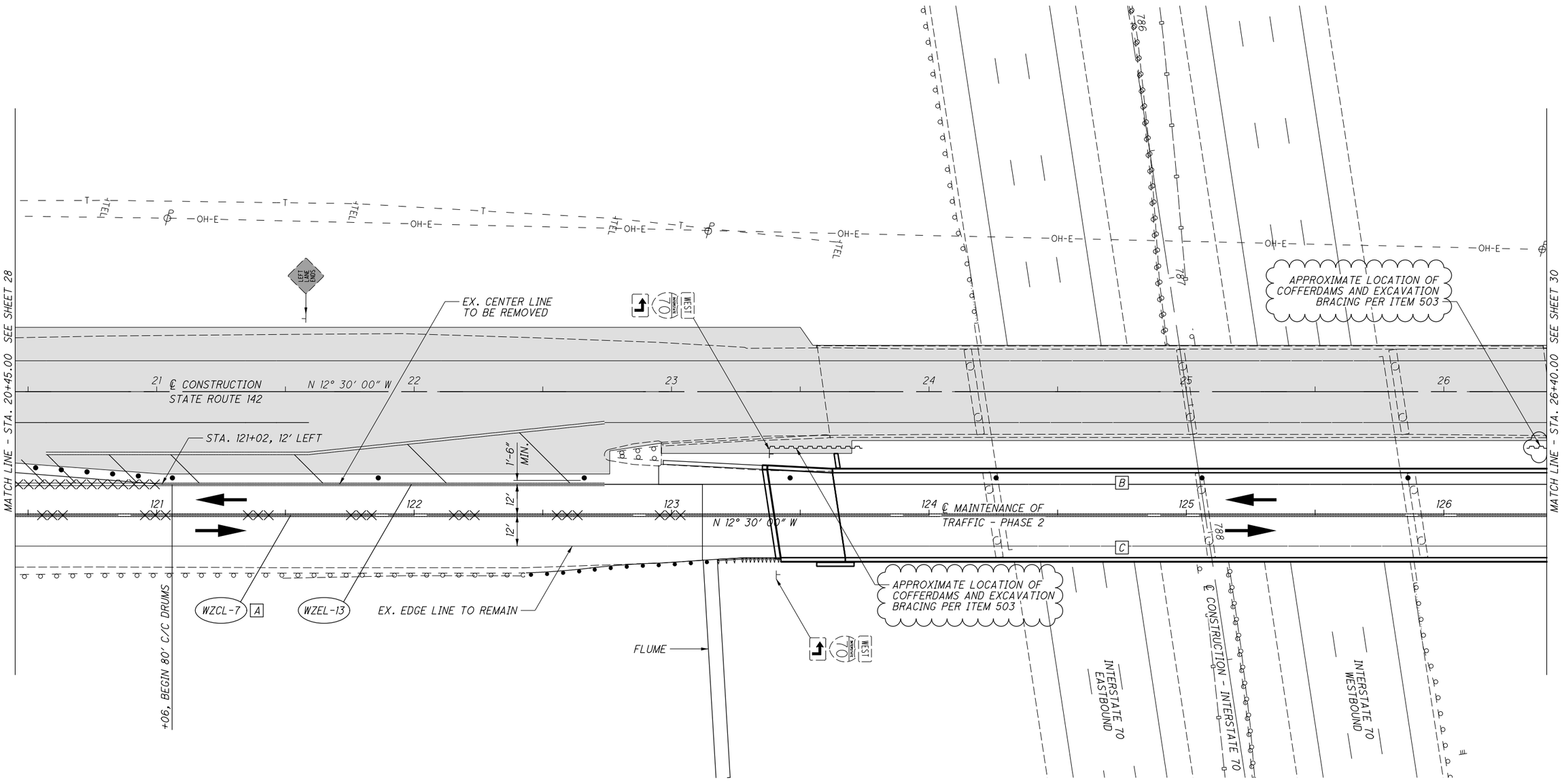
- WORK AREA
- ITEM 630 - COVERING OF SIGN
- ××× REMOVAL OF PAVEMENT MARKING
- • • • DRUMS
- WZCL — WORK ZONE CENTER LINE
- WZEL — WORK ZONE EDGE LINE, WHITE
- [A] WORK ZONE RAISED PAVEMENT MARKERS AT 80' C/C SPACING
- [B] BARRIER REFLECTOR, TYPE 1 (ONE WAY) SHALL BE INSTALLED ALONG PARAPET AT 50' C/C SPACING DURING PHASE 1 AND SHALL BE REMOVED UPON COMPLETION OF PHASE 2.
- [C] BARRIER REFLECTOR, TYPE 1 (ONE WAY) SHALL BE INSTALLED ALONG PARAPET AT 50' C/C SPACING DURING PHASE 1 AND ARE TO REMAIN UPON COMPLETION OF CONSTRUCTION.

NOTE

FOR MAINTENANCE OF TRAFFIC ON INTERSTATE 70 SEE PHASES A, B, AND C.

CROSS REFERENCE

SHEETS	DESCRIPTION
16	MAINTENANCE OF TRAFFIC SUBSUMMARY
23	PHASE 1 MAINTENANCE OF TRAFFIC
36	PHASE A MAINTENANCE OF TRAFFIC
45-46	PHASE B MAINTENANCE OF TRAFFIC
56	PHASE C MAINTENANCE OF TRAFFIC



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED BCK
CHECKED JTH

PHASE 2 MAINTENANCE OF TRAFFIC PLAN STATE ROUTE 142

MAD-142-13.41

29
119

LEGEND

- WORK AREA
- TYPE III BARRICADE
- ××× REMOVAL OF PAVEMENT MARKING
- • • • DRUMS
- (WZCL) WORK ZONE CENTER LINE
- (WZEL) WORK ZONE EDGE LINE, WHITE
- (WZTL) WORK ZONE TRANSVERSE LINE, WHITE
- (WZGR) TEMPORARY GUARDRAIL

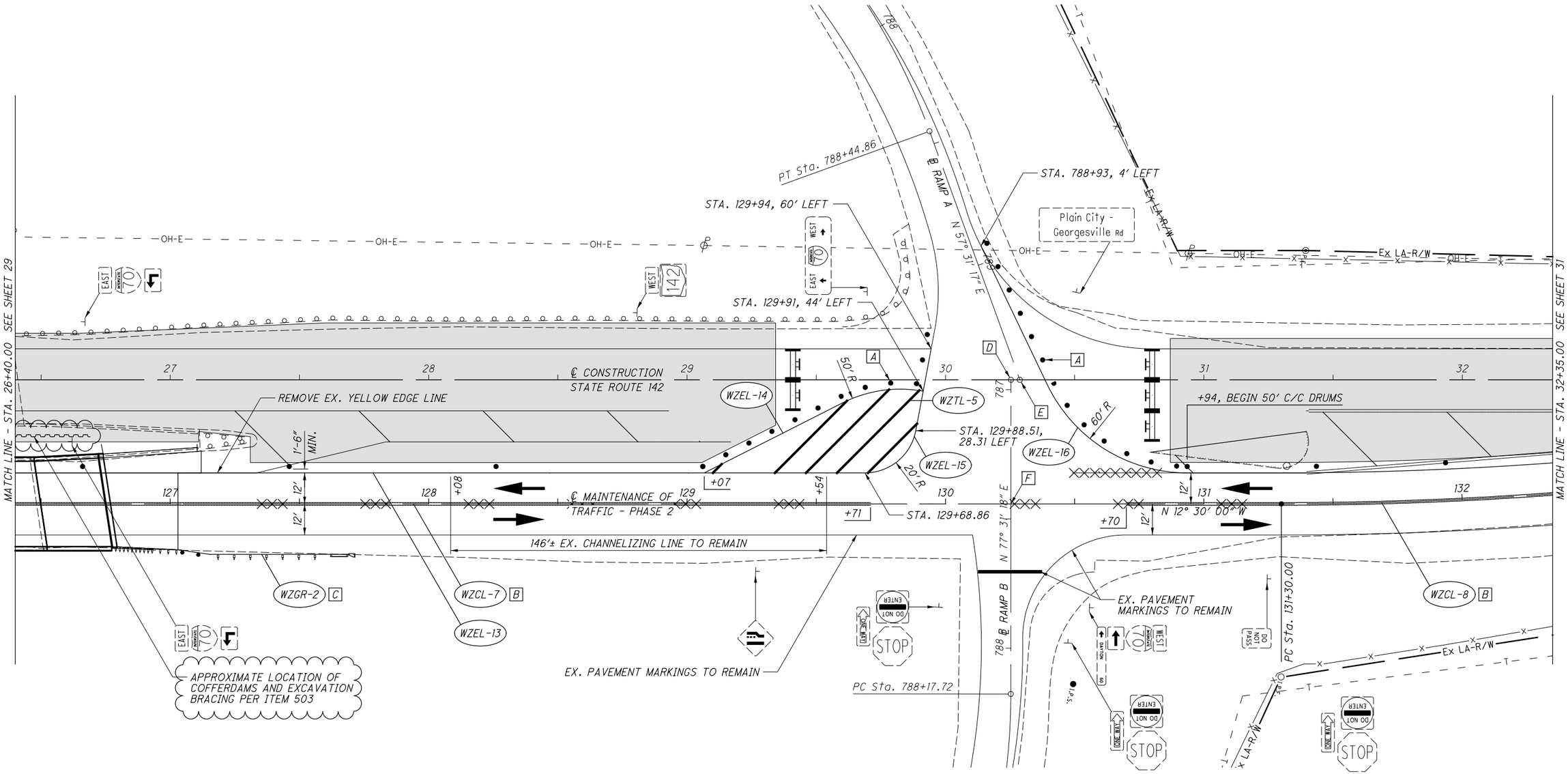
- [A] 10′ C/C DRUMS ALONG RADIUS
- [B] WORK ZONE RAISED PAVEMENT MARKERS AT 80′ C/C SPACING
- [C] GUARDRAIL TO BE REMOVED UPON COMPLETION OF PHASE
- [D] STA. 30+25.34 STATE ROUTE 142, STA. 786+96.21 RAMP B
- [E] STA. 30+28.80 STATE ROUTE 142, STA. 789+47.19 RAMP A
- [F] 130+25.32 MAINTENANCE OF TRAFFIC, 787+44.21 RAMP B

NOTES

1. FOR MAINTENANCE OF TRAFFIC ON INTERSTATE 70 SEE PHASES A, B, AND C.
2. CONTRACTOR SHALL RESTORE PAVEMENT REMOVED IN PHASE 1 TO PROVIDE POSITIVE DRAINAGE.

CROSS REFERENCE

SHEETS	DESCRIPTION
16	MAINTENANCE OF TRAFFIC SUBSUMMARY
24	PHASE 1 MAINTENANCE OF TRAFFIC
57	PHASE C MAINTENANCE OF TRAFFIC



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HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED BCK CHECKED JTH

PHASE 2 MAINTENANCE OF TRAFFIC PLAN STATE ROUTE 142

MAD-142-13.41

30
119

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS
REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS

AS-1-15	REVISED	7/17/15
AS-2-15	REVISED	1/18/19
SBR-1-13	REVISED	7/20/18
SICD-1-96	REVISED	7/18/14
SICD-2-14	REVISED	7/18/14
VPF-1-90	REVISED	7/20/18

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS

SS800	DATED	4/17/20

DESIGN SPECIFICATIONS
THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN LOADING
DESIGN LOADING: HL-93

DESIGN DATA
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50 YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD
EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE
MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

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 THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, PARAPETS, RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSS FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

<u>PROTECTION OF STEEL SUPPORT SYSTEMS:</u>
BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

<u>REMOVAL METHODS:</u>
THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (PRESTRESSED BOX BEAM, I-BEAM, STEEL BEAM STEEL GIRDER, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

<u>EXISTING WELDED ATTACHMENTS:</u>
REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE APPLIED CYCLIC STRESSES.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (CONTINUED)
<u>SUBSTRUCTURE CONCRETE REMOVAL:</u>
REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

<u>CUT LINE CONSTRUCTION JOINT PREPARATION:</u>
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. INSTALL DOWEL BARS. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

<u>MEASUREMENT & PAYMENT:</u>
THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

DECK PLACEMENT DESIGN ASSUMPTIONS
THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.2 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48".

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

VANDAL PROTECTION FENCING
INSTALL FENCING FOR EACH CONSTRUCTION PHASE PRIOR TO OPENING THAT PHASE TO VEHICULAR TRAFFIC.

SEQUENCE OF CONSTRUCTION
1. CONTRACTOR SHALL REMOVE EXISTING RIGHT (NORTHBOUND) BRIDGE DECK AND APPROACH SLABS.
2. MODIFICATIONS TO PIER CAPS AND ABUTMENTS SHALL BE PERFORMED.
3. PROPOSED DECK, APPROACH SLABS, AND RAILING SHALL BE CONSTRUCTED.
4. OPEN BRIDGE TO TRAFFIC AND REPEAT STEPS 1 - 3 FOR LEFT (SOUTHBOUND) BRIDGE.
5. PAINT EXISTING STRUCTURAL STEEL FOR BOTH BRIDGES.

ITEM 509, EPOXY COATED REINFORCING STEEL, AS PER PLAN
ALL REINFORCING STEEL SHALL BE EPOXY COATED EXCEPT AS NOTED ON SHEETS 33/36 AND 34/36. COST OF ALL EPOXY COATED AND UNCOATED REINFORCING STEEL SHALL BE INCLUDED IN ITEM 509, EPOXY COATED REINFORCING STEEL, AS PER PLAN

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05. IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH C&MS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 519, PATCHING CONCRETE STRUCTURE, AS PER PLAN
THE FOLLOWING QUANTITY IS PROVIDED IN THE ESTIMATED QUANTITIES TO ADDRESS PATCHING OF THE PIERS AND ABUTMENTS. LOCATIONS TO BE DETERMINED BY THE PROJECT ENGINEER.

ITEM 519, PATCHING CONCRETE STRUCTURE, AS PER PLAN
200 SF

DESIGN AGENCY: ADR

DESIGNED	DRAWN	REVIEWED	DATE
JTH	JTH	RBK	8-27-19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCK	JTH	4902793-4902823	

GENERAL NOTES
BRIDGE NO. MAD-142-1341 L&R
OVER INTERSTATE 70

MAD-142-13.41
PID No. 104240

STRUCTURE (OVER 20' SPAN) GENERAL SUMMARY

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS				PIERS						SUPER.		SEE SHEET NO.
					LEFT		RIGHT		LEFT			RIGHT					
					REAR	FWD.	REAR	FWD.	1	2	3	1	2	3	LEFT	RIGHT	
202	11201		LUMP	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN													2/36
202	22900	421	SQUARE YARD	APPROACH SLAB REMOVED	107	106	104	104									
503	11100		LUMP	COFFERDAMS AND EXCAVATION BRACING													
503	21300		LUMP	UNCLASSIFIED EXCAVATION													
509	10001	240,800	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	1,700	1,700	1,700	1,700	1,300	1,300	1,300	1,300	1,300	1,300	113,100	113,100	2/36
510	10000	944	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	86	86	86	86	100	100	100	100	100	100			
511	33501	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	1	1	1	1									22/36
511	34412	66	CUBIC YARD	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE											33	33	
511	34446	606	CUBIC YARD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK											303	303	
511	34450	202	CUBIC YARD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)											101	101	
511	42510	24	CUBIC YARD	CLASS QC1 CONCRETE, PIER CAP					4	4	4	4	4	4			
511	50210	78	CUBIC YARD	CLASS QC1 CONCRETE, SUBSTRUCTURE	19	20	20	19									
512	10050	2,043	SQUARE YARD	SEALING OF CONCRETE SURFACES (NON-EPOXY)	15	15	15	15	92	90	91	93	91	92	717	717	
513	20000	4,160	EACH	WELDED STUD SHEAR CONNECTORS											2,080	2,080	
514	00050	27,862	SQUARE FOOT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL											13,931	13,931	
514	00056	27,862	SQUARE FOOT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT											13,931	13,931	
514	00060	27,862	SQUARE FOOT	FIELD PAINTING OF STRUCTURAL STEEL, INTERMEDIATE COAT											13,931	13,931	
514	00066	27,862	SQUARE FOOT	FIELD PAINTING OF STRUCTURAL STEEL, FINISH COAT											13,931	13,931	
514	00504	46	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL											23	23	
516	10010	148	FOOT	ARMORLESS PREFORMED JOINT SEAL											74	74	
516	13600	48	SQUARE FOOT	1" PREFORMED EXPANSION JOINT FILLER											24	24	
516	13900	174	SQUARE FOOT	2" PREFORMED EXPANSION JOINT FILLER	49	50	38	37									
516	25000	686	SQUARE FOOT	NYLON REINFORCED NEOPRENE SHEETING	22	22									321	321	
516	44100	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (8½" x 12" x 2.660" WITH 9½" X 13" X 1½" LOAD PLATE)											10	10	
516	44100	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (10" x 18" x 2.941" WITH 11" X 19" X 1½" LOAD PLATE)											10	10	
516	44200	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (11½" x 18" x 3.082" WITH 12½" x 19" x 2" LOAD PLATE)											5	5	
516	47001		LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN													2/36
518	21200	48	CUBIC YARD	POROUS BACKFILL WITH GEOTEXTILE FABRIC	12	12	12	12									
519	11101	200	SQUARE FOOT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	200												2/36
526	25000	410	SQUARE YARD	REINFORCED CONCRETE APPROACH SLABS (T = 15")											205	205	
526	90030	148	FOOT	TYPE C INSTALLATION											74	74	
601	20010	289	CUBIC YARD	CRUSHED AGGREGATE SLOPE PROTECTION	76	67	71	75									
607	39900	760	FOOT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC											380	380	

DESIGN AGENCY
ADR & ASSOCIATES, LTD.
Newark Office:
88 West Church Street
Newark, OH 43055
(740) 345-1921 (ph)
(740) 345-4994 (fax)
www.adrinnovation.com

DATE 12-3-19
STRUCTURE FILE NUMBER 4902793-4902823
REVIEWED RBK
DRAWN JTH
REVISED JTH
DESIGNED JTH
CHECKED BCK

ESTIMATED QUANTITIES
BRIDGE NO. MAD-142-1341 L&R
OVER INTERSTATE 70

MAD-142-13.41
PID No. 104240